Bharat Heavy Electricals Limited
(High Pressure Boiler Plant)
Tiruchirappalli – 620014, TAMIL NADU, INDIA
CAPITAL EQUIPMENT/ MATERIALS MANAGEMENT

An ISO 9001 Company

ENQUIRY **NOTICE INVITING TENDER**	Phone: +91 431 257 70 49 Fax : +91 431 252 07 19 Email : csguna@bheltry.co.in Web : www.bhel.com

TWO PART BID Tender to be submitted in two parts.	**Enquiry Number:** **2621100023**	**Enquiry Date:** **16.02.2011**	**Due date for submission of quotation:** **16.03.2011**

You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity	Delivery (Item required at BHEL on)
10	**Compressed Air Pressure Receiver** as per the technical specification, general guidelines instructions & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	**02 Nos.**	**25.04.2011**

Important points to be taken care during submission of offer

1. **Checklist to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.**
2. **Subsequent to the hosting of this Enquiry, any corrigendum to the Enquiry that may be hosted in the BHEL Web-site as well as Government Tenders-portal shall be viewed by the vendors regularly to know the details of corrigendum. In case if any vendor without seeing the corrigendum quoted as per original Enquiry and intimate that they have wrongly quoted will not be considered and rejected. However as per the appropriate Policy of BHEL action will be taken on them in this regard.**

BHEL's General guidelines / instructions (refer MM/CE/GT/001) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site http://www.bhel.com or from the Government tender website http://tenders.gov.in (public sector units > Bharat Heavy Electricals Limited page) under Enquiry referred above.

Tenders should reach us before 14:00 hours on the due date Tenders will be opened at 14:30 hours on the due date Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present	Yours faithfully, For **BHARAT HEAVY ELECTRICALS LIMITED** Sr. Manager / MM / Capital Equipment

C.S.GUNASEKARAN
Senior Manager
MM / Capital Equipment
BHEL, TRICHY-620 014

(GSI09) Compressed Air Pressure Receiver

Sl No.	Description of BHEL Requirement	Specified/ To be confirmed by vendor	Offered	Deviations
1	Design, Manufacture, Inspection, Testing and Supply of Pressure Receiver for Compressed Air			
1.1	Quantity	2 Sets		
2	**Pressure receiver Specification**			
2.1	Pressure Receiver	Compressed air Pressure Receiver as per given specification		
2.2	Design Standard	ASME Sec VIII Div 1 (Latest Revision)		
2.3	Working Medium	Compressed Air		
2.4	Capacity (Volumetric - Water)	10 cu.m		
2.5	Working Pressure	10 Kgf/cm^2		
2.6	Design Pressure	12 Kgf/cm^2		
2.7	Hydro test Pressure	Vendor to Specify		
2.8	Pneumatic Test Pressure	Vendor to Specify		
2.9	List of Nozzles 1) Inlet - 1 No 2) Outlet - 1 No 3) Safety Relief Valve - 1 No 4) Vent at Top - 1No 5) Drain at Bottom - 1 No 6) Pressure Gauge - 1 No 7) Manhole - 1 No 8) Auxiliary Filling Nozzles - 2 Nos	Vendor to Confirm		
2.10	Third Party Inspection as per Design standard by Lloyds, BVQI, TUV	Vendor to Confirm		
2.11	Final Inspection & Hydro test in the Presence of BHEL representative	Vendor to Confirm		
2.12	Foundation Dimensions	4 Holes on PCD of 1372mm		
2.13	Flanges	All flanges - RF Class 150 of ANSI B16.5		
2.14	All Pipes for Nozzle	Seamless Pipes\Tubes Schedule 40		

2.15	Ladder facility to be provided to have access to vent port at top of vessel in line to access Safety Relief Valve & Pressure Gauge	Vendor to Confirm		
2.16	Covering	All Nozzles should be plugged with respective size dummy plugs and blind flanges		
2.17	Painting	One Coat of Red Oxide and Two Coats of Aluminium Paint (Each coat of 35 microns thickness)		
3	**Material of Construction**			
3.1	Vessel	SA 516 Gr.70		
3.2	Nozzle's	SA 106		
3.3	Flanges	SA 105		
3.4	Gasket	Neoprene		
4	**Nozzle Specifications**			
4.1	Inlet 8" Flange RF Class 150 at elevation 1135mm from bottom of the leg of the receiver; Orientation at 0 Deg when viewed from top (CW)	Vendor to Confirm		
4.2	Outlet 8" Flange RF Class 150 at elevation 3585mm from bottom of the leg of the receiver; Orientation at 180 Deg when viewed from top (CW)	Vendor to Confirm		
4.3	Safety Relief Valve 90 Deg Long Bend with opening upwards. 3" RF Class 150 Flange at elevation of 2700 from bottom of the leg of the receiver; Orientation at 270 Deg when viewed from top (CW)	Vendor to Confirm		
4.4	Vent Located at the top of the vessel 2" BSP Female Thread\ Dummy Plug with Hexagonal head to be fastened	Vendor to Confirm		

4.5	Drain Located at the bottom of the vessel Pipe to be installed and routed to outer of the vessel circumference. 1" 150 Class 3 Piece Threaded End SS Ball Valve to be installed at the end of the pipe (Make Audco, Flowjet or Leader Only)	Vendor to Confirm		
4.6	Pressure Gauge 90 Deg Long Looped Bend with opening upwards. M20X1.5mm Female Nozzle fitted with 8" Pressure Gauge at elevation of 2700mm from the bottom of the leg of the receiver; Orientation at 225 Deg when viewed from top (CW)	Vendor to Confirm		
4.7	Manhole 18" NB; Orientation at 90 Deg when viewed from top (CW)	Vendor to Confirm		
4.8	Auxiliary filling ports of 3/4" & 1" Female BSP Thread	Vendor to Confirm		
4.9	Sequence of nozzle when viewing vessel from top, Measuring angle Clockwise from Inlet Nozzle. 1) Inlet Nozzle - 0 Deg, 2) 3/4" Auxiliary Nozzle - 0 Deg, 3) Manhole Opening - 90 Deg C 4) Outlet Nozzle - 180 Deg, 5) 1" Auxiliary Nozzle - 180 Deg, 6) Pressure gauge Nozzle - 225 Deg, 7)Safety Relief valve nozzle - 90 Deg,	Vendor to Confirm		
5	**Safety Relief Valve**			
5.1	Valve Construction	Spring Loaded\ Vertical Installation		
5.2	Size	3" (75mm NB)		
5.3	Quantity	1 Nos.		

5.4	Operation	Spring loaded (adjustable)\ With Resetting/ Checking/ Easing lever; Mode of operation should be 100% open or 100% closed; Renewable disc & Seat; Right angle type		
5.5	Design Standard	IS 12992 Part1		
5.6	Inspection standard	IS 12992 Part2		
5.7	End Connection	Flanged ends with suitable drill holes, raised face (serrated - spiral). The design standard of the flange should confirm to Class 150 ANSI B16.5		
5.9	Maximum Working Pressure	12 Kgf/cm^2		
5.10	Working Medium	Compressed Air\ Water		
5.11	Pressure Setting Range	5 Kgf/cm2 to 12 Kgf/cm2		
5.12	Brand\ Make of valve being supplied	Vendor to specify		
5.13	Material of Body	ASTMA A216 Gr.WCB		
5.14	Material of Trim	Cu-Alloy		
5.15	Gland Packing and all seals	Virgin PTFE		
5.16	Other Working Parts	SS AISI 304		
7	**Pressure Gauge**			
7.1	Pressure Gauge Type	Bourdon Tube Type Pressure Gauge with over range protection		
7.2	Design Standard	IS 3624		
7.3	Dial Size	200mm		
7.4	Grade	Industrial grade		
7.5	Accuracy	± 1% of FSV		
7.6	Working Medium	Compressed Air		
7.7	Mounting	Direct Mounting with Bottom Entry\ M20 X 1.5 Male Thread with hexagonal spanner flat		
7.8	Window	Glass with white background, black marking and letters\ Pointer Stopper to be provided		
7.9	Pressure Range	0-20 Kgf/cm^2		

7.10	Brand\Make of Pressure Gauge	Waaree, Feibig, General, G-Guru, H-Guru or AN Instruments Only		
7.11	Installation & Water Protection	Outdoor, Open to Atmosphere, Sunlight, Dust & Rain. Protection - IP67		
7.12	Material of Case & Shank	Stainless Steel		
7.13	Material of Bourdon Tube	SS 316		
7.14	Material of Dial	Aluminium		
7.15	Calibration Certificate to be provided with each Gauge	Vendor to confirm (Local Lab Sufficient)		
7.17	All the pressure gauges should have name plate affixed.	Vendor to confirm		
8	**Scope of Supply for each set**			
8.1	Pressure Receiver as per above specifications including dummy plugs, blind flanges, fasteners, manhole cover, foundation bolts, etc.	1 Set		
8.2	Pressure Gauge as per above specification	1 No		
8.3	Safety relief Valve as per above specification	1 No		
9	**General Points**			
9.1	All technical specifications, design calculations, outline drawing and product catalogue to be submitted with offer, else offer will not be considered.			
9.2	Eligibility Criteria: 1) Vendor should show evidence of manufacturing similar pressure vessel of same capacity 2) Vendor should have obtained licence from PESO\CCOE for manufacture of Unfired Pressure Vessels	Vendor to provide		
9.3	Warranty for the pressure vessel and all bought out components for a period of 12 months from the date of commissioning.			
9.4	The pressure vessel is to have SS nameplate with all technical details, design standard, capacity, year of manufacture, etc.			
9.5	For all components and vessel user manual to be provided. All manufacturing, as built, GA drawings to be provided (one softcopy + three hard copies)			
9.6	QAP and manufacturing drawing to be approved by BHEL prior to manufacture	Vendor to confirm		
9.7	Vendor to separately quote for mandatory spares such as manhole gasket, etc.			