

SPECIFICATIONS:

“TUBE END FORMING MACHINE”

(On Turnkey Basis)

Code No. _____

Qty. – 01 No.

Purpose: End forming such as flaring, beading and swaging (reduction and enhancement) of Aluminum and MS tubes by means of hydraulic action.

S. NO.	DESCRIPTION OF REQUIREMENT	REQUIRED
1	Type: Horizontal, 2-stage, linear indexing, tube end forming machine	Confirm
2	Min. tube capacity (O.D.) [ferrous tube with UTS 45 Kg/mm ²]	12 mm
3	Max. tube capacity (O.D.) [ferrous tube with UTS 45 Kg/mm ²]	At-least 28 mm
4	Max. tube thickness	2 mm
5	Length of forming	At-least up to 120 mm
6	Forming: by means of hydraulic cylinders	Confirm
7	Indexing: by hydraulic cylinder	Confirm
8	Clamping: by hydraulic cylinder	Confirm
9	Component loading / unloading	Manual
10	Hydraulics	
10.1	Hydraulic system with full penetrated and tested weld joints and hoses. Clamped to avoid vibrations	Confirm
10.2	Oil reservoir	Min. 150 ltr. capacity
10.3	Oil cooling	Natural
10.4	Hydraulic pump: Fixed displacement pump/gear pump	Confirm
10.5	System working pressure	Min. 150 bar
10.6	Machine lubrication	Manual
11	Power supply: 3 Phase, 415 V ($\pm 10\%$), 50 Hz ($\pm 3\%$)	Confirm
12	Micro PLC with HMI PLC preferred makes: Rockwell/ Schneider/ Siemens/ Mitsubishi / Omron/ B&R	Vendor to confirm and specify the make
13	Motor: 3 Phase, 415 V, 7.5 HP Preferred makes: ABB/ Bharat bijlee/ Kirloskar/ Siemens/ Crompton & Greaves/ Alstom	Vendor to confirm and specify the make
14	Documentation: Following documents (3 sets of hard copy and 1 set of soft copy) along with delivery will be required	Confirm
14.1	Operation and maintenance manual	Confirm
14.2	Maintenance Schedule	Confirm
14.3	Lubrication chart & parameter list	Confirm
14.4	Lifting instruction mentioned in packing list.	Confirm
14.5	Detailed invoice and packing list of all items and all other accessories enclosed in respective boxes	Confirm
16	Training at site	
16.1	Operator training	3 Days
16.2	Preventive maintenance training	1 Day
17	Prove-out:	

17.1	Vendor to perform complete trial run and prove out of tender drawings (Min. 50 nos. swaging components)	Confirm
17.2	Vendor has to give cycle time of each component/drawings	Confirm
18	Delivery period including installation and commissioning	3 months
19	Vendor to deliver machine at "ALIMCO Kanpur site"	Confirm
20	Packaging and Transportation is in scope of vendor	Confirm
21	The complete installation and commissioning must be carried out by the supplier at the project site. Certificate of acceptance is to be signed by customer and supplier.	Confirm
22	All necessary spares & accessories not mention and needed for smooth functioning of machine are in Vendor Scope	Confirm
23	Vendor to ensure loading and unloading of material at site.	Confirm
24	Vendor to ensure handling facility at site during erection.	Confirm
25	Service	
25.1	The authorized service partner (Name, Address, Contact details) must be certified by manufacturer and shown in the quotation	Confirm
25.2	Break down call has to be attended within 48 hours	Confirm
26	Initial fill of hydraulic oil along with machine, is in vendor's scope	Confirm
27	Lubrication oil (min. 5 liter) along with machine, is in vendor's scope	Confirm

DELIVERY PERIOD INCLUDING INSTALLATION & COMMISSIONING:

The delivery period including installation & commissioning of all of the machines at the destination mentioned in Para 1 on page no. 02 of the tender documents will be 3 months from the date of placement of Purchase Order/work contract.

WARRANTY:

The Entire machine inclusive of all system/accessories should be covered under warranty for a period of 24 months from the date of commissioning.

Note:

1. Supply to be done on Turnkey Basis.
2. The Bus bar trunking (BBT) for electricity has been provided at 8.5 meter height. Sufficient suitable cable, cable tray, circuit breaker, fittings to connect the machine from power source is in vendor's scope.
3. Total power consumption (in kW) to be provided by the tenderer.
4. Vendor to arrange civil foundation work, if required, for installation of machine.
5. List of spares and consumables along with rate, required for smooth functioning of machine, to be provided seperately.