

	BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT 433, INDUSTRIAL COMPLEX GOINDWAL SAHIB DISTT. TARN TARAN- PUNJAB – 143422	No.BHEL:IVP: SC:SP:AD 2022-23/01 Dated 29.06.2022
NOTICE INVITING APPLICATIONS FOR REGISTRATION OF SUB CONTRACTORS		
BHARAT HEAVY ELECTRICALS LIMITED [BHEL] is manufacturing Industrial Valves and other Boiler accessories at its Industrial Valves Plant, Goindwal Sahib unit. For FY2022-23 we have to manufacture 1650 MT. Post machining of the component; certain special processes such as chrome plating, are required to be completed to achieve the desired specification. Expression of interest and applications for registration are invited from sub-contractors (BHEL encourages procurement from Micro and Small Enterprises (MSEs), MSEs are requested to apply for registration) for doing the chrome plating, nickel plating, cadmium plating, phosphating, nitriding/tuffriding, heat treatment etc.		
Special processes	Indicative list of components on which plating or other processes are required to be done is attached herewith as Annexure-I. Sample drawings of some components are also attached. (S.No of list – 35 and 56)	
BHEL is looking for prospective Sub Contractors for above job work. BHEL shall evaluate the vendors as per its established vendor selection, evaluation and registration procedure. Supplier Registration can be done online https://supplier.bhel.in/ BHEL invites such vendors to visit its above located plant on any working day from Monday to Saturday between 0900 Hrs to 1730 Hrs and contact undersigned for any clarification regarding:		
Items details and requirement	Vendor registration form/procedure	
Manoj Kumar Dy Manager(Sub-Cont)	Gopal Singh Sr Manager(Sub-Cont)	
01859-224643	Phone: 01859-224669	
8427033225	Mob: 9410395245	
mk@bhel.in	gopals@bhel.in	
BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT, 433, INDUSTRIAL COMPLEX, GOINDWAL SAHIB, DISTT. TARN TARAN, PUNJAB – 143 422		

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)	Special Process
1	G2232	LOCK PIN-40021200	Wall Blower	Heat Treat to RC27 Cadmium Plating
2	G2193	SPINDLE SLEEVE-30015200	Wall Blower	Cadmium Plating
3	G2206	COVER PLATE-40012400	Wall Blower	Cadmium Plating
4	G2223	SPRING RETAINER-40019300	Wall Blower	Cadmium Plating
5	G2234	SWITCH MOUNT BRT-40024500	Wall Blower	Cadmium Plating
6	G2247	CAM -40079700	Wall Blower	Cadmium Plating
7	G2208	SHAFT COLLAR-40026100	Wall Blower	Galvanizing
8	G2186	WORM SHAFT-30015100	Wall Blower	to be phosphated
9	G2344	BASE PLATE-40159600	NOZZLE SETG.FIXT-30072500	to be phosphated
10	G2238	FLAT WASHER-40013000	Wall Blower	to be phosphated
11	G2204	GLAND PLATE-40011900	Wall Blower	to be phosphated
12	G2306	Stem	2.5-C1500-GLV/ GNV-HO/ MO- WCC	Chrome Plating
13	G2307b	Stem	3-C1500-GLV/ GNV-BW- HO/ MO-WCB	Chrome Plating
14	G2307	Stem	4-C1500-GLV/ GNV-BW- HO/ MO-WCB	Chrome Plating
15	G2346	Stem Machining	5-C1500-GLV-BW-M O-WC9	Chrome Plating
16	G1402	STEM (with Hard Chrome Plating)	10-C150-GV-WC6	Chrome Plating
17	G1405	STEM (with Hard Chrome Plating)	10-C300-GV-WC9	Chrome Plating
18	G1410	STEM (with Hard Chrome Plating)	12-C300-GV-WC9/ WC6	Chrome Plating
19	G1414	STEM (with Hard Chrome Plating)	14-C300-GV-WC9	Chrome Plating
20	G1418	STEM (with Hard Chrome Plating)	16-C300-GV-WC9	Chrome Plating
21	G1428	STEM (with Hard Chrome Plating)	2-C300-RV/ SV-WC6	Chrome Plating
22	G1442	STEM (with Hard Chrome Plating)	3-C300-RV/ SV-WC6	Chrome Plating
23	G1447	STEM (with Hard Chrome Plating)	4-C150-GV-WC9	Chrome Plating
24	G1450	STEM (with Hard Chrome Plating)	4-C300-GV-WC6/ WC9	Chrome Plating
25	G1453	STEM (with Hard Chrome Plating)	4-C300-RV/ SV-WC6/ WC9	Chrome Plating
26	G1469	STEM (with Hard Chrome Plating)	8-C150-GV-WC6/ WC9	Chrome Plating
27	G1473	STEM (with Hard Chrome Plating)	8-C300-GV-WC9	Chrome Plating
28	G1458	STEM (with Hard Chrome Plating)	6-C150-GV-WC9	Chrome Plating
29	G1462	STEM (with Hard Chrome Plating)	6-C300-GV-WC6	Chrome Plating
30	G1465	STEM (with Hard Chrome Plating)	6-C300-RV/ SV-WC9/ WC6	Chrome Plating
31	G2530	Split Ring Assy-3200/ 3396	450/ 500-C500-CRHIV-BW- WCB/ WCC/ WC9	Chrome Plating
32	G2531	Split Ring Assy-3208/ 3390	550-C900-HRHIV-BW- WC9/ C12A	Chrome Plating
33	G2425a	SPLIT RING ASSY	700-C600-CRHIV-BW-WCC	Chrome Plating
34	G2425	SPLIT RING ASSY-3245/ 3316	750-C600-CRHIV-BW-WCC	Chrome Plating
35	G2195	SWIVEL TUBE D60.3X4.8-30069900 (Chrome plating length - 1088mm Total length - 1218mm)	Wall Blower	Chrome Plating
36	G2195a	EXT. SWIVEL TUBE D60.3X4.8-30208600 (Chrome plating length - 1488 mm Total length - 1618 mm)	Wall Blower	Chrome Plating
37	G2195b	EXT. SWIVEL TUBE D60.3X4.8-30212301 (Chrome plating length - 2088 mm Total length - 2218 mm)	Wall Blower	Chrome Plating

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)	Special Process
38	G2195a	EXT. SWIVEL TUBE D60.3X4.8-30212301 (Chrome plating length - 1388 mm Total length - 1518 mm)	Wall Blower	Chrome Plating
39	G2195a	EXT. SWIVEL TUBE D60.3X4.8-30212303 (Chrome plating length - 1575 mm Total length - 1705 mm)	Wall Blower	Chrome Plating
40	G2224	GUIDE ROD-40019500	Wall Blower	Chrome Plating
41	G2235	THRUST WASHER-40025000	Wall Blower	Case Hardening to RC 40-45
42	G2179	WORM -30011901	Wall Blower	Case Hardening to RC 60-66
43	G2181	WORM L.H-30011902	Wall Blower	Case Hardening to RC 60-66
44	G2325a	Sunk Key	2.5/3-C1500-GLV/ GNV-BW- WCC/ WCB/ WC9	Hardness required is min 240 BHN
45	G2325b	Sunk Key	4-C1500-GLV-BW-HO-WCB	Hardness required is min 240 BHN
46	G1486	SUNK KEY-W057	Extension spindle valves	Hardness required is 220 to 270 BHN
47	G2178	VALVE STEM CAP-40019800	Wall Blower	Heat Treat to 38-41 HRC
48	G2183	RAMP CAM -30013700	Wall Blower	Heat Treat to 50-55 RC
49	G2185	CAM SHAFT COLLAR-30014700	Wall Blower	Heat Treat to HRC 28
50	G2189	WORM GEAR SHAFT-30015500	Wall Blower	Heat Treat to RC 40-44
51	G2493	Orifice Plate		to be hardened and tempered to RC32 to 38
52		KEY-40114200	SPECIAL KEY-40114100 (842099634400)	hardened and tempered to RC 40 to 42
53	G2308	Yoke Machining	2.5-C1500-GLV-HO/ MO- WCC/ WCB/ WC9	Nickel Plating
54	G2345	Yoke Machining	3-C1500-GLV-BW-HO-WC9	Nickel Plating to a thickness of 25 to 35 microns
55	G2309	Yoke Machining	4-C1500-GLV-HO/ MO- WCC/ WCB/ WC9	Nickel Plating
56	G2311a	Disc Final	2.5-C1500-GLV-BW-HO-WC9	Tufftriding/ Liquid nitriding
57	G2311b	Disc Final	3-C1500-GLV-BW-HO-WC9	Tufftriding/ Liquid nitriding
58	G2311j	Disc Final	3-C3500-GLV-BW-M O-WC9	Tufftriding/ Liquid nitriding
59	G2311c	Disc Final	4-C1500-GLV-BW-HO-WCB	Tufftriding/ Liquid nitriding
60	G2311k	Disc Final	6-C3500-GLV-BW-M O-WC9	Tufftriding/ Liquid nitriding
61	G2311i	Disc Final	6-C2500-GLV-BW-M O-WCC	Liquid Nitriding
62	G2316a	Disc Nut	2.5-C1500-GLV-BW-HO-WC9	Tufftriding/ Liquid nitriding
63	G2316b	Disc Nut	3-C1500-GLV-BW-HO-WC9	Tufftriding/ Liquid nitriding
64	G2316c	Disc Nut	4-C1500-GLV-BW-HO-WCB	Tufftriding/ Liquid nitriding

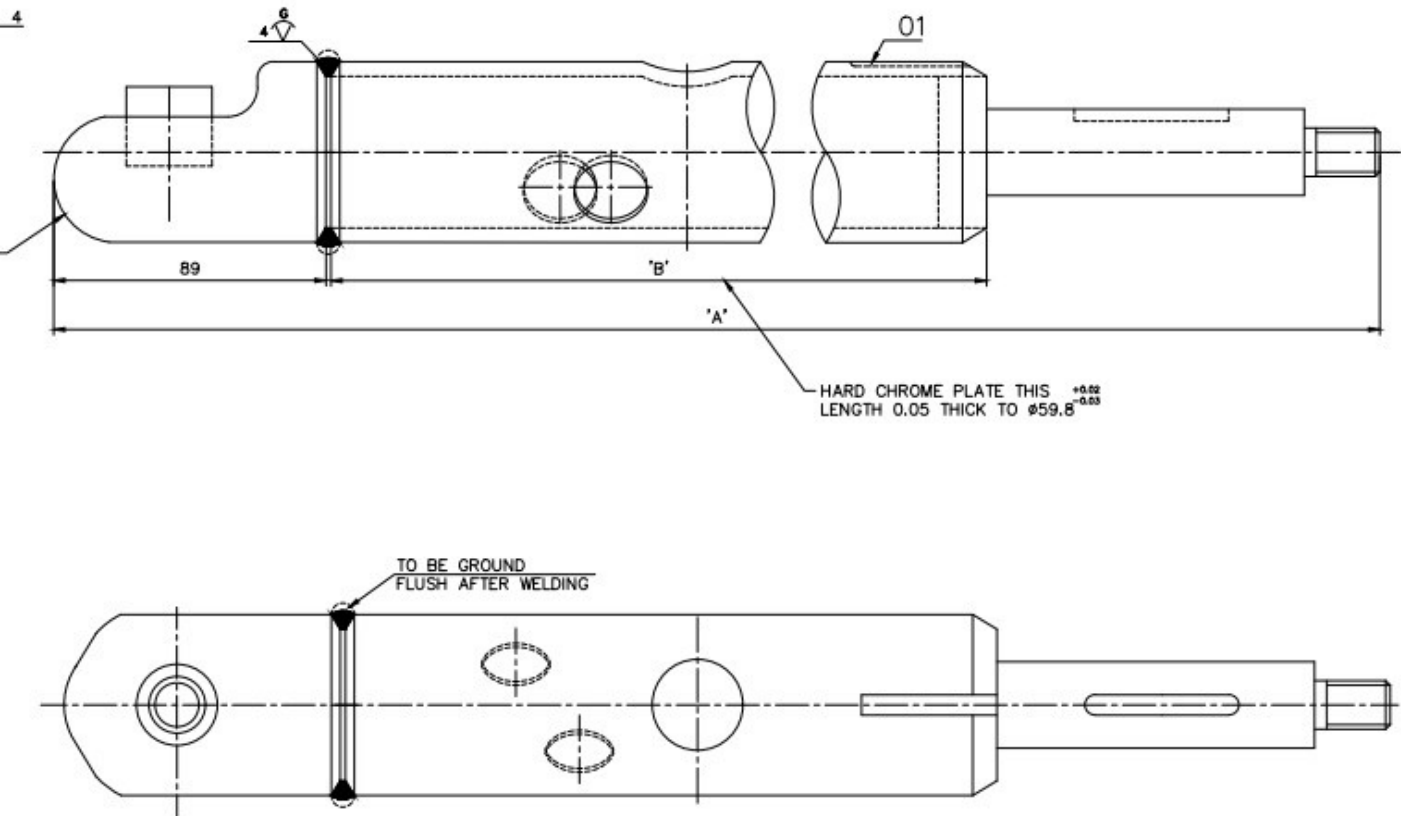
S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)	Special Process
65	G2316d	Disc Nut	5-C1500-GLV-BW-GO-WC9	Tufftriding/ Liquid nitriding
66	G1211	SCALE OF INDEX-K333	2-C300-RV-FL-HW-WCB	Chrome Plating
67	G1212	SCALE OF INDEX	3-C300-RV-FL-HW-WCB	Chrome Plating
68	G1213	SCALE OF INDEX-2886	4-C300-RV-FL-HW-WCB	Chrome Plating
69	G1214	SCALE OF INDEX	6-C300-SV-BW-HW-WCB	Chrome Plating
70	G1215	SCALE OF INDEX-2925	8-C300-RV-BW-HW-WCB	Chrome Plating
71	G2317	WASHER-0009	2.5-C1500-GNV-BW-HO-WCC	Liquid Nitriding
72	G2317	WASHER-0010	3-C1500-GNV-BW-HO-WCC	Liquid Nitriding
73	G2317	WASHER-0012	4-C1500-GLV-BW-HO-WCB	Liquid Nitriding
74	G2317	WASHER-0014	5-C1500-GNV-BW-MO-WC9	Liquid Nitriding

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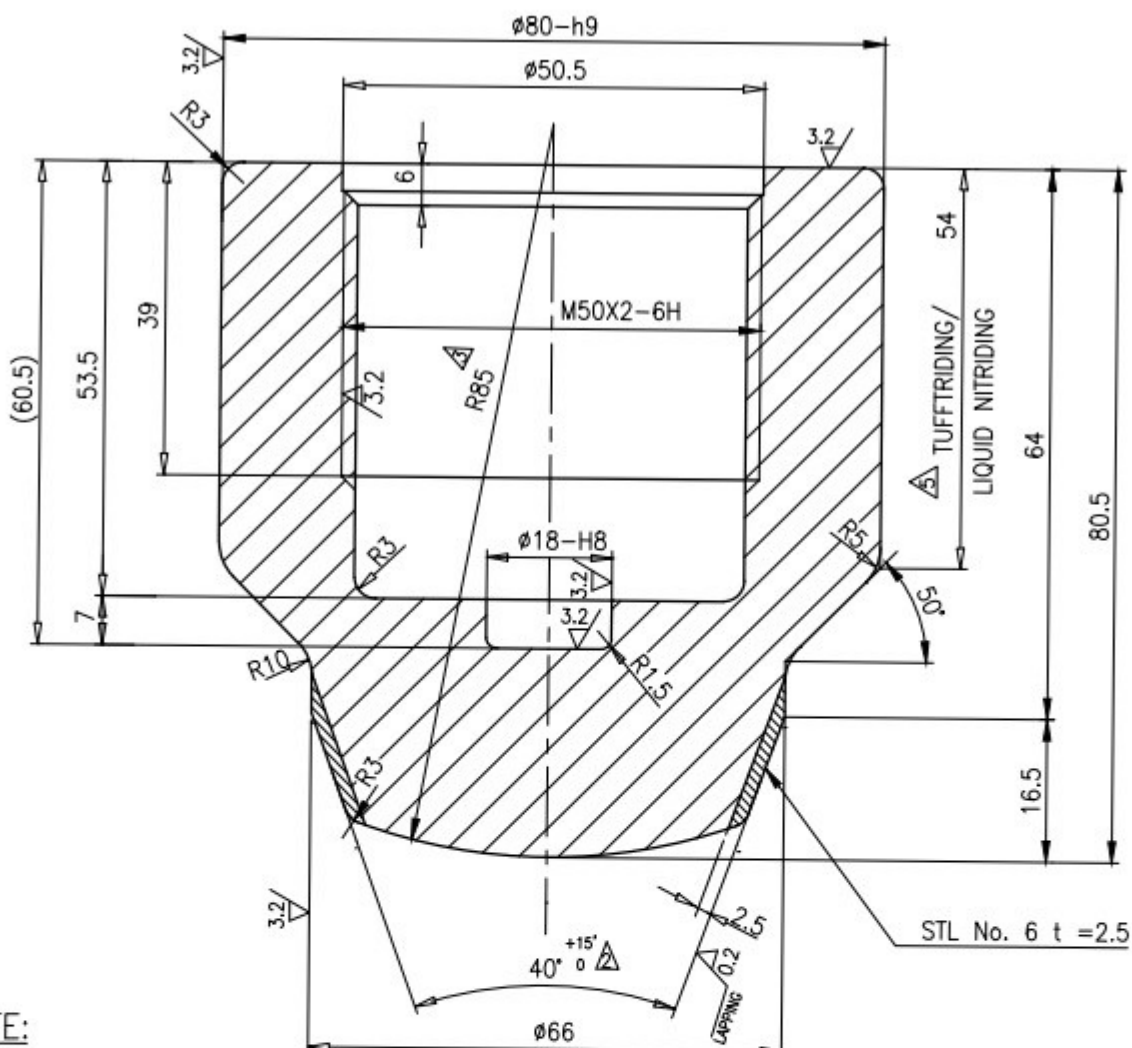
ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP

NOTES:-

- VARIANT No. 02, 03 & 04 MEANT FOR COPES VULCON SWIVEL TUBE ASSEMBLY REPLACEMENT.
- FOR QUALITY REQUIREMENTS REFER LATEST APPLICABLE QUALITY PROCEDURES.
- WELD NOZZLE HEAD ASSEMBLY WITH SWIVEL TUBE IN SUCH A WAY THAT THE 'V' GROOVE PROVIDED ON SWIVEL TUBE SHOULD BE INLINE WITH THE CENTRE LINE OF NOZZLEFOR QUALITY REQUIREMENTS REFER LATEST APPLICABLE QUALITY PROCEDURES.
- VARIANT No. 05 MEANT FOR STAINLESS STEEL (SS) SWIVEL TUBE MATERIAL.
- HARD CHROME PLATING IS NOT REQUIRED FOR VARIANT No. 5 (SS SWIVEL TUBE).



	02	NOZZLE HEAD ASSY.	4-20-201-00164	842020125600	0.920
				WELDMENT	1
	01	SWIVEL TUBE	3-20-201-02010	842020135503	9.200
				WELDMENT	1
05		SWIVEL TUBE ASSY.(SS)	2-20-201-00280	842020125503	10.120
				WELDMENT	1
	02	NOZZLE HEAD ASSY.	4-20-201-00164	842020125600	0.920
				WELDMENT	1
	01	SWIVEL TUBE	3-20-201-00903	-	8.436
				WELDMENT	1
04		SWIVEL TUBE ASSY.	2-20-201-00280	-	9.356
				WELDMENT	1
	02	NOZZLE HEAD ASSY.	4-20-201-00164	842020125600	0.920
				WELDMENT	1
	01	SWIVEL TUBE	3-20-201-00846	-	8.580
				WELDMENT	1
03		SWIVEL TUBE ASSY.	2-20-201-00280	842020126400	9.500
				WELDMENT	1
	02	NOZZLE HEAD ASSY.	4-20-201-00164	842020125600	0.920
				WELDMENT	1
	01	SWIVEL TUBE	3-20-201-00810	-	8.196
				WELDMENT	1
02		SWIVEL TUBE ASSY.	2-20-201-00280	842020102400	9.106
				WELDMENT	1
	02	NOZZLE HEAD ASSY	4-20-201-00164	842020125600	0.920
				WELDMENT	1
	01	SWIVEL TUBE	3-20-201-00699	842020135500	8.580
				WELDMENT	1
01		SWIVEL TUBE ASSY.	2-20-201-00280	842020125500	9.500
				WELDMENT	1
VARIANT No.	ITEM No.	DESCRIPTION	DRAWING No.	MATL. CODE	UNIT WT.(kg)
				MATL. SPEC.	QTY(Nos)



NOTE:

LATEST APPLICABLE QUALITY WORK INSTRUCTIONS SHALL BE FOLLOWED IN ALL RESPECTS

REDRAWN WITH REV.4 ON 01.09.14

COMP. CODE:93 111 974 0000

			A182 F22,CL.3 PRO. ATTEST	NT	20						
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No		
 BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014.						DRN	NAME V.BAIRAVAN	SIGN	DATE 01.09.14	NO.OF VAR	
						CHD	S.SATHEES		01.09.14		
						APPD	K.RAJASEKARAN		01.09.14		
DEPT VL			SCALE	WEIGHT (KG).	REFERENCE INFORMATIONS					NO. OF ITEMS	
CODE 320			N T S	1.49							
TITLE					CARD CODE	DRAWING NO.					REV
DISC ASSY					U 01	4-V-G041-18028					5
65/1500 CLASS											

	BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT 433, INDUSTRIAL COMPLEX GOINDWAL SAHIB DISTT. TARN TARAN- PUNJAB SUB-CONTRACTING DEPT	No. BHE:IVP:SC:EOI:CCA: 2223:01															
NOTICE INVITING EXPRESSION OF INTEREST FOR METAL PRESS WORK AND STAINLESS-STEEL PLATE CUTTING & BENDING																	
BHARAT HEAVY ELECTRICALS LIMITED [BHEL] is manufacturing Industrial Valves and other Boiler accessories at its Industrial Valves Plant, Goindwal Sahib unit. There is requirement of metal press work and stainless-steel plate cutting (Profile) & bending for some components of of Coal Compartment Assembly. The Approx. value of annual procurement shall be Rs 8.00 Lakh BHEL seeks expression of Interest for “<u>metal press work and stainless-steel plate cutting & bending</u>”, from suppliers who are having facility for metal press work and stainless-steel plate cutting & bending of following thicknesses: <table border="1" data-bbox="150 869 1452 1070"> <thead> <tr> <th>Plate Thickness</th> <th>Purpose/ Desired Work</th> <th>Size of plate likely to be issued</th> </tr> </thead> <tbody> <tr> <td>6 mm</td> <td>Cutting + Bending</td> <td>1250 MM x 3250 MM</td> </tr> <tr> <td>10 mm</td> <td>Cutting + Bending</td> <td>1250 MM x 3250 MM</td> </tr> <tr> <td>12 mm</td> <td>Cutting</td> <td>1250 MM x 3250 MM</td> </tr> <tr> <td>25 mm</td> <td>Cutting</td> <td>1250 MM x 3250 MM</td> </tr> </tbody> </table> Sample drawings are enclosed with this EOI. Interested sources shall furnish the required details as per Annexure - I			Plate Thickness	Purpose/ Desired Work	Size of plate likely to be issued	6 mm	Cutting + Bending	1250 MM x 3250 MM	10 mm	Cutting + Bending	1250 MM x 3250 MM	12 mm	Cutting	1250 MM x 3250 MM	25 mm	Cutting	1250 MM x 3250 MM
Plate Thickness	Purpose/ Desired Work	Size of plate likely to be issued															
6 mm	Cutting + Bending	1250 MM x 3250 MM															
10 mm	Cutting + Bending	1250 MM x 3250 MM															
12 mm	Cutting	1250 MM x 3250 MM															
25 mm	Cutting	1250 MM x 3250 MM															
For any clarification vendors may visit to our plant on any working day from Monday to Saturday between 0900 Hrs to 1700 Hrs and contact undersigned regarding:																	
Vendor registration form/procedure	Items details and requirement																
Gopal Singh Sr Manager(Sub-Cont)	Manoj Kumar Dy Manager(Sub-Cont)																
Phone: 01859-224669	01859-224643																
Mob: 9410395245	8427033225																
gopals@bhel.in	mk@bhel.in																
Fax: 01859-222061 BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT 433, INDUSTRIAL COMPLEX GOINDWAL SAHIB, DISTT. TARN TARAN																	

a. Equipment set up required - Following machines shall be available with the vendor

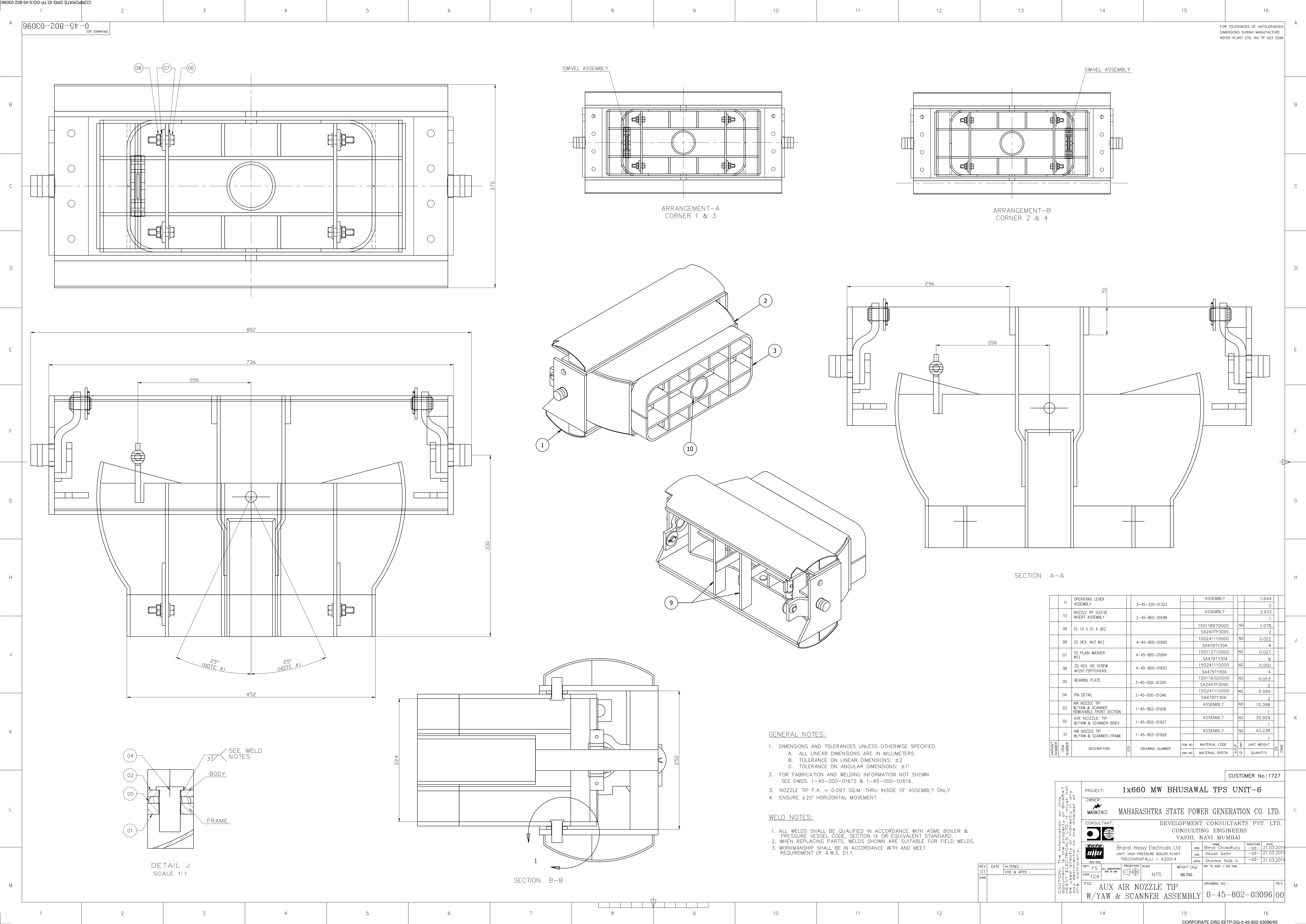
	Process/ Equipment Setup	In house/ Outsourced	Make		Stainless steel plate thickness
1.	Profile Cutting (Vendor to ensure availability of at least one machine among the following)			Bed Size (M X M)	
a)	Plasma Cutting machine				
b)	Laser Cutting Machine				
c)	Water Jet Cutting				
2.	Bending Machine (Vendor to ensure availability of availability or tie-up one machine among the following)			Capacity - Tons	
a)	Bending Machine				
b)	CNC Bending machine				

Vendor should be equipped for handling and lifting of plates.

Dimensions of plate likely to be issued: 1250 MM X 3250 MM, Thickness – 6 mm, 10mm, 12mm & 25 mm. Weight – Upto 1 ton

- b. Experience Details – BHEL may evolve its own criteria to gauge the technical suitability of the vendor e.g. - Vendor may provide copies of purchase orders executed in last three years/certificate for successful completion of job from the concerned customer.
- c. Cutting Plan/Nesting – Vendor to arrange for necessary software for generation of CAD drawing/ nesting plan.
- d. Scrap Generated – Based upon the amount of Scrap generation, one of the following two routes to be finalised
- Retention of Stainless-Steel Scrap by Vendor
 - Scrap to be returned by Vendor along with the finished component.
- e. Delivery Schedule – Following activities shall be involved
- i. Lifting of Material from BHEL
 - ii. Generation of component wise CAD drawing from pdf drawing
 - iii. Generation of cutting plan/ Nesting from the component wise CAD drawing
 - iv. Manufacturing of Dies for bending of components to the specifications.
 - v. Cutting of SS Plate
 - vi. Bending of Plate
 - vii. Inspection of finished components
 - viii. Returning the finished components to BHEL

Vendor to indicate the timeline required for completion of the job work taking into consideration the above activities.



GENERAL NOTES:

- DIMENSIONS AND TOLERANCES UNLESS OTHERWISE SPECIFIED.
 - ALL LINEAR DIMENSIONS ARE IN MILLIMETERS.
 - TOLERANCE ON LINEAR DIMENSIONS: ± 2
 - TOLERANCE ON ANGULAR DIMENSIONS: $\pm 1^\circ$
- FOR FABRICATION AND WELDING INFORMATION NOT SHOWN SEE DWGS. 1-45-000-01615 & 1-45-000-01616.
- NOZZLE TIP F.A. = 0.097 SQ.M. THRU INSIDE OF ASSEMBLY ONLY
- ENSURE $\pm 25^\circ$ HORIZONTAL MOVEMENT.

WELD NOTES:

- ALL WELDS SHALL BE QUALIFIED IN ACCORDANCE WITH ASME BOILER & PRESSURE VESSEL CODE, SECTION IX OR EQUIVALENT STANDARD.
- WHEN REPLACING PARTS, WELDS SHOWN ARE SUITABLE FOR FIELD WELDS.
- WORKMANSHIP SHALL BE IN ACCORDANCE WITH AND MEET REQUIREMENT OF A.W.S. D1.1.

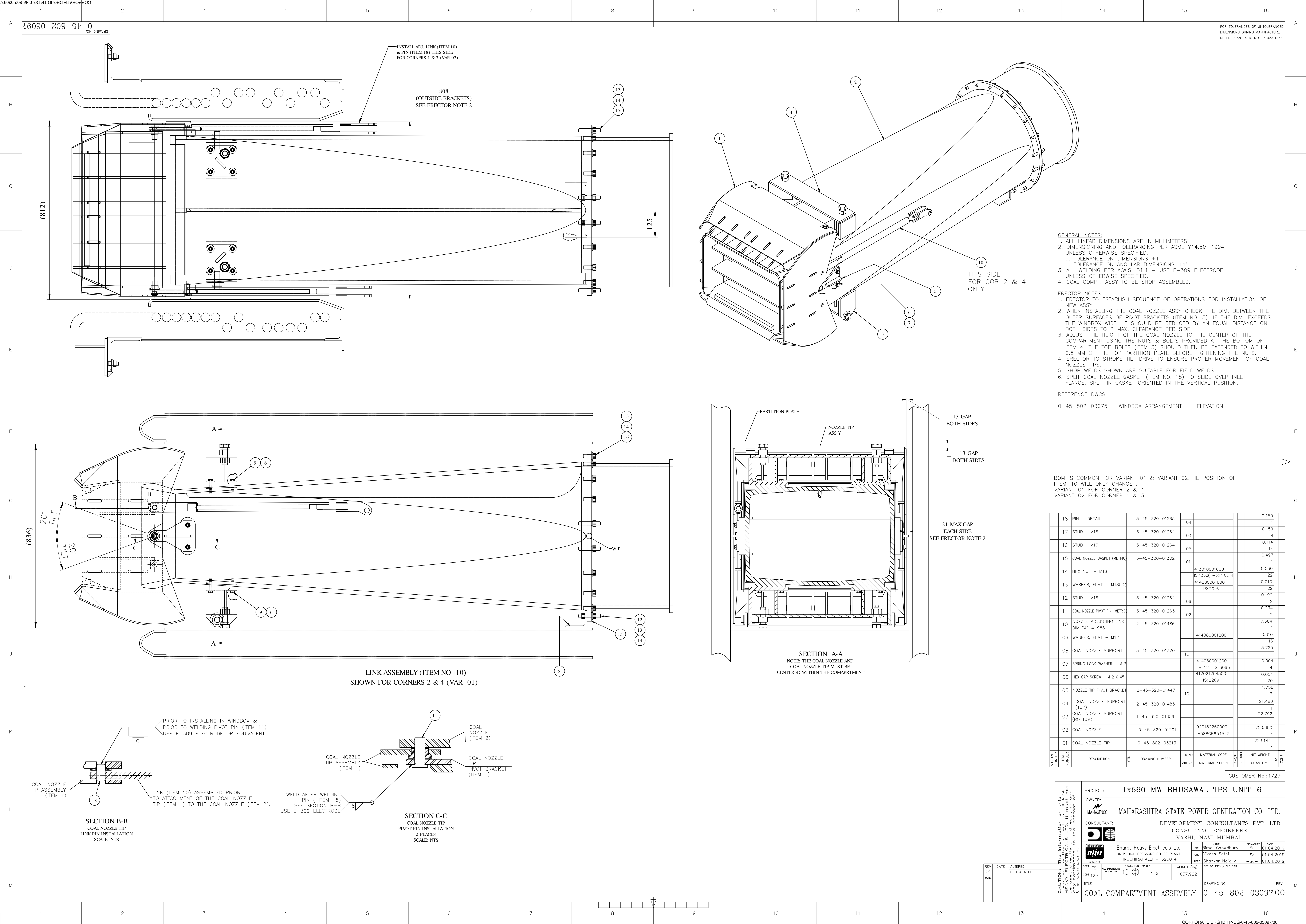
11	OPERATING LEVER ASSEMBLY	3-45-320-01323	ASSEMBLY		1.644	
			ASSEMBLY		3.933	
10	NOZZLE TIP SLEEVE INSERT ASSEMBLY	2-45-802-01698	ASSEMBLY		1	
			ASSEMBLY		1.078	
09	PL 10 X 51 X 262		150118970000	NO	2	
			SA240TP309S	NO	0.022	
08	SS HEX. NUT M12	4-45-800-01695	150241110000	NO	4	
			SA479TY304	NO	0.027	
07	SS PLAIN WASHER M12	4-45-800-01694	150112710000	NO	8	
			SA479TY304	NO	0.050	
06	SS HEX. HD SCREW M12X1.75PITCHX40L	4-45-800-01693	150241110000	NO	2	
			SA240TP309S	NO	0.099	
05	BEARING PLATE	3-45-000-01245	150119320000	NO	1	
			SA240TP309S	NO	10.398	
04	PIN DETAIL	3-45-000-01246	150241110000	NO	2	
			SA479TY304	NO	43.238	
03	AIR NOZZLE TIP W/YAW & SCANNER REMOVABLE FRONT SECTION	1-45-802-01926	ASSEMBLY		1	
			ASSEMBLY		35.929	
02	AIR NOZZLE TIP W/YAW & SCANNER-BODY	1-45-802-01927	ASSEMBLY		1	
			ASSEMBLY		43.238	
01	AIR NOZZLE TIP W/YAW & SCANNER-FRAME	1-45-802-01928	ASSEMBLY		1	
			ASSEMBLY		1	
VARIANT NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	UNIT WEIGHT
				VAR NO	MATERIAL SPECN	QUANTITY

CUSTOMER No.:1727

PROJECT: 1x660 MW BHUSAWAL TPS UNIT-6	
OWNER: MAHARASHTRA STATE POWER GENERATION CO. LTD.	
CONSULTANT: DEVELOPMENT CONSULTANTS PVT. LTD. CONSULTING ENGINEERS VASHI, NAVI MUMBAI	
Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014	
DEPT FS CODE 129	NAME Bimal Choudhury Vikash Sethi Shankar Naik V
DATE 21.03.2019	SIGNATURE 21.03.2019
DATE 21.03.2019	SIGNATURE 21.03.2019

TITLE AUX AIR NOZZLE TIP W/YAW & SCANNER ASSEMBLY	DRAWING NO : 0-45-802-03096/00	REV
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REV 01	DATE	ALTERED : CHD & APPD :
ZONE		



	BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT 433, INDUSTRIAL COMPLEX GOINDWAL SAHIB DISTT. TARN TARAN- PUNJAB – 143422	No.BHEL:IVP: SC:VLV:AD 2022-23/01 Dated 29.06.2022
NOTICE INVITING APPLICATIONS FOR REGISTRATION OF SUB CONTRACTORS		
BHARAT HEAVY ELECTRICALS LIMITED [BHEL] is manufacturing Industrial Valves and other Boiler accessories at its Industrial Valves Plant, Goindwal Sahib unit. For the year FY2022-23 we have to manufacture 1650 MT. Vendors are required for Job work as per the enclosed list of items. The approx. value of annual procurement shall be Rs 35 lac.		
Expression of interest and applications for registration are invited from sub-contractors (BHEL encourages procurement from Micro and Small Enterprises (MSEs), MSEs are requested to apply for registration) for doing the machining job of various components of Conventional Valves. Various work centers involved in the machining jobs shall be VTL, Horizontal Boring, Turning centre, Milling, Conventional Lathe, Drill machine etc.		
HM/LM Valves	Casting Machining of Body, Yoke, Bonnet, Disc, other machining components for valves. List of components, where machining vendors are required, is attached herewith as Annexure-I. Sample drawings of some components are also attached. (S.No of list – 563 and 119)	
BHEL is looking for prospective Sub Contractors for above job work.		
BHEL shall evaluate the vendors as per its established vendor selection, evaluation and registration procedure. Supplier Registration can be done online https://supplier.bhel.in/		
BHEL invites such vendors to visit its above located plant on any working day from Monday to Saturday between 0900 Hrs to 1730 Hrs and contact undersigned for any clarification regarding:		
Items details and requirement	Vendor registration form/procedure	
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BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT, 433, INDUSTRIAL COMPLEX, GOINDWAL SAHIB, DISTT. TARN TARAN, PUNJAB – 143 422		

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
1	G25a	Body Machining	12-C300-GV-FL WCB/ WCC
2	G26c	Body Machining	12-C300-GV-BW WCB/ WCC/ WC9 NC87
3	G35a	Body Machining	16-C150-GV-FL-WCB/ WCC/ WC6/ WC9
4	G39a	Body Machining	16-C300-GV-FL-WCB/ WCC
5	G42a	Body Machining	18-C150-GV-BW WCB/ WCC
6	G45	Body Machining	2-1/2-C300-FV-BW-WCB/ WCC (Rough)
7	G47	Body Machining	2-1/2-C300-GV-BW-CF8M/ CF8
8	G49	Body Machining Final	2-1/2-C300-GV- BW - WCB/ WCC
9	G50	Body Rough	2-1/2-C300-GV- BW -WCB/ WCC
10	G51	Body Machining	2-C150-FV-BW-CF8M/ CF8
11	G1099	LOCK HOOK-N206	10-C150-GV-BW-HW-WCB
12	G53	Body Machining	2-C150-FV-BW-WCB/ WCC
13	G54	Body Machining	2-C150-FV-FL-WCB/ WCC
14	G55	Body Machining	2-C150-GV-BW-CF8/ CF8M
15	G56	Body Machining	2-C150-GV-FL-CF8/ CF8M
16	G58	Body Machining	2-C150-GV-BW-WCB/ WCC/ WC6/ WC9
17	G60	Body Machining	2-C150-GV-FL-WCB/ WCC
18	G63	Body Machining	2-C300-FV-FL-WCB/ WCC/ WC6/ WC9
19	G66	Body Machining	2-C300-GV-BW-CF8/ CF8M
20	G67	Body Machining	2-C300-GV-FL-CF8M/ CF8
21	G70	Body Machining	2-C300-GV-BW-WCB/ WCC/ WC6/ WC9
22	G71	Body Machining	2-C300-GV-FL-WCB/ WCC/ WC6/ WC9
23	G80	Body Machining	2-C600-GV-FL-CF8M/ CF8
24	G83	Body Machining	2-C600-GV-FL-WCB/ WCC/ WC6/ WC9
25	G89	Body Machining	3-C150-GV-BW-CF8/ CF8M
26	G1104	LOCK HOOK-N201	2-C150-GV-FL-HW-CF8
27	G100	Body Machining	3-C300-FV-FL-CF8M/ CF8
28	G103	Body Machining	3-C300-FV-FL-WCB/ WCC
29	G104	Body Machining	3-C300-GV-BW-CF8M/ CF8
30	G110	Body Machining	3-C300-GV-BW-WCB/ WCC/ WC6/ WC9
31	G111	Body Machining	3-C300-GV-FL-WCB/ WCC/ WC6/ WC9
32	G1105	LOCK HOOK-N204	2-C600-GV-FL-HW-WCB
33	G118	Body Machining	3-C300-RV-FL-WCB/ WCC
34	G121	Body Machining	3-C600-GV-BW-WCB/ WCC/ WC6/ WC9
35	G146	Body Machining	4-C300-GV-BW-CF8/ CF8M
36	G165	Body Machining	5-C150-FV-FL-WCB/ WCC/ WC6/ WC9
37	G169	Body Machining	5-C300-GV-BW-WCB/ WCC/ WC6/ WC9
38	G169a	Body edge preparation only	5-C300-GV-BW-WCB/ WCC/ WC6/ WC9

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
39	G1107	LOCK HOOK-N205	8-C150-GV-BW-HW-WCB
40	G171	Body Machining	6-C150-FV-BW-CF8/ CF8M
41	G173	Body Machining	6-C150-FV-FL-WCB/ WCC/ WC6/ WC9
42	G175	Body Machining	6-C150-GV-BW-CF8M/ CF8
43	G176	Body Machining	6-C150-GV-FL-CF8C/ CF8/ CF8M
44	G180	Body Machining	6-C150-GV-BW-WCB/ WCC
45	G181	Body Machining	6-C150-GV-FL-WCB/ WCC/ WC9
46	G182a	Body Machining	6-C150-GV-FL-HO-CF8M-NC
47	G186	Body Machining	6-C300-FV-FL-CF8/ CF8M
48	G189	Body Machining	6-C300-FV-FL-WCB/ WCC
49	G114	Body Machining	3-C300-RV-FL-CF8M/ CF8
50	G210c	Body Machining	8-C300-GV-FL-WCB/ WCC NC
51	G430	Body Machining	6-C300-RV-BW-CF8/ CF8M
52	G170	Body Machining	6-C150-FV-FL-CF8/ CF8M
53	G440	Body Machining	8-C150-FV-BW-CF8/ CF8M
54	G443	Body Machining	8-C150-FV-FL-WCB/ WCC
55	G453	Body Machining	8-C300-FV-BW-WCB/ WCC/ WC6/ WC9
56	G1876	Body Machining	10-C600-GV-FL-WCB/ WC9
57	G1905	Body Machining	20-C150-GV-BW-MO-WCB-SG
58	G1910	Body Machining	20-C300-GV-BW-MO-WCB
59	G1911	Body Machining	20-C300-GV-FL-GO-WCB
60	G1918	Body Machining	24-C150-GV-FL-WCB
61	G1919	Body Machining	24-C150-GV-BW-MO-WCB-BP
62	G1925	Body machining	6-C600-FV-BW-WC6/ WCB/ WCC
63	G1962	Body Machining	14-C300-WCB-BW-FV/ WC9
64	G1998	Body Machining	16-300-WCB-BW-FV/ SPL
65	G2007	Body Machining	20-150-WCB-BW-FV
66	G2165	Body Machining	18-C300-GV-BW-GO-WCB/ WC9
67	G2165a	Body Machining	18-C300-GV-BW-GO-C12A
68	G2146	Body Machining	22-C300-GV-BW-GO-WCB
69	G1907	Wedge Rough Machining	20-C150-GV-BW-MO-WCB-BP
70	G219	Bonnet Machining	14-C300-GV-WCB/ WCC/ WC9
71	G220	Bonnet Machining	16-C150-GV-WCB/ WCC
72	G224	Bonnet Machining	18-C150-GV WCB/ WCC
73	G1890	Bonnet Machining	12-C600-GV-BW-GO-WCB/ WCC/ WC9
74	G1906	Bonnet Machining	20-C150-GV-FLWCB
75	G1913	Bonnet Machining	20-C300-GV-BW-WCB/ WC9
76	G1920	Bonnet Machining	24-C150-GV-FL-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
77	G2152	Bonnet Machining	22-C300-GV-BW-GO-WCB
78	G225	Wedge Slitting	10-C300-GV-WCB/ WCC/ WC9
79	G226	Wedge Rough Machining	10-C300-GV-WCB/ WCC/ WC9
80	G236a	Wedge Rough Machining	12-C150-GV-CF8M NC WEDGE
81	G239	Wedge Slitting	12-C300-GV-WCB/ WCC/ WC6/ WC9
82	G240	Wedge Rough Machining	12-C300-GV-WCB/ WCC/ WC6/ WC9
83	G240b	Wedge Rough Machining	12-C300-GV-WCB/ WCC/ WC9 NC
84	G197b	Body Machining	6-C300-GV-FL-WCB/ WCC NC
85	G244a	Wedge Slitting - after welding	14-C150-GV-WCB/ WCC
86	G247	Wedge Rough Machining	14-C300-GV-WCB/ WCC/ WC6/ WC9
87	G2006	Seat Ring Final	16-300SPL-WCB-BW-FV/ WC9/ STL
88	G248a	Wedge Slitting - after welding	16-C150-GV-WCB/ WCC
89	G250a	Wedge Slitting - before welding	16-C300-GV-WCB/ WCC/ WC6/ WC9
90	G250b	Wedge Rough Machining	18-C300-GV-BW-GO-C12A
91	G251	Wedge Rough Machining	18-C150-GV-WCB/ WCC
92	G251a	Wedge Slitting - after welding	18-C150-GV-WCB/ WCC
93	G262	Wedge Slitting	2-C300-GV-WCB/ WCC/ WC9/ WC6
94	G264	Wedge Rough Machining	2-C600-GV-CF8M/ CF8
95	G266	Wedge Rough Machining	2-C600-GV-WCC/ WCB/ WC9/ WC6
96	G271	Wedge Slitting	3-C150-GV-WCB/ WCC/ WC9/ WC6
97	G279	Wedge Slitting	3-C300-GV-WCB/ WCC/ WC9/ WC6
98	G290	Wedge Rough Machining	4-C300-GV-CF8M/ CF8
99	G293	Wedge Slitting	4-C300-GV-WCC/ WCB/ WC9/ WC6
100	G296	Wedge Rough Machining	4-C600-GV-WCB/ WCC/ WC9/ WC6
101	G297	Wedge Rough Machining	6-C150-GV-CF8/ CF8M CF8M
102	G301	Wedge Slitting	6-C150-GV-WCB/ WCC/ WC9/ WC6
103	G308	Wedge Slitting	6-C300-GV-WCB/ WCC/ WC9/ WC6
104	G309	Wedge Rough Machining	6-C300-GV-WCB/ WCC/ WC9/ WC6
105	G310	Wedge Slitting	8-C300-GV-WCB/ WCC/ WC9/ WC6
106	G465	Wedge Slitting	10-C150-GV-WCB/ WCC/ WC9/ WC6
107	G466	Wedge Rough Machining	10-C150-GV-WCB/ WCC/ WC9/ WC6
108	G467	Wedge Rough Machining	10-C150-GV-WCB/ WCC NC WEDGE
109	G467a	Wedge Rough Machining	10-C150-GV-BW-HO-CD3MN
110	G475	Wedge Rough Machining	8-C150-GV-WCB/ WCC/ WC9/ WC6
111	G1880	Wedge Rough Machining	10-C600-GV-FL-MO-WCB/ WCC/ WC9
112	G1884a	Wedge Slitting - before welding	12-C600-GV-CF8
113	G1889	Wedge Rough Machining	12-C600-GV-BW-GO-WCB/ WCC
114	G1907a	Wedge Slitting - after welding	20-C150-GV-WCB/ WCC

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
115	G1914	Wedge Rough Machining	20-C300-GV-BW-GO-WCB-BP
116	G1914a	Wedge Slitting - before welding	20-C300-GV-WCB/ WCC
117	G1921	Wedge Rough Machining	24-C150-GV-BW-MO-WCB
118	G1921a	Wedge Slitting - before welding	24-C150-GV-BW-MO-WCB
119	G2150	Wedge Rough Machining	22-C300-GV-BW-GO-WCB
120	G2150a	Wedge Slitting - before welding	22-C300-GV-BW-GO-WCB
121	G331	Yoke Machining	16-C150-GV-MO-WCB/ WCC
122	G333	Yoke Machining	18-C150-GV-MO-WCB/ WCC
123	G348	Yoke Machining	2-C300-SV-HW-CF8/ CF8M
124	G352	Yoke Machining	2-C600-GV-HW-CF8M/ CF8
125	G367	Yoke Machining	3-C300-RV-HW-CF8M/ CF8
126	G368	Yoke Rough	3-C300-RV-M O-CF8M/ CF8
127	G369	Yoke Machining	3-C300-RV-M O-CF8/ CF8M
128	G371	Yoke Machining	3-C300-RV-M O-WCB/ WCC/ WC9/ WC6
129	G378	Yoke Machining	3-C600-GV-HW/ M O-WCB/ WCC/ WC9/ WC6
130	G402	Yoke Machining	4-C600-GV-HW-WCB/ WCC/ WC9/ WC6
131	G244	Wedge Rough Machining	14-C150-GV-WCB/ WCC
132	G491	Yoke Rough	6-C300-RV-M O-WCB/ WCC/ WC9/ WC6
133	G506	Yoke Machining	8-C300-SV-HW-CF8/ CF8M
134	G507	Yoke Machining	8-C300-RV-HW-WCB/ WCC
135	G509	Yoke Rough	8-C300SPL-RV-M O-WCB/ WCC
136	G2157	Yoke Machining	22-C300-GV-BW-GO-WCB
137	G1885	Yoke Machining	12-C600-GV-FL-GO-CF8-BP
138	G1908	Yoke Machining	20-C150-GV-FL-WCB
139	G1915	Yoke Machining	20-C300-GV-BW-WCB
140	G1922	Yoke Machining	24-C150-GV-BW-WCB
141	G2260	Gas Cutting of plate	Tk 135 to <155
142	G2589	Gas Cutting of Plate	Tk 155 to <175
143	G2590	Gas Cutting of Plate	Tk 175 to <190
144	G599	ADAPTOR-STEEL HO Valve	8" 300 RV WCB
145	G1867a	SLEEVE-E512	Extension Spindle
146	G607	ARM ASSY-Z017	10-C300-FV-BW-WCB
147	G609	ARM ASSY-Z018	12-C300-FV-BW-WCB
148	G610	ARM ASSY F316-Z004	2-C150-FV-FL-CF8
149	G611	ARM ASSY-5158	2-C150-FV-FL-WCB
150	G615	ARM ASSY-5199	3-C150-FV-FL-CF8M
151	G616	ARM ASSY-5157	3-C150-FV-FL-WCB
152	G619	ARM ASSY-5152	3-C300-FV-FL-WCB/ WC9

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
153	G1895	ARM ASSY-Z022	16-300SPL-WCB-BW-FV
154	G1896	ARM ASSY -20/ 150CL-Z021	20-150-WCB-BW-FV
155	G1970	ARM ASSY-Z023	14-300-WCB-BW-FV
156	G1970a	ARM ASSY-Z080	14-300-CF8M-BW-FV
157	G637	Back Seat Final	10-C300-GV-WCB
158	G658a	Back Seat Rough	14-C600-RV-BW-MO-WCC
159	G662	Back Seat Final	2-C150-GV-CF8
160	G667	Back Seat Final	2-C300-GV-WCB
161	G669	Back Seat Final F6	2-C300-RV-WCB
162	G672	Back Seat Final	2-C300-SV-CF8
163	G675	Back Seat Final	3-C150-GV-CF8/CF8M
164	G679	B.Seat Final F6	3-C150-GV-WCB
165	G687	Back Seat Final	4-C150-GV-BW-HW-CF8M
166	G692	Back Seat Final	4-C150-GV-FL-HW-WCB
167	G696	Back Seat Final	4-C300-RV-BW-MO-CF8
168	G697	Back Seat Final F6	4-C300-RV-FL-HW-WCB
169	G715	Back Seat Final F6	6-C300-GV-WCB
170	G719	Back Seat Final	6-C300-RV-WCB
171	G731	Back Seat Final NC	8-C150-GV-WCB
172	G735	Back Seat Final F6	8-C300-GV-WCB
173	G736	Back Seat Final	8-C300-GV-CF8M
174	G739	Back Seat Final F6	8-C300-RV-WCB
175	G2153	Back Seat Final	22-C300-GV-BW-GO-WCB
176	G746	BALL-E086	12-C150-GV-FL-HW-WCB
177	G746a	BALL-E512	Extension Spindle
178	G754	BOTTOM PLATE-K011	12-C150-GV-BW-HW-WCB-SG
179	G774	BUSH-K325	12-C300-GV-BW-GO-WCB
180	G777	TUBE OF BYPASS	10-C150-GV-BP
181	G778	TUBE OF BYPASS	10-C300-GV-BP
182	G779	TUBE OF BYPASS	12-C150-GV-BP
183	G780	TUBE OF BYPASS	12-C300-GV-BP
184	G781	TUBE OF BYPASS	14-C150-GV-BP
185	G782	TUBE OF BYPASS	14-C300-GV-BP
186	G783	TUBE OF BYPASS	16-C150-GV-BP
187	G784	TUBE OF BYPASS	16-C300-GV-BP
188	G785	TUBE OF BYPASS	18-C150-GV-BP
189	G787	TUBE OF BYPASS	6-C150-GV-BP
190	G789	TUBE OF BYPASS	6-C600-GV-BP

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
191	G791	TUBE OF BYPASS	8-C600-GV-BP
192	G2021	TUBE OF BYPASS-N933	20-C150-GV-FL-GO-WCB-BP
193	G2047	TUBE OF BYPASS-C285	20-C300-GV-BW-GO-WCB-BP
194	G839	COVER TUBE-N629	16-C150-GV-BW-GO-WCB
195	G841	COVER TUBE-N727	18-C150-GV-BW-GO-WCB
196	G847	COVER	2-C150-FV-CF8/ CF8M
197	G848	COVER with Nut	2-C150-FV-WCB
198	G851	COVER with Nut	2-C300-FV-FL-WCB
199	G1971	COVER	14-300-WCB-BW-FV/ WC9
200	G893	Disk Final SV Stellite	6-C300-SV-WCB
201	G894	Disk Final SV	6-C300-SV-WCB
202	G895	Disk Final SV	8-C300-SV-WCB
203	G902	Disc Retainer SV/ RV	4-C300-SV-WCB/ WCC
204	G910	END COVER-E061	12-C150-GV-FL-HW-WCB
205	G915	END COVER-S847	3-C600-GV-BW-HW-WCB
206	G918	END COVER-S833	4-C300-GV-FL-HW-WCB
207	G920	END COVER-S836	6-C300-GV-BW-HW-WCB
208	G923	ENDCOVER-S837	8-C300-GV-BW-HW-WC9
209	G925	FIXING CLAMP P-K011	10-C300-GV-BW-HW-WCB
210	G927	FIXING CLAMP P-K324	2-C150-GV-BW-HW-WCB
211	G928	FIXING CLAMP	3-C300-GV-FL-HW-WCB
212	G929	FIXING CLAMP P-K163	8-C150-GV-BW-HW-WCB
213	G931	FIXING PLATE-K011	8-C150-GV-BW-HW-WCB
214	G944	GLAND FLANGE	10-C150-GV-FL-MO-WCB
215	G945	GLAND FLANGE	10-C300-GV-BW-MO-WCB
216	G946	GLAND FLANGE	10-C300-RV-BW-MO-WCB
217	G947	GLAND FLANGE	12-C150-GV-BW-HW-WCB
218	G949	GLAND FLANGE	12-C300-GV-BW-GO-WC9
219	G950	GLAND FLANGE	14-C150-GV-FL-GO-WCB
220	G951	GLAND FLANGE	14-C300-GV-BW-GO-WC9
221	G952	GLAND FLANGE	16-C150-GV-BW-MO-WCB
222	G953	GLAND FLANGE	16-C400-GV-BW-GO-WCB
223	G957	GLAND FLANGE	2-C300-GV-BW-MO-WCB
224	G958	GLAND FLANGE	2-C300-RV-BW-MO-WCB
225	G963	GLAND FLANGE	4-C300-SV-BW-MO-WCB
226	G967	GLAND FLANGE	6-C300-GV-FL-HW-WCB
227	G968	GLAND FLANGE	6-C300-RV-BW-MO-WCB
228	G971	GLAND FLANGE	8-C300-GV-BW-MO-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
229	G972	GLAND FLANGE	8-C300SPL-RV-BW-WCB
230	G973	GLAND FLANGE	8-C600-GV-BW-MO-WCB
231	G1935	GLAND FLANGE	12-C600-GV-FL-GO-CF8-BP
232	G1980	GLAND FLANGE	10-C600-GV-FL-MO-WCB-BP
233	G2029	GLAND FLANGE	20-C150-GV-BW-MO-WCB-BP
234	G2049	GLAND FLANGE	20-C300-GV-BW-GO-WCB
235	G2068	GLAND FLANGE	24-C150-GV-BW-MO-WCB
236	G2155	GLAND FLANGE	22-C300-GV-BW-GO-WCB
237	G976	Gland Follower	10-C150-GV-WCB/NC
238	G979	Gland Follower	10-C300-GV-WCB
239	G980	Gland Follower	10-C300-RV-WCB
240	G982	Gland Follower	12-C150-GV-WCB
241	G986	Gland Follower	16-C150-GV-WCB
242	G987	Gland Follower	16-C300-GV-WCB
243	G996	Gland Follower	3-C150-GV-WCB/WC6
244	G999	Gland Follower	3-C600-GV-WCB
245	G1000	Gland Follower	4-C150-GV-CF8M
246	G1002	Gland Follower	4-C150-GV-WCB
247	G1004	Gland Follower	4-C300-SV-WCB
248	G1006	Gland Follower	6-C150-GV-CF8M/CF8
249	G1008	Gland Follower	6-C150-GV-WCB
250	G1012	Gland Follower	6-C300-GV-WCB
251	G1013	Gland Follower	6-C300-RV-WCB
252	G1014	Gland Follower	6-C600-GV-WCB
253	G1015	Gland Follower	8-C150-GV-CF8M
254	G1016	Gland Follower	8-C150-GV-WCB
255	G1019	Gland Follower	8-C300-GV-WCB
256	G1020	Gland Follower	8-C300-RV-WCB
257	G1944	Gland Follower	12-C600-GV-BW-GO-WCB
258	G1981	Gland Follower	10-C600-GV-FL-MO-WCB-BP
259	G1032	HAND WHEEL-K650	6-C300-SV-BW-HW-CF8M
260	G1034	HUB-K020	10-C300-GV-BW-HW-WCB
261	G1036	HUB-K011	3-C300-GV-FL-HW-WCB
262	G1037	HUB-K357	4-C300-GV-BW-HW-WCB
263	G1038	INDICATOR DISC-1084	10-C300-RV-BW-GO-WCB
264	G1040	INDICATOR DISC-N628	12-C300-GV-BW-GO-WC9
265	G1041	INDICATOR DISC-1149	3-C600-GV-BW-HW-WCB
266	G1042	INDICATOR DISC-S833	4-C300-GV-FL-HW-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
267	G1044	INDICATOR DISC-N248	6-C300-GV-BW-HW-WCB
268	G1045	INDICATOR DISC-N244	8-C300-GV-BW-HW-WC9
269	G1048	INDICATOR-E125	12-C150-GV-FL-HW-WCB
270	G1049	INDICATOR-N207	10-C150-GV-FL-HW-WCB
271	G1066	JOINT END-E081	12-C150-GV-FL-HW-WCB
272	G1066a	JOINT END-E512	Extension Spindle
273	G1067	JOINT END-E091	12-C150-GV-FL-HW-WCB
274	G1067a	JOINT END-E512	Extension Spindle
275	G1072	LANTERN RING	14-C150-GV-WCB-SG
276	G1073	LANTERN RING	16-C150-GV-WCB-SG
277	G1084	LANTERN RING	6-C150-GV-CF8M / WCB-SG
278	G1087	LANTERN RING	8-C150-GV-CF8M / WCB-SG
279	G1088	LANTERN RING	8-C300-GV/ SV-HW-WCB-SG
280	G1093	LEVER PLATE-K325	12-C300-GV-BW-GO-WCB
281	G1095	LOCK BUSH-N206	10-C150-GV-BW-HW-WCB
282	G1095a	LOCK BUSH-N954	24-C150-GV-BW-GO-WCB-BP
283	G1096	LOCK BUSH-N213	12-C300-GV-BW-GO-WCB
284	G248	Wedge Rough Machining	16-C150-GV-WCB/WCC
285	G1100	LOCK HOOK-NC51	12-C150-GV-FL-GO-WCB
286	G1101	LOCKING ARRGT.HOOK	12-C300-GV-BW-GO-WCB
287	G250	Wedge Rough Machining	16-C300-GV-WCB/WCC/WC6/ WC9
288	G2583	BODY-6-C600-FV-FL-WCC-Z103	6-C600-FV-FL-WCC
289	G1106	LOCK HOOK-N213	6-C600-GV-BW-HW-WCB
290	G1108	LOCK HOOK-N954	8-C600-GV-FL-GO-WCB
291	G1110	LOCK PLATE	10-C300-GV-BW-HW-WCB
292	G1111	LOCK PLATE	12-C150/300-GV-FL-GO-WCB
293	G1112	LOCK PLATE	12-C300-GV-BW-GO-WCB
294	G1113	LOCK PLATE	14-C150-GV-FL-GO-WCB
295	G1115	LOCK PLATE	2-C600-GV-FL-HW-WCB
296	G1116	LOCK PLATE	3-C600-GV-BW-HW-WCB
297	G1117	LOCK PLATE	6-C150-GV-BW-HW-CF8M
298	G1118	LOCK PLATE	6-C300-GV-BW-HW-WCB
299	G1120	LOCK PLATE	8-C150-GV-BW-HW-WCB
300	G1121	LOCK PLATE	8-C300-GV-BW-HW-WCB
301	G1122	LOCK PLATE	8-C600-GV-FL-GO-WCB
302	G1127	MOUNTING PLATE-N204	6-C150-GV-FL-HW-WCB
303	G1128	MOUNTING PLATE-N205	8-C150-GV-FL-HW-WCB
304	G1132a	PIN-E516	12-C150-GV-FL (Extension Spindle)

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
305	G1133	PIN-E106	12-C150-GV-FL-HW-WCB
306	G1133a	PIN-E513	Extension Spindle
307	G1134a	PIN-E513	14-C150-GV-FL (Extension Spindle)
308	G1135	PIN-N812	12-C300-GV-BW-GO-WCB
309	G1136	PIN	14-C150-GV-BW-GO-WCB
310	G1148a	PLUG-Z113	4-C150-FV-BW-CD3MN
311	G1155	SCREW PLUG - 1/2-F604	4-C300-GV-BW-HW-WCB
312	G1189	RETAINER-F502	3-C600-GV-WCB
313	G1190	RETAINER-S833	4-C300-GV-WCB
314	G1191	RETAINER-S836	6-C300-GV-WCB
315	G1203	RIB-K011	10-C150-GV-BW-HW-WCB
316	G1204	RIB-K163	12-C150-GV-BW-HW-WCB
317	G1205	RIB-K164	8-C150-GV-BW-HW-WCB
318	G1206	RING OF INDEX-K333	2-C300-RV-FL-HW-WCB
319	G1207	RING OF INDEX-K334	3-C300-RV-FL-HW-WCB
320	G1208	RING OF INDEX-K335	6-C300-RV-FL-HW-WCB
321	G1209	RING OF INDEX	8-C300-RV-BW-HW-WCB
322	G1211	SCALE OF INDEX-K333	2-C300-RV-FL-HW-WCB
323	G1212	SCALE OF INDEX	3-C300-RV-FL-HW-WCB
324	G1213	SCALE OF INDEX-2886	4-C300-RV-FL-HW-WCB
325	G1214	SCALE OF INDEX	6-C300-SV-BW-HW-WCB
326	G1215	SCALE OF INDEX-2925	8-C300-RV-BW-HW-WCB
327	G1221	Seat Ring Final Stellite NC	10-C150-GV-FL-HW-WCB
328	G1224	Seat Ring Final	10-C300-FV-FL-WCB
329	G1239	Seat Ring Final	12-C300-FV-FL-WCB
330	G1240	Seat Ring Final	12-C300-GV-BW-GO-WC9
331	G1243	Seat Ring Final	12-C300-GV-FL-GO-WCB
332	G1246	Seat Ring Final	14-C300-GV-BW-MO-WC9
333	G1253	Seat Ring Final	16-C300-GV-FL-MO-WC9
334	G1253a	Seat Ring Final	18-C300-GV-BW-GO-C12A
335	G1255	Seat Ring Final	18-C150-GV-BW-MO-WCB
336	G1257	Seat Ring Final	2-C150-FV-FL-CF8
337	G1259	Seat Ring Final Stellite	2-C150-GV-BW-HW-WCB
338	G1263	Seat Ring Final Stellite	2-C300-FV-FL-WC6
339	G1264	Seat Ring Final	2-C150/ C300-FV-FL-WCB
340	G1267	Seat Ring Final	2-C300-SV-BW-HW-CF8
341	G1268	Seat Ring Final	2-C300-RV-BW-MO-WCB
342	G1269	Seat Ring Final Stellite	2-C300-RV-FL-HW-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
343	G1270	Seat Ring Final	2-C600-GV-FL-HW-CF8M
344	G1272	Seat Ring Final Stellite	3-C150-FV-FL-CF8M
345	G1287	Seat Ring Final	3-C300-RV-BW-HW-CF8M
346	G1288	Seat Ring Final Stellite	3-C300-RV-BW-M O-CF8M
347	G1291	Seat Ring Final	3-C300-SV-FL-HW-WCB
348	G1293	Seat Ring Final	3-C600-GV-RTJ-HW-WCB
349	G1294	Seat Ring Final Stellite	4-C150-FV-CF8/ CF8M
350	G1295	Seat Ring Final Stellite	4-C150-FV-FL-WCB
351	G1303	Seat Ring Final	4-C300-FV-BW-CF8
352	G1304	Seat Ring Final Stellite	4-C300-FV-BW-CF8M
353	G1306	Seat Ring Final	4-C300-FV-FL-WCB
354	G1314	Seat Ring Final Stellite	4-C300-RV-BW-M O-CF8M
355	G1316	Seat Ring Final Stellite	4-C300-RV-BW-M O-WCB
356	G1319	Seat Ring Final	4-C600-GV-BW-HW-WCC
357	G1320	Seat Ring Final Stellite	6-C150-FV-BW-CF8/ CF8M
358	G1321	Seat Ring Final	6-C150-FV-FL-CF8M
359	G1322	Seat Ring Final Stellite	6-C150-FV-BW-WCB
360	G1323	Seat Ring Final	6-C150-FV-FL-WCB
361	G1346	Seat Ring Final	6-C600-GV-BW-HW-WCC
362	G1348	Seat Ring Final Stellite	8-C150-FV-BW-CF8
363	G1350	Seat Ring Final	8-C150-FV-FL-WCB
364	G1360	Seat Ring Final Stellite	8-C300-FV-FL-WCB/ CF8M
365	G1361	Seat Ring Final	8-C300-FV-FL-WCB
366	G1370	Seat Ring Final	8-C600-GV-BW-GO-WCC
367	G1965	Seat Ring Final	14-C300-FV-BW-WCB/ WC9
368	G2014	Seat Ring Final	20-C150-FV-BW-WCB
369	G2074	Seat Ring Final	24-C150-GV-FL-MO-WCB
370	G2148	Seat Ring Final	22-C300-GV-BW-GO-WCB
371	G1372a	SPIN EXTN PIN-E513	14-C150-GV-FL (Extension Spindle)
372	G1380	SPINDLE TOP-E465	12-C150-GV-FL-HW-WCB
373	G1405	STEM (with Hard Chrome Plating)	10-C300-GV-WC9
374	G1410	STEM (with Hard Chrome Plating)	12-C300-GV-WC9/ WC6
375	G1414	STEM (with Hard Chrome Plating)	14-C300-GV-WC9
376	G1415	STEM	14-C300-GV-CF8
377	G1416	STEM	14-C300-GV-WCB
378	G1418	STEM (with Hard Chrome Plating)	16-C300-GV-WC9
379	G1420	STEM	18-C150-GV-BW-GO-WCB
380	G1429	STEM	2-C300-RV/ SV-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
381	G1431	STEM	2-C600-GV-CF8M
382	G1433	STEM	2-C600-GV-WCB
383	G1434	STEM (with Hard Chrome Plating)	3-C150-GV-WC6
384	G1440	STEM	3-C300-GV-WCB
385	G1447	STEM (with Hard Chrome Plating)	4-C150-GV-WC9
386	G1449	STEM	4-C300-GV-CF8/ CF8M
387	G1451	STEM	4-C300-GV-WCB
388	G1453	STEM (with Hard Chrome Plating)	4-C300-RV/ SV-WC6/ WC9
389	G1456	STEM	4-C600-GV-WCB
390	G1458	STEM (with Hard Chrome Plating)	6-C150-GV-WC9
391	G1461	STEM	6-C300-GV-CF8M/ ND
392	G1463	STEM	6-C300-GV-WCB
393	G1464	STEM	6-C300-RV/ SV-CF8M
394	G1466	STEM	6-C300-RV/ SV-WCB
395	G1473	STEM (with Hard Chrome Plating)	8-C300-GV-WC9
396	G1941	STEM	12-C600-GV-FL-CF8/ WCB
397	G1941a	STEM (with Hard Chrome Plating)	12-C600-GV-FL-WC9
398	G1989	STEM (with Hard Chrome Plating)	10-C600-GV-BW-GO-WC6/ WC9
399	G2057	STEM	20-C300-GV-BW-GO-WCB
400	G2080	STEM	24-C150-GV-FL-GO-WCB
401	G2081	STEM	24-C150-GV-BW-MO-WCB
402	G1481	STRIKER PLATE-K020	10-C300-GV-BW-HW-WCB
403	G1482	STRIKER PLATE-N209	3-C300-GV-FL-HW-WCB
404	G1483	STRIKER PLATE C-K268	4-C300-GV-BW-HW-WCB
405	G1484	STRIKER PLATE-K011	8-C150-GV-BW-HW-WCB
406	G1486	SUNK KEY-W057	16-C150-GV-FL-MO-WCB
407	G1493	SWITCH BRACKET-K325	12-C300-GV-BW-GO-WCB
408	G1500	THRUST PLATE-P366	10-C300-RV-BW-MO-WCB
409	G1500a	THRUST PLATE-P728	10-C300-RV-BW-MO-CD3MN
410	G1501	THRUST PLATE-P339	3-C300-RV-BW-HW-CF8M
411	G1502	THRUST PLATE	4-C300-RV
412	G1503	THRUST PLATE	6-C300-RV
413	G1507	TOP COVER-B004	12-C150-GV-FL-MO-WCB
414	G1522	TUBE	3-C600-GV-BW-HW-WCB
415	G1538	Felt Ring Washer -W057	16-C150-GV-FL-MO-WCB
416	G1991	TUBE OF BYPASS-F546	10-C600-GV-FL-MO-WCB-BP
417	G1608	Seat Ring Rough	2-C150-GV-BW-HW-WCB
418	G2149	Seat Ring Rough	22-C300-GV-BW-GO-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
419	G1676	Back Seat Rough	12-C300-GV-FL-GO-WC6/ NC
420	G1677	Back Seat Rough	14-C150-GV-FL-MO-WCB
421	G1678	Back Seat Rough	14-C300-GV-BW-GO-WC9/ C12A
422	G1679	Back Seat Rough	16-C150-GV-BW-MO-WCB
423	G1680	Back Seat Rough	16-C300-GV-FL-MO-WCB/ WC9
424	G2154	Back Seat Rough	22-C300-GV-BW-GO-WCB
425	G1765	Rib	16-C150-GV-FL-MO-WCB
426	G1771	Yoke Cover	6" 600 GV WCB
427	G1795a	NUT-5199	3-C150-FV-FL-CF8
428	G1811a	NUT-5172 / NUT-5182	4-C300-FV-BW-WCB/ WC9
429	G1828	STUD-5402	10-C150-GV-BW-MO-WCB
430	G1835	STUD-K248	4-C600-GV-FL-HW-WCB
431	G1839	SW FLANGE 2/ 300-A941	2-C300-SV-FL-HW-WCB
432	G1840	SW FLANGE 3/ 150-A942	3-C150-GV-FL-HW-WCB
433	G1841	SW FLANGE 3/ 300-A943	3-C300-RV-FL-MO-WCB
434	G1847	INDICATOR STUD-C434	16-C300-GV-BW-MO-WCB
435	G1853	INT.FLANGE-E423	16-C150-GV-FL-MO-WCB
436	G1859	INT. FLANGE-F508	8-C600-GV-RTJ-HW-WC6
437	G1870	CONN TUBE-E487	6-C150-GV-FL-HW-WCB
438	G1898	COVER-Z021	20-150-WCB-BW-FV
439	G1948	PIN-F768	12-C600-GV-BW-GO-WCB
440	G1954	TUBE-1782	12-C600-GV-FL-MO-WCB-BP
441	G1972	LUG-Z023	14-300-WCB-BW-FV/ WC9
442	G1987	SPACER-F506	10/ 12-C600-GV-FL-MO-WCB-BP
443	G1996	CAP PLATE-W002	14-C150-GV-FL-MO-WCB
444	G2001	KNOCK PIN D16X25-Z029	16-300SPL-WCB-BW-FV
445	G2002	LUG-Z022	16-300SPL-WCB-BW-FV/ WC9
446	G2009	KNOCK PIN D16X27-L805	20-150-WCB-BW-FV
447	G2010	KNOCK PIN D16X27-L805	20-150-WCB-BW-FV
448	G2011	LUG-Z021	20-150-WCB-BW-FV
449	G2011a	LUG-Z115	20-C150-FV-FL-CD3MN
450	G2025	CAP TUBE-N231	20-C150-GV-BW-GO-WCB-BP
451	G2026	CAP TUBE-N579	20-C150-GV-BW-MO-WCB-SG
452	G2030	INDICATOR RING-N224	20-C150-GV-FL-GO-WCB
453	G2040	TUBE-1780	20-C150-GV-BW-MO-WCB-SG
454	G2050	INDICATOR RING-N437	20-C300-GV-BW-GO-WCB
455	G2066	COVER-1083	24-C150-GV-BW-MO-WCB-SG
456	G2069	INDICATOR RING-1757	24-C150-GV-FL-GO-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
457	G2071	INTERMEDIATE FLG-B651	24-C150-GV-BW-MO-WCB
458	G2088	DISC NUT-0055	10-C300-RV-BW-MO-WCB
459	G2114	HUB-E489	4-C300-RV-BW-MO-WCB
460	G2119	BUSH (STEM)-P408	4-C300-RV-BW-HW-CF8M
461	G2120	NUT-P408	3-C300-RV-BW-HW-CF8M
462	G2123	NUT	4" 150 FV WCB
463	G2162	COVER TUBE-NG12	22-C300-GV-BW-GO-WCB
464	G2163	CAP PLATE-W004	22-C300-GV-BW-GO-WCB
465	G2163b	CAP PLATE-W004	16/ 18-C300-GV-BW-GO-WCB
466	G2164	PIN-N398	22-C300-GV-BW-GO-WCB
467	G2251	STEM-E495 Extension Spindle	24-C150-GV-GO-WCB
468	G2254	Body Machining	18-C300-FV-BW-WCB
469	G2256	Body Machining	2-C600-GV-BW-CF8M
470	G2257	Body Machining	12-C600-GV-FL-WCC/ WCB/ WC9
471	G2263	Stem	12-C300-RV-BW-MO-WCB
472	G2263a	Stem	12-C300-RV-BW-MO-CF8M
473	G2263b	STEM-P729	12-C300-SV-BW-GO-CD3MN
474	G2264	Seat Ring Final (stellite)	12-C300-RV-BW-MO-WCB
475	G2264a	Seat Ring Final	12-C300-RV-BW-MO-CF8M
476	G2264b	SEAT RING Final Stellite	12-C300-SV-FL-GO-CF8M
477	G2264c	Seat Ring Final (stellite)	12-C300-SV-BW-GO-CD3MN
478	G2265	Seat Ring Rough	12-C300-RV-BW-MO-WCB
479	G2267	Dis Rough + Final machining (except seat	12-C300-RV-BW-GO-WCB
480	G2267a	Dis Rough +	12-C300-SV-BW-GO-CD3MN
481	G2268	Disc Nut	12-C300-RV-BW-MO-WCB
482	G2268a	Disc Nut	12-C300-RV-BW-MO-CF8M
483	G2268b	DISC NUT-P729	12-C300-SV-BW-GO-CD3MN
484	G2269	Back Seat Final	12-C300-RV-BW-MO-WCB
485	G2269a	BACK SEAT BUSH-P582	12-C300-SV-FL-GO-CF8M
486	G2269b	BACK SEAT ASSY-P729	12-C300-SV-BW-GO-CD3MN
487	G2270	Back Seat Rough	12-C300-RV-BW-MO-WCB
488	G2272	Gland Flange	12-C300-RV-BW-MO-WCB
489	G2273	Gland Follower	12-C300-RV-BW-MO-WCB
490	G2274	Stopper	12-C300-RV-BW-MO-WCB
491	G2275	Sunk Key	12-C300-RV-BW-MO-WCB
492	G2276	Thurst Plate	12-C300-RV-BW-MO-WCB
493	G2276a	THRUST PLATE-P729	12-C300-SV-BW-GO-CD3MN
494	G2278	Yoke Machining	6-C150-GV-BW-HW/ MO-CF8M-ND

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
495	G2281	Wedge Rough	6-C300-GV-BW-HW-CF8M-ND
496	G2286	Yoke Machining	8-C300-GV-HW/M O-CF8M-ND
497	G2290	Wedge Rough	10-C150-GV-CF8M-ND
498	G2292a	Seat Ring Rough	10-C300-RV-WCB
499	G408	Yoke Machining	6-C150-GV-HW-WCB/ WCC NC YOKE
500	G434	Body Machining	6-C300-RV-BW-WCB/ WCC/ WC6/ WC9
501	G52	Body Machining	2-C150-FV-FL-CF8M/ CF8
502	G2350	Body Machining	14-C600-RV-BW-WCB/ WCC/ WC9
503	G2352	Body Machining	16-C600-RV-BW-WCB/ WCC/ WC9
504	G2353	Disk Final	14-C600-RV-BW-WCB/ WCC/ WC9
505	G2359	Disk Nut	14-C600-RV-BW-WCB/ WCC/ WC9/ C12A
506	G2360	Disk Nut	16-C300-RV-BW-WCB/ WCC/ WC9/ C12A
507	G2361	Disk Nut	16-C600-RV-BW-WCB/ WCC/ WC9/ C12A
508	G2362	Seat Ring Final	14-C600-RV-BW-WCB/ WCC/ WC9
509	G2363	Seat Ring Final	16-C300-RV-BW-WCB/ WCC/ WC9
510	G2363a	Seat Ring Final	18-C300-RV-BW-M O-C12A
511	G2364	Seat Ring Final	16-C600-RV-BW-WCB/ WCC/ WC9
512	G2365	Stem	14-C600-RV-M O-WCC
513	G2366a	Stem with Hard Chrome plating	18-C300-RV-BW-M O-C12A
514	G2367	Stem	16-C600-RV-BW-M O-WCC
515	G2368	Gland Flange	14-C600-RV-BW-M O-WCC
516	G2369	Gland Flange	16-C300-RV-BW-M O-WCB
517	G2370	Gland Flange	16-C600-RV-BW-M O-WCC
518	G2371	Key	14-C600-RV-BW-M O-WCC
519	G2372	Key	16-C600-RV-BW-M O-WCC
520	G2373	Stopper	14-C600-RV-BW-M O-WCC
521	G2374	Stopper	16-C300-RV-BW-M O-WCB
522	G2375	Stopper	16-C600-RV-BW-M O-WCC
523	G2376	Sunk Key	16-C300-RV-BW-M O-WCB
524	G2377	Yoke Machining	14-C600-RV-BW-M O-WCC
525	G2397	Body Machining excludes Hinge pin drilling, top flange drilling and top flange machining.	24-C150-FV-FL-WCB
526	G2397a	Body Machining excludes Hinge pin drilling, top flange drilling and top flange machining.	24-C150-FV-FL-CF8M
527	G2397b	Body Machining excludes Hinge pin drilling, top flange drilling and top flange machining.	24-C150-FV-FL-CD3MN
528	G2400	Seat Ring Final	24-C150-FV-FL-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
529	G2402	SCREW PLUG M 56X2-5107	24-C150-FV-FL-WCB
530	G2403	BOLT-5192	24-C150-FV-FL-WCB
531	G2403a	BOLT-Z094	24-C150-FV-FL-CF8M
532	G2404	RIGHT/ LEFT SIDE LUG	24-C150-FV-FL-WCB
533	G2404a	RIGHT/ LEFT SIDE LUG	24-C150-FV-FL-CF8M
534	G2405	SEATRING ROUGH-NH50	14-C600-RV-WCB
535	G2406	SEAT RING ROUGH-NH51	16-C300-RV-WCB
536	G2431	BODY MACHINING	10-C300-FV-FL-CF8/ CF8M
537	G2435	LOCK HOOK-W789	20-C300-GV-BW-GO-WCB
538	G2437	Body Machining	10-C300-GV-FL-WCB/ WC9 NC
539	G2438	Dis Rough + Final machining (except seat	12-C300-SV-WCB
540	G2438a	m/ c)-P639	12-C300-SV-FL-GO-CF8M
541	G2440	Seat Ring Rough	16-C600-RV-WCB
542	G2444	SPACER-N202	3-C150-GV-WCB/ CF8M
543	G2445	SPACER-N203	4-C150-GV-WCB/ CF8M
544	G2446	SPACER-N204	6-C150-GV-WCB
545	G2447	SPACER-N212	6/ 8-C300-GV-WCB/ CF8M
546	G2448	SPACER-N213	10-C300-GV-WCB/ CF8M
547	G2449	Disc Nut	16-C150-FV-FL-WCB
548	G2449a	DISC NUT-Z114	16-C150-FV-FL-CD3M N
549	G2450	Body Machining	26-C300-GV-BW-WCB
550	G2451	Wedge Rough	26-C300-GV-BW-WCB
551	G2451a	Wedge Sittng - before welding	26-C300-GV-BW-WCB
552	G2452	Bonnet Machining	26-C300-GV-BW-WCB
553	G2454	Lantern Ring	10-C300-RV-CF8M
554	G2456	Body Machining	14-C300-FV-BW-CF8M
555	G2460	Yoke Machining	10-C300-GV-HW/ M O-CF8M NC
556	G2461	Body Machining	16-C150-FV-FL-WCB
557	G2461a	Body Machining	16-C150-FV-FL-CD3M N
558	G2462	Cover	16-C150-FV-FL-WCB
559	G2463	ARM ASSY	16-C150-FV-FL-WCB
560	G2466	Hinge Pin	16-C150-FV-FL-WCB
561	G2467	Bottom Flange	12-C150-GV-WCB
562	G2472	Yoke Machining	32-C150-GV-MO-WCB
563	G2473	Body Machining	32-C150-GV-BW-WCB
564	G2474	Nut	24-C150-FV-WCB
565	G2486	Body Machining	20-C150-FV-FL-WCB

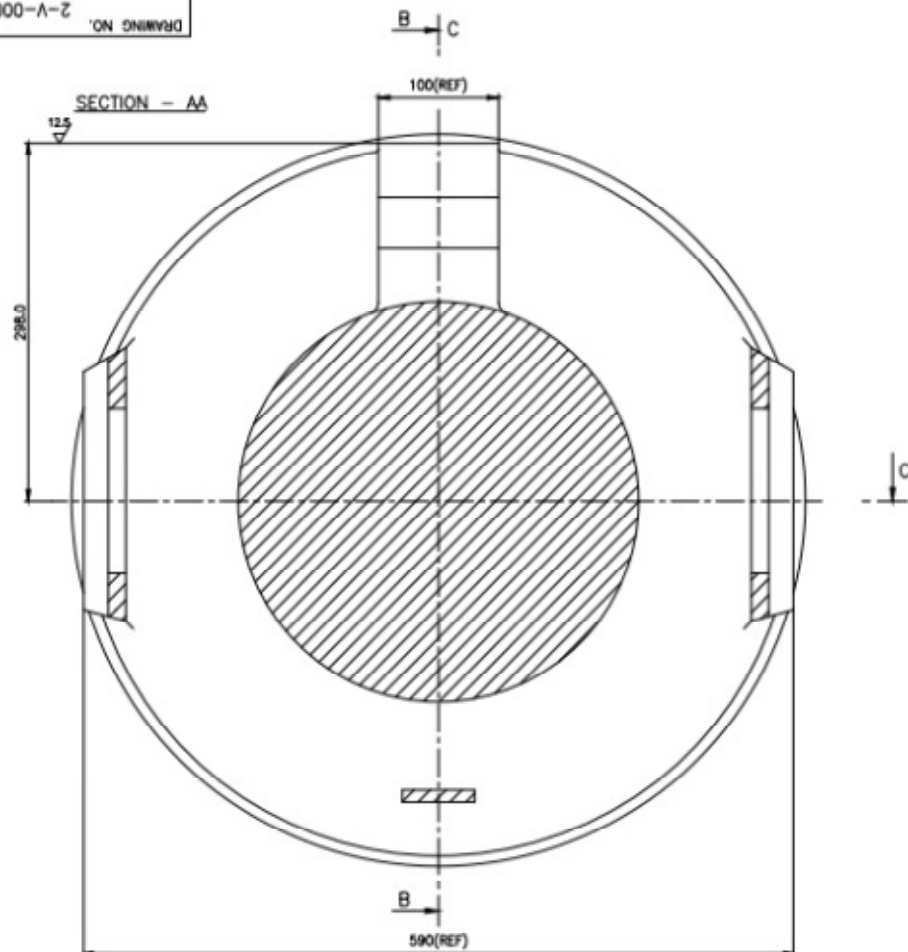
S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
566	G2486a	Body Machining	20-C150-FV-FL-CD3MN
567	G2488	Disk Rough Stellite	2-C300-RV-CF8M
568	G2489	Lock Plate	4-C300-RV-CF8M
569	G2490	Seat Ring Rough	26-C300-GV-BW-WCB
570	G2491	Seat Ring Rough	32-C150-GV-BW-WCB
571	G2497	SCREW PLUG M56X3-U581	24-C150-FV-FL-CF8M
572	G2509	Lug Machining	16-C150-FV-FL-WCB
573	G2509a	LUG-Z114	16-C150-FV-FL-CD3MN
574	G2511	Bonnet Machining	32-C150-GV WCB
575	G2519	Nut	24-C150-FV-FL-CF8M
576	G2519a	NUT-Z116	24-C150-FV-FL-CD3MN
577	G2521	Seat Ring final	26-C300-GV-BW-WCB
578	G2523	Seat Ring Rough	18-C150-FV-FL-WCB
579	G2525	Seat Ring final	32-C150-GV-WCB
580	G2526	Wedge Rough	32-C150-GV-WCB
581	G2526a	Wedge Slitting - after welding	32-C150-GV-WCB
582	G2527	Stem Machining	32-C150-GV-WCB
583	G2528	Spacer	3/ 4-C300-SV-FL-HW-WCB
584	G2529	Spacer	16/ 18-C300-RV-BW-M O-WCB
585	G2532	Spacer	6/ 8-C300-SV-FL-HW-WCB
586	G2533	Spacer	2/ 3-C600-GV-FL-HW-WCB
587	G2535	Spacer	6/ 8-C600-GV-FL-HW-WCB
588	G2536	Spacer	2/ 3-C600-GV-FL-HW-CF8M
589	G2537	Spacer	32-C150-GV-BW-GO-WCB-BP
590	G2537a	Spacer	26-C300-GV-BW-M O-WCB
591	G2538	Spacer	10/ 12-C150-GV-BW-HW-WCB
592	G2539	Spacer	2/ 3/ 4-C300-GV-BW-HW-WCB
593	G2540	Spacer	14/ 16/ 18-C150-GV-FL-MO-WCB
594	G2541	Spacer	6/ 300-C150-GV-BW-HW-CF8M
595	G2542	Spacer	10/ 12-C300-RV-BW-M O-WCB
596	G2463a	ARM Assembly - CF8	16-C150-FV-FL (Z089S182)
597	G2548	Seat Ring Final	2-C300-FV-BW-WC9
598	G2550a	ARM-CF8	14-C150-FV-FL (Z082S182)
599	G2551a	FLAP-CF8	14-C150-FV-FL (Z082S182)
600	G2552a	Seat Ring Final -CF8	14-C150-FV-FL (Z082S182)
601	G2550b	ARM	14-C150-FV-FL-WCB
602	G2551b	FLAP Final	14-C150-FV-FL-WCB
603	G2552b	Seat Ring Final	14-C150-FV-FL-WCB

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
604	G2553	BODY	18-C150-FV-FL-WCB
605	G2555	Arm Assembly	18-C150-FV-FL-WCB
606	G2557	Seat Ring Final	18-C150-FV-FL-WCB
607	G2559	Disk Final	14-C600-SV-FL-GO-WCC
608	G2560	Disk Rough	14-C600-SV-FL-GO-WCC
609	G2563	LANTERN RING	32-C150-GV-BW-MO-WCB
610	G2564	BYPASS TUBE-NH97	26-C300-GV-BW-MO-WCB-BP
611	G2567	LANTERN RING-NG07	26-C300-GV-BW-MO-WCB-SG
612	G2497a	SCREW PLUG (B7)	24-C150-FV-FL-WCB
613	G2497b	SCREW PLUG M56X3-Z116	24-C150-FV-FL-CD3MN
614	G2584	Body Machining	5-C300-RV/ SV-BW-WCB/ WC9
615	G1429a	STEM (F316)	2-C300-SV-FL-HO-WCB-SG
616	G2585	INTERMEDIATE FL -W200	22-C300-GV-BW-MO-WCB
617	G90	Body Machining	3-C150-GV-FL-CF8/ CF8M
618	G2572	EYE BOLT	16-C600-RV-BW-MO-WCC
619	G2562	GLAND FLANGE	32-C150-GV-BW-MO-WCB
620	G2603a	GUIDE BRACKET-E513	14-C150-GV-FL (Extension Spindle)
621	G2603b	GUIDE BRACKET-E518	12-C150-GV-FL (Extension Spindle)
622	G2604a	LOCK PLATE-E513	14-C150-GV-FL (Extension Spindle)
623	G2604b	LOCK PLATE-E518	12-C150-GV-FL (Extension Spindle)
624	G2613	Parting of PIPE DIA 457 X 42 X 6000 SA335P91 + Rough Seat Ring Machining	18-C300-GV-BW-GO-C12A
625	G2614	Parting of PIPE OD 508 X 80 X 6000 - SA335P91 + Rough Seat Ring Machining	18-C300-RV-BW-MO-C12A
626	G2615	Parting of PIPE DIA 406.4 X 42 X 6000 SA335P91 + Rough Seat Machining	14-C300-GV-BW-MO-C12A
627	G2616	LOCK PLATE	16-C300-GV-BW-GO-WCB
628	G2617	GLAND FOLLOWER-N827	32-C150-GV-BW-MO-WCB-SG
629	G2624	Body Machining	28-C300-GV-BW-WCB
630	G96b	Body Machining	2-1/2-C150-GV-FL-HO-WCB
631	G96c	Body Machining	2-1/2-C150-GV-FL-HO-CF8
632	G805d	COMPANION FLANGE (Grooved) - UA87	2-1/2-C150-GV-FL-HO-WCB
633	G805b	COMPANION FLANGE (Grooved)-UA82	3-C300-GV-FL-HO-WCB
634	G805c	COMPANION FLANGE (Grooved)-U631	3-C600-GV-FL-HO-WCC
635	G987a	GLAND FOLLOWER-NH51	16-C400-RV-BW-MO-WCB

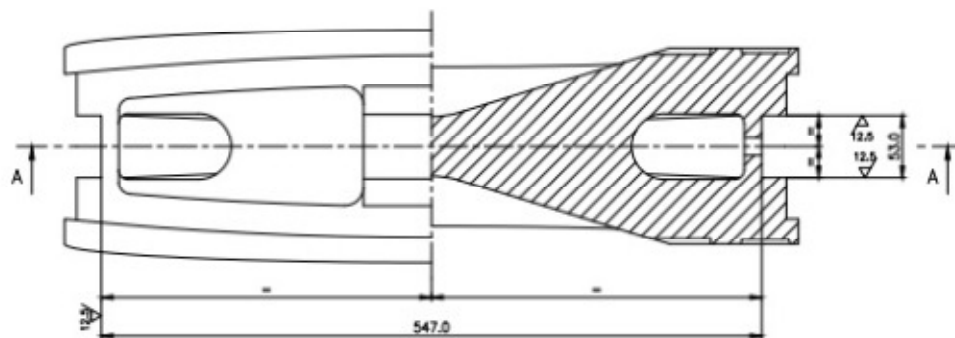
S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
636	G2437a	Body Machining	10-C300-GV-FL-CF8 NC
637	G2603c	GUIDE BRACKET-E524	12-C150-GV-FL-HO-WCB
638	G2604c	LOCK PLATE-E524/	10/ 12-C150-GV-FL-HO-WCB

DRAWING NO. 2-V-0000-14236

SECTION - AA

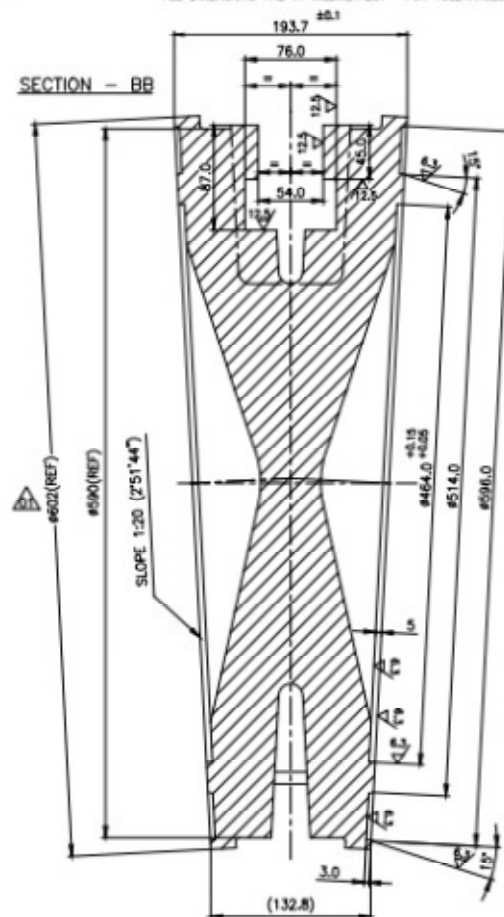


SECTION - CC



ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / GP

SECTION - BB



NOTE:

01. BREAK ALL SHARP CORNERS.

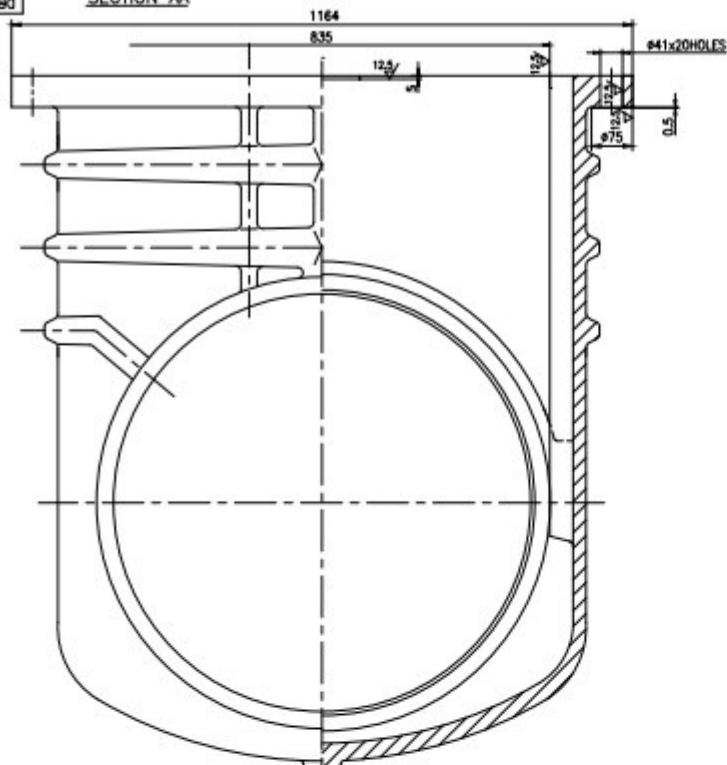
02	CASTING	92 201 747	ASTM A217 WCB - CERTIFY	NORMALISED & TEMPERED	20	204	214	2-V-NET-14236/01	007
01	CASTING	92 201 746	ASTM A216 WCB - CERTIFY	NORMALISED	10	204	214	93 201 261 5000	007
SL	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING NO.	ITER N°

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT, TRICHYRAIPALLY - 620014.									
DEPT	360-120	SCALE	NTS	WEIGHT (KG)	REF TABLE	REFERENCE INFORMATION			
CODE	320					CAD :C214236			
TITLE WEDGE ROUGH (22°-C300)						CAD CODE U 01	DRAWING NO. 2-V-0000-14236		REV 01

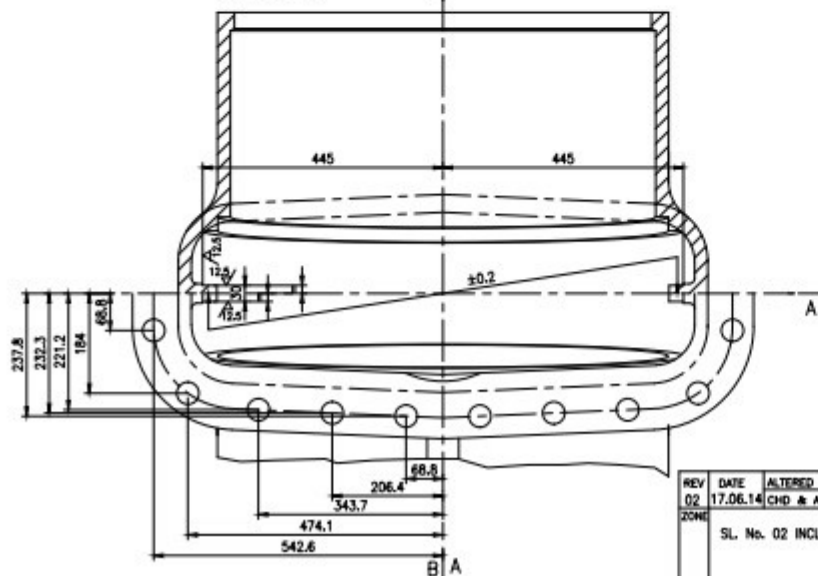
REV	DATE	ALTERED : R.P.SINGH
01	10.11.17	CHD & APPD : SSK & KRS
ZONE	DIMENSIONS #602 WAS #610	

CAUTION: The information on this drawing is for reference only. It must not be used directly or indirectly in any way detrimental to the interest of the company.

SECTION AA

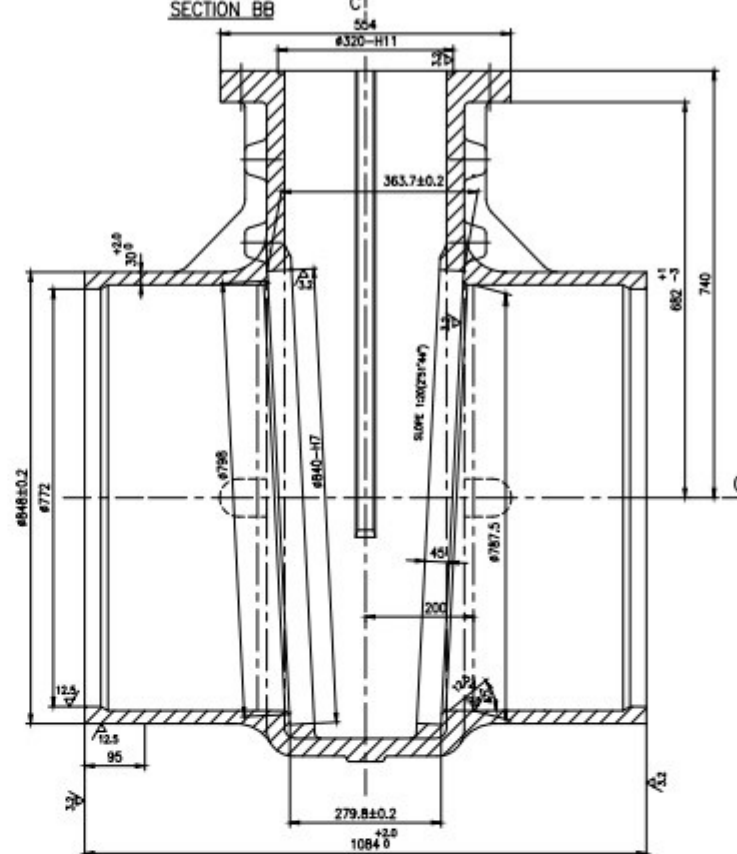


SECTION CC



ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP

SECTION BB



#320-H11	+0.360
	0
#840-H7	+0.090
	0

NOTE:

* 01 , QUALITY PROCEDURE AS APPLICABLE FOR SPECIAL CLASS VALVE

* 02	-	92203214	SA217 WC9 ATTEST	NT	20	1353	1505	2.V.NHB4.08327/1 932032920000	00
01	-	92201219	SA216 WCB ATTEST	NR	10	1353	1505	2.V.NB29.08327/1 931101420000	00
SL NO	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (LBS)	GROSS WT (LBS)	DRAWING NO COMPANY CODE	ITEM

3	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT
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BHARAT HEAVY ELECTRICALS LTD.
UNIT: HIGH PRESSURE BOILER PLANT,
TRICHINAPALLI-620014.

	NAME	SIGN	DATE
DRN	V. BAIRAKIAN		18.01.01
CHD	R.L. NARAYANAN		19.01.01
APPO	M. RAJAKUMAR		19.01.01

DEPT	VL
CODE	320
TITLE	

SCALE	WEIGHT (NG)
N T S	-

REFERENCE INFORMATION	
CAD REF. NO: C208327	

BODY

32"/150CLASS

CARD CODE	DRAWING NO.
U 01	2-V-0000-08327

A2

CAUTION: The information on this document is the property of BUNARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

REV	DATE	ALTERED	A.MARIMUTHU
03	20.08.14	CHD & APPD	MS & SSK

NOTE- 01 INCLUDED

NOTE- 01 INCLUDE

REV 02	DATE 17.06.14	ALTERED CHD & APPD SSK & KRS	REV 01	DATE 07.09.01	ALTERED CHD & APPD WRK
ZONE	SL. No. 02 INCLUDED		ZONE	DIM. 810 INCLUDED DCN NO. HM 0494	

SI. No. 02 INCLUDE

DIM. 810 INCLUDED
DCIN NO. HM 0494

	BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT 433, INDUSTRIAL COMPLEX GOINDWAL SAHIB DISTT. TARN TARAN- PUNJAB – 143422	No.BHEL:IVP: SC:Isolating Valve:AD 2022-23/01 Dated 29.06.2022
NOTICE INVITING APPLICATIONS FOR REGISTRATION OF SUB CONTRACTORS		
BHARAT HEAVY ELECTRICALS LIMITED [BHEL] is manufacturing Industrial Valves and other Boiler accessories at its Industrial Valves Plant, Goindwal Sahib unit. Machining Vendors are required for machining of various castings & components. Annual procurement value for the FY 2022-23 – Rs 3 lakhs. Expression of interest and applications for registration are invited from sub-contractors (BHEL encourages procurement from Micro and Small Enterprises (MSEs), MSEs are requested to apply for registration) for doing the machining job of various components of Isolating Valves. Various work centers involved in the machining job work shall be VTL, Horizontal boring machine, Drill machine, etc. Chrome plating may also be required on certain components post machining.		
Isolating Valves	Casting machining of body and other machining components. List of components, where machining vendors are required, is attached herewith as Annexure-I. Sample drawings of some components are also attached. (S.no of list – 8 and 25)	
BHEL is looking for prospective Sub Contractors for above detailed job work for BHEL. BHEL shall evaluate the vendors as per its established vendor selection, evaluation and registration procedure. Supplier registration can be done online : https://supplier.bhel.in/ BHEL invites such vendors to visit its above located plant on any working day from Monday to Saturday between 0900 Hrs to 1730 Hrs and contact undersigned for any clarification regarding:		
Items details and requirement		Vendor registration form/procedure
Manoj Kumar Dy Manager(Sub-Cont)		Gopal Singh Sr Manager(Sub-Cont)
01859-224643		Phone: 01859-224669
8427033225		Mob: 9410395245
mk@bhel.in		gopals@bhel.in
BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT, 433, INDUSTRIAL COMPLEX, GOINDWAL SAHIB, DISTT. TARN TARAN, PUNJAB – 143 422		

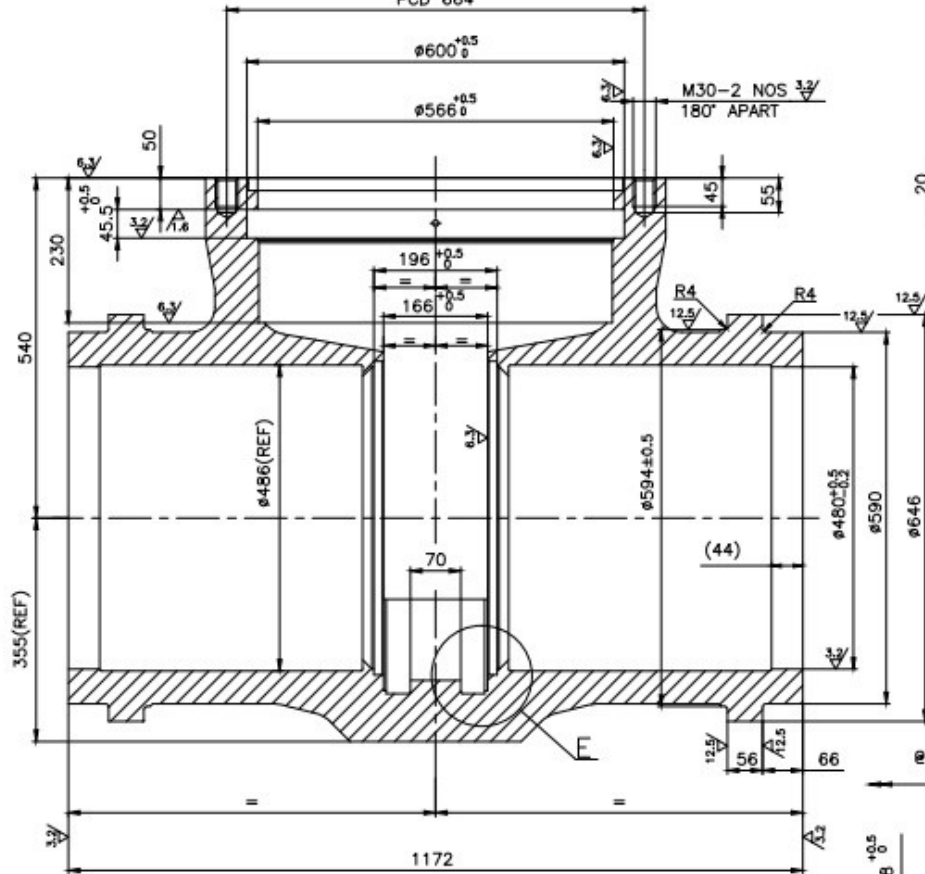
Isolating Valve
List of Components

Annexure I

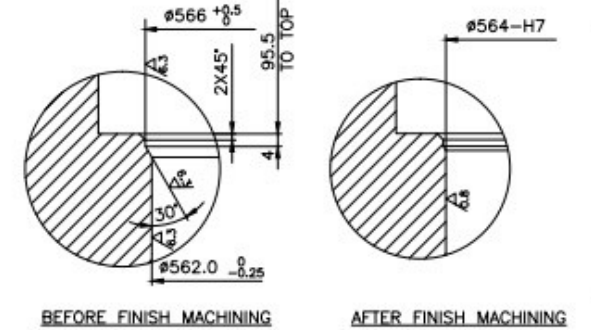
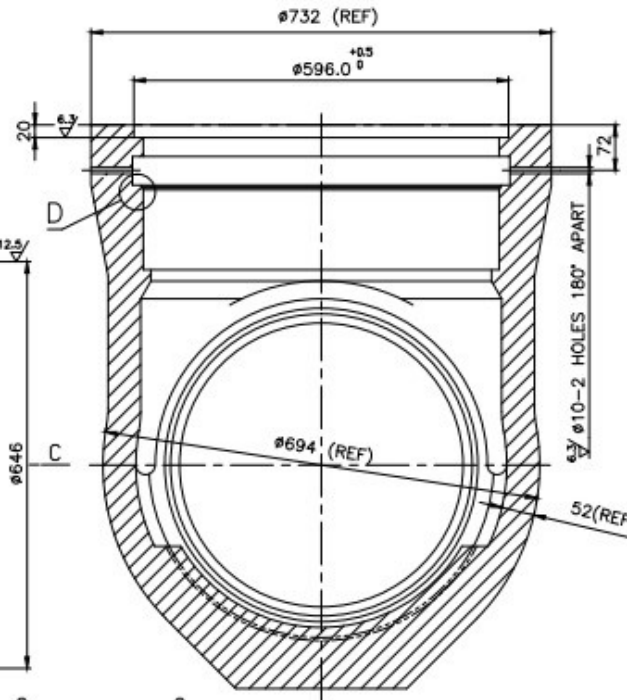
S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
1	G2408	Body Machining	750-C600/ 900-HRHIV-BW-WCC
2	G2412	Adjusting Screw	450-C500-CRHIV-BW-WCB
3	G2413	Adjusting Screw	700-C500-CRHIV-BW-WCC
4	G2412b	Adjusting Screw	550-C900-HRHIV-BW-WC9
5	G2412c	Adjusting Screw	750-C500-CRHIV-BW-WCC
6	G2414	Hex Domed Screw -3202	750-C600-CRHIV-BW-WCC
7	G2422	SUPPORT RING-3201/ 3200/ 3396	450/ 500-C900-HRHIV-BW-WC9
8	G2425	SPLIT RING ASSY-3245/ 3316	750-C600-CRHIV-BW-WCC
9	G2425a	SPLIT RING ASSY	700-C600-CRHIV-BW-WCC
10	G2432	COVER SHEET	750-C600-CRHIV-BW-WCC
11	G2433	DISK-3245	750-C600-CRHIV-BW-WCC
12	G2433a	DISK-3204	700-C600-CRHIV-BW-WCC
13	G2434	LOCATING SCREW-3200	450-C500-CRHIV-BW-WCB
14	G2469	DISK-3200	450-C500-CRHIV-BW-WCB
15	G2470	BONNET-3200	450-C500-CRHIV-BW-WCB
16	G2483	Support Ring-3208/ 3390	550-C900-HRHIV-BW-WC9/ C12A
17	G2510	Bonnet Machining	550-C900-HRHIV-BW-WC9/ C12A
18	G2517	Locking Plate-3200	450-C500-CRHIV-BW-WCB
19	G2518	Locking Plate-3208/ 3390	550-C900-HRHIV-BW-WC9/ C12A
20	G2520	Seat Ring final	550-C900-HRHIV-BW-WC9/ C12A
21	G2530	Split Ring Assy-3200/ 3396	450/ 500-C500-CRHIV-BW-WCB/ WCC/ WC9
22	G2531	Split Ring Assy-3208/ 3390	550-C900-HRHIV-BW-WC9/ C12A
23	G2470a	Bonnet	450-C900SPL-HRHIV-BW-WC9
24	G2414a	DOMED SCREW	450-C500-CRHIV-BW-WCB
25	G2578	Body Machining	550-C900-HRHIV-BW-WC9
26	G2578a	Body Machining	550-C900-HRHIV-BW-C12A
27	G2573	SEAT RING Final	450-C500-CRHIV-BW-WCB/ WC9
28	G2574	Body	500-C500-CRHIV-BW-WCC/ WC9
29	G2576	Seat Ring Rough	500-C500-CRHIV-BW-WCC
30	G2575	Seat Ring Final	500-C500-CRHIV-BW-WCC

SECTION-BB

A C
PCD 664



SECTION-AA

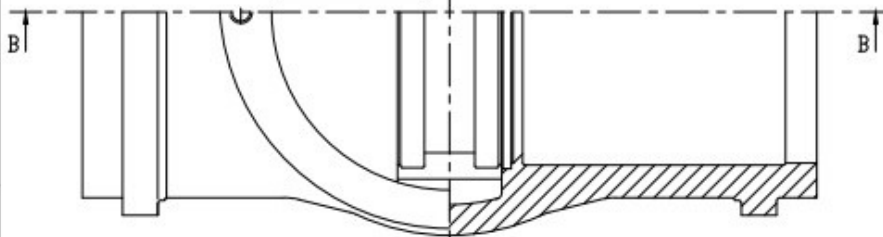


DETAIL-D

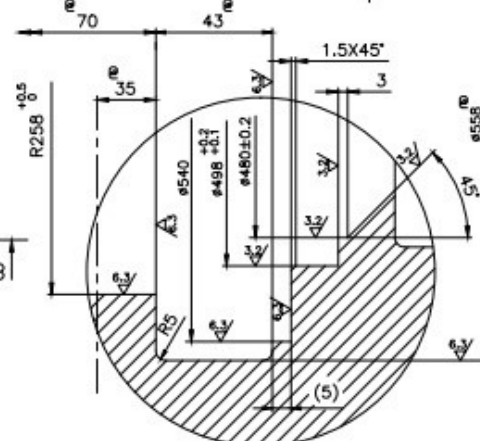
NOTE:-

1. UNSPECIFIED SHARP CORNERS TO BE CHAMFERED TO 1X45°.
2. ALLOWABLE DEVIATIONS FOR DIMENSION WITHOUT SPECIFIED TOLERANCE REFER: APPLICABLE QUALITY PROCEDURE.

SECTION-CC



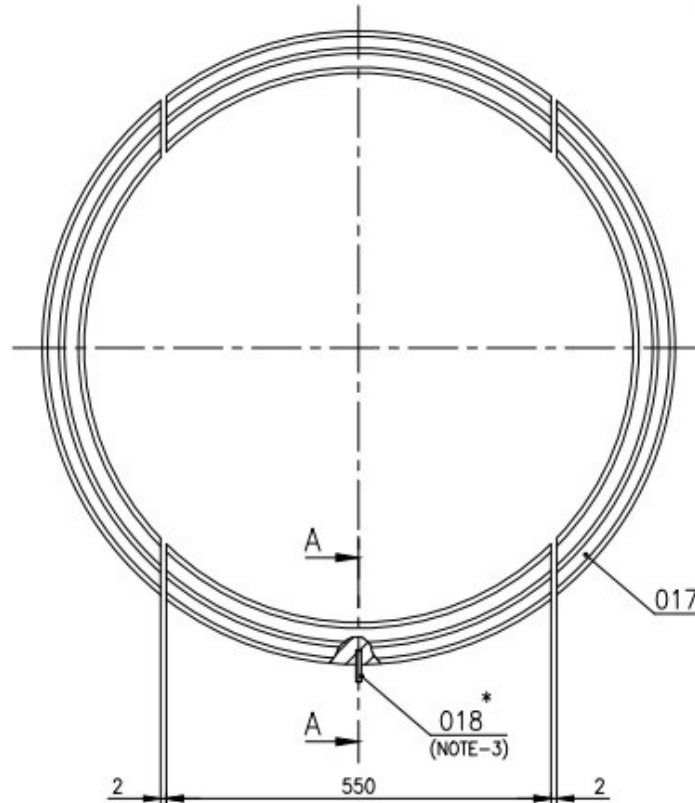
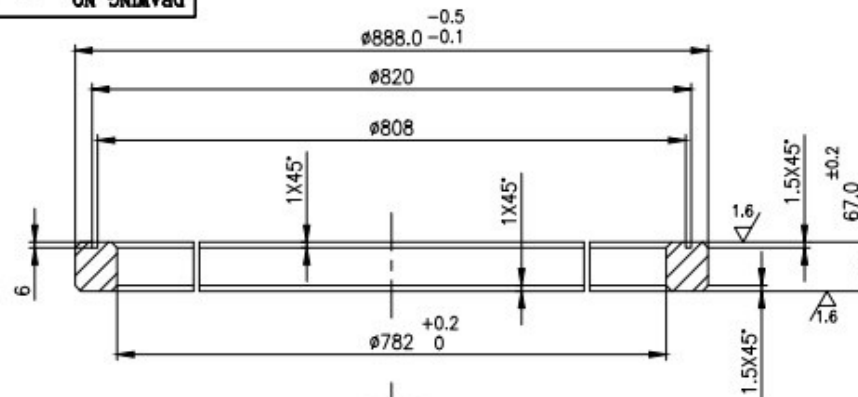
DETAIL-E



REV	DATE	ALTERED	M.SRINIVASAN	REV	DATE	ALTERED	M.SRINIVASAN	REV	DATE	ALTERED	M.SRINIVASAN	REV	DATE	ALTERED	M.SRINIVASAN	REV	DATE	ALTERED	M.SRINIVASAN
05	21.12.13	CHD & APPD	SSK & KRS	07	06.06.13	CHD & APPD	SSK & KRS	06	06.07.11	CHD & APPD	M.RAJAKUMAR	05	18.06.09	CHD & APPD	M.RAJAKUMAR	04	20.03.09	CHD & APPD	P.BOOMINATHAN
DIMENSION 66 & 1172 WERE 64 & 1168 ±3.2				SL.No. 02 INCLUDED				DIMENSION (44) INCLUDED				DIMENSION 70, 43, 558 & (5) INCLUDED.				DIM. 558, 486, 52 WERE 544, 470 & 63 RESPLY. DIM. 540 INCLUDED.			
DCP : 801664								DCP:801194				DCP:800976				DCP:800936			

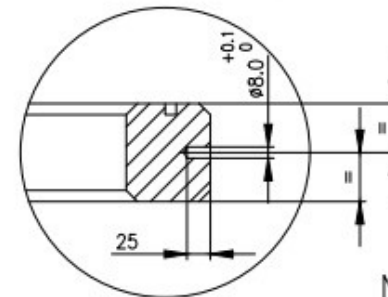
02	CASTING	92203133	SA217 C12A ATTEST	NORMALISED& TEMPERED	20	1270	1440	2-V-3390-05612	932030420000	001
01	CASTING	92033824	SA217 WC9 ATTEST	NORMALISED& TEMPERED	20	1270	1440	2-V-3208-05612/06	931663650000	001
SL No.	DESCRIPTION	MATL CODE	MATL SPEC	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	COMPONENT CODE	ITEM No
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT										
BHARAT HEAVY ELECTRICALS LTD. UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPPALLI-620014.										
DRN			NAME		SRIN		DA			
CHD			N.P.ESWARAN				22.05.93			
APPD			N.NAGARAJAN				22.05.93			
REFERENCE INFORMATION										
COMPONENT CODE:93 165 365 C										
DRAWING NO. 2-V-0000-05612										
BODY (550mm-C900)										
U 01										

CAUTION: The information on this drawing is the property of BHARAT HEAVY ELECTRICALS LTD. and should not be used directly or indirectly in any way detrimental to the interest of the company.



REV	DATE	ALTERED	R.P.SINGH	REV	DATE	ALTERED	M.SRINIVASAN
04	19.04.18	CHD & APPD	SSK & KRS	03	15.02.16	CHD & APPD	SSK & KRS
SL.NO. 03 INCLUDED				NOTES SL.NO. 2 MODIFIED.			

SECTION-AA



SECTION-AA

NOTES

01. BREAK ALL SHARP CORNERS.

02. HARD Cr. PLATING TO BE CARRIED OUT ON FINISHED SPLIT RINGS TO A THICKNESS OF 0.015 MM TO 0.03 MM.

* 03. FIX ONE CYLINDRICAL PIN Ø8X55 FOR ASSEMBLING WITH BODY AT THE TIME OF ASSEMBLY.

03	CYL PIN Ø8X55	-	-	-	-	0.01	-	BPS 41702	018
	-	92 203 433	ASTM A182 F91 NT, CERTIFY	QT	40	72.0	-	417 02 08055 00	
02	CYL PIN Ø8X55	-	-	-	-	0.01	-	3-V-3311-24536	017
	-	92 203 249	AISI 4140 CERTIFY.	QT	40	72.0	-	93 203 960 0000	
01	CYL PIN Ø8X55	-	-	-	-	0.01	-	BPS 41702	018
	SUGGESTED SIZE PL68 -892 X 892	--	SA387 GR.22 CERTIFY.	NORMALISED & TEMPERED	20	71.99	333.6	417 02 08055 00	
SL No.	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
								COMP. CODE	

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECTBHARAT HEAVY ELECTRICALS LTD.,
UNIT: HIGH PRESSURE BOILER PLANT.
TIRUCHIRAPALLI-620014.DEPT
VL
CODE 320SCALE
NTSWEIGHT (KG).
72.0

REFERENCE INFORMATIONS

CAD : F324536

TITLE

SPLIT RING

CARD
CODE
U 01

DRAWING NO.

3-V-0000-24536

REV

04

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

6.3 / 1.6

	BHARAT HEAVYELECTRICALS LIMITED INDUSTRIAL VALVES PLANT 433, INDUSTRIAL COMPLEX GOINDWAL SAHIB DISTT. TARN TARAN- PUNJAB – 143422	No.BHEL:IVP: SC:TOA:AD 2022-23/01 Dated 29.06.2022
NOTICE INVITING APPLICATIONS FOR REGISTRATION OF SUB CONTRACTORS		
BHARAT HEAVY ELECTRICALS LIMITED [BHEL] is manufacturing Industrial Valves and other Boiler accessories at its Industrial Valves Plant, Goindwal Sahib unit. Vendors are required for job work for components of TOA Valves (Details as per enclosed list). Annual procurement value for the financial year FY2022-23 is Rs 3 Lakh		
Expression of interest and applications for registration are invited from sub-contractors (BHEL encourages procurement from Micro and Small Enterprises (MSEs), MSEs are requested to apply for registration) for doing the machining job of various components of TOA Valves. Various work centers involved in the machining jobs shall be CNC, VMC, Slotter. Chrome plating/nickel plating/Heat treatmeant/nitriding may also be required on certain components		
TOA Valves	Machining of Body/Yoke castings, Bonnet, Disc and various other items such as Disc Nut, Stopper, Yoke stopper, Yoke clamp, Handle boss, Set Pin, Retaining Ring, Sunk Key etc. Some items may also require Tuffriding/Liquid Nitriding, chrome plating, nickel plating, heat treatment post machining. List of components, where machining vendors are required, is attached herewith as Annexure-I. Sample drawings of some components are also attached. S No of the list 01 and 42.	
BHEL is looking for prospective Sub Contractors for above detailed job work for BHEL.		
BHEL shall evaluate the vendors as per its established vendor selection, evaluation and registration procedure. Supplier registration can be done online https://supplier.bhel.in/		
BHEL invites such vendors to visit its above located plant on any working day from Monday to Saturday between 0900 Hrs to 1730 Hrs and contact undersigned for any clarification regarding:		
Items details and requirement	Vendor registration form/procedure	
Gopal Singh Sr Manager(Sub-Cont)	Gopal Singh Sr Manager(Sub-Cont)	
Phone: 01859-224669	Phone: 01859-224669	
Mob: 9410395245	Mob: 9410395245	
gopals@bhel.in	gopals@bhel.in	
BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT, 433, INDUSTRIAL COMPLEX, GOINDWAL SAHIB, DISTT. TARN TARAN, PUNJAB – 143 422		

TOA Valves
List of components

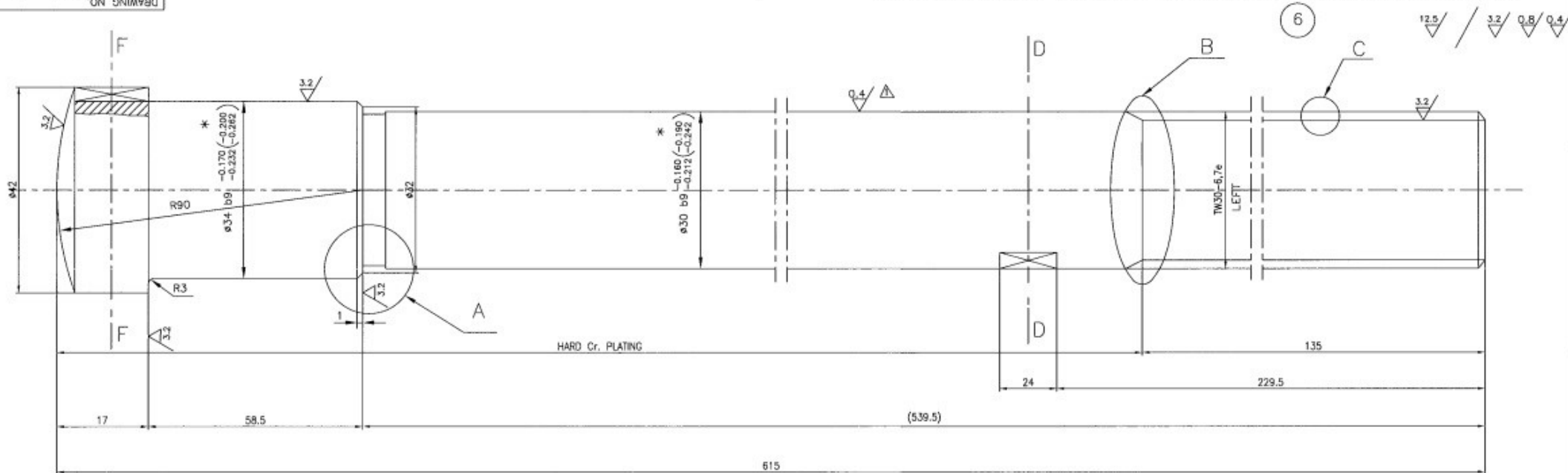
Annexure I

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
1	G2306	Stem	2.5-C1500-GLV/ GNV-HO/ MO-WCC
2	G2307	Stem	4-C1500-GLV/ GNV-BW-HO/ MO-WCB
3	G2307b	Stem	3-C1500-GLV/ GNV-BW-HO/ MO-WCB
4	G2310	Yoke Machining	5-C1500-GNV-BW- MO-WC9
5	G2312a	Bonnet Final	2.5-C1500-GLV-BW-HO/ MO-WCC/ WC9
6	G2312b	Bonnet Final	3-C1500-GLV-BW-HO-WC9
7	G2312c	Bonnet Final	4-C1500-GLV-BW-HO-WCB
8	G2312d	Bonnet Final	5-C1500-GLV-BW-GO-WC9
9	G2313a	Body Rough	2.5-C1500-GLV-BW-HO-WC9
10	G2313b	Body Rough	3-C1500-GLV-BW-HO-WC9
11	G2314	Disc Rough	2" to 8" Class 1500
12	G2315	Bonnet Rough	2" to 8" Class 1500
13	G2317	Washer	2" to 8" Class 1500
14	G2319a	Gland Flange	2.5-C1500-GLV-BW-HO-WC9
15	G2319b	Gland Flange	3-C1500-GLV-BW-HO-WC9
16	G2319c	Gland Flange	4-C1500-GLV-BW-HO-WCB
17	G2319d	Gland Flange	5-C1500-GLV-BW-GO-WC9
18	G2320a	Handle boss	2.5-C1500-GLV-BW-HO-WC9
19	G2320b	Handle boss	4-C1500-GLV-BW-HO-WCB
20	G2321	Plate	2" to 8" Class 1500
21	G2324a	Eye Bolt	2.5/ 3-C1500-GLV/ GNV-BW-WCC/ WCB/ WC9
22	G2324b	Eye Bolt	4-C1500-GLV-BW-HO-WCB
23	G2324c	Eye Bolt	5-C1500-GLV-BW-GO-WC9
24	G2325a	Sunk Key	2.5/ 3-C1500-GLV/ GNV-BW-WCC/ WCB/ WC9
25	G2325b	Sunk Key	4-C1500-GLV-BW-HO-WCB
26	G2326a	Stopper	2.5-C1500-GLV-BW-HO-WC9
27	G2326d	Stopper	3-C1500-GLV-BW-HO-WC9
28	G2326b	Stopper	4-C1500-GLV-BW-HO-WCB
29	G2326c	Stopper	5-C1500-GLV-BW-GO-WC9
30	G2327a	Yoke Stopper	2.5-C1500-GLV-BW-HO-WC9
31	G2327b	Yoke Stopper	3-C1500-GLV-BW-HO-WC9
32	G2327c	Yoke Stopper	4-C1500-GLV-BW-HO-WCB
33	G2328a	Gland	2.5-C1500-GLV-BW-HO-WC9
34	G2328b	Gland	3-C1500-GLV-BW-HO-WC9
35	G2328c	Gland	4-C1500-GLV-BW-HO-WCB
36	G2328d	Gland	5-C1500-GLV-BW-GO-WC9
37	G2329a	PIN/ SET PIN/ KNOCK PIN	2" to 8" Class 1500
38	G2329b	PIN/ SET PIN/ KNOCK PIN	2" to 8" Class 1500
39	G2329c	PIN/ SET PIN/ KNOCK PIN	2" to 8" Class 1500

TOA Valves
List of components

Annexure I

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
40	G2330a	Bushing	2.5/3-C1500-GLV/ GNV-BW-WCC/ WCB/ WC9
41	G2330b	Bushing	4/5-C1500-GLV-BW-HO-WCB
42	G2345	Yoke Machining	3-C1500-GLV-BW-HO-WC9
43	G2346	Stem Machining	5-C1500-GLV-BW-MO-WC9
44	G2347	Eye Bolt Clamp	5-C1500-GNV-BW-MO-WC9
45	G2348a	2.5-C1500-GNV - GUIDE-R001	2.5-C1500-GNV-BW-MO-WCC
46	G2348b	5-C1500-GLV - GUIDE-R065	5-C1500-GNV-BW-MO-WC9
47	G2348c	4-C1500-GNV - GUIDE-R017	4-C1500-GNV-BW-MO-WCC
48	G2348d	3-C1500-GNV - GUIDE-R009	3-C1500-GNV-BW-MO-WCC
49	G2349	Yoke Clamp	2" to 8" Class 1500
50	G2476	Grip	2.5-C1500-GNV-BW-HO-WCC
51	G2477	Nut	2.5-C1500-GNV-BW-HO-WCC
52	G2478	Bolt	2.5-C1500-GNV-BW-HO-WCC
53	G2479	Lock plate	2.5-C1500-GNV-BW-HO-WCC
54	G2480	Retaining ring	5-C1500-GNV-BW-MO-WC9
55	G2481	Disc Final	3-C3500-GNV
56	G2494	INTERMEDIATE FL-G090	3/4-C1500-GNV-BW-MO-WCB
57	G2621	Stopper Rod	2" to 3" Class 1500
58	G2622	STOPPER RING-R009	2" to 3" Class 1500



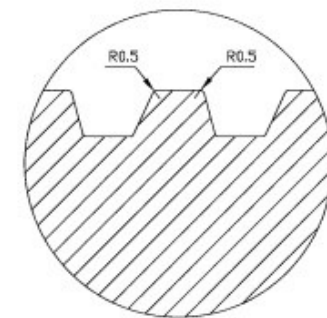
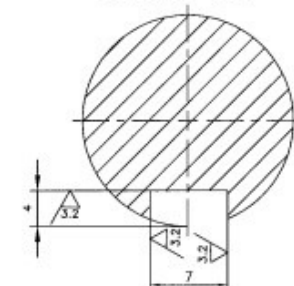
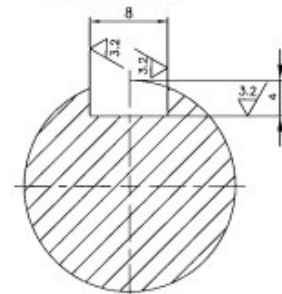
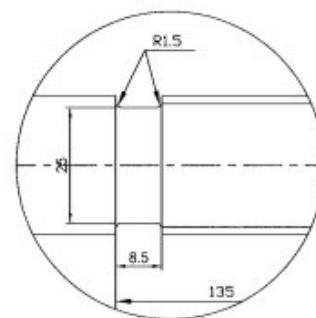
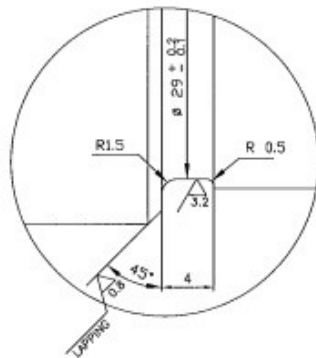
DETAIL-A

ALTERNATE TO DETAIL-B

SECTION-FF

SECTION-DD

DETAIL-C



THE ABOVE UNDERCUT SHALL BE SMOOTHLY FINISHED
 SO THAT THE CUT SHOULD NOT BE NOTCH EFFECTED

NOTES:

01. HARDNESS 241 TO 321 BHN.
02. MATERIAL SHOULD BE AS PER LATEST APPLICABLE QUALITY WORK INSTRUCTION
03. * DIMENSION PRIOR TO PLATING

1	2-V-R074-15707/1	OHTARON .QT PRODUCT ATTEST	#50X630	931169650000	9.72	40
SL. NO.	DRAWING NUMBER	MATERIAL SPECN.	SUGG. SIZE	COMP. CODE MATL. CODE	GROSS WT.(Kg)	SCRAP SORT
No	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	RET WT (kg)
OFF						GROSS WT (kg)
						DRAWING No
						ITEM No

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		TA RETRACED WITH REV.1 ON 24.12.03	
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT, TIRUCHIRAPPALLI - 620014.		NAME V.Bairavan SIGN K.Rajasekar DATE 24.12.03 24.12.03	
DEPT VL	SCALE NTS	WEIGHT (KG) 3.54	REFERENCE INFORMATION
CODE 320			
TITLE STEM	CARD CODE	DRAWING NO. 2-V-R074-15707	REV 1

REV 1	DATE 24.12.03	ALTERED BY CHD & APPOMRK
ZONE A	SURFACE FINISH 0.4 WAS 0.8	

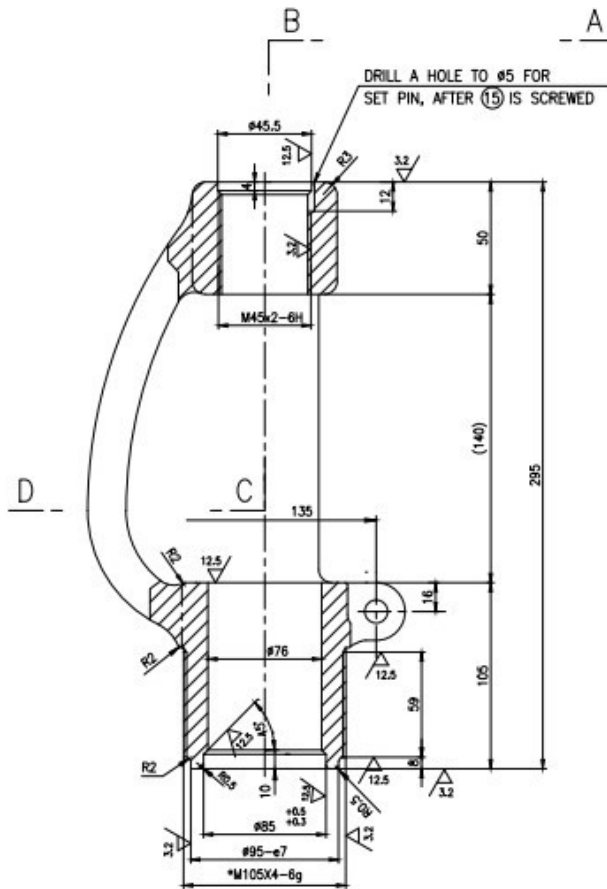
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2-V-0000-15154/3
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT DCP / QP

12 ∇ / ∇ 12.5 / ∇ 3.2

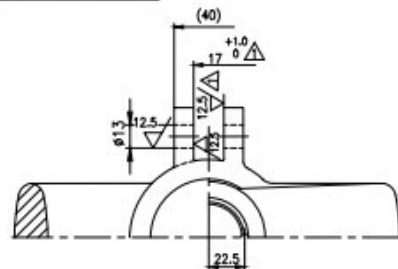
#95-e7	-0.072
	-0.107



NOTES:

- * 1. NI PLATING TO A THICKNESS OF 25 TO 35 MICRONS.
2. LATEST APPLICABLE QUALITY WORK INSTRUCTION SHALL BE FOLLOWED IN ALL RESPECTS.

SECTION ABCD



02	2-V-G047-15154/3	A217 WC6, NT PRODUCT ATTEST	93112170000	20	
01	2-V-G045-15154/3	A216 WCB, AN PRODUCT ATTEST	931121180000	10	
S/N	DRAWING NO.	MATL. SPECN.	COMP. CODE	SCRAP SORT	
NO	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT
OFF					

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT					
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT, TIRUCHIRAPPALLI-620014.					
DEPT	VL	SCALE	WEIGHT (KG)	REFERENCE INFORMATION	
305-120		N T S	8.78		
CODE	320				
TITLE	YOKE				
	80/1500CLASS				
CARD CODE	U 01	DRAWING NO.	2-V-0000-1515		

REDRAWN WITH REV.1 ON 24.10.13

REV	DATE	ALTERED	CR
3	24.10.13	CHD & APPD SSK & KRS	
ZONE			
		DIMENSION 17 0 & 12.5	INCLUDED
DCP No.801630			

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	BHARAT HEAVYELECTRICALS LIMITED INDUSTRIAL VALVES PLANT 433, INDUSTRIAL COMPLEX GOINDWAL SAHIB DISTT. TARN TARAN- PUNJAB – 143422	No.BHEL:IVP: SC: Wall Blower : AD 2022-23/01 Dated 29.06.2022
NOTICE INVITING APPLICATIONS FOR REGISTRATION OF SUB CONTRACTORS		
BHARAT HEAVY ELECTRICALS LIMITED [BHEL] is manufacturing Industrial Valves and other Boiler accessories at its Industrial Valves Plant, Goindwal Sahib unit. Approx annual procurement value for Wall Blower items for the year FY2022-23 – Rs 21 lakh.		
Expression of interest and applications for registration are invited from sub-contractors (BHEL encourages procurement from Micro and Small Enterprises (MSEs), MSEs are requested to apply for registration) for doing the machining job of various components of Wall Blowers. Major areas for which subcontractors are required are gear/worm machining, press/die. Various work centers involved in the machining job shall be CNC, VMC etc. Machining of Items for which vendors required immediately are:		
Wall Blowers	Machining vendors are required to machine various components of wall blower such as Rack, Spur Gear, Worm, Primary Shaft, Secondary Shaft, Rack Cover etc. Also heat treatment, cadmium plating, wherever required to be arranged by the vendor. List of components, where machining vendors are required, is attached herewith as Annexure-I. Sample drawings of some components are also attached. (S.No of the list - 12 and 21)	
BHEL is looking for prospective Sub Contractors for above detailed job work for BHEL.		
BHEL shall evaluate the vendors as per its established vendor selection, evaluation and registration procedure. Supplier registration can be done online https://supplier.bhel.in/		
BHEL invites such vendors to visit its above located plant on any working day from Monday to Saturday between 0900 Hrs to 1730 Hrs and contact undersigned for any clarification regarding:		
Items details and requirement	Vendor registration form/procedure	
Gopal Singh Sr Manager(Sub-Cont)	Gopal Singh Sr Manager(Sub-Cont)	
Phone: 01859-224669	Phone: 01859-224669	
Mob: 9410395245	Mob: 9410395245	
gopals@bhel.in	gopals@bhel.in	
BHARAT HEAVY ELECTRICALS LIMITED INDUSTRIAL VALVES PLANT, 433, INDUSTRIAL COMPLEX, GOINDWAL SAHIB, DISTT. TARN TARAN, PUNJAB – 143 422		

Wall Blower Items
List of Items

Annexure I

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
1	G2171	CLEVIS BRACKET-20006200	Wall Blower
2	G2170	GUARD ASSY-20003900	Wall Blower
3	G2174	VALVE STEM ASSY-30068702	Wall Blower
4	G2176	VALVE STEM	Wall Blower
5	G2177	VALVE BLANK	Wall Blower
6	G2178	VALVE STEM CAP-40019800	Wall Blower
7	G2179	WORM -30011901	Wall Blower
8	G2180	WORM -30011903	Wall Blower
9	G2181	WORM L.H-30011902	Wall Blower
10	G2182	ELEMENT GEAR-30012200	Wall Blower
11	G2183	RAMP CAM -30013700	Wall Blower
12	G2184	RACK-30013800	Wall Blower
13	G2184a	RACK SQ MILL-30013800	Wall Blower
14	G2185	CAM SHAFT COLLAR-30014700	Wall Blower
15	G2186	WORM SHAFT-30015100	Wall Blower
16	G2189	WORM GEAR SHAFT-30015500	Wall Blower
17	G2194	RACK PINION-30015600	Wall Blower
18	G2197	SPUR GEAR 12T-30074000	Wall Blower
19	G2198	MOTOR PINION 30T-40023200	Wall Blower
20	G2199	GEAR 40T-40024600	Wall Blower
21	G2200	SPUR GEAR-40025200	Wall Blower
22	G2201	PINION-40025900	Wall Blower
23	G2202	PRIMARY GEAR-40026200	Wall Blower
24	G2203	COVER-40001600	Wall Blower
25	G2205	COVER-40012500	Wall Blower
26	G2206	COVER PLATE-40012400	Wall Blower
27	G2207	COVER PLATE-40154700	Wall Blower
28	G2208	SHAFT COLLAR-40026100	Wall Blower
29	G2210	NOZZLE-40016300	Wall Blower
30	G2213	CAM ASSY-30013400	Wall Blower
31	G2214	CAM -40017800	Wall Blower

Wall Blower Items
List of Items

Annexure I

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
32	G2215	CAM-40017900	Wall Blower
33	G2217	ARM BRACKET-40018200	Wall Blower
34	G2218	WORM GEAR 30T-40018300	Wall Blower
35	G2219	WORM GEAR-40018400	Wall Blower
36	G2220	WORM GEAR LH-40018500	Wall Blower
37	G2221	CUPPED PLUG-40019201	Wall Blower
38	G2222	CUPPED PLUG-40019202	Wall Blower
39	G2223	SPRING RETAINER-40019300	Wall Blower
40	G2224	GUIDE ROD-40019500	Wall Blower
41	G2225	PACKING GLAND-40019600	Wall Blower
42	G2228	AIR VENT (R1/4")	Wall Blower
43	G2233	SCRU GRB SOC AP10-40024200	Wall Blower
44	G2234	SWITCH MOUNT BRT-40024500	Wall Blower
45	G2235	THRUST WASHER-40025000	Wall Blower
46	G2236	THRUST WASHER-40025100	Wall Blower
47	G2237	RETAINING WASHER-40023900	Wall Blower
48	G2238	FLAT WASHER-40013000	Wall Blower
49	G2246	SEAT INSERT-40056500	Wall Blower
50	G2247	CAM-40079700	Wall Blower
51	G2248	SIN BRZ BUSH-40154800	Wall Blower
52	G2249	RACK GEAR HOUSING + GUIDE ROD FIXING	Wall Blower
53	G2331	RACK COVER W/O PAINT-20024300	Wall Blower
54	G2332	EMERGENCY CRANK-30013600	Wall Blower
55	G2336	GUSSET PLATE-40015100	Wall Blower
56	G2338	SLEEVE TUBE	Wall Blower
57	G2342	BOTTOM COVER W/O PAINT-20025700	Wall Blower

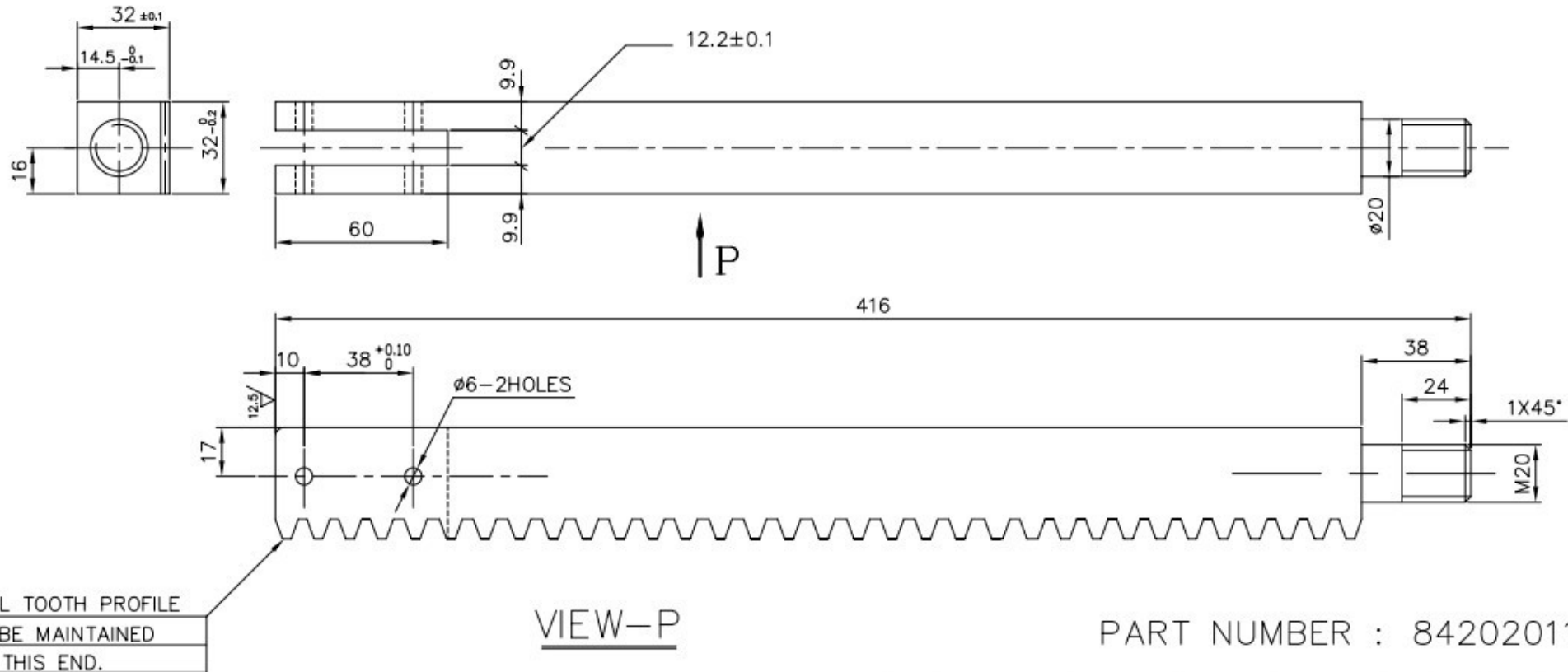
Wall Blower Items
List of Items

Annexure I

S.No	Gr. No	Job/ Component Description	Description of Valve/ Product (Used in)
58	G2343	PIN-40159700	Wall Blower
59	G2344	BASE PLATE-40159600	Wall Blower
60	G2443	SPECIAL KEY-40114100	
61	G2495	NIPPLE 1 1/2" NPT / NIPPLE G 1 1/2"	Wall Blower
62	G2498	SLEEVE TUBE W/O NIPPLE	Wall Blower
63	G2499	T-PIECE 3/8IN NPT-40065500	Wall Blower
64	G2512	CONNECTOR 3/8INC-40051902	Air Valve
65	G2592	MOTOR ADAPTER-30116100	Wall Blower
66	G2618	SWIVEL TUBE SUPPORT-40261000	Wall Blower

3-20-201-00138
DRAWING NO.

6.3/ (12.5/)



PART NUMBER : 842020116100

NOTES: -

- FOR QUALITY REQUIREMENTS REFER LATEST APPLICABLE QUALITY PROCEDURES.

MODULE	3
PRESSURE ANGLE	20°
WHOLE DEPTH	6.75

REV	DATE	ALTERED	K.S.
11	26.06.06	CHD & APPD	S.N.
DRG. UPDATED AND REDRAWN.			
DCN: 800547 Dt.02.01.06			

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01	ROUND Ø50MM	15 339 142	SA 105				3.680		01
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
BHARAT HEAVY ELECTRICALS LTD.				DRN	NAME S.NAPPI	SIGN S.N.	DATE 26.06.06	NO.OF VAR.	
UNIT: HIGH PRESSURE BOILER PLANT.				CHD	K.SRIDHARAN	K.S.	26.06.06		
TIRUCHIRAPALLI-620014.				APPD	S.NATARAJAN	S.N.	26.06.06		
DEPT VL		SCALE NTS	WEIGHT (KG).	REFERENCE INFORMATION				NO OF ITEMS	
CODE 330			3.680						
TITLE				CARD CODE	DRAWING NO.				REV
RACK				U 01	3-20-201-00138				11

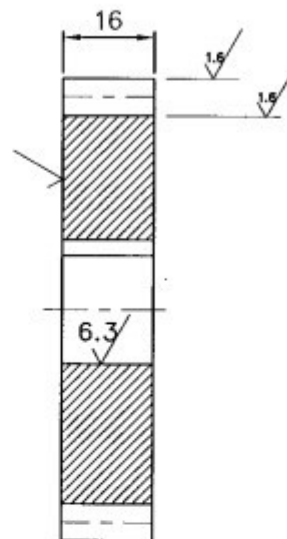
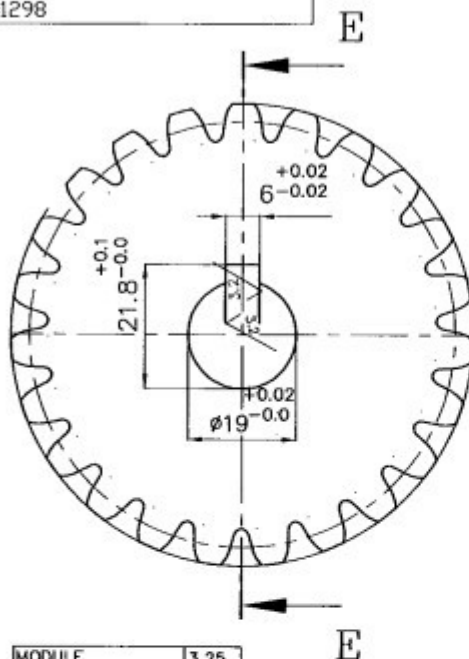
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FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP/QP

ALL DIMENSIONS ARE IN MILLIMETRES.

REV	DATE	ALTERED
04	11.06.01	CHD & APPD
DRG. UPDATED AND REDRAWN.		
DCN:SB:1298		

✓/12.6/ 6.3/ 3.2/ 1.6/



SECTION EE

MODULE	3.25
NO OF TEETH	23
PITCH DIAMETER	74.75
PRESSURE ANGLE	20°
WHOLE DEPTH OF TEETH	7.31
OUTSIDE DIMETER	81.25
TOOTH CLEARANCE	0.813
CETRE DISTACE	102.38

TOLERANCE ON GEAR BLANK
TIP DIAMETER 81.25 $\begin{smallmatrix} 0.00 \\ -0.05 \end{smallmatrix}$

RADIAL AND AXIAL RUN OUT OF
REFERENCE SURFACES = 0.0170

TOLERANCE OF GEAR:

TEETH RUN OUT = 0.063

TIR W.R.T.BORG

WIDTH ACROSS THREE TEETH = 25.03 $\begin{smallmatrix} -0.09 \\ -0.16 \end{smallmatrix}$

ALL OTHER TOLERANCE ARE TO BE
AS PER APPLICABLE QP/QCP

NOTES:-

1. FOR QUALITY REQUIREMENTS REFER APPLICABLE LATEST QUALITY PROCEDURE.

PART CODE : 842020114500

01	FORGING D 100X20	920377780000	IS 1875 CL IV			1.250			01
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
				NAME V. ARUMUGAM SIGN DATE NO. OF VAR					
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT, TIRUCHIRAPALLI 620014.				CHD K. SRIDHARAN APPD S. NATARAJAN					
DEPT SB		SCALE NTS		WEIGHT (KG). 1.250		REFERENCE INFORMATION T-13566			NO. OF ITEMS
CODE 330									
TITLE SPUR GEAR				CARD CODE U 01	DRAWING NO. 4-20-201-00252				REV 04

Size A4