



**BHARAT HEAVY ELECTRICALS LIMITED**  
**Industrial Valves Plant**  
Goindwal –143422 (AMRITSAR)



<b>ENQUIRY</b>	Phone:+91 1859 223381 (+91 1859 222002, 222036, 222039 Extn 117) Fax :+91 1859 222 061 Email :srk@ivp.bhel.co.in		
	<b>Enquiry No:</b> <b>78041</b>	<b>Enquiry Date:</b> <b>31.10.2007</b>	<b>Due date for submission of quotation:</b> <b>27.11.2007</b>
You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order			

Item	Description	Quantity	Delivery (Item required at BHEL on)
1.0	1 Ton WELDING POSITIONER as per the technical specification and Commercial terms & conditions of the tender	1 No	Within 90 days of release of PO
2.0	250 Kg WELDING POSITIONER as per the technical specification and Commercial terms & conditions of the tender	1 No	Within 90 days of release of PO
<b>BHEL Commercial terms &amp; conditions with Price bid and Bank Guarantee formats along with Technical specifications can be downloaded from BHEL web site <a href="http://www.bhel.com">http://www.bhel.com</a></b>			
Tenders should reach us before 15:00 hours on the due date Tenders will be opened at 15:30 hours on the due date Tenders would be opened in the presence of the tenderers who have submitted their offers and who may like to be present			Yours faithfully For <b>BHARAT HEAVY ELECTRICAL LTD</b>  Manager / MM

## TECHNICAL SPECIFICATONS FOR WELDING POSITIONERS

SI No.	FEATURES	1 TON CAPACITY	250 Kg CAPACITY
<b>1.0</b>	Load Capacity (min)	1000 kg in vertical position, W1	250 kg in vertical position, W1
		1250 kg in horizontal position, W2	350 kg in horizontal position, W2
<b>2.0</b>	Centre of gravity (min), "c"	300 mm	150 mm
<b>2.1</b>	Eccentricity (min), "e"	150 mm	150 mm
<b>3.0</b>	Table dia (min), $\varnothing$ D	1050 mm	650 mm
<b>3.1</b>	Table plate thickness (min)	Steel plate 25 mm thick	Steel plate 25 mm thick
<b>3.2</b>	Table facing	Concentric circular ring markings & Six slots to suit M20 bolts for rapid centering & clamping of work piece.	Concentric circular ring markings & Six slots to suit M20 bolts for rapid centering & clamping of work piece.
<b>3.3</b>	Table Rotation	Motorized with 360 <sup>0</sup> rotation.	Motorized with 360 <sup>0</sup> rotation.
<b>3.5</b>	Degree of Tilt	Motorised tilting mechanism with 135 <sup>0</sup> tilt	Motorized tilting mechanism with 135 <sup>0</sup> tilt
<b>3.6</b>	Tilting Speed	Fixed speed of 90 <sup>0</sup> tilting in 30 seconds	Within 0.3 to 0.5 RPM

<b>SI No.</b>	<b>FEATURES</b>	<b>1 TON CAPACITY</b>	<b>250 Kg CAPACITY</b>				
<b>4.0</b>	Rotational and Tilting Motors	Bidder to specify hp. ➤ Make should be Siemens/KEC/Bharat Bijlee/Crompton/L&T /Alstom/GE/NGEF	Bidder to specify hp. ➤ Make should be Siemens/KEC/Bharat Bijlee/Crompton/L&T /Alstom/GE/NGEF				
<b>4.1</b>	<b>Electrical Items</b>	All electrical devices, contactors, relays, limit switches, push buttons etc. shall be from Siemens/L&T/Alstom/ Cuttler Hammer/Telemecanique	All electrical devices, contactors, relays, limit switches, push buttons etc. shall be from Siemens/L&T/Alstom/ Cuttler Hammer/Telemecanique				
<b>5.0</b>	Gears	➤ Details of mechanism: Bidder to specify ➤ Machine cut precision gearing for smooth rotation and tilting should be use Make should be SHANTHI/ELECON/GREAVES	➤ Details of mechanism: Bidder to specify ➤ Machine cut precision gearing for smooth rotation and tilting should be use Make should be SHANTHI/ELECON/GREAVES				
<b>6.0</b>	Bearings	All bearings shall be of SKF/ZKL/FAG/TIMCON/ROLLIX/NBC	All bearings shall be of SKF/ZKL/FAG/TIMCON/ROLLIX/NBC				
<b>7.0</b>	Overall dimensions	Bidder to specify "B" "H" "H1"  Min Limit for H: 1000mm  Max Limit for H: H:1100mm	Bidder to specify "B" "H" "H1"  Min Limit for H: 550mm  Max Limit for H: 600mm				
<b>8.0</b>	Control Panel	Following operations must be available through control panel		Following operations must be available through control panel			
		Table rotation	Start & Stop	Control of table rotation in both positions through Foot pendant shall also be made available	Table rotation	Start & Stop	Control of table rotation in both positions through Foot pendant shall also be made available
		Table tilt	Forward & Reverse		Table tilt	Forward & Reverse	
		Table rotation Speed control	Speed variable potentiometer to adjust at any value between 0.07 rpm to 1.5 rpm	Digital speed indication	Table rotation Speed control	Speed variable potentiometer to adjust at any value between 0.1 rpm to 1.2 rpm	Digital speed indication
		Ammeter			Ammeter		
<b>8.1</b>	<b>Painting</b>	Machine to be coated by Electro static paint	Machine to be coated by Electro static paint				

**COMMON TO BOTH 1 TON & 250 Kg WELDING POSITIONERS:**

<b>9.0</b>	<b>Safety features</b>	
<b>9.1</b>	Earthing arrangement	Table to be equipped with efficient built in earthing arrangement for 300 amps by heavy-duty spring loaded copper brush. Bidder to furnish details.
<b>9.2</b>	MCCB	MCCB to be used instead of fuses
<b>9.3</b>	Face Plate	Anti-fall mechanism for face plate to be inbuilt.
<b>9.4</b>	Relays	Over load relays to be used
<b>9.5</b>	Stoppers	Mechanical stopper mechanism for sector gear tilt.
<b>10.0</b>	<b>General</b>	
<b>10.1</b>	Bidder to furnish complete details in separate techno-commercial and price bids.	
<b>10.2</b>	Bidder to furnish reference list of customers to whom same or higher capacity machine has been supplied.(atleast three customers in last two years to whom machine of similar specification have been supplied-at least three certificate of performance of supplied machines)	
<b>10.3</b>	Equipment to be offered for inspection before dispatch	
<b>10.4</b>	The equipment and accessories shall be guaranteed for proper operation and shall have warranty for all parts for a period of 24 months from the date of commissioning	
<b>10.5</b>	Commissioning of machine at IVP Goindwal works to be done by supplier.	
<b>10.6</b>	Three sets of Operation & Instruction manual shall be supplied.	
<b>10.7</b>	List of recommended spares and accessories to be supplied.	
<b>10.8</b>	Detailed drawing to be got approved from BHEL before manufacturing.	

<b>11.0</b>	<b>Erection and commissioning</b>
<b>11.1</b>	Vendor to take full responsibility for supervision of the erection, Other requirements like crane and helping personnel shall be provided by BHEL
<b>11.2</b>	Tools, tackles, test mandrels, instruments and other necessary equipment required to carry out all above activities should be brought by vendor.
<b>11.3</b>	Commissioning spares, required for commissioning of machine within stipulated time shall be brought by vendor on returnable basis.
<b>11.4</b>	Schedule of erection and commissioning shall be submitted along with the offer.
<b>11.5</b>	Charges, duration, terms & conditions for erection and commissioning should be furnished in detail separately by vendor along with the offer.

IMPORTANT:

Bidder should furnish technical bid ONLY as per the format below.

<b>BHEL Specification</b>	<b>Bidder's offer</b>	<b>Compliance with BHEL specification (Yes/No)</b>	<b>Deviation, if any</b>
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The offer should contain a comparative statement of technical specifications given in BHEL format and offer details submitted by Bidder. A just" confirmed" or "complies" or "yes" or "no" or " no deviation" or similar words should be accompanied by details of the features offered by them.