



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:
2324:01
Dated
22.06.2023

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 “**metal press work and stainless-steel plate cutting & bending**”, from suppliers who are having facility for metal press work and stainless-steel plate cutting & bending of following thicknesses:

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

Sample drawings are enclosed with this EOI.

Interested sources shall furnish the required details as per Annexure - I

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 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

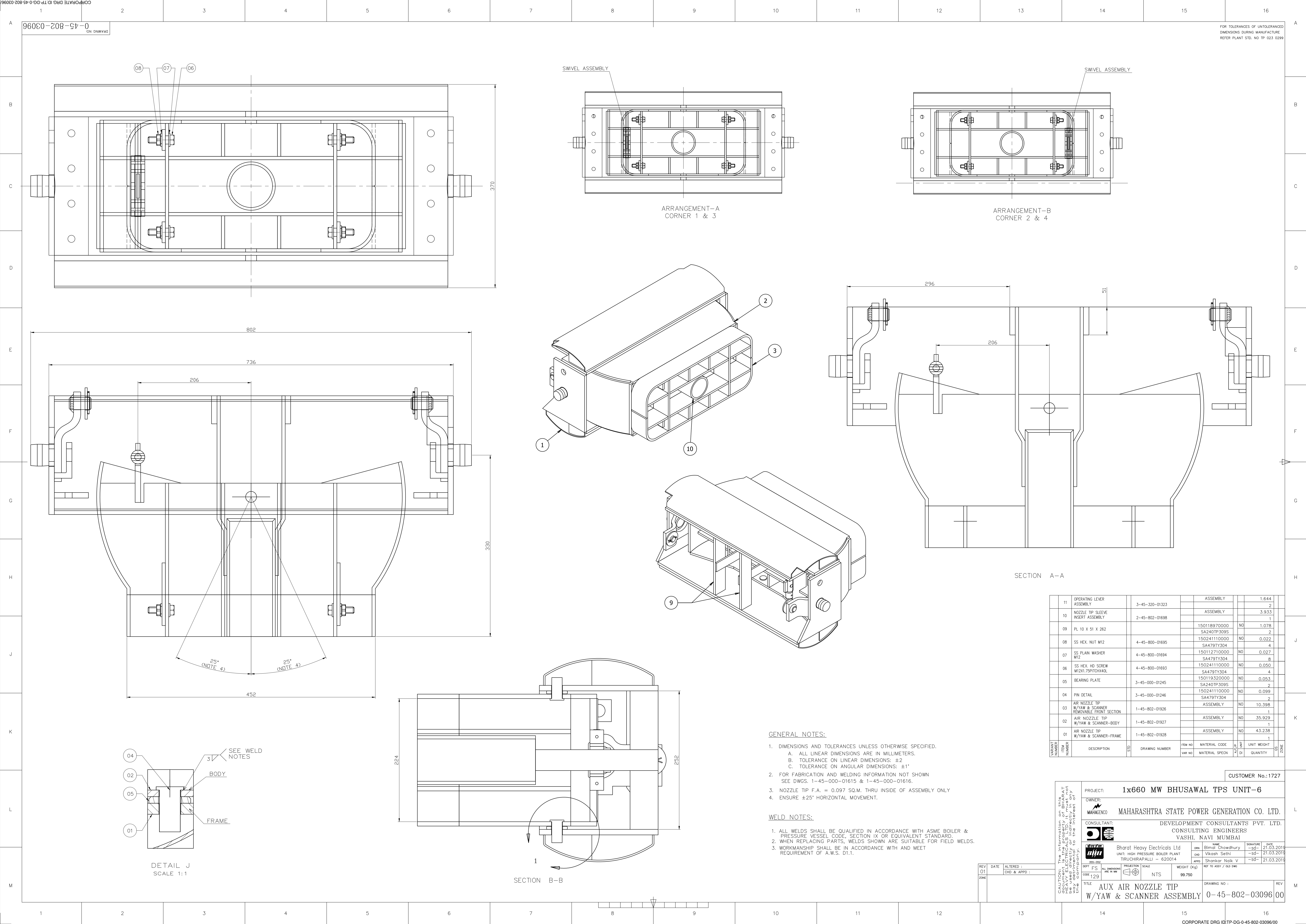
a. Equipment set up required - Following machines shall be available with the vendor

	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:

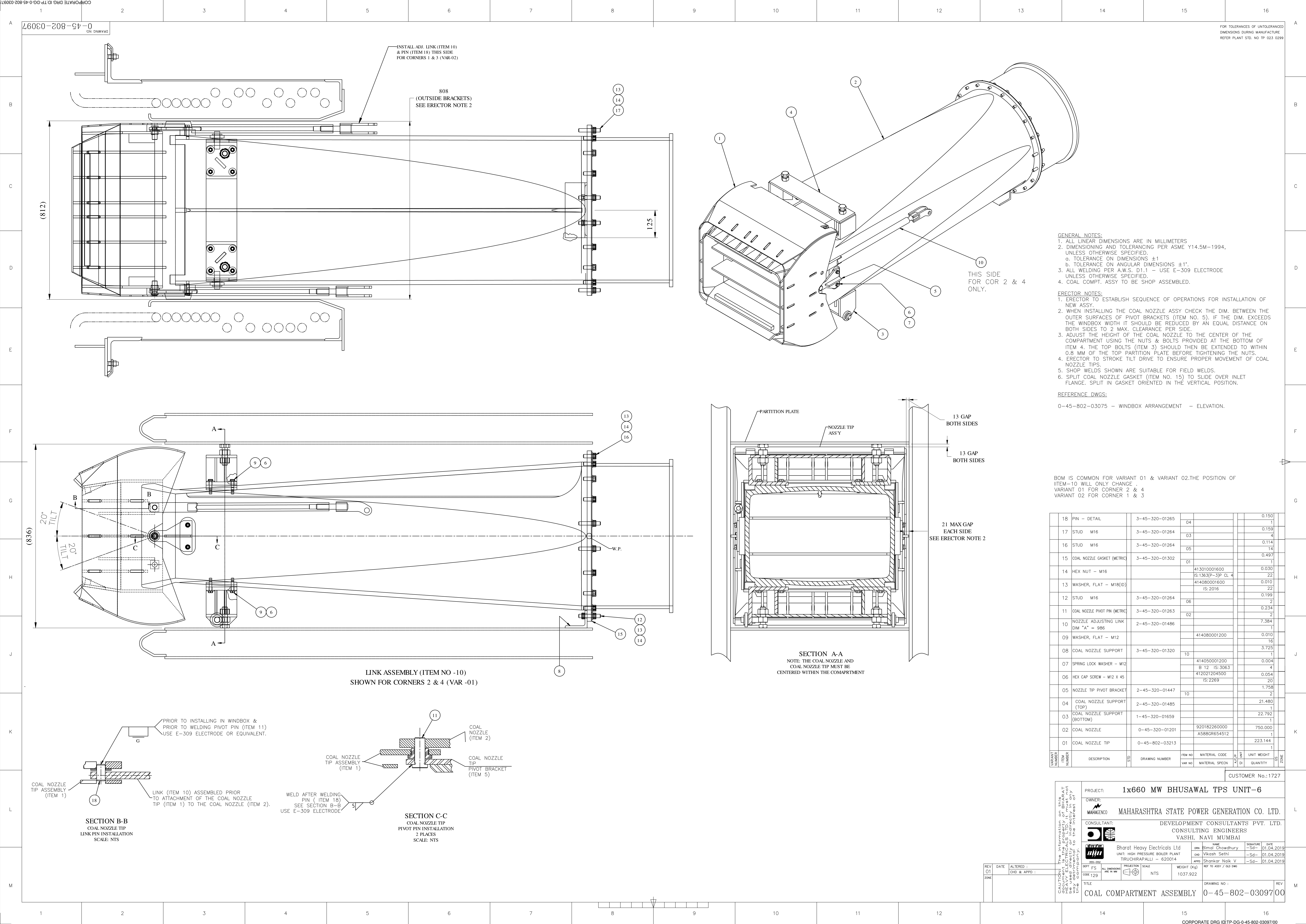
- DIMENSIONS AND TOLERANCES UNLESS OTHERWISE SPECIFIED.
 - ALL LINEAR DIMENSIONS ARE IN MILLIMETERS.
 - TOLERANCE ON LINEAR DIMENSIONS: ± 2
 - TOLERANCE ON ANGULAR DIMENSIONS: $\pm 1^\circ$
- FOR FABRICATION AND WELDING INFORMATION NOT SHOWN SEE DWGS. 1-45-000-01615 & 1-45-000-01616.
- NOZZLE TIP F.A. = 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	2	
10	NOZZLE TIP SLEEVE INSERT ASSEMBLY	2-45-802-01698		ASSEMBLY		3.933	1	
09	PL 10 X 51 X 262		150118970000	SA240TP309S	NO	1.078	2	
08	SS HEX. NUT M12	4-45-800-01695		150241110000	SA479TY304	NO	0.022	4
07	SS PLAIN WASHER M12	4-45-800-01694		150112710000	SA479TY304	NO	0.027	8
06	SS HEX. HD SCREW M12X1.75PITCHX40L	4-45-800-01693		150241110000	SA479TY304	NO	0.050	4
05	BEARING PLATE	3-45-000-01245		150119320000	SA240TP309S	NO	0.053	2
04	PIN DETAIL	3-45-000-01246		150241110000	SA479TY304	NO	0.099	2
03	AIR NOZZLE TIP W/YAW & SCANNER REMOVABLE FRONT SECTION	1-45-802-01926		ASSEMBLY		NO	10.398	1
02	AIR NOZZLE TIP W/YAW & SCANNER-BODY	1-45-802-01927		ASSEMBLY		NO	35.929	1
01	AIR NOZZLE TIP W/YAW & SCANNER-FRAME	1-45-802-01928		ASSEMBLY		NO	43.238	1
VARIANT NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	UNIT WEIGHT	QUANTITY	ZONE
				VAR NO	MATERIAL SPECN	KG		

PROJECT: 1x660 MW BHUSAWAL TPS UNIT-6		CUSTOMER No.:1727	
OWNER: MAHARASHTRA STATE POWER GENERATION CO. LTD.			
CONSULTANT: DEVELOPMENT CONSULTANTS PVT. LTD. CONSULTING ENGINEERS VASHI, NAVI MUMBAI			
Bharat Heavy Electricals Ltd		DATE: 21.03.2019	
UNIT: HIGH PRESSURE BOILER PLANT		DATE: 21.03.2019	
TIRUCHIRAPALLI - 620014		DATE: 21.03.2019	
DEPT FS		WEIGHT (kg)	
CODE 129		99.750	
TITLE: AUX AIR NOZZLE TIP W/YAW & SCANNER ASSEMBLY		DRAWING NO: 0-45-802-03096.00	



FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER PLANT STD. NO TP 023 0299

GENERAL NOTES:
1. ALL LINEAR DIMENSIONS ARE IN MILLIMETERS
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994, UNLESS OTHERWISE SPECIFIED.
a. TOLERANCE ON DIMENSIONS ±1
b. TOLERANCE ON ANGULAR DIMENSIONS ±1°
3. ALL WELDING PER A.W.S. D1.1 – USE E-309 ELECTRODE UNLESS OTHERWISE SPECIFIED.
4. COAL COMPT. ASSY TO BE SHOP ASSEMBLED.

ERECTOR NOTES:
1. ERECTOR TO ESTABLISH SEQUENCE OF OPERATIONS FOR INSTALLATION OF NEW ASSY.
2. WHEN INSTALLING THE COAL NOZZLE ASSY CHECK THE DIM. BETWEEN THE OUTER SURFACES OF PIVOT BRACKETS (ITEM NO. 5). IF THE DIM. EXCEEDS THE WINDBOX WIDTH IT SHOULD BE REDUCED BY AN EQUAL DISTANCE ON BOTH SIDES TO 2 MAX. CLEARANCE PER SIDE.
3. ADJUST THE HEIGHT OF THE COAL NOZZLE TO THE CENTER OF THE COMPARTMENT USING THE NUTS & BOLTS PROVIDED AT THE BOTTOM OF ITEM 4. THE TOP BOLTS (ITEM 3) SHOULD THEN BE EXTENDED TO WITHIN 0.8 MM OF THE TOP PARTITION PLATE BEFORE TIGHTENING THE NUTS.
4. ERECTOR TO STROKE TILT DRIVE TO ENSURE PROPER MOVEMENT OF COAL NOZZLE TIPS.
5. SHOP WELDS SHOWN ARE SUITABLE FOR FIELD WELDS.
6. SPLIT COAL NOZZLE GASKET (ITEM NO. 15) TO SLIDE OVER INLET FLANGE. SPLIT IN GASKET ORIENTED IN THE VERTICAL POSITION.

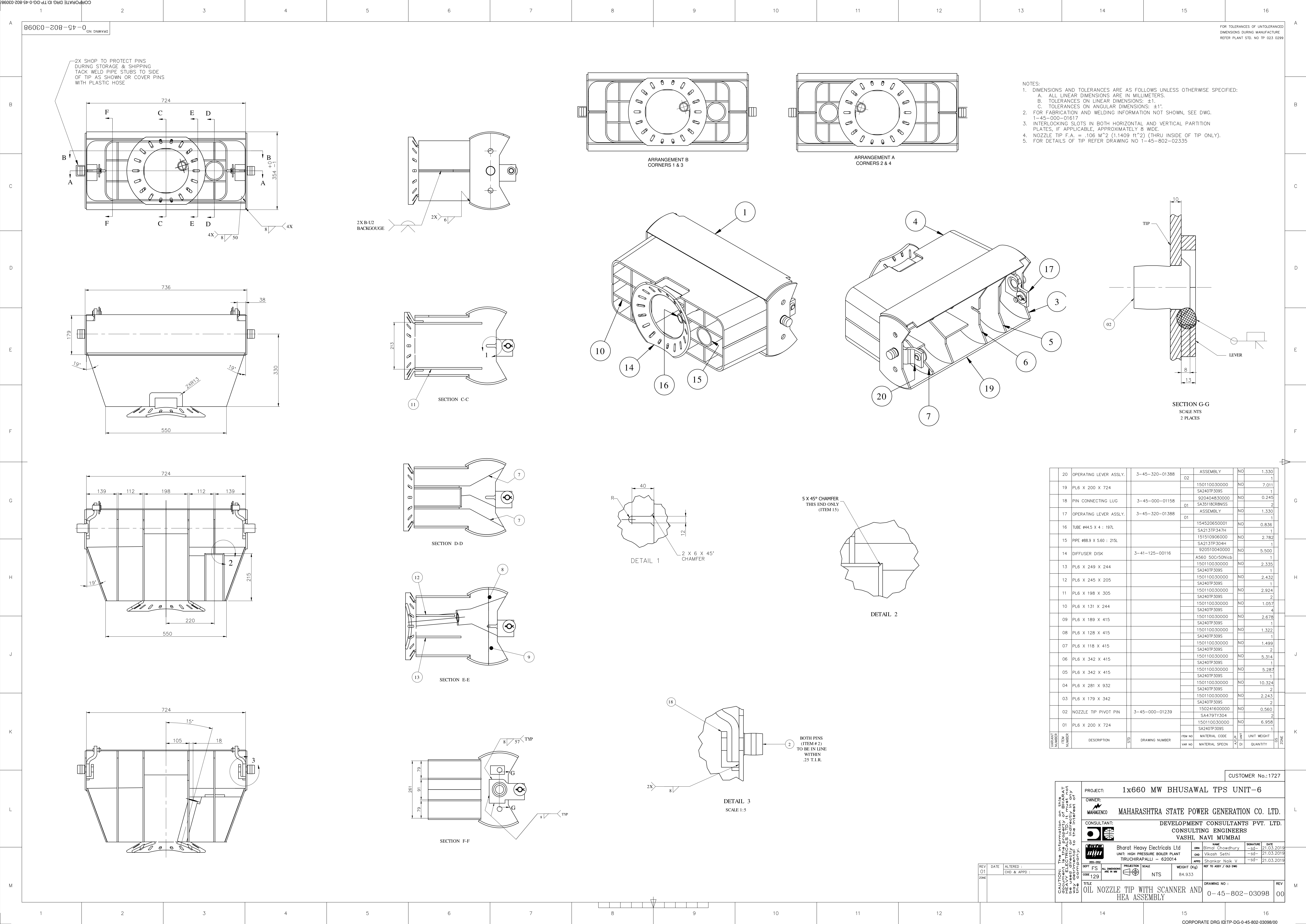
REFERENCE DWGS:
0-45-802-03075 – WINDBOX ARRANGEMENT – ELEVATION.

BOM IS COMMON FOR VARIANT 01 & VARIANT 02.THE POSITION OF ITEM-10 WILL ONLY CHANGE.
VARIANT 01 FOR CORNER 2 & 4
VARIANT 02 FOR CORNER 1 & 3

18	PIN – DETAIL	3-45-320-01265	04			0.150	1
17	STUD M16	3-45-320-01264	03			0.159	4
16	STUD M16	3-45-320-01264	05			0.114	14
15	COAL NOZZLE GASKET (METRIC)	3-45-320-01302	01			0.497	1
14	HEX NUT – M16			413010001600		0.030	22
13	WASHER, FLAT – M18(ID)			IS:1363(P-3)P CL 4		0.010	22
12	STUD M16	3-45-320-01264	06			0.199	2
11	COAL NOZZLE PIVOT PIN (METRIC)	3-45-320-01263	02			0.234	2
10	NOZZLE ADJUSTING LINK DIM "A" = 986	2-45-320-01486				7.384	1
09	WASHER, FLAT – M12			414080001200		0.010	16
08	COAL NOZZLE SUPPORT	3-45-320-01320	10			3.725	1
07	SPRING LOCK WASHER – M12			414050001200		0.004	4
06	HEX CAP SCREW – M12 X 45			B 12 IS:3063		0.054	20
05	NOZZLE TIP PIVOT BRACKET	2-45-320-01447	10			1.758	2
04	COAL NOZZLE SUPPORT (TOP)	2-45-320-01485				21.480	1
03	COAL NOZZLE SUPPORT (BOTTOM)	1-45-320-01659				22.792	1
02	COAL NOZZLE	0-45-320-01201		920182260000		750.000	1
01	COAL NOZZLE TIP	0-45-802-03213		A588GR654512		223.144	1
VARIANT NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	UNIT WEIGHT	QUANTITY
01				VAR NO	MATERIAL SPECN		

CUSTOMER No.:1727

CAUTION: The information on this drawing is preliminary and is subject to change without notice. It is not to be used for construction or manufacturing purposes without the approval of the company.	PROJECT:	1x660 MW BHUSAWAL TPS UNIT-6						
	OWNER:	MAHARASHTRA STATE POWER GENERATION CO. LTD.						
	CONSULTANT:	DEVELOPMENT CONSULTANTS PVT. LTD. CONSULTING ENGINEERS VASHI, NAVI MUMBAI						
	DESIGNER:	Bharat Heavy Electricals Ltd	NAME	SIGNATURE				
	UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI – 620014	DATE	01.04.2019					
	REF TO ASSY / OLD DWG	0-45-802-03097/00	DATE	01.04.2019				
DEPT FS	ALL DIMENSIONS ARE IN MM	PROJECTION	SCALE	WEIGHT (kg)	DRAWING NO :		REV	
CODE 129		1ST ANGLE	NTS	1037.922	0-45-802-03097/00			
TITLE					COAL COMPARTMENT ASSEMBLY			



NOTES:
1. DIMENSIONS AND TOLERANCES ARE AS FOLLOWS UNLESS OTHERWISE SPECIFIED:
A. ALL LINEAR DIMENSIONS ARE IN MILLIMETERS.
B. TOLERANCES ON LINEAR DIMENSIONS: ± 1 .
C. TOLERANCES ON ANGULAR DIMENSIONS: $\pm 1^\circ$.
2. FOR FABRICATION AND WELDING INFORMATION NOT SHOWN, SEE DWG. 1-45-000-01617.
3. INTERLOCKING SLOTS IN BOTH HORIZONTAL AND VERTICAL PARTITION PLATES, IF APPLICABLE, APPROXIMATELY 8 WIDE.
4. NOZZLE TIP F.A. = .106 M² (1.1409 ft²) (THRU INSIDE OF TIP ONLY).
5. FOR DETAILS OF TIP REFER DRAWING NO 1-45-802-02335

20	OPERATING LEVER ASSLY.	3-45-320-01388	ASSEMBLY	NO	1.330
19	PL6 X 200 X 724		150110030000	NO	7.011
18	PIN CONNECTING LUG	3-45-000-01158	820404830000	NO	0.245
17	OPERATING LEVER ASSLY.	3-45-320-01388	ASSEMBLY	NO	1.330
16	TUBE #44.5 X 4 : 197L		154520650001	NO	0.836
15	PIPE #88.9 X 5.60 : 215L		151510906000	NO	2.782
14	DIFFUSER DISK	3-41-125-00116	920510040000	NO	5.500
13	PL6 X 249 X 244		150110030000	NO	2.335
12	PL6 X 245 X 205		150110030000	NO	2.432
11	PL6 X 198 X 305		150110030000	NO	2.924
10	PL6 X 131 X 244		150110030000	NO	1.057
09	PL6 X 189 X 415		150110030000	NO	1.322
08	PL6 X 128 X 415		150110030000	NO	1.499
07	PL6 X 118 X 415		150110030000	NO	5.314
06	PL6 X 342 X 415		150110030000	NO	5.287
05	PL6 X 342 X 415		150110030000	NO	10.324
04	PL6 X 281 X 932		150110030000	NO	2.243
03	PL6 X 179 X 342		150241600000	NO	0.560
02	NOZZLE TIP PIVOT PIN	3-45-000-01239	SA479TY304	NO	6.958
01	PL6 X 200 X 724		150110030000	NO	1

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	
NAME: Bimal Choudhury, Vikash Sethi, Shankar Naik V	
SIGNATURE: [Signatures]	
DATE: 21.03.2019, 21.03.2019, 21.03.2019	
DEPT: FS, CODE: 129, PROJECTION: NTS, SCALE: 84.933, WEIGHT: (Kg)	
REF TO ASSY / OLD DWG	
TITLE: OIL NOZZLE TIP WITH SCANNER AND HEA ASSEMBLY	
DRAWING NO: 0-45-802-03098	
REV: 00	