

# HMT (INTERNATIONAL) LIMITED

A Govt. of India Undertaking (OPEN TENDER) BID DOCUMENTS

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL

# Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

SI.#	LOT	ITEM	
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal	
		Grinder, Hyd power hacksaw	
2	LOT - 2	Vertical Band saw 450 mm	
3	LOT - 3	Automatic Plastic Injection Moulding M/c	
4	LOT - 4	Electro Discharge M/c CNC	
5	LOT - 5	Wire Cut EDM CNC	
6	LOT - 6	Testing M/cs	
7	LOT - 7	Hydraulic press 100T	
8	LOT - 8	Mechanical Press 10T & 100T	
9	LOT - 9	Circle cutting m/c	
10	LOT - 10	Nibbling Cropping, Punching m/c	
11	LOT - 11	Roll Bending M/c	
12	LOT - 12	Profile projector	
13	LOT - 13	Tool Presetter with DRO & projector	

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

**CLOSING ON: 19-12-2018, TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

# **ATTENTION**

- 1. Only sealed Tenders shall be entertained. All joints of envelope should be sealed with wax with individual design stamped on it or with cello tape to ensure it is tamper proof.
- 2. Tenders not sealed shall be rejected straight away.
- 3. Do not use window envelope.
- 4. Technical Bid and Commercial Bid to be put in a separate cover super-scribing Tender Ref. No., Date, Submission date, Lot number and Bidder address on the top of envelope. <u>In case, the Bidder quotes for more than one lot, offers for each Lot to be submitted separately. Do not combine multiple Lots together.</u>
- 5. The Bidder may depute their authorized representative to witness the tender opening for both Technical and Commercial Bids.
- 6. For the Lots: 1-15, 22-25 only If the bidder is not Manufacturer, Bidders must submit Authorization letter from Manufacturer as per Annexure 9 or else their bids will be rejected.

HMT Bhavan, No.59, Bellary Road, Bangalore 560 032 Tel: 91- 80 - 2333 9060, Fax: 91- 80- 2333 9048 Web Site: www.hmti.com, E-mail: projects@hmti.co.in

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## **SECTION I: INVITATION FOR BIDS (IFB)**

HMT (International) Ltd, [HMT (I)] Bangalore invites sealed bids from eligible Indian bidders for supply, installation & commissioning, Trial of following items for the Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar under the assistance from Government of India as per Schedule of Requirements / Scope of Supplies (SR) - (Section IV)

SI. #	LOT	ITEM	
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal	
		Grinder, Hyd power hacksaw	
2	LOT - 2	Vertical Band saw 450 mm	
3	LOT - 3	Automatic Plastic Injection Moulding M/c	
4	LOT - 4	Electro Discharge M/c CNC	
5	LOT - 5	Wire Cut EDM CNC	
6	LOT - 6	Testing M/cs	
7	LOT - 7	Hydraulic press 100T	
8	LOT - 8	Mechanical Press 10T & 100T	
9	LOT - 9	Circle cutting m/c	
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11	LOT - 11	Roll Bending M/c	
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SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
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23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

1. HMT(I) invites sealed bids from eligible bidders for the Supplies as above with details listed in Section IV.

For the Lots: 1-15 &, 22-25 only – If the bidder is not Manufacturer, Bidders must submit Authorization letter from Manufacturer as per Annexure 9 or else their bids will be rejected.

Bidders shall participate for any number of lots but Part bidding within the lot is not allowed

#### 2. Contact information

The Joint General Manager, Projects HMT (International) Limited, 59, Bellary Road, Bangalore-560032, INDIA

Tel No.: 080- 23339060 Fax No.: 080- 23339048

E-mail: projects@hmti.co.in / vaish@hmti.com

#### 3. Two bid System

The two bid system will be followed. The bidder must submit his offer in two separate sealed envelopes as explained below:

Offer in the prescribed forms Section – V, Annexure 1 to 9 should be submitted in the following manner.

**Envelope I: "Technical bid":** The sealed envelope shall contain all the copies of technical bids Lot-wise separately together with Commercial Bids without indicating the prices. This envelope shall be clearly marked "Part I - Technical bid", indicating Tender No., Lot Number, Closing Date & Time, and bidder address duly filled (separately for each Lot).

The envelope-I should be duly sealed on all joints with wax with an individual design stamped in it or tamperproof sealing using cello tape.

This part shall include / indicate the following:

- 1. The Bidder shall provide requisite documentary evidence for pre-qualification criteria as stated below, <u>failing</u> which, the Bids may result in rejection:
  - The Bidder's annual turnover (average) for 3 years shall be atleast as mentioned below against each Lot in the last three financial years.

LOT -1: Rs. 1,26,04,000/- (One Crore Twenty Six Lakh Four Thousand Rupees only)

LOT -2: Rs. 20,00,000/- (Twenty Lakh Rupees only)

LOT -3: Rs. 1,12,44,000/- (One Crore Twelve Lakh Forty Four Thousand Rupees only)

LOT- 4: Rs. 75,85,000/- (Seventy Five Lakh Eighty Five Thousand Rupees only)



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LOT- 5: Rs. 73,12,000/- (Seventy Three Lakh Twelve Thousand Rupees only)
LOT- 6: Rs. 10,00,000 /- (Ten Lakh Rupees only)
LOT- 7: Rs. 20,00,000/- (Twenty Lakh Rupees only)
LOT- 8: Rs. 60,00,000/- (Sixty Lakh Rupees only)
LOT- 9: Rs. 10,00,000 /- (Ten Lakh Rupees only)
LOT- 10: Rs. 20,00,000/- (Twenty Lakh Rupees only)
LOT- 11: Rs. 20,00,000/- (Twenty Lakh Rupees only)
LOT- 12: Rs. 20,00,000/- (Twenty Lakh Rupees only)
LOT- 13: Rs. 20,00,000/- (Twenty Lakh Rupees only)
LOT- 14: Rs. 60,00,000/- (Sixty Lakh Rupees only)
LOT- 15: Rs. 10,00,000 /- (Ten Lakh Rupees only)
LOT- 16: Rs. 1,09,65,000 /- (One Crore Nine Lakh Sixty Five Thousand Rupees only)
LOT- 17: Rs. 1,18,04,000 /- (One Crore Eighteen Lakh Four Thousand Rupees only)
LOT- 18: Rs. 10,00,000 /- (Ten Lakh Rupees only)
LOT- 19: Rs. 20,00,000/- (Twenty Lakh Rupees only)
LOT- 20: Rs. 60,00,000/- (Sixty Lakh Rupees only)
LOT- 21: Rs. 60,00,000/- (Sixty Lakh Rupees only)
LOT- 22: Rs. 1,96,40,000 /- (One Crore Ninety Six Lakh Forty Thousand Rupees only)
LOT- 23: Rs. 1,17,82,000 /- (One Crore Seventeen Lakh Eighty Two Thousand Rupees only)
LOT- 24: Rs. 1,98,69,000 /- (One Crore Ninety Eight Lakh Sixty Nine Thousand Rupees only)
LOT- 25: Rs. 99,21,000/- (Ninety Nine Lakh Twenty One Thousand Rupees only)
LOT- 26: Rs. 93,88,000/- (Ninety Three Lakh Eighty Eight Thousand Rupees only)
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- The Bidder shall quote for all the Lots or part bid among the lots mentioned under Scope of Supply. However, part bidding within the lots is not allowed.
- Bidder must have minimum 3 years continuous experience in manufacturing / supply of items specified in
  the Scope of Supply. Attach Purchase Order copies for each year. If bidder is not Manufacturer, bidder
  shall submit minimum 3 years continuous experience of supply of items of the manufacturer as
  documentary evidence.
- Bidder should submit satisfactory certificate from at least 2 reputed clients to whom similar nature of supplies has been rendered. If bidder is not Manufacturer, bidder shall submit satisfactory certificate from at least 2 reputed clients of manufacturer as documentary evidence.
- 2. <u>The Bidder shall submit Earnest Money Deposit as indicated below against each lot in the form of Demand Draft / Digital Transfer drawn in favour of HMT (International) Limited payable at Bangalore in separate envelops for each lot in the Technical Bid.</u>

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LOT -1: Rs. 91,000/- (Rupees Ninety One Thousand Only)
LOT -2: Rs. 16,000/- (Rupees Sixteen Thousand Only)
LOT -3: Rs. 75,000/- (Rupees Seventy Five Thousand Only)
LOT -4: Rs. 51,000/- (Rupees Fifty One Thousand Only)
LOT -5: Rs. 49,000/- (Rupees Forty Nine Thousand Only)
LOT- 6: Rs. 9,000/- (Rupees Nine Thousand Only)
LOT -7: Rs. 25,000/- (Rupees Twenty Five Thousand Only)
LOT -8: Rs. 32,000/- (Rupees Thirty Two Thousand Only)
LOT -9: Rs. 5,000/- (Rupees Five Thousand Only)
LOT -10: Rs. 20,000/- (Rupees Twenty Thousand Only)
LOT -11: Rs. 11,000/- (Rupees Eleven Thousand Only)
LOT -12: Rs. 15,000/- (Rupees Fifteen Thousand Only)
LOT -13: Rs. 13,000/- (Rupees Thirteen Thousand Only)
LOT -14: Rs. 36,000/- (Rupees Thirty Six Thousand Only)
LOT -15: Rs. 6,000/- (Rupees Six Thousand Only)
LOT -16: Rs. 74,000/- (Rupees Seventy Four Thousand Only)
LOT -17: Rs. 79,000/- (Rupees Seventy Nine Thousand Only)
LOT -18: Rs. 10,000/- (Rupees Ten Thousand Only)
LOT -19: Rs. 13,000/- (Rupees Thirteen Thousand Only)
LOT -20: Rs. 44,000/- (Rupees Forty Four Thousand Only)
LOT -21: Rs. 46,000/- (Rupees Forty Six Thousand Only)
LOT -22: Rs. 1,31,000/- (Rupees One Lakh Thirty One Thousand Only)
LOT- 23: Rs. 79,000/- (Rupees Seventy Nine Thousand Only)
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LOT- 24: Rs. 1,33,000/- (Rupees One Lakh Thirty Three Thousand Only)

LOT- 25: Rs. 67,000/- (Rupees Sixty Seven Thousand Only) LOT- 26: Rs. 63,000/- (Rupees Sixty Three Thousand Only)

- Total Earnest Money Deposit to bid for all the Lots is Rs. 11,93,000/- (Rupees Eleven Lakh Ninety Three Thousand Only)
- In case, the Bidder quotes for more than one lot, the Earnest Money Deposit shall be sum of the value given against each lots.
- However, the bidders registered with NSIC will be exempted from payment of EMD on submission of Valid Registration Certificate.
- The Bidder shall quote for all the Lots or any lots mentioned under Scope of Supply. However, part bidding within the lots is not allowed.
- 3. The bidder must be a manufacturer or dealer or HMTI vendor.
- 4. Technical bids without prescribed cost toward tender cost & EMD in the form of Demand Draft/ Purchase receipt will be rejected.
- 5. Bid documents Purchase Receipt / DD / Digital Transfer in favour of HMT(International) Limited, payable at <u>Bangalore for Rs.2,500/- if tender documents</u> are downloaded from website.
- 6. <u>Duly filled Technical bid for each Lot separately with proper seal and</u> signature of the authorized person on each page of the bid submitted.
- 7. Complete Scope of Supplies with all necessary details and acceptance of commercial terms and conditions as provided under Section IV & V Lot-wise separately.
- 8. Make / Model for each of the item to be specified in the Quotation and the Catalogues to be enclosed with the technical bid.
- 9. Bids shall be valid for a minimum period of 90 (ninety) days from the last date of submission.
- 10. Furnish acceptance for providing Performance Bank Guarantee for 10% of the contract value in the event of tender being awarded.
- 11. Point-wise details for the services/requirements/details required in the bid documents shall be furnished. If there are any deviations, the same should be clearly specified in Annexure-2 of Section-V.
- 12. Self attested copy of GST registration certificate as applicable.
- 13. List of customers both domestic & overseas to whom similar supplies have been provided in the past 3 years in the prescribed format Section-V, Annexure-3.
- 14. Satisfactory certificate from at least 2 reputed client to whom similar nature of supplies has been rendered.
- 15. Vendor Registration form Section V, Annexure 6 duly filled (Only for New Vendors of HMT(I)).
- 16. Copy of ISO-9000 Certificate, if applicable.
- 17. Payment Terms. As per clause 13.1 in Section-III. Specify deviations if any.
- 18. A copy of "Un-Priced Section V, Annexure–1" i.e., a copy of the Price Schedule without the price details.

# In case of vendors opting for Digital transfer of EMD & Tender document fees, A/c details of HMT(International) Ltd is as detailed below:

Name: HMT(International) Limited

Bank of Maharashtra

City Market Branch

Bangalore-560 002 - Branch Code: 304

MICR No: 560014002
Account Type: Current Account
Account No. 20061601773
IFSC Code: MAHB0000304
Swift Code: MAHBINBBBGL

<u>Envelope II: "COMMERCIAL BID":</u> This sealed envelope shall contain price details. This envelope shall be clearly marked "Part II - Commercial Bid", indicating Tender No., Closing Date & Time, Lot Number and bidder address duly filled (separately for each Lot).

The Envelope – II should be duly sealed on all joints with wax with an individual design stamped on it or tamperproof sealing using cello tape.



- Prices should be offered in Indian Rupees only. Should furnish break up of price as required in Section V;
   Annexure–I. The prices quoted shall be for F.O.R Chennai Port and considered firm and not subject to any change.
- The supplies shall be guaranteed against defects of material and workmanship for a period of 12 months from the
  date of commissioning. The supplier will arrange for free supply and replace/repair at his cost at site any part that
  may be found defective and necessitates replacement due to design, manufacture and material defect during
  warranty period. HMT(I) shall provide airfare, local hospitality to experts deputed during the warranty period as
  per the mutually agreed terms.
- All the items for the project are exempted from GST and price will be without GST. All prices & other
  information like discount etc., having a bearing on the prices shall be written both in figures & words in the
  prescribed offer form. In the event of difference, the price in words shall be valid and binding. If any GST is
  applicable, the same should be indicated separately.
- The terms of payment for supplies will be as indicated under clause 13 in Section-III Terms and conditions of the Contract. The bidder has to accept the payment terms. Any deviation in the payment terms offered shall be considered and suitable Bank interest of 14% per annum will be loaded for comparison purposes only. However acceptance of the payment terms indicated by the bidder is subject to approval of Purchase Committee.
- o The bidder should quote their lowest possible price.
- o HMT(I) shall award the contract to the eligible bidder whose technical bid has been accepted and determined as the lowest evaluated Commercial Bid (L1) on lot wise. L1 shall be decided on Lot price basis.

## 4. Date of submission of bids and opening of the Technical bid:

Both the envelopes (Part I & II) Lot-wise shall be put in one cover, duly sealed on all joints with wax with an individual design stamped on it, or put cello tape to ensure it is tamper proof and super scribing Tender No., closing date & time, opening date & time, Lot number and Bidder address.

The envelopes which are not sealed will be rejected straightaway/summarily.

The sealed bids should be dropped in the tender box provided in the HMT(I) office and ensure delivery **on or before 19-12-2018 at 1030 hrs (IST) on the closing date**. Late offers will not be considered.

Last date for submission of bids: 19<sup>th</sup> December, 2018 up to 10.30 hrs. Technical bids will be opened on 19<sup>th</sup> December, 2018 at 11.00 hrs in the Board room of HMT(I) office, Bangalore.

**END OF SECTION I** 



	SECTION II- INSTRUCTIONS TO BIDDERS (ITB)
1	Definitions and Interpretation
_	The "HMT(I)" / "BUYER" means: HMT(International) Limited, No.59, Bellary Road, Bangalore-560 032.
	The "Supplier" means any firm/institute/company to whom the contract is awarded.
	"SITE" means "Indo-Myanmar Industrial Training Centre" (IMITC), Monywa, Myanmar, where the supplies are required to
	be supplied.
	"PROJECT" means "Setting up of Indo-Myanmar Industrial Training Centre" (IMITC), Monywa, Myanmar.
2	Compliance of Requirements
2.1	The supplies offered should be in accordance with the stipulated requirements in the "Scope of Supply". The bidder shall
	indicate his compliance or non-compliance against each of the requirements.
3	Place of Delivery of supplies: All supplies are to be delivered to HMT(I)'s shipping agent at Chennai Port as per the
	instructions given by HMT(I) at the time of dispatch.
4	Criteria for pre qualification of Bidder
	The Bidder shall satisfy the following prequalification criteria:
	The Bidder shall provide satisfactory documentary evidence acceptable to HMT(I) to show that:
4.1	The Bidder's annual turnover (average) is at least as indicated below in the last three financial years. The Bidders should
	furnish audited accounts for previous 3 years.
	LOT -1: Rs. 1,26,04,000/- (One Crore Twenty Six Lakh Four Thousand Rupees only)
	LOT -2: Rs. 20,00,000/- (Twenty Lakh Rupees only)
	LOT -3: Rs. 1,12,44,000/- (One Crore Twelve Lakh Forty Four Thousand Rupees only)
	LOT- 4: Rs. 75,85,000/- (Seventy Five Lakh Eighty Five Thousand Rupees only)
	LOT- 5: Rs. 73,12,000/- (Seventy Three Lakh Twelve Thousand Rupees only)
	LOT- 6: Rs. 10,00,000 /- (Ten Lakh Rupees only)
	LOT- 7: Rs. 20,00,000/- (Twenty Lakh Rupees only)
	LOT- 8: Rs. 60,00,000/- (Sixty Lakh Rupees only)
	LOT- 9: Rs. 10,00,000 /- (Ten Lakh Rupees only)
	LOT- 10: Rs. 20,00,000/- (Twenty Lakh Rupees only)
	LOT- 11: Rs. 20,00,000/- (Twenty Lakh Rupees only)
	LOT- 12: Rs. 20,00,000/- (Twenty Lakh Rupees only)
	LOT- 13: Rs. 20,00,000/- (Twenty Lakh Rupees only)
	LOT- 14: Rs. 60,00,000/- (Sixty Lakh Rupees only)
	LOT- 15: Rs. 10,00,000 /- (Ten Lakh Rupees only) LOT- 16: Rs. 1,09,65,000 /- (One Crore Nine Lakh Sixty Five Thousand Rupees only)
	LOT- 16. Rs. 1,05,05,000 /- (One Crore Rine Lakh Sixty Five Thousand Rupees only)  LOT- 17: Rs. 1,18,04,000 /- (One Crore Eighteen Lakh Four Thousand Rupees only)
	LOT- 17. Rs. 1,10,04,000 /- (One Crore Eighteen Lakii Fodi Thousand Rupees only)
	LOT- 19: Rs. 20,00,000 /- (Ten Lakii Rupees only)
	LOT- 20: Rs. 60,00,000/- (Sixty Lakh Rupees only)
	LOT- 21: Rs. 60,00,000/- (Sixty Lakh Rupees only)
	LOT- 22: Rs. 1,96,40,000 /- (One Crore Ninety Six Lakh Forty Thousand Rupees only)
	LOT- 23: Rs. 1,17,82,000 /- (One Crore Seventeen Lakh Eighty Two Thousand Rupees only)
	LOT- 24: Rs. 1,98,69,000 /- (One Crore Ninety Eight Lakh Sixty Nine Thousand Rupees only)
	LOT- 25: Rs. 99,21,000/- (Ninety Nine Lakh Twenty One Thousand Rupees only)
	LOT- 26: Rs. 93,88,000/- (Ninety Three Lakh Eighty Eight Thousand Rupees only)
4.2	Bidder must have minimum <b>3 years</b> continuous experience in manufacturing / supply of items specified in the Scope of
	Supply. <b>Attach Purchase Order copies for each year</b> . If bidder is not Manufacturer, bidder shall submit minimum 3 years
	continuous experience of supply of items of the manufacturer as documentary evidence.
4.2	
4.3	Bidder should submit satisfactory certificate from at least 2 reputed clients to whom similar nature of supplies has been
	rendered. If bidder is not Manufacturer, bidder shall submit satisfactory certificate from 2 reputed clients of
<u> </u>	manufacturer as documentary evidence.
	Bidder who does not submit the above required information along with documentary evidence at the time of bidding; their bid will be rejected.
5	Cost of bid documents
5.1	The cost of bid document is Rs 2,500.00 (Rupees Two Thousand Five hundred only).
5.1	The cost shall be payable in the form of a crossed Bank draft / Digital Transfer in favour of HMT (International) Ltd,
	Payable at Bangalore and kept along with the Technical bid documents in Envelope –I, if the bid documents are down
	loaded from website.
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# **SECTION II- INSTRUCTIONS TO BIDDERS (ITB)** o If the documents are purchased from HMT (International) Limited, copy of the receipt for payment of cost of bid documents shall be kept along with the Technical bid documents in Envelope -I. o In case, the Bidder quotes for more than one lot, the copy of the receipt for payment of cost of bid documents shall be kept along with the Technical bid documents in Envelope –I for each lots separately. o If the cost of bid document is not paid before opening of the Technical bid, the bids will be rejected straightaway/ summarily. **Earnest Money Deposit** 6.1 Earnest Money Deposit for amount as stipulated below shall accompany Technical bid documents of tender. LOT -1: Rs. 91,000/- (Rupees Ninety One Thousand Only) LOT -2: Rs. 16,000/- (Rupees Sixteen Thousand Only) LOT -3: Rs. 75,000/- (Rupees Seventy Five Thousand Only) LOT -4: Rs. 51,000/- (Rupees Fifty One Thousand Only) LOT -5: Rs. 49,000/- (Rupees Forty Nine Thousand Only) LOT- 6: Rs. 9,000/- (Rupees Nine Thousand Only) LOT -7: Rs. 25,000/- (Rupees Twenty Five Thousand Only) LOT -8: Rs. 32,000/- (Rupees Thirty Two Thousand Only) LOT -9: Rs. 5,000/- (Rupees Five Thousand Only) LOT -10: Rs. 20,000/- (Rupees Twenty Thousand Only) LOT -11: Rs. 11,000/- (Rupees Eleven Thousand Only) LOT -12: Rs. 15,000/- (Rupees Fifteen Thousand Only) LOT -13: Rs. 13,000/- (Rupees Thirteen Thousand Only) LOT -14: Rs. 36,000/- (Rupees Thirty Six Thousand Only) LOT -15: Rs. 6,000/- (Rupees Six Thousand Only) LOT -16: Rs. 74,000/- (Rupees Seventy Four Thousand Only) LOT -17: Rs. 79,000/- (Rupees Seventy Nine Thousand Only) LOT -18: Rs. 10,000/- (Rupees Ten Thousand Only) LOT -19: Rs. 13,000/- (Rupees Thirteen Thousand Only) LOT -20: Rs. 44,000/- (Rupees Forty Four Thousand Only) LOT -21: Rs. 46,000/- (Rupees Forty Six Thousand Only) LOT -22: Rs. 1,31,000/- (Rupees One Lakh Thirty One Thousand Only) LOT- 23: Rs. 79,000/- (Rupees Seventy Nine Thousand Only) LOT- 24: Rs. 1,33,000/- (Rupees One Lakh Thirty Three Thousand Only) LOT- 25: Rs. 67,000/- (Rupees Sixty Seven Thousand Only) LOT- 26: Rs. 63,000/- (Rupees Sixty Three Thousand Only) Total Earnest Money Deposit to bid for all the Lots is Rs. 11,93,000/- (Rupees Eleven Lakh Ninety Three Thousand Only) The Earnest Money Deposit shall be in a crossed Bank Draft/Digital Transfer in favour of HMT (International) Ltd, Payable at Bangalore. In case, the Bidder quotes for more than one lot, the copy of the crossed Bank Draft shall be kept along with the Technical Bid documents in Envelope -I for each lots separately. However, the bidders registered with NSIC will be exempted from payment of EMD on submission of Valid Registration Certificate. The Earnest Money Deposit shall remain deposited with the HMT(I) for the period of 90 (ninety) days from the date of 6.2 opening of tenders. If the validity of the offer is extended, the EMD shall remain with HMT(I). 6.3 No interest will be payable by the HMT(I) on the Earnest Money Deposit. 6.4 The Earnest Money deposited is liable to be forfeited if the bidder withdraw or amends, impairs or derogates from the tender in any respect within the validity of his offer. 6.5 The Earnest Money Deposit of the successful bidder will be returned after the P.O. is released on successful Bidder and duly accepted and submission of Performance Guarantee. 6.6 If the successful Bidder fails to furnish a contract performance guarantee, then the earnest money shall be liable to be forfeited. The Earnest Money Deposit of all unsuccessful Bidders will be returned to the bidder by HMT(I) after finalization of 6.7 contract with the successful bidder. 6.8 If Earnest Money for amount as stipulated in clause 6.1 is not enclosed in the Technical documents in Envelope –I, the bid will be rejected. 7 Period of validity of bids 7.1 Bids shall be valid for a minimum period of 90 days from the last date of submission. HMT(I) may ask for the bidder's consent to extend the period of validity. Such request and the response shall be made in



	SECTION II- INSTRUCTIONS TO BIDDERS (ITB)
	writing only. A bidder agreeing to the request for extension will not be permitted to modify his bid. The technical
	clarifications, if any, shall be furnished by Bidder within one week's time.
8	Deadlines for submission of bids
	Bids must be received by HMT(I) before the due date and time at the address specified in the tender document. In the
	event of the specified date for the submission of bids being declared as a holiday for HMT(I), the bid-closing deadline will
	stand extended to the next working day up to the same time.
8.1	HMT(I) may extend this deadline for submission of bids by amending the bid documents and same shall be suitably
	notified in HMT(I) website: www.hmti.com
8.2	Any bid received by HMT(I) after the deadline for submission of bids, will not be accepted and returned unopened to the
	bidder.
9	Opening of Commercial bids by HMT(I)
9.1	The Technical Bids will be evaluated to shortlist the eligible bidders.
9.2	Bidder whose Technical Bid is found to be acceptable and meeting the eligibility requirements as specified in "Clause 4" will be informed about the date and time of the opening of the Commercial Bid.
9.3	HMT(I) will open Commercial Bids of only the technically accepted and short listed bids, in the presence of the bidder or
	their authorized representative who choose to attend the bid opening, at the time and date to be informed later.
9.4	The bidder's authorized representative who attend the bid opening shall sign an attendance register as a proof of having attended the bid opening.
9.5	The bidder's name, bid prices, discounts and such other details considered as appropriate by HMT(I), will be announced
	at the time of opening of the Commercial Bids.
10	Comparison of Bids
	Bids received against the tender will be evaluated by the Technical Evaluation Committee (TEC) for technical suitability
	and will be shortlisted.
10.1	Short listed Technical bids shall be considered for commercial evaluation and Commercial Bid opening.
11	Award Criteria
11.1	HMT(I) shall award the contract to the eligible bidder whose technical bid has been accepted and determined as the
	lowest evaluated Commercial Bid on lot wise.
11.2	Should the amount put in words differs from the amount put in figures, or if there is an arithmetical error, the lesser
	amount shall be taken unless the difference is attributable to an obvious error, whereupon the correct amount shall be
	taken.
11.3	If more than one bidders quotes same lowest price, HMT(I) reserves the right to award the contract at its own discretion.
11.4	HMT(I) reserves the right to increase or decrease the quantum of supplies offered by the successful bidder at the rates &
	other terms and conditions offered by them. The Bidder is bound to accept the increase or decrease in the quantum of
	supplies during awarding the contract.
12	HMT(I)'s Right to amend Scope of Supplies
12.1	HMT(I) reserves the right to accept or reject any or all bids without assigning any reason whatsoever.
12.2	HMT(I) reserves the right to increase or decrease the scope of supplies indicated in the bid documents after the award of
	the tender and payment shall be made on pro-rata basis.
12.3	HMT(I) reserves the right to cancel/short close/extend the order at any given point of time due to Force Majeure or
	directions from the Governments of India or Myanmar.
L2.4	HMT(I) reserves the right to cancel / short close the order due to non-satisfactory performance by any of the service /
	supply offered. Cost / damages arising out of such cancellation / short closure shall have to be borne by the bidder
12.5	Buyer shall recall any of the experts deputed to the project site on non-compliance to the rule of the land or guidelines
	laid down by Govt. of India / Govt. of Myanmar / HMT(I) or any act that does not correspond to ethical behavior. Cost /
	damages arising in such an event shall be borne by the bidder and shall forthwith send suitable replacement.
13	Corrupt or Fraudulent Practices.
13.1	HMT(I) requires that the bidders who wish to bid for this project have highest standards of ethics.
13.2	HMT(I) will reject a bid if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent
	practices while competing for this contract;
13.3	HMT(I) may declare a vendor ineligible, either indefinitely or for a short period, if HMT(I) is aware that the vendor has
	engaged in corrupt and fraudulent practice during the execution of the contract.
14	Interpretation of the clauses in the Tender Document / Contract Document
	In case of any ambiguity/ dispute in the interpretation of any of the clauses in this Tender Document, HMT(I)'s
	interpretation of the clauses shall be final and binding on all parties.
15	interpretation of the clauses shall be final and binding on all parties.  General
<b>15</b> 15.1	<u> </u>

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	SECTION II- INSTRUCTIONS TO BIDDERS (ITB)			
	bear the tender number and should be signed by the Bidder at the bottom. A reference to the total number of pages			
	comprising offer must be made at the top right hand corner of the first page.			
15.2	The Bidders must ensure that the conditions laid down for submission of offers detailed in the preceding paras, are			
	completely and correctly fulfilled.			
15.3	The submission of any offer connected with these supplies and documents shall constitute an agreement that the Bidder			
	shall have no cause of action or claim, against HMT(I) for rejecting the offer. HMT(I) shall always be at liberty to reject or			
	accept any offer or offers at its sole discretion			
15.4	Offers shall be deemed to be under consideration immediately after they are opened and until such time the official			
	intimation of award of contract is made by HMT(I) to the Bidder. While the offers are under consideration, Bidders and or			
	their representatives or other interested parties are advised to refrain from contacting HMT(I) by any means. If			
	necessary, HMT(I) will obtain clarifications on the offers by requesting for such information from any or all the Bidders,			
	only in writing. Bidders will not be permitted to change the contents of their offers after the offers have been opened.			
15.5	Any individual(s) signing the tender and related documents should be a competent authorised person or original copy of			
	power of authorization issued by the competent authority should accompany the tender.			
15.6	Offers shall be as per the Instructions to Bidders and Terms & Conditions of contract given in bid documents. However the Bidder shall indicate his acceptance or otherwise against each of clause and sub clauses of the Instruction to Bidders			
	and Terms & Condition of contract. For this purpose, the Bidder shall enclose a separate statement as per format			
	Section-V(2) indicating only the deviations from any clause or sub clause of the Instructions to Bidders and Terms &			
	Conditions of contract which Bidder proposes with justification for each deviation. The HMT(I), however reserves the			
	right to accept or reject these deviations and decision there on shall be final and binding.			
15.7	Bids shall be complete in all respects accompanied by detailed literature, brochures with all necessary details in ENGLISH			
	or otherwise, the bids will not be considered.			
	End of SECTION-II			

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	SECTION III: SPECIAL CONDITIONS OF CONTRACT (SCC)
1	Execution: Metric System
2	<u>Colour : As specified in the Technical Specifications.</u>
3	Electricals: Main supply: 400 V, 3 Ph, 50Hz AC / 230 V, 1 Ph, 50Hz AC Supply
4	<u>Delivery period for supplies:</u> F.O.R Chennai Port within 8 weeks from the date of purchase order.
	Delivery is the essence of the Contract. If there is delay penalty as per clause 14 is applicable.
5	Inspection, Re inspection and Acceptance: The items shall be manufactured as per International Standards. The standards followed should be accepted by HMT(I). For this purpose, the supplier shall furnish HMT(I) the standards being followed immediately for acceptance. The supplies will be inspected by HMT(I) as decided by HMT(I). If any of the item is found defective, HMT(I) reserves right to procure the substitute for the defective items from elsewhere at the risk and cost of the supplier and recover from the supplier the extra expenditure, if any incurred by HMT(I). Consignment shall be dispatched only after getting acceptance letter from HMT(I).  The supplies will be inspected by HMTI by deputing HMTI's quality assurance personnel to the vendor's worksite. Inspection and other deputation charges for the deputation of HMTI personnel shall have to be borne by the vendor.  At least 2 weeks prior intimation regarding readiness of supplies, in all respects must be furnished to HMT(I) for inspection
	by HMT(I) Quality Assurance Department or by its authorized representative. All equipment including packing cases must be offered for inspection. HMT(I) reserves right to inspect the items by HMT(I) and customer representative at supplier's works.  Vendor has to indicate the number of days of inspection required for each of the equipment quoted by them separately.
6	Re-Inspection:
O	HMT(I) reserves the right to re-inspect the supplies, only in cases where the HMT(I) Inspection Engineers recommend for such cases after completion of modifications suggested during the inspection. All costs towards re-inspection will have to be borne by the vendor.
7	Packing:  All Supplies shall be packed in seaworthy wooden cases (as per international standard) suitable for shipment by 20ft / 40 ft containers of size (LXBXH): 5900mmx2300mmx2300mm / 12000mmx2300x2300mm respectively.  Packing cases must have case-wise detailed packing list to be put inside the cases. Also, 3 copies of casewise packing list to be sent to HMT(I) immediately after packing. All loose items to be tagged with SI. No. as per PO.
0	Packing to be made in the presence of HMT(I) inspection engineers.  Port of Shipment and Discharge: Chennai Port and Port Yangon, Myanmar.
8 9	Freight & Insurance:
	Supplier to dispatch the goods on Freight Prepaid –Door Delivery basis to HMT(I) shipping agent at Chennai Port of shipment. Transit insurance to be arranged by supplier. Supplier to inform HMT(I), despatch details like Lorry receipt No., No. of Packing cases, Gross Weight, Net Weight etc., immediately after dispatch from works.
10	Consignee: Consignee will be intimated later
11	Invoice to: HMT (International) Limited, 59, Bellary Road, Bangalore – 560 032, India TIN NO. 29760097661/GST No. 29AAACH8197C1ZD. A/c. IMITC MONYWA, MYANMAR.
12	Price: The price shall be F.O.R Chennai Port and considered firm and no escalation will be permitted.
13.1	<ul> <li>80% payment for supplies:</li> <li>80% payment for supplies shall be payable on 60<sup>th</sup> day from the date of delivery to our shipping agent at Chennai port through RTGS / NEFT. If the payment terms are not acceptable, the vendor can quote their own payment terms. However, the acceptance of the payment terms indicated is at the sole discretion of the Management.</li> <li>Balance 20% payment for supplies shall be paid through RTGS/NEFT after successful Installation and Commissioning / handing over of all the items on physical verification of equipment / material at project site by the Project Monitoring Committee (PMC) duly constituted by Ministry of External Affairs or 6 months from the date of delivery to our shipping agent at Chennai port whichever is earlier.</li> </ul>
13.2	Payment for services portion for LOTS – 3,4,5,7,8,22,23,24 &25  The payment shall be paid through RTGS/NEFT after successful Installation and Commissioning of all the items on physical verification of equipment / material at project site by the Project Monitoring Committee (PMC) duly constituted by Ministry of External Affairs or 2 months from the date of successful Installation and Commissioning certified by HMT(I) representative at site whichever is earlier.
14	Penalty for delayed Supply and Services:  HMT(I) reserves the right to levy penalty @ 1.0 percent of order value per week of delay beyond the scheduled deliveries /

execution of the contract successfully, subject to maximum of 10% of the contract value. HMT(I) reserves the right to TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018 Page 11 of 193



cancel the contract in case the delay is more than 10 weeks. The penalties, if any shall be recovered by invoking the Performance Bank Guarantee or withholding the amount out of the payments due.

# 15 Clearance for Despatch:

Equipment shall be dispatched only after getting acceptance letter from HMT(I). Such clearance shall be furnished only after receipt of a certificate from Supplier stating that the snags, if any, pointed out by HMT(I) Engineer/Customer's representative have been duly attended to. HMT(I) shall have the right to hold up the dispatch for want of any clearance from the customer. The consignment shall be shipped through a reputed Transporters in a direct truck to reach HMT(I)'s shipping agent with out any transshipment.

16 Name & Address of the Shipping Agent: Will be informed at the time of dispatch clearance by HMT(I).

## 17 <u>Technical Documents:</u>

Supplier to forward the detailed drawings of the all machines / equipment in 3 sets, indicating details about civil work required, Electrical, Pneumatic, Water connection points etc., immediately on receipt of Purchase Order.

Instruction / Operating Systems / Spare Parts Manual and other relevant documents pertaining to the Equipment must be in English and should be supplied in (3) three sets as follows:

- 2 Sets of Manuals along with the machine / equipment
- 1 set Manual to HMT(I), Bangalore
- Two copies of Electrical wiring drawings (along with the machine / equipment)
- o Instructions for commissioning (One copy along with the machine / equipment) and one copy to HMT(I)
- Final Test & Inspection Report (along with the machine / equipment)

#### 18 Bought Outs:

All the bought-out items such as bearings, belts, electricals, motors, contactors, switches etc., shall correspond to ISI / International Specifications and shall be of reputed make like, SKF, FENNER, SIEMENS & TELEMECHANIC etc.,

#### 19 Rejection & Risk:

If, HMT(I) finds that the materials supplied are not of correct quality or not according to the specifications as indicated in the bid offer, then HMT(I) will be entitled to reject the machine/equipment without any cost obligation on HMT(I).

## 20 Performance Bank Guarantee (PBG):

The successful bidder will be required to furnish Performance Bank Guarantee for 10% amount of the FOR price for the supplies value, as per the format attached to this document (Refer Section – V; Annexure – 4). This bank guarantee shall remain valid until the expiry of warranty period or for the period of 12 months beyond the completion of Erection & Commissioning. If the Bidder is not acceptable to furnish Performance Guarantee 10% of the FOR price for the supplies value will be retained as "retention money" till expiry of warranty period or for the period of 12 months beyond the completion of Erection & Commissioning. Performance Bank Guarantee for 10% of the FOR price for the supplies value is required for the Lots mentioned.

#### 21 <u>International Warranty:</u>

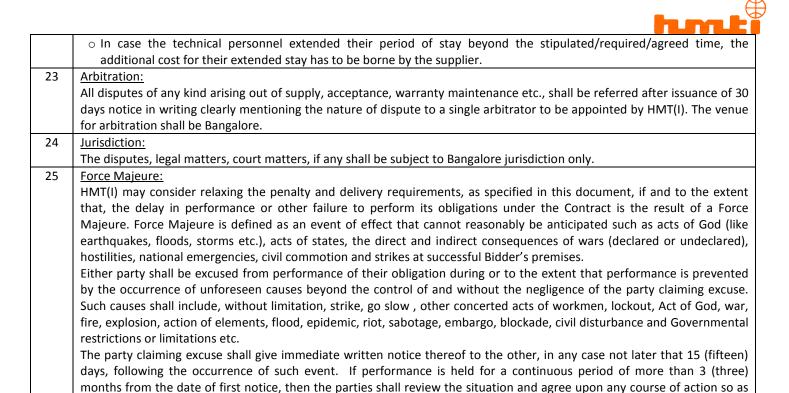
The supplies shall be guaranteed against defects of material and workmanship for a period of 12 months from the date of commissioning or 15 months from the date of shipment, whichever is earlier. Until the expiry of the warranty period, the supplier is obliged to do repairs, modifications, setting right and adjustments considered necessary to guarantee the rated output and to replace any part of the machine / equipment found defective and necessitate replacement due to design, manufacture, and material defect during the warranty period at vendors cost at project site in Myanmar.

HMT(I) has to provide total warranty for the complete project for 1 year from the date of handing over to the concerned authorities. Since the vendors are providing 12 months warranty from the date of commissioning the items at site or 15 months from date of shipment, to cover up the liability and commitment till completion of warranty of 12 months from the date of handing over, 6% + applicable GST of the quoted FOR cost indicated will be charged towards inspection, trails & warranty spares costs, travelling expenses and service charge for the deputation of HMTI / vendor experts to site for carrying out servicing/maintenance/ repair at site. This amount is to be paid to HMT(I) within 60 days from the date of receipt of material at HMT(I)'s shipping agent.

The supplier will arrange for free supply and replace/repair at his cost at site any part that may be found defective and necessitates replacement due to design, manufacture and material defect during the extended warranty period. HMT(I) shall provide airfare, local hospitality to experts deputed during the warranty period as per the mutually agreed terms.

#### 22 o Installation for LOTS – 3,4,5,7,8,22,23,24 &25

- o The supplier shall depute, the required technical personnel for carrying out installation and providing training to the customer's personnel in operation & maintenance of items in LOTS—3,4,5,7,8,22,23,24 &25 at project site in Myanmar.
- HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier.
- The supplier shall depute their personnel within 15 days from the date of intimation of readiness at project site in Myanmar.
- o All necessary tooling, instruments etc., which are required for installation will be carried by the supplier
- o Necessary tools, fixtures, instruments, trail materials, consumables etc., for installation to be sent along with the items.



**End of Section III** 

to protect the interest of both.

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# SECTION – IV: SCHEDULE OF REQUIREMENTS / SCOPE OF SUPPLIES (SR)

# Schedule of Requirements / Scope of Supplies is as detailed below

# LOT – 1 Pillar, Pedestal Drill Machines, Pedestal Grinder, Hyd. Power Hacksaw

Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.				
SI. #	Annex. Ref.	Description	Brief Specification	Qty
1	Sl. No 5 of Annex 5	Pillar Drilling Machine	Cap. 25 mm	2
2	Sl. No 99 of Annex 4	Pillar Drilling Machine	Cap. 25 mm	1
3	Sl. No 45 of Annex 7	Pillar Drilling Machine	Cap. 25 mm	3
4	Sl. No 11 of Annex 6	Pillar Drilling Machine	Cap. 25 mm	1
5	Sl. No 36 of Annex 8	Pillar Drilling Machine	Cap. 20 mm	2
6	Sl. No 13 of Annex 9	Pillar Drilling Machine	Cap. 13 mm	2
7	Sl. No 6 of Annex 5	Pillar Drilling Machine	Cap. 13 mm	2
8	Sl. No 44 of Annex 7	Pedestal Grinder	Wheel dia 200 mm	3
9	Sl. No 9 of Annex 5	Pedestal Grinder	Wheel dia 200 mm	2
10	SI. No 12 of Annex 6	Pedestal Grinder	Wheel dia 200 mm	1
11	Sl. No 9 of Annex 9	Pedestal Grinder	Wheel dia 200 mm	2
12	Sl. No 100 of Annex 4	Pedestal Grinder	Wheel dia 200 mm	1
13	Sl. No 37 of Annex 8	Pedestal Grinder	Wheel dia 200 mm	2
14	Sl. No 8 of Annex 5	Hydraulic power hacksaw	Cutting capacity Round dia 200mm	1

# LOT – 2 Vertical Bandsaw machine

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
	1	_ · · · · · · · · · · · · · · · · · · ·	1			
SI. #	Annex. Ref.	Description	Brief Specification	Qty		
1	Sl. No 7 of Annex 5	Vertical Band saw machine	Dia 450 mm	1		
FOR DETAILS REFER ENCLOSURE - 1						

# LOT - 3 Automatic Plastic Injection Moulding M/c

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	Annex. Ref.	Description	Brief Specification	Qty		
1	Sl. No 5 of Annex 6	Automatic Plastic Injection Moulding M/c	Locking force 180T, shot capacity 350 grams	1		
2	SI. No 6 of Annex 6	Tooling with colour mixer, scrap grinder, Oven, cooling tower etc. for plastic injection moulding m/c		1		
	FOR DETAILS REFER ENCLOSURE - 1					

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# LOT – 4 Electro Discharge M/c (EDM) CNC

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	SI. # Annex. Ref. Description Brief Specification Qty					
1	Sl. No 2 of Annex 6	Electro Discharge M/c (EDM) CNC	Work Tank : 800 x 500 x 350 mm	1		
	FOR DETAILS REFER ENCLOSURE - 1					

# LOT - 5 Wire Cut EDM CNC

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.				
SI. #	I. # Annex. Ref. Description Brief Specification Qty				
1	Sl. No 3 of Annex 6	Wire Cut EDM CNC	Max Work piece: 350 x 450 x 200 mm	1	
	FOR DETAILS REFER ENCLOSURE - 1				

# **LOT – 6** Testing Machines

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.				
SI. #	SI. # Annex. Ref. Description Brief Specification C				
1	Sl. No 70 of Annex 6	Universal Testing Machine		1	
2	Sl. No 71 of Annex 6	Hardness Tester		1	
	FOR DETAILS REFER ENCLOSURE - 1				

# LOT - 7 Hvdraulic Press 100T

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	SI. # Annex. Ref. Description Brief Specification Qty					
1	Sl. No 15 of Annex 6	Hydraulic Press	100T	1		
	FOR DETAILS REFER ENCLOSURE - 1					

# **LOT – 8** Mechanical Press

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	Annex. Ref.	Description	Brief Specification	Qty		
1	Sl. No 16 of Annex 6	Mechanical Press	10T	1		
2	Sl. No 17 of Annex 6	Mechanical Press	100T	1		
	FOR DETAILS REFER ENCLOSURE - 1					

# <u>LOT – 9 Circle Cutting M/c</u>

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	SI. # Annex. Ref. Description Brief Specification Qty					
1	Sl. No 6 of Annex 9	Circle cutting m/c	Max dia 600 mm	1		
	FOR DETAILS REFER ENCLOSURE - 1					

# <u>LOT - 10 Nibbling - Cropping - Punching M/c</u>

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	SI. # Annex. Ref. Description Brief Specification Qty					
1	Sl. No 4 of Annex 9	Nibbling – Cropping - Punching M/c	All in one machine	1		
	FOR DETAILS REFER ENCLOSURE - 1					

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# LOT – 11 Roll Bending M/c

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	SI. # Annex. Ref. Description Brief Specification Qty					
1	1 Sl. No 3 of Annex 9 Roll Bending M/c Cap 3 x 1250 mm 1					
	FOR DETAILS REFER ENCLOSURE - 1					

# **LOT – 12** Profile Projector

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	SI. # Annex. Ref. Description Brief Specification Qty					
1	Sl. No 51 of Annex 6	Profile projector		1		
	FOR DETAILS REFER ENCLOSURE - 1					

# LOT - 13 Tool Pre setter with DRO & Projector

	201 20 Tool Tie Setter With Bits at rejector					
	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. #	. # Annex. Ref. Description Brief Specification Qty					
1	Sl. No 14 of Annex 6	Tool pre setter with DRO & Projector	For machining centre	1		
	FOR DETAILS REFER ENCLOSURE - 1					

# LOT – 14 Mechanical Guillotine shear & Hydraulic Press Brake

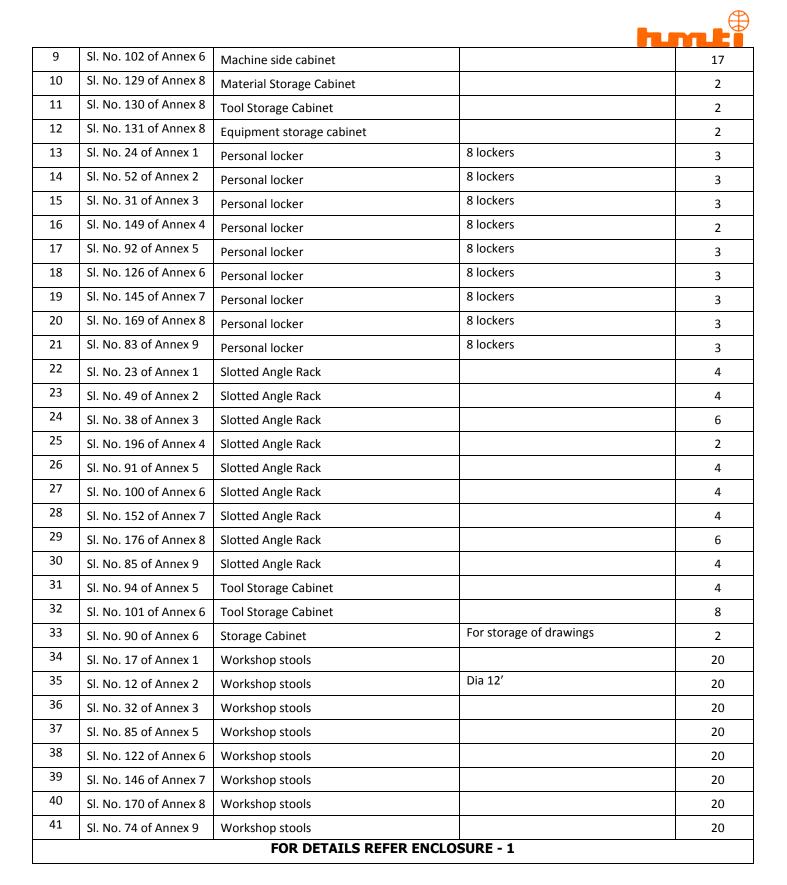
-,	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.				
SI. # Annex. Ref. Description Brief Specification C					
Sl. No 1 of Annex 9	Mechanical Guillotine Shear	Cap 3 x 2000 mm	1		
Sl. No 2 of Annex 9	Hydraulic Press Brake	Cap 3 x 2000 mm	1		
	Sl. No 1 of Annex 9	Sl. No 1 of Annex 9 Mechanical Guillotine Shear	Sl. No 1 of Annex 9 Mechanical Guillotine Shear Cap 3 x 2000 mm		

# LOT - 15 Coil winding M/c CNC

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.				
SI. #	SI. # Annex. Ref. Description Brief Specification Qty				
1	Sl. No 165 of Annex 8	Coil Winding m/c	CNC	1	
	FOR DETAILS REFER ENCLOSURE - 1				

# **LOT- 16 Shop Furniture**

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.				
SI. #	Annex. Ref.	Description Brief Specification	Qty		
1	Sl. No. 75 of Annex 9	Arc Welding Table	1		
2	Sl. No. 76 of Annex 9	Gas Welding Table	1		
3	Sl. No. 77 of Annex 9	Gas cutting Table	1		
4	Sl. No. 73 of Annex 9	Gas Cylinder Trolley	2		
5	Sl. No. 102 of Annex 4	Gas Cylinder Truck two wheeler type	2		
6	Sl. No. 89 of Annex 6	Hand trolley	5		
7	Sl. No. 25 of Annex 1	Machine side cabinet	5		
8	Sl. No. 93 of Annex 5	Machine side cabinet	20		



# **LOT-17 Office Furniture**

	1- 17 Office Furfillar	<u> </u>			
	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.				
SI.#	Annex. Ref.	Description	Brief Specification	Qty	
1	Sl. No. 7 of Annex 1	Computer Table with chair set		22	
2	Sl. No. 20 of Annex 6	Computer Table with chair set		22	
3	Sl. No. 12 of Annex 10	Computer Furniture		22	

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		and the second s	
4	Sl. No. 20 of Annex 1	Cupboard - Major	4
5	Sl. No. 46 of Annex 2	Cupboard - Major	5
6	Sl. No. 35 of Annex 3	Cupboard - Major	4
7	Sl. No. 147 of Annex 4	Cupboard - Major	2
8	Sl. No. 88 of Annex 5	Cupboard - Major	4
9	Sl. No. 120 of Annex 6	Cupboard - Major	4
10	Sl. No. 149 of Annex 7	Cupboard - Major	2
11	Sl. No. 173 of Annex 8	Cupboard - Major	4
12	Sl. No. 81 of Annex 9	Cupboard - Major	4
13	Sl. No. 21 of Annex 1	Cupboard - Minor	4
14	Sl. No. 47 of Annex 2	Cupboard - Minor	5
15	Sl. No. 36 of Annex 3	Cupboard - Minor	4
16	Sl. No. 148 of Annex 4	Cupboard - Minor	2
17	Sl. No. 89 of Annex 5	Cupboard - Minor	4
18	Sl. No. 121 of Annex 6	Cupboard - Minor	4
19	Sl. No. 150 of Annex 7	Cupboard - Minor	2
20	Sl. No. 174 of Annex 8	Cupboard - Minor	4
21	Sl. No. 82 of Annex 9	Cupboard - Minor	4
22	Sl. No. 18 of Annex 1	Instructor Table	1
23	Sl. No. 44 of Annex 2	Instructor Table	2
24	Sl. No. 33 of Annex 3	Instructor Table	1
25	Sl. No. 151 of Annex 4	Instructor Table	1
26	Sl. No. 86 of Annex 5	Instructor Table	1
27	Sl. No. 123 of Annex 6	Instructor Table	1
28	Sl. No. 147 of Annex 7	Instructor Table	1
29	Sl. No. 171 of Annex 8	Instructor Table	1
30	Sl. No. 79 of Annex 9	Instructor Table	1
31	Sl. No. 19 of Annex 1	Instructor Chair	1
32	Sl. No. 45 of Annex 2	Instructor Chair	2
33	Sl. No. 34 of Annex 3	Instructor Chair	1
34	Sl. No. 152 of Annex 4	Instructor Chair	1
35	Sl. No. 87 of Annex 5	Instructor Chair	1
36	Sl. No. 124 of Annex 6	Instructor Chair	1
37	Sl. No. 148 of Annex 7	Instructor Chair	1
38	Sl. No. 172 of Annex 8	Instructor Chair	1
39	Sl. No. 80 of Annex 9	Instructor Chair	1
40	Sl. No. 11 of Annex 2	Cutting Table 6' x 6'	5
41	Sl. No. 14 of Annex 2	Ironing Table 6' x 6'	2
42	Sl. No. 15 of Annex 2	Lecture Chairs	20
43	Sl. No. 16 of Annex 2	Visitor Chair	6
	1	1	1

44	Sl. No. 22 of Annex 1	White Board	6' x 4' (With pen set & Duster)	1
44	Sl. No. 43 of Annex 2	White Board	6' x 4' (With pen set & Duster)	1
44	Sl. No. 90 of Annex 5	White Board	6' x 4' (With pen set & Duster)	1
44	Sl. No. 125 of Annex 6	White Board	6' x 4' (With pen set & Duster)	1
44	Sl. No. 151 of Annex 7	White Board	6' x 4' (With pen set & Duster)	1
44	Sl. No. 84 of Annex 9	White Board	6' x 4' (With pen set & Duster)	1
45	Sl. No. 93 of Annex 6	Inspection Table	1.5 x 1 x 0.75 m with light	2
46	Sl. No. 27 of Annex 1	Plastic bin Stand		2
47	Sl. No. 40 of Annex 3	Plastic bin Stand		2
48	Sl. No. 96 of Annex 5	Plastic bin Stand		4
49	Sl. No. 154 of Annex 7	Plastic bin Stand		4
50	Sl. No. 178 of Annex 8	Plastic bin Stand		2
51	Sl. No. 26 of Annex 1	Plastic bin (Set)	3 sizes	140
52	Sl. No. 39 of Annex 3	Plastic bin (Set)	3 sizes	140
53	Sl. No. 95 of Annex 5	Plastic bin (Set)	3 sizes	280
54	Sl. No. 153 of Annex 7	Plastic bin (Set)	3 sizes	280
55	Sl. No. 177 of Annex 8	Plastic bin (Set)	3 sizes	140
56	Sl. No. 99 of Annex 6	Plastic bin (Set)	3 sizes	70
57	Sl. No. 51 of Annex 2	Plastic bins	Assorted sizes	1 lot
58	Sl. No. 50 of Annex 2	Shelving Unit		2
59	Sl. No. 28 of Annex 1	Scrap bins	120 litres	2
60	Sl. No. 48 of Annex 2	Scrap bins	120 litres	2
61	Sl. No. 98 of Annex 5	Scrap bins	120 litres	4
62	Sl. No. 88 of Annex 9	Scrap bins	120 litres	4

# **LOT – 18 Surface Tables, Angle Plates**

<u>LO</u>	1 – 16 Surface Table			
	Project: Setti	ing up of Indo-Myanmar Industrial Trainir	g Centre (IMITC), Monywa, Myanmar.	
SI. #	Annex. Ref.	Description	Brief Specification	Qty
1	Sl. No 53 of Annex 6	Surface Table with stand	1000 x 1000 Granite make	2
2	Sl. No 59 of Annex 6	Surface Table with stand	1000 x 1000 C I make	2
3	Sl. No 53 of Annex 5	Surface Table with stand	1000 x 1000 C I make	1
4	Sl. No 76 of Annex 7	Marking out Table with stand	1000 x 1000 C I make	2
5	Sl. No 65 of Annex 9	Surface Table with stand	1000 x 1000 C I make	1
6	Sl. No 77 of Annex 4	Surface Table with stand	600 x 450 mm C I make	1
7	Sl. No 78 of Annex 4	Cast Iron Angle plate with T slots	250 x 200 x 150 mm	2
8	Sl. No 40 of Annex 5	Cast Iron Angle plate with T slots	250 x 200 x 150 mm	2
9	SI. No 88 of Annex 6	Cast Iron Angle plate with T slots	250 x 200 x 150 mm	2
	ı	FOR DETAILS REFER ENG	CLOSURE - 1	

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# IOT - 19 Misc Measuring Instruments

<u> </u>				
SI.#	Annex. Ref.	Description	Brief Specification	Qty
1	Sl. No 58 of Annex 5	Feeler Gauge Rolls (mts)	0.03mm & 0.05 mm	6
2	Sl. No 48 of Annex 6	Feeler Gauge Rolls (mts)	0.03mm & 0.05 mm	6
3	Sl. No 119 of Annex 4	Feeler gauge	0.05 mm-1 mm	1
4	SI. No 57 of Annex 6	Moarse Taper gauge - Set of Plug and ring type	MT1, MT2, MT3	2
5	Sl. No 71 of Annex 5	Morse Taper Gauge- Plug and Ring type	MT1, MT2,MT3	1
6	Sl. No 61 of Annex 5	Plug Gauge Set	Inch and Metric assorted	1 lot
7	Sl. No 50 of Annex 6	Plug gauge-set	Inch and Metric Assorted sizes	1 lot
8	Sl. No 64 of Annex 9	Protractor & combination square set		2
9	Sl. No 52 of Annex 6	Radius gauge- set	1-7 mm & 7.5 – 15 mm	1
10	Sl. No 62 of Annex 5	Radius Gauge Sets	1-7 mm & 7.5 – 15 mm	1
11	Sl. No 62 of Annex 9	Radius gauges	0.4 - 13 mm range	6
12	SI. No 60 of Annex 5	Ring Gauge Set	Inch and Metric assorted	1 lot
13	Sl. No 97 of Annex 5	Sine Bar	150mm	1
14	Sl. No 55 of Annex 6	Sine bar	150 mm	1
15	Sl. No 59 of Annex 5	Thread Pitch Gauge	0.5mm -6mm metric 60 deg	2
16	Sl. No 64 of Annex 5	Thread Plug & Ring Gauge Set		1 lot
17	SI. No 49 of Annex 6	Thread Plug & Ring Gauge Set		1 lot
18	Sl. No 64 of Annex 8	Wire Gauge		8
19	Sl. No 63 of Annex 9	Wire Gauge	Rectangular	6
20	Sl. No 120 of Annex 4	Wire Gauge metric and with worth		1

# **LOT 20 Work Benches**

	. Troject. Settii		ning Centre (IMITC), Monywa, Myanmar.	
SI.#	Annex. Ref.	Description	Brief Specification	Qty
1	Sl. No 14 of Annex 1	Work benches	5' x 3' twin station with vice	8
2	Sl. No 146 of Annex 4	Work benches	5' x 3' twin station with vice	4
3	Sl. No 10 of Annex 5	Work benches	5' x 3' twin station with vice	8
4	Sl. No 91 of Annex 6	Work benches	5' x 3' twin station with vice	8
5	Sl. No 57 of Annex 7	Work benches	5' x 3' twin station with vice	4
6	Sl. No 30 of Annex 9	Work benches	5' x 3' twin station with vice	6
7	SI. No 25 of Annex 8	Work benches	Electrical Twin station	6

# **LOT 21 Pallet Roll, Pallet Truck & Pallete Crane**

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar			
SI. #	Annex. Ref.	Description	Brief Specification	Qty
1	Sl. No 197 of Annex 4	Pallet Roll	2500 kgs	2

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2	Sl. No 99 of Annex 5	Pallet Roll	2500 kgs	2
3	Sl. No 94 of Annex 6	Pallet Roll	2500 kgs	2
4	Sl. No 95 of Annex 6	Pallet Truck	2500 kgs	1
5	Sl. No 51 of Annex 7	Pallet Roll	2500 kgs	2
6	Sl. No 27 of Annex 9	Pallet Roll	2500 kgs	1
7	Sl. No 100 of Annex 5	Pallet Crane	3000 kgs	1
8	Sl. No 96 of Annex 6	Pallet Crane	3000 kgs	1
	•	FOR DETAILS REFER ENCLO	SURE - 1	

# **LOT 22 Mechatronics Equipment**

	Project. Settii	ig up of illuo-iviyalilliai illuustilai	Training Centre (IMITC), Monywa, Myanmar	
SI.#	Annex. Ref.	Description	Brief Specification	Qty
1	Sl. No 1 of Annex 1 Mechatronics	PLC Trainer Kit	PLC Trainer Kit including Static & Dynamic Modules	1
2	Sl. No 2 of Annex 1 Mechatronics	Digital Sensor Module		1
3	SI. No 3 of Annex 1 Mechatronics	Analog Sensor Module		1
4	Sl. No 4 of Annex 1 Mechatronics	Dynamic Module	With Sensor Module and Relay Module	1
5	SI. No 5 of Annex 1 Mechatronics	Linear Transfer System	Complete workstation mounted on a aluminum profile plate with operating console, consisting of: Belt conveyor, Linear pick & place unit, Horizontal transfer unit, Transfer Module (Rotary Pick & Place Unit), 6 Station Rotary Carousal Table, Drilling module.	1
6	SI. No 6 of Annex 1 Mechatronics	Six Axis Robot	Articulated ROBOT - PC Controlled 6 Axis with pedestal base, 2.5 Kgs Payload capacity, Pneumatic Gripper, Robot Controller, Windows 98 based Robot Controlling software.	1
7	SI. No 7 of Annex 1 Mechatronics	Robot Application Experimental Kit	With experiment table, Pneumatic chuck, Pneumatic vice, Pick & Place- Vertical stacking & Horizontal Palletizing, assembly & dismantling, Gluing experiment kit, Testing bank of push button switches, Painting kit	1
8	SI. No 8 of Annex 1 Mechatronics	Integration of ROBOT with Automation	4 Axis Assembly Robotic ARM with Pallet & Robot Controller Software, Weighing & Palletizing System With integration of Robot with Complete Workstation Mounted on a Aluminium Profile Plate, Belt Conveyor, Rotary Pick & Place Manipulator, Weighing Module and PLC	1
9	Sl. No 10 of Annex 1 Mechatronics	Mechatronics Software	For Basic Simulation  FOR Advanced simulation	1 Lot
			Robotic Simulation	



# LOT – 23 Apparel Manufacturing equipment

	Project: Setting up	of Indo-Myanmar Industria	l training Centre, Monywa, Myanmar.	
SI. No.	Annex. Ref.	Description	Brief Specification	Qty In Nos.
1	SI No. 1 of Annex 2	Lock Stitch Machine	Motorised	20
2	SI No. 2 of Annex 2	Lock Stitch machine with UBT	Motorised	1
3	SI No. 3 of Annex 2	Button Hole Stitching Machine	Electronic	1
4	SI No. 4 of Annex 2	Button Stitching machine	Single needle lockstitch machine	1
5	SI No. 5 of Annex 2	Front Flacket Machine	Motorised	1
6	SI No. 6 of Annex 2	Cutting Machine	Motorised	1
7	SI No. 7 of Annex 2	Over Locking machine	2 needle 5 thread overlock machine	1
8	SI No. 8 of Annex 2	Over Locking machine	1 needle 3 thread overlock machine	1
9	SI No. 9 of Annex 2	Zig Zag Stitching machine	1 needle lock stitch machine	1
10	SI No. 10 of Annex 2	Iron Box	Vacuum based with steam generator	1
11	SI No. 13 of Annex 2	Work Aids	Basic yoke attach folder, hemming folder, placket folder etc.	1 Lot
12	SI No. 17 of Annex 2	Linen Tape	2 meters	20
13	SI No. 18 of Annex 2	Scissors	Assorted size	20 Sets
14	SI No. 19 of Annex 2	Needles	Assorted size	20 Sets
15	SI No. 20 of Annex 2	Fabric Cutting Aids	Assorted size	20 Sets
16	SI No. 21 of Annex 2	Buttons/Hooks/Pins etc.	Assorted size	20 Sets
17	SI No. 23 of Annex 2	Scissors	Brass handle 25 cms	20
18	SI No. 24 of Annex 2	Tailor's Square	Material: Wooden / Plastic Size: 300 mm x 600 mm	20
19	SI No. 25 of Annex 2	Leg Shaper	Material: Wooden / Plastic Size: 24"	20
20	SI No. 26 of Annex 2	Cloth Brush	Wooden handle 3" bristles 5"	20
21	SI No. 27 of Annex 2	Tracing Wheel	Wooden handle with iron wheel 3"	1
22	SI No. 28 of Annex 2	Measuring Tape	Material: Rubberised Linen Size: 150 cms	20
23	SI No. 29 of Annex 2	Seam Ripper	Size: 3" Plasti handle	20
24	SI No. 30 of Annex 2	Timble	Size: 1.5 cms open type steel	20
25	SI No. 31 of Annex 2	Tailor's card triangle	Size: 60 cm length (Card scale)	20
26	SI No. 32 of Annex 2	Tailors art curve	Material: Wooden / Plastic Size: 30 x 60 cm	20
27	SI No. 33 of Annex 2	French Curve	Material: Plastic Size: 6" to 8" set of 3	20
28	SI No. 34 of Annex 2	Button Hole Scissors	Material: Steel Size: 4"	5
29	Sl No. 35 of Annex 2	Pinking Scissors	Material: Steel Size: 8"	5
30	SI No. 36 of Annex 2	Left hand scissors	Material: Steel Size: 25 cm	4
31	Sl No. 37 of Annex 2	Shear	Brass handle 10" to 12", Size: 30 cm	2
32	SI No. 38 of Annex 2	Gum tape dispenser	For office use	1
33	Sl No. 39 of Annex 2	Rubber Mat	Size: 300 x 1250 x 25 mm	4
34	Sl No. 40 of Annex 2	Garment Sprayer	Material: Plastic, Size: 6"	4
35	SI No. 41 of Annex 2	Blanket of size 5" x 8" for padding as pressing table	Size: 5' x 8'	4
36	SI No. 42 of Annex 2	Milton cloth double width	Size: 2 meters Colour: Brown / Green	8
	SI No. 53 of Annex 2	Consumable material	Stainless steel mesh left hand glove	10 nos

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# <u>LOT – 24 Refrigeration & Airconditioning Trainers</u>

SI. No	Enclosure.Ref	Description	Brief Specification	Qty	
1	SI No 1 of Annex 4	Refrigeration Test Rig	Trainer	1	
2	SI No 2 of Annex 4	Walking Cooler	Capacity 3000Kcal/hr	1	
3	SI No 4 of Annex 4	Cut section model: Open, Semi-sealed and sealed compressor	Set of 3	1	
4	SI No 5 of Annex 4	Heat Exchanger Shell & Tube Type		1	
5	SI No 6 of Annex 4	Heat Exchanger tube in tube type		1	
6	SI No 7 of Annex 4	Refrigeration tutor		1	
7	SI No 8 of Annex 4	Package air conditioner		1	
8	SI No 9 of Annex 4	utomobile Air Conditioner		1	
9	SI No 10 of Annex 4	Split type Air Conditioner			
10	SI No 11 of Annex 4	Air conditioner		1	
11	SI No 12 of Annex 4	Room Air Conditioner		1	
	SI No 123 of Annex 4	Evacuating & Refrigerant charging station comprising  a) Rotary two stage vacuum pump and motor (With g Manifold with gauges valves and capable of pulling Hg and with provision of connecting to a mic  b) Graduated charging cylinder with provisions for ter necessary isolating valves. II. Evacuating & charging with weighing scale (upto 2 Kg in lieu of (b) above a for c	vacuum upto 50 microns of mperature correction and all station as above but fitted and with accuracy of +/-1 gram	1	
13	3 SI No 125 of Annex 4 Two stage rotary vacuum pump of capacity approx 60-100 1pm capable of evacuating to 50 microns of Hg and fitted with gas ballast anti suck valve and single phase motor.				
14	SI No 136 of Annex 4	Window air conditioning	Capacity 3000 K.cal/hr.	1	
15 SI No 140 of Annex 4 Ice Candy unit complete with stainless steel tank mould box thermocole insulated sun mica body agitator compressor motor etc. Temperature pressure refrigerant control gauges motor pipe fitting etc. 3000 K.Cal/hr or working model simulator.				1	
16	SI No 141 of Annex 4	Air conditioning plant direct and indirect water chiller complete with all controls etc.  Capacity 15000 K. cal/hr or working trainer model/simulator, Alternatively a packaged Air conditioner of similar			
17	SI No 142 of Annex 4	Condensing unit with open type compressor air cooled evaporator condenser controls etc.	Capacity 3000 K. cal/hr	1	
18	SI No 143 of Annex 4	Condensing unit with open type compressor evaporator condenser controls etc	Capacity 3000 K.cal/hr	1	
		FOR DETAILS REFER ENCLOSURE - 1			

## LOT - 25 Heat Treatment equipment

<u> </u>	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.						
SI. #	Annex. Ref.	Description	Brief Specification	Qty			
1	Sl. No 66 of Annex 6	Hardening furnace		1			
2	Sl. No 67 of Annex 6	Tempering furnace		1			
3	Sl. No 68 of Annex 6	Quenching tank	600 x 600 x 600 mm	1			
4	Sl. No 28 of Annex 9	Electrode Heating Chamber		1			
	FOR DETAILS REFER ENCLOSURE - 1						

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# <u>Lot –26 - Refrigeration & Air Conditioning Equipment</u>

SI.		-	ustrial Training Centre (IMITC		
No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
1	SI. No 157 of Annex 4	134A Refrigerant in cylinders with valves	FLORON Brand 134A gas (Tetra Flouro Ethane) in 10kg company sealed cylinder. Dupont Brand 134A can 340 gms	Capacity - 10 Kg - 1 No. with test Certificate 340 gr. Disposable refrigerant Cans (Dupont / Floron) - 2 NO.s	2
2	SI. No 192 of Annex 4	Accessories thormostatic expansion valve distributors, driers, (pencil solid core type etc.) accumulators, receivers, bellows type thermostat, HP Stat & LP Stat humidi stat, solenoid valves	DANFOSS make , Orifice No:3, R-22, Model: TX 2 Dryall / Denyo Make  MB Make( for 134A gas)10grams,15grams, 25grams Annapurna Make Danfoss make KP5 Model  Danfoss make KP1 Model Danfoss make KP15 Model  Temptec thermo hygrometer clock	Thermostatic Expansion Valve with separating orifice (Removable Orifice) Danfosss Make; 5 Ton Capacity. Distributor(Refrigiran t for 5 Ton) Drier: (Core type) for 5 Ton cap Accumulator:5 Ton capacity Liquid Reciever: 5 Ton cap Pencil type Drier; Bellow type Thermostat HP Cutout: Danfoss make LP Cutout: Danfoss make LP Cutout : Danfoss make HP & LP Cutout (combined) with manual restart - Danfoss make Humidystat : Reputed make Solenoid Valve: 1/4" size	1
3	Sl. No 180 of Annex 4	Acid test kit		With acid resistant centrifugal pump 1/2 HP capacity	1
4	Sl. No 127 of Annex 4	Air Compressor two stage for oil less dry air with rust proof tank assemble heater and control	Max Pr. 10Kg/ sq.cm cap 45 Litre motor 1 HP		1
5	Sl. No 126 of Annex 4	Anemometer	Vane type	Reputed make	1
6	Sl. No 186 of Annex 4	Ball Valves service valves hand shut valves	1/4" to 7/8" Bava make hand shut off valve, service valve Threads protected	Reputed make	2

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	Project: Setting up	of Indo-Myanmar Ind	ustrial Training Centre (IMITC	C), Monywa, Myanmar.	
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
7	Sl. No 16 of Annex 4	Bending spring	External type for copper tube 3 to 6 mm. Dia		4
8	Sl. No 137 of Annex 4	Bottle Cooler	110 litre 1/6 HP	Voltas/Bluestar/Carri er make	1
9	Sl. No 28 of Annex 4	Box spanner	6.4 to 10 mm		2
10	SI. No 183 of Annex 4	Brazing alloy rods for 1/4" to 7/8" tubes Cu to cu, Cu to steel, Cu to brass and appropriate fluxes	Copper Brazing rod Silver rod Brass rod	Cu - Cu: Cu alloy rod 2kg, 1/8" size CU – Steel: Silver 43% rod; 100 gr; 1.2mm dia Cu - Brass: Brass-Ni rod 1/4kg; 3mm dia	1
11	Sl. No 21 of Annex 4	Capillary plug gauge			2
12	Sl. No 175 of Annex 4	Circulating water pump (SMALL)	1/2 HP Capacity	Monoblock 1 Ph, 230V 50Hz, Reputed make	1
13	SI. No 171 of Annex 4	Components of Car AC systems.	a) Wobble plate compressor with mounting brackets. b) Serpentine evaporator. c) Parallel flow condenser. d) Hoses, tubes, receive, expansion valve. e) Electrical components & wiring harness		1
14	SI. No 37 of Annex 4	Compound gauge diameter 63 mm with recalibration set screw scale vacuum 76 mm pressure 15 Kg/Sq.cm		Airmaster make with SS Body (-)30 to 150 PSI - 2 NO.s 0-300 PSI 2nos (Glycerene/Oil filled 1 No. each)	4
15	Sl. No 188 of Annex 4	Compressor tester for small hermetic compressor	Electrical panel with voltmeter,ammeter,relay s and capacitor, MCB etc.	Reputed make	1
16	SI. No 3 of Annex 4	Condensing Unit with hermetic compressor	Cap.500 Kcal/hr		1
17	Sl. No 135 of Annex 4	Deep freezer	165 Litre (-)18 Deg C1/4 HP	Voltas/Bluestar make	1
18	SI. No 129 of Annex 4	Descaling pump set	stainless steel impeller and housing complete with motor 1 HP and accessories.	Reputed make	1
19	Sl. No 124 of Annex 4	Dial thermometer remote controls armoured capillary dial 75 mm-50		Reputed make	2
20	SI. No 165 of Annex 4	Dry N2 in cylinder with 2 stage regulator or commercial N2 in cylinder with drier unit and 2 stage regulator	Standard capacity - ISI standard	with Cylinder	1

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	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty	
21	Sl. No 193 of Annex 4	Electrical accessories current & potential relays start & run capacitors, PTC,s overload protector relays contractor.		1 Ph, 230V, 50Hz, AC - Reputed make	1	
22	Sl. No 190 of Annex 4	Evaporator of direct cooled refrigerator with capillary heat exchanger	1 T capacity finned type evaporator		1	
23	Sl. No 191 of Annex 4	Evaporator of Frost free refrigerator	200 -300litre capacity		1	
24	Sl. No 173 of Annex 4	Fan coil unit with water valves	(2 &3 way)	3 T capacity	1	
25	SI. No 169 of Annex 4	Filter driers for CFC-12 & HFC-134 A for repairs retrofits	3/8" size	Dryall make	8	
26	Sl. No 155 of Annex 4	Fin straightener / Fin comb			42	
27	SI. No 163 of Annex 4	Fire Extinguisher powder type	5kg		2	
28	13 of Annex 4	Flaring tool set with Swedging	Single for tube 4.7 to 16 mm OD	Rothenberger Make	4	
29	SI. No 168 of Annex 4	Four way manifold with gauges		Rothenberger make	1	
30	Sl. No 40 of Annex 4	Gas leak detector for halogen gas	Gas leak detector using halogen gas	Rothenberger make; 3gr/annum capacity	1	
31	SI. No 156 of Annex 4	HC refrigerant in cylinder/ disposable containers	Dupont 134a , 340 gms	Or Reputed Make	2	
32	Sl. No 132 of Annex 4	Heating Kit with infra red bulb	150 watt capacity		1	
33	Sl. No 189 of Annex 4	Hermetic compressor	1.5 Ton	Tecumseh make	1	
34	Sl. No 185 of Annex 4	i) Hermetic compressor	1/8 to 1/2 HP(approx) for use in repair work of appliances for CFCs and HFCs	Tecumseh make	2	
35	Sl. No 185 of Annex 4	ii) Hermetic compressor	For 134A	Tecumseh make	3	
36	Sl. No 44 of Annex 4	L-Allen Key set size	1.5 to 6.4mm		4	
37	Sl. No 41 of Annex 4	Lapping plate	250x200mm		2	
38	Sl. No 153 of Annex 4	Micron vacuum gauge	Capable of reading upto 20 microns		2	
39	SI. No 162 of Annex 4	No frost refrigerator 300 litre capacity using HC refrigerant	Frost free refrigerator, 2 door, 1Ph, 230V, 50Hz, AC	Voltas/Bluestar/LG/S amsung/Godrej Make	1	
40	Sl. No 23 of Annex 4	Piercing plier 6-18		Reputed make	2	

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SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
		mm & Piercing valves both with access fittings			
41	Sl. No 184 of Annex 4	Pilot tube & inclined tube manometer	500 m length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.	from reputed mfrs.	1
42	Sl. No 22 of Annex 4	Pinch off plier / crimping plier tool	16 to 18 mm dia		2
43	Sl. No 19 of Annex 4	Pinch off tool	For copper tube 6 to 18 mm dia		4
44	Sl. No 80 of Annex 4	Pipe bending tool	lever type with degree indicator for tube OD 6.4 to 16 mm		1
45	Sl. No 17 of Annex 4	Pipe cutter	Miniature for copper tube 6 to 18 mm dia		4
46	SI. No 18 of Annex 4	Pipe cutter	With built-in reamer and space cutter for copper tube 3 to 32 mm		1
47	Sl. No 178 of Annex 4	Pipe threading dies & pipe vice			1
48	Sl. No 182 of Annex 4	Pop rivet gun		Reputed make	1
49	SI. No 164 of Annex 4	Portable Air-LPG brazing kit with 2 Kg LPG cylinder, torches, houses, standard make. a) With straight flame. b) With Cyclone / swirl jet flame.	Portable Air-LPG brazing kit with 2 kg LPG cylinder, torches, hoses - Standad make. 1) with straight flame. 2) With cyclone swirl jet flame.	Rothenberger/Reput ed make	1
50	SI. No 131 of Annex 4	Pressure testing tank with lighting arrangement pressure gauge (0-35 Kg / sq.cm) double stage	Suitable Pressure testing tank of SS 304 Grade 18 Gauge having TIG welded joints with lighting arrangements.	Pressure gauge 0-35 kg/cm2 - double stage	1
51	SI. No 36 of Annex 4	Pressure gauge diameter 63 mm with recalibration set screw scale vacuum 76 mm pressure			4
52	SI. No 42 of Annex 4	Punch hole for cutting gasket	4.7 to 16 mm dia		4
53	Sl. No 187 of Annex 4	Quick couplers process tube adaptor	1/4" to 7/8"		2
54	Sl. No 20 of Annex 4	Ratchet spanner	6.4 mm sg reversible		4
55	Sl. No 144 of Annex 4	Reciprocating compressor with provision of capacity control	Capacity 9000 K. cal/hr semi hermetic / open type.	Best indian	1

capacity control | \_\_\_\_\_\_
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	Project: Setting up	of Indo-Myanmar Ind	ustrial Training Centre (IMITC	C), Monywa, Myanmar.	
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
		etc, for demonstration			
56	SI. No 158 of Annex 4	Recovery unit one each for CFC & R134 A refrigerants with recovering cylinders.	Consisting of 1/6 HP or required capacity compressor condensor with fan, oil separator, accumulator valve inlet and outlet for gas recovery, compound gauges and pressure gauges with LP, HP cut outs individual unit for CFC & HFC.	Rothenberger / Reputed make	1
57	Sl. No 195 of Annex 4	Recycling Unit		Suitable	1
58	Sl. No 181 of Annex 4	Refractometer	Portable with lens		1
59	Sl. No 121 of Annex 4	Refrigerant cylinder	Capacity 2.5 Kg		2
60	Sl. No 122 of Annex 4	Refrigerant cylinder	Capacity 30 Kg		2
61	Sl. No 161 of Annex 4	Refrigerator 170 litre using 134 A refrigerant	Single door refrigerator	Voltas/Bluestar/LG/S amsung/Godrej Make	1
62	Sl. No 133 of Annex 4	Refrigerator compressor type	165 litre	Voltas/Bluestar/LG/S amsung/Godrej Make	1
63	SI. No 134 of Annex 4	Refrigerator compressor type	300 litres double door, double compressor system	Reputed make	1
64	Sl. No 159 of Annex 4	Reverse cycle AC/Heat pump	3000 K.cal/hr. Or 4500 K.cal/hr.		1
65	Sl. No 26 of Annex 4	Ring spanner set	4.7 mm to 16 mm		5
66	Sl. No 27 of Annex 4	Ring spanner set	19 mm to 31.8 mm		1
67	Sl. No 176 of Annex 4	Safety gloves, eye protection glasses			4
68	Sl. No 177 of Annex 4	Safety shoes			20
69	Sl. No 179 of Annex 4	Schraeder valve core removal tool			1
70	SI. No 43 of Annex 4	Scissor gasket cutting stainless steel	length 25 mm		4
71	Sl. No 154 of Annex 4	Sensor thermometer	Digital		2
72	Sl. No 38 of Annex 4	Serviceman thermometer in metal case	-30 to + 30 Deg.C.		2
73	SI. No 172 of Annex 4	Shell and tube Condenser	Small capacity. Reputed Make	1.5 Ton capacity with valves	1
74	Sl. No 174 of Annex 4	Shell and tube DX chillers (Small)	5 Ton capacity	Reputed make	1
75	Sl. No 39 of Annex 4	Sling psychrometer mounted on aluminum / plastic back scale -50 Deg. C to + 50 Deg.C			1

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SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
76	SI. No 24 of Annex 4	Spanner double ended	4.7 mm to 16 mm		5
77	Sl. No 25 of Annex 4	Spanner double ended	19 mm to 31.8 mm		1
78	Sl. No 160 of Annex 4	Split type AC 4500 K.cal/hr	With indoor unit & outdoor units and electronic remote control	Voltas / Reputed make	1
79	Sl. No 130 of Annex 4	Spray outfit "V" twin with motor 1/2 HP delivery upto 120 Litre free air pressure upto 3 Kg/Sq.cm with spray gun and fitting			1
80	Sl. No 14 of Annex 4	Swedging tool	Punch type set of size, for tube 4.7 to 16 mm OD		4
81	Sl. No 15 of Annex 4	Swedging tool	Screw type, with adapter set of size for tube 4.7 to 16mm OD		1
82	Sl. No 45 of Annex 4	T-Allen key set size	5/32"L & 1/8"		4
83	SI. No 166 of Annex 4	Trichlorethylene bottle	700 ml		1
84	SI. No 167 of Annex 4	Two way manifold with gauges	Rothenberger make, Standard Manifold set.		1
85	Sl. No 34 of Annex 4	Valve key-T-Handle	4.7 & 6.4 mm Sq		4
86	Sl. No 194 of Annex 4	Visi Cooler	165 litres	Voltas/Bluestar/Carri er make	1
87	Sl. No 139 of Annex 4	water Cooler	Storage type 40 litres capacity	Voltas/Bluestar/Carri er make	1
88	Sl. No 138 of Annex 4	Water Cooler	Instantaneous type - 40 litres capacity.	Voltas/Bluestar/Carri er make	1
89	Sl. No 128 of Annex 4	Scraper triangular blade removable			2
90	170 of Annex 4	Sealed ex-proof components for use in HC appliances: Thermostats Sealed OLPS solid state PTC's door switches lamp holders			4

**End of Section IV** 

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# SECTION V – COMMERCIAL PRICE SCHEDULE

Annexure – 1

#### LOT - 1 Pillar, Pedestal Drill Machines, Pedestal Grinder, Hyd. Power Hacksaw

1 2 3	SI. No 5 of Annex 5 SI. No 99 of Annex 4 SI. No 45 of Annex 7	Pillar Drilling Machine Pillar Drilling Machine	Cap. 25 mm	_		Rs.
3		Pillar Drilling Machine		2		
	Sl. No 45 of Annex 7		Cap. 25 mm	1		
_		Pillar Drilling Machine	Cap. 25 mm	3		
4	Sl. No 11 of Annex 6	Pillar Drilling Machine	Cap. 25 mm	1		
5	Sl. No 36 of Annex 8	Pillar Drilling Machine	Cap. 20 mm	2		
6	Sl. No 13 of Annex 9	Pillar Drilling Machine	Cap. 13 mm	2		
7	Sl. No 6 of Annex 5	Pillar Drilling Machine	Cap. 13 mm	2		
8	Sl. No 44 of Annex 7	Pedestal Grinder	Wheel dia 200 mm	3		
9	Sl. No 9 of Annex 5	Pedestal Grinder	Wheel dia 200 mm	2		
10	Sl. No 12 of Annex 6	Pedestal Grinder	Wheel dia 200 mm	1		
11	Sl. No 9 of Annex 9	Pedestal Grinder	Wheel dia 200 mm	2		
12	Sl. No 100 of Annex 4	Pedestal Grinder	Wheel dia 200 mm	1		
13	Sl. No 37 of Annex 8	Pedestal Grinder	Wheel dia 200 mm	2		
14	Sl. No 8 of Annex 5	Hydraulic power	Cutting capacity	1		
		hacksaw	Round dia 200mm			
Total F.C	O.R Chennai Port Price i	n Indian Rupees with sea	worthy packing	•		
Cost of i	inspection, trails & exte	ended international warr	anty @ 6% + applicable	GST of F	OR Chennai port	

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Signature and seal of Authorized Signatory

#### NOTE

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The prices quoted should be most competitive



#### LOT - 2 Vertical Bandsaw machine

Sl. No	Project: Setti Annex Ref.	ng up of Indo-Myanmar Industria	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.		
1	Sl. No 7 of Annex 5	Vertical Band saw machine	Dia 450 mm	1				
Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing								
Cost of inspection, trails & extended international warranty @ 6% + applicable GST of FOR Chennai port price								
Total F.	Total F.O.R Chennai Port Price in Indian Rupees							

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Signature and seal of Authorized Signatory

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#### LOT - 3 Automatic Plastic Injection Moulding m/c

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.						
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.	
1	Sl. No 5 of Annex 6	Automatic Plastic Injection Moulding M/c	Locking force 180T, shot capacity 350 grams	1			
2	SI. No 6 of Annex 6	Tooling with colour mixer, scrap grinder, Oven, cooling tower etc. for plastic injection moulding m/c		1			
Total F.	Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing						
Cost of inspection, trails & extended international warranty @ 6% + applicable GST of FOR Chennai port price							
Total F.O.R Chennai Port Price in Indian Rupees  Cost towards Installation, commissioning and training the customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier)							
*Total	cost of equipment incl	uding I & C in Indian Rupees (in	words):				

## \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required	Cost per man day (In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We	possess the necessary	License from the	Government of India/	State Government	for rendering t	.he supplies /	services.
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Dated:....

Signature and seal of Authorized Signatory

#### NOTE

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The prices quoted should be most competitive



#### LOT - 4 Electro Discharge M/c CNC

Sl. No	Specification Price in Ind. Rs					
1	Sl. No 2 of Annex 6	Electro Discharge M/c (EDM)	Work Tank: 800 x	1		
		CNC	500 x 350 mm			
Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing						
Cost of inspection, trails & extended international warranty @ 6% + applicable GST of FOR Chennai port price						
Total F.O.R Chennai Port Price in Indian Rupees						
mainte furnish	nance for above equ led bachelor's accomi	commissioning and training the ipment at project site in Myar modation, local transport and	nmar. (HMT(I) shall a necessary assistance	arrange in gett	to provide, free ing VISA for the	
	•	I to site in Myanmar. To & fro e borne by the supplier)	Airfare, Boarding ex	penses,	Travel Insurance	
*Total	cost of equipment incl	luding I & C in Indian Rupees (in	words):			

#### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days	Cost per man day
		required	(In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated	l:
Dateu	

Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



#### LOT - 5 Wire Cut EDM M/c CNC

	Project: Setti	ng up of Indo-Myanmar Indus	trial Training Centre (IN	MITC), M	onywa, Myanmar.			
SI. No	SI. No Annex Ref. ITEM Brief Specification Qty Chennai Port Price in Ind. R							
1	1 Sl. No 3 of Annex 6 Wire Cut EDM CNC Max Work piece: 1 350 x 450 x 200 mm							
Total F.	Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing							
Cost of inspection, trails & extended international warranty @ 6% + applicable GST of FOR Chennai port price								
Total F.O.R Chennai Port Price in Indian Rupees								
mainte	Cost towards Installation, commissioning and training the customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the							
	rechnical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier)							
	•	uding I & C in Indian Rupees	(in words):					

#### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days	Cost per man day
		required	(In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:
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Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



#### **LOT - 6** Testing Machines

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 70 of Annex 6	Universal Testing Machine		1		
2	Sl. No 71 of Annex 6	Hardness Tester		1		
Total F.	O.R Chennai Port Price	in Indian Rupees with seaworth	y packing	•		
Cost of	inspection, trails & ex	tended international warranty @	9 6% + applicable	GST of F	OR Chennai port	
price						
Total F.	O.R Chennai Port Price	in Indian Rupees				

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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#### LOT - 7 Hydraulic Press 100T

	Project: Setti	ng up of Indo-Myanmar In	dustrial Training Centre (I	MITC), N	lonywa, Myanmar.	·
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 15 of Annex 6	Hydraulic Press	100T	1		
Total F.	.O.R Chennai Port Price	in Indian Rupees with se	aworthy packing			
Cost of	inspection, trails & ex	tended international war	ranty @ 6% + applicable	GST of I	OR Chennai port	
price						
Total F.	O.R Chennai Port Price	in Indian Rupees				
mainte furnish	nance for above equiped bachelor's accomm	ommissioning and train oment at project site in odation, local transport to site in Myanmar. To 8	Myanmar. (HMT(I) shall and necessary assistance	arrange e in get	to provide, free ting VISA for the	
	idental expenses to be	•		,		
*Total	cost of equipment inclu	iding I & C in Indian Rupe	es (in words):			

#### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days	Cost per man day
		required	(In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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## LOT - 8 Mechanical Press 10T & 100T

Sl. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 16 of Annex 6	Mechanical Press	10T	1		
2	Sl. No 17 of Annex 6	Mechanical Press	100T	1		
Total F	.O.R Chennai Port Price	in Indian Rupees with sea	aworthy packing			
Cost of price	f inspection, trails & ex	tended international war	ranty @ 6% + applicable	GST of F	OR Chennai port	
Total F	.O.R Chennai Port Price	in Indian Rupees				
mainte	enance for above equip	ommissioning and traini oment at project site in odation, local transport	Myanmar. (HMT(I) shall	arrange	to provide, free	
	cal Personnel deputed cidental expenses to be	to site in Myanmar. To 8 borne by the supplier)	& fro Airfare, Boarding ex	kpenses,	Travel Insurance	
*Total	cost of equipment inclu	ding I & C in Indian Rupe	es (in words):			

### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days	Cost per man day
		required	(In Rs.)

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

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Signature and seal of Authorized Signatory

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## LOT - 9 Circle Cutting Machine

Sl. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 6 of Annex 9	Circle cutting m/c	Max dia 600	1		
			mm			
Total F.	O.R Chennai Port Pric	e in Indian Rupees with seaw	orthy packing			
Cost of	inspection, trails & e	xtended international warra	nty @ 6% + applicable	GST of F	OR Chennai port	
price					-	
Total F.	O.R Chennai Port Pric	e in Indian Rupees				

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Dated:	
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Signature and seal of Authorized Signatory

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## <u>LOT – 10 Nibbling-Cropping- Punching Machine – All in One</u>

	Project: Sett	ing up of Indo-Myanmar Industrial	Training Centre (IN	ΛΙΤC), M	lonywa, Myanmar.	
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 4 of Annex 9	Nibbling – Cropping - Punching	All in one	1		
		M/c	machine			
Total F.	O.R Chennai Port Pric	e in Indian Rupees with seaworthy	packing			
Cost of	inspection, trails & e	xtended international warranty @	6% + applicable	GST of F	OR Chennai port	
price						
Total F.	O.R Chennai Port Pric	e in Indian Rupees				

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Signature and seal of Authorized Signatory

### NOTE

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- 4. VALUES should be both in figures and Words.

The prices quoted should be most competitive



## **LOT - 11 Roll Bending Machine**

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 3 of Annex 9	Roll Bending M/c	Cap 3 x 1250	1		
			mm			
Total F.	O.R Chennai Port Pric	e in Indian Rupees with seaw	orthy packing			
Cost of	inspection, trails & e	xtended international warra	nty @ 6% + applicable	GST of I	OR Chennai port	
price					-	
Total F.	O.R Chennai Port Pric	e in Indian Rupees				

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

1)atad	
Dateu	 

Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



### **LOT – 12** Profile Projector

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 51 of Annex 6	Profile projector		1		
Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing						
Cost of price	inspection, trails & ex	tended international warran	ty @ 6% + applicable	GST of I	OR Chennai port	
•	O.R Chennai Port Price	in Indian Rupees				

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

<b>-</b>	
Dated	•

Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



## **LOT - 13 Tool Presetter with DRO & Projector**

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 14 of Annex 6	Tool pre setter with DRO &	For machining	1		
		Projector	centre			
Total F.	O.R Chennai Port Price	in Indian Rupees with seaworth	ny packing	•		
Cost of	inspection, trails & ex	tended international warranty	@ 6% + applicable	GST of F	OR Chennai port	
price						
Total F.	O.R Chennai Port Price	in Indian Rupees				

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:
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Signature and seal of Authorized Signatory

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The prices quoted should be most competitive

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018

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## LOT - 14 Hydraulic Press Brake & Mechanical Guillotine Shear

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 1 of Annex 9	Mechanical Guillotine Shear	Cap 3 x 2000	1		
			mm			
2	Sl. No 2 of Annex 9	Hydraulic Press Brake	Cap 3 x 2000	1		
			mm			
Total F.	O.R Chennai Port Pric	e in Indian Rupees with seaworth	y packing	•	•	
Cost of	inspection, trails & e	xtended international warranty	@ 6% + applicable	GST of F	OR Chennai port	
price	•	•				
•	.O.R Chennai Port Pric	e in Indian Rupees				

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Signature and seal of Authorized Signatory

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- 3. Any correction made in offer shall be initialed by the Bidder.
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The prices quoted should be most competitive

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018

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## **LOT – 15 Coil Winding Machine CNC**

Sl. No	Project: Setting  Annex Ref.	up of Indo-Myanmar Indu ITEM	Strial Training Centre (IN Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 165 of Annex 8	Coil Winding m/c	CNC	1		1.01
Total F.	O.R Chennai Port Price in	Indian Rupees with seaw	orthy packing	•		
Cost of inspection, trails & extended international warranty @ 6% + applicable GST of FOR Chennai port						
price						
Total F.	O.R Chennai Port Price in	Indian Rupees				

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



# LOT – 16 Shop Furniture

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No. 75 of Annex 9	Arc Welding Table		1		
2	Sl. No. 76 of Annex 9	Gas Welding Table		1		
3	Sl. No. 77 of Annex 9	Gas cutting Table		1		
4	Sl. No. 73 of Annex 9	Gas Cylinder Trolley		2		
5	Sl. No. 102 of Annex 4	Gas Cylinder Truck two		_		
		wheeler type		2		
6	Sl. No. 89 of Annex 6	Hand trolley		5		
7	Sl. No. 25 of Annex 1	Machine side cabinet		5		
8	Sl. No. 93 of Annex 5	Machine side cabinet		20		
9	Sl. No. 102 of Annex 6	Machine side cabinet		17		
10	Sl. No. 129 of Annex 8	Material Storage Cabinet		2		
11	SI. No. 130 of Annex 8	Tool Storage Cabinet		2		
12	Sl. No. 131 of Annex 8	Equipment storage cabinet		2		
13	Sl. No. 24 of Annex 1	Personal locker	8 lockers	3		
14	Sl. No. 52 of Annex 2	Personal locker	8 lockers	3		
15	Sl. No. 31 of Annex 3	Personal locker	8 lockers	3		
16	Sl. No. 149 of Annex 4	Personal locker	8 lockers	2		
17	Sl. No. 92 of Annex 5		8 lockers	3		
		Personal locker				
18	Sl. No. 126 of Annex 6	Personal locker	8 lockers	3		
19	Sl. No. 145 of Annex 7	Personal locker	8 lockers	3		
20	Sl. No. 169 of Annex 8	Personal locker	8 lockers	3		
21	Sl. No. 83 of Annex 9	Personal locker	8 lockers	3		
22	Sl. No. 31 of Annex 3	Personal locker	8 lockers	3		
23	Sl. No. 23 of Annex 1	Slotted Angle Rack		4		
24	Sl. No. 49 of Annex 2	Slotted Angle Rack		4		
25	Sl. No. 38 of Annex 3	Slotted Angle Rack		6		
26	Sl. No. 196 of Annex 4	Slotted Angle Rack		2		
27	Sl. No. 91 of Annex 5	Slotted Angle Rack		4		
28	Sl. No. 100 of Annex 6	Slotted Angle Rack		4		
29	Sl. No. 152 of Annex 7	Slotted Angle Rack		4		
30	Sl. No. 176 of Annex 8	Slotted Angle Rack		6		
31	Sl. No. 85 of Annex 9	Slotted Angle Rack		4		
32	Sl. No. 94 of Annex 5	Tool Storage Cabinet		4		
33	Sl. No. 101 of Annex 6	Tool Storage Cabinet		8		
34	Sl. No. 90 of Annex 6	Storage Cabinet	For storage of drawings	2		
35	Sl. No. 17 of Annex 1	Workshop stools	_	20		
36	Sl. No. 12 of Annex 2	Workshop stools	Dia 12'	20		
37	Sl. No. 32 of Annex 3	Workshop stools		20		
38	Sl. No. 85 of Annex 5	Workshop stools		20		
39	Sl. No. 122 of Annex 6	Workshop stools		20		
40	Sl. No. 146 of Annex 7	Workshop stools		20		
41	Sl. No. 170 of Annex 8	Workshop stools		20		
42	Sl. No. 74 of Annex 9	Workshop stools		20		
		Indian Rupees with seaworthy	v packing		1	
		nded international warranty @		GST of E	OR Chennai nort	
rice	mapection, trains & exte	naca international warranty e	ove applicable	331 UI F	on chemiai port	

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated	·	
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Signature and seal of Authorized Signatory

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TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018

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# **LOT – 17 Office Furniture**

	Project: Setting	up of Indo-Myanmar Industrial Tr	aining Centre (IN	ИITC), М		
Sl. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No. 7 of Annex 1	Computer Table with chair set		22		
2	Sl. No. 20 of Annex 6	Computer Table with chair set		22		
3	Sl. No. 12 of Annex 10	Computer Furniture		22		
4	Sl. No. 20 of Annex 1	Cupboard - Major		4		
5	Sl. No. 46 of Annex 2	Cupboard - Major		5		
6	Sl. No. 35 of Annex 3	Cupboard - Major		4		
7	Sl. No. 147 of Annex 4	Cupboard - Major		2		
8	Sl. No. 88 of Annex 5	Cupboard - Major		4		
9	Sl. No. 120 of Annex 6	Cupboard - Major		4		
10	Sl. No. 149 of Annex 7	Cupboard - Major		2		
11	Sl. No. 173 of Annex 8	Cupboard - Major		4		
12	Sl. No. 81 of Annex 9	Cupboard - Major		4		
13	Sl. No. 21 of Annex 1	Cupboard - Minor		4		
14	Sl. No. 47 of Annex 2	Cupboard - Minor		5		
15	Sl. No. 36 of Annex 3	Cupboard - Minor		4		
16	Sl. No. 148 of Annex 4	Cupboard - Minor		2		
17	Sl. No. 89 of Annex 5	Cupboard - Minor		4		
18	Sl. No. 121 of Annex 6	Cupboard - Minor		4		
19	Sl. No. 150 of Annex 7	Cupboard - Minor		2		
20	Sl. No. 174 of Annex 8	Cupboard - Minor		4		
21	Sl. No. 82 of Annex 9	•				
		Cupboard - Minor		4		
22	Sl. No. 18 of Annex 1	Instructor Table		1		
23	Sl. No. 44 of Annex 2	Instructor Table		2		
24	Sl. No. 33 of Annex 3	Instructor Table		1		
25	Sl. No. 151 of Annex 4	Instructor Table		1		
26	Sl. No. 86 of Annex 5	Instructor Table		1		
27	Sl. No. 123 of Annex 6	Instructor Table		1		
28	Sl. No. 147 of Annex 7	Instructor Table		1		
29	Sl. No. 171 of Annex 8	Instructor Table		1		
30	Sl. No. 79 of Annex 9	Instructor Table		1		
31	Sl. No. 19 of Annex 1	Instructor Chair		2		
32	Sl. No. 45 of Annex 2	Instructor Chair		1		
33	Sl. No. 34 of Annex 3	Instructor Chair		1		
34	Sl. No. 152 of Annex 4	Instructor Chair		1		
35	Sl. No. 87 of Annex 5	Instructor Chair		1		
36	Sl. No. 124 of Annex 6	Instructor Chair		1		
37	Sl. No. 148 of Annex 7	Instructor Chair		1		
38	Sl. No. 172 of Annex 8	Instructor Chair		1		
39	Sl. No. 80 of Annex 9	Instructor Chair		1		
40	Sl. No. 11 of Annex 2	Cutting Table	6' x 6'	5		
41	Sl. No. 14 of Annex 2	Ironing Table	6' x 6'	2		
42	Sl. No. 15 of Annex 2	Lecture Chairs		20		
43	Sl. No. 16 of Annex 2	Visitor Chair		6		
44	Sl. No. 22 of Annex 1	White Board	6' x 4' (With pen set & Duster)	1		
45	Sl. No. 43 of Annex 2	White Board	6' x 4' (With pen set & Duster)	1		

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46	SI. No. 90 of Annex 5	White Board	6' x 4' (With pen set &	1	
	Si. No. 90 of Affilex S	Willie Board	Duster)	1	
47			6' x 4' (With		
	Sl. No. 125 of Annex 6	White Board	pen set &	1	
			Duster)		
48			6' x 4' (With		
	Sl. No. 151 of Annex 7	White Board	pen set &	1	
			Duster)		
49			6' x 4' (With		
	Sl. No. 84 of Annex 9	White Board	pen set &	1	
			Duster)		
50	Sl. No. 93 of Annex 6	Inspection Table	1.5 x 1 x 0.75	2	
		·	m with light		
51	Sl. No. 27 of Annex 1	Plastic bin Stand		2	
52	Sl. No. 40 of Annex 3	Plastic bin Stand		2	
53	Sl. No. 96 of Annex 5	Plastic bin Stand		4	
54	Sl. No. 154 of Annex 7	Plastic bin Stand		4	
55	Sl. No. 178 of Annex 8	Plastic bin Stand		2	
56	Sl. No. 26 of Annex 1	Plastic bin (Set)	3 sizes	140	
57	Sl. No. 39 of Annex 3	Plastic bin (Set)	3 sizes	140	
58	Sl. No. 95 of Annex 5	Plastic bin (Set)	3 sizes	280	
59	Sl. No. 153 of Annex 7	Plastic bin (Set)	3 sizes	280	
60	Sl. No. 177 of Annex 8	Plastic bin (Set)	3 sizes	140	
61	Sl. No. 99 of Annex 6	Plastic bin (Set)	3 sizes	70	
62	Sl. No. 51 of Annex 2	Plastic bins	Assorted sizes	1 lot	
63	Sl. No. 50 of Annex 2	Shelving Unit		2	
64	Sl. No. 28 of Annex 1	Scrap bins	120 litres	2	
65	Sl. No. 48 of Annex 2	Scrap bins	120 litres	2	
66	Sl. No. 98 of Annex 5	Scrap bins	120 litres	4	
67	Sl. No. 88 of Annex 9	Scrap bins	120 litres	4	
Total F	.O.R Chennai Port Price in	Indian Rupees with seaworth	y packing		
Cost of	f inspection, trails & exte	nded international warranty (	@ 6% + applicable (	GST of F	OR Chennai port
price					

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we	possess the necessary	License from the	Government of	f India/State	Government for	r rendering th	ne supplies /	services.
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Datad:		

**Total F.O.R Chennai Port Price in Indian Rupees** 

## Signature and seal of Authorized Signatory

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### The prices quoted should be most competitive



## **LOT - 18 Surface Table, Angle Plates**

1 SI. No 53 of Annex 6 Surface Table with stand 1000 x 1000 2 Granite make  2 SI. No 59 of Annex 6 Surface Table with stand 1000 x 1000 C 2 I make  3 SI. No 53 of Annex 5 Surface Table with stand 1000 x 1000 C 1 I make  4 SI. No 76 of Annex 7 Marking out Table with stand 1000 x 1000 C 2 I make  5 SI. No 65 of Annex 9 Surface Table with stand 1000 x 1000 C 1 I make  6 SI. No 77 of Annex 4 Surface Table with stand 1000 x 1000 C 1 I make  7 SI. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 150 mm  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 150 mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing	otal F.O.R. ennai Port rice in Ind. Rs.		Unit F.O.R. Chennai Port Price in Ind. Rs	Qty	Brief Specification	g up of Indo-Myanmar Industrial 7	Annex Ref.	SI. No
2 SI. No 59 of Annex 6 Surface Table with stand 1000 x 1000 C 1 I make  3 SI. No 53 of Annex 5 Surface Table with stand 1000 x 1000 C 1 I make  4 SI. No 76 of Annex 7 Marking out Table with stand 1000 x 1000 C 2 I make  5 SI. No 65 of Annex 9 Surface Table with stand 1000 x 1000 C 1 I make  6 SI. No 77 of Annex 4 Surface Table with stand 600 x 450 mm 1 C I make  7 SI. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				2		Surface Table with stand	Sl. No 53 of Annex 6	1
SI. No 53 of Annex 5 Surface Table with stand 1000 x 1000 C 1 I make  4 SI. No 76 of Annex 7 Marking out Table with stand 1000 x 1000 C 2 I make  5 SI. No 65 of Annex 9 Surface Table with stand 1000 x 1000 C 1 I make  6 SI. No 77 of Annex 4 Surface Table with stand 600 x 450 mm 1 C I make  7 SI. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing		Щ			Granite make			
3 Sl. No 53 of Annex 5 Surface Table with stand 1000 x 1000 C 1 I make  4 Sl. No 76 of Annex 7 Marking out Table with stand 1000 x 1000 C 2 I make  5 Sl. No 65 of Annex 9 Surface Table with stand 1000 x 1000 C 1 I make  6 Sl. No 77 of Annex 4 Surface Table with stand 600 x 450 mm 1 C I make  7 Sl. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 150 mm  8 Sl. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 150 mm  9 Sl. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				2	1000 x 1000 C	Surface Table with stand	Sl. No 59 of Annex 6	2
I make  4 SI. No 76 of Annex 7 Marking out Table with stand  5 SI. No 65 of Annex 9 Surface Table with stand  6 SI. No 77 of Annex 4 Surface Table with stand  7 SI. No 78 of Annex 4 Cast Iron Angle plate with T Slow mm  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T Slow mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T Slow mm  1 Slow mm  2 Slow 200 x Slow 200					I make			
4 SI. No 76 of Annex 7 Marking out Table with stand 1000 x 1000 C 1 I make  5 SI. No 65 of Annex 9 Surface Table with stand 1000 x 1000 C 1 I make  6 SI. No 77 of Annex 4 Surface Table with stand 600 x 450 mm 1 C I make  7 SI. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 150 mm  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 150 mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 2 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				1		Surface Table with stand	SI. No 53 of Annex 5	3
SI. No 65 of Annex 9 Surface Table with stand  6 SI. No 77 of Annex 4 Surface Table with stand  6 SI. No 78 of Annex 4 Cast Iron Angle plate with T slots  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T slots  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T slots  150 mm  7 SI. No 88 of Annex 6 Cast Iron Angle plate with T slots  150 mm  1 CI make 2 250 x 200 x 2 150 mm 2 250 x 200 x 2 150 mm 2 250 x 200 x 3 150 mm 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		+		2		Marking out Table with stand	SI No 76 of Anney 7	1
5 SI. No 65 of Annex 9 Surface Table with stand 1000 x 1000 C I make 6 SI. No 77 of Annex 4 Surface Table with stand 600 x 450 mm C I make 7 SI. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 150 mm 8 SI. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 150 mm 9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				_		Widi King out Table with Stand	JI. NO 70 OF AIRTEX 7	4
6 Sl. No 77 of Annex 4 Surface Table with stand 600 x 450 mm C I make 7 Sl. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 150 mm 8 Sl. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm 9 Sl. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing		1		1	ļ	Surface Table with stand	Sl. No 65 of Annex 9	5
7 SI. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 150 mm  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 2 slots 150 mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing					I make			
7 Sl. No 78 of Annex 4 Cast Iron Angle plate with T 250 x 200 x 150 mm  8 Sl. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 150 mm  9 Sl. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				1	600 x 450 mm	Surface Table with stand	Sl. No 77 of Annex 4	6
slots 150 mm  8 SI. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 150 mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 2 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing					C I make			
Slots 150 mm  8 Sl. No 40 of Annex 5 Cast Iron Angle plate with T 250 x 200 x 150 mm  9 Sl. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 2 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				2	250 x 200 x	Cast Iron Angle plate with T	Sl. No 78 of Annex 4	7
slots 150 mm  9 SI. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing					150 mm			
9 Sl. No 88 of Annex 6 Cast Iron Angle plate with T 250 x 200 x 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				2	250 x 200 x	Cast Iron Angle plate with T	Sl. No 40 of Annex 5	8
Slots 150 mm  Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing					150 mm			
Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing				2	250 x 200 x	Cast Iron Angle plate with T	Sl. No 88 of Annex 6	9
					150 mm	slots		
		T	•	•	packing	in Indian Rupees with seaworthy	O.R Chennai Port Price i	Total F.
Cost of inspection, trails & extended international warranty @ 6% + applicable GST of FOR Chennai port price		1	OR Chennai port	GST of F	-			Cost of

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:
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Signature and seal of Authorized Signatory

### NOTE

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The prices quoted should be most competitive



## LOT - 19 Misc. Measuring Instruments

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 58 of Annex 5	Feeler Gauge Rolls (mts)	0.03mm & 0.05 mm	6		
2	Sl. No 48 of Annex 6	Feeler Gauge Rolls (mts)	0.03mm & 0.05 mm	6		
3	Sl. No 119 of Annex 4	Feeler gauge	0.05 mm- 1 mm	1		
4	Sl. No 57 of Annex 6	Moarse Taper gauge - Set of Plug and ring type	MT1, MT2, MT3	2		
5	Sl. No 71 of Annex 5	Morse Taper Gauge- Plug and Ring type	MT1, MT2,MT3	1		
6	Sl. No 61 of Annex 5	Plug Gauge Set	Inch and Metric assorted	1 lot		
7	SI. No 50 of Annex 6	Plug gauge-set	Inch and Metric Assorted sizes	1 lot		
8	Sl. No 64 of Annex 9	Protractor & combination square set		2		
9	Sl. No 52 of Annex 6	Radius gauge- set	1-7 mm & 7.5 – 15 mm	1		
10	Sl. No 62 of Annex 5	Radius Gauge Sets	1-7 mm & 7.5 – 15 mm	1		
11	Sl. No 62 of Annex 9	Radius gauges	0.4 - 13 mm range	6		
12	SI. No 60 of Annex 5	Ring Gauge Set	Inch and Metric assorted	1 lot		
13	Sl. No 97 of Annex 5	Sine Bar	150mm	1		
14	Sl. No 55 of Annex 6	Sine bar	150 mm	1		
15	Sl. No 59 of Annex 5	Thread Pitch Gauge	0.5mm -6mm metric 60 deg	2		
16	Sl. No 64 of Annex 5	Thread Plug & Ring Gauge Set		1 lot		
17	Sl. No 49 of Annex 6	Thread Plug & Ring Gauge Set		1 lot		
18	Sl. No 64 of Annex 8	Wire Gauge		8		
19	Sl. No 63 of Annex 9	Wire Gauge	Rectangular	6		
20	Sl. No 120 of Annex 4	Wire Gauge metric and with worth		1		
Total F.	O.R Chennai Port Price	in Indian Rupees with seaworthy	packing			
		tended international warranty @	<u> </u>	GST of F	OR Chennai port	

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We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:	
--------	--

Signature and seal of Authorized Signatory

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The prices quoted should be most competitive

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## **LOT - 20 Work Benches**

	Project: Settin	g up of Indo-Myanmar Indu	strial Training Centre (IN	ЛІТС), М	onywa, Myanmar.	
Sl. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 14 of Annex 1	Work benches	5' x 3' twin station with vice	8		
2	Sl. No 146 of Annex 4	Work benches	5' x 3' twin station with vice	4		
3	Sl. No 10 of Annex 5	Work benches	5' x 3' twin station with vice	8		
4	Sl. No 91 of Annex 6	Work benches	5' x 3' twin station with vice	8		
5	Sl. No 57 of Annex 7	Work benches	5' x 3' twin station with vice	4		
6	Sl. No 30 of Annex 9	Work benches	5' x 3' twin station with vice	6		
7	SI. No 25 of Annex 8	Work benches	Electrical Twin station	6		
		n Indian Rupees with seaw				
Cost of price	inspection, trails & ext	ended international warra	nty @ 6% + applicable	GST of F	OR Chennai port	
Total F	.O.R Chennai Port Price i	n Indian Rupees				

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Datas	١.		
Dated		 	 

## Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



## LOT - 21 Pallet Roll, Pallet Trucks, Pallet Crane

	Project: Setting	g up of Indo-Myanmar Industrial	Training Centre (IN	лтс), M	onywa, Myanmar.		
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.	
1	Sl. No 197 of Annex 4	Pallet Roll	2500 kgs	2			
2	Sl. No 99 of Annex 5	Pallet Roll	2500 kgs	2			
3	Sl. No 94 of Annex 6	Pallet Roll	2500 kgs	2			
4	Sl. No 95 of Annex 6	Pallet Truck	2500 kgs	1			
5	Sl. No 51 of Annex 7	Pallet Roll	2500 kgs	2			
6	Sl. No 27 of Annex 9	Pallet Roll	2500 kgs	1			
7	Sl. No 100 of Annex 5	Pallet Crane	3000 kgs	1			
8	Sl. No 96 of Annex 6	Pallet Crane	3000 kgs	1			
Total F.	O.R Chennai Port Price i	n Indian Rupees with seaworthy	packing		_		
price	Cost of inspection, trails & extended international warranty @ 6% + applicable GST of FOR Chennai port						
Total F.	O.R Chennai Port Price i	n Indian Rupees					

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

<b>D</b> .	
Dated	

Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



## LOT - 22 Mechatronics Equipment

	T - 22 Mechatronics Ed Project: Setti	ng up of Indo-Myanmar Indus	trial Training Centre (IM	/ITC), M	onywa, Myanmar.	
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	SI. No 1 of Annex 1 Mechatronics	PLC Trainer Kit	PLC Trainer Kit including Static & Dynamic Modules	1		
2	Sl. No 2 of Annex 1 Mechatronics	Digital Sensor Module		1		
3	Sl. No 3 of Annex 1 Mechatronics	Analog Sensor Module		1		
4	SI. No 4 of Annex 1 Mechatronics	Dynamic Module	With Sensor Module and Relay Module	1		
5	SI. No 5 of Annex 1 Mechatronics	Linear Transfer System	Complete workstation mounted on a aluminum profile plate with operating console, consisting of: Belt conveyor, Linear pick & place unit, Horizontal transfer unit, Transfer Module (Rotary Pick & Place Unit), 6 Station Rotary Carousal Table, Drilling module.	1		
6	SI. No 6 of Annex 1 Mechatronics	Six Axis Robot	Articulated ROBOT - PC Controlled 6 Axis with pedestal base, 2.5 Kgs Payload capacity, Pneumatic Gripper, Robot Controller, Windows 98 based Robot Controlling software.	1		

7	Sl. No 7 of Annex 1	Robot Application	With	1				
	Mechatronics	Experimental Kit	experiment					
			table,					
			Pneumatic					
			chuck,					
			Pneumatic vice,					
			Pick & Place-					
			Vertical					
			stacking &					
			Horizontal					
			Palletizing,					
			assembly &					
			dismantling,					
			Gluing					
			_					
			experiment kit,					
			Testing bank of					
			push button					
			switches,					
			Painting kit					
8	Sl. No 8 of Annex 1	Integration of ROBOT with	4 Axis Assembly	1				
	Mechatronics	Automation	Robotic ARM					
			with Pallet &					
			Robot					
			Controller					
			Software,					
			Weighing &					
			Palletizing					
			System With					
			integration of					
			Robot with					
			Complete					
			Workstation					
			Mounted on a					
			Aluminium					
			Profile Plate,					
			Belt Conveyor,					
			Rotary Pick &					
			Place					
			Manipulator,					
			Weighing					
			Module and PLC					
9	Sl. No 10 of Annex	Mechatronics Software	For Basic	1 Lot				
	1 Mechatronics		Simulation					
			FOR Advanced					
			simulation					
			Robotic					
			Simulation					
Total E	O R Chennai Port Price	in Indian Rupees with seawort						
		tended international warranty		ST of F	OR Chennai nort			
price	mopection, trails & ex	tended international warranty	© 0/0 i applicable (	UI F	on chemiai puit			
-	O.R Chennai Port Price	in Indian Runees						
Total F.O.R Chennai Port Price in Indian Rupees  Cost towards Installation, commissioning and training the customer's personnel in operation and								
maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free								
		odation, local transport and r		_	-			
		to site in Myanmar. To & fro	-	_	_			
	idental expenses to be		and c, boarding exp	JC113C3,	avc. mourance			
		iding I & C in Indian Rupees (in	words):					
- Total	cost of equipment inclu							



### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required	Cost per man day (In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:....

Signature and seal of Authorized Signatory

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# **LOT - 23 Apparel Manufacturing Equipment**

Sl. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl No. 1 of Annex 2	Lock Stitch Machine	Motorised	20		
2	SI No. 2 of Annex 2	Lock Stitch machine with UBT	Motorised	1		
3	SI No. 3 of Annex 2	Button Hole Stitching Machine	Electronic	1		
4	SI No. 4 of Annex 2	Button Stitching machine	Single needle lockstitch machine	1		
5	Sl No. 5 of Annex 2	Front Flacket Machine	Motorised	1		
6	SI No. 6 of Annex 2	Cutting Machine	Motorised	1		
7	SI No. 7 of Annex 2	Over Locking machine	2 needle 5 thread overlock machine	1		
8	SI No. 8 of Annex 2	Over Locking machine	1 needle 3 thread overlock machine	1		
9	SI No. 9 of Annex 2	Zig Zag Stitching machine	1 needle lock stitch machine	1		
10	SI No. 10 of Annex 2	Iron Box	Vacuum based with steam generator	1		
11	SI No. 13 of Annex 2	Work Aids	Basic yoke attach folder, hemming folder, placket folder etc.	1 Lot		
12	SI No. 17 of Annex 2	Linen Tape	2 meters	20		
13	SI No. 18 of Annex 2	Scissors	Assorted size	20 Sets		
14	SI No. 19 of Annex 2	Needles	Assorted size	20 Sets		
15	SI No. 20 of Annex 2	Fabric Cutting Aids	Assorted size	20 Sets		
16	SI No. 21 of Annex 2	Buttons/Hooks/Pins etc.	Assorted size	20 Sets		
17	SI No. 23 of Annex 2	Scissors	Brass handle 25 cms	20		
18	SI No. 24 of Annex 2	Tailor's Square	Material: Wooden / Plastic Size: 300 mm x 600 mm	20		
19	SI No. 25 of Annex 2	Leg Shaper	Material: Wooden / Plastic Size: 24"	20		
20	SI No. 26 of Annex 2	Cloth Brush	Wooden handle 3" bristles 5"	20		
21	SI No. 27 of Annex 2	Tracing Wheel	Wooden handle with iron wheel 3"	1		

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22	SI No. 28 of Annex 2		Material:	20		
		Measuring Tape	Rubberised Linen			
			Size: 150 cms			
23	Sl No. 29 of Annex 2	Coope Diamon	Size: 3" Plasti	20		
		Seam Ripper	handle			
24	SI No. 30 of Annex 2	Timeble	Size: 1.5 cms	20		
		Timble	open type steel			
25	Sl No. 31 of Annex 2	Tailor's card triangle	Size: 60 cm length	20		
		Tailor's card triangle	(Card scale)			
26	SI No. 32 of Annex 2		Material:	20		
		Tailors art curve	Wooden / Plastic			
			Size: 30 x 60 cm			
27	SI No. 33 of Annex 2		Material: Plastic	20		
		French Curve	Size: 6" to 8" set			
			of 3			
28	Sl No. 34 of Annex 2	Button Holo Scissors	Material: Steel	5		
		Button Hole Scissors	Size: 4"			
29	Sl No. 35 of Annex 2	Dinking Science	Material: Steel	5		
		Pinking Scissors	Size: 8"			
30	SI No. 36 of Annex 2	Laft hand saissans	Material: Steel	4		
		Left hand scissors	Size: 25 cm			
31	Sl No. 37 of Annex 2		Brass handle 10"	2		
		Shear	to 12", Size: 30			
			cm			
32	SI No. 38 of Annex 2	Gum tape dispenser	For office use	1		
33	SI No. 39 of Annex 2	Rubber Mat	Size: 300 x 1250 x	4		
		Rubber Mat	25 mm			
34	SI No. 40 of Annex 2	Garment Sprayer	Material: Plastic,	4		
		Garment Sprayer	Size: 6"			
35	Sl No. 41 of Annex 2	Blanket of size 5" x 8" for	Size: 5' x 8'	4		
		padding as pressing table	312E. 3 X 8			
36	SI No. 42 of Annex 2		Size: 2 meters	8		
		Milton cloth double width	Colour: Brown /			
			Green			
37	SI No. 53 of Annex 2	Consumable material	Stainless steel	10		
			mesh left hand	nos		
			glove			
Total F.	O.R Chennai Port Price	in Indian Rupees with seawo	rthy packing			
Cost of	inspection, trails & ex	tended international warrant	y @ 6% + applicable (	GST of F	OR Chennai port	
price						
Total F.	O.R Chennai Port Price	in Indian Rupees				
Cost to	owards Installation, c	ommissioning and training	the customer's perso	nnel in	operation and	
mainte	nance for above equip	pment at project site in Mya	nmar. (HMT(I) shall a	arrange	to provide, free	
		nodation, local transport and	-	_	_	
	•	to site in Myanmar. To & fro	Airfare, Boarding exp	penses,	Travel Insurance	
	•	borne by the supplier)				
*Total	cost of equipment inclu	ıding I & C in Indian Rupees (i	n words):			

## \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.



Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required	Cost per man day (In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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Dated:	
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Signature and seal of Authorized Signatory

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The prices quoted should be most competitive



# **LOT - 24 Refrigeration & Air Coditioning Trainers**

Sl. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Por Price in Ind Rs.	
1	SI No 1 of Annex 4	Refrigeration Test Rig	Trainer	1			
2	SI No 2 of Annex 4	Walking Cooler Capacity 3000Kcal/hr		1			
3	SI No 4 of Annex 4	Cut section model: Open, Set of 3 Semi-sealed and sealed compressor		1			
4	SI No 5 of Annex 4	Heat Exchanger Shell & Tube Type		1			
5	SI No 6 of Annex 4	Heat Exchanger tube in tube type		1			
6	SI No 7 of Annex 4	Refrigeration tutor		1			
7	SI No 8 of Annex 4	Package air conditioner		1			
8	SI No 9 of Annex 4	Automobile Air Conditioner		1			
9	SI No 10 of Annex 4	Split type Air Conditioner		1			
10	SI No 11 of Annex 4	Air conditioner		1			
11	SI No 12 of Annex 4	Room Air Conditioner		1			
12	SI No 123 of Annex 4	Evacuating & Refrigerant charge comprising  a) Rotary two stage vacuum p	1				
		(With gas ballast & anti such back) Manifold with gauges valves and capable of pulling vacuum upto 50 microns of Hg and with provision of connecting to a mic b) Graduated charging cylinder with provisions					
		for temperature correction and all necessary isolating valves. II. Evacuating & charging station as above but fitted with weighing scale (upto 2 Kg in lieu of (b) above and with					
13	SI No 125 of Annex 4	accuracy of +/-1 gram for c  Two stage rotary vacuum pump of capacity approx 60-100 1pm capable of evacuating to 50 microns of Hg and fitted with gas ballast anti suck					
14	SI No 136 of Annex	valve and single phase motor. Window air conditioning	Capacity 3000	1			
15	SI No 140 of Annex 4	Ice Candy unit complete with stainless steel tank mould box thermocole insulated sun mica body agitator compressor motor etc. Temperature pressure refrigerant control gauges motor pipe fitting etc. 3000 K.Cal/hr or working model simulator.					
16	SI No 141 of Annex 4	Air conditioning plant direct and indirect water chiller complete with all controls etc. Capacity 15000 K. cal/hr or working trainer model/simulator, Alternatively a packaged Air conditioner of similar					
17	SI No 142 of Annex 4	Condensing unit with open type compressor air cooled evaporator condenser controls etc.	Capacity 3000 K. cal/hr	1			

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18	Sl No 143 of Annex	Condensing unit with open	Capacity 3000	1			
	4	type compressor evaporator	K.cal/hr				
		condenser controls etc					
Total F	.O.R Chennai Port Price	e in Indian Rupees with seawort	hy packing				
Cost of	f inspection, trails & ex	xtended international warranty	@ 6% + applicable	GST of F	OR Chennai port		
price							
Total F.O.R Chennai Port Price in Indian Rupees							
Cost t	owards Installation, o	commissioning and training th	e customer's per	sonnel in	operation and		
mainte	nance for above equi	ipment at project site in Myan	mar. (HMT(I) shall	arrange	to provide, free		
		nodation, local transport and r		_	=		
Techni	Travel Insurance						
and inc	cidental expenses to be	e borne by the supplier)					
*Total cost of equipment including I & C in Indian Rupees (in words):							

### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required	Cost per man day (In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:	
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Signature and seal of Authorized Signatory

### NOTE

- 1. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
- 2. No erasures or alternations in the text of the offer are permitted.
- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.

The prices quoted should be most competitive



## **LOT - 25 Heat Treatment Equipment**

SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	SI. No 66 of Encl 6	Hardening furnace		1		
2	SI. No 67 of Encl 6	Tempering furnace		1		
3	Sl. No 68 of Encl 6	Quenching tank	600 x 600 x 600 mm	1		
4	Sl. No 28 of Encl 9	Electrode Heating Chamber		1		
Total F	.O.R Chennai Port Pric	e in Indian Rupees with seaworth	y packing			
Cost of price	inspection, trails & e	xtended international warranty (	@ 6% + applicable	GST of F	OR Chennai port	
Total F	.O.R Chennai Port Pric	e in Indian Rupees				
mainte furnish Technic	nance for above equ ed bachelor's accomi cal Personnel deputed	commissioning and training the ipment at project site in Myann modation, local transport and not to site in Myanmar. To & fro A borne by the supplier)	nar. (HMT(I) shall ecessary assistance	arrange in gett	to provide, free ing VISA for the	

## \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days	Cost per man day
		required	(In Rs.)

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

Signature and seal of Authorized Signatory

#### NOTE

- 5. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
- 6. No erasures or alternations in the text of the offer are permitted.
- 7. Any correction made in offer shall be initialed by the Bidder.
- 8. VALUES should be both in figures and Words.

The prices quoted should be most competitive



# LOT - 26 Ref & A/c equipment

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.						
SI. No	Annex Ref.	ITEM		Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl. No 157 of Annex 4	134A Refrig erant in cylind ers with valves	FLORON Brand 134A gas (Tetra Flouro Ethane) in 10kg company sealed cylinder. Dupont Brand 134A can 340 gms	Capacity - 10 Kg - 1 No. with test Certificate 340 gr. Disposable refrigerant Cans (Dupont / Floron) - 2 NO.s	2		
2	SI. No 192 of Annex 4	Accessories thormostatic expansion valve distributors, driers, (pencil solid core type etc.) accumulator s, receivers, bellows type thermostat, HP Stat & LP Stat humidi stat, solenoid valves	DANFOSS make , Orifice No:3, R-22, Model: TX 2 Dryall / Denyo Make  MB Make( for 134A gas)10grams, 15grams, 25grams Annapurna Make Danfoss make KP5 Model  Danfoss make KP1 Model  Danfoss make KP1 Model  Temptec thermo hygrometer clock	Thermostatic Expansion Valve with separating orifice (Removable Orifice) Danfosss Make; 5 Ton Capacity. Distributor(Refrigi rant for 5 Ton) Drier: (Core type) for 5 Ton cap Accumulator:5 Ton capacity Liquid Reciever: 5 Ton cap Pencil type Drier; Bellow type Thermostat HP Cutout: Danfoss make LP Cutout: Danfoss make LP Cutout (combined) with manual restart - Danfoss make Humidystat: Reputed make Solenoid Valve: 1/4" size	1		
3	SI. No 180 of Annex	Acid test kit		With acid resistant centrifugal pump 1/2 HP capacity	1		

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4	Sl. No 127 of Annex	Air	Max Pr.		1		
	4	Compressor	10Kg/ sq.cm				
	-	1					
		two stage for	cap 45 Litre				
		oil less dry	motor 1 HP				
		air with rust					
		proof tank					
		· ·					
		assemble					
		heater and					
		control					
5	Sl. No 126 of Annex	Anemometer	Vane type	Reputed make	1		
	4		, ,				
	Sl. No 186 of Annex	Dell Melice	4 /411 +- 7 /011	Danishad made	2		
6		Ball Valves	1/4" to 7/8"	Reputed make	2		
	4	service	Bava make				
		valves hand	hand shut off				
		shut valves	valve,				
			service valve				
			Threads				
			protected				
7	Sl. No 16 of Annex 4	Bending	External type		4		
		spring	for copper				
			tube 3 to 6				
			mm. Dia				
8	Sl. No 137 of Annex	Bottle Cooler	110 litre 1/6	Voltas/Bluestar/C	1		
0		שטננופ כטטופו			1		
	4		HP	arrier make			
9	Sl. No 28 of Annex 4	Box spanner	6.4 to 10 mm		2		
10	SI. No 183 of Annex	Brazing alloy	Copper	Cu - Cu: Cu alloy	1		
	4	rods for 1/4"	Brazing rod	rod 2kg, 1/8" size			
	-	to 7/8" tubes	Bruzing rou	CU – Steel: Silver			
			6.1				
		Cu to cu, Cu	Silver rod	43% rod; 100 gr;			
		to steel, Cu	Brass rod	1.2mm dia			
		to brass and		Cu - Brass: Brass-			
		appropriate		Ni rod 1/4kg;			
		fluxes		3mm dia			
11	Sl. No 21 of Annex 4			Jiiiii ala	2		
11	Si. NO 21 Of Affilex 4	Capillary			2		
		plug gauge					
12	Sl. No 175 of Annex	Circulating	1/2 HP	Monoblock 1 Ph,	1		
	4	water pump	Capacity	230V 50Hz,			
		(SMALL)		Reputed make			
13	Sl. No 171 of Annex	Components	a) Wobble		1		
13	4	of Car AC			_		
	7		I =				
		systems.	compressor				
			with				
			mounting				
			brackets. b)				
			Serpentine				
			evaporator.				
			c) Parallel				
			flow				
			condenser.				
			d) Hoses,				
			tubes,				
			receive,				
			expansion				
			valve. e)				
			Electrical				
			components				
			& wiring				
			harness				
	1	<u> </u>	HUHHEJJ			l	

						rent
15	SI. No 37 of Annex 4  SI. No 188 of Annex	Compound gauge diameter 63 mm with recalibration set screw scale vacuum 76 mm pressure 15 Kg/Sq.cm	Electrical	Airmaster make with SS Body (-)30 to 150 PSI - 2 NO.s 0-300 PSI 2nos (Glycerene/Oil filled 1 No. each)	1	
	4	tester for small hermetic compressor	panel with voltmeter,a mmeter,rela ys and capacitor, MCB etc.	Reputed make	1	
16	SI. No 3 of Annex 4	Condensing Unit with hermetic compressor	Cap.500 Kcal/hr		1	
17	SI. No 135 of Annex 4	Deep freezer	165 Litre (- )18 Deg C1/4 HP	Voltas/Bluestar make	1	
18	SI. No 129 of Annex 4	Descaling pump set	stainless steel impeller and housing complete with motor 1 HP and accessories.	Reputed make	1	
19	SI. No 124 of Annex 4	Dial thermomete r remote controls armoured capillary dial 75 mm-50		Reputed make	2	
20	SI. No 165 of Annex 4	Dry N2 in cylinder with 2 stage regulator or commercial N2 in cylinder with drier unit and 2 stage regulator	Standard capacity - ISI standard	with Cylinder	1	

		,	,			
22	SI. No 193 of Annex 4  SI. No 190 of Annex 4	Electrical accessories current & potential relays start & run capacitors, PTC,s overload protector relays contractor. Evaporator of direct cooled refrigerator	1 T capacity finned type evaporator	1 Ph, 230V, 50Hz, AC - Reputed make	1	
		with capillary heat exchanger				
23	SI. No 191 of Annex 4	Evaporator of Frost free refrigerator	200 -300litre capacity		1	
24	SI. No 173 of Annex 4	Fan coil unit with water valves	(2 &3 way)	3 T capacity	1	
25	SI. No 169 of Annex 4	Filter driers for CFC-12 & HFC-134 A for repairs retrofits	3/8" size	Dryall make	8	
26	Sl. No 155 of Annex 4	Fin straightener / Fin comb			42	
27	Sl. No 163 of Annex 4	Fire Extinguisher powder type	5kg		2	
28	13 of Annex 4	Flaring tool set with Swedging	Single for tube 4.7 to 16 mm OD	Rothenberger Make	4	
29	SI. No 168 of Annex 4	Four way manifold with gauges		Rothenberger make	1	
30	SI. No 40 of Annex 4	Gas leak detector for halogen gas	Gas leak detector using halogen gas	Rothenberger make; 3gr/annum capacity	1	
31	Sl. No 156 of Annex 4	HC refrigerant in cylinder/ disposable containers	Dupont 134a , 340 gms	Or Reputed Make	2	
32	Sl. No 132 of Annex 4	Heating Kit with infra red bulb	150 watt capacity		1	
33	SI. No 189 of Annex	Hermetic compressor	1.5 Ton	Tecumseh make	1	

34   Sl. No 185 of Annex   i) Hermetic compressor   He/approx) for use in repair work of appliances for CFCs and HFCS   1.5 to 6.4mm   1.5 to 6.4mm   2   1.5 to 6.4mm   3   3   3   3   3   3   3   3   3	4 Compressor For CFCs and HP(approx) for use in repair work of appliances for CFCs and HFCs  35 SI. No 185 of Annex ii) Hermetic compressor Gr CFCs and HFCs  36 SI. No 44 of Annex 4 L-Allen Key set size  37 SI. No 41 of Annex 4 Lapping plate  38 SI. No 153 of Annex Micron Capable of vacuum gauge of vacuum refrigerator and span of the capacity using HC capacity using HC refrigerator for 180 litre capacity using HC refrigerator with with access fittings  40 SI. No 23 of Annex 4 Pinch off plier / crimping dia  41 SI. No 184 of Annex Plinch off plier / crimping of the component of the component of the component of the component of the capacity using and inclined tube manometer acrylic scale.	4 Compressor for use in repair work of appliances for CFCs and HFCs  35 SI. No 185 of Annex iii) Hermetic compressor  36 SI. No 14 of Annex 4 L-Allen Key set size  37 SI. No 14 of Annex 4 Lapping plate  38 SI. No 153 of Annex Micron vacuum gauge  39 SI. No 162 of Annex No frost freigerator 300 litre capacity using HC refrigerator 300 litre for 18 mm & Piercing piler 6-18 mm & Piercing piler 6-18 mm & Piercing piler 6-18 mm & Piercing piler for shirtings  41 SI. No 184 of Annex A Pilot tube & inclined tube manometer inclined tube manometer with fittings and inclined tube manometer. Transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off piler / crimping piler tool	4 compressor HP(2pprox) for use in repair work of appliances for CFCs and HFCS.  35 SI, No 185 of Annex II) Hermetic Compressor and HFCS.  36 SI, No 44 of Annex A Lapping plate SI, No 153 of Annex A Lapping plate and the compressor and the c			7				
for use in repair work of appliances for CFCs and HFCs  35 SI. No 185 of Annex   ii) Hermetic compressor   For 134A   Tecumseh make   3     36 SI. No 44 of Annex 4   L-Allen   Key set size     37 SI. No 141 of Annex 4   Lapping plate     38 SI. No 153 of Annex 4   Micron vacuum gauge   250x200mm   2     39 SI. No 162 of Annex 4   No frost refrigerator 300 litre capacity using HC refrigerant   Capacity using HC	SI. No 185 of Annex   Iii)   Hermetic   For 134A   Compressor   SI. No 140 of Annex 4   L-Allen   Key set size   SI. No 153 of Annex 4   Lapping plate   SI. No 153 of Annex 4   Micron vacuum gauge   20 microns   SI. No 162 of Annex 4   Micron vacuum gauge   20 microns   SI. No 162 of Annex 4   Piercing plier 6-18 mm & Piercing gavies both with access fittings   SI. No 184 of Annex 4   Piercing plier findlined tube manometer   SI. No 184 of Annex 4   Piercing plier filtings and inclined tube manometer   SI. No 22 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 22 of Annex 4   Piercing formanometer   SI. No 32 of Annex 4   Piercing formanometer	for use in repair, work of appliances for CFCs and HFCS.  35 SI. No 185 of Annex ii) Hermetic FOR 134A Tecumseh make 3 Compressor 4 Com	for use in repair work of appliances for CFCs and HFCS.  35 SI. No 185 of Annex II) Hermetic Compressor (A 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	34	Sl. No 185 of Annex	i) Hermetic	1/8 to 1/2	Tecumseh make		
for use in repair work of appliances for CFCs and HFCs  35 SI. No 185 of Annex   ii) Hermetic compressor   For 134A   Tecumseh make   3     36 SI. No 44 of Annex 4   L-Allen   Key set size     37 SI. No 141 of Annex 4   Lapping plate     38 SI. No 153 of Annex 4   Micron vacuum gauge   250x200mm   2     39 SI. No 162 of Annex 4   No frost refrigerator 300 litre capacity using HC refrigerant   Capacity using HC	SI. No 185 of Annex   Iii)   Hermetic   For 134A   Compressor   SI. No 140 of Annex 4   L-Allen   Key set size   SI. No 153 of Annex 4   Lapping plate   SI. No 153 of Annex 4   Micron vacuum gauge   20 microns   SI. No 162 of Annex 4   Micron vacuum gauge   20 microns   SI. No 162 of Annex 4   Piercing plier 6-18 mm & Piercing gavies both with access fittings   SI. No 184 of Annex 4   Piercing plier filtings and inclined tube manometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing plier formanometer   SI. No 184 of Annex 4   Piercing formanometer   SI. No 185 of Annex 4   Pierci	for use in repair, work of appliances for CFCs and HFCS.  35 SI. No 185 of Annex ii) Hermetic FOR 134A Tecumseh make 3 Compressor 4 Com	for use in repair work of appliances for CFCs and HFCS.  35 SI. No 185 of Annex II) Hermetic Compressor (A 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		4	compressor	HP(approx)			
repair work of appliances for CFCs and HFCs  35 SI. No 185 of Annex   ii) Hermetic compressor   4   1.5 to 6.4mm   4   1.5 to 6.4mm   4   1.5 to 6.4mm   1.5 to 6.4mm   2   2   1.5 to 6.	repair work of appliances for CFCs and HFCs  35 SI. No 185 of Annex 4 Compressor  36 SI. No 44 of Annex 4 L-Allen Key set size  37 SI. No 41 of Annex 4 Lapping plate  38 SI. No 153 of Annex 4 Lapping plate  39 SI. No 162 of Annex No frost refrigerator agauge  30 Itre capacity using HC refrigerant Plercing plier 6-18 mm & Piercing walves both with access fittings  41 SI. No 184 of Annex A Pinch off plier / crimping plier tool  42 SI. No 22 of Annex A Pinch off plier / crimping plier tool  42 SI. No 22 of Annex A Pinch off plier / crimping plier tool	repair work of appliances for CFCs and Higher	repair work of appliances for CFCs and MFCS.  35 SI. No 185 of Annex II) Hermetta Compressor A A Compressor SI SI. No 41 of Annex A Liapping plate 250x200mm 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		•					
of appliances for CFCs and HFCS  35 SI. No 185 of Annex iii) Hermetic compressor  36 SI. No 44 of Annex 4 L-Allen Key set size  37 SI. No 41 of Annex 4 Lapping plate  38 SI. No 153 of Annex 4 Micron vacuum plate  39 SI. No 162 of Annex 4 Pinch off plier / crimping plier tool  40 SI. No 23 of Annex 4 Pinch off plier / crimping plier tool  40 SI. No 123 of Annex 4 Pinch off plier / crimping plier tool  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	of appliances for CFCs and HFCs  35 SI. No 185 of Annex 2 ii) Hermetic compressor  36 SI. No 44 of Annex 4 L-Allen Key set size  37 SI. No 41 of Annex 4 Lapling plate  38 SI. No 153 of Annex 4 Micron vacuum gauge 20 microns  39 SI. No 162 of Annex 4 Pinch off plier / crimping plier tool  40 SI. No 23 of Annex 4 Pinch off plier / crimping plier tool  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  51 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  52 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	of appliances for CFCs and HFCs  35 SI. No 185 of Annex II) Hermetic Compressor  4 Lallen Key SI. SI. No 44 of Annex 4 Lallen Key SI. No 153 of Annex 4 Lapping John Capable of reading upto 20 microns  38 SI. No 153 of Annex A Lapping John Capable of reading upto 20 microns  39 SI. No 162 of Annex A Micron A SI. No 162 of Annex A Piper cing piler 6-18 mm & Piercing 6-18	Si. No 185 of Annex   1i)   Hermetic   1						_	
SI. No 185 of Annex   ii) Hermetic compressor   for 134A   Tecumseh make   3	SI. No 185 of Annex   ii) Hermetic compressor   For 134A   Compressor   A   A   A   A   A   A   A   A   A	Si. No 185 of Annex   1i) Hermetic   1compressor   1	Si. No 185 of Annex   ii)   Hermetic   Compressor				-		2	
SI. No 185 of Annex   ii) Hermetic compressor   for 134A   Tecumseh make   3	SI. No 185 of Annex   ii) Hermetic compressor   For 134A   Compressor   A   A   A   A   A   A   A   A   A	Si. No 185 of Annex   1i) Hermetic   1compressor   1	Si. No 185 of Annex   ii)   Hermetic   Compressor				of appliances			
HFCs   For 134A   Tecumseh make   3	HFCs   For 134A   Tecumseh make   3	HFCs	HFCs							
SI. No 185 of Annex   ii) Hermetic compressor   SI. No 44 of Annex 4   L-Allen Key set size	SI. No 185 of Annex   ii) Hermetic compressor   SI. No 44 of Annex 4   L-Allen   Key set size   Lapping plate   SI. No 133 of Annex 4   Lapping plate   SI. No 153 of Annex 4   Lapping plate   SI. No 153 of Annex 4   Lapping plate   SI. No 162 of Annex 4   Micron vacuum gauge   SI. No 162 of Annex 4   Micron vacuum gauge   SI. No 162 of Annex 4   Piercing gracity using HC refrigerator 300   litre capacity using HC refrigerator 4   AC refrigerator 4   SI. No 23 of Annex 4   Piercing plier 6-18 mm & Piercing valves both with access fittings   Pilot tube & inclined tube manometer   SI. No 184 of Annex 4   Pilot tube wind inclined tube manometer   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 22 of Annex 4   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   SI. No 23 of Annex 4   SI. No 24 of Annex 4   Pinch off plier / crimping plier tool   SI. No 25 of Annex 4   Pinch off plier / crimping plier tool   SI. No 25 of Annex 4   Pinch off plier / crimping plier tool   SI. No 25 of Annex 4   Pinch off plant of Annex 4   Pinch off p	35   Sl. No 185 of Annex   1i) Hermetic   For 134A   Tecumseh make   3	35   SI. No 185 of Annex   iii) Hermetic Compressor   C							
SI. No 44 of Annex 4   L-Allen   Key set size	SI. No 140 of Annex 4   L-Allen   Key set size	4   Compressor   1.5 to 6.4mm   4   1.5 to 6.4mm   4   1.5 to 6.4mm   2   1.5 to 6.4mm	36   Si. No 44 of Annex 4   L-Allen   Key   1.5 to 6.4mm   4	H						
SI. No 44 of Annex 4   L-Allen   Key set size   L-Allen   Key set size   Lapping plate   Lapping Lapping   Lapping Lapping   Lapping Lapping   Lapping Lapping   Lapping Lapping Lapping   Lapping Lapping Lapping   Lapping Lapping Lapping   Lapping Lapping Lapping   Lapping Lapping Lapping   Lapping Lapping Lapping   Lapping Lapping Lapping Lapping   Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lapping Lappi	36 SI. No 44 of Annex 4 L-Allen Key set size 1.5 to 6.4mm set size 2 2 2 2 2 2 2 2 3 2 3 3 2 3 2 3 2 3 2	36   Si. No 44 of Annex 4   L-Ailen   Key set size size set size	36   Si. No 44 of Annex 4   L-Ailen   Set size   set	35	SI. No 185 of Annex	ii) Hermetic	For 134A	Tecumseh make	3	
Set size	Set size   Lapping   250x200mm   2	SI. No 14 of Annex 4   Lapping plate   250x200mm   2   2	SI. No 14 of Annex 4   Lapping plate   250x200mm   2   2		4	compressor				
Set size	Set size   Lapping   250x200mm   2	SI. No 14 of Annex 4   Lapping plate   250x200mm   2   2	SI. No 14 of Annex 4   Lapping plate   250x200mm   2   2	36	Sl. No 44 of Annex 4	L-Allen Kev	1.5 to 6.4mm		4	
SI. No 153 of Annex 4   Lapping plate   Capable of vacuum gauge   250x200mm   2   2	SI. No 41 of Annex 4   Lapping plate   250x200mm   2   2   38   SI. No 153 of Annex 4   Micron vacuum gauge   20 microns   2   2   39   SI. No 162 of Annex 4   No frost refrigerator 300 litre capacity using HC refrigerant   AC   SI. No 23 of Annex 4   Piercing plier with access fittings   SI. No 184 of Annex 4   SI. No 184 of Annex 4   SI. No 184 of Annex 4   Piercing tube manometer   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   Common to the tube manometer   Common to the tube manometer transparent acrylic scale.   SI. No 22 of Annex 4   Pinch off plier / crimping plier tool   Capable of reading upto 20 microns	37 Sl. No 41 of Annex 4 Lapping plate  38 Sl. No 153 of Annex Micron vacuum gauge 20 microns Voltas/Bluestar/L 1 refrigerator 300 litre capacity using HC AC refrigerant Piercing plier 6-18 mm & Piercing plier 6-18 mm & Piercing valves both with access fittings  41 Sl. No 184 of Annex Pilot tube & inclined tube manometer with fittings and inclined tube manometer with fittings and inclined tube manometer, transparent acrylic scale.  42 Sl. No 22 of Annex Pilot off piler / crimping plier tool  43 Sl. No 19 of Annex Pilot off poiler / crimping plier tool  44 Sl. No 80 of Annex Pilot off tool for tube 6 to 18 mm dia  45 Sl. No 17 of Annex Pipe cutter With bult-in reamer and space cutter for copper fo	37   Sl. No 141 of Annex 4   Lapping plate   Capable of reading upto 20 microns   2   2   2   2   3   3   3   Sl. No 153 of Annex Micron vacuum gauge 20 microns   20 micron							
plate    SI. No 153 of Annex   Micron vacuum gauge   20 microns   20 m	SI. No 153 of Annex   Micron vacuum reading upto gauge   20 microns	SI. No 153 of Annex   Microm   Microm   August   Si. No 162 of Annex   Piercing   Value   Make   Si. No 184 of Annex   Piercing   Value   Make   August   Si. No 19 of Annex 4   Piercing   Piercing   Value	SI. No 153 of Annex   Micro   Macurum   Gauge   Capable   Of vacuum   Gauge   Capable   Of vacuum   Gauge   Capable   Of vacuum	27			250 200		_	
SI. No 153 of Annex   Micron vacuum gauge   SI. No 162 of Annex   A   SI. No 162 of Annex   A   SI. No 23 of Annex   A   SI. No 184 of Annex   A   SI. No 185 of Annex   A	SI. No 153 of Annex   Micron vacuum gauge   Si. No 162 of Annex   No frost refrigerator, 300 litre capacity using HC refrigerator   AC refrigerator   Si. No 23 of Annex 4   Piercing plier 6-18 mm & Piercing valves both with access fittings and inclined tube manometer   Manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.   Si. No 22 of Annex 4   Pinch off plier / crimping plier tool   Si. No 22 of Annex 4   Pinch off crimping plier tool   Si. No 22 of Annex 4   Pinch off crimping plier tool   Si. No 22 of Annex 4   Pinch off plier / crimping plier tool   Si. No 22 of Annex 4   Pinch off vacuum gauge   Si. No 22 of Annex 4   Pinch off vacuum gauge   Si. No 22 of Annex 4   Pinch off vacuum gauge   Si. No 22 of Annex 4   Pinch off vacuum gauge   Si. No 22 of Annex 4   Pinch off vacuum gauge   Si. No 22 of Annex 4   Pinch off vacuum gauge   Si. No 22 of Annex 4   Pinch off vacuum gauge   Voltas/Bluestar/L   Si. No 22 of Annex 4   Pinch off vacuum gauge   Voltas/Bluestar/L   Si. No 22 of Annex 4   Pinch off vacuum gauge   Voltas/Bluestar/L   Si. No 22 of Annex 4   Pinch off vacuum gauge   Voltas/Bluestar/L   Si. Make vacuum gi Make   Si. Ma	SI. No 153 of Annex   Micron   Capable of reading upto 20 microns	SI. No 153 of Annex   Micron   Capable   of reading upto gauge   SI. No 162 of Annex   No   frost	3/	SI. NO 41 Of Annex 4		250x200mm		2	
4 vacuum gauge reading upto 20 microns  SI. No 162 of Annex 4 refrigerator, 300 litre capacity using HC refrigerant Piercing plier 6-18 mm & Piercing valves both with access fittings and inclined tube manometer should be manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier for crimping plier tool  45 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  46 Voltas/Bluestar/L G/Samsung/Godr eig Make  Voltas/Bluestar/L 1 G/Samsung/Godr eig Make  Voltas/Bluestar/L G/Samsung/Godr	4 vacuum gauge reading upto 20 microns  SI. No 162 of Annex 4 refrigerator, 300 litre capacity using HC refrigerant Piercing pler 6-18 mm & Piercing valves both with access fittings and inclined tube manometer 4 line flittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pierch off plier / crimping plier tool	4 vacuum gauge 20 microns 20 microns 20 microns 4 SI. No 162 of Annex 4 Pinch off polier / crimging and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off polier / crimging polier tool  43 SI. No 19 of Annex 4 Pinch off tool SI. No 19 of Annex 4 Pipc bending tool  44 SI. No 80 of Annex 4 Pipc bending tool  45 SI. No 17 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 SI. No 18 of Annex 4 Pipc bending tool  48 SI. No 18 of Annex 4 Pipc cutter  49 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  41 SI. No 18 of Annex 4 Pipc cutter  42 SI. No 19 of Annex 4 Pipc bending tool  43 SI. No 19 of Annex 4 Pipc bending tool  44 SI. No 80 of Annex 4 Pipc bending tool  45 SI. No 17 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 SI. No 18 of Annex 4 Pipc cutter  48 SI. No 18 of Annex 4 Pipc cutter  49 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  41 SI. No 18 of Annex 4 Pipc cutter  42 SI. No 18 of Annex 4 Pipc cutter  43 SI. No 18 of Annex 4 Pipc cutter  44 SI. No 18 of Annex 4 Pipc cutter  45 SI. No 18 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 SI. No 18 of Annex 4 Pipc cutter  48 SI. No 18 of Annex 4 Pipc cutter  49 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  41 SI. No 18 of Annex 4 Pipc cutter  42 SI. No 18 of Annex 4 Pipc cutter  43 SI. No 18 of Annex 4 Pipc cutter  44 SI. No 18 of Annex 4 Pipc cutter  45 SI. No 18 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 SI. No 18 of Annex 4 Pipc cutter  48 SI. No 19 of Annex 4 Pipc cutter  49 SI. No 19 of Annex 4 Pipc cutter  40 SI. No 19 of Annex 4 Pipc cutter  40 SI. No 19 of Annex 4 Pipc cutter  40 SI. No 19 of Annex 4 Pipc cutter  40 SI. No 19 of Annex 4 Pipc cutter  40 SI. No 19 of Annex 4 Pipc cutter  40 SI. No 19	4 vacuum gauge reading upto gauge 20 microns  SI. No 162 of Annex A Piec refrigerator 300 litte capacity using HC refrigerator 4 view both with access fittings valves both with access fittings  41 SI. No 184 of Annex A Piec ring piler A SI. No 184 of Annex A Piec ring piler / crimping piler tool  42 SI. No 22 of Annex 4 Pinch off piler / crimping piler tool  43 SI. No 19 of Annex A Pinch off tool  44 SI. No 80 of Annex A Pipe bending tool  45 SI. No 17 of Annex A Pipe cutter  46 SI. No 18 of Annex A Pipe cutter  47 SI. No 18 of Annex A Pipe cutter  48 SI. No 18 of Annex A Pipe cutter  49 SI. No 19 of Annex A Pipe cutter  40 SI. No 18 of Annex A Pipe cutter  41 SI. No 19 of Annex A Pipe cutter  42 SI. No 19 of Annex A Pipe bending tool  43 SI. No 19 of Annex A Pipe cutter  44 SI. No 17 of Annex A Pipe cutter  45 SI. No 18 of Annex A Pipe cutter  46 SI. No 18 of Annex A Pipe cutter  47 SI. No 18 of Annex A Pipe cutter  48 SI. No 18 of Annex A Pipe cutter  49 SI. No 18 of Annex A Pipe cutter  40 SI. No 18 of Annex A Pipe cutter  41 SI. No 18 of Annex A Pipe cutter  42 SI. No 18 of Annex A Pipe cutter  43 SI. No 18 of Annex A Pipe cutter  44 SI. No 18 of Annex A Pipe cutter  45 SI. No 18 of Annex A Pipe cutter  46 SI. No 18 of Annex A Pipe cutter  47 SI. No 18 of Annex A Pipe cutter  48 SI. No 18 of Annex A Pipe cutter  49 SI. No 18 of Annex A Pipe cutter  40 SI. No 18 of Annex A Pipe cutter  41 SI. No 18 of Annex A Pipe cutter  42 SI. No 18 of Annex A Pipe cutter  43 SI. No 18 of Annex A Pipe cutter  44 SI. No 18 of Annex A Pipe cutter  45 SI. No 18 of Annex A Pipe cutter  46 SI. No 18 of Annex A Pipe cutter  47 SI. No 18 of Annex A Pipe cutter  48 SI. No 18 of Annex A Pipe cutter  49 SI. No 18 of Annex A Pipe cutter  40 SI. No 18 of Annex A Pipe cutter  40 SI. No 18 of Annex A Pipe cutter  41 SI. No 18 of Annex A Pipe cutter  42 SI. No 18 of Annex A Pipe cutter  43 SI. No 18 of Annex A Pipe cutter  44 SI. No 18 of Annex A Pipe cutter  45 SI. No 18 of Annex A Pipe cutter  46 SI. No 18 of Annex A Pipe cutter  47 SI			plate				
4 vacuum gauge reading upto 20 microns  SI. No 162 of Annex 4 refrigerator 7300 litre capacity using HC refrigerant 740 SI. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 linclined tube manometer 4 linclined tube manometer 4 linclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	4 vacuum gauge 20 microns  SI. No 162 of Annex 4 Frost refrigerator, 300 litre capacity using HC refrigerant Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Piercing due manometer fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping piler tool	4 vacuum gauge 20 microns 20 microns 4 SI. No 120 of Annex 4 Pinch off piler / crimping piler tool 4 SI. No 22 of Annex 4 Pinch off tool 5 SI. No 19 of Annex 4 Pipc bending tool 5 SI. No 19 of Annex 4 Pipc bending tool 5 SI. No 17 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 6 SI. No 18 of Annex 4 Pipc cutter 7 Si. No 18 of Annex 4 Pipc cutter 7 Si. No 18 of Annex 4 Pipc cutter 7 Si. No 18 of Annex 4 Pipc cutter 7 Si. No 18 of Annex 4 Pipc cutter 7 Si. No 18 of Annex 4 Pipc cutter 7 Si. No 18 of Annex 4 Pipc cutter 7 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 8 Si. No 18 of Annex 4 Pipc cutter 9 Si. No 18 of Annex 4 Pipc cutter 9 Si. No 18 of Annex 4 Pipc cutter 9 Si. N	4 vacuum gauge reading upto gauge 20 microns  SI. No 162 of Annex A 1 vising HC capacity using HC refrigerator avalves both with access fittings valves both with access fittings  41 SI. No 184 of Annex A 1 Pinch off piler / crimping piler tool  42 SI. No 19 of Annex A 2 SI. No 19 of Annex A 1 SI. No 19 of Annex A 2 Pipe bending tool  43 SI. No 19 of Annex A 2 Pipe bending tool  44 SI. No 80 of Annex A 2 Pipe cutter value with degree indicator for tube 00 6.4 to 16 mm dia value with access indicator for copper tube 6 to 18 mm dia value with dia value of the man dia value	38	Sl. No 153 of Annex	Micron	Capable of		2	
SI. No 162 of Annex   No   frost refrigerator, 300   litre capacity using HC refrigerant   SI. No 23 of Annex 4   Piercing valves both with access fittings and inclined tube manometer   SI. No 22 of Annex 4   Piercing tube, with fittings and inclined tube manometer, transparent acrylic scale.   SI. No 22 of Annex 4   Piercing tube of the control o	39 Si. No 162 of Annex 4 No frost refrigerator 300 litre capacity using HC refrigerant 6-18 mm & Piercing plier 6-18 mm & Piercing valves both with access fittings 41 Si. No 184 of Annex 4 Si. No 184 of Annex 4 Piercing valves both with access fittings 42 Si. No 22 of Annex 4 Pinch off plier / crimping plier tool  42 Si. No 22 of Annex 4 Pinch off plier / crimping plier tool  Si. No 22 of Annex 4 Pinch off roling to the fittings and dia dia dia dia dia dia dia dia dia di	SI. No 162 of Annex   No frost refrigerator 300 litre capacity using HC refrigerator 310 litre capacity using HC refrigerator 320 litre capacity using HC refrigerator application in the first provided HC r	SI. No 162 of Annex   No frost refrigerator 300 litre capacity using HC refrigerator 400 length and the second specific provided to provide in the provided HC refrigerator and the provided HC r		4	vacuum				
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4 refrigerator 300 litre 2 door, 1Ph, 230V, 50Hz, AC  40 Sl. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 Sl. No 184 of Annex 4 inclined tube manometer 4 manometer, transparent acrylic scale.  42 Sl. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 refrigerator, 2 door, 1Ph, 230V, 50Hz, AC  44 Reputed make 2  Reputed make 2  From reputed mfrs.  45 refrigerator, 2 door, 1Ph, 230V, 50Hz, AC  46 Sl. No 23 of Annex 4 Pinch off plier / crimping plier tool	4 refrigerator 300 litre capacity using HC refrigerant Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 refrigerator 2 door, 1Ph, 230V, 50Hz, AC  44 Reputed make 2  45 Reputed make 2  46 Reputed make 2  47 Reputed make 2  48 Reputed make 2  49 Reputed make 2  40 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool	4 refrigerator 300 litre capacity using HC capacity using HC refrigerant AC refrigerant Piercing piler 6-18 mm & Piercing valves both with access fittings and inclined tube manometer fittings and inclined tube manometer, transparent acrylic scale.  41 SI. No 184 of Annex 4 Pinch off piler / crimping piler tool  43 SI. No 19 of Annex 4 Pipc bending tool  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper	4		01 11 100 61					
300 litre capacity using HC refrigerant  40 SI. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	300 litre capacity using HC refrigerant  40 SI. No 23 of Annex 4 Pinch off plier / crimping plier tool  300 litre capacity using HC refrigerant  2 door, 1Ph, 230V, 50Hz, AC  Reputed make  2 door, 1Ph, 230V, 50Hz, AC  Reputed make  2 door, 1Ph, 230V, 50Hz, AC  Reputed make  2 litrings and inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.	300 litre capacity using HC refrigerant Pipering plier 6-18 mm & Pipering valves both with access fittings PID tube & inclined tube manometer warming plier / crimping plier / crimping plier / crimping plier tool Piper tool SI. No 19 of Annex 4 Pipe bending tool SI. No 80 of Annex 4 Pipe cutter SI. No 17 of Annex 4 Pipe cutter SI. No 18 of Annex 4 Pipe cutter SI. With built-in reamer and space cutter for copper	300 litre capacity using HC refrigerant Pipercing piler 6-18 mm & Piercing piler valves both with access fittings and inclined tube manometer, transparent acrylic scale.  41 SI. No 184 of Annex 4 Pinch off piler / crimping piler tool  43 SI. No 19 of Annex 4 Pipe bending tool  44 SI. No 80 of Annex 4 Pipe cutter  45 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter  49 SI. No 18 of Annex 4 Pipe cutter  40 SI. No 18 of Annex 4 Pipe cutter  41 SI. No 18 of Annex 4 Pipe cutter  42 SI. No 18 of Annex 4 Pipe cutter  43 SI. No 17 of Annex 4 Pipe cutter  44 SI. No 18 of Annex 4 Pipe cutter  45 SI. No 18 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter  49 SI. No 18 of Annex 4 Pipe cutter  40 SI. No 18 of Annex 4 Pipe cutter  41 SI. No 18 of Annex 4 Pipe cutter  42 SI. No 18 of Annex 4 Pipe cutter  43 SI. No 18 of Annex 4 Pipe cutter  44 SI. No 18 of Annex 4 Pipe cutter  45 SI. No 18 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter  49 SI. No 18 of Annex 4 Pipe cutter  40 SI. No 18 of Annex 4 Pipe cutter  41 SI. No 18 of Annex 4 Pipe cutter  42 SI. No 18 of Annex 4 Pipe cutter  43 SI. No 18 of Annex 4 Pipe cutter  44 SI. No 18 of Annex 4 Pipe cutter  45 SI. No 18 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter  49 SI. No 18 of Annex 4 Pipe cutter  40 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  61 SI. No 18 of Annex 4 Pipe cutter  61 SI. No 18 of Annex 4 Pipe cutter  62 SI. No 18 of Annex 4 Pipe cutter  63 SI. No 18 of Annex 4 Pipe cutter  64 SI. No 18 of Annex 4 Pipe cutter  65 SI. No 18 of Annex 4 Pipe cutter  65 SI. No 18 of Annex 4 Pipe cutter  65 SI. No 18 of Annex 4 Pipe cutter  67 SI. No 18 of Annex 4 Pipe cutter  68 SI. No 18 of Annex 4 Pipe	39	SI. No 162 of Annex				1	
capacity using HC refrigerant  40 Sl. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 Sl. No 184 of Annex 4 Pilot tube & inclined tube manometer wannometer with fittings and inclined tube manometer, transparent acrylic scale.  42 Sl. No 22 of Annex 4 Pinch off plier / crimping plier tool  8 Reputed make 2  8 Reputed make 2  1 Prom reputed mfrs.	capacity using HC refrigerant  40 SI. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 inclined tube manometer wannemeter with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  45 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  46 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  47 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	capacity using HC refrigerant  40 SI. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex A Pinch off plier / crimping plier tool  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool with dia crylic scale.  44 SI. No 80 of Annex 4 Pipc bending plier tool  45 SI. No 80 of Annex 4 Pipc bending tool  46 SI. No 17 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 SI. No 18 of Annex 4 Pipc cutter  48 SI. No 18 of Annex 4 Pipc cutter  49 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  41 SI. No 18 of Annex 4 Pipc cutter  42 SI. No 18 of Annex 4 Pipc cutter  43 SI. No 19 of Annex 4 Pipc cutter  44 SI. No 18 of Annex 4 Pipc cutter  45 SI. No 18 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 With built-in reamer and space cutter for copper	Capacity using HC refrigerant   AC   SI. No 23 of Annex 4   Pipe cing piper 6-18 mm & Pipercing valves both with access fittings   SI. No 184 of Annex 4   Piper hending piler / crimping piler tool   SI. No 22 of Annex 4   Pipe bending tool   SI. No 80 of Annex 4   Pipe bending tool   SI. No 17 of Annex 4   Pipe cutter   SI. No 18 of Annex 4		4	refrigerator	refrigerator,	G/Samsung/Godr		
capacity using HC refrigerant  40 Sl. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 Sl. No 184 of Annex 4 Pilot tube & inclined tube manometer wannometer with fittings and inclined tube manometer, transparent acrylic scale.  42 Sl. No 22 of Annex 4 Pinch off plier / crimping plier tool  8 Reputed make 2  8 Reputed make 2  1 Prom reputed mfrs.	capacity using HC refrigerant  40 SI. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 inclined tube manometer wannemeter with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  45 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  46 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  47 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	capacity using HC refrigerant  40 SI. No 23 of Annex 4 Piercing plier 6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex A Pinch off plier / crimping plier tool  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool with dia crylic scale.  44 SI. No 80 of Annex 4 Pipc bending plier tool  45 SI. No 80 of Annex 4 Pipc bending tool  46 SI. No 17 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 SI. No 18 of Annex 4 Pipc cutter  48 SI. No 18 of Annex 4 Pipc cutter  49 SI. No 18 of Annex 4 Pipc cutter  40 SI. No 18 of Annex 4 Pipc cutter  41 SI. No 18 of Annex 4 Pipc cutter  42 SI. No 18 of Annex 4 Pipc cutter  43 SI. No 19 of Annex 4 Pipc cutter  44 SI. No 18 of Annex 4 Pipc cutter  45 SI. No 18 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipc cutter  47 With built-in reamer and space cutter for copper	Capacity using HC refrigerant   AC   SI. No 23 of Annex 4   Pipe cing piper 6-18 mm & Pipercing valves both with access fittings   SI. No 184 of Annex 4   Piper hending piler / crimping piler tool   SI. No 22 of Annex 4   Pipe bending tool   SI. No 80 of Annex 4   Pipe bending tool   SI. No 17 of Annex 4   Pipe cutter   SI. No 18 of Annex 4			300 litre	2 door, 1Ph,	ei Make		
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6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 inclined tube manometer transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  6-18 mm & Piercing valves both with access fittings  500 m Inclined tube with fittings and inclined tube manometer, transparent acrylic scale.  1 Inclined tube manometer, transparent dia 2 2	6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off piler / crimping piler tool  43 SI. No 19 of Annex 4 Pipe bending tool  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter SI. No 18 of Annex 4 Pipe cutter for copper tube 6 to 18 mm dia sia dia  49 SI. No 18 of Annex 4 Pipe cutter SI.	6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 4 Pilot tube & inclined tube manometer transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off piler / crimping piler tool  43 SI. No 19 of Annex 4 Pinch off tool with dia mm dia  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter with degree indicator for tube OD 6.4 to 16 mm dia  46 SI. No 18 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32			refrigerant				
6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  6-18 mm & Piercing valves both with access fittings  500 m length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  1 In Indiana Indian	6-18 mm & Piercing valves both with access fittings  41 Sl. No 184 of Annex 4 Pinch off plier / crimping plier tool  6-18 mm & Piercing valves both with access fittings  500 m Iength, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.	6-18 mm & Piercing valves both with access fittings and inclined tube manometer transparent acrylic scale.  42 SI. No 12 of Annex 4 Pinch off piler / crimping piler tool  43 SI. No 19 of Annex 4 Pinch off tool off tool with fittings and inclined tube manometer, transparent acrylic scale.  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter With adia a dia dia dia dia dia dia dia dia	6-18 mm & Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool with 6 to 18 mm dia  44 SI. No 80 of Annex 4 Pipe cutter vith 6 to 18 mm dia  45 SI. No 17 of Annex 4 Pipe cutter vith 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  47 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  48 SI. No 19 of Annex 4 Pipe cutter vith 6 to 18 mm dia  49 SI. No 17 of Annex 4 Pipe cutter vith 6 to 18 mm dia  40 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  41 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  42 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  43 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  44 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  45 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter vith 6 to 18 mm dia	40	Sl. No 23 of Annex 4	Piercing plier		Reputed make	2	
Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  Piercing valves both with access fittings  500 m length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  1 In pier / crimping valves both with access fittings  From reputed mfrs.  1 In pier / crimping valves both with access fittings  From reputed mfrs.  1 In pier / crimping valves both with access fittings  From reputed mfrs.  1 In pier / crimping valves both with access fittings  1 In pier / crimping valves both with access fittings  1 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  2 In pier / crimping valves both with access fittings  3 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both with access fittings  4 In pier / crimping valves both w	Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  Piercing valves both with access fittings  500 m Inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  1 Inclined tube manometer, transparent acrylic scale.	Piercing valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 80 of Annex 4 Pipe bending tool  46 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter  49 SI. No 18 of Annex 4 Pipe cutter  40 SI. No 18 of Annex 4 Pipe cutter  41 SI. No 18 of Annex 4 Pipe cutter  42 SI. No 18 of Annex 4 Pipe cutter  43 SI. No 18 of Annex 4 Pipe cutter  44 SI. No 18 of Annex 4 Pipe cutter  45 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter  49 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  50 SI. No 18 of Annex 4 Pipe cutter  6 To Copper tube  7 SI. No 18 of Annex 4 Pipe cutter  8 SI. No 18 of Annex 4 Pipe cutter  8 SI. No 18 of Annex 4 Pipe cutter  9 SI. No 18 of Annex 4 Pipe cutter  9 SI. No 18 of Annex 4 Pipe cutter  9 SI. No 18 of Annex 4 Pipe cutter  9 SI. No 18 of Annex 4 Pipe cutter	Piercing valves both with access fittings  41 SI. No 184 of Annex A Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 SI. No 18 of Annex 4 Pipe cutter  48 SI. No 18 of Annex 4 Pipe cutter  49 SI. No 18 of Annex 4 Pipe cutter  40 SI. No 18 of Annex 4 Pipe cutter  41 SI. No 18 of Annex 4 Pipe cutter  42 SI. No 18 of Annex 4 Pipe cutter  43 SI. No 19 of Annex 4 Pipe bending tool  44 SI. No 19 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  47 With built-in reamer and space cutter for copper tube 3 to 32					·		
valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  Valves both with access fittings and inclined tube manometer with access fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  Valves both with access fittings and length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  2	valves both with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  valves both with access fittings  500 m from reputed length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.	valves both with access fittings  41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pipc bending tool  44 SI. No 80 of Annex 4 Pipc bending tool  45 SI. No 17 of Annex 4 Pipc cutter  46 SI. No 18 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  With built-in reamer and space cutter for copper	valves both with access fittings  41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping piler tool  43 SI. No 19 of Annex 4 Pipe bending tool  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  With built-in reamer and space cutter for copper tube 3 to 32							
with access fittings  41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  with access fittings  500 m length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  1 1	with access fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  With access fittings  From reputed length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.	with access fittings  41 SI. No 184 of Annex 4 inclined tube manometer  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pipe bending tool  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter  46 SI. No 18 of Annex 4 Pipe cutter  With built-in reamer and space cutter for copper toopper toopper tube of to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter  With built-in reamer and space cutter for copper toopper toopper tube for copper tube of copper tube of to 18 mm dia	with access fittings  41 SI. No 184 of Annex 4			_				
fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  500 m length, pilot tube, with fittings and inclined tube manometer, transparent dia	fittings  41 SI. No 184 of Annex 4 Pinch off plier / crimping plier tool  500 m from reputed inclined tube inclined tube manometer  Fittings som length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  500 m from reputed mfrs.  1 1  1 2	fittings  41 SI. No 184 of Annex A 4 Pilot tube & inclined tube manometer  SI. No 22 of Annex 4  42 SI. No 22 of Annex 4  Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4  44 SI. No 80 of Annex 4  Finch off tool with 6 to 18 mm dia  45 SI. No 17 of Annex 4  Finch off tool with 6 to 18 mm dia  46 SI. No 18 of Annex 4  Pipe cutter  Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4  Pipe cutter  With built-in reamer and space cutter for copper	fittings Pilot tube & Sil. No 184 of Annex A							
41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer  SI. No 184 of Annex 4 Pilot tube & length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  41 SI. No 184 of Annex   Pilot tube & inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.	SI. No 184 of Annex   Pilot tube & inclined tube manometer   Inclined tube manometer   Inclined tube manometer   Inclined tube manometer, transparent acrylic scale.	SI. No 184 of Annex   Pilot tube & inclined tube manometer   Inclined tube manometer   Inclined tube manometer   Inclined tube manometer, transparent acrylic scale.			with access				
41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer  SI. No 184 of Annex 4 Pilot tube & length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	41 SI. No 184 of Annex 4 Pilot tube & inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  41 SI. No 184 of Annex   Pilot tube & inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.	SI. No 184 of Annex   Pilot tube & inclined tube manometer   Inclined tube manometer   Inclined tube manometer   Inclined tube manometer, transparent acrylic scale.	SI. No 184 of Annex   Pilot tube & inclined tube manometer   Inclined tube manometer   Inclined tube manometer   Inclined tube manometer, transparent acrylic scale.			fittings				
4 inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  2 2	4 inclined tube manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  inclined tube mfrs.  1  1  2	4 inclined tube manometer with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter SI. No 18 of Annex 4 Pipe cutter for copper tube  46 SI. No 18 of Annex 4 Pipe cutter for copper tube  47 SI. No 18 of Annex 4 Pipe cutter for copper tube for tube of to 18 mm dia  48 SI. No 18 of Annex 4 Pipe cutter SI. No 18 of Annex 4 Pipe cutter for copper tube for tube of to 18 mm dia  49 SI. No 18 of Annex 4 Pipe cutter SI. No 18 of Ann	4 inclined tube manometer length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool Pinch off tool void with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32	//1	SI No 194 of Anney		500 m	from reputed		
manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool plier tool  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper	manometer tube, with fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool for copper tube 6 to 18 mm dia  44 SI. No 80 of Annex 4 Pipe bending tool fool with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32	41				•		
fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / dia crimping plier tool	fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool	fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool plier tool  44 SI. No 80 of Annex 4 Pipe bending tool  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper	fittings and inclined tube manometer, transparent acrylic scale.  42 SI. No 22 of Annex 4 Pinch off plier / crimping plier tool  43 SI. No 19 of Annex 4 Pinch off tool For copper tube 6 to 18 mm dia  44 SI. No 80 of Annex 4 Pipe bending tool with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32		4	inclined tube		mfrs.		
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indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube	mm dia  44 SI. No 80 of Annex 4 Pipe bending tool lever type with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube	dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper	dia  46 Sl. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32				6 to 18 mm			
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube	mm dia  44 SI. No 80 of Annex 4 Pipe bending tool lever type with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube	46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper	46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32	1						
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm	mm dia  44 SI. No 80 of Annex 4 Pipe bending tool lever type with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm	46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper	46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32	1			dia			
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm	mm dia  44 SI. No 80 of Annex 4 Pipe bending tool lever type with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm	reamer and space cutter for copper	reamer and space cutter for copper tube 3 to 32	10	CL No 10 -f A	Dina			4	
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia	mm dia  44 SI. No 80 of Annex 4 Pipe bending tool with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia	space cutter for copper	space cutter for copper tube 3 to 32	46	SI. No 18 of Annex 4	Pipe cutter	With built-in		1	
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia	mm dia  44 SI. No 80 of Annex 4 Pipe bending tool with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia	space cutter for copper	space cutter for copper tube 3 to 32				reamer and			
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in 1	mm dia  44 SI. No 80 of Annex 4 Pipe bending tool lever type with degree indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in 1	for copper	for copper tube 3 to 32	1		I				
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and	Mm dia   Minimum dia   Minim		tube 3 to 32				SDACE CLITTER			
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter	Mm dia   Lever type   With degree   Indicator for tube OD 6.4 to 16 mm   Miniature for copper tube   6 to 18 mm dia   Miniature for to 18 mm dia   Miniature for copper tube   Copper	tube 3 to 32								
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper	Mm dia   Minimum dia   Minim	, , , , , , , , , , , , , , , , , , , ,					for copper			
indicator for tube OD 6.4 to 16 mm  45 SI. No 17 of Annex 4 Pipe cutter Miniature for copper tube 6 to 18 mm dia  46 SI. No 18 of Annex 4 Pipe cutter With built-in reamer and space cutter for copper tube 3 to 32	Mm dia   Mm dia   Miniature for copper tube   SI. No 18 of Annex 4   Pipe cutter   Miniature for copper tube   6 to 18 mm dia   Miniature for copper tube   SI. No 18 of Annex 4   Pipe cutter   With built-in reamer and space cutter for copper tube 3 to 32   Miniature for copper tube   Miniature for copper tu	mm					for copper tube 3 to 32			

47	Sl. No 178 of Annex	Pipe			1	
	4	threading				
		dies & pipe vice				
		Vice				
48	Sl. No 182 of Annex	Pop rivet gun		Reputed make	1	
	4			,		
49	Sl. No 164 of Annex	Portable Air-	Portable Air-	Rothenberger/Re	1	
	4	LPG brazing	LPG brazing	puted make		
		kit with 2 Kg	kit with 2 kg			
		LPG cylinder, torches,	LPG cylinder, torches,			
		houses,	hoses -			
		standard	Standad			
		make.	make. 1)			
		a) With	with straight			
		straight	flame. 2)			
		flame.	With cyclone			
		b) With	swirl jet			
		Cyclone / swirl jet	flame.			
		flame.				
50	Sl. No 131 of Annex	Pressure	Suitable	Pressure gauge 0-	1	
	4	testing tank	Pressure	35 kg/cm2 -		
		with lighting	testing tank	double stage		
		arrangement	of SS 304			
		pressure	Grade 18			
		gauge (0-35 Kg / sq.cm)	Gauge having TIG			
		double stage	welded			
			joints with			
			lighting			
			arrangement			
		_	S.			
51	Sl. No 36 of Annex 4	Pressure			1	
		gauge diameter 63				
		mm with				
		recalibration				
		set screw				
		scale vacuum				
		76 mm				
F2	Cl. No. 42 of Array 4	pressure	47+-16		4	
52	Sl. No 42 of Annex 4	Punch hole for cutting	4.7 to 16 mm dia		4	
		gasket	uia			
53	Sl. No 187 of Annex	Quick	1/4" to 7/8"		2	
	4	couplers	-			
		process tube				
		adaptor				
54	Sl. No 20 of Annex	Ratchet	6.4 mm sg		4	
	4	spanner	reversible			

55	SI. No 144 of Annex 4 SI. No 158 of Annex 4	Reciprocatin g compressor with provision of capacity control etc, for demonstrati on Recovery unit one each for CFC & R134 A	Capacity 9000 K. cal/hr semi hermetic / open type.  Consisting of 1/6 HP or required capacity	Rothenberger / Reputed make	1	
		refrigerants with recovering cylinders.	compressor condensor with fan, oil separator, accumulator valve inlet and outlet for gas recovery,			
			compound gauges and pressure gauges with LP, HP cut outs individual unit for CFC & HFC.			
57	Sl. No 195 of Annex	Recycling Unit		Suitable	1	
58	Sl. No 181 of Annex	Refractomet er	Portable with lens		1	
59	Sl. No 121 of Annex	Refrigerant cylinder	Capacity 2.5 Kg		2	
60	Sl. No 122 of Annex	Refrigerant cylinder	Capacity 30 Kg		2	
61	SI. No 161 of Annex 4	Refrigerator 170 litre using 134 A refrigerant	Single door refrigerator	Voltas/Bluestar/L G/Samsung/Godr ej Make	1	
62	SI. No 133 of Annex 4	Refrigerator compressor type	165 litre	Voltas/Bluestar/L G/Samsung/Godr ej Make	1	
63	Sl. No 134 of Annex 4	Refrigerator compressor type	300 litres double door, double compressor system	Reputed make	1	
64	SI. No 159 of Annex 4	Reverse cycle AC/Heat pump	3000 K.cal/hr. Or 4500 K.cal/hr.		1	
65	Sl. No 26 of Annex 4	Ring spanner set	4.7 mm to 16 mm		5	

						hmi
66	SI. No 27 of Annex 4	Ring spanner set	19 mm to 31.8 mm		1	
67	SI. No 176 of Annex 4	Safety gloves, eye protection glasses			4	
68	Sl. No 177 of Annex	Safety shoes			20	
69	SI. No 179 of Annex 4	Schraeder valve core removal tool			1	
70	SI. No 43 of Annex 4	Scissor gasket cutting stainless steel	length 25 mm		4	
71	SI. No 154 of Annex 4	Sensor thermomete r	Digital		2	
72	SI. No 38 of Annex 4	Serviceman thermomete r in metal case	-30 to + 30 Deg.C.		2	
73	SI. No 172 of Annex 4	Shell and tube Condenser	Small capacity. Reputed Make	1.5 Ton capacity with valves	1	
74	SI. No 174 of Annex 4	Shell and tube DX chillers (Small)	5 Ton capacity	Reputed make	1	
75	SI. No 39 of Annex 4	Sling psychrome ter mounted on aluminum / plastic back scale -50 Deg. C to + 50 Deg.C			1	
76	SI. No 24 of Annex 4	Spanner double ended	4.7 mm to 16 mm		5	
77	SI. No 25 of Annex 4	Spanner double ended	19 mm to 31.8 mm		1	
78	SI. No 160 of Annex 4	Split type AC 4500 K.cal/hr	With indoor unit & outdoor units and electronic	Voltas / Reputed make	1	

remote control

79	SI. No 130 of Annex	Spray outfit			1		
	4	"V" twin					
	-	with motor					
		1/2 HP					
		delivery upto					
		120 Litre free					
		air pressure					
		upto 3					
		Kg/Sq.cm					
		with spray					
		gun and					
		fitting					
80	Sl. No 14 of Annex 4	Swedging	Punch type		4		
		tool	set of size,				
			for tube 4.7				
	_		to 16 mm OD				
81	Sl. No 15 of Annex 4	Swedging	Screw type,		1		
		tool	with adapter				
			set of size for				
			tube 4.7 to				
			16mm OD				
82	Sl. No 45 of Annex 4	T-Allen key	5/32"L &		4		
		set size	1/8"				
83	Sl. No 166 of Annex	Trichlorethyl	700 ml		1		
	4	ene bottle	7 00 1		_		
	<u> </u>						
84	Sl. No 167 of Annex	Two way	Rothenberge		1		
	4	manifold	r make,				
		with gauges	Standard				
		00	Manifold set.				
85	Sl. No 34 of Annex 4	Valve key-T-	4.7 & 6.4		4		
85	31. NO 34 OF ATTREX 4				4		
		Handle	mm Sq				
86	Sl. No 194 of Annex	Visi Cooler	165 litres	Voltas/Bluestar/C	1		
	4			arrier make			
87	Sl. No 139 of Annex	water Cooler	Storage type	Voltas/Bluestar/C	1		
0,		water cooler			_		
	4		40 litres	arrier make			
			capacity				
88	Sl. No 138 of Annex	Water Cooler	Instantaneou	Voltas/Bluestar/C	1		
	4		s type - 40	arrier make			
			litres	arrier mane			
			capacity.				
89	Sl. No 128 of Annex	Scraper			2		
	4	triangular					
		blade					
		removable					
	470 -f A 4						
90	170 of Annex 4	Sealed ex-			4		
		proof					
		components					
		for use in HC					
		appliances:					
		Thermostats					
		Sealed OLPS					
		solid state					
		PTC's door					
		switches					
		lamp holders					
Total F.	O.R Chennai Port Price	in Indian Rupe	es with seawort	hy packing			
	inspection, trails & ex				ST of F	OR Chennai port	
price			·	• •		•	
Total F.	.O.R Chennai Port Price	in Indian Rupe	es				
				MONVWA (COO1 /2010 D			



It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated	•
-------	---

Signature and seal of Authorized Signatory

### NOTE

- 1. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
- 2. No erasures or alternations in the text of the offer are permitted.
- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.

The prices quoted should be most competitive

**End of Section V** 

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018

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### Annexure – 2

### PROFORMA FOR STATEMENT OF DEVIATIONS FROM TENDER CONDITIONS

The following are the particulars of deviations from the requirements of the Instructions to Bidders and Terms & Conditions of contract (To be enclosed for each lot separately): -

CLAUSE	DEVIATION	REMARKS (Including justification)
		, , , , , , , , , , , , , , , , , , , ,

Signature and seal of
the Authorized Signatory

NOTE: Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".



### Annexure - 3

## PROFORMA FOR COMMERCIAL DETAILS & PREVIOUS EXPERIENCE

(i)	Is the firm registered with Govt. Authority/ Agency or MNC? If so, a copy of the registration certificat
	should be enclosed.

(ii)	Name and	address	of the	Banker
------	----------	---------	--------	--------

Details of major orders for the quoted supplies/services executed during the past three years should be furnished in the following format.

SI. #	Full Address of Customer	Order No. and Date	Description of Supplies / Services	Qty.	Contract Value in Rs.	Remarks
1	2	3	4	5	6	7

Signature:
Name:
Designation:

NOTE: A certificate from the customer should preferably be enclosed to indicate that the contract was satisfactorily performed.

To be enclosed for each lot separately.

### Annexure – 4

#### PROFORMA FOR PERFORMANCE BANK GUARANTEE

THE JOINT GENERAL MANAGER, PROJECTS HMT (INTERNATIONAL) LTD. HMT BHAVAN 59 BELLARY ROAD BANGALORE – 560 032

DEAR SIR, THIS DEED OF GUARANTEE EXECUTED BY ...... BANK, (NAME AND ADDRESS OF THE BANK) (HEREINAFTER REFERRED TO AS BANK) IN FAVOUR OF HMT (INTERNATIONAL) LTD. (HEREINAFTER REFERRED TO BENEFICIARY) NOT EXCEEDING RS....... (RUPEES ........... ONLY) AT THE REQUEST OF M/S. ..... (HEREINAFTER REFERRED TO AS SUPPLIER). WHEREAS THE SUPPLIER HAS APPROACHED BANK TO ISSUE BANK GUARANTEE IN YOUR FAVOUR FOR A SUM OF RS. ...... (RUPEES ....... ONLY). WHEREAS THE SUPPLIER HAS RECEIVED PURCHASE ORDER NO. ...... DATED FOR PROVIDING SERVICES AS STATED IN THE PURCHASE ORDER. ..... FOR RS ..... WHEREAS THE SUPPLIER HAS TO SUBMIT PERFORMANCE GUARANTEE FOR TEN PERCENT OF THE VALUE OF SUPPLIES PORTION OF RS......AS STATED IN THE SAID PURCHASE ORDER. WE HEREBY CONFIRM AND STATE THAT WE AS GUARANTORS SHALL BE RESPONSIBLE TO YOU ON BEHALF OF THE "SUPPLIER" FOR A TOTAL SUM OF RS....... (RUPEES ........ONLY) IN CASE OF VIOLATION OF ANY OF THE TERMS/CONDITIONS OF THE SAID PURCHASE ORDER. WE UNDERTAKE TO PAY YOU UPON FIRST WRITTEN DEMAND DECLARING THE "SUPPLIER" TO BE IN VIOLATION/BREACH OR CONTRAVENTION OF ANY OF THE TERMS AND CONDITIONS, WITHOUT DEMUR OR ARGUMENT OR COURT ORDER OR AFOREMENTIONED WITHOUT YOUR HAVING TO PROVE TO US OR TO SHOW GROUNDS OR REASONS FOR YOUR DEMAND FOR THE SUM SPECIFIED HEREIN. THE GUARANTEE CONTAINED HEREIN SHALL NOT BE AFFECTED BY ANY CHANGES IN THE CONSTITUTION OF THE BANK OR

IN THE CONSTITUTION OF THE BENEFICIARY VIZ. YOURSELF AND SHALL BE VALID TILL (DATE) FROM THE DATE OF ISSUE PROVIDED HOWEVER THAT IN CASE DEMAND IS NOT MADE BY YOU UNDER THIS GUARANTEE ON OR BEFORE (DATE), BANK SHALL BE FULLY ABSOLVED FROM ANY LIABILITY UNDER THIS GUARANTEE DEED.

WE HEREBY DECLARE AND STATE THAT THIS GUARANTEE UNLESS INVOKED BY YOU AS AFORESAID SHALL BE VALID TILL (DATE) FROM THE DATE OF ISSUE AND SHALL BE NULL AND VOID THEREAFTER WHETHER THE ORIGINAL GUARANTEE IS RETURNED OR NOT



# Annexure – 5

## PROFORMA FOR VENDOR APPRAISAL

	Ger	neral Information		
			Vendor Code	
1.	Company			
M/s.		Phone:		
		 Fax:		
		E-Mail:		
City: PIN:		 Web Site:		
		<del></del>		
2. Name:	<u>Contact Person</u>	Designation:		
E-Mail:				
	3. Number of Years in Business :			
	<ul><li>4. Number of Units :</li><li>5. Total Number of Employees :</li></ul>			
6.	Major Customers			
1)		4)		
2) 3)		<b>-</b> \		
7.	Sales Office/Authorized Distributor		Y N	
,.	Suics Office) Authorized Distributor			
	If yes Indicate details below			
Α	M/s.	M/s.		
	PIN		PIN	
	Phone:	Phone:		
	Fax: F-Mail	 F-Mail		

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С	<u>M/s.</u>			M/s.
	PIN			PIN
	Phone: Fax: E.Mail			Phone : Fax : E.Mail
		Production & Service	ce Capab	bilities
		Troudellon & Service	c Capab	Jindes
1	<u>Product Range</u>			
a			f	
b c			g h	-
d			1	
е			J	
2	Processes Existing in the Plant			
	Processes	Availability		Details
1	Conventional Machining	Y N		N.A
2	CNC Machining	☐ ☐ Y N		N.A
3	Forging	Y N		
4	Casting	Y N		
5	Plating	Y N		
6	Fabrication	Y N		
7	Tool Making	U U		
8	Welding	Y N		
9 10	Gear Manufacturing Designing	☐ ☐ Y N ☐ ☐ Y N		



		(	Quality II	nformation				
1	<u>Control adopted</u>					Details		
a	In-Process Inspection	Y	N					
b	Stage Inspection	Y	N N					
С	Testing	Y	N □					
d	SQC/SPC	Υ	N					
2	Inspection & Testing Facility Available					Dataila		
а	Material Testing	Y	□ N			Details		
b	Precision Measurement	Y	□ N					
С	Furnace Testing	Y	□ N					
d	Non-Destructive Testing	U Y	□ N					
ű								
е	Calibration	Y	N					
3	Quality System Implemented-ISO 9000/Q	s 9000			U U		Enclose Certifi	icate
4	Capability to supply products with CE Ma	rking			Y N			
5	Quality Level of Existing Products			1	2	3	4	5
				Poor	Fair	Good	Very Good E	xcellent
	Co	ommer	cial & Fir	nancial Infor 2015-16	mation	2016-17	2	2017-18
1	Annual Turnover for last 3 Years in Rs.Lak Net Profit for the last 3 years Rs. Lakhs	hs						
2	Exports If Yes, Turnover for last 3 Years in Rs.Lakh	П Y	□ N		٦		] [	



Any Collaboration If Yes, Indicate Details	□ □ Y N	UK Europe  Middle East  CIS Countries  Others
Any investment Envisa	ged for Expansion	Y N
Is company following D	irect Procurement Principle	Y N
KST / CST Registration I	No.	
Central Excise	No	
	Rang	e
SSI Registration No.		
Do you have Company	Brochure	Y N
	Government of India's projec executed so far Rs. Lakhs	ets Y N
Is the company register If Yes, Value of Supply o		Y N  Direct supply Thru Agency s
Supplies done to HMT( If Yes, Value of Supplies		Y N
Details of supplies to H	MT(I):	
Compiled by: Signatur	re:	
Name: Date Note: Put V in appropriate ch If space provided is not Please attach catalogue	eck box. sufficient to provide details, p	please attach extra sheet.



		Annexure - 6
	PROFORMA FOR VENDOR REGISTRATION	
S.N.	Description	Details
	(a) Name and address of the vendor	
	(b) Please specify whether you are : Manufacturing Unit / Distributor / Agent etc.,	
1	(c) Telephone No	
1	(c) Telephone No.	
+	(d) Fax No.	
	(e) Email ID	
_	(f) Company Profile (Please enclose)	
1	(g) Turnover of the Company for the past three years	
	(h) Bankers Details	
2	Quality system implemented - ISO 9000 / QS 2000 etc.	
3	Name, address & Telephone No. of the owner / proprietor/partners	
4	Sales Tax Registration No Central & State	
6	Registration No.	
7	Details of Products Manufactured / Distributed / offered. Please enclose brochure.	
8	Details of Manufacturing Units / Workshops etc., available	
9	Details of Machines, equipment, computers available	
10	Manpower / Organization structure	
11	List of Major Products / Services	
12	Details of your major customers	
13	Are you exporting Products / services? If so, please furnish	
	details of exports for past 3 years.	
14	Are you providing training to overseas students/trainers and if so,	
	give details of the training courses conducted for last 3 years	
15	Do you have branches or institutes under your group, If yes,	
	give details with address.	
16	Whether you are affiliated / accredited to any Govt.	
	Agency / Reputed organization	
	- Agency / Reputed a gamenton	
Declara	ation: I / We declare that the details given above are true and correct.	
	,	
Place :		
i iace .	Signați	ure of Authorized person
Date .		With Company Seal

(Note: Please attach detailed information in a separate sheet wherever required)



## ANNEXURE - 7

## PROFORMA FOR BANK GUARANTEE FOR BID GUARATNTEE

2	(Bank's Common Seal)
1	(Designation)
Witness	
Place	Printed Name
Date	Signature
guarantee is requ	I be irrevocable and shall remain valid up to 4.00 p.m. onif further extension to this uired, the same shall be extended to such required periods on receiving instructions from
with to the bit of the	dder after submitting his tender, modifies the rates or any of the terms and conditions thereof, except the previous written consent of the purchaser or dder withdraws the said bid within 90 days after opening of bid or ddder having not withdrawn the bid, fails to furnish the contract of Performance Guarantee within the provided in the terms and conditions of the contract.
opening of the Ten bank hereby guarai by HMT (Internatio	ee against Bid Guarantee for a sum of Rs(in words & figures) valid for 90 days from the date of der No is required to be submitted by the bidder as a condition for the participation, this ntees and undertakes during the above said period of 90 (Ninety) days to immediately pay, on demand anal) Limited, Bangalore in writing the amount of Rs (words & figures) to HMT (International) Limited, any reservation and recourse, if:
	in the said tender for supplying Machine / equipment required for the project at IMITC, Monywa, plemented by HMT (International) Limited, Bangalore.
1. 2. 3. 4. 5.	
	th your invitation to tender NoM/sM/sM/s. he bidder with the following Directors on their Board of Directors/Partners of the firm:
Dear Sir,	
The Joint General M HMT (International HMT Bhavan, No.59 BANGALORE – 560	) Limited 9, Bellary Road
To,	

(Note: This should be on bidders letter head)

### **ANNEXURE - 8**

#### **QUALITY AND PACKING DETAILS**

#### 1. MACHINE / EQUIPMENT:

- 1.1 Machine / Equipment shall be manufactured and delivered in accordance with the specifications as given in this Tender and quality shall be as per Indian / International Standards.
- 1.2 Goods supplied shall be new, genuine, unused and shall be of current models and of current productions.
- 1.3 Any alteration to the specifications, Design, Patterns etc. of the offered goods shall only be made upon the Buyer's consent in writing.
- 1.4 The Tenderer warrants that the materials, metals, chemicals, paints, packing pieces etc. used in the manufacture of goods and all its packing and packaging are fully trivialized and stable under tropical conditions. Any damages arising from the inadequate trivialization, shall be deemed an inherent defects of manufacture.

#### 1.5 **BOUGHT-OUTS**:

All the bought-out items such as bearings, belts, electricals, motors, contactors, switches, MCBs, fuses, transformers, rubber gaskets, O-rings, conduit pipes, coolant and hydraulic hoses etc. **shall correspond to ISI / International specifications, should preferably have CE mark** and shall be of reputed make like SKF, FENNER, BHARAT, BIJILEE, CUTTLER HAMMER, CROMPTON GREAVES, SIEMENS and TELEMECHNIC.

- 1.6 Bought-out accessories like Furnace Lamps, pumps, Panel Air conditioners, Oil Coolers, Panel Boards, Stabilizers, Transformers etc. should be from reputed original equipment manufacturers.
- 1.7 Machine / Equipment aesthetics especially sheet metals, guards, doors, covering plates, castings are to be made to international standards. Painting and finish of Furnaces are the most important aspects of aesthetics.

### 2. <u>INSTRUCTION & SPARE PARTS MANUALS</u>:

- 2.1 Neatly printed manuals should be sent with the Machine / Equipment. Instruction Manuals should be of updated version containing complete details of offered Machine / Equipment including customer name, Machine / Equipment number, Machine / Equipment model, year of manufacture etc..
- 2.2 Drawings should be clear and legible. Xerox copies are not acceptable. Details of bought-out items used in the Machine/Equipment should be included in the manual. Good quality paper should be used for printing of manuals.
- 2.3 All foundation drawings showing electrical, air, water and other service connections of Machine / equipment, with floor plans to be provided in two sets, in English.

## 3. <u>SAFETY DEVICES</u>:

Each Machines/equipment should be provided with adequate and all necessary safety devices for the protection of the operator/s, factory personnel and the environment.

#### 4. OTHER CONDITIONS:

Since Machine / Equipment are being exported, Machine / Equipment including all accessories have to be built to ensure high quality performance, aesthetic appearance in respect of general finish, painting, sheet metal fabrication and international safety regulations.

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### 5. PACKING INSTRUCTIONS:

- 5.1 Export worthy wooden / plywood packing as per Indian / International standards suitable for sea freight.
- 5.2 Equipment, accessories and spares are to be covered by thick silpaulin sheet or 1 mm thick polythene sheets and all openings are to be sealed .
- 5.3 All external bright / machined surfaces should be protected with coating of OKS-CORTEC VCI 369 N Rust preventive. OKS rust preventive to be used.
- 5.4 Rust preventives to be used whose shelf life is not less than one year.
- 5.5 Packing list with respect to each case to be prepared and given to HMT(I) along with other documents.
- 5.6 Machine / Equipment should be firmly fixed to be base of packing case to prevent jerking or local movement.
- 5.7 Delivery Voucher should clearly indicate packing case dimension with net and Gross weight and case number if there are more than one case.
- 5.8 Photographs before and after packing to be taken and sent to HMT(I).
- 5.9 Handling marks of the packing cases to be shown on packing cases.

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**ANNEXURE - 9** 

# PROFORMA FOR MANUFACTURER AUTHORIZATION FORM (Applicable for Lots -

(On Manufacturer's Letter Head)

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HMT (Ir No.59,	nt General Manager, Projects, nternational) Limited, Bellary Road, ore – 560 032
Sub:	Manufacturer Authorization against tender No. HMTI/PROJ/IMITC/MONYWA/S-001/18 Dated 12-11-2018 for Supply, Installation / Commissioning & Trials of "" for the Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC) Monywa, Myanmar.
Dear Si	,
virtue of bidder) and pro	s (Insert Name of the Manufacturer) having registered office at(Insert Address of the Manufacturer) by of being manufacturer for(Insert Name of the product/s) hereby authorize M/s(Insert Name of the having their office at(Insert Address of the bidder) to submit the bid, negotiate, conclude the contract ovide after sales support for our range of products quoted by them to meet the above mentioned tender ments for IMITC Monywa, Myanmar.
	pany or firm or individual other than M/s(Insert Name of the bidder) are authorized to bid and conclude the t for the above goods manufactured by us against the above referred tender.
The und	dersigned is authorized to issue such authorization on behalf of M/s (Insert Name of the manufacturer).
	s. (Name of the Manufacturer) re & Seal of the Company

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# Enclosure – I

# LOT 1 (1) - Pillar Drill (capacity - 25 mm)

	Project: Setting up of Indo-My	anmar Industrial Training Centre (IMITC), Monywa, Myanmar.	
Ref No. S	I. No. 99 of Annex 4 - 1 no	Quantity: 7 Nos	
	l. No. 5 of Annex 5 - 2 nos	Qualitity. 7 1403	
	I. No. 11 of Annex 6 - 1 no		
	I. No. 45 of Annex 7 - 3 nos		
Sl. No.	Item	Brief Specification	Quantity
Pillar Typ	pe Drilling Machine with all standard acce	essories and Electrical suitable for 400V, 3Phase, 50Hz, AC supp	
	230V, 1 phase AC supply.		,
1	Major specifications		
1.1	Drilling capacity in steel / MT in spindle	25 mm / MT3	
1.2	Tapping Capacity	M16	
1.3	No./Range of spindle speeds	10/ 100-2700 rpm	
1.4	No. / Range of power feeds	3 / 0.1, 0.2 & 0.3	
1.5	Spindle traverse	~ 140 mm	
1.6	Pillar diameter	~ 120 mm	
1.7	Max. distance b/w center of spindle and pillar front	~ 260 mm	
1.8	Max. distance b/w spindle and table	~ 610 mm	
1.9	Max. distance b/w spindle and base	~ 1080 mm	
1.10	Table working surface diameter	~ 335 mm	
1.11	Base working surface dimension	~ 320 x ~ 300 mm (DxW)	
1.12	Motor Power	1.5 kW	
1.13	Coolant Motor Power	0.1 kw	
1.14	Colour of the Machine:	Dual colour: Soft Grey (RAL-7035) and Himmel Blue (RAL-5015) Polyurethane Paint	
2	Required Accessories / Spares		
2.1	Coolant pump motor and pipe fittings		1 set each
2.2	Halogen machine lamp		1 set each
2.3	Drill chuck 19 mm with key and arbor		1 set each
2.4	Machine vice 6" swivel base with 'T' bo	olts	1 set each
2.5	Reduction sleeve MT3-MT2		1 set each
2.6	Reduction sleeve MT3-MT1		1 set each
2.7	Service Tool Kit		1 set each
2.8	DOL starter		1 set each
3	Set of mechanical and electrical spare price to be provided)	parts for 2 year normal operation. (Item wise quantity with	1 set each
4	Operation, Maintenance and spare par	rts manual	3 sets each
5	Items required for erection and commissioning	<ul> <li>Touch up paint - 1/2 litre each colour in airtight sealed containers, Paint brush ½" 1 no. for each colour</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cotton waste- 2 kg, Cora cloth - 5 Mtrs</li> </ul>	1 set each
<u> </u>		<ul> <li>Foundation bolts and levelling plates.</li> </ul>	

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# LOT 1(2) - Pillar Drill (capacity - 20 mm)

Ref No. 9	II. No. 36 of Annex 8	dustrial Training Centre (IMITC), Monywa, Myanmar.  Quantity: 2 Nos	
Sl. No.	Item	Brief Specification	Quantity
1	Pillar Type Drilling Machine with all standard	d accessories and Electrical suitable for 400V, 3Phase,	2
	50Hz AC supply and control Voltage 230V, 1		
1	Major specifications		
1.1	Drilling capacity in steel / MT in spindle	20 mm / MT2	
1.2	Tapping Capacity	M12	
1.3	No./Range of spindle speeds	10/ 100-2700 rpm	
1.4	Feed	Hand	
1.5	Spindle traverse	~ 125 mm	
1.6	Pillar diameter	>75 mm	
1.7	Max. distance b/w center of spindle and column front	~ 200 mm	
1.8	Max. distance b/w spindle and table	~ 300 mm	
1.9	Max. distance b/w spindle and base	~ 600 mm	
1.10	Table working surface diameter	~ 370 mm	
1.11	Base dimension	~ 385 x ~ 375 mm (DxW)	
1.12	Motor Power	0.75 kW	
1.13	Coolant Motor Power	0.1 kw	
	Colour of the Machine:	Dual colour: Soft Grey (RAL-7035) and Himmel Blue (RAL-5015) Polyurethane Paint	
2	Required Accessories / Spares		
2.1	Coolant pump motor and pipe fittings		1 set each
2.2	Halogen machine lamp		1 set each
2.3	Drill chuck 19 mm with key and arbor		1 set each
2.4	Machine vice 4" swivel base with 'T' bolts		1 set each
2.5	Reduction sleeve MT2-MT1		1 set each
2.6	Service Tool Kit		1 set each
2.8	DOL starter		1 set each
3	Set of mechanical and electrical spare parts for 2 year normal operation. (Item wise quantity with price to be provided)		1 set each
4	Operation, Maintenance and spare parts manual		3 sets eac
5	Items required for erection and commissioning	<ul> <li>Touch up paint - 1/2 litre each colour in airtight sealed containers, Paint brush ½" 1 no. for each colour</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cotton waste- 2 kg, Cora cloth – 5 Mtrs</li> <li>Foundation bolts and leveling plates.</li> </ul>	1 set each

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# LOT 1(3) - Pillar Drill (capacity - 13 mm)

Ref No. S	Sl. No. 13 of Annex 9 – 2 nos	ndustrial Training Centre (IMITC), Monywa, Myanmar.	
	Sl. No. 6 of Annex 5 – 2 nos		
Sl. No.	Item	Brief Specification	Quantity
1	<b>Pillar Drilling Machine</b> with all standard accessories and Electrical suitable for 400V, 3Phase, 50cy AC supply and control Voltage 230V, 1 phase AC supply.		4
1	Major specifications		
1.1	Drilling capacity in steel / MT in spindle	13 mm / MT1	
1.2	No./Range of spindle speeds	4/ 480-2080 rpm	
1.3	Feed	Hand	
1.4	Spindle traverse	~ 100 mm	
1.5	Pillar diameter	~ 55 mm	
1.6	Max. distance b/w center of spindle and pillar front	~ 149 mm	
1.7	Max. distance b/w spindle and table	~ 300 mm	
1.8	Max. distance b/w spindle and base	~ 930 mm	
1.9	Table working dimension	~ 200 x ~ 200 mm	
1.10	Base dimension	~ 285 x ~ 305 mm (DxW)	
1.11	Motor Power	0.37 kW	
1.12	Coolant Motor Power	0.1 kw	
1.13	Colour of the Machine:	Dual colour: Soft Grey (RAL-7035) and Himmel Blue (RAL-5015) Polyurethane Paint	
2	Required Accessories / Spares	·	
2.1	Coolant pump motor and pipe fittings		1 set each
2.2	Halogen machine lamp		1 set each
2.3	Drill chuck 13 mm with key and arbor		1 set each
2.4	Machine vice 4" swivel base with 'T' bolts		1 set each
2.5	Service Tool Kit		1 set each
2.6	DOL starter		1 set each
3	Set of mechanical and electrical spare parts price to be provided)	for 2 year normal operation. (Item wise quantity with	1 set each
4	Operation, Maintenance and spare parts manual		3 sets each
5	Items required for erection and commissioning	<ul> <li>Touch up paint - 1/2 litre each colour in airtight sealed containers, Paint brush ½" 1 no. for each colour</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cotton waste- 2 kg, Cora cloth – 5 Mtrs</li> <li>Foundation bolts and leveling plates.</li> </ul>	1 set each



# LOT 1(4) - Pedestal Grinder

		nmar Industrial Training Centre (IMITC), Monywa, Myanmar.	
	. No. 44 of Annex 7 – 3 nos		
	. No. 9 of Annex 5 – 2 nos.		
	. No. 12 of Annex 6 – 1 no		
	. No. 9 of Annex 9 – 2 nos		
	. No. 100 of Annex 4 – 1 no.		
	. No. 37 of Annex 8 – 2 nos	1	T
Sl. No.	Item	Brief Specification	Quantity
1	_	indard accessories and Electrical suitable for 40 <b>0V, 3Phase,</b>	11
	<b>50Hz, AC supply</b> and control Voltage 2	30V, 1 phase AC supply.	
1	Major specifications		
		ed motor with wheel guards having removable end caves	
1.1	Centre distance between wheels	~ 420 mm	
1.2	Height from Base to spindle centre	~ 910 mm	
1.3	Wheel speed	~ 2860 rpm	
1.4	Motor Power	0.6 kW	
1.5	Grinding Wheel size	200 x 25 x 19.05 mm	
1.6	Colour of the Machine:	Dual colour: Soft Grey (RAL-7035) and Himmel Blue (RAL-5015) Polyurethane Paint	
2	Required Accessories / Spares		
2.1	DOL starter		1 each
2.2	Spark protectors		1 set each
2.3	Spare vitrified bonded grinding wheels	– 5 nos	1 set each
2.4	Service Tool set		1 set each
3	Set of mechanical and electrical spare price to be provided)	parts for 5 year normal operation. (Item wise quantity with	1 set each
4	Operation, Maintenance and spare par	ts manual	3 sets each
5	Items required for erection and commissioning	<ul> <li>Touch up paint - 1/2 litre each colour in airtight sealed containers, Paint brush ½" 1 no. for each colour</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cotton waste- 2 kg, Cora cloth – 5 Mtrs</li> <li>Set of anti vibration pads/Foundation bolts and leveling plates.</li> </ul>	1 set each

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# LOT 1 (5) – Hydraulic Power Hack saw

Ref No. 9	Sl. No. 8 of Annex 5	ndustrial Training Centre (IMITC), Monywa, Myanmar.	
Sl. No.	Item	Brief Specification	Quantity
1		standard accessories and Electrical suitable for 400V,	1
	3Phase, 50cy AC supply and control Voltage 2		_
1	Major specifications		
1.1	Maximum dimension of material cut	200 mm	
1.2	Cutting Speeds	3 range – 80/100/125 Strokes/min	
1.3	Hacksaw blade size	400 x 32 x 1.6 mm	
1.4	Motor Power	0.75 kW	
1.5	Coolant Motor Power	0.1 kw	
1.6	Colour of the Machine:	Dual colour: Soft Grey (RAL-7035) and Himmel Blue (RAL-5015) Polyurethane Paint	
2	Required Accessories / Spares		
2.1	Coolant pump motor and pipe fittings		
2.2	Control panel		
2.3	Adjustable material stop		1 no
2.4	Blade fitted on the m/c		1 no.
2.5	Spare Blade		5 nos.
2.6	Service Tool set		1 set
2.7	Bundle jaw		1 no.
2.8	Adjustable material stand		1 no.
3	Set of mechanical and electrical spare parts f	or 2 year normal operation. (Item wise quantity with	1 set
<u> </u>	price to be provided)		
4	Operation, Maintenance and spare parts ma	nual	3 sets
5	Items required for erection and commissioning	<ul> <li>Touch up paint - 1/2 litre each colour in airtight sealed containers, Paint brush ½" 1 no. for each colour</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cotton waste- 2 kg, Cora cloth – 5 Mtrs</li> <li>Set of anti vibration pads/Foundation bolts and leveling plates.</li> </ul>	1 set



### LOT 2 - Vertical Band Saw

Ref No	o. Sl. No. 7 of Annex 5	r Industrial Training Centre (IMITC), Monywa, Myanmar.  Quantity: 1 No	
		and required accessories suitable for 3 phase 400 V 50Hz AC. Co.	ntrol
Voltag	e 230V.		
1.	Basic Machine:		
1.1	Band wheel dia	450 mm	
1.2	Throat	~ 400 mm	
1.3	Under guide height	~ 300 mm	
1.4	Blade size mm	Approx. 4800 x3 1 x 1.1mm (Bimetal band saw M42 grade	
1.5	Cutting speed m/min	20 to 100 M/min	
1.6	Saw Motor	5 HP	
1.7	Table size	~ 800 x 800 mm	
1.8	Working height	~1100 mm	
1.9	Hydraulic Motor	=/> 1.0 HP	
1.10	Coolant Motor	=/> 0.25 HP	
2.	Required Accessories:		
2.1	Additional blade	2 nos	
2.2	VFD to control band speed through panel box.		
2.3	Hydraulic band tension.		
2.4	Inbuilt coolant tank with coolant pump.		
2.5	One bimetal band saw blade M-42 grade.		
2.6	Heavy duty gear box for necessary torque.		
2.7	Separate electrical control panel.		
2.8	Hydraulic table feeding with 500mm table		
	stroke.		
2.9	Heavy duty carbide face blade guide with prey straightening guide rollers.		
2.10	Hydraulic power pack with 40lit tank capacity.		
2.11	Automatic machine stop in case of blade brake.		
2.12	Infinite variable feed control through flow control valve.		
2.13	"T" slot on the top of the table for job clamping.		
2.14	Hydraulic arrangement for upper guide control.		
2.15	Clamping fixture to hold the ring.		
3	Set of spare parts for Electrical & Mechanical recommended for two years normal operation of machine	Item wise quantity with price to be provided	1 Set
4	Colour of machine :	Dual Colour : Soft Grey (RAL-7035) and Himmel Blue (RAL-5015) Polyurethane Paint	
5	Items required for Erection & Commissioning to be supplied with each machine.	<ul> <li>Touch up paint - 1 litre each colour in airtight sealed containers, Paint brush ½" 1 no. for each colour</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cotton waste- 2 kg, Cora cloth – 5 Mtrs</li> <li>Set of anti vibration mounting pads [Rubber or Spring Type] /Foundation bolts and leveling plates.</li> </ul>	1 Set

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# <u>LOT – 3 - Automatic Plastic Injection Moulding Machine</u>

Ref No. 9		o of Indo-Myanmar Industrial Training Ce atic Plastic Injection Moulding Machine	o (iivii i o), ivioliywa, iviyalii	Qty: 1 No.	
		with colour mixer, scrap grinder, oven,	cooling tower etc.	Qty . I No.	
		TECHNICAL SPECIFICATION			
Sl. No.		Description			Qty
1	Automatic Plastic Injection	n Moulding Machine with SERVO motor &	& Gear pump with all standard	accessories and	1
	Electrical suitable for 400V				
1.1	Major specifications				
1.1.1	Screw diameter		~ 50 - 60 mm		
1.1.2	Injection weight max.		350 gms		
1.1.3	Injection pressure		1400 - 1700 bar		
1.1.4	Screw rpm		250 – 310 min (RPM)		
1.1.5	Clamping force		180 Tons		
1.1.6	Mould opening stroke		~ 450 mm		
1.1.7	Distance between Tie bars	, H x V	~ 470 x ~ 470 mm		
1.1.8	Mold thickness		Min. 200 mm, Max. 500 mm	n	
1.1.9	Ejector stroke		~ 100 mm		
1.1.10	Ejector force		45 kN		
1.1.11	Ejector number		5 Pcs		
1.1.12	Oil tank capacity		~ 400 Litres		
1.2	Accessories				
1.2.1	Allen key set (mm series, 1	.5 to 10mm, plate)	1 Set		
1.2.2	Bigger Allen keys (12/14/	17/ 19mm)	1 No. Each		
1.2.3	Single ended spanners (36)	•	1 No. Each		
1.2.4		-7/ 8-9/ 10-11/ 12-13/ 14-15/ 16-17/ 18-	1 No. Each		
	19/ 20-22/ 24-27/ 30-32 m				
1.2.5	"O" spanner for screw tip	head body	1 No.		
1.2.6	Injection screw spanner		1 No.		
1.2.7	Injection cylinder – rod sea		2 Nos.		
1.2.8	Injection cylinder – rod wij		2 Nos.		
1.2.9	Brass ferrules; 4mm & 6mi		10 Each		
1.2.10	Magnetic grill for feed hop	per	1 No.		
1.2.11	Set of "O" Rings		1 Set		
1.2.12	Operation, Maintenance a		3 Sets per machine		
1.3		nel Blue (RAL 5015) and Soft Grey (RAL 7			
1.4		ELECTRICAL SPARE PARTS FOR 2 YEARS	•	EQUIPMENT 1	
	· ·	etailed list of spares with individual prices	5		
1.5	Items required for E&C to	be supplied with the machine:			
1.5.1	Touch up Paint - 1 Litre ea	ch, Brush- ½" – 2 Nos., Cora Cloth - 5 Met	ers, Cotton Waste - 2 Kgs.		
1.5.2	Set of additional MCB's as	spares ( MCBs to be used in lieu of fuses)			
1.5.3	Initial fill of Hydraulic /Lub	rication Oil packed in separate containers	& sealed		
1.5.4	Anti-vibration mounting pa				
1.5.5	Servo Stabiliser – 40Kva	1301			
		ce/ manufacture 1) Plate 2) 1 litre cap mu	ug with handle 2) DD small Bow	Lof woight 20 to	-
1.5.6	100 gm	ce, manufacture 1) Plate 2) 1 little cap Mt	ig with namule 3) FF Silidii BOW	i oi weigiit 30 t0	
1.6	Tooling cost for Plastic Inj	action Machine			1
					Set
1.6.1	Cooling Tower	5 T			- 361
1.6.2	Color Mixer	50 kg capacity	(Pod vollow blue areas area	ngo 9. Violet 3	-
1.6.3	PP material & Master	Molding grade 500 Kg & Master batch	- (neu, yellow, blue, green, oral	iige & violet-2	
164	batch Scrap Crindon	kgs each)			-
1.6.4	Scrap Grinder	100 kg / hr			-
1.6.5	Hopper Dryer	75 kg			

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	Project: Setting	up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, I	Myanmar.	
Ref No. 9	Sl. No. 5 of Annex 6 - Auto	matic Plastic Injection Moulding Machine	Qty: 1 No.	
Ref No. S	il. No. 6 of Annex 6 – Tooli	ng with colour mixer, scrap grinder, oven, cooling tower etc.		
		TECHNICAL SPECIFICATION		
Sl. No.		Description		Qty
1.6.6	Mold clamps	M16 threaded hole with clamp – 1 set		
Note:	Plastic injection mouldin after getting approval fr	ng machine to be tested with Mould and proved with sample outpoom HMT(I)	ut and to be dispatched	d only

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# **LOT - 4 CNC Electric Discharge Machine**

Ref No. S	6l. No. 2 of Annex 6	Qty: 1 No.	
	TECHNICAL SPECIFICATION		
Sl. No.	Description		Qty
1	<b>CNC Electric Discharge Machine,</b> consisting of Machine Tool Unit, Pu Generator Unit, Programmable Multi Axis Controller along with all star suitable for 3 phase 400V 50Hz AC.		1
2	Technical Specifications		
2.1	Machine Tool Unit		
2.1.1	Work tank internal dimensions (WxDxH)	≥ 750 x 500 x 250 mm	
2.1.2	Work table dimensions	≥ 500 X 350 mm	
2.1.3	Traverse (X, Y, Z)	≥ 300, 200, 225 mm	
2.1.4	Maximum Job weight	300 kg	
2.1.5	Maximum Job height	250 mm	
2.2	Dielectric Unit		
2.2.1	Dielectric Capacity	≥ 400 Ltrs	
2.2.2	Paper Filtration system	10 μ paper catridge 2 nos.	
2.3	Generator Unit		
2.3.1	Working current	≥ 50 Amp	
2.4	Accessories		
2.4.1	Set of standard tools and machine accessories	1 Set	
2.4.2	Flush aid complete	1 No.	
2.4.3	Axis corrector assembly	1 No.	
2.4.4	Clamping kit	1 No.	
2.4.5	Master surface plate	1 No.	
2.5	Operation/ Service/ Spare parts manual – 2 sets to be sent along with Machine and 1 set to HMTI, Bangalore	3 sets (Total)	
2.6	Software package CD/pen drive	1 No.	
2.7	Colour: Standard		
2.8	SET OF MECHANICAL AND ELECTRICAL SPARE PARTS FOR 2 YEARS NO	RMAL OPERATION.	
	Please indicate the detailed list of spares with individual prices		
2.9	Items required for E&C to be supplied with the machine:		
2.9.1	Touch up Paint - 1 Litre each, Brush- ½" – 2 Nos., Cora Cloth - 2 Meters,	Cotton Waste - 1 Kg.	
2.9.2	Set of additional MCB's as spares – 1 set		
2.9.3	Leveling plates/ Anti vibration leveling pads - 1 set		
2.9.4	Electrode component - Copper and steel of 70 mm dia with suitable pro	ofile – 3 set	
	Additional Items to be supplied with the machine		
2.10	Please indicate prices individually for following items		
2.10.1	EDM oil packed in separate container & sealed in barrel of 210 litres ca	pacity	3 Barrels
2.10.2	Servo Stabilizer – 3 phase, 400 V, 9KVA		1 No
2.10.3	Paper Filter element 10micron		1 Set

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# **LOT - 5 CNC Wire cut EDM Machine**

Ref No. S	I. No. 3 of Annex 6	Qty : 1 No.	
	TECHNICAL SPECIFI	CATION	
Sl. No.	Description		Qty
1	<b>CNC Wirecut EDM</b> consisting of Machine Tool Unit, CNC P Controller, part programming system software and Dielecti with all standard accessories and Electricals suitable for 3 ph	ric system with paper filtration filter unit along	1
2	Technical Specifications		
2.1	Machine Tool Unit		
2.1.1	Table size	≥ 350 x 500 mm	
2.1.2	Maximum Job height	≥ 200 mm	
2.1.3	Maximum Job weight	300 kg	
2.1.4	Main table traverse (X,Y)	≥ 250, 250 mm	
2.2	Generator Unit	1 - 1 / 1	
2.2.1	Display	Colour TFT / LCD	
2.2.2	Min. input command	0.001 mm	
2.2.3	Interpolation function	Linear & Circular	
2.2.4	Data Input / Output	USB Port     Keylogand & Marine	
2.3	Dielectric Unit	Keyboard & Mouse	
2.3.1	Dielectric Onit  Dielectric fluid	DM Water	
2.3.1	Tank capacity	≥ 55 litres	
2.3.3	Filter	Filter type	
2.4	Accessories	Theretype	
2.4.1	Set of standard tools and machine accessories	1 Set	
2.4.2	Operation/ Service/ Spare parts manual – 2 sets to be sent	3 sets (Total)	
	along with Machine and 1 set to HMTI, Bangalore	, ,	
2.5	Software package		
2.5.1	System software	1 No.	
2.5.2	Hardware lock for system software	1 No.	
2.5.3	CNC System software for controller	1 No.	
2.6	Colour: Standard		
2.7	SET OF MECHANICAL AND ELECTRICAL SPARE PARTS FOR 2	YEARS NORMAL OPERATION.	
	Please indicate the detailed list of spares with individual pric	es	
2.8	Items required for E&C to be supplied with the machine:		
2.8.1	Touch up Paint - 1 Litre each, Brush- ½" – 2 Nos., Cora Cloth	- 5 Meters, Cotton Waste - 2 Kgs.	
2.8.2	Set of additional MCB's as spares		
2.8.3	Leveling plates /Anti vibration leveling pads - 1 Set		
2.9	Additional Items to be supplied with the machine		
	Please indicate prices individually for following items		1 11-
2.9.1	Adjustable bridge comp  Ion exchange resin – One container consisting of 7.5 Litres		1 No
2.9.2	EDM wire special soft 0.25 mm dia – One spool of 10 Kgs		7 No
2.9.3	Servo Stabilizer – 3 Phase, 400 V, 4.5 KVA		1 No

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# LOT - 6 (1) Universal Testing Machine

Ref No. S	il. No. 70 of Annex 6	ndustrial Training Centre (IMITC), Monywa, Myanmar.  Quantity: 1 No	
	iversal Testing Machine	- Control of the cont	
Sl.No.	Description	Brief Specification	Remark
	<u>-</u>	and required accessories and Electricals suitable for 3	1
1.	Technical Specification:		
1.1	Maximum Capacity	100Kn ( 10 Tons)	
1.2	No. of Measuring Range / Range	4 / 0 – 100 Kn	
1.3	No. of Min. Graduation / Range	4 / 0.02 – 0.2 Kn	
1.4	Max. clearance for Tensile Test	50 – 700 mm	
1.5	Max. clearance for Compression Test	0 – 700 mm	
1.6	Clearance between columns	450 mm	
1.7	Ram Stroke	150 mm	
1.8	Max. Piston Speed at no load	300 mm / min	
1.9	Power	1 kW	
2.	Required Features / Accessories	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	For Tension Test		
2.1	Grips for testing round specimen	Specimen Dia. : 5 – 10 mm	1 Set
2.2	Grips for testing round specimen	Specimen Dia.: 10 – 20 mm	1 Set
2.3	Grips for testing round specimen	Specimen Dia.: 20 – 30 mm	1 Set
2.4	Grip for testing flat specimen	Specimen Max. width 50 mm, 0 – 10 mm thickness	1 Set
2.5	Grip for testing flat specimen	Specimen Max. width 50 mm , 10 – 20 mm thickness	1 Set
2.6	Bare attachment for threaded &	Specimen wax water 50 mm, 10 20 mm thekness	1 No.
	shouldered specimen		2
2.7	Brushes for testing threaded & shouldered		8 Sets
	specimen		
	For Compression Test		
2.8	Compression plates	Dia 120 mm, Hardened, Ground & Polished	1 Pair
	For Bending / Transverse Tests		
2.9	Table with adjustable Rollers	- Width of Rollers : 160 mm	1 No.
		- Diameter of Rollers : 30 mm	
		- Max. clearance between supports : 500 mm	
2.10	Double shear test attachment	- Radius of Punch Tops : 12 mm and 16 mm 5,6 mm	3 Sets
2.10	Set of Service Tools	3,0 111111	
3	Set of Operation, Maintenance and Spare		1 Set 3 Sets
3	Parts Manual		3 3613
4	Set of spare parts Electrical & Mechanical recommended for two years normal operation of machine	Item wise quantity with price to be provided	1 Set
5	Colour of machine :	Dual Colour : Soft Grey (RAL-7035) and Himmel Blue (RAL-5015) Polyurethane Paint	
6	Items required for Erection & Commissioning to be supplied with machine.	Touch up paint (1 litre each colour) Cotton waste (2 kg) Cora cloth (5 metres) Initial fill of Hydraulic / Lubrication / Cutting Oil Set of foundation bolts / Anti-vibration pads / leveling wedges	1 Set

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# LOT - 6 (2) Hardness Testing Machine

Pof No. 9	Project: Setting up of Indo-Myanmar Industrial To Sl. No. 71 of Annex 6	Quantity: 1 No		
Sl.No.			Remarks	
SI.NO.	Description Testing Management	Brief Specification		
	Item: Hardness Testing Machine with all standard and r	<u> </u>	1	
1.	Technical Specifications:	Rockwell Type		
1.1	Test Loads	60, 100, 150 kgf		
1.2	Initial Load	10 kgf		
1.3	Max. Test height	220 mm		
1.4	Depth of throat	130 mm		
1.5	Max. depth of elevating screw below base	230 mm		
2.	Required Features / Accessories			
2.1	Testing Table	50 mm dia.	1 No.	
2.2	Testing table	35 mm dia with "V" groove for round jobs upto 45 mm dia.	1 No.	
2.3	Diamond Indentor	120 <sup>0</sup>	1 No.	
2.4	Steel Ball Indentor	1/16"	1 No.	
2.5	Test Block	Rockwell 'C'	1 No.	
2.6	Test Block	Rockwell 'B'	1 No.	
2.7	Clamping Device		1 No.	
2.8	Rubber bellow for elevating screw protection		1 No.	
2.9	Set of Service Tools		1 Set	
3	Set of Operation, Maintenance and Spare Parts Manual		3 Sets	
4	Set of Mechanical spare parts recommended for two years normal operation of machine	Item wise quantity with price to be provided	1 Set	
5	Colour of machine :	Standard		
6	Items required for Erection & Commissioning to be supplied with machine.	Touch up paint ( 250 MI each colour) Cotton waste ( 1 kg) Cora cloth ( 2 metres ) Initial fill of Hydraulic / Lubrication / Cutting Oil Set of foundation bolts / Anti-vibration pads / leveling wedges	1 Set	

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# <u>LOT - 7 – Hydraulic Press 100T</u>

	Project: Setting up of Indo-Myanmar Industrial Training Cer	ntre (IMITC), Monywa, Myanmar.	
Ref No	o. Sl. No. 15 of Annexure 6 - Hydraulic Press – 100 T		
	TECHNICAL SPECIFICATION		
SI. No.	Description		Qty
1	<b>Hydraulic Press of Capacity 100 Tons</b> with all standard accessories and Electrical suitable for 400V, 3Phase, 50 Hz AC supply.		1
1.1	<b>Description:</b> Hydraulic Press of rigidly built C type frame fabricated from high qua inclinable and fitted with hydraulic cylinder, hydraulic power pack &		
1.2	Major specifications		
1.2.1	Press Stroke	≥ 400 mm	
1.2.3	Shut Height	≥ 600 mm	
1.2.4	Moving Platten Size (L x B)	Minimum 600 x 500 mm	
1.2.5	Table Size	Minimum 800 x 500 mm	
1.2.6	Height of Table from floor	≥ 750 mm	
1.2.7	Pressing Speed	≥ 6 mm/sec	
1.2.9	Main Motor Power	≥ 10 HP	
1.3	Accessories		
1.3.1	Overload safety device	1 no.	
1.3.2	Control panel	1 no.	
1.3.3	Hydraulic Cylinder	1 no.	
1.3.4	Punches, die plates, other accessories (1 set each)	Forming operation - demonstration	
1.3.5	Hydraulic power pack comprising of comprising of Motors, Pump, control valve, non return valve, filter and pressure gauge	1 set	
1.3.6	Operation/ Service/ Spare parts manual – 2 sets to be sent along with Machine and 1 set to HMTI, Bangalore	3 sets (Total)	
1.4	Colour: Dual Colour - Soft Grey (RAL-7035) and Himmel Blue (RAL-50	15) Polyurethane Paint.	
1.5	Set of mechanical and electrical spare parts for 2 year normal opera Please indicate the detailed list of spares with individual prices	ation.	
1.6	Items required for E&C to be supplied with the machine:		
1.6.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos., Cora cloth - 2 meters	s, Cotton waste - 1 kg.	
1.6.2	Initial fill of Lubrication Oil packed in separate containers & sealed	. 5	
1.6.3	Mounting bolts - 1 set		

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# **LOT: 8 (1) - MECHANICAL PRESS 10T**

Dafi Na C	Project: Setting up of Indo-Myanmar Industria I No. 16 of Annex 6	i Training Centre (IIVITIC), Monywa, Myanmai	•		
			10: 41:		
tem: Med	chanical Press – 10T		Qty:1 No	).	
	TECHNICAL SI	PECIFICATION			
Sl. No.	Description			Qt	
1	Mechanical Press Machine of Capacity 10 Tons with all standard accessories and Electrical suitable for			1	
	400V, 3Phase, 50Hz AC supply.				
	Description:				
1.1	Mechanical Press of rigidly built C type or Gap fra	- · · · · · · · · · · · · · · · · · · ·			
	plates, non-inclinable, forged alloy carbon steel crai		Manual		
1.2	slide adjustment, suitable lubrication system and over Major specifications	er load protection and sultable control panel.			
1.2.1	Strokes per Minute	~ 70 mm			
1.2.2	Stroke Length	~ 50 mm			
1.2.3	Shut Height	~ 200 mm			
1.2.4	Bolster Size	~ 500 x 300 mm			
1.2.5	Bolster Thickness	~ 60 mm			
1.2.6	Height of Bolster surface from floor	~ 750 mm			
1.2.7	Slide Area (L x B)	~ 210 x 160 mm			
1.2.8	Main Motor Power	≥ 1.5 HP			
1.3	Accessories	•			
1.3.1	Overload safety device (Mechanical Shear Plate)	1 no.			
1.3.2	Manual Slide Adjustment	1 no.			
1.3.3	Control panel	1 no.			
1.3.5	Operation, Maintenance and spare parts manual	3 Sets per machine			
1.4	Colour: Dual Colour - Himmel Blue (RAL 5015) and S	oft Grey (RAL 7035) Polyurethane Paint			
	Set of mechanical and electrical spare parts for 3 years	ars normal operation. (EACH EQUIPMENT - 1	SET)		
1.5	<ul> <li>Please indicate the detailed list of spares in</li> </ul>	Technical bid without price.			
	<ul> <li>Please indicate the detailed list of spares wi</li> </ul>	th individual prices in Commercial bid only.			
1.6	Items required for E&C to be supplied with the made	hine:			
1.6.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos., Cora	a cloth - 2 meters, Cotton waste - 1 kg.			
1.6.2	Initial fill of Lubrication Oil packed in separate contain	ners & sealed			
1.6.3	Mounting bolts - 1 set				

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	Project: Setting up of Indo-Myanmar Industria	al Training Centre (IMITC), Monywa, Myanmar.	
Item: Me	echanical Press of Capacity - 100 Tons		-
Ref No. S	Sl. No 17 of Annex 6		Qty: 1 No.
	TECHNICAL S	PECIFICATION	
Sl. No.	Description		
2	Mechanical Press Machine of Capacity 100 Tons with all standard accessories and Electrical suitable for 400V, 3 Phase, 50 Hz AC supply.		
2.1	Description:  Mechanical Press of rigidly built C type or Gap frame plates, non-inclinable, forged alloy carbon steel cran slide adjustment, suitable lubrication system and over	k shaft fitted with clutch and brake assembly, N	
2.2	Major specifications		
2.2.1	Strokes per Minute	~ 40	
2.2.2	Stroke Length	~ 100 mm	
2.2.3	Shut Height	~ 350 mm	
2.2.4	Bolster Size (L x B)	~ 950 x 600 mm	
2.2.5	Bolster Thickness	~ 90 mm	
2.2.6	Height of Bolster surface from floor	~ 800 mm	
2.2.7	Slide Area (L x B)	~ 600 x 450 mm	
2.2.8	Main Motor Power	≥ 10 HP	
2.3	Accessories		
2.3.1	Overload safety device (Mechanical Shear Plate)	1 no.	
2.3.2	Motorized / Manual Slide Adjustment	1 no.	
2.3.3	Control panel	1 no.	
2.3.4	Operation, Maintenance and spare parts manual	3 Sets per machine	
2.4	Colour: Dual Colour - Himmel Blue (RAL 5015) and So	oft Grey (RAL 7035) Polyurethane Paint	
2.5	<ul> <li>Set of mechanical and electrical spare parts for 3 ye</li> <li>Please indicate the detailed list of spares in</li> <li>Please indicate the detailed list of spares with</li> </ul>	Technical bid without price.	
2.6	Items required for E&C to be supplied with the mac	hine:	
2.6.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos., Cora	cloth - 2 meters, Cotton waste - 1 kg.	
2.6.2	Initial fill of Lubrication Oil packed in separate contain	ners & sealed	
2.6.3	Mounting bolts - 1 set		

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# Lot 9 - Circle Cutting Machine

	Project: Setting up of Indo-Myanmar Inc	lustrial Training Centre (IMITC), Monywa, Myanmar.	
Item : Cir	cle Cutting Machine		
Ref No. S	I. No 6 of Annex 9		Qty:1 No
	TECHNI	CAL SPECIFICATION	
SI. No.		Description	Qt
2.	<b>Circle Cutting Machine,</b> Maximum Dia. 600 mm, with all standard accessories and Electrical suitable for 400V, 3Phase, 50cy AC supply.		
2.1	Major specifications		
2.1.1	Capacity to cut circles Minimum / Maximum	110 mm / 600 mm	
2.1.2	Capacity in Mild Steel	10 SWG	
2.1.3	Capacity in Stainless Steel	16 SWG	
2.1.4	Strip Cutting Capacity	12 mm to 175 mm	
2.1.5	Motor Power	≥ 2 HP	
2.2	Required Accessories / Spares		
2.2.1	Spare Blade set	1 No.	
2.2.2	Service Tool Kit	1 Set	
2.2.3	Spare V Belts	1 Set	
2.2.4	Operation/ Service/ Spare parts manual – 2 sets to be sent along with Machine and 1 set to HMTI, Bangalore	3 sets (Total)	
2.3	Colour: Standard		
2.4	Set of mechanical and electrical spare parts for		
	<ul> <li>Please indicate the detailed list of spa</li> <li>Please indicate the detailed list of spa</li> </ul>	res in Technical bid without price. res with individual prices in Commercial bid only.	
2.5	Items required for E&C to be supplied with th	e machine:	
2.5.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos	., Cora cloth - 2 meters, Cotton waste - 1 kg.	
2.5.2	Initial fill of Lubrication Oil packed in separate	containers & sealed	



# LOT: 10 - Nibbling-Cropping-Punching M/c

Marie All	Project: Setting up of Indo-Myanmar Industrial Training Centr	, -,, - , -,,,,	
	bbling-Cropping-Punching M/c I No 4 of Annex 9	Oh., 4 A	1-
Ket No. S		Qty : 1 N	NO.
	TECHNICAL SPECIFICATION		
SI. No.	Description		Qty
1	Nibbling-Cropping-Punching M/c with all standard accessories & Electrical suitable for 400V, 3Phase, 50Hz		
	AC supply.		
1.1	Major specifications		
1.1.1	Punching:		
1.1.1.1	Punching Force	80 Ton	
1.1.1.2	Maximum Punching Thickness	20 mm	
1.1.1.3	Maximum Diameter of Punching	30 mm	
1.1.1.4	Max. Length of Cylinder Stroke	80 mm	
1.1.1.5	No. of Strokes (per/min)	≥ 8	
1.1.1.6	Depth of Throat	355 mm	
1.1.2	Steel Bar Shear		
1.1.2.1	Round	50 mm	
1.1.2.2	Square	45 x 45 mm	
1.1.3	Angle Shear		
1.1.3.1	Angle Section (90 Degree)	140 x 140 x 12 mm	
1.1.3.2	Angle Section (45 Degree)	70 x 70 x 10 mm	
1.1.4	Sheet Metal Shear	Las	
1.1.4.1	Shear Angle	8 Deg	
1.1.4.2	Flat Bar : Length x Thickness	330 x 20 mm	
1.1.4.3	Max. Length x Thickness (For Flat Bar)	480 x 10 mm	
1.1.4.4	Max. Shearing Thickness	20 mm	
1.1.5	Notching	13	
1.1.5.1	Thickness	12 mm	
1.1.5.2 1.1.5.3	Width	50 mm 100 mm	
1.1.5.5	Length Motor	7.5 HP	
1.1.0	Accessories	7.5 HP	
1.2.1	Electrical Control Panel	1 Set	
1.2.1	Fine Stroke adjustment rod with limit switch	1 No.	
1.2.2	Manual job Clamping Device	1 No.	
1.2.4	Suitable blades for Angle cutting, Flat cutting, Round bar cutting,	I IVO.	
1.4.4	Square bar cutting, Punching & Notching	1 Set	
1.2.5	One die & punch for round punching	1 Set	
1.2.6	Pair of foot switch	1 Set	
1.2.7	Manual back gauge	1 Set	
1.2.8	Operation, Maintenance and spare parts manual	3 sets per machine	
1.3	Colour: Dual Colour - Himmel Blue (RAL 5015) and Soft Grey (RAL 70		
1.4	Set of Mechanical and Electrical spare parts for 3 years normal oper	, ,	
1.7	Please indicate the detailed <b>list of</b> spares in Technical bid with		
	Please indicate the detailed list of spares with individual price.  Please indicate the detailed list of spares with individual price.		
1.5	Items required for E&C to be supplied with the machine:	ses in commercial bla only.	
1.5.1	Touch up Paint - 1 Litre each, Brush- ½" – 2 Nos., Cora Cloth - 2 Meter	rs Cotton Waste - 1 Kgs	
	·	13, COLLOIT WASIE - I Ngs.	
1.5.2	Initial fill of Lubrication Oil packed in separate containers & sealed		
1.5.3	Set of anti vibration mounting pads / Foundation bolts with leveling p	plates - 1 Set	



# **Lot-11 Roll Bending Machine**

	Project: Setting up of Indo-Myanmar Ind	ustrial Training Centre (IMITC), Monywa, Myanmar.				
Item : Ro	tem : Roll Bending Machine					
Ref No. 3	of Annex 9		Qty: 1 No.			
	TECHNIC	CAL SPECIFICATION				
Sl. No.		Description	Qty			
1.	Motorized Roll Bending Machine, Capacity 1250 mm x 3 mm with Manual centralized lubrication system, Reverse/forward roll drive with overload protection, Bending rolls are made of Alloy steel, Bottom rolls are power driven, top roll adjustment by manual and with all standard accessories and Electrical suitable for 400V, 3 Phase, 50H AC supply.					
1.1	<b>Technical Specifications</b>					
1.1.1	Size	≥ 1250 mm x 3 mm				
1.1.2	Dia Bottom Rolls	≥ 90 mm				
1.1.3	Dia of Top Roll	≥ 100 mm				
1.1.4	Туре	3 Roll design Pyramid Shape				
1.1.5	Motor Power	≥ 2 HP				
1.2	Accessories					
1.2.1	Service Tool Kit	1 Set				
1.2.2	Spare V Belts	1 Set				
1.2.3	Operation/ Service/ Spare parts manual – 2 sets to be sent along with Machine and 1 set to HMTI, Bangalore	3 sets (Total)				
1.3	Colour: Standard					
1.4	Set of mechanical and electrical spare parts for      Please indicate the detailed list of spare      Please indicate the detailed list of spare					
1.5	Items required for E&C to be supplied with th	e machine:				
1.5.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos	s., Cora cloth - 2 meters, Cotton waste - 1 kg				
1.5.2	Initial fill of Lubrication Oil packed in separate	containers & sealed				
1.5.3	Set of anti vibration mounting pads / Foundati	on bolts with leveling plates - 1 set				

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# <u>Lot 12 – Profile Projector</u>

ltem : Pro	file Projector	Qty: 1 no.		
Ref. No. S	l. No. 51 of Annex 6			
SI.No.	Description	Brief Specifications	Qty	
1	<b>Horizontal Profile Projector</b> with all standard a phase 230V 50Hz AC.	accessories and Electricals suitable for 1	1	
2	Major specifications			
2.1	Configuration	Horizontal light path, Vertical screen, Table model		
2.2	Magnification	10X, 25X, 50X		
2.3	Screen dia / specification	400 mm. Opaque glass screen with 90° cross lines. Screen fitted with rotary encoder, Resolution 0.01 degree		
2.4	Profile illumination	24 V 150W Halogen lamp		
2.5	Magnification Accuracy- Diascopic	0.05%		
2.6	Magnification Accuracy- Episcopic	0.1%		
2.7	Table size	400 X 200 mm		
2.8	X Axis Traverse	200 mm		
2.9	Y Axis Traverse	100 mm		
2.10	Focussing Traverse	50 mm		
2.11	Measurement	Linear Scale		
2.12	Measurement System	Scales- DRO with rotary encoder for X, Y radius & angle measurements	,	
2.13	Colour	Standard		
3	Required Features / Accessories			
3.1	Hand tools kit		1	
3.2	V Blocks with clamps and centers with tenons in T slot of the work table of the projector having center height 150 mm & b/w centers 300 mm		1 set	
3.3	Precision vice		1	
3.4	Comparison chart set		1 set	
3.5	Operation Manual		3 sets	
3.6	Recommended spares for 2 years of normal operation		1 set	_



# LOT 13 - Tool Presetter with DRO & Projector

	Project: Setting up of Indo-M	yanmar Industrial Training Centre (IMITC), Monywa, Myanmar.		
Ref No	. Sl. No. 14 of Annex 6	Quantity: 1 No		
SI. No.	Item	Item Brief Specification Qua		
1	Tool Presetter with DRO & Projector with 230V, 50Hz, AC supply.  Major specifications	1		
1.1	Measuring Range X axis	0-300 mm		
1.2	Measuring Range Z axis	0-400 mm		
1.3	Spindle Taper	BT 40		
1.4	Spindle accuracy	0.002 mm		
1.5	Resolution X axis	0.001 mm		
1.6	Resolution Z axis	0.001 mm		
1.7	Checker dial X axis	0.005 mm		
1.8	Checker dial Z axis	0.010 mm		
1.9	Tool clamp	Mechanical / Pneumatic, Horizontal / Vertical		
1.10	Colour of machine	Dual Colour : Soft Grey (RAL 7035) and Himmel Blue (RAL 5015) Polyurethene Paint		
2	Required Accessories / Spares			
2.1	Spindle	Mounted on high precision angular contact bearings		
2.2	Axes	LM Guideways with provision to clamp and fine adjustment. Bellows for the LM guideways		
2.3	Scales & DRO	From Reputed Brand having resolution 0.001 mm		
2.4	Projector	From Reputed Brand, 10X Magnification on 100 mm screen. Direct projection of tool.		
2.5	Test Mandrel	BT 40 with diameter and length engraved/etched		
2.6	Table	Table with leveling screws having suitable height to place and operate the equipment and provision to store the accessories under lock and key.		
2.7	Set of Operation & Maintenance Manua		1 set	
3	Set of spare recommended for two years to be provided)	s normal operation of machine. (Itemwise quantity with price	1 set	
4	Items required for erection and commissioning	<ul> <li>Touch up paint - 1/2 litre each colour in airtight sealed containers, Paint brush ½" 1 no. for each colour</li> <li>Initial fill of Hydraulic/Lubrication Oil, if any in separate sealed containers.</li> <li>Cotton waste- 2 kg, Cora cloth – 5 Mtrs</li> <li>Set of anti vibration pads/Foundation bolts and leveling plates.</li> </ul>		



# Lot-14 (1) Mechanical Guillotine Shear:

	Project: Setting up of Indo-Myanmar Industrial Tra	ining Centre (IMITC), Monywa, Myanmar			
Item : Mechanical Guillotine Shear					
Ref No. S	l No 1 of Annex 9	Qty:1	No.		
	TECHNICAL SPECIF	ICATION			
Sl. No.	Description				
1.	<b>Mechanical Guillotine Shear</b> with all standard accessories and Electrical suitable for 400V, 3Phase, 50cy AC supply and control Voltage 230V, 1 phase AC supply.				
1.1	Technical Specifications :				
1.1.1	Cutting capacity of MS Material (Length x Thickness)	2000 mm x 3 mm ( Should have a capacity to shear from 0.5 mm to 3 mm plates)			
1.1.2	Table height x width	900 x 450 mm ± 5 %			
1.1.3	No. of strokes (Min)	50			
1.1.4	Depth of Throat (Min)	75 mm			
1.1.5	Front gauge	600 mm ± 5 %			
1.1.6	Rear gauge	750 mm ± 5 %			
1.1.7	Motor power	≥ 5 Kw			
1.2	Accessories:				
1.2.1	Automatic lubrication system	1 No.			
1.2.2	Clutch key	1 No.			
1.2.3	Spring for clutch housing	1 No.			
1.2.4	Cutting blade	2 Sets.			
1.2.5	Clutch ring	1 pair			
1.2.6	Machine lamp (Halogen)	1 No.			
1.2.7	Additional set of blades	1 set			
1.2.9	Operation/ Service/ Spare parts manual – 2 sets to be sent along with Machine and 1 set to HMTI, Bangalore	3 sets (Total)			
1.3	Colour: Standard				
1.4	Set of mechanical and electrical spare parts for 2 year n	ormal operation.			
	Please indicate the detailed list of spares in Technology				
	Please indicate the detailed list of spares with in		<u> </u>		
1.5	Items required for E&C to be supplied with the machine		<u> </u>		
1.5.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos., Cora clo		<u> </u>		
1.5.2	Initial fill of Lubrication Oil packed in separate containers		<u> </u>		
1.5.3	Set of anti vibration mounting pads / Foundation bolts with leveling plates - 1 set				

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# Lot-14 (2) Hydraulic Press Brake

Item: Hyd	draulic Press Brake			
	No. SI No. 2 of Annex 9	Qty:	1 No.	
Sl. No.	Descrip		Qty	
1	Hydraulic Press Brake of 50T with all standard accessor	ies and Electrical suitable for 400V, 3Phase, 50 Hz	1	
	AC supply suitable for inching, single stroke and Auto O	peration.		
1.1	Major specifications			
1.1.1	Bending capacity of MS Material (Length x Thickness)	2000 x 3 mm		
1.1.2	UTS of MS Material	45 Kg/mm²		
1.1.3	Table size	≥ 170 x 2000 mm		
1.1.4	Tonnage	50 T		
1.1.5	Motor power	≥ 3.5 Kw		
1.1.6	Clear passing	≥ 1500 mm		
1.1.7	Ram stroke	≥ 100 mm		
1.1.8	Open height	275 mm ± 5%		
1.1.9	Closed height	180 mm ± 5%		
1.1.10	Depth of throat	200 mm ± 5%		
1.1.11	Approach / Return speed	≥ 45 mm/sec		
1.1.12	Pressing speed	6 mm / sec ± 5%		
1.2	Accessories	1		
1.2.1	Press gauge	1 No.		
1.2.3	Machine Lamp (Halogen)	1 No.		
1.2.4	Electrical control motor with inching/auto mode	1 set.		
1.2.5	Foot switches	1 pair		
1.2.6	Lifting links	1 pair		
1.2.7	Sheet supports	1 pair		
1.2.8	Fin stroke adjustment rod with limit switches	1 set		
1.2.9	Manual back gauge with fine setting	1 set		
1.2.10	5 Way die stock and "V" punch	1 No.		
1.2.11	Centralised lubrication system with hand pump			
1.2.12	Operation/ Service/ Spare parts manual – 2 sets to be sent along with Machine and 1 set to HMTI, Bangalore	3 sets (Total)		
1.3	Colour: Standard			
	Set of mechanical and electrical spare parts for 2 year	normal operation.	$\dashv$	
1.4	Please indicate the detailed list of spares in Te	chnical bid without price.		
	Please indicate the detailed list of spares with	individual prices in Commercial bid only.		
1.5	Items required for E&C to be supplied with the machin	e:		
1.5.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos., Cora cl	oth - 2 meters, Cotton waste - 1 kg.		
1.5.2	Initial fill of Lubrication Oil packed in separate container			
1.5.3	Mounting bolts - 1 set			
1.5.4	Initial fill of required gty of hydraulic oil			



# **LOT - 15 CNC Coil Winding Machine**

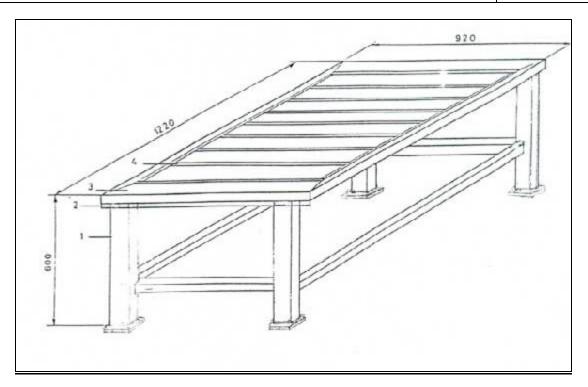
Indo - Myanmar Industrial Training Centre (IMITC) Project, Monywa, Myanmar				
Item : Coil Winding Machine				
Item Ref	Item Ref No. SI No. 2 of Annex 9 Qty			
TECHNICAL SPECIFICATION				
Sl. No.	Description		Qty	
2	Coil Winding Machine – Manual, Suitable for Winding Motor, Transformer and Ceiling Fan Coils with all		all 1	
	standard and required accessories suitable for 230V, 1Ph, 50Hz AC supply.			
2.1	Major specifications			
2.1.1	Wire range	18-46 SWG		
2.1.2	Winding width	300 mm		
2.1.3	Bobbin swing	200 mm		
2.1.4	Power of Drive Motor	0.5 HP		
2.1.5	Speed range	5-1800 rpm		
2.1.6	Positioning accuracy of traverse	+/- 0.01 mm		
2.2	Accessories			
2.2.1	Display	Digital		
2.2.2	Key board	Matrix keyboard with status indication		
2.2.3	Dereeler with tensioner			
2.2.4	Tailstock			
2.2.5	Power cord			
2.2.6	Variable speed foot switch			
2.2.7	Type 16 Bobbin for Transformer with holding devices  - Suitable for Motor Coil Winding – 1 No.  - Suitable for Ceiling Fan Coil Winding – 1 No.  - Suitable for Type 16 Transformer Winding – 1 No.	100		
2.2.8	Mandrels (Suitable for the above bobbins)	3		
2.2.9	Enameled Copper Wire - 36 SWG	3 Kg		
2.2.10	Enameled Copper Wire - 18 SWG	3 Kg		
2.2.11	Enameled Copper Wire - 22 SWG	3 Kg		
2.2.12	Enameled Copper Wire - 32 SWG	3 Kg		
2.2.13	Operation/ Service/ Spare parts manual – 2 sets to be sent along with Machine and 1 set to HMTI, Bangalore	3 sets (Total)		
2.3	Colour: Standard			
2.4	Set of mechanical and electrical spare parts for 2 year normal operation.  Please indicate the detailed list of spares with individual prices			
2.5	Items required for E&C to be supplied with the machine:			
2.5.1	Touch up paint - 1 litre each, Brush- ½" – 2 nos., Cora cloth - 2 meters, Cotton waste - 1 kg.			
2.5.2	Initial fill of Lubrication Oil packed in separate containers & sealed			
2.5.3	Set of anti vibration mounting pads / Foundation bolts w	ith leveling plates - 1 set		

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018 Page 107 of 193



## **LOT 16 Shop Furniture (1)- Arc Welding Table**

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar				
Description: Arc welding Table				
Annexure Ref.9 / Sl.No. 75	Qty 1 No.			



# ARC WELDING TABLE:

Size of Table: 1220mm Length x 920mm Width x 600mm Height Paint & colour: Polyurethene Apple Grey Green (AGG) Painting

## Items:

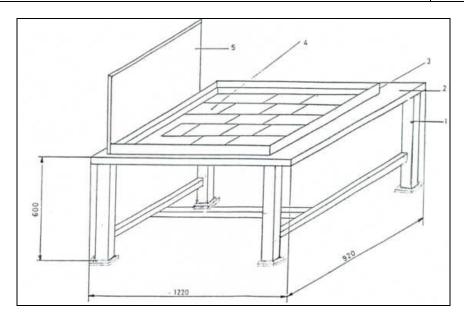
- 1. M.S. Rectangular pipe 100 x 50 mm, 4mm thick
- 2. M.S. Plate 10 mm thick
- 3. M.S. Angle frame 50 x 50 x 6 mm
- 4. M.S. Cross Flats 5 x 45 mm

Metallic shoes for the legs to be provided.



### Lot 16 (2) - Gas Welding Table

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar	
Description: Gas Welding table	
Agreement Ref. / Sl.No.	Qty
Annexure Ref. 9 / Sl.No. 76	1



# **GAS WELDING TABLE:**

Size of Table : 1220 mm Length x 920mm Width x 600mm Height Paint & colour : Polyurethene Apple Grey Green (AGG) Painting

#### Items:

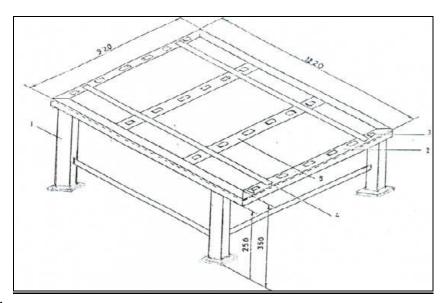
- 1. M.S. Rectangular pipe 100 x 50 mm, 4mm thick
- 2. M.S. Base Plate 10 mm thick
- 3. M.S. Box 1000 mm Length x 750 mm width x 8 mm thick
- 4. Fire Bricks 115mm length x 58 mm width x 38 mm thick (Each) as per IS 6 standard.
- 5. M.S. Plate 700mm Length x 400mm Height x 10mm thick

Metallic shoes for the legs to be provided.



# Lot 16 (3) - Gas Cutting Table

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar		
Description: Gas Cutting Table		
Annexure Ref.9 / Sl.No. 77	Qty 1 No.	



### **GAS CUTTING TABLE:**

Size of Table: 1220mm Length x 920mm Width x 350 mm Height Paint & colour: Polyurethene Apple Grey Green (AGG) Painting

#### Items:

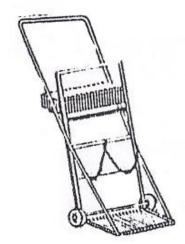
- 1. M.S. Rectangular pipe 100 x 50 mm, 4mm thick
- 2. M.S. Angle frame 100 x 100 x 6mm
- 3. M.S. Angle guide 75 x 6 mm
- 4. M.S. Flat 100 x 40 mm inserts
- 5. M.S. Flat 100 x 6 mm

Metallic shoes for the legs to be provided



# Lot 16 (4) - Gas Cylinder Trolley

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar  Description: Gas Cylinder trolley/truck two wheel type	
Annexure Ref. 9 / Sl.No. 73	2
Annexure Ref.4 / Sl.No. 102	2
Total	4

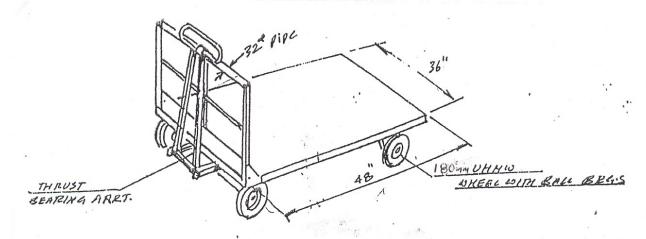


Major Specifications		
Dimension	24 inches width X 48 inches height	
No. of cylinders	2 nos.(Oxygen & Acetylene)	
Wheels	2 nos. with suitable solid rubber wheels	
Chains	2 chains to fasten two cylinders	
Tool box	To store tools	
Safety features	As per IS:8016:1996	
Paint	Powder coated / PU yellow	
Spares	Recommended spares for 2 years of normal operation	
Dimension	24 inches width X 48 inches height	
No. of cylinders	2 nos.(Oxygen & Acetylene)	
Wheels	2 nos. with suitable solid rubber wheels	
Chains	2 chains to fasten two cylinders	
Set of Spares	Trolley Wheel (2 Pcs)	



### Lot 16 (5) - Hand Trolley

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar	
Description: HAND TROLLEY	
Agreement Ref. / SI.No.	Qty
Annexure Ref. 6 / Sl.No.89	5



Capacity :1 T

Trolley size :48 inches length X 36 inches width

Height of trolley platform from floor:Approx. 280 mm

Wheels :4 nos UHMW material wheels of 180 mm diameter fitted with sealed ball bearing

Type of wheels :2 nos wheels fixed type and 2 nos wheels swivel type

Height of trolley :40 inches (Floor to handle bar)

Platform Top :25 mm thick silver oak wood fitted on suitable angle frame

Back frame :32 mm dia ERW pipe
Paint :PU / Powder Coated yellow

Spares :Recommended spares for 2 years of normal operation

Handle :To be used for Pull & Push with lock

Features:

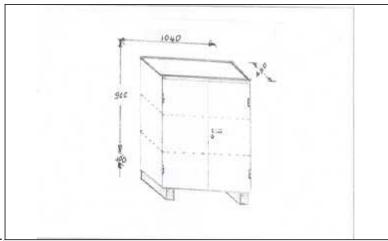
Handle to be mounted on swivel plate mounted on thrust bearings and connected to rear wheel axle

Note: UHMW – Ultra High Molecular Weight ERW – Electric Resistance Weld



### Lot 16 (6)- Machine Side Cabinet

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar  Description: MACHINE SIDE CABINET	
Annexure Ref. 1 / Sl.No.25	5
Annexure Ref. 5 / Sl.No.93	20
Annexure Ref. 6 / Sl.No.102	17
TOTAL	42



# MACHINE SIDE CABINET:

Size of Cabinet: 1040mm Length x 450mm Breadth x 900mm Height

P Leg height: 100mm

Sheet thickness for cabinet
 Sheet thickness for back of the cabinet
 Sheet thickness for back of the cabinet
 Sheet thickness for shutter & shelf
 Door
 MS steel CRCA sheet 21 SWG
 MS steel CRCA sheet 19 SWG
 Hinged type (2 nos. on each door)

No. of shelves : 3 (300mm height in each compartment)

#### Features:

Quality lock & handle door

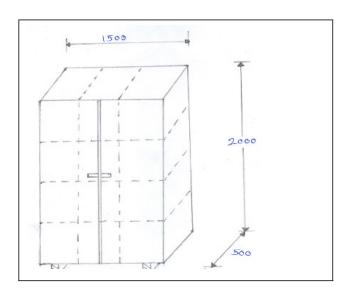
Powder coated colour - soft grey

Rubber mat 3.5mm thick firmly positioned on top of the cabinet



# Lot 16 (7)- Storage Cabinet

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar  Description: STORAGE CABINET		
		Agreement Ref. / SI.No.
Annexure Ref. 8 / Sl.No. 131 –Equipment storage cabinet		2
Annexure Ref. 8 / Sl.No. 129 – Material storage cabinet		2
Annexure Ref. 8 / Sl.No. 130 – Tool storage cabinet		2
TOTAL		6



Size: 2000mm H x 1500mm W x 500mm D of Prime quality CRCA steel Legs Height 100mm

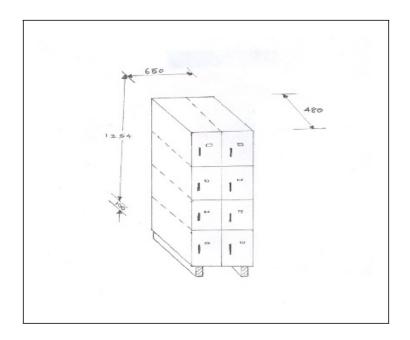
All sides, Top, Bottom & Backside to be of 18 SWG
Inside horizontal partition – 16 SWG
Inside vertical partition – 20 SWG
Minimum load bearing capacity-50Kg in each cabin
Seven lever Lock to be provided with set of 2 stainless steel keys.

Double folded type hinges with stainless steel cotter pins to be provided Colour: Power coating colour grey



# Lot 16(8)- Personal Locker

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar  Description: PERSONAL LOCKERS	
Annexure Ref. 2 / Sl.No.52	3
Annexure Ref. 6 / Sl.No.126	3
Annexure Ref. 1 / Sl.No.24	3
Annexure Ref. 3 / Sl.No.31	3
Annexure Ref. 4 / Sl.No.149	2
Annexure Ref. 5 / SI.No.92	3
Annexure Ref. 8 / SI.No.169	3
Annexure Ref. 9 / SI.No.83	3
Annexure Ref. 7 / SI.No.145	3
TOTAL	26



# **PERSONAL LOCKERS:**

Size: 650mm L x 480mm W x 1354mm H

No. of Columns: 2 No. of rows: 4

8 nos. independent lockers with locking facility for each locker Sheet thickness for locker: MS steel CRCA sheet 20 SWG

Sheet thickness for back of the locker: MS steel CRCA sheet 21 SWG Sheet thickness for shutter & shelf: MS steel CRCA sheet 19 SWG

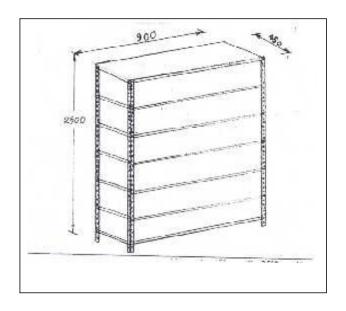
Door: Hinged type

Colour: Powder coated soft grey Provision for fixing name slip



# Lot 16(9)- Slotted Angle Rack

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar  Description: Slotted Angle Rack	
Annexure Ref.1 / SI.No.23	4
Annexure Ref.2 / SI.No.49	4
Annexure Ref.3 / Sl.No.38	6
Annexure Ref.5 / Sl.No.91	4
Annexure Ref.6 / Sl.No.100	4
Annexure Ref.7 / Sl.No.152	4
Annexure Ref.8 / Sl.No.176	6
Annexure Ref.9 / SI.No.85	4
Annexure Ref.4 / SI.No.196	2
OTAL	38



#### **SLOTTED ANGLE RACK:**

Size : 900 mm Length x 450 mm Width x 2500 mm Height

No of shelves: 7

Angles dimension: 40mm x 40mm x 2.5mm thick

Shelf sheet thickness : 16 SWG

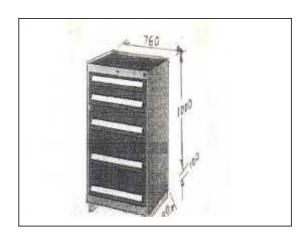
### Features:

- Corner plate (Gusset) to be provided on top & bottom for additional strength and stability of the slotted angles when fixed.
- Provision for 6 compartments
- Foot plates to be provided
- > Bottom 3 shelves in each slotted angle rack to be provided with 3.5mm rubber sheets
- Powder coated AG
- Provision for clamping the rack to the wall



#### Lot 16(10)- Tool Storage Cabinet

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar	
Description: Tool storage cabinet	
Agreement Ref. / Sl.No.	Qty
Annexure Ref.6 / Sl.No. 90	2
Annexure Ref.5 / Sl.No. 94	4
Annexure Ref.6 / Sl.No. 101	8
TOTAL	14



#### **TOOL STORAGE CABINET:**

Cabinet Size: 760 mm Length x 680 mm Width x 1000 mm Height

> Leg height: 100 mm

Sheet thickness for cabinet : MS steel CRCA sheet 20 SWG Top &

Bottom of cabinet : MS steel CRCA sheet 18 SWG

> Stiffeners: MS steel CRCA sheet 16 SWG

> Drawer fascia : 1 x 50, 1 x 100, 1 x 150, 2 x 300 mm

➤ Drawer size : 600 x 600 x 37 − 1 nos & 600 x 600 x 87 − 4 nos

Sheet thickness for drawers : MS steel CRCA sheet 21 SWG
 Sheet thickness for fascia : MS steel CRCA sheet 18 SWG

Sheet thickness for Channels : MS steel CRCA sheet 13 SWG
 Partition of each drawer : 597 x 35 − 1 no & 597 x 85 − 4 nos

Drawers load carrying capacity : 100 kg

Drawer usable size : 620 x 600mm

Handles : Aluminium extruded – 600 mm with integral label holder & protected with plastic covers

#### **Features**

- Partition in each drawer of MS steels 18 SWG with profile on both sides
- Each drawer is provided with two full width, one 215 mm, two 175 mm dividers and two 115 mm dividers to make required divisions at a pitch of 20 mm
- Central locking system with push lock one each per cabinet
- > All drawers run on special ball bearings
- Easy flexible divider system
- ➤ Anti tilt mechanism
- Powder coated –Cabinets Polyurethane grade Grey colour
- Rubber mat 3.5 mm thick firmly positioned on top of the cabinet



# Lot 16(11)- Workshop Stool

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar  Description: OPERATOR/WORKSHOP STOOL	
Annexure Ref. 2 / Sl.No.12	20
Annexure Ref. 1 / Sl.No.17	20
Annexure Ref. 3 / Sl.No.32	20
Annexure Ref. 5 / Sl.No.85	20
Annexure Ref. 6 / Sl.No.122	20
Annexure Ref. 7 / Sl.No.146	20
Annexure Ref. 8 / Sl.No.170	20
Annexure Ref. 9 / Sl.No.74	20
TOTAL	160



### **WORKSHOP STOOLS:**

Size : Dia 12 inchesHeight : 20 inches

# Features:

- > Diameter 12 inches & height 20 inches, high counter rotating stool with form fabric seat & chrome plated frame
- Rubber shoes to be provided to the legs
- > Provide reinforcement of round rings inside & outside the 4 legs.
- Colour of seat Maroon



# Lot 17(1)- Computer table with Chair

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar	
Description: COMPUTER TABLE WITH CHAIR SET	
Agreement Ref. / Sl. No.	Qty
Sl. No. 7 of Annex 1	22
SI. No. 20 of Annex 6	22
Sl. No. 12 of Annex 10	22
TOTAL QTY	66



### **COMPUTER TABLE:**

> Size: 900mm Length x 600mm Width x 800mm Height

#### <u>Features</u>

- Compressed wood / Particle wood / Bhutan board, 800mm L, Full depth key board & mouse tray retractable with caster wheels
- > Cabinet for housing CPU with open front & rear at right side
- > Shelves with 3 nos. drawer on left side with lock
- Colour: Pine wood

#### **COMPUTER CHAIR:**

- ➤ Height adjustable computer chair with butter fly pushback with nylon base
- > Normal tilt mechanism with locking facility
- > High density pre moulded foam
- Polywire fabric upholstery
- Pneumatic height adjustment
- Ergonomic seating
- PU soal soft arms



# Lot 17(2)- Cupboard - Major

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: CUPBOARD (MAJOR)			
Agreement Ref. / Sl. No.	Qty		
Annexure 1/20	4		
Annexure 2/46	5		
Annexure 3/35	4		
Annexure 5/88	4		
Annexure 7/149	2		
Annexure 8/173	4		
Annexure 9/81	4		
Annexure 4/147	2		
Annexure 6/120	4		
TOTAL QTY	33		



### **CUP BOARD (MAJOR):**

Size : 915 mm Length x 485 mm Breadth x 1980 mm Height

➤ Leg height: 130 mm

➤ Sheet thickness : MS steel CRCA sheet 19 SWG

Sheet thickness for back side
 Sheet thickness for door & shelf
 MS steel CRCA sheet 20 SWG
 MS steel CRCA sheet 18 SWG

Door : Hinged type (3 nos on each door)

No of shelves: 5 (396mm height in each compartment)

#### Features:

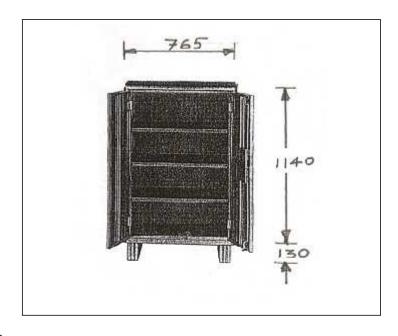
Quality locks & handle for door

Powder coated – MJ Grade, drawers in deep blue, cupboard in AG.



# Lot 17(3)- Cupboard - Minor

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: CUPBOARD (MINOR)			
Agreement Ref. / Sl. No.	Qty		
Annexure 1/21	4		
Annexure 2/47	5		
Annexure 3/36	4		
Annexure 4/148	2		
Annexure 5/89	4		
Annexure 7/150	2		
Annexure 8/174	4		
Annexure 9/82	4		
Annexure 6/121	4		
TOTAL QTY	33		



### **CUP BOARD (MINOR):**

> Size : 765 mm Length x 440 mm Breadth x 1270 mm Height

Leg height: 130 mm

> Sheet thickness : MS steel CRCA sheet 20 SWG

Sheet thickness for back side : MS steel CRCA sheet 21 SWG

➤ Sheet thickness for door & shelf : MS steel CRCA sheet 19

SWG Door: Hinged type (2 nos on each door)

No of shelves: 4 (318mm height in each compartment)

# Features:

Quality locks & handle for door

> Powder coated – MJ Grade, drawers in deep blue, cupboard in AG.



# Lot 17(4)- Instructor chair

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: INSTRUCTOR CHAIR			
Agreement Ref. / Sl. No.	Qty		
Annexure 1/19	1		
Annexure 2/45	2		
Annexure 3/34	1		
Annexure 4/152	1		
Annexure 5/87	1		
Annexure 7/148	1		
Annexure 8/172	1		
Annexure 9/80	1		
Annexure 6/124	1		
TOTAL	10		



# **INSTRUCTOR CHAIR:**

- > Height adjustable high back chair with butter fly pushback with nylon base.
- ➤ High density pre moulded foam.
- Polywire fabric upholstery.
- Pneumatic height adjustment.
- Ergonomic seating.
- PU soal soft arms.
- > Upholstered with high density soft foam & art leather.



# Lot 17(5)- Instructor Table

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: INSTRUCTOR TABLE			
Agreement Ref. / Sl. No.	Qty		
Annexure 1/18	1		
Annexure 2/44	2		
Annexure 3/33	1		
Annexure 4/151	1		
Annexure 5/86	1		
Annexure 6/123	1		
Annexure 7/147	1		
Annexure 8/171	1		
Annexure 9/79	1		
TOTAL	10		



# **INSTRUCTOR TABLE:**

> Size: 1500mm L x 800mm W x 760mm H

### Features:

- Compressed wood / Particle wood / Bhutan board
- > 3 Drawers on left side with handle
- ➤ Half mat (length-wise) on table top
- > Cable Cap on both ends of the Table top
- Color: Jackwood



# Lot 17(6)- Cutting & Ironing Table

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description : Table – For Cutting & Ironing			
Agreement Ref. / Sl. No.	Qty		
SI. no 11 of Annex 2	5		
Sl. no 14 of Annex 2	2		
Total	7		



### Specification:

Size :6' x 6' Height :30" Material : Akasia/Jackwood

Size of legs : 75 x 75 mm (Dismantable)

Table Top : Hard wood 25 mm thick, edges round off at R25 mm

Reinforcement planks : On all sides 125 mm Depth & 50 mm thick

Drawers : Two nos on each side with handles 500 mm dp

- All sides protruding out by 50 mm
- Plastic bushes at the bottom of each leg
- Touch wood polished, Teak wood colour

Note: Legs are to be dismantled during packing and reassembled at customer site.



# Lot 17(7)- LECTURE CHAIR

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: LECTURE CHAIR			
Agreement Ref. / Sl. No.	Qty		
Annexure 2/15	20		



### Lecture chair: specification

- Cushion seat and back
- > Half writing flip over pad made out of 18mm pre laminated board with teak wood beading
- Underseat storage mesh
- Frame finished in powder coating (Colour: soft grey), Polyurethane grade, make: Nerolac / Marpol
- ➤ Metal frame made out of ¾" round pipe of 18 SWG steel
- > Seat and back upholstered in fabric colour Maroon.
- Rubber Shoes on legs



# Lot 17(8)- Visitor Chair

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar		
Description: Visitor Chair		
Agreement Ref. / Sl. No.	Qty	
Annexure 2/16	6	

Cushion chairs with cushion seat and PP back

Upholstered in good quality fabric

Mounted on metal legs

Frame finished in powder coating (Colour: Maroon), Polyurethane grade,

Make: Cello/Neelkamal With bottom support for seat

With Handle.

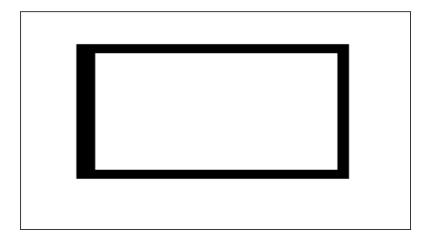
Rubber Pads at the bottom





# LOT 17 (9) - White Board

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar		
Description: WHITE BOARD		
Agreement Ref. / Sl. No.	Qty	
Annexure 1/22	1	
Annexure 2/43	1	
Annexure 5/90	1	
Annexure 6/125	1	
Annexure7/151	1	
Annexure 9/84	1	
TOTAL	5	



# WHITE BOARD:

- ➤ White board Magnetic
- ➤ Size: 6 feet Long x 4 feet width

### **Features**

- Magnetic white board with all accessories like pen set, duster, clamps etc.
- Eye hooks at the rear to fix to the wall



# LOT 17 (10) Inspection Table with Light

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar				
Description: INSPECTION TABLE WITH LIGHT				
Agreement Ref. / SI. No. Qty				
Annexure 6/93	2			



**Specification:** 

Table Top	1500 L x 1000 W x 750 H mm			
	Table Top Single Piece Polished Granite Black colour 25 mm thick seated properly on angle			
	iron 32 x 32 x 6 mm with sufficient reinforcement to support the granite. All edges are			
	rounded off and corners rounded off R25 mm. Table top protruding out on all sides by 50			
	mm. Table top in line with angle iron.			
Table Legs	Made of 50 mm square hollow MS pipes 2 mm thick with rubber shoes.			
	Reinforcement on all four sides by 20 mm MS square hollow pipe 2 mm thick to hold the			
	enclosure, open in the front.			
Light	At a height of 1900 MM, Twin Fluorescent Lamp 40W, 1Ph, 230 V, 1200 mm long with			
Arrangement	reflectors and positioned to ensure proper lighting on the table surface. All wires are to be			
	concealed and running in conduit. Lighting arrangement in CKD condition			
Enclosure	An enclosure to a height of 300 mm of 16 SWG SS 304 sheet. Bottom of the enclosure made			
	of 16 SWG SS 304.			
Paint	Powder coated – Soft Grey Colour RAL 7035			



### LOT 17 (11) Plastic Bin Stand with Bins

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar				
Description: Plastic Bin Stand		Plastic Bins		
Agreement Ref. / Sl. No.	Qty	Agreement Ref. / Sl. No.	Qty	
Annexure 5/96	4	Annexure – 8/179		
Annexure 7/154	4	Annexure – 2/51 10		
Annexure 8/178	2	Annexure- 7/153 28		
Annexure 1/27	2	Annexure - 8/177 14		
Annexure 3/40	2	Annexure - 6/99	70	
		Annexure - 5/95	280	
		Annexure 1/26	140	
		Annexure 3/39	140	
TOTAL	14	TOTAL QTY	1082	

Sl.No	Description	Dimension	Qty	Colour	Load Capacity
1.	Large	178 W x 290 D x143 H mm	150	Red	20 kgs each
2.	Big	130 W x 220 D x125 H mm	180	Green	15 kgs each
3.	Medium	100 W x 170 D x 85 H mm	480	Grey	10 kgs each
4.	Small	100 W x 125 D x 60 H mm	272	Yellow	5 kgs each



# Plastic Bins -Polypropylene copolymer make to suite bin stand

### Bin Stand:

- > Overall Dimension- 970 L x 600 B x 1100 H mm
- ➤ Shop Floor trolley, double sided
- > Base unit with aluminium chequered top plate
- > Castor wheels with brakes
- ➤ 4 nos panels on which bins to be fitted on each side
- Robust construction
- > Epoxy powder coated Colour light Grey
- Easy assembly
- ➤ Push pull handles on both sides
- ➤ Large bins 5 nos on each side
- ➤ Big bins 6 nos on each side
- ➤ Medium bins 8 nos on each side in 2 rows
- > Small bins 8 nos on each side



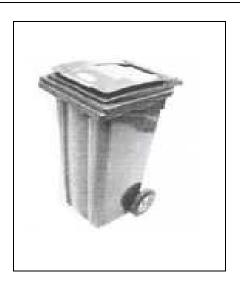
# **LOT 17 (12) SHELVING UNIT**

Project: Setting u	p of Indo-Myanmar I	ndustrial Training Centre at Monywa,	Myanmar
Description: SHELVING UNIT			
Agreement Ref. / Sl. No.			Qty
Annexure 2/50			2
Shelving Unit size		1275 L x 900 H x 400 D mm	<b>'</b>
Roll post		2 nos each unit	
Back plate		1 set each unit	
Kick plate		1 no. each unit	
No. of shelves		9 nos ( 8 rows of Bins) each unit	
No. of Bins in each shelve		9 nos of size 415 D x 100 L x 110 H	mm (With dividers) each
Total Bins		72 nos each unit	
Total UDL capacity		>500 kgs each unit	
Colour		Blue	



### **LOT 17 (13) SCRAP BIN**

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: SCRAP BIN			
Agreement Ref. / Sl. No.	Qty		
Annexure 5/98	4		
Annexure 9/88	4		
Annexure 2/48	2		
Annexure 1/28	2		
TOTAL	12		



# **Features**

- ightharpoonup Qty 8 nos.
- ➤ Material High Density polyethylene
- > Interior Smooth
- ➤ Volume –120 litres
- > Top O.D 485(L) x 510(B) mm Bottom O.D 340(L) x 380(B) mm Height 950 mm
- ➤ Wall Thickness 4mm
- Colour Green / Blue
- > Accessories Wheels, Handle & lid



# Lot 18 (1) – Cast Iron angle plate with T – slots

	Project: Setting up of In	do-Myanmar Indus	trial Training Centre at Monywa, Myanmar	
Ref No.	SI. No. 78 of Annexure - 4		Qty:2 nos.	
Ref No.	lo. Sl. No. 88 of Annexure - 6 Qty:2 nos.		· ·	
Ref No.	Sl. No. 40 of Annexure - 5		Qty:2 nos.	
Total			6 Nos.	
Sl. No.	Item	Brief Specification	1	
Cast Iro	n angle plate with T – slots	·		
1	Major specifications:			
1.1	Size	250 x 250 x 150 n	nm	
			se grained with high density alloyed Cast Iron casting is 220 as per IS –210 - 1993	
1.2	Туре	Both sides slots for		
1.3	Flatness accuracy	8 Microns		
1.4	Specification	As per IS 2554 – 1	1995	
1.5	Squareness of Exterior faces	15 Micron		
1.6	Squareness of End faces	18 Micron		
1.7	Parallality	18 Micron		
1.8	Hardness	Between 170 to 2	220 BHN	
2	Requirement			
2.1	Well ribbed to minimize distort	ion.		
2.2	Stress relieved to relieve interr	al stresses.		
2.3	T slots conforming to IS.			
2.4	Provide "I" Bolt at the point of	center of gravity for	easy handling.	
2.5	OKS-CORTEC VCI 369N - Rust p	reventive coating to	be applied on scrapped surface.	

# LOT - 18 (2) Granite Surface plate with stand

	Project: Setting	g up of Indo-Myanma	ar Industrial Training Centre at Monywa, Myanmar		
Ref No.	Sl. No. 53 of Annexure	e - 6	Qty: 2 no		
Sl. No.	Item	Brief Specification			
	Surface Table with S	Stand: Surface Table,	<b>Granite make</b> with dismantle type MS stand with leveling facility.		
1	Major specifications	3			
1.1	Size	1000 L x 1000 W r	nm		
	Material	Good quality, clos	e grained uniform textured, hard and wear resistant <b>Granite</b>		
1.2	Grade	0			
1.3	Flatness accuracy	5 Microns			
1.4	Specification	As per IS 7327 – 2	003		
1.5	Protection Cover	Rexine			
2	Requirement				
2.1	Lifting facility to be p	provided for the gran	ite surface table		
3	M S Stand				
3.1	Dismantle type rigid MS stand with flat metal shoes				
3.2	Provision for leveling				
3.3	Total work height in	cluding Surface Table	– 850 mm		
3.4	Painting – Powder co	oated – Standard colo	our		

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# LOT - 18 (3) Marking Out table with stand

	Project: Setting up of Indo-M	yanmar Industrial Training Centre at Monywa, Myanmar		
Ref No.	Sl. No. 76 of Annexure - 7			
Sl. No.	Item Brief Specification		Quantity	
	Marking Out Table with Stand: Cast iron make with dismantle type MS stand with leveling facility.			
1	Major specifications			
1.1	Size	1000 L x 1000 W mm		
	Material	Good quality, close grained with high density alloyed <b>Cast Iron</b> casting conforming to FG 220 as per IS –210 - 1993		
1.2	Grade	2		
1.3	Table surface	Hand scraped		
1.4	Flatness accuracy	28 Microns		
1.5	Specification	As per IS 2285 – 2003		
1.6	Hardness	Between 170 to 220 BHN		
1.7	Protection Cover	Rexine		
2	Requirement			
2.1	Box type ribbing pattern			
2.2	Stress relieved to relieve internal stresses			
2.3	T slot –1 no 14 H12 at the center			
2.4	Lifting facility to be provided			
2.5	OKS-CORTEC VCI 369N - Rust prevention	ve coating on scrapped surface to be applied		
2.6	Painting other than Table Surface – PU	I standard colour		
3	M S Stand			
3.1	Dismantle type rigid MS stand with fla	t metal shoes		
3.2	Provision for leveling			
3.3	Total work height including Surface Ta	ble – 850 mm		
3.4	Painting – Powder coated – Standard colour			



# Lot 18(4) – Surface Table with Stand

	Project: Setting up of In	do-Myanmar Industrial Training Centre at Monywa, Myanmar		
Ref No.	Sl. No. 53 of Annexure - 5	Qty: 1 no		
Ref No. Sl. No. 59 of Annexure - 6		Qty: 2 nos		
Ref No. Sl. No. 65 of Annexure - 9		Qty: 1 no		
TOTAL		5 Nos.		
Sl. No.	Item	Brief Specification		
Surface	Table with Stand: Surface Table,	Cast iron make with dismantle type MS stand with leveling facility.		
1		Major specifications:		
1.1	Size	1000 L x 1000 W mm		
	Material	Good quality, close grained with high density alloyed Cast Iron casting conforming to FG 220 as per IS –210 - 1993		
1.2	Grade	1		
1.3	Table surface	Hand scraped		
1.4	Flatness accuracy	14 Microns		
1.5	Specification	As per IS 2285 – 2003		
1.6	Hardness	Between 170 to 220 BHN		
1.7	Protection Cover	Rexine		
2	Requirement			
2.1	Box type ribbing pattern			
2.2	Stress relieved to relieve inter	nal stresses		
2.3	T slot -1 no 14 H12 at the cent	er		
2.4	Lifting facility to be provided			
2.5	OKS-CORTEC VCI 369N - Rust p	reventive coating on scrapped surface to be applied		
2.6	Painting other than Table Surface – PU standard colour			
3	M S Stand			
3.1	Dismantle type rigid MS stand	with flat metal shoes		
3.2	Provision for leveling			
3.3	Total work height including Su	rface Table – 850 mm		
3.4	Painting – Powder coated – Standard colour			

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# Lot 18(5) – Surface Table with Stand

·	Project: Settir	ng up of Indo-Myanma	ar Industrial Training Centre at Monywa, Myanmar		
Ref No. S	l. No. 77 of Annexure	e - 4	Qty: 1 no		
Sl. No.	Item Brief Specification				
Surface	Table with Stand: Su	ırface Table, <b>Granite m</b>	nake with dismantle type MS stand with leveling	1	
facility.					
1	Major specification	15			
1.1	Size	600 L x 450 W mm			
	Material	Good quality, close g Surface Plate.	grained uniform textured, hard and wear resistant <b>Granite</b>		
1.2	Grade	0			
1.3	Flatness accuracy	5 Microns	5 Microns		
1.4	Specification	As per IS 7327 – 200	As per IS 7327 – 2003		
1.5	Protection Cover	Rexine	Rexine		
2	Requirement				
2.1	Lifting facility to be	provided			
3	M S Stand				
3.1	Dismantle type rigid MS stand with flat metal shoes				
3.2	Provision for leveli	ng			
3.3	Total work height i	ncluding Surface Table	e – 850 mm		
3.4	Painting – Powder	coated – Standard cold	our		



	Pr	oject: S	Setting u	o of Indo-Myanm	nar Industrial Training Centre at Monywa, Myanmar		
			0 - 1		sc Measuring Items"		
	Annexure						
SI. No.	F	Reference		Item	Brief Specification	Qty in Nos.	
	No	SI. No.	Qty	Description	Site. Speciments:	Qty iii 1100ii	
	5	58	6	Feeler			
1	6	48	6	GaugeRolls	0.03mm & 0.05mm (1 Meter each)	12	
2	4	119	1	Feeler gauge 20 blades	0.05-1 mm	1	
3	6	57	2	Morse Taper Gauge – Set	Set MT1, MT2, MT3 of Plug and Ring types	2	
3	5	71	1	of Plug & Ring type		3	
	5	61	1 Lot	Plug Gauge	3, 4, 6, 8, 10, 14, 16, 18, 20 & 24mm		
4	6	50	1 Lot	Set (Metric & Inch)	¼, ½, 5/16, 7/16, 5/8, 9/16, 11/16, ¾, 7/8 & 1 inch	2 Lots	
5	9	64	2	Protractor & combination square set		2	
6	6	52	1	Radius gauge			
	5	62	1	set	1-7 mm & 7.5 – 15 mm	2	
7	9	62	6	Radius gauge set	0.4 - 13 mm range	6	
8	5	97	1	Sine Bar	150mm length	2	
	6	55	1		255	_	
9	5	59	2	Thread pitch gauge	0.5 – 6 mm metric 60 <sup>0</sup>	2	
10	5	64	1 Lot	Thread Plug & Ring Gauge Set	M4, M6, M8, M10, M14, M16, M18, M20 & M24 sizes of Go and NOGO sets of Thread plug and Thread ring gauges (Set consisting of One each of GO & NOGO of Nine sizes of Plug gauges and One each of	21.1	
	6	49	1 Lot		GO & NOGO of Nine sizes of Ring gauges i.e 9 sizes of Go Plug gauges, 9 Sizes of NOGO Plug gauges, 9 Sizes of GO Ring gauges and 9sizes of NOGO Ring gauges)	2 Lot	
11	8	64	8	Wire Gauge	Round SWG, made of steel to measure wire dia & sheet metal thickness, graduation in both British & Metric	8	
12	9	63	6	Wire Gauge	Rectangular SWG, made of steel to measure wire dia & sheet metal thickness, graduation in both British & Metric	6	



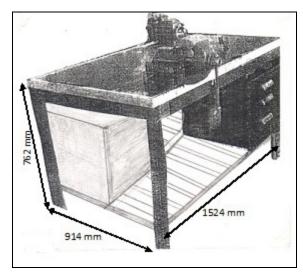
	Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar					
	"Misc Measuring Items"					
CI No	Annexure Reference		Item	Buief Cure differentian	Otro in Non	
SI. No.	No	SI. No.	Qty	Description	Brief Specification	Qty in Nos.
13	4	120	1	Wire gauge metric and with worth	Round SWG, made of steel to measure wire dia & sheet metal thickness, graduation in Metric	1

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### Lot 20(1) - Work Benches- Twin Station with Vice

Project: Setting up of Indo-Myanmar Industrial Training Cent	re at Monywa, Myanmar
Description: Work Benches- Twin Station with vice	
Agreement Ref. / Sl.No.	Qty
Annexure Ref.4 / Sl.No. 146	4
Annexure Ref.7 / Sl.No. 57	4
Annexure Ref.1 / Sl.No. 14	8
Annexure Ref.5 / Sl.No. 10	8
Annexure Ref.6 / Sl.No. 91	8
Annexure Ref.9 / Sl.No. 30	6
TOTAL	38



### **WORK BENCHES – TWIN STATION WITH VICE:**

➤ Size of work bench: 1524mm Length x 914mm Breadth x762mm Height

Vice – Heavy duty : 152 mm (Diagonally Opposite)

#### **Bottom Structure**

> 76mm Channel for leg & cross supports, bottom shelf "L" angle outer frame, bottom rack made of "sal" wooden strip.

# **Table Top**

➤ 51mm thick "Akasia" wood fitted with 51mm x25mm aluminium "L" angle beading.

➤ 3 Drawer Box – 2 nos. diagonally placed.

Cabinet size : 457mm Length x 533 Depth x 533mm Height

> Sheet Thickness : 18 SWG CRC sheet

> Drawer fascia : 102mm x 2 nos & 203mm x 1 no

Dividers : Set of 3 dividers in each drawer (457mm Length x 533mm Depther x 178mm Height)

➤ Handle : Brass

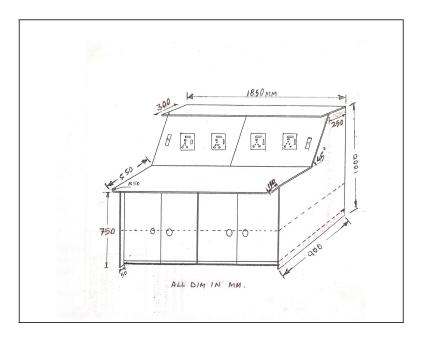
Lock : Central Locking systemSliding of drawers : With ball bearings

Colour : Powder coated Soft Grey polyurethane grade



#### Lot 20(2) - Work Benches-Electrical Twin Station

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: Work Benches- Twin Station with vice			
Agreement Ref. / SI.No. Qty			
Annexure Ref.8 / Sl.No. 25			



### WORK BENCHES - TWIN STATION / ANTI-STATIC /ELECTRICAL:

Twin station work bench as shown in the drawing with antistatic rubber sheet. Electrical items are to be mounted and wired with 4mm twin core + earth, flexible cable terminated on 32 amps screw type MAINS Terminal block mounted inside the cabinet. All the Wiring to be concealed

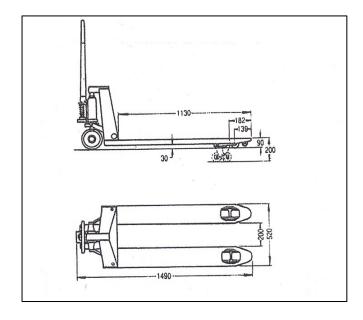
- > Partition to be provided at the middle, horizontally and vertically in the bottom cabinet
- Doors to be provided with 2 nos hinges on both sides, magnetic latches, quality handles / knobs and lock,
- tower bolt in one of the doors in each workstation
- > Structure to be strong and rigid and to be made out of ISI mark Particle Board 19mm thickness with white sun mica matt finish top.
- ➤ 2 nos. ISI mark Sockets: 5 A & 15 A combined with ON/OFF switch & LED indicator mounted on each workstation as shown in drawing

1 no MCB 20 Amps, Single phase, 230 Volt, 50 Hz mounted on both ends of the work bench as shown in drawing



### Lot 21(1)- Pallet Roll & Pallet Truck

Project: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar			
Description: PALLET ROLL			
Agreement Ref. / SI.No.	Qty		
Annexure Ref. 4 / Sl.No.197	2		
Annexure Ref. 5 / Sl.No.99	2		
Annexure Ref. 6 / Sl.No.94	2		
Annexure Ref. 7 / Sl.No.51	2		
Annexure Ref. 6 / Sl.No.95	1		
Annexure Ref. 9 / Sl.No.27	1		
TOTAL	10		



Capacity :2500 kgs Fork (L X W) :1130 X 520 mm

Min height :90 mm
Min distance b/w fork bottom & floor :30 mm
Max height :200 mm
Pallet sheet :3 mm

Piston :Hard chrome plated & polished

Hydraulic system :Double sealed high pressure polyurethane packing

Steering handle :To enable fatigue less operation

Rear Wheels :2 nos UHMW material 180 mm dia 50 mm wide wheels with double

sealed ball bearing

Front Wheels :2 nos each on either sides UHMW material 80 mm dia 70 mm wide with

double sealed ball bearing

Nose wheels :To facilitate easy entry into double layered pallets 1 no. on

each fork dia 40 mm nylon make

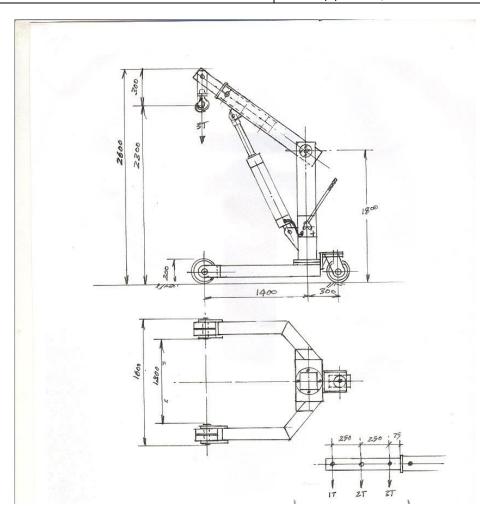
Hydraulic system :Lifting movement should be more than 10 mm per stroke

Paint :PU / Powder coated yellow



# Lot 21(2)- Pallet Crane

	Project:		
Ref No	. Ref. Sl.No.100 of Annex 5 & Sl. No. 96 of Annex 6		
SI. No.	Item	Brief Specification	Quantity
1	Pallet Crane –Manual-Hydraulic - 3 Ton Capacity		2 Nos.
1.1	Load Capacity	3 Ton	
1.2	Height of Lift – Max/Min	2600/500 mm	
1.3	Type of lifting	Hydraulic - Manual	
1.4	Type of lowering	Manually through valve	
1.5	Type of Hydraulic cylinder	Single acting – Reputed ISO make	
1.6	Type of pump	Reputed ISO Make	
1.7	Lifting speed (Min)	3 meters/minute	
1.8	No. of extensions of boom	3	
1.9	Lifting Loads	1T, 2T & 3T	
2	Required Accessories		
2.1	Service Toolkit		2 sets
2.2	First fill oil etc.	Required quantity	2 sets
2.6	Operation / Maintenance / Spare parts Manual	3 sets	2 sets
2.7	Colour	PU Epoxy paint Yellow with black strips.	
3	Recommended Mechanical spares for 2 years of normal operation	Item wise quantity with price to be provided	2 sets
4	Items required for commissioning at site	Touch up paint – 1/2 Litre each colour	2 sets



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# **LOT - 22 Mechatronics Equipment**

# 1. PLC Trainer Kit

Ref No. En	closure – 1/1 of Annexure I- Mechatronics	Quantity: 1 no			
Item: PLC	<b>Frainer Kit:</b> PLC Trainer Kit with all standard accessories to c	arry out different experiments and suitable	e for 1		
phase 230	V, 50HZ AC.				
1.	Objective:				
	For use in Vocational Training Centre for givin standard and above.	ng practical training to students who pa	ssed 10 <sup>th</sup>		
	2. To understand and experiment the functionality of PLC, interfaces of various devices and components to develop different circuits and control of practical applications.				
	<ol> <li>To teach and train the students in programming of different types of PLCs and exe developed to understand static &amp; dynamic simulators.</li> </ol>				
2	Major Technical Specification:				
	The system shall be desktop rack type and modul	ar with suitable table.			
	The rack to be provided with DIN rail for clipping on different PLCs and can be expanded				
	Static Modules comprising process control simulators , Manufacturing automation control				
	simulators and other simulators				
	<ul> <li>Dynamic Modules comprising sensor module, Rel</li> </ul>	ay module, star delta module etc.			
	<ul> <li>Logic controller, software, power supply etc.</li> </ul>				
3	NOTE: All the softwares and kits should be compatible and integrate with the complete system.				
4	Operating manual containing Basic theory, Procedure to cohard copy and soft copy in CD/Pen drive.	onduct experiment and troubleshoot in	3 sets each		
5	Set of spare parts recommended for two years normal	Item wise quantity with price to be	1 set		
	operation of machine	provided	each		
6	Colour of equipment :	Standard			
7	Items required for Erection & Commissioning.	Touch up paint – required qty	1 set		
		<ul> <li>Initial fill of</li> </ul>	each		
		Hydraulic/Lubrication/Cutting			
		Oil, if any in separate sealed containers.			
		<ul> <li>Cora cloth – 5 Mtrs.</li> </ul>			

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# 2. Digital Sensor Module

	· · · · · · · · · · · · · · · · · · ·	nar Industrial Training Centre at Monywa, Myanmar		
	o. Enclosure – 2/1 of Annexure I- Mechatronic			
	<b>Digital Sensor Module :</b> Digital Sensor Kit with the for 1 phase 230 V, 50HZ AC.	all standard accessories to carry out different experiments a	nd	
1.	Objective:			
	For use in Vocational Training Cent and above.	tre for giving practical training to students who passed $10^{ m th}$	standard	
	<ol><li>To understand and experiment the prevalent in the current industry.</li></ol>	e basic concepts in sensor technology with a focus on digita	l sensors	
2	Major Technical Specification:			
	<ul> <li>The system shall have Aluminium profile plate for mounting the components and measuring equipment with suitable table.</li> <li>Distribution unit with Power supply</li> <li>Digital counter display for frequency, multi meter, vernier caliper, speed and frequency measurement</li> <li>Software</li> <li>Test pieces for sensors.</li> </ul>			
3	NOTE: All the softwares and kits should be compatible and integrate with the complete system			
4	, , , , , , , , , , , , , , , , , , , ,		3 sets each	
5	Set of spare parts recommended for two years normal operation of machine	Item wise quantity with price to be provided 1 set each		
6	Colour of equipment :	Standard		
7	Items required for Erection & Commissioning.	<ul> <li>Touch up paint – required qty</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cora cloth – 5 Mtrs.</li> </ul>	1 set each	

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# 3. Analogue Sensor Module

		mar Industrial Training Centre at Monywa, Myanmar	
Ref No. Enclosure – 3/1 of Annexure I		Quantity: 1 no	
	<b>Analogue Sensor Module :</b> Analogue Sensor K le for 1 phase 230 V, 50HZ AC.	(it with all standard accessories to carry out different experime	ents and
1.	Objective:		
	<ol> <li>For use in Vocational Training Cen and above.</li> </ol>	tre for giving practical training to students who passed 10 <sup>th</sup>	standard
	•	basic concepts in sensor technology with a focus on ultrasons of optical sensors prevalent in the current industry.	nic, strai
2	Major Technical Specification:		
	<ul> <li>The system shall have Aluminium p with suitable table.</li> </ul>	rofile plate for mounting the components and measuring equi	pment
	<ul> <li>Distribution unit with Power supply</li> </ul>		
	<ul> <li>Digital counter display for frequence</li> </ul>	y etc.	
	<ul> <li>Software</li> </ul>		
	Test pieces.		
3	NOTE: All the softwares and kits should be compatible and integrate with the complete system.		
4	Operating manual containing Basic theory, P	Procedure to conduct experiment and troubleshoot in hard	3 set
	copy and soft copy in CD/Pen drive.		each
5	NOTE: All the softwares and kits should be co	ompatible and integrate with the complete system	
6	Set of spare parts recommended for two	Item wise quantity with price to be provided	1 set
	years normal operation of machine		each
7	Colour of equipment :	Standard	
8	Items required for Erection &	Touch up paint – required qty	1 set
	Commissioning.	<ul> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> </ul>	each
		<ul> <li>Cora cloth – 5 Mtrs.</li> </ul>	

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### 4. Dynamic Module

	Project: Setting up of Indo-Myanr	nar Industrial Training Centre at Monywa, Myanmar	
Ref N	o. Enclosure – 4/1 of Annexure I- Mechatronic	Quantity: 1 no	
	<b>Dynamic Module :</b> Dynamic Module Kit with a ph 230 V, 50HZ AC /3 Ph 400V, 50HZ.	Il standard accessories to carry out different experiments and	suitable
1.	and above.	tre for giving practical training to students who passed 10 <sup>th</sup> f dynamic module with Sensor and Relay module.	standar
2	Major Technical Specification:	r dynamic module with Sensor and Relay module.	
	Relay Module: Set of NC relays with instrum PLC.  Star Delta Module: Set of contactors for star	ent load such as fan and lamps to demonstrate the operation ting the 3 phase induction motor.	through
3	NOTE: All the softwares and kits should be co	ompatible and integrate with the complete system.	
4	Operating manual containing Basic theory, P copy and soft copy in CD/Pen drive.	rocedure to conduct experiment and troubleshoot in hard	3 sets each
5	Set of spare parts recommended for two years normal operation of machine	Item wise quantity with price to be provided	1 set each
6	Colour of equipment :	Standard	
7	Items required for Erection & Commissioning.	<ul> <li>Touch up paint – required qty</li> <li>Initial fill of Hydraulic/Lubrication/Cutting Oil, if any in separate sealed containers.</li> <li>Cora cloth – 5 Mtrs.</li> </ul>	1 set each

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# 5. Linear Transfer System

	Project: Setting up of Indo-Myan	mar Industrial Training	g Centre at Monywa, Myanmar	
Ref No	. Enclosure – 5/1 of Annexure I- Mechatron	cs	Quantity: 1 No	
Item:	Linear Transfer System: Linear Transfer Syste	em Kit with all standard	accessories to carry out different expe	riments
and su	itable for 1 phase 230 V, 50HZ AC.			
1.	Objective:			
	<ol> <li>For use in Vocational Training Cer and above.</li> </ol>	ntre for giving practica	l training to students who passed 10 <sup>th</sup>	standard
	<ol><li>To understand and experiment th types of conveyors and a pick and</li></ol>		itomated transport & sorting process i	using two
	3. PLC programming and interfacing			
	4. Pneumatics/electronic pneumatic			
	5. Sensor technology			
	6. Automation design			
2	Major Technical Specification:			
	<ul> <li>Belt conveyor</li> <li>Pick &amp; place unit</li> <li>Horizontal transfer unit</li> <li>Transfer module (Rotary pick &amp; plate)</li> <li>6 station rotary indexing table</li> <li>Distancing module</li> <li>PLC software.</li> <li>PC with latest configuration, require</li> </ul>	ce unit) ed softwares and hard		ole table.
3	NOTE: All the softwares and kits should be of	compatible and integra	te with the complete system.	
4	Operating manual containing Basic theory, I copy and soft copy in CD/Pen drive.	Procedure to conduct e	experiment and troubleshoot in hard	3 sets
5	Set of spare parts recommended for two years normal operation of machine	Item wise quantity w	rith price to be provided	1 set
6	Colour of equipment :	Standard		
7	Items required for Erection & Commissioning.	<ul> <li>Initial fill of</li> </ul>	aint – required qty Hydraulic/Lubrication/Cutting Oil, if rate sealed containers. Cora cloth – 5	1 set

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#### 6. Six axis Robot

	Project: Setting up of Indo-Myanmar I	ndustrial Training Centre at Monywa, Myann	nar	
Ref No.	Enclosure – 6/1 of Annexure I- Mechatronics	Qty : 1 no.		
Sl.No.	Description	Brief Specifications	Qty	Remarks
1	Item: 6 axis Robot with all standard accessorie and Electricals suitable for 1 phase 230V 50Hz	· · · · · · · · · · · · · · · · · · ·	1	
2	General specifications			
2.1	Controller	PC based PD control algorithm		
2.2	Path type	Point to Point, Linear & Circular interpolation		
2.3	Application	Pick & place, palletising, writing, machine loading /unloading, assembly, interfaceability with machine, etc.		
3	Main specifications			
3.1	No. of axes	6		
3.2	Vertical Height	400 mm		
3.3	Pay load capacity	2.5 Kg		
3.4	Joint actuators	DC servo geared motors		
3.5	Control software	Programming		
3.7	Repeatability	+/- 0.3 mm		
3.8	Resolution	0.1 degree		
3.9	Servo stabilizer, air compressor, PC, Software etc.	Suitable		
4	Operation/ Programming/Spare parts manual		3 sets	
5	Set of Electrical & Mechanical spare parts recommended for two years normal operation	Item wise quantity with price to be provided	1 Set	
6	Colour of machine	Standard	1 Set	
7	Items required for Erection & Commissioning	Touch up paint – 1/2 It each colour, cotton waste- ½ kg, initial fill of oil etc to be supplied.	1 Set	



## 7. Robot Application Experimental kit

			strial Training Centre at Monywa, Myanmar	
Ref N	lo. Enclosure – 7/1 of Annexure I- Mech	natronics	Quantity: 1 No	
	Robot Application Experimental kit: Rent experiments and suitable for the ab	• • •	n Experiment Kit with all standard accessories for 1 phase 230 V, 50HZ AC.	to carry out
1	Required accessories:			
а	Robot experiment table		Suitable	
b	Machine loading & unloading		Pneumatic vice and chuck	
С	Pick & place		Vertical stacking & horizontal palletizing	
d	Assembling & disassembling		Industry based	
е	Other experimenting kits if any			
2	NOTE: All the softwares and kits should	d be compatible	e and integrate with the complete system.	
3	Operating manual containing Basic the hard copy and soft copy in CD/Pen driv	•	to conduct experiment and troubleshoot in	3 sets
4	Set of spare parts recommended for two years normal operation of machine	Item wise qua	ntity with price to be provided	1 set
5	Colour of equipment :	Standard		

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# 8. Integration of Robot with Automation

Ref No	b. Enclosure – 8/1 of Annexure I- Mechatro	anmar Industrial Training Centre at Monywa, Myanmar pnics Quantity: 1 No	
	<del>-</del>	egration of Robot with Automation Kit with all standard a	ccessories to
	out different experiments and suitable for 1	<u> </u>	10003301103 10
1.	Objective:		
		Centre for giving practical training to students who pass	ed 10 <sup>th</sup> standard
	and above.		
	2 To understand and experimen	nt the basic concepts and simulate pick & place, ass	embly different
	mechanical operations.	it the basic concepts and simulate pick & place, ass	embly, uniterent
2	Major Technical Specification:		
	Complete workstation mounted on a	an aluminium profile plate with suitable table having oper	rating console
	consisting of:		
	Rotary Pick & place unit		
	Belt conveyor		
	Weighing module		
	PLC		
	• Robot		
	<ul> <li>Power supply unit etc.</li> </ul>		
	<ul> <li>PC with suitable softwares, hard</li> </ul>	dwares etc. of latest configuration	
	Suitable stabiliser		
3		be compatible and integrate with the complete system.	
4		ry, Procedure to conduct experiment and troubleshoot in	3 sets
	hard copy and soft copy in CD/Pen drive.		
5	Set of spare parts recommended for	Item wise quantity with price to be provided	1 set
	two years normal operation of machine		
6	Colour of equipment :	Standard	
7	Items required for Erection &	Touch up paint – required qty	1 set
-	Commissioning.	Initial fill of Hydraulic/Lubrication/Cutting Oil, it	
		any in separate sealed containers.	
		<ul> <li>Cora cloth – 5 Mtrs.</li> </ul>	

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#### 9. Mechatronics software

		Proj	ject: Setting up of Indo-Myanmar Industrial Training Centre at Monywa, Myanmar	-			
Ref N	o. Enclos	ure – 10/	/1 of Annexure I- Mechatronics Quantity: For 5 users				
Item:	em: Mechatronics software: Mechatronics software to run the below detailed kits/equipment.						
1.	Objecti	ve:					
	1.	For use above.	e in Vocational Training Centre for giving practical training to students who passed ${f 10}^{\sf th}$ s	tandard and			
	2.		derstand and experiment the above kits/equipment and to suite various exercises and eit alone or integrated demonstrating specific purpose for the following levels.	ther to work			
		*	For Basic Simulation				
		*	For Advanced Simulation				
		*	For Robotic Simulation				
2	Major 1	Гесhnica	Il Specification:				
	•	All the	softwares and kits should be compatible and integrate with the complete system.				
3	Operat	ing manu	ual containing Basic theory, Procedure to conduct experiment and troubleshoot in hard	3 sets			
	copy ar	nd soft co	opy in CD/Pen drive.	each			

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### **LOT – 23 Equipment for Apparel Manufacturing courses**

	i i	lyanmar Industrial training Centre, Monywa, Myanmar.	
Ref No. S	l No. 1 of Annex 2		
Sl. No.	Item	Brief Specification	Quantity
1		Lock stitch machine with clutch motor, - with all standard	20
	accessories and Electrical suitable for 1	LPh, 230V, 50Hz, AC supply.	
1	Major specifications		
1.1	Rated Power	0.25 HP	
1.2	Туре	Industrial	
1.3	Application	Light to Medium weight	
1.4	Max sewing speed	4500 stitches /min	
1.5	Max stitch length	5 mm	
1.6	Needle bar stock	>30 mm	
1.7	Lift of the pressure foot	By hand >5 mm	
1.7	Lift of the pressure root	By knee >12 mm	
1.8	Needle	DBx1 (No. 14) #9 ~ #18	
1.9	Feed dog	4 row	
1.10	Hook	Automatic lubricating full rotary hook	
1.11	Lubrication	Automatic	
2	Required Accessories / Spares		
2.1	Adjustable stand/table for placing the	m/c 3.5' x 2.5'	20
2.2	Castor wheels with lock facility for ease	e of manoeuvrability	20
2.3	Electrical cord length, 3wired, 1.5 metr	res length with 3 pin plug	20
2.4	a)Bobbin – 20 nos b)Bobbin case – 10 nos. c)Needle – 1 set of 100 needles d) Tool kit – 1 no.		20 sets
3	Colour - Standard		
4	Set of mechanical and electrical spare parts for 2 years normal operation. (Item wise quantity with price to be provided)		
5	Operation, Maintenance and spare par	rts manual – 3 sets each	20 sets
6	Items required for erection and commissioning	<ul> <li>Touch up paint – 100 ml each colour in airtight sealed containers, Paint brush 1/4" 1 no. for each colour</li> <li>Initial fill of Lubrication Oil in separate sealed containers.</li> </ul>	1 set each



Pof No. S	Sl No. 2 of Annex 2	anmar Industrial training Centre, Monywa, Myanmar.		
Sl. No.	Item	Brief Specification	Quantity	
1		needle Lock stitch machine with servo motor, Direct drive	Qualitity 1	
1		standard accessories and Electrical suitable for 1Ph, 230V,	1	
	50Hz, AC supply.	, ,		
1	Major specifications			
1.1	Rated Power	0.25 HP		
1.2	Туре	Industrial		
1.3	Application	Light to Medium weight		
1.4	Max sewing speed	4000 stitches /min		
1.5	Max stitch length	5 mm		
1.6	Needle bar stock	>30 mm		
1.7	Needle	DBx1 (No. 14) #14 ~ #18		
1.8	Lubrication	Automatic		
2	Required Accessories / Spares			
2.1	Adjustable stand/table for placing the m,	/c 3.5′ x 2.5′	1	
2.2	Castor wheels with lock facility for ease of	of manoeuvrability	1	
2.3	Electrical cord length, 3wired, 1.5 metres	Electrical cord length, 3wired, 1.5 metres length with 3 pin plug		
	a)Bobbin – 20 nos		1 set	
2.4	b)Bobbin case – 10 no.			
2.7	c)Needle – 1 set of 100 needles			
	d) Tool kit – 1 no			
2.5	Control box & control panel having 99 m	odes for selection	1	
3	Colour - Standard			
4	Set of mechanical and electrical spare pa price to be provided)	rts for 2 years normal operation. (Item wise quantity with	1 set	
5	Operation, Maintenance and spare parts	manual – 3 sets each	1 set	
6	Items required for erection and commissioning	<ul> <li>Touch up paint – 100 ml each colour in airtight sealed containers, Paint brush 1/4" 1 no. for each colour</li> </ul>	1 set each	
		<ul> <li>Initial fill of Lubrication Oil in separate sealed containers.</li> </ul>		



D ( ) -		yanmar Industrial training Centre, Monywa, Myanmar.	
	l No. 3 of Annex 2		
Sl. No.	Item	Brief Specification	Quantity
1		ctronic – Single needle, Computer controlled High Speed C servo motor - with all standard accessories and Electrical	1
	suitable for 3Ph, 230V, 50Hz, AC supply		
1	Major specifications		
1.1	Rated Power	0.25 HP	
1.2	Туре	Industrial	
1.3	Application	Light to Medium weight	
1.4	Max sewing speed	3600 stitches /min	
1.5	Size of cloth cutting knife	6.5 to 31 mm	
1.6	Needle bar stock	>30 mm	
1.7	Needle	DPx5 (No. 11J) #11J ~ #14J	
1.8	Lubrication	Automatic	
1.9	Hook	DP type, full rotary hook	
1.10	Lift of the work clamp	Max 14 mm	
1.11	Auto lifter	Stepping motor type	
1.12	Needle throwing system	Stepping motor	
1.13	No. Of standard patterns	Min 30 patterns	
1.14	No. Of patterns that can be input	Max 99 nos	
1.15	Bobbin thread winder	In built	
1.16	Control box	With power switch	
2	Required Accessories / Spares		
2.1	Adjustable stand/table for placing the	m/c 3.5′ x 2.5′	1
2.2	Castor wheels with lock facility for ease	e of manoeuvrability	1
2.3	Electrical cord length, 1.5 metres length	th	1
	a)Bobbin – 20 nos		1 set
2.4	b)Bobbin case – 10 nos.		
2.4	c)Needle – 1 set of 100 needles		
	d) Tool kit – 1 no		
3	Colour - Standard		
4	· · · · · · · · · · · · · · · · · · ·	parts for 2 years normal operation. (Item wise quantity with	1 set
	price to be provided)  Operation, Maintenance and spare parts manual – 3 sets each		
5 6	Items required for erection and	Touch up paint – 100 ml each colour in airtight	1 set 1 set each
U	commissioning	sealed containers, Paint brush 1/4" 1 no. for each	ד אבו במנו
		colour	
		Initial fill of Lubrication Oil in separate sealed	
		containers.	



		Iyanmar Industrial training Centre, Monywa, Myanmar.	
	SI No. 4 of Annex 2		
Sl. No.	Item	Brief Specification	Quantity
1		er controlled, Single needle, High Speed Lock stitch, Button	1
	_	* & Control panel- with all standard accessories and Electrical	
1	suitable for 3Ph, 230V, 50Hz, AC supply Major specifications	y.	
1.1	Rated Power	0.25 HP	
1.2	Type	Industrial	
1.3	Application	Light to Medium weight	
1.4	Max sewing speed	2700 stitches /min	
1.5	Button size	Round shaped, flat button, size dia 8 – 20 mm	
1.6	Stitch length	0.1 – 10 mm, in steps of 0.1 mm	
1.7	Needle bar stock	45 mm	
1.8	Needle Dai Stock	DPx17 (#14)	
1.9	Lubrication	Hook: minute quantity lubrication.	
1.10	Hook	Standard shuttle hook	
1.11	Lift of the work clamp foot	Max 13 mm	
1.12	Auto lifter		
1.12	No. Of standard patterns	Stepping motor type Min 50 patterns	
1.13	No. Of patterns that can be input	Max 200 nos	
1.15	Enlarging/Reducing facility	20- 200%	
1.15	Control box	With power switch	
1.17	Bobbin thread counter	Up/Down method	
2	Required Accessories / Spares	Op/ Down method	
2.1	Adjustable stand/table for placing the	m/c 2 5' v 2 5'	1
2.2	Castor wheels with lock facility for east		1
2.3	Electrical cord length, 1.5 metres leng		1
2.5	a)Bobbin – 20 nos	ui	1 set
	b)Bobbin case – 10 nos.		1 301
2.4	c)Needle – 1 set of 100 needles		
	d) Tool kit – 1 no.		
3	Colour - Standard		
	Set of mechanical and electrical spare parts for 2 years normal operation. (Item wise quantity with		
4	price to be provided)	. , , , ,	
5	Operation, Maintenance and spare par	rts manual – 3 sets each	1 set
6	Items required for erection and	Touch up paint – 100 ml each colour in airtight	1 set eac
	commissioning	sealed containers, Paint brush 1/4" 1 no. for each	
		colour	
		Initial fill of Lubrication Oil in separate sealed	
		containers.	



Ref No. 9	SI No. 5 of Annex 2		
Sl. No.	Item	Brief Specification	Quantity
1		e Chain Stitched Front Placket Making Machine- Motorised - with all standard accessories and Electrical suitable for 1Ph,	1
1	Major specifications		
1.1	Rated Power	0.25 HP or higher	
1.2	Туре	Industrial	
1.3	Application	Light to Medium weight	
1.4	No. Of needles	4	
1.5	No. Of thread	8	
1.6	Stitch / inch	7~17	
1.7	Presser foot lift	10 mm	
1.8	Needle bar stroke	31 mm	
1.9	Max speed	4500 rpm.	
2	Required Accessories / Spares		
2.1	Adjustable stand/table for placing the	m/c 3.5′ x 2.5′	1
2.2	Castor wheels with lock facility for eas	se of manoeuvrability	1
2.3	Electrical cord length, 1.5 metres leng	gth	1
2.4	a)Looper – 10 nos b)Needle – 1 set c) Tool kit & Tool box		1 set
3	Colour - Standard		
4	Set of mechanical and electrical spare price to be provided)	parts for 2 years normal operation. (Item wise quantity with	1 set
5	Operation, Maintenance and spare parts manual – 3 sets each		
6	Items required for erection and commissioning	<ul> <li>Touch up paint – 100 ml each colour in airtight sealed containers, Paint brush 1/4" 1 no. for each colour</li> <li>Initial fill of Lubrication Oil in separate sealed containers.</li> </ul>	1 set each



		-Myanmar Industrial training Centre, Monywa, Myanmar.			
Ref No. S	SI No. 6 of Annex 2				
Sl. No.	ltem	Brief Specification	Quantity		
1	<b>Cutting Machine – Motorised – Stra</b> suitable for 1Ph, 230V, 50Hz, AC sup	<b>aight Knife cutting -</b> with all standard accessories and Electrical ply.	1		
1	Major specifications				
1.1	Rated Power	0.65 HP			
1.2	Туре	Straight Knife Cutting, Standard speed			
1.3	Blades	Carbon steel			
1.4	Belt	Medium grit			
1.5	Stroke size	1.75"			
1.6	Blade size	8" (200 mm)			
1.7	Cutting capacity	11.5"			
2	Required Accessories / Spares				
2.1	Electrical cord length, 5 metres leng	th	1		
	a)Blade – 5 no		1 set		
2.2	b)Emery Belt – 5 no.				
2.2	c) Oil for lubrication				
	d) Tool kit				
3	Colour - Standard				
4	Set of mechanical and electrical spar	re parts for 2 years normal operation. (Item wise quantity with	1 set		
4	price to be provided)				
5	Operation, Maintenance and spare parts manual – 3 sets each		1 set		
6	Items required for erection and commissioning	<ul> <li>Touch up paint – 100 ml each colour in airtight sealed containers, Paint brush 1/4" 1 no. for each colour</li> </ul>	1 set each		
		<ul> <li>Initial fill of Lubrication Oil in separate sealed containers.</li> </ul>			



		Myanmar Industrial training Centre, Monywa, Myanmar.	
Ref No. S	l No. 7 of Annex 2		
Sl. No.	ltem	Brief Specification	Quantity
1	Over locking Machine – Two needles and Electrical suitable for 1Ph, 230V, 5	s, 5 thread over lock machine- with all standard accessories	1
1	Major specifications	Sonz, AC supply.	
1.1	Rated Power	0.25 HP	
1.2	Type	Industrial	
1.3			
1.4	Application  May solving speed	Light to Medium weight 7000 rpm	
1.5	Max sewing speed Stitch length	0.8 – 4 mm	
1.6	Needle gauge	2.0,2.4, 3.2 mm	
1.7	Overedging width	3.2,4.0,4.8 mm	
1.8	Differential feed ratio	For gathering 1:2, For stretching 1:0.7	
1.9	Needle bar stroke	24.5 mm.	
1.10	Inclination of needle	20 degrees	
1.11	Needle mechanism	Needle bar method and upper/lower bushing	
1.12	Needle	DCx27	
1.13	Max lift of presser foot	7 mm	
1.14	Max. Presser foot pressure	63N	
1.15	Stitch adjusting method	By push button	
1.16	Differential feed adjusting method	By lever with micro adjustment	
1.17	Lubrication	Automatic	
1.18	Micro lifter		
2	Required Accessories / Spares		
2.1	Adjustable stand/table for placing the	m/c 3.5′ x 2.5′	1
2.2	Castor wheels with lock facility for eas	se of manoeuvrability	1
2.3	Electrical cord length, 1.5 metres leng	rth	1
2.4	a)Needle – 1 set of 100 needles b) Tool kit – 1 no		1 set
3	Colour - Standard		
4	Set of mechanical and electrical spare price to be provided)	parts for 2 years normal operation. (Item wise quantity with	1 set
5	Operation, Maintenance and spare pa	rts manual – 3 sets each	1 set
6	Items required for erection and commissioning	<ul> <li>Touch up paint – 100 ml each colour in airtight sealed containers, Paint brush 1/4" 1 no. for each colour</li> <li>Initial fill of Lubrication Oil in separate sealed containers.</li> </ul>	1 set eac



Def Ne C		Myanmar Industrial training Centre, Monywa, Myanmar.	
	I No. 8 of Annex 2	D : (C : 'C : '	
Sl. No.	Item	Brief Specification	Quantity
1	Electrical suitable for 1Ph, 230V, 50Hz	<b>3 thread over lock machine-</b> with all standard accessories and , AC supply.	1
1	Major specifications		
1.1	Rated Power	0.25 HP	
1.2	Туре	Industrial	
1.3	Application	Light to Medium weight	
1.4	Max sewing speed	7000 rpm	
1.5	Stitch length	0.8 – 4 mm	
1.7	Overedging width	1.6,3.2mm	
1.8	Differential feed ratio	For gathering 1:2, For stretching 1:0.7	
1.9	Needle bar stroke	24.5 mm.	
1.10	Inclination of needle	20 degrees	
1.11	Needle mechanism	Needle bar method and upper/lower bushing	
1.12	Needle	DCx27	
1.13	Max lift of presser foot	7 mm	
1.14	Max. Presser foot pressure	63N	
1.15	Stitch adjusting method	By push button	
1.16	Differential feed adjusting method	By lever with micro adjustment	
1.17	Lubrication	Automatic	
1.18	Micro lifter		
2	Required Accessories / Spares		
2.1	Adjustable stand/table for placing the	m/c 3.5′ x 2.5′	1
2.2	Castor wheels with lock facility for eas	se of manoeuvrability	1
2.3	Electrical cord length, 1.5 metres leng	gth	1
2.4	a)Needle – 1 set of 100 needles b) Tool kit – 1 no		1 set
3	Colour - Standard		
4	Set of mechanical and electrical spare price to be provided)	parts for 2 year normal operation. (Item wise quantity with	1 set
5	Operation, Maintenance and spare pa	rts manual – 3 sets each	1 set
6	Items required for erection and commissioning	<ul> <li>Touch up paint – 100 ml each colour in airtight sealed containers, Paint brush 1/4" 1 no. for each colour</li> <li>Initial fill of Lubrication Oil in separate sealed containers.</li> </ul>	1 set each



Ref No. 9	No. 9 of Annex 2	yanmar Industrial training Centre, Monywa, Myanmar.		
Sl. No.	Item	Brief Specification	Quantity	
		er controlled One needle, Direct drive, High Speed, Lock	Quantity 1	
1		controlled One needle, birect drive, High Speed, Lock control panel- with all standard accessories and Electrical	1	
	suitable for 1Ph, 230V, 50Hz, AC supply	<i>'</i> .		
1	Major specifications			
1.1	Rated Power	0.25 HP		
1.2	Туре	Industrial and without automatic thread trimmer		
1.3	Application	Light to Medium weight		
1.4	Max sewing speed	5000 rpm		
1.5	Max zig zag width	8 mm/2 step, 10 mm/3 step zig zag		
1.7	Needle throw mechanism	Computer controlled		
1.8	Max feeding amount	5 mm		
1.0		By hand 5.5 mm		
1.9	Max lift of presser foot	By knee 10 mm		
1.10	Thread take up	Rotary type		
1.11	Needle	SCHMETZ 438 (#75) ORGAN DP 5 (#70)		
1.12	No. Of patterns for standard stitching	8 types/14 patterns		
1.13	Input function of the main unit	Operation panel		
1.14	Bobbin thread winder	In built		
1.15	M/c head drive	AC servomotor- direct drive		
1.16	Lubrication	Automatic		
2	Required Accessories / Spares			
2.1	Adjustable stand/table for placing the	m/c 3.5′ x 2.5′	1	
2.2	Castor wheels with lock facility for ease	e of manoeuvrability	1	
2.3	Electrical cord length, 1.5 metres lengt	h	1	
	a)Needle – 1 set of 100 needles		1 set	
2.4	b) Tool kit – 1 no			
2.4	c) Bobbin – 20 nos			
	d) Bobbin case 10 nos.			
3	Colour - Standard			
4	Set of mechanical and electrical spare price to be provided)	parts for 2 year normal operation. (Item wise quantity with	1 set	
5	Operation, Maintenance and spare par	ts manual – 3 sets each	1 set	
6	Items required for erection and commissioning	<ul> <li>Touch up paint – 100 ml each colour in airtight sealed containers, Paint brush 1/4" 1 no. for each colour</li> <li>Initial fill of Lubrication Oil in separate sealed containers.</li> </ul>	1 set each	



	. SI No. 10 of Annex 2			
SI.	Item Brief Specification	Qty		
No.	Juan Bay, Manusum hand with Chang Congretor, with all standard accessories and Electrical with his			
1.	<b>Iron Box – Vacuum based with Steam Generator -</b> with all standard accessories and Electrical suitable for 3Ph, 400V, 50Hz, AC supply.	1 no		
а	Vacuum ironing table 3 Phase 400 Volts / 50 Hz			
1				
1	Description  1. Designed for garment industry, studios and alteration shops			
	<ol> <li>Designed for garment industry, studios and alteration shops.</li> <li>Flat top suction ironing table with optional swivel arm with buck for ironing specific parts of the garment.</li> </ol>			
	<ol> <li>Flat top suction ironing table with optional swivel arm with buck for ironing specific parts of the garment.</li> <li>Ironing table height adjustable to 3 levels.</li> </ol>			
	<ul><li>3. Ironing table neight adjustable to 3 levels.</li><li>4. Tube light and try (to hold finished garments or trims accessories) optional.</li></ul>			
	<ul><li>4. Tube light and try (to hold finished garments or trims accessories) optional.</li><li>5. More Productive, sophisticated, powerful.</li></ul>			
	6. Elegant look and rust-proof powder coated.			
	7. Ensure superior suction through noiseless working atmosphere.			
	8. Washable foam and heat proof cloth ensuring longer life & easy maintenance.			
	9. Detachable Systems, for easy transportation and installation.			
	10. Controlled operation, guaranteed safety and superior performance.			
	11. No immense of moisture and heat which ensure wrinkle free.			
2	Technical specifications			
	Working Size : 1300 x 800 mm			
	Width : 1500 mm			
	Depth : 920 mm			
	Working Area Height: 800 mm			
	Vacuum Motor : 0.75 – 0.8 hp			
b	Steam Press	1 No		
1	Description			
	Designed for garment industry, studios and alteration shops.			
	Remote electronic temperature control .			
	3. Precision control of temperature (+/- 2 <sup>0</sup> not working).			
	4. Ergonomic pps handle and low temperature transmission.			
	5. Steam regulator to control the flow rate.			
	6. External switch for steam productions with silver contacts.			
	7. To facilitate pressing on all kinds of fabrics.			
2	Technical specifications			
	Dimensions – 220 x 115 mm			
	Power – 900 w			
C.	Steam Generators	1 No		
1	Description			
	1. Fully-automatic, self-contained generators, utilizing minimum power and space, are extremely sa	ife and		
	supply the right quantity of steam at the right places.			
	2. Portable and easy to handle. To be conveniently used anywhere.			
	3. Compact, reliable and easy to use.			
	4. To provide with safety mechanisms with an alarm system for safety.			
2	Technical specifications			
	Heater Capacity: approx 1.6 kw			
	Steam Output: 2 - 2.5 kg/hr			
	Operating Pressure : 3 bar Steam Connections : 1 no			
	Water Inlet: ½"			
	Steam Outlet: 1/2"			
	Suitable for number of irons: 1 no			

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	Project: Setting up of Indo-Myanmar Industri	al training Centre, Monywa, Myanmar.	
Ref No	. SI No. 10 of Annex 2		
SI.	Item	Brief Specification	Qty.
No.	item	Brief Specification	Qty.
d	Egg-shaped buck with accessories for ease of ironing sle	eves & top of pant	1 set
1	Major specifications		
	Cover:		
	1. Industry soft		
	2. Industry hard		
	3. Standard		
	4. Soft Standard		
2	Technical specifications		
	Diameter 85 mm		
	600 x 250 mm		
3	Colour	Standard Colour	
4	Recommended spares for 2 years of normal Operation	Item wise quantity with price to be provided	1 set
	1		

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Sl. No.	Ref No.	Item	al training Centre, Monywa, Myanmar.  Brief Specification	Quantity
1	SI No. 13 of Annex 2	Work aids	Basic yoke attach folder, hemming folder,	1 lot
1	31 NO. 15 OF ATTREX 2	Work alus	placket folder – 20 each.	1100
2	SI No. 17 of Annex 2	Linen Tape	2 Meters	20 nos
3	SI No. 18 of Annex 2	Scissors	Blade: steel or Iron	20 nos
3	SI NO. 18 OF ATTREX 2	30133013	Handle: Brass, Size: 6", 5" and 4" – set of 3	20 3613
4	Sl No. 19 of Annex 2	Needles for manual sewing	Suitable for sewing all the types of fabrics.	20 sets
			Size: Assorted - Big, Medium & Small – 3 sets	
			– 50 nos each packed in rust proof paper.	
5	Sl No. 20 of Annex 2	Fabric cutting aids		20 sets
		a. Shears	Blades 6" long and different handle loops for	
			fingers and thumb – 3 types.	
		b. Snips	Suitable for reaching in and snipping stray	
		B	threads	
		c. Rotary Cutter	Sizes of blades are 18mm, 28mm, 45mm, and	
-	CLNo. 21 of Annoy 2	Chirt Duttons/Hooks/Motol	60mm – 4 nos	20 sets
6	SI No. 21 of Annex 2	Shirt Buttons/Hooks/Metal Snap buttons	Shirt buttons with  • 2 holes – 3 sizes with 10 diff.Colours-100	20 sets
		Shap buttons	nos each	
			<ul> <li>3 holes – 3 sizes with 10 diff. Colours – 100</li> </ul>	
			nos each	
			• 4 holes – 3 sizes with 10 diff. Colours – 100	
			nos each	
			Hooks and metal snap buttons - 3 sizes – 100	
			nos each	
7	Sl No. 23 of Annex 2	Scissors	Brass handle 25 cms	20
0	Sl No. 24 of Annex 2	Tailor's Square	Material: Wooden / Plastic	20
8			Size: 300 mm x 600 mm	
9	Sl No. 25 of Annex 2	Leg Shaper	Material: Wooden / Plastic	20
<i>-</i>			Size: 24"	
10	SI No. 26 of Annex 2	Cloth Brush	Wooden handle 3" bristles 5"	20
11	Sl No. 27 of Annex 2	Tracing Wheel	Wooden handle with iron wheel 3"	1 No
12	Sl No. 28 of Annex 2	Measuring Tape	Material: Rubberised Linen, Size: 150 cms	20
13	Sl No. 29 of Annex 2	Thread Ripper	Size: 3" Plastic handle	20
14	Sl No. 30 of Annex 2	Timble	Size: 1.5 cms open type steel	20
15	Sl No. 31 of Annex 2	Tailor's card triangle	Size: 60 cm length (Card scale)	20
16	Sl No. 32 of Annex 2	Tailors art curve	Material: Wooden / Plastic	20
	SIAL 22 CA 2		Size: 30 x 60 cm	20
17	SI No. 33 of Annex 2	French Curve	Material: Plastic	20
4.0	CINE 24 of Access 2	Button Hele Colores	Size: 6" to 8" set of 3	
18	SI No. 34 of Annex 2	Button Hole Scissors	Material: Steel, Size: 4"	5 Nos.
19	SI No. 35 of Annex 2	Pinking Scissors	Material: Steel Size: 8"	5 Nos.
20	SI No. 36 of Annex 2	Left hand scissors	Material: Steel	4 Nos.
	SI No. 37 of Annex 2		Size: 25 cm  Brass handle 10" to 12"	2 Nos.
21	SI NO. 57 OF ATTREX 2	Shear	Size: 30 cm	Z NOS.
22	SI No. 38 of Annex 2	Gum tape dispenser	For office use	1 No.
23	SI No. 39 of Annex 2	Rubber Mat	Size: 300 x 1250 x 25 mm	4 Nos.
23	SI No. 40 of Annex 2	Number Wat	Material: Plastic	4 Nos.
24	Si No. 40 Of Affilex 2	Garment Sprayer	Size: 6"	+ NUS.
	Sl No. 41 of Annex 2	Blanket of size 5" x 8" for		4 Nos.
25	211121 /2 O. / AIIION Z	padding as pressing table	Size: 5' x 8'	
26	SI No. 42 of Annex 2		Size: 2 meters	8 Nos.
		Milton cloth double width	Colour: Brown / Green	
27	SI No. 53 of Annex 2	Stainless steel mesh left hand		10 nos
		glove		
	1	0.0.0		1

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018 Page 162 of 193



# **LOT - 24 Refrigeration & Air conditioning Trainer Equipment**

D (N)	Project: Setting up of Indo-Myanmar Industria	training Centre, Monywa, Myanmar.			
	. Enclosure – 1 / 2 of Annex II		I		
SI. No.	Item	Brief Specification	Quantity		
1	Refrigeration Test Rig - Trainer:-To understand t	heory, constructional and operational	1 No		
	features of refrigeration and to study its performan				
	230 V, 50 Hz AC supply. (MCB's to be used in place of	fuses)			
	Major Specifications:				
1.1	Capacity	1500K.Cal/hr			
1.2	Tonnage	0.5 Ton			
2	Purpose:				
2.1	Identify components of an refrigeration unit				
2.2	State need for eco-friendly refrigerant gas				
2.3	Study of a typical refrigeration cycle				
2.4	Calculate COP at various loads				
3	Requirements:				
3.1	Hermetically sealed Compressor, Reputed Make				
3.2	Expansion device: Capillary				
3.3	Control chamber: Water tank, of 20 lit capacity. MOC: SS, 16 SWG, inner as well as outer				
	casing, with 40 mm insulation. The chamber to have the following facilities				
	Arrangement to drain water				
	Arrangement to house evaporator coil				
	<ul> <li>Arrangement to mount electrical heater</li> </ul>				
	<ul> <li>Arrangement to house temperature Sen</li> </ul>	sor			
3.4	Rotameter : To measure refrigerant flow		l .		
3.5	Evaporator: Water cooled type made of copper pipe				
3.6	Electrical Heater to load the system: 3 kW				
3.7	Energy-meter for recording power consumption .				
3.8	Temperature Indicator (8 point) with 8 nos of Pt100 s	ensors.			
3.9	Pressure gauges panel mounted, back connection type	oe e	2 Nos		
3.10	H.P. / L.P cut out				
3.11	Refrigerant: R 134A				
3.12	Structure: Made of suitable MS square section & Pow				
3.13	Structure size: 720 (W) X 900 (H) X 500 (D) mm appro	ximately.			
3.14	Schematic diagram: To be enclosed in Manuals		ı		
4	Colour	Standard Colour			
5	Operating manual containing Basic theory, Procedure troubleshoot.	to conduct experiment and	3 sets		
6	Recommended spares for 5 years of normal operation	Item wise quantity with price to be provided	1 set		
7	Items required for commissioning at site	Touch up paint, brush etc. – Required qty.	1 set		

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated: 03-12-2018 Page 163 of 193



	Project: Setting up of In	do-Myanmar I	ndustrial training Centre, Monywa, Myanmar.	
Ref N	o. Enclosure – 2/2 of Annex II	-		
SI. No.	ltem		Brief Specification	Qty.
		ration and to s	signed to understand theory, constructional and study its performance characteristicssuitable for 1-used in place of fuses).	1 No.
1	Major specifications			
1.1	Capacity	1500 Kcal/hr		
1.2	Chamber Size	48" (H) X 36 "	(W) X 36" (D)	
1.3	Doors	1 no.		
1.4	Chamber Construction	Made up of P	UFF panel with 3" thick insulation	
1.5	Refrigerant suitable for	R134A		
1.6	Bulkhead	Bulkhead ligh	t with switch	
1.7	Room Construction The room should be equipped with heater			
2	Purpose			
2.1	To identify components of a Walk-in Cooler unit			
2.2	To study of a typical refrigerati	on cycle		
2.3	To calculate COP at various loa	ds		
3	Required Components in the S	ystem		
3.1	Compressor: Hermetically seal	ed; Reputed m	ake	
3.2	Expansion device: Capillary			
3.3	-		6" (D), made of GI Puff panel Sheet with 3" thick ibility. Outside material GI, Inside material: GI with	
3.4	Rotameter to measure refriger	ant flow		
3.5	Evaporator			
3.6	Electrical Heater to load the sy	stem:0.5kW.		
3.7	Temperature Indicator (8 point	) with Pt100 s	ensors.	6nos
3.8	Pressure gauges - Panel mount	ed, back conne	ection type of Reputed make	2 nos.
3.9	H.P. / L.P cut out arrangement			
3.10	Schematic diagram: To be encl	osed in Manua	ls.	
4	Operating manuals containing Basic theory, Procedure to conduct experiments and troubleshooting			3 sets
5	Colour		Standard Colour	
6	Recommended spares for 5 years Operation		Itemwise quantity with price to be provided	1 set
7	Items required for commission	ing at site	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of I	ndo-Myanmar I	ndustrial training Centre, Monywa, Myanmar.	
Ref N	o. Enclosure – 3/2 of Annex II			
SI. No.	Item		Brief Specification	Qty.
	<b>Condensing Unit Trainer:</b> The trainer is designed to understand theory, constructional and operational features of condensing Unitsuitable for 1-Phase, 230 V, 50 Hz AC supply. (MCB's to be used in place of fuses).			
1	Major specifications			
1.1	Capacity	750K.Cal/hr		
1.2	Compressor mounted	Hermetically sea	aled compressor with all electrical accessories	
2	Purpose			
2.1	To study & identify components of Condensing Unit and state of its use.			
3	Required Components in the System			
3.1	Compressor: Hermetically sea	aled of reputed r	nake	
3.2	Air cooled condenser			
3.3	Facility to attach the unit to a	n evaporator of	suitable capacity.	
3.4	Schematic Diagram to be enc	losed in Manuals	3	
3.5	Pressure gauges, panel moun discharge of the compressor,	•	ction type, Pressure gauge at the suction and	
3.6	Temperature Indicator (8 poi	nt) with 4 nos of	Pt100 sensors	
3.7	Refrigerant: R134a			
3.8	Facility to charge and recover	refrigerant gas	very easily using a flared connection and a valve.	
3.9	Structure: Made of suitable N	1S square section	n & Powder coated.	
4	Operating manuals containing Basic theory, Procedure to conduct experiments and troubleshooting			3 Sets
5	Colour		Standard Colour	
6	Recommended spares for 5 y Operation	ears of normal	Itemwise quantity with price to be provided	1 set
7	Items required for commissio	ning at site	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of	Indo-Myanmar I	ndustrial training Centre, Monywa, Myanmar.				
Ref N	o. Enclosure – 4/2 of Annex II						
SI. No.	Item		Brief Specification				
	<b>Cut Section Model:</b> The model has to be made out of used compressors. Section to take in such a way as to expose maximum parts such as piston, cylinder, motor winding, etc. are displayed. This helps show the internal constructional details of the compressor. Exposed parts are suitably painted with a colour code. Sections should be anodized.			3 No.s (1 No. each type)			
1	Major specifications						
1.1	Type-1	Hermetically Se	aled Compressor				
1.2	Type-3	Open type com	pressor				
1.3	Type-2	Semi-sealed co	mpressor				
2	Purpose: To study & identify	components of F	Refrigeration Compressor Unit.				
3	Model shall be mounted on	a structure made	of suitable MS square section & Powder coated.				
4	Operating & Parts manuals			3 Sets			
5	Colour Standard Colour						
6	Items required for commission	oning at site	Touch up paint, Brush etc. – Required qty.	1 set			



	Project: Setting up of Indo-Myanmar I	ndustrial training Centre, Monywa, Myanmar.	
Ref No	o. Enclosure – 5 & 6/2 of Annex II		
SI. No.	Item	Brief Specification	Qty.
	•	understand theory, constructional and operational	1 No.
	(MCB's to be used in place of fuses).	gersuitable for 1-Phase, 230 V, 50 Hz AC supply.	
1	Major specifications		
1.1	Type – 1	Shell and Tube Type Heat exchanger	
-		•	
1.2	Type – 2	Tube in tube type heat exchanger	
1.3	Flow Arrangement	Hot and cold water arrangement with pumps	
1 1	Two different type of heat exchangers can		
1.4	be used to carry out experiments using		
	common mother unit One heat exchanger is supplied for		
1.5	assembly and disassembly practice.		
2	Purpose		
	To state and identify different types of heat e	ychangars	
2.1		excitatigets	
2.2	To identify components of a heat exchanger		
2.3	To carry out servicing and preventive maintenance of a heat exchanger		
3	Required Components in the System		
	Mother unit: The unit should consists of,		
		nd cold-water flow rate measurement, 1 no. each	
	8 point Digital temperature indicator with ser	•	
3.1	Sump tank of 40 lit capacity, MOC: SS 304, 16		
	Water circulation pumps: Centrifugal type, 0.	25 HP, 100LPH, 2 nos. Make:Reputed	
	Electrical water heater: 1 KW, in line type.	and a final control of the state of the stat	
	Electrical control panel complete with necess		
	Structure: Made of suitable MS square sectio	n & Powder coated. n borosilicate glass with 3" diashell and tubes of	
3.2	• • • • • • • • • • • • • • • • • • • •	Number of tubes 25, Connections for hot and cold	
3.2	water in shell and tubes respectively.	Number of tubes 23, connections for flot and cold	
3.3	· ,	per for inner pipe. Inner pipe diameter: 20 mm	
3.4	Piping: PPR with SS embedded threading	per to timer piper filler pipe didilicter. 20 filli	
3.4		ssembly practice: MOC: SS 304, Floating head	
3.5			
٥.5	(Pull through type) Shell and tube (1-2) type heat exchanger 3" diashell with copper tube $\frac{1}{2}$ " dia and 600mm length. number of tubes 25, segmental baffles 25% cut.		
		ulti pass heat exchanger and its three spare gasket	
3.6	set.	and pass hear exemplifier and its times spare gasket	
		exchanger shell & Scraper for cleaning outside of	
3.7	tubes		
4	Operating manuals containing Basic Theory, F	Procedure to conduct experiments and	3 sets
	troubleshooting	·	
5	Colour	Standard Colour	
6	Recommended spares for 5 years of normal	Itemwise quantity with price to be provided	1 set
	Operation		
7	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of Indo-Myan	mar Industrial training Centre, Monywa, Myanmar.	
Ref No	o. Enclosure – 7/2 of Annex II		
SI.	ltem	Brief Specification	Otv
No.	iteiii	Brief Specification	Qty.
	_	designed to understand theory, constructional and	1 No.
	•	d to study its performance characteristics suitable for 1-	
	Phase, 230 V, 50 Hz AC supply.(MCBs to	be used in place of fuses)	
1	Major specifications	1 TOO 1/2 1/41	
1.1	Capacity	1500 K.cal/Hr.	
1.2	Tonnage	0.5 Ton	
2	Purpose		
2.1	To identify components of an refrigerat		
2.2	To state need for eco-friendly refrigera	nt gas	
2.3	TO study of a typical refrigeration cycle		
2.4	Calculate COP at various loads		
3	Required Components in the System		
3.1	Hermetically Sealed Compressor		
3.2	Expansion device: Thermostatic Expans	ion Valve	
3.3	·		
	with 40 mm insulation. This chamber ha	as following facilities	
	Arrangement to drain water		
	Arrangement to house evaporator co		
	Arrangement to mount electrical hea		
	Arrangement to house temperature S	Sensor	
3.4	Rotameter to measure refrigerant flow		
3.5	Evaporator: Water cooled type made of		
3.6	Electrical Heater to load the system: 0.5		
3.7	Energy-meter for recording power cons	umption.	
3.8	Temperature Indicator (8 point) with P	t100 sensors.	8 No.s
3.9	Pressure gauges, panel mounted, back	connection type	2 No.s
3.10	H.P. / L.P cut out		
3.11	Refrigerant: R134A		
3.12	Structure: Made of suitable MS square	section & Powder coated.	
3.13	Structure size: 720 (W) X 900 (H) X 500	(D) approximately.	
3.14	Schematic Diagram to be enclosed in M	anual.	
4	Operating manuals containing Basic troubleshooting	theory, Procedure to conduct experiments and	3 sets
5	Colour	Standard Colour	
6	Recommended spares for 5 years of no Operation	rmal Itemwise quantity with price to be provided	1 set
7	Items required for commissioning at sit	e Touch up paint, Brush etc. – Required qty.	1 set



Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar.						
Ref No	Ref No. Enclosure – 8/2 of Annex II					
SI.		Duief Consciliantian	Ot.			
No.	ltem	Brief Specification	Qty.			
	Package Air Conditioner:Designed to understand theory, constructional and operational					
		to study its performance characteristics suitable for 1-				
	Phase, 230 V, 50 Hz AC supply. (MCBs to	be used in place of fuses)				
1	Major specifications					
1.1	' '	L500 K.cal/Hr.				
1.2	S	0.5 Ton				
1.3	Air Circulation 6	538 m³/Hr. approx.				
2	Purpose					
2.1	To identify components of an air-condition	oning unit				
2.2	To state need for eco-friendly refrigerant	t gas				
2.3	To study of a typical air-conditioning unit	- -				
2.4	To study of cooling process					
2.5	To study of a typical air-conditioning cycl	e				
2.6	To calculate COP at various loads					
2.7	To study Psychometric charts					
3	Required Components in the System					
3.1	Hermetically sealed Compressor					
3.2	Capillary					
	_	r will be made of MS powder coated sheet. There will				
		e chamber for cold air inlet. Removal (exhaust) ducting				
3.3		The chamber will be of 3' x 3' x 3' or more. The test				
		a transparent window will be provided to view interior				
2.4	chamber. Houses sensors, thermostats a Rotameter to measure refrigerant flow ra					
3.4		ate				
3.5	Evaporator	IVAV with facility to your the load				
3.6	Electrical Heater to load the system: 0.5	· · · · · · · · · · · · · · · · · · ·				
3.7	Energy meter for recording power consu	•				
3.8	Temperature Indicator (8 point) with sen	15U15, 0 HU5.				
3.9	Pressure gauges, 2 nos.	(-LLA				
3.10	Anemometer with digital indicator, ( Port	lable)	1			
3.11	Digital LH/ RH indicator		1 set			
3.12	H.P. / L.P cut out					
3.13						
3.14	Control panel made of MS Structure	theory Procedure to conduct experiments and	3 sets			
4	Operating manuals containing Basic theory, Procedure to conduct experiments and troubleshooting					
5	Colour	Standard Colour				
6	Recommended spares for 5 years of norr		1 set			
	Operation	The state of the proof to be provided	_ 500			
7	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set			



	Project: Setting up of Inc	lo-Myanmar I	ndustrial training Centre, Monywa, Myanmar.	
Ref No	o. Enclosure – 9/2 of Annex II			
SI. No.	Item		Brief Specification	Qty.
	<b>Automobile Air Conditioner Trainer:</b> -The trainer is designed to understand theory, constructional and operational features of an automobile air conditioner and to study its performance characteristics suitable for 3-Phase, 400 V, 50 Hz AC supply. (MCBs to be used in place of fuses)			
1	Major specifications			
1.1	Model/ Make	Using original	car air-conditioner components	
2	Purpose			
2.1	To identify components of auto	mobile air-cor	nditioning unit	
2.2	To state need for eco-friendly re	efrigerant gas		
2.3	To study of cooling process			
2.4	To study of a typical air-condition	oning cycle		
2.5	To study Psychometric charts			
3	Required Components in the S	ystem		
3.1	Car AC compressor –NEW Syste	ms		
3.2	Electrical motor of ISI standard with VFD to vary the speed of the motor to simulate engine speed varying condition			
3.3	Wobble plate compressor mou	nting on brack	ets Capillary	
3.4	Evaporator			
3.5	Condenser			
3.6	AHU and Fan motor			
3.7	Hose tubes, receivers & expans	ion controls co	omplete as per compressor	
3.8	Electric component & wiring ha	rness		
3.9	Converter AC 230V to 12V DC			
3.10	Ammeter and Voltmeter			
3.11	Temperature Indicator (8 point)	of Pt100 sens	ors.	8 Nos
3.12	Pressure gauges, panel mounte	d, back conne	ction type	2 Nos
3.13	Electrical heater to load the sys	tem. Arrangen	nent to vary the load.	
3.14				
4	Operating manuals containing Basic Theory, Procedure to conduct experiments and troubleshooting			3 sets
5	Colour		Standard Colour	
6	Recommended spares for 5 year Operation	rs of normal	Itemwise quantity with price to be provided	1 set
7	Items required for commissioni	ng at site	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of Indo-Myanma	ar Industrial training Centre, Monywa, Myanmar.	
Ref No	o. Enclosure – 10/2 of Annex II	in madatial training centre, monywa, myaninar.	
SI.		Data Connect Constitution	0.1
No.	Item	Brief Specification	Qty.
	<b>Split Type Air Conditioning Tutor:</b> The trainer is designed to understand theory, constructional		
	and operational features of split air conditioner and to study its performance characteristics		
	suitable for 1-Phase, 230 V, 50 Hz AC suppl	y. (MCBs to be used in place of fuses)	
1	Major specifications	and the	
1.1		00 K.cal/Hr.	
1.2	0	75 Ton	
1.3		Lit/hr	
1.4	Air Circulation: 43	0 m3/hr approx.	
2	Purpose		
2.1	To identify components of a split air-condi	tioning unit	
2.2	To study typical air-conditioning unit.		
2.3	To study cooling process		
2.4	To study the Summer, Winter and Monsoo		
2.5	To study dehumidification and cooling pro-	cess	
2.6	To calculate COP at various loads		
2.7	To study Psychometric charts		
3	Required Components in the System		
3.1	Hermetically sealed Compressor		
3.2	Capillary		
3.3	Control chamber and ducting houses sens	ors, thermostats and evaporator unit	
3.4	Rotameter to measure refrigerant flow		
3.5	Measuring vessel to measure water conde	nsed at dew point conditions	
3.6	Evaporator unit		
3.7	Electrical Heater 0.5kW to load the system.		
3.8	Humidifier: Steam generation by using elec	ctrical heater	
3.9	Energy-meter for recording power consum	ption	
3.10	Temperature Indicator (8 point) with sense	ors	8Nos
3.11	Pressure gauges		2 Nos
3.12	Anemometer with digital indicator( Portab	le)	
3.13	Digital RH indicator		2 Nos
3.14	H.P. / L.P cut out		
3.15	Refrigerant Suitable for: R22/R134a		
3.16	MS test chamber with Acrylic door		
3.17	Control panel made of MS structure		
4	Operating manuals containing Basic Theory, Procedure to conduct experiments and troubleshooting		
5	Colour	Standard Colour	
6	Recommended spares for 5 years of normal Operation	Itemwise quantity with price to be provided	1 set
7	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of Indo-Myann	ar Industrial training Centre, Monywa, Myanmar.	
Ref No	o. Enclosure – 11/2 of Annex II	ar madotriar training centre, monyma, myammar.	
SI.			
No.	Item	Brief Specification	Qty.
	Air Conditioning Tutor:- Designed to understand theory, constructional and operational		
	features of air conditioner and to study its performance characteristics suitable for Single		
	phase, 230 V, 50 Hz AC supply. (MCBs to	e used in place of fuses)	
1	Major specifications		
1.1	· · ·	500 K.cal/Hr.	
1.2		5Ton	
1.3		25 Lit/hr	
1.4	Air Circulation:	20 m3/hr approx.	
2	Purpose		
2.1	To identify components of an air-condition		
2.2	To state need for eco-friendly refrigerant	gas	
2.3	Study of a typical air-conditioning unit.		
2.4	Study of cooling process		
2.5	Study of Summer, Winter and Monsoon a	ir-conditioning process	
2.6	Study of dehumidification and cooling pro	cess	
2.7	Study of a typical air-conditioning cycle		
2.8	To calculate Heat balance at evaporator,	condenser and the overall system	
2.9	To calculate COP at various loads		
2.10	To study Psychometric charts		
3	Required Components in the System		
3.1	Hermetically sealed Compressor		
3.2	Capillary		
3.3	Control chamber and ducting houses sen	ors, thermostats and axial fan	
3.4	Rotameter to measure refrigerant flow		
3.5	Measuring vessel to measure water cond	ensed at dew point conditions	
3.6	Cooling coil evaporator		
3.7	Electrical Heater to load the system -0.5	W with facility to vary the load.	
3.8	Humidifier: Steam generation by using el	ctrical heater	
3.9	Energy-meter for recording power consu	nption	
3.10	Temperature Indicator (8 point) with sen	ors	6Nos
3.11	Pressure gauges		4 Nos
3.12	Anemometer with digital indicator, ( Port	able)	
3.13	Digital LH/RH indicator		1 set
3.14	H.P. / L.P cut out		
3.15	Refrigerant: Eco-friendly Refrigerant, R13	4A	
3.16	MS test chamber with Acrylic door		
3.17	Control panel made of MS and foam shee	t.	
4	Operating manuals containing Basic troubleshooting	theory, Procedure to conduct experiments a	and 3 sets
5	Colour	Standard Colour	
6	Recommended spares for 5 years of norr	al Itemwise quantity with price to be provided	1 set
	Operation		



	Project: Setting up of Indo-Myanmar I	ndustrial training Centre, Monywa, Myanmar.	
Ref No	o. Enclosure – 12/2 of Annex II	nadotilai trailling control, mon, ma, myamman	
SI.		2.162.16	
No.	ltem	Brief Specification	Qty.
	Room Air Conditioning Tutor:-Designed to understand theory, constructional and operational		
	features of air conditioner and to study its performance characteristics suitable for Single		
	phase, 230 V, 50 Hz AC supply. (MCBs to be u	sed in place of fuses)	
1	Major specifications		
1.1	Tonnage 0.75		
1.2		bly designed	
2	Purpose		
2.1	To identify components of an air-conditioning		
2.2	To state need for eco-friendly refrigerant gas		
2.3	Study of a typical air-conditioning unit.		
2.4	Study of cooling process		
2.5	Study of Summer, Winter and Monsoon air-c	onditioning process	
2.6	Study of dehumidification and cooling proces	SS	
2.7	Study of a typical air-conditioning cycle		
2.8	To calculate Heat balance at evaporator, con-	denser and the overall system	
2.9	To calculate COP at various loads		
2.10	To study Psychometric charts		
3	Required Components in the System		
3.1	Hermetically sealed Compressor		
3.2	Capillary		
3.3	Control chamber and ducting houses sensors	, thermostats and axial fan	
3.4	Rotameter to measure refrigerant flow		
3.5	Measuring vessel to measure water condense	ed at dew point conditions	
3.6	Cooling coil evaporator		
3.7	Electrical Heater to load the system –0.5 kW	with facility to vary the load.	
3.8	Humidifier: Steam generation by using electr	ical heater	
3.9	Energy-meter for recording power consumpt	ion	
3.10	Temperature Indicator (8 point) with sensors		6Nos
3.11	Pressure gauges		4 Nos
3.12	Anemometer with digital indicator, ( Portable	e)	
3.13	Digital LH/RH indicator		1set
3.14	H.P. / L.P cut out		
3.15	Refrigerant: Eco-friendly Refrigerant, R 134A		
3.16	MS test chamber with Acrylic door		
3.17	·		
4	Operating manuals containing Basic Theory, Procedure to conduct experiments and troubleshooting		
5	Colour	Standard Colour	
6	Recommended spares for 5 years of normal Operation	Itemwise quantity with price to be provided	1 set
7	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of Indo-Myann	nar Ir	ndustrial training Centre, Monywa, Myanmar.	
Ref N	lo. Enclosure – 124 / 2 of Annex II			
SI. No.	ltem		Brief Specification	Qty.
		stu	Designed to understand theory, constructional and dy its performance characteristicsfor Single phase, place of fuses).	1 No.
1	Major specifications			
1.1	Pump type	Vac	cuum Pump	
1.2	Pump construction	Two	o Stage Rotary pump with gas ballast & anti suck k.	
1.3	Capacity upto Vacuum can be handled	100	00 microns of Hg	
1.4	Other important mountings	Gra	duated charging cylinder	
2	Requirements of the System			
2.1	All mountings such as Manifolds, valves, suitable to the system.	gaug	es and all necessary isolating valves shall be	
2.2	All necessary arrangements has to be ma such as weighing machine, Temperature		or measurement of evacuated & charged systems e, Pressure gauge & etc.	
2.3	All safety mountings has to be mounted	on th	ne system against leakage of Refrigerants.	
2.4	Total system shall be built in such a way t can be demonstrated.	hat t	total processes & Components of the entire system	
2.5	All the Gauges, Valves, Manifolds shall be	of R	Reputed make	
3	Operating manuals containing basic theory, procedures to carry out the evacuation & Charging the Refrigeration system.			3 sets
4	Colour		Standard Colour	
5	Recommended spares for 5 years of norm Operation	nal	Item wise quantity with price to be provided	1 set
6	Items required for commissioning at site		Touch up paint, Brush etc. – Required qty.	1 set



Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar.				
Ref No. Enclosure – 126 / 2 of Annex II				
SI. No.	Item		Brief Specification	Qty.
		_	ed to understand constructional and operational mance characteristicsfor Single phase, 230 V, 50 Hz	1 No.
	AC supply. (MCBs to be used in place of	f fuses)	).	
1	Major specifications			
1.1	Pump type Two Stage Water-Ring type pump			
1.2	Capacity	60-10	00 LPM (Approx.)	
1.3	Evacuation Capacity	50 mi	crons of Hg	
1.4	Other important mountings	gas ba	allast anti suck valve	
2	Requirements of the System			
2.1	All mountings such as valves, gauges sh	nall be	suitable to the Pump design.	
2.2	All necessary arrangements has to be n Pressure gauges, Temperature gauges		or measurement operational parameters such as	
2.4	All the Gauges, Valves shall be of Reput	ted ma	ke	
3	Operating manuals containing basic the	eory &	procedures to carry out the operations	3 sets
4	Colour		Standard Colour	
5	Recommended spares for 5 years of no Operation	rmal	Item wise quantity with price to be provided	1 set
6	Items required for commissioning at sit	te	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of Indo-Myanm	ar Industrial training Centre, Monywa, Myanmar.	
Ref N	o. Enclosure – 137 / 2 of Annex II		
SI. No.	Item	Brief Specification	Qty.
	•	nderstand constructional and operational features of performance characteristics suitable for Single phase, I in place of fuses)	1 No.
1	Major specifications		
1.1	Capacity 3	000 K.cal/Hr.	
1.2	Tonnage 1	Ton	
1.3	Compressor Capacity 1	2000 BTU/Hr	
1.4	Air Circulation: 5	00 CFM	
1.5	Efficiency Ratio 10	0 EER – BTU/Hr/W	
1.6	Refrigerant suitable for R	1 22	
2	Purpose		
2.1	To identify components of an Window air	r-conditioning unit	
2.2	Study of cooling process		
2.3	Study of dehumidification and cooling pro	ocess	
2.4	Study of a typical air-conditioning cycle		
3	Requirements of the System		
3.1	Hermetically sealed Compressor		
3.2	Auto air swing evaporator : Blue fins		
3.3	LCD Operating panel display		
3.4	Charged - Ready to work condition		
3.5	Total system shall be built in such a way t system can be demonstrated.	hat total processes & Components of the entire	
4	Operating manuals containing Theory, Procedure to conduct experiments and troubleshooting		
5	Colour	Standard Colour	
6	Recommended spares for 5 years of norm Operation	nal Itemwise quantity with price to be provided	1 set
7	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set



	Project: Setting up of Indo-Myanmar	Industrial training Centre, Monywa, Myanmar.		
Ref No	o. Enclosure – 141 / 2 of Annex II			
SI. No.	Item	Brief Specification	Qty.	
	•	eory, constructional and operational features of Ice aracteristics suitable for Single Phase, 230 V, 50 Hz es)	1 No.	
1	Major specifications			
1.1	Capacity	1500K.cal/Hr.		
1.2	Tonnage	0.5 Ton		
1.3	Refrigerant suitable for	R 404A		
1.4	Minimum Temperature to achieve	- 18 °C		
2	Purpose			
2.1	To identify components of a Ice Candy Unit			
2.2	To study the process			
2.3	To calculate COP at various loads			
3	Requirements of the System			
3.1	Hermetically sealed Reciprocating Compressor			
3.2	Condenser – Air cooled type with fan			
3.3	Evaporator – Copper coil immersed into tan	k.		
3.4	H.P. / L.P cut out			
3.5	Liquid line drier			
3.6	Accumulator			
3.7	Temperature Indicator s			
3.8	Pressure gauges			
3.9	Thermostatic Expansion valve & Solenoid va	lve to control candy mould box		
3.10	SS tank, mould box, candy with puff insulate			
3.11	Control panel shall consist of temperature indicator, Thermostat, Pressure Gauges, Safety controls, Digital Voltmeter, Digital Ammeter & other controls.			
4	Operating manuals containing basic theory, Procedure to conduct experiments and troubleshooting			
5	Colour	Standard Colour		
6	Recommended spares for 5 years of normal Operation	Itemwise quantity with price to be provided	1 set	
7	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set	



	Project: Setting up of I	ndo-Myanma	r Industrial training Centre, Monywa, Myanmar.			
Ref No	Ref No. Enclosure – 142 / 2 of Annex II					
SI. No.	ltem		Brief Specification	Qty.		
	Air Conditioning plant - Working Trainer Model Simulator with all controls including humidity control suitable for 3 Ph, 400V, 50Hz AC Supply (MCBs are to be used in place of fuses)					
1	Major specifications					
1.1	Туре	Direct & indi	rect water chiller			
1.2	Capacity	6000 k.cal/h	r			
1.3	Dimensions (L x D x H)	900 L x 750 [	0 x 900 H mm			
2	Purpose					
2.1	Experimental Air-conditioning of performance of the unit	plant to con	duct experimental to determine the co-efficient			
3	Required Components in the	System				
3.1	Compressor: 3 ton hermetica	lly sealed reci	procating compressor			
3.2	Water cooled condenser: She	ll and tube typ	De .			
3.3	Tube material: 19mm OD integrally finned copper tube 19TPI					
3.4	Overall size : 220 D x 790 mm					
3.5	Water in / out 1 " BSP					
3.6	Evaporator: Aluminum fin bor	nded to coppe	r tubes			
3.7	Blower size: 300 x 300 mm					
3.8	Motor Rating: 0.40 KW					
3.9	Refrigerant : R-22					
3.10	Water cooling tower complet	e with fan				
3.11	Control: HP/LP cutout switch					
3.12	Complete installation & Gas charging with running condition					
3.13	Operating manuals containing Theory, Procedure to conduct experiments and troubleshooting			3 sets		
3.14	Colour - Standard					
4	Recommended spares for 5 years of normal Operation Itemwise quantity with price to be provided					
5	Items required for commissio	ning at site	Touch up paint, Brush etc. – Required qty.	1 set		



	Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar.				
Ref No	o. Enclosure – 143 / 2 of Annex II				
SI. No.	Item	Brief Specification	Qty.		
	1	ressor air cooled condenser controls etcsuitable for	1 No.		
	Single phase, 230 V, 50 Hz AC supply. (M	CBs to be used in place of fuses)			
1	Major specifications				
	Condensing unit with open type compressor air cooled condenser. Compressor: Open recipror Type, belt driven, Cap 1500k.cal/hr. Refrigerant R-22,, R-134a,or CFC free valve Suction & disc service valve, Compressor Motor 2HP, 1Ph, 230V, 60Hz, AC. Condenser size: 16" x 16" - 4 row Integroved copper 3/8" tubing with aluminium air fins -side, top and bottom plates of 16SWG. Alum condenser Fan motor 1/5HP, 1Ph, 230V, 60Hz,AC, condenser fan blade 14" diameter of Alum Receiver suitable with angle valve 2 nos. (Inlet & Outlet), Cooling coil size 13"x 13" - 3 row-integroved copper tobe 3/8" with aluminiumair fins - side, top and bottom plates of 16SWG aluminius suitable for AC type cooling coil with metering device thermostatic expansion valve. Acrylic duct 14 - 4 ft long, 8 mm thick, with orifice plate, inclined manometer, axial fan, air heater, steam inlet for bulb and wet bulb temperature sensors at inlet & outlets. Suitable insulation of Armocol prowherever necessary. Rotometer to measure the flow rate of liquid refrigerant and bypass the roto - 1 no. Air flow measurement digital Anemometer control panel which consists of the following mounted on it: 8 channel programmable digital scanner for temperature indication of various premperature controlling thermostat, DOL starter switch for compressor, Switches and indication for steam generator, Axial flow fan, Heater, Mains HP and LP cut off switch, Digital ammeter, Volta 1 no each, Pressure gauge 4 nos, process line diagram. The unit to be able to perform the foll measurement/practical trade. 1)Dry bulb & wet bulb temperature of Air inlet & outlet of cooling duct. 2) Suction & Discharge pressure of compressor. 3) Inlet & outlet pressure of cooling coil. 4 rate of refrigerant at liquid line. 5) Pressure drop at duct inlet (Orifice). NOTE: The unit shot complete with gas charging and working condition of AC system. The whole unit mount painted/powder coated MS steel frame.				
2	demonstrated. Size: 3' x 3' x 3'	that total processes & Components of the entire syster	m can be		
3		ocedure to conduct experiments and troubleshooting	3 sets		
4	Colour	Standard Colour			
5	Recommended spares for 5 years of norr Operation	nal Itemwise quantity with price to be provided	1 set		
6	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set		



	Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar.					
Ref No	Ref No. Enclosure – 144 / 2 of Annex II					
SI. No.	Item	Brief Specification	Qty.			
		ssor evaporator condenser controls etc controls	1 No.			
	etcsuitable for Single phase, 230 V, 50 Hz AC	supply. (MCBs to be used in place of fuses)				
1	Major specifications					
	Condensing unit with open type compressor evaporator condenser. Compressor: Open reciprocating Type, belt driven, Cap 1500 k.cal/hr. Refrigerant R-22,, R-134a,or CFC free valve Suction & discharge service valve, Compressor Motor 2HP, 1Ph, 230V, 60Hz, AC. Condenser size: 14" x 14" - 4 row Internally grooved copper J" K tubing with aluminium air fins -side, top and bottom plates of 16SWG Aluminium. Receiver suitable with angle valve 2 nos. Cooling coil size 13"x 13" - 3 row-internally grooved copper J" K tubing with aluminium air fins - side, top and bottom plates of 16 SWG aluminium, or suitable for AC type cooling coil with metering device thermostatic expansion valve. Cooling coil motor: 1/10 HP, 1Ph, 230V, 60Hz, AC, with 15" aluminium blade. Evaporative Type: Suitable evaporative condenser cooling tower made of FRP or 8 mm thick transparent acrylic with drift eliminator, spray nozzle, inlet and outlet wet bulb, dry bulb temperature sensors. Evaporator blower: Suitable for 1Ph, 230V, 60Hz, AC.(Cooling Tower - Forced draft type)					
2	Total system shall be built in such a way that demonstrated.	t total processes & Components of the entire system	m can be			
3	Operating manuals containing Theory, Proce	dure to conduct experiments and troubleshooting	3 sets			
4	Colour	Standard Colour				
5	Recommended spares for 5 years of normal Operation	Itemwise quantity with price to be provided	1 set			
6	Items required for commissioning at site	Touch up paint, Brush etc. – Required qty.	1 set			



# **LOT 25 – HEAT TREATEMENT EQUIPMENT**

tem : Ha	rdening Furnace		
Ref: Sl. N	o. 66 of Annex 6		ty : 1 No.
	TECHNI	CAL SPECIFICATION	
SI. No.		Description	Qty
4	<b>Electrically Heated Hardening Furnace</b> with esupply	electrical equipment suitable for 3 phase 400V, 50 Hz A	1
4.1	Major Specifications		
4.1.1	Useful Chamber Size	≥ W 450 mm x B 600 mm x H 600 mm	
4.1.2	Power Rating	≥ 42 Kw	
4.1.3	Power Supply	400V, 50 Hz AC supply	
4.1.4	Temperature	≥ 1000° C	
4.1.5	Operating Temperature	≥ 950° C	
4.1.6	Type of Heating Element	Coil Type, Ni/Cr 80/20 Element	
4.2	Detailed Specifications		
4.2.1	-	ed using MS sheets conforming to IS226 of 5 mm thicknes	5.
		$\lambda$ 50 x 50 mm angles of the same quality. The furnace she	
		ported by channels. All MS parts be sandblasted, cleaned	
	painted with primer and given two coats of hea		
4.2.2	<b>Insulation</b> : The sides of the furnace will be lined ceramic fiber modules of density 160 kg/m <sup>3</sup> (to be		
	kg/m <sup>3</sup> .	28 kg/m <sup>3</sup> ) backed by ceramic fiber blankets of density 12	
	The bottom of hearth will be lined with high alumina refractory (alumina > 60%) followed by one layer		of
	Insulation bricks conforming to IS 2042 Type II and followed by one		
433	layer of bricks conforming to IS2042.	the American Alich Alci CC240 Consider Chairdean Charl Blat	
4.2.3	<b>Retort</b> : The furnace retort is made of not less than 4 mm thick AISI SS310 Grade Stainless Steel Plate. Bottom of the retort is dish ended. Mouth of the retort is provided with Mild steel plate which rests on		
		llar retort for easy maintenance. Expansion provision for	
	retort is provided inside the furnace.	nut record for easy maintenance. Expansion provision re	
4.2.4		f Kanthal A1 strip type configuration. The element will b	e
		This will be mounted on to the ceramic fiber lining wit	
4.2.5	Control Panel: The control panel will be a stan	d-alone type. It will be suitable for 3 Phase, 400 V, 50 F	Z
		t of 2 mm mild steel sheets and will be suitably treated for	
	corrosion resistance and will be powder coate fuses.	ed with attractive colour. MCB's will be used in place of	of
4.2.6		will be used. One K Type (Nickel chromium / Nickel easurement and control and the other connected to the eathed with high alumina refractory.	
		be provided to control the temperature in the furnace nocouple sensor as well as cold junction compensation a	
		be programmable PID Type give 4-20 mA 0-5V output tensure that the temperature inside the furnace can be	
	controlled with tight tolerance. The thern compensating cable to ensure there is no loss d	nocouple will be connected to the controller using	а
4.2.7	Sealing Arrangement : The inner chamber acco	mmodates a cylindrical retort of 5 mm thick AISI 310 grad teel flange of 200 mm width integrally welded at the top	
	A separate gas penal with required meters and		
4.2.8		dication for Power On, Heater On, and Thyristor On. Ther	e
5		to both Methanol and heater on opening the door. A blin	
		main indication controller. The entire control system w	

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#### Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar. **Item: Hardening Furnace** Qty: 1 No. Ref: Sl. No. 66 of Annex 6 TECHNICAL SPECIFICATION SI. No. Description Qty be supplied with a separate control transformer to ensure that the control system get a steady power supply so as to prevent damage to the sensitive control systems. 4.2.9 Air Circulation: A roof mounted impeller manufacture out of SS 310 grade material will be provided. The impeller will be fixed using heavy-duty taper roller bearing and belt-pulley driven. 4.2.10 Cooling System: Cold air blower will be provided. This blower will have an inlet vent to the atmosphere, which will be sucked and supplied, into the chamber of cooling. 4.2.11 Fixture: A suitable fixtures for mounting components along with 15 numbers of suitable hooks made out if SS 310 grade material will be provided. 4.2.12 Operation/ Service/ Spare parts manual - 2 sets to be sent along 3 sets (Total) with Machine and 1 set to HMTI, Bangalore 4.3 Colour: Standard Set of mechanical and electrical spare parts for 2 year normal operation. 4.4 Please indicate the detailed list of spares with individual prices Items required for E&C to be supplied with the machine: 4.5 4.5.1 Touch up paint - 1 litre each, Brush- $\frac{1}{2}$ " - 2 nos., Cora cloth - 2 meters, Cotton waste - 1 kg. 4.5.2 Initial fill of Lubrication Oil packed in separate containers & sealed



# **LOT 25 Heat treatement Equipment**

tem : Te	mpering Furnace		
Ref: Sl. N	lo. 67 of Annex 6	Qty	: 1 No.
		TECHNICAL SPECIFICATION	
SI. No.		Description	Qty
5	Tempering Furnace with electrical eq	uipment suitable for 3 phase 400V, 50Hz AC supply.	1
5.1	Major Specifications		
5.1.1	Chamber size	Dia 600 x 750 H mm	
5.1.2	Maximum Temperature	≥ 800 ° C	
5.1.3	Heating Method / Element	Electrical / Ni Chrome 80/20	
5.1.4	Power	21 KW	
5.1.5	Temperature controller	Manual control system and additional programmable Digital Temperature Controller interfaced with Thyristor power pack.	
5.1.6	Insulation	Ceramic fiber modules backed with ceramic fiber blankets –250mm	
5.1.7	Baffle	SS 310-3mm	
5.1.8	Air circulation	Air circulation fan of 2 HP.	
5.1.9	Control panel	Floor mounting control cubicles.	
5.1.10	Cooling	By Blower	
5.1.11	Door	Top lifting type door	
5.1.12	S S Hooks	15 Nos.	
5.1.12	Door	The shell of the furnace will be fabricated using MS sheets conforming to IS 226. The shell will be adequately reinforced with ISA 50x50 mm angles of the same quality. The furnace shell will be floor mounting type and adequately supported by channels.  The door will be fabricated out of MS Plate 5 mm thickness lined with ceramic fiber blankets. The door will be top lift, swing type and will be of heavy construction and at the same time well balanced to ensure smooth operation. SS310 inside.	
5.1.14	Insulation	The sides of the furnace will be lined ceramic fiber modules backed by ceramic fiber blankets.  The hearth will be lined with 75 mm of High alumina refractory (alumina > 60%) followed by one layer of Insulation bricks conforming to IS 2042 Type II and followed by one layer of Insulation bricks conforming to IS 2042 Type III (115 mm/layer).	
5.1.15	Baffle	A baffle will be manufactured out of 3.00 mm heat resistant steel conforming to AISI 310.	
5.1.16	Elements	The heating elements will be out of Ni crome configuration. The element will be designed for a watt loading of 1.5 to 2 w/cm2. This will be mounted on to the ceramic fiber lining with suitable refractory hooks. The element will be easily replaceable during maintenance. The terminal rods of the elements will be three times the cross-section to ensure good conductivity and low heat dissipation to the bus bars.	
5.1.17	Control Panel	The control panel will be a stand-alone type. It will be suitable for 3 phase, 400V, and 50 Hz supply. The control panel will be fabricated out of 2 mm mild steel sheets	

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### Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar. **Item: Tempering Furnace** Ref: Sl. No. 67 of Annex 6 Qty: 1 No. TECHNICAL SPECIFICATION SI. No. Description Qty and will be suitably treated for corrosion resistance and will be powder coated with attractive colour. MCB's will be used in place of fuses 5.1.18 Two thermocouples will be used. One K Type (Nickel Temperature Control chromium / Nickel Aluminum) thermocouple will be used for measurement and control and the other connected to the On/Off controller. The thermocouple will be sheathed with high alumina refractory. The digital indicating on/off controller will be provided to control the temperature in the furnace manually. The controller will have open thermocouple sensor as well as cold junction compensation as standard. In addition another controller will be programmable PID type give 4-20 mA 0-5V output to control the thyristor power pack. This will ensure that the temperature inside the furnace can be controlled with tight tolerance. The thermocouple will be connected to the controller using a compensating cable to ensure there is no loss due to resistance of the cable. 5.1.19 Indication and Safety The furnace will have indication for Power On, Heater On, Thyristor On. There will be a door limit switch to cut off the supply to the heater on opening the door. A blind controller will be provided as a back up to the main indication controller. The entire control system will be supplied with a separate control transformer to ensure that the control systems get a steady power supply so as to prevent damage to the sensitive control systems. 5.1.20 Air Circulation A roof mounted impeller manufacture out of AISI 310 grade material will be provided. The impeller will be fixed using heavy-duty taper roller bearing and beltpulley driven. The motor rating will be 2 HP. Cold air blower will be provided with the blower. This 5.1.21 Cooling System blower will have an inlet vent to the atmosphere, which will be sucked and supplied, into the chamber for cooling. The blower will be rated at 1hp. 5.1.22 Hooks 15 numbers of suitable hooks made out of AISI 310 grade material will be provided.

3 sets (Total)

5.1.23

5.2

5.3

5.4

5.4.1

Operation/ Service/ Spare parts manual – 2

sets to be sent along with Machine and 1 set

Set of mechanical and electrical spare parts for 2 year normal operation.

Touch up paint - 1 litre each, Brush- $\frac{1}{2}$ " - 2 nos., Cora cloth - 2 meters, Cotton waste - 1 kg.

Please indicate the detailed list of spares with individual prices

Items required for E&C to be supplied with the machine:

to HMTI, Bangalore Colour: Standard



#### Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar. Item: Quenching Tank (Water) Ref: SI. 68 of Annex 6 Qty: 1 No. **TECHNICAL SPECIFICATION** SI. No. Description Qty 6 Water Quenching Tank Equipment suitable for 400V, 3 Phase, 50H AC supply and Control Voltage 230V, 1 1 Phase AC supply. MCB's to be used in place of fuses. 6.1 **Technical Specifications** 600 L x 600 W x 600 H mm 6.1.1 SS Tank Size 6.1.2 Method of agitation Compressed air -built 6.1.3 0.75 KW Power of Motor 6.1.4 A frame fabricated out of angles of size ISA 50 x 50 x6 Frame mm with inner dimension of 750 mm width x 1000 mm length. The frame will have additional reinforcement using angles of sizes ISA 50 x 50 x 6 mm for structural rigidity. This frame will be supported on channels of size ISMC 100 x 50 in box type construction to a height of 150 mm. The box will be welded to a flange of thickness 8 mm of size 250 mm X 250 mm 6.1.5 The tank will be of size 600 mm length x 600 mm Width Tank x 600 mm Height. The tank will be fabricated out of mild steel sheet of thickness 3.15 mm (10 SWG) confirming to AISI 304. The tank will have minimum No. of welded joints. The top portion of the tank will have a flange of width 50 mm. The tank and the flange will be welded and supported with gussets. The flange will also have 4 Nos of lifting hooks. 6.1.6 Agitation The tank will house compressor powered by a motor of capacity of 0.75 KW. This compressed air will be directed to the bottom of the tank using SS tubes with holes. This will ensure agitation and uniformity in temperature of the bath. 6.1.7 Operation/ Service/ Spare parts manual - 2 3 sets (Total) sets to be sent along with Machine and 1 set to HMTI, Bangalore Colour: Standard 6.2 Set of mechanical and electrical spare parts for 2 year normal operation.

Please indicate the detailed list of spares with individual prices

6.3



#### Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar. **Item: Electrode Heating Chamber** Ref: Sl. No. 28 of Annex 9 Qty: 1 No. **TECHNICAL SPECIFICATION** SI. No. Description Qty 3 Electrode Heating Chamber with electrical equipment suitable for 3 phase 400V, 50 Hz AC supply 1 3.1 **Major Specifications** 3.1.1 Chamber size Minimum 450 D x 600 W x 600 H mm 3.1.2 **Operating Temperature** ≥ 200° C 3.1.3 Power rating ≥ 6 KW 3.1.4 Air Circulation 0.75 KW motor 3.1.5 Temperature control Digital temperature control 3.1.6 Insulation 100 mm Mineral wool No. of Trays 3.1.7 3 Nos. 3.1.8 Door Front opening hinged door 3.1.9 Shell The shell will be double walled construction. The outer shell of the oven will be fabricated using M.S. Sheets confirming to IS 226. The shell will be adequately reinforced with ISA 50 x 50 mm angles of the same quality. The inner wall will be fabricated out of stainless steel confirming to IS 2062. This will be adequately reinforced for rigidity. All MS parts will be sandblasted, cleaned, painted with primer and powder coated. 3.1.10 Door The door will also be double walled, double door construction. The doors will be front opening type and supported on heavy hinges. 3.1.11 Insulation The gap between the outer and inner wall will be insulated using 100mm mineral wool insulation. 3.1.12 Recirculation fan A recirculation fan will be provided on the roof of the oven. The impeller will be fabricated out of AISI 304 material and will be driven by a 0.375 KW motor. The motor shaft will be fixed to the roof using a heavy-duty taper roller bearing and the motor shaft will be coupled to it. The fan will be designed to deliver 5 air changes per hour and ensure uniform distribution of hot air. 3.1.13 Elements The heating element will be rated for ≥ 6KW. The heating elements will be finned air heaters of Nichrome 80/20 wire. The element assembly will be easily replaceable type and access will be provided for easy removal and fixing of the heating element. The element wire size and length will be designed to ensure the it work in black heat and designed to dissipate 3-4 w/cm<sup>2</sup> for long life. The control panel will be fixed to the chamber and will 3.1.14 Control system be suitable for 3 phase, 400 V, 50 Hz supply. The oven will have a digital indication controller. The controller will be On/Off type and will fire a contactors connected to the heating element. MCB's will be used in place of fuses 3.1.15 The oven will have indication for Power on. Heater on. Indication and safety Fan on. There will be a door limit switch to cut off the supply to the heater on opening the door. A blind controller will be provided as a back up to the main

indication controller. The entire control system will be



### Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar. **Item: Electrode Heating Chamber** Ref: Sl. No. 28 of Annex 9 Qty: 1 No. **TECHNICAL SPECIFICATION** SI. No. Description Qty supplied with separate instrument transformer to ensure that the control systems gets a steady power supply so as to protect the sensitive control systems from sudden surges. 3.1.16 Operation/ Service/ Spare parts manual – 2 3 sets (Total) sets to be sent along with Machine and 1 set to HMTI, Bangalore Colour: Standard 3.2 Set of mechanical and electrical spare parts for 2 year normal operation. 3.3 Please indicate the detailed list of spares with individual prices Items required for E&C to be supplied with the machine: 3.4 3.4.1 Touch up paint - 1 litre each, Brush- $\frac{1}{2}$ " - 2 nos., Cora cloth - 2 meters, Cotton waste - 1 kg. 3.4.2 Initial fill of Lubrication Oil packed in separate containers & sealed



# LOT – 26 Refrigeration & Airconditioning Equipment

	Project	Setting up of Indo-Myanmar	Industrial training Centre,	Monywa, Myanmar.	
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
1	157 of Annex 4	134A Refrigerant in cylinders with valves	FLORON Brand / Reputed Make 134A gas (Tetra Flouro Ethane) in 10kg company sealed cylinder. Dupont Brand / Reputed Make 134A can 340 gms	Capacity - 10 Kg - 1 No. with test Certificate 340 gr. Disposable refrigerant Cans (Dupont / Floron) - 2 NO.s	2
2	192 of Annex 4	Accessories thormostatic expansion valve distributors, driers, (pencil solid core type etc.) accumulators, receivers, bellows type thermostat, HP Stat & LP Stat humidi stat, solenoid valves	DANFOSS make , Orifice No:3, R-22, Model: TX 2 Dryall / Denyo Make  MB Make( for 134A gas)10grams,15grams, 25grams Annapurna Make Danfoss make KP5 Model  Danfoss make KP1 Model Danfoss make KP15 Model  Temptec thermo hygrometer clock	Thermostatic Expansion Valve with separating orifice (Removable Orifice) Danfosss Make; 5 Ton Capacity. Distributor(Refrigiran t for 5 Ton) Drier: (Core type) for 5 Ton cap Accumulator:5 Ton capacity Liquid Reciever: 5 Ton cap Pencil type Drier; Bellow type Thermostat HP Cutout: Danfoss make LP Cutout: Danfoss make HP & LP Cutout (combined) with manual restart - Danfoss make Humidystat: Reputed make Solenoid Valve: 1/4" size	1
3	180 of Annex 4	Acid test kit		With acid resistant centrifugal pump 1/2 HP capacity	1
4	127 of Annex 4	Air Compressor two stage for oil less dry air with rust proof tank assemble heater and control	Max Pr. 10Kg/ sq.cm cap 45 Litre motor 1 HP		1
5	126 of Annex 4	Anemometer	Vane type	Reputed make	1
6	186 of Annex 4	Ball Valves service valves hand shut valves	1/4" to 7/8" Bava make hand shut off valve, service valve Threads protected	Reputed make	2



Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar.					
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
7	16 of Annex 4	Bending spring	External type for copper tube 3 to 6 mm. Dia		4
8	137 of Annex 4	Bottle Cooler	110 litre 1/6 HP	Voltas/Bluestar/Carri er make	1
9	28 of Annex 4	Box spanner	6.4 to 10 mm		2
10	183 of Annex 4	Brazing alloy rods for 1/4" to 7/8" tubes Cu to cu, Cu to steel, Cu to brass and appropriate fluxes	Copper Brazing rod Silver rod Brass rod	Cu - Cu: Cu alloy rod 2kg, 1/8" size CU – Steel: Silver 43% rod; 100 gr; 1.2mm dia Cu - Brass: Brass-Ni rod 1/4kg; 3mm dia	1
11	21 of Annex 4	Capillary plug gauge			2
12	175 of Annex 4	Circulating water pump (SMALL)	1/2 HP Capacity	Monoblock 1 Ph, 230V 50Hz, Reputed make	1
13	171 of Annex 4	Components of Car AC systems.	a) Wobble plate compressor with mounting brackets. b) Serpentine evaporator. c) Parallel flow condenser. d) Hoses, tubes, receive, expansion valve. e) Electrical components & wiring harness		1
14	37 of Annex 4	Compound gauge diameter 63 mm with recalibration set screw scale vacuum 76 mm pressure 15 Kg/Sq.cm		Airmaster make / Reputed Make with SS Body (-)30 to 150 PSI - 2 NO.s 0-300 PSI 2nos (Glycerene/Oil filled 1 No. each)	4
15	188 of Annex 4	Compressor tester for small hermetic compressor	Electrical panel with voltmeter,ammeter,relay s and capacitor, MCB etc.	Reputed make	1
16	3 of Annex 4	Condensing Unit with hermetic compressor	Cap.500 Kcal/hr		1
17	135 of Annex 4	Deep freezer	165 Litre (-)18 Deg C1/4 HP	Voltas/Bluestar make	1
18	129 of Annex 4	Descaling pump set	stainless steel impeller and housing complete with motor 1 HP and accessories.	Reputed make	1
19	124 of Annex 4	Dial thermometer remote controls armoured capillary dial 75 mm-50		Reputed make	2
20	165 of Annex 4	Dry N2 in cylinder with 2 stage regulator or commercial N2 in cylinder with drier unit and 2 stage regulator	Standard capacity - ISI standard	with Cylinder	1
21	193 of	Electrical accessories current		1 Ph, 230V, 50Hz, AC	1



	Project	: Setting up of Indo-Myanmar	Industrial training Centre,	Monywa, Myanmar.	
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
	Annex 4	& potential relays start & run capacitors, PTC,s overload protector relays contractor.		- Reputed make	
22	190 of Annex 4	Evaporator of direct cooled refrigerator with capillary heat exchanger	1 T capacity finned type evaporator		1
23	191 of Annex 4	Evaporator of Frost free refrigerator	200 -300litre capacity		1
24	173 of Annex 4	Fan coil unit with water valves	(2 &3 way)	3 T capacity	1
25	169 of Annex 4	Filter driers for CFC-12 & HFC- 134 A for repairs retrofits	3/8" size	Dryall make	8
26	155 of Annex 4	Fin straightener / Fin comb			42
27	163 of Annex 4	Fire Extinguisher powder type	5kg		2
28	13 of Annex 4	Flaring tool set with Swedging	Single for tube 4.7 to 16 mm OD	Rothenberger Make / Reputed Make	4
29	168 of Annex 4	Four way manifold with gauges		Rothenberger make / Reputed Make	1
30	40 of Annex 4	Gas leak detector for halogen gas	Gas leak detector using halogen gas	Rothenberger make / Reputed Make; 3gr/annum capacity	1
31	156 of Annex 4	HC refrigerant in cylinder/disposable containers	Dupont 134a , 340 gms	Or Reputed Make	2
32	132 of Annex 4	Heating Kit with infra red bulb	150 watt capacity		1
33	189 of Annex 4	Hermetic compressor	1.5 Ton	Tecumseh make / Reputed Make	1
34	185 of Annex 4	i) Hermetic compressor	1/8 to 1/2 HP(approx) for use in repair work of appliances for CFCs and HFCs	Tecumseh make / Reputed Make	2
35	185 of Annex 4	ii) Hermetic compressor	For 134A	Tecumseh make / Reputed Make	3
36	44 of Annex 4	L-Allen Key set size	1.5 to 6.4mm		4
37	41 of Annex 4	Lapping plate	250x200mm		2
38	153 of Annex 4	Micron vacuum gauge	Capable of reading upto 20 microns		2
39	162 of Annex 4	No frost refrigerator 300 litre capacity using HC refrigerant	Frost free refrigerator, 2 door, 1Ph, 230V, 50Hz, AC	Voltas/Bluestar/LG/S amsung/Godrej Make	1
40	23 of Annex 4	Piercing plier 6-18 mm & Piercing valves both with access fittings		Reputed make	2
41	184 of Annex 4	Pilot tube & inclined tube manometer	500 m length, pilot tube, with fittings and inclined tube manometer, transparent acrylic scale.	from reputed mfrs.	1
41	22 of Annex 4	Pinch off plier / crimping plier tool	16 to 18 mm dia		2
42	19 of Annex 4	Pinch off tool	For copper tube 6 to 18 mm dia		4
43	80 of	Pipe bending tool	lever type with degree		1



Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar.					
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
	Annex 4		indicator for tube OD 6.4 to 16 mm		
44	17 of Annex 4	Pipe cutter	Miniature for copper tube 6 to 18 mm dia		4
45	18 of Annex 4	Pipe cutter	With built-in reamer and space cutter for copper tube 3 to 32 mm		1
46	178 of Annex 4	Pipe threading dies & pipe vice			1
47	182 of Annex 4	Pop rivet gun		Reputed make	1
48	164 of Annex 4	Portable Air-LPG brazing kit with 2 Kg LPG cylinder, torches, houses, standard make. a) With straight flame. b) With Cyclone / swirl jet flame.	Portable Air-LPG brazing kit with 2 kg LPG cylinder, torches, hoses - Standad make. 1) with straight flame. 2) With cyclone swirl jet flame.	Rothenberger/Reput ed make	1
49	131 of Annex 4	Pressure testing tank with lighting arrangement pressure gauge (0-35 Kg / sq.cm) double stage	Suitable Pressure testing tank of SS 304 Grade 18 Gauge having TIG welded joints with lighting arrangements.	Pressure gauge 0-35 kg/cm2 - double stage	1
50	36 of Annex 4	Pressure gauge diameter 63 mm with recalibration set screw scale vacuum 76 mm pressure			1
51	42 of Annex 4	Punch hole for cutting gasket	4.7 to 16 mm dia		4
52	187 of Annex 4	Quick couplers process tube adaptor	1/4" to 7/8"		2
53	20 of Annex 4	Ratchet spanner	6.4 mm sg reversible		4
54	144 of Annex 4	Reciprocating compressor with provision of capacity control etc, for demonstration	Capacity 9000 K. cal/hr semi hermetic / open type.	Best indian	1
55	158 of Annex 4	Recovery unit one each for CFC & R134 A refrigerants with recovering cylinders.	Consisting of 1/6 HP or required capacity compressor condensor with fan, oil separator, accumulator valve inlet and outlet for gas recovery, compound gauges and pressure gauges with LP, HP cut outs individual unit for CFC & HFC.	Rothenberger / Reputed make	1
56	195 of Annex 4	Recycling Unit		Suitable	1
57	181 of	Refractometer	Portable with lens		1



	Project	t: Setting up of Indo-Myanmar	Industrial training Centre,	, Monywa, Myanmar.	
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
	Annex 4				
58	121 of	Refrigerant cylinder	Capacity 2.5 Kg		2
	Annex 4				
59	122 of	Refrigerant cylinder	Capacity 30 Kg		2
	Annex 4				
60	161 of Annex 4	Refrigerator 170 litre using 134 A refrigerant	Single door refrigerator	Voltas/Bluestar/LG/S amsung/Godrej Make	1
61	133 of Annex 4	Refrigerator compressor type	165 litre	Voltas/Bluestar/LG/S amsung/Godrej Make	1
62	134 of Annex 4	Refrigerator compressor type	300 litres double door, double compressor system	Reputed make	1
63	159 of Annex 4	Reverse cycle AC/Heat pump	3000 K.cal/hr. Or 4500 K.cal/hr.		1
64	26 of Annex 4	Ring spanner set	4.7 mm to 16 mm		5
65	27 of Annex 4	Ring spanner set	19 mm to 31.8 mm		1
66	176 of Annex 4	Safety gloves, eye protection glasses			4
67	177 of Annex 4	Safety shoes			20
68	179 of Annex 4	Schraeder valve core removal tool			1
69	43 of Annex 4	Scissor gasket cutting stainless steel	length 25 mm		4
70	154 of Annex 4	Sensor thermometer	Digital		2
71	38 of Annex 4	Serviceman thermometer in metal case	-30 to + 30 Deg.C.		2
72	172 of Annex 4	Shell and tube Condenser	Small capacity. Reputed Make	1.5 Ton capacity with valves	1
73	174 of Annex 4	Shell and tube DX chillers (Small)	5 Ton capacity	Reputed make	1
74	39 of Annex 4	Sling psychrometer mounted on aluminum / plastic back scale –50 Deg. C to + 50 Deg.C			1
75	24 of Annex 4	Spanner double ended	4.7 mm to 16 mm		5
76	25 of Annex 4	Spanner double ended	19 mm to 31.8 mm		1
77	160 of Annex 4	Split type AC 4500 K.cal/hr	With indoor unit & outdoor units and electronic remote control	Voltas / Reputed make	1
78	130 of Annex 4	Spray outfit "V" twin with motor 1/2 HP delivery upto 120 Litre free air pressure upto 3 Kg/Sq.cm with spray gun and fitting			1
79	14 of Annex 4	Swedging tool	Punch type set of size, for tube 4.7 to 16 mm OD		4
80	15 of	Swedging tool	Screw type, with adapter		1



Project: Setting up of Indo-Myanmar Industrial training Centre, Monywa, Myanmar.					
SI. No	Annex. Ref.	Description	Brief Specification	Detailed Specification	Qty
	Annex 4		set of size for tube 4.7 to		
			16mm OD		
81	45 of	T-Allen key set size	5/32"L & 1/8"		4
	Annex 4				
82	166 of	Trichlorethylene bottle	700 ml		1
	Annex 4				
83	167 of	Two way manifold with gauges	Rothenberger make /		1
	Annex 4		Reputed Make, Standard		
			Manifold set.		
84	34 of	Valve key-T-Handle	4.7 & 6.4 mm Sq		4
	Annex 4	,	·		
85	194 of	Visi Cooler	165 litres	Voltas/Bluestar/Carri	1
	Annex 4			er make	
86	139 of	water Cooler	Storage type 40 litres	Voltas/Bluestar/Carri	1
	Annex 4		capacity	er make	
87	138 of	Water Cooler	Instantaneous type - 40	Voltas/Bluestar/Carri	1
	Annex 4		litres capacity.	er make	
88	128 of	Scraper triangular blade	. ,		2
	Annex 4	removable			
89	170 of	Sealed ex-proof components			4
	Annex 4	for use in HC appliances:			
		Thermostats Sealed OLPS solid			
		state PTC's door switches			
		lamp holders			



A Govt. of India Undertaking (OPEN TENDER) **BID DOCUMENTS** 

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL

for

Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

### **CORRIGENDUM No.1**

(dt: 14 - 12 - 2018)

SI. #	LOT	ITEM
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal
		Grinder, Hyd power hacksaw
2	LOT - 2	Vertical Band saw 450 mm
3	LOT - 3	Automatic Plastic Injection Moulding M/c
4	LOT - 4	Electro Discharge M/c CNC
5	LOT - 5	Wire Cut EDM CNC
6	LOT - 6	Testing M/cs
7	LOT - 7	Hydraulic press 100T
8	LOT - 8	Mechanical Press 10T & 100T
9	LOT - 9	Circle cutting m/c
10	LOT - 10	Nibbling Cropping, Punching m/c
11	LOT - 11	Roll Bending M/c
12	LOT - 12	Profile projector
13	LOT - 13	Tool Presetter with DRO & projector

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

**CLOSING ON: 19-12-2018. TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

### **ATTENTION**

- 1. The following amendment has been made to the above mentioned tender with respect to all lots Bidders registered with NSIC will be exempted from payment of *Tender cost and EMD* on submission of Valid Registration Certificate
- 2. The following amendment has been made to the above mentioned tender with respect to Lot 4 Clause 2.1.1 shall read as Work tank internal dimensions (WxDxH) : ≥ 800 x 500 x 350 mm
- 3. The following amendment has been made to the above mentioned tender with respect to ANNEXURE -1 of Section V-Commercial for Lots-3, 4, 5, 7, 8, 22, 23, 24 & 25

For HMT (International) Limited,

Y K Vaish JT. GENERAL MANAGER, PROJECTS Contd...

### LOT - 3 Automatic Plastic Injection Moulding m/c

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.						
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.	
1	Sl. No 5 of Annex 6	Automatic Plastic Injection Moulding M/c	Locking force 180T, shot capacity 350 grams	1			
2	Sl. No 6 of Annex 6	Tooling with colour mixer, scrap grinder, Oven, cooling tower etc. for plastic injection moulding m/c		1			
Α	Total F.O.R Chennai P	ort Price in Indian Rupees w	ith seaworthy pack	ing #			
В	B Cost of inspection, trails & extended international warranty @ 6% on (A)						
С	18% GST applicable on (B)						
D	Total Cost towards inspection, trails & extended international warranty with 18% GST						
	i.e. (D) = (B) + (C)						
Е	Total F.O.R Chennai P	Port Price in Indian Rupees i.e	e. (E) = (A) + (D)				

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

### \*Total should include the cost towards the following:

- Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	Total No. of Man days required

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Gov	rnment of India/State Governmen	t for rendering the supplies	/ services.
-----------------------------------------------	---------------------------------	------------------------------	-------------

Dated:	
Dateu	

Signature and seal of Authorized Signatory

### NOTE

- 1. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
- 2. No erasures or alternations in the text of the offer are permitted.
- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



### LOT - 4 Electro Discharge M/c CNC

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.									
SI. N	lo Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.				
1	Sl. No 2 of Annex 6	Electro Discharge M/c (EDM)	Work Tank: 800	1						
		CNC	x 500 x 350 mm							
Α	Total F.O.R Chennai F	Port Price in Indian Rupees w	ith seaworthy pac	king#						
В	Cost of inspection, tra	ails & extended international	warranty @ 6% o	n (A)						
С										
D Total Cost towards inspection, trails & extended international warranty with 18% GST										
	i.e. (D) = (B) + (C)									
Е	Total F.O.R Chennai F	Port Price in Indian Rupees i.e	e. (E) = (A) + (D)							

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

## \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

	SI No.	No. of Persons required for Installation of equipment	No. of Man days required
ſ			

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated	•
Dateu	

Signature and seal of Authorized Signatory

### NOTE

- 1. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
- 2. No erasures or alternations in the text of the offer are permitted.
- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.

The prices quoted should be most competitive

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



### LOT - 5 Wire Cut EDM M/c CNC

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.									
SI. N	lo Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.				
1	Sl. No 3 of Annex 6	Wire Cut EDM CNC	Max Work piece:	1						
			350 x 450 x 200							
			mm							
Α	Total F.O.R Chennai F	ort Price in Indian Rupees	with seaworthy pacl	king #						
В	Cost of inspection, tra	ails & extended internation	al warranty @ 6% o	n (A)						
С	C 18% GST applicable on (B)									
D	D Total Cost towards inspection, trails & extended international warranty with 18% GST									
	i.e. (D) = (B) + (C)									
Е	Total F.O.R Chennai F	ort Price in Indian Rupees	.e. (E) = (A) + (D)							

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

### \*Total should include the cost towards the following:

- Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:	
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Signature and seal of Authorized Signatory

### NOTE

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- 3. Any correction made in offer shall be initialed by the Bidder.
- VALUES should be both in figures and Words.

The prices quoted should be most competitive

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018 Page 4 of 15

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



## LOT - 7 Hydraulic Press 100T

Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.										
SI. N	No Annex Ref. ITEM		Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.				
1 Sl. No 15 of Annex 6 Hydraulic Press		100T	1							
Α	Total F.O.R Chennai Po	ort Price in Indian Rupe	es with seaworthy pac	king #						
В	Cost of inspection, trails & extended international warranty @ 6% on (A)									
С	18% GST applicable on (B)									
D	D Total Cost towards inspection, trails & extended international warranty with 18% GST									
	i.e. (D) = (B) + (C)									
Е										

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We p	ossess the necessar	y License from	the	Government	ot I	ndia/	State	Government	tor	rendering	the supplies /	services.
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Dated:....

Signature and seal of Authorized Signatory

### NOTE

- 1. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
- 2. No erasures or alternations in the text of the offer are permitted.
- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



### LOT - 8 Mechanical Press 10T & 100T

Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.									
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.			
1	SI. No 16 of Annex 6	Mechanical Press	10T	1					
2	SI. No 17 of Annex 6	Mechanical Press	100T	1					
A T	otal F.O.R Chennai Po	ort Price in Indian Rupees wi	ith seaworthy pacl	king #					
ВС	ost of inspection, trai	ls & extended international	warranty @ 6% o	n (A)					
C <b>1</b>	C 18% GST applicable on (B)								
D <b>T</b>	D Total Cost towards inspection, trails & extended international warranty with 18% GST								
i.	i.e. (D) = (B) + (C)								
E T	otal F.O.R Chennai Po	ort Price in Indian Rupees i.e	e. (E) = (A) + (D)			_			

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

	•
Daten	•

Signature and seal of Authorized Signatory

### NOTE

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- 2. No erasures or alternations in the text of the offer are permitted.
- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



# **LOT - 22 Mechatronics Equipment**

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.					
Sl. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	SI. No 1 of Annex 1 Mechatronics	PLC Trainer Kit	PLC Trainer Kit including Static & Dynamic Modules	1		
2	Sl. No 2 of Annex 1 Mechatronics	Digital Sensor Module		1		
3	Sl. No 3 of Annex 1 Mechatronics	Analog Sensor Module		1		
4	SI. No 4 of Annex 1 Mechatronics	Dynamic Module	With Sensor Module and Relay Module	1		
5	SI. No 5 of Annex 1 Mechatronics	Linear Transfer System	Complete workstation mounted on a aluminum profile plate with operating console, consisting of: Belt conveyor, Linear pick & place unit, Horizontal transfer unit, Transfer Module (Rotary Pick & Place Unit), 6 Station Rotary Carousal Table, Drilling module.	1		
6	SI. No 6 of Annex 1 Mechatronics	Six Axis Robot	Articulated ROBOT - PC Controlled 6 Axis with pedestal base, 2.5 Kgs Payload capacity, Pneumatic Gripper, Robot Controller, Windows 98 based Robot Controlling software.	1		



7	Sl. No 7 of Annex 1	Robot Application	With	1		
	Mechatronics	Experimental Kit	experiment			
			table,			
			Pneumatic			
			chuck,			
			Pneumatic vice,			
			Pick & Place-			
			Vertical			
			stacking &			
			Horizontal			
			Palletizing,			
			assembly &			
			dismantling,			
			Gluing			
			experiment kit,			
			Testing bank of			
			push button			
			switches,			
			Painting kit			
8	Sl. No 8 of Annex 1	Integration of ROBOT with	4 Axis Assembly	1		
	Mechatronics	Automation	Robotic ARM			
			with Pallet &			
			Robot			
			Controller			
			Software,			
			Weighing &			
			Palletizing			
			System With			
			integration of			
			Robot with			
			Complete Workstation			
			Mounted on a			
			Aluminium			
			Profile Plate,			
			Belt Conveyor,			
			Rotary Pick &			
			Place			
			Manipulator,			
			Weighing			
			Module and			
			PLC			
9	Sl. No 10 of Annex	Mechatronics Software	For Basic	1 Lot		
	1 Mechatronics		Simulation			
			FOR Advanced			
			simulation			
			Robotic			
			Simulation			
Α	Total F.O.R Chennai P	ort Price in Indian Rupees w	ith seaworthy pack	king #		
В	Cost of inspection, tra	ils & extended international	warranty @ 6% or	n (A)		
С	18% GST applicable on (B)					
D	Total Cost towards inspection, trails & extended international warranty with 18% GST					
	i.e. (D) = (B) + (C)					
Ε	Total F.O.R Chennai Port Price in Indian Rupees i.e. (E) = (A) + (D)					

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

\* Total cost of equipment including I & C in Indian Rupees (in words):



### \*Total should include the cost towards the following:

- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	Total No. of Man days
		required

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

We hereby offer to render supplies/ services as detailed above or such portion thereof as you may specify in the acceptance of tender at the price quoted and agree to hold this offer open for acceptance for a period of 90 days from the date of opening of tender. We shall be bound by the communication of acceptance dispatched within the prescribed time.

We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Signature and seal of Authorized Signatory

### NOTE

- 1. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
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- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.



# LOT - 23 Apparel Manufacturing Equipment

	Project: Setti	ng up of Indo-Myanmar Industi	rial Training Centre (IN	ЛІТС), М	onywa, Myanmar.	
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	Sl No. 1 of Annex 2	Lock Stitch Machine	Motorised	20		
2	SI No. 2 of Annex 2	Lock Stitch machine with UBT	Motorised	1		
3	SI No. 3 of Annex 2	Button Hole Stitching Machine	Electronic	1		
4	SI No. 4 of Annex 2	Button Stitching machine	Single needle lockstitch machine	1		
5	SI No. 5 of Annex 2	Front Flacket Machine	Motorised	1		
6	Sl No. 6 of Annex 2	Cutting Machine	Motorised	1		
7	SI No. 7 of Annex 2	Over Locking machine	2 needle 5 thread overlock machine	1		
8	SI No. 8 of Annex 2	Over Locking machine	1 needle 3 thread overlock machine	1		
9	SI No. 9 of Annex 2	Zig Zag Stitching machine	1 needle lock stitch machine	1		
10	SI No. 10 of Annex 2	Iron Box	Vacuum based with steam generator	1		
11	SI No. 13 of Annex 2	Work Aids	Basic yoke attach folder, hemming folder, placket folder etc.	1 Lot		
12	Sl No. 17 of Annex 2	Linen Tape	2 meters	20		
13	Sl No. 18 of Annex 2	Scissors	Assorted size	20 Sets		
14	Sl No. 19 of Annex 2	Needles	Assorted size	20 Sets		
15	Sl No. 20 of Annex 2	Fabric Cutting Aids	Assorted size	20 Sets		
16	Sl No. 21 of Annex	Buttons/Hooks/Pins etc.	Assorted size	20 Sets		
17	Sl No. 23 of Annex	Scissors	Brass handle 25 cms	20		
18	SI No. 24 of Annex 2	Tailor's Square	Material: Wooden / Plastic Size: 300 mm x 600 mm	20		
19	SI No. 25 of Annex 2	Leg Shaper	Material: Wooden / Plastic Size: 24"	20		
20	SI No. 26 of Annex 2	Cloth Brush	Wooden handle 3" bristles 5"	20		
21	SI No. 27 of Annex 2	Tracing Wheel	Wooden handle with iron wheel 3"	1		
22	SI No. 28 of Annex 2	Measuring Tape	Material: Rubberised Linen Size: 150 cms	20		
23	Sl No. 29 of Annex 2	Seam Ripper	Size: 3" Plasti handle	20		
	•					



24	SI No. 30 of Annex	Timble	Size: 1.5 cms	20		
	2	Timble	open type steel			
25	SI No. 31 of Annex		Size: 60 cm	20		
	2	Tailor's card triangle	length (Card			
			scale)			
26	SI No. 32 of Annex		Material:	20		
	2	Tailors art curve	Wooden / Plastic			
			Size: 30 x 60 cm			
27	SI No. 33 of Annex		Material: Plastic	20		
	2	French Curve	Size: 6" to 8" set			
			of 3			
28	Sl No. 34 of Annex		Material: Steel	5		
	2	Button Hole Scissors	Size: 4"			
29	Sl No. 35 of Annex	8. 1. 6.	Material: Steel	5		
	2	Pinking Scissors	Size: 8"			
30	Sl No. 36 of Annex	. 6.1	Material: Steel	4		
	2	Left hand scissors	Size: 25 cm			
31	Sl No. 37 of Annex		Brass handle 10"	2		
	2	Shear	to 12", Size: 30			
			cm			
32	SI No. 38 of Annex	6	E (C:	1		
	2	Gum tape dispenser	For office use			
33	Sl No. 39 of Annex	Deck land Adam	Size: 300 x 1250 x	4		
	2	Rubber Mat	25 mm			
34	Sl No. 40 of Annex	6 16	Material: Plastic,	4		
	2	Garment Sprayer	Size: 6"			
35	SI No. 41 of Annex	Blanket of size 5" x 8" for	C: F/ O/	4		
	2	padding as pressing table	Size: 5' x 8'			
36	SI No. 42 of Annex		Size: 2 meters	8		
	2	Milton cloth double width	Colour: Brown /			
			Green			
37	SI No. 53 of Annex	Consumable material	Stainless steel	10		
	2		mesh left hand	nos		
			glove			
Α	Total F.O.R Chennai P	ort Price in Indian Rupees v		ing #		
В		ails & extended internation				
C	18% GST applicable on (B)					
	i.e. (D) = (B) + (C)			,		
						1
	Total 1.0.N Chemial Fort Frice in mulan rupees i.e. (E) - (A) T (D)					

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

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- Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Signature and seal of Authorized Signatory

### NOTE

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- 4. VALUES should be both in figures and Words.



# **LOT - 24 Refrigeration & Air Coditioning Trainers**

	Project: Setti	ng up of Indo-Myanmar Industri	al Training Centre (IN	ЛІТС), М	lonywa, Myanmar.	
SI. No	Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.
1	SI No 1 of Annex 4	Refrigeration Test Rig	Trainer	1		
2	SI No 2 of Annex 4	Walking Cooler	Capacity 3000Kcal/hr	1		
3	SI No 4 of Annex 4	Cut section model: Open, Semi-sealed and sealed compressor	Set of 3	1		
4	SI No 5 of Annex 4	Heat Exchanger Shell & Tube Type		1		
5	SI No 6 of Annex 4	Heat Exchanger tube in tube type		1		
6	SI No 7 of Annex 4	Refrigeration tutor		1		
7	SI No 8 of Annex 4	Package air conditioner		1		
8	SI No 9 of Annex 4	Automobile Air Conditioner		1		
9	SI No 10 of Annex 4	Split type Air Conditioner		1		
10	SI No 11 of Annex 4	Air conditioner		1		
11	SI No 12 of Annex 4	Room Air Conditioner		1		
13 14 15	SI No 123 of Annex 4  SI No 125 of Annex 4  SI No 136 of Annex 4  SI No 140 of Annex	Evacuating & Refrigerant charge comprising  a) Rotary two stage vacuum (With gas ballast & anti surwith gauges valves and caparacuum upto 50 microns of provision of connecting to b) Graduated charging cylind for temperature correction isolating valves. II. Evacuate station as above but fitted scale (upto 2 Kg in lieu of (accuracy of +/-1 gram for of two stage rotary vacuum pumapprox 60-100 1pm capable of microns of Hg and fitted with galve and single phase motor.  Window air conditioning  Ice Candy unit complete with smould box thermocole insulated.	pump and motor ch back) Manifold cable of pulling of Hg and with a mic er with provisions of and all necessary cing & charging with weighing b) above and with corpor capacity of evacuating to 50 ogas ballast anti suck  Capacity 3000 K.cal/hr. Stainless steel tank	1 1 1 1		
16	SI No 141 of Annex	agitator compressor motor etc pressure refrigerant control ga fitting etc. 3000 K.Cal/hr or wo simulator. Air conditioning plant direct an	c. Temperature auges motor pipe orking model and indirect water	1		
	4	chiller complete with all controls etc. Capacity 15000 K. cal/hr or working trainer model/simulator, Alternatively a packaged Air conditioner of similar				
17	SI No 142 of Annex 4	Condensing unit with open type compressor air cooled evaporator condenser controls etc.	Capacity 3000 K. cal/hr	1		
18	SI No 143 of Annex 4	Condensing unit with open type compressor evaporator condenser controls etc	Capacity 3000 K.cal/hr	1		



Α	Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing #	
В	Cost of inspection, trails & extended international warranty @ 6% on (A)	
С	18% GST applicable on (B)	
D	Total Cost towards inspection, trails & extended international warranty with 18% GST	
	i.e. (D) = (B) + (C)	
Е	Total F.O.R Chennai Port Price in Indian Rupees i.e. (E) = (A) + (D)	

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

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Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days required

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the supplies / services.

Dated:	
--------	--

Signature and seal of Authorized Signatory

## NOTE

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- 2. No erasures or alternations in the text of the offer are permitted.
- 3. Any correction made in offer shall be initialed by the Bidder.
- 4. VALUES should be both in figures and Words.

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



### **LOT - 25 Heat Treatment Equipment**

	Project: Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar.								
SI. N	o Annex Ref.	ITEM	Brief Specification	Qty	Unit F.O.R. Chennai Port Price in Ind. Rs	Total F.O.R. Chennai Port Price in Ind. Rs.			
1	Sl. No 66 of Encl 6	Hardening furnace		1					
2	Sl. No 67 of Encl 6	Tempering furnace		1					
3	SI. No 68 of Encl 6	Quenching tank	600 x 600 x 600 mm	1					
4	Sl. No 28 of Encl 9	Electrode Heating Chamber		1					
Α	Total F.O.R Chennai Port Price in Indian Rupees with seaworthy packing #								
В	Cost of inspection, trails & extended international warranty @ 6% on (A)								
С	18% GST applicable on (B)								
D	Total Cost towards inspection, trails & extended international warranty with 18% GST								
	i.e. (D) = (B) + (C)								
Ε	Total F.O.R Chennai Port Price in Indian Rupees i.e. (E) = (A) + (D)								

# The above Cost shall include E&C and initial training of customer's personnel in operation and maintenance for above equipment at project site in Myanmar. (HMT(I) shall arrange to provide, free furnished bachelor's accommodation, local transport and necessary assistance in getting VISA for the Technical Personnel deputed to site in Myanmar. To & fro Airfare, Boarding expenses, Travel Insurance and incidental expenses to be borne by the supplier).

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- a. Deputation of technical personnel for carrying out installation, commissioning, trials, training the customer's personnel in operation and maintenance of above equipment at project site in Myanmar.
- b. Necessary tools, fixtures, instruments, trial materials, consumables, etc, for Installation and training have to be sent along with the supplies.

Please indicate the man day rates considered for deputation on the format given below

SI No.	No. of Persons required for Installation of equipment	No. of Man days
		required

It is hereby certified that we have understood the instruction to Bidders and also the Terms & Conditions of Contract attached to the tender and have thoroughly examined and are aware of the nature of supplies/services required and our offer is to render supplies/services strictly in accordance with the requirements and according to the terms of the tender. We agree to abide solely by the terms & conditions of contract and other conditions of the tender in accordance with the tender documents if the contract is awarded to us.

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We possess the necessary License from the Government of India/State Government for rendering the suppli	es / services
---------------------------------------------------------------------------------------------------------	---------------

Dated	•
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Signature and seal of Authorized Signatory

### NOTE

- 5. The offer must be submitted as per above proforma. The Bidder may use his letterhead to submit his offer.
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- 7. Any correction made in offer shall be initialed by the Bidder.
- 8. VALUES should be both in figures and Words.

<sup>\*</sup> Total cost of equipment including I & C in Indian Rupees (in words):



A Govt. of India Undertaking (OPEN TENDER) BID DOCUMENTS

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL

for

Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

## **CORRIGENDUM No.2**

(dt: 17 - 12 - 2018)

SI. #	LOT	ITEM	
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal	
		Grinder, Hyd power hacksaw	
2	LOT - 2	Vertical Band saw 450 mm	
3	LOT - 3	Automatic Plastic Injection Moulding M/c	
4	LOT - 4	Electro Discharge M/c CNC	
5	LOT - 5	Wire Cut EDM CNC	
6	LOT - 6	Testing M/cs	
7	LOT - 7	Hydraulic press 100T	
8	LOT - 8	Mechanical Press 10T & 100T	
9	LOT - 9	Circle cutting m/c	
10	LOT - 10	Nibbling Cropping, Punching m/c	
11	LOT - 11	Roll Bending M/c	
12	LOT - 12	Profile projector	
13	LOT - 13	Tool Presetter with DRO & projector	

SI. #	LOT	ITEM	
14	LOT - 14	Hydraulic Press Brake & Mechanical	
		Guillotine shear	
15	LOT - 15	Coil winding m/c CNC	
16	LOT - 16	Shop Furniture	
17	LOT - 17	Office Furniture	
18	LOT - 18	Surface table, Angle plates	
19	LOT - 19	Misc. Measuring instruments	
20	LOT - 20	Work Benches	
21	LOT - 21	Pallet Roll	
22	LOT - 22	Mechatronics equipment	
23	LOT - 23	Apparel manufacturing equipment	
24	LOT - 24	Refrigeration & Airconditioning trainers	
25	LOT - 25	Heat Treatment equipment	
26	LOT - 26	Ref. & A/c equipment	

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

**CLOSING ON: 19-12-2018, TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

### **ATTENTION**

1. The following amendment has been made to the above mentioned tender with respect to Lot 19 (Misc. Measuring instruments) only.

The following item (Sl. No. 14) is included in Enclosure- 1 for LOT – 19:

Sl. No.	Ann	nnexure Reference		Item Description	Drief Cresification	Oty in Nos
	No.	Sl. No.	Qty	item Description	Brief Specification	Qty in Nos.
14	5	60	1 Lot	Ring Gauge Set	Inch and Metric assorted	1 Lot

All other terms and condition remains unchanged

For HMT (International) Limited,



A Govt. of India Undertaking (OPEN TENDER) **BID DOCUMENTS** 

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL

for

Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

## **CORRIGENDUM No.3**

(dt: 17 - 12 - 2018)

SI. #	LOT	ITEM
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal
		Grinder, Hyd power hacksaw
2	LOT - 2	Vertical Band saw 450 mm
3	LOT - 3	Automatic Plastic Injection Moulding M/c
4	LOT - 4	Electro Discharge M/c CNC
5	LOT - 5	Wire Cut EDM CNC
6	LOT - 6	Testing M/cs
7	LOT - 7	Hydraulic press 100T
8	LOT - 8	Mechanical Press 10T & 100T
9	LOT - 9	Circle cutting m/c
10	LOT - 10	Nibbling Cropping, Punching m/c
11	LOT - 11	Roll Bending M/c
12	LOT - 12	Profile projector
13	LOT - 13	Tool Presetter with DRO & projector

SI. #	LOT	ITEM	
14	LOT - 14	Hydraulic Press Brake & Mechanical	
		Guillotine shear	
15	LOT - 15	Coil winding m/c CNC	
16	LOT - 16	Shop Furniture	
17	LOT - 17	Office Furniture	
18	LOT - 18	Surface table, Angle plates	
19	LOT - 19	Misc. Measuring instruments	
20	LOT - 20	Work Benches	
21	LOT - 21	Pallet Roll	
22	LOT - 22	Mechatronics equipment	
23	LOT - 23	Apparel manufacturing equipment	
24	LOT - 24	Refrigeration & Airconditioning trainers	
25	LOT - 25	Heat Treatment equipment	
26	LOT - 26	Ref. & A/c equipment	

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

**CLOSING ON: 19-12-2018, TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

## **ATTENTION**

1. The following amendment has been made to the above mentioned tender with respect to Lot 24 only.

"Recommended spares for 5 years of normal Operation" is amended as "Recommended spares for 2 years of normal Operation" wherever applicable.

All other terms and condition remains unchanged

For HMT (International) Limited,

Y K Vaish JT. GENERAL MANAGER, PROJECTS

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

Page 1 of 1



A Govt. of India Undertaking
(OPEN TENDER)

### **BID DOCUMENTS**

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL for

# Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar CORRIGENDUM No.4

(dt: 18 - 12 - 2018)

SI. #	LOT	ITEM	
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal	
		Grinder, Hyd power hacksaw	
2	LOT - 2	Vertical Band saw 450 mm	
3	LOT - 3	Automatic Plastic Injection Moulding M/c	
4	LOT - 4	Electro Discharge M/c CNC	
5	LOT - 5	Wire Cut EDM CNC	
6	LOT - 6	Testing M/cs	
7	LOT - 7	Hydraulic press 100T	
8	LOT - 8	Mechanical Press 10T & 100T	
9	LOT - 9	Circle cutting m/c	
10	LOT - 10	Nibbling Cropping, Punching m/c	
11	LOT - 11	Roll Bending M/c	
12	LOT - 12	Profile projector	
13	LOT - 13	Tool Presetter with DRO & projector	

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018 CLOSING ON: 19-12-2018, TIME 10.30 HRS

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

### **ATTENTION**

1. The following amendment has been made to the above mentioned tender with respect to all lots.

S.No	Existing clause in Tender	Revised / New clause in Tender
13.1	Payment Terms for supplies:	Payment Terms for supplies:
Section III: Special Conditions Of Contract (SCC)	<ul> <li>80% payment for supplies shall be payable on 60<sup>th</sup> day from the date of delivery to our shipping agent at Chennai port through RTGS / NEFT. If the payment terms are not acceptable, the vendor can quote their own payment terms. However, the acceptance of the payment terms indicated is at the sole discretion of the Management.</li> <li>Balance 20% payment for supplies shall be paid through RTGS/NEFT after successful Installation and Commissioning / handing over of all the items on physical verification of equipment / material at project site by the Project Monitoring Committee (PMC) duly constituted by Ministry of External Affairs or 6 months from the date of delivery to our shipping agent at Chennai port whichever is earlier.</li> </ul>	Balance 20% payment for supplies shall be paid through RTGS/NEFT after successful Installation and Commissioning / handing over of all the items on physical verification of equipment / material at project site by the Project Monitoring Committee (PMC) duly constituted by Ministry of External Affairs or 6 months from the date of delivery to our shipping agent at Chennai port whichever is earlier.

## All other terms and condition remains unchanged

2. Further to the above, the following amendment has been made to the above mentioned tender with respect to all Lots.

**CLOSING ON: 21-12-2018, TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 21-12-2018, TIME 11.00 HRS

For HMT (International) Limited,



A Govt. of India Undertaking
(OPEN TENDER)
BID DOCUMENTS

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL for Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

### **CORRIGENDUM No.5**

(dt: 21 - 12 - 2018)

SI. #	LOT	ITEM
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal
		Grinder, Hyd power hacksaw
2	LOT - 2	Vertical Band saw 450 mm
3	LOT - 3	Automatic Plastic Injection Moulding M/c
4	LOT - 4	Electro Discharge M/c CNC
5	LOT - 5	Wire Cut EDM CNC
6	LOT - 6	Testing M/cs
7	LOT - 7	Hydraulic press 100T
8	LOT - 8	Mechanical Press 10T & 100T
9	LOT - 9	Circle cutting m/c
10	LOT - 10	Nibbling Cropping, Punching m/c
11	LOT - 11	Roll Bending M/c
12	LOT - 12	Profile projector
13	LOT - 13	Tool Presetter with DRO & projector

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018 CLOSING ON: 19-12-2018, TIME 10.30 HRS TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

# <u>ATTENTION</u>

1. The following amendment has been made to the above mentioned tender with respect to bids for LOTS – 2, 4, 5, 6, 9, 10, 13, 15 to 21, 23, 24, 25 & 26 only:

**CLOSING ON: 31-12-2018, TIME 11.00 HRS** 

TECHNICAL BID OPENING ON: 31-12-2018, TIME 11.30 HRS

All other terms and condition remains unchanged

For HMT (International) Limited,



A Govt. of India Undertaking
(OPEN TENDER)
BID DOCUMENTS

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL for Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

### **CORRIGENDUM No.6**

(dt: 31 - 12 - 2018)

SI.#	LOT	ITEM
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal
		Grinder, Hyd power hacksaw
2	LOT - 2	Vertical Band saw 450 mm
3	LOT - 3	Automatic Plastic Injection Moulding M/c
4	LOT - 4	Electro Discharge M/c CNC
5	LOT - 5	Wire Cut EDM CNC
6	LOT - 6	Testing M/cs
7	LOT - 7	Hydraulic press 100T
8	LOT - 8	Mechanical Press 10T & 100T
9	LOT - 9	Circle cutting m/c
10	LOT - 10	Nibbling Cropping, Punching m/c
11	LOT - 11	Roll Bending M/c
12	LOT - 12	Profile projector
13	LOT - 13	Tool Presetter with DRO & projector

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

**CLOSING ON: 19-12-2018, TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

# **ATTENTION**

1. The following amendment has been made to the above mentioned tender with respect to bids for LOTS – 2, 4, 5, 6, 9, 10, 13, 15, 16, 18, 19,20 & 23 only:

**CLOSING ON: 08-01-2019, TIME 11.00 HRS** 

TECHNICAL BID OPENING ON: 08-01-2019, TIME 11.30 HRS

All other terms and condition remains unchanged

For HMT (International) Limited,



A Govt. of India Undertaking
(OPEN TENDER)
BID DOCUMENTS

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL for Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

### **CORRIGENDUM No.7**

(dt: 10 - 1 - 2019)

SI. #	LOT	ITEM
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal
		Grinder, Hyd power hacksaw
2	LOT - 2	Vertical Band saw 450 mm
3	LOT - 3	Automatic Plastic Injection Moulding M/c
4	LOT - 4	Electro Discharge M/c CNC
5	LOT - 5	Wire Cut EDM CNC
6	LOT - 6	Testing M/cs
7	LOT - 7	Hydraulic press 100T
8	LOT - 8	Mechanical Press 10T & 100T
9	LOT - 9	Circle cutting m/c
10	LOT - 10	Nibbling Cropping, Punching m/c
11	LOT - 11	Roll Bending M/c
12	LOT - 12	Profile projector
13	LOT - 13	Tool Presetter with DRO & projector

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

**CLOSING ON: 19-12-2018, TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

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# **ATTENTION**

1. The following amendment has been made to the above mentioned tender with respect to bids for LOTS -4, 5, 9, 10, 13, 15, 16, 18, 19 & 20 only:

**CLOSING ON: 21-01-2019, TIME 10.30 HRS** 

**TECHNICAL BID OPENING ON: 21-01-2019, TIME 11.00 HRS** 

All other terms and condition remains unchanged

For HMT (International) Limited,



A Govt. of India Undertaking
(OPEN TENDER)
BID DOCUMENTS

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL for Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

### **CORRIGENDUM No.8**

(dt: 21 - 1 - 2019)

SI. #	LOT	ITEM
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal
		Grinder, Hyd power hacksaw
2	LOT - 2	Vertical Band saw 450 mm
3	LOT - 3	Automatic Plastic Injection Moulding M/c
4	LOT - 4	Electro Discharge M/c CNC
5	LOT - 5	Wire Cut EDM CNC
6	LOT - 6	Testing M/cs
7	LOT - 7	Hydraulic press 100T
8	LOT - 8	Mechanical Press 10T & 100T
9	LOT - 9	Circle cutting m/c
10	LOT - 10	Nibbling Cropping, Punching m/c
11	LOT - 11	Roll Bending M/c
12	LOT - 12	Profile projector
13	LOT - 13	Tool Presetter with DRO & projector

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018

**CLOSING ON: 19-12-2018, TIME 10.30 HRS** 

TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

# **ATTENTION**

1. The following amendment has been made to the above mentioned tender with respect to bids for LOTS -4, 5, 10, 13, 15, 16, 18, 19 & 20 only:

**CLOSING ON: 01-02-2019, TIME 10.00 HRS** 

**TECHNICAL BID OPENING ON: 01-02-2019, TIME 10.30 HRS** 

All other terms and condition remains unchanged

For HMT (International) Limited,



A Govt. of India Undertaking
(OPEN TENDER)
BID DOCUMENTS

# FOR SUPPLY, INSTALLATION & COMMISSIONING, TRIAL FOR Setting up of Indo-Myanmar Industrial Training Centre (IMITC), Monywa, Myanmar

### **CORRIGENDUM No.9**

(dt: 01 - 02 - 2019)

SI. #	LOT	ITEM
1	LOT - 1	Pillar, Pedestal Drill Machines, Pedestal
		Grinder, Hyd power hacksaw
2	LOT - 2	Vertical Band saw 450 mm
3	LOT - 3	Automatic Plastic Injection Moulding M/c
4	LOT - 4	Electro Discharge M/c CNC
5	LOT - 5	Wire Cut EDM CNC
6	LOT - 6	Testing M/cs
7	LOT - 7	Hydraulic press 100T
8	LOT - 8	Mechanical Press 10T & 100T
9	LOT - 9	Circle cutting m/c
10	LOT - 10	Nibbling Cropping, Punching m/c
11	LOT - 11	Roll Bending M/c
12	LOT - 12	Profile projector
13	LOT - 13	Tool Presetter with DRO & projector

SI. #	LOT	ITEM
14	LOT - 14	Hydraulic Press Brake & Mechanical
		Guillotine shear
15	LOT - 15	Coil winding m/c CNC
16	LOT - 16	Shop Furniture
17	LOT - 17	Office Furniture
18	LOT - 18	Surface table, Angle plates
19	LOT - 19	Misc. Measuring instruments
20	LOT - 20	Work Benches
21	LOT - 21	Pallet Roll
22	LOT - 22	Mechatronics equipment
23	LOT - 23	Apparel manufacturing equipment
24	LOT - 24	Refrigeration & Airconditioning trainers
25	LOT - 25	Heat Treatment equipment
26	LOT - 26	Ref. & A/c equipment

TENDER NO: HMTI/PROJ/IMITC/MONYWA/S001/2018 Dated 03-12-2018
CLOSING ON: 19-12-2018, TIME 10.30 HRS
TECHNICAL BID OPENING ON: 19-12-2018, TIME 11.00 HRS

PLACE: HMT(I) Board Room, HMT Bhavan, No.59, Bellary Road, Bangalore.

The Tender document issued against payment of Rs 2,500.00 (Rupees Two Thousand Five Hundred only) in the form of a Demand Draft / Digital Transfer towards cost of tender document. The Bidder who choose to download tender document from website must submit the Demand Draft towards cost of the Tender documents along with Technical bids in Envelope-I.

# **ATTENTION**

1. The following amendment has been made to the above mentioned tender with respect to bids for LOTS – 4, 5, 13, 15, 16, 18, 19 & 20 only:

**CLOSING ON: 12-02-2019, TIME 10.00 HRS** 

TECHNICAL BID OPENING ON: 12-02-2019, TIME 10.30 HRS

All other terms and condition remains unchanged

For HMT (International) Limited,