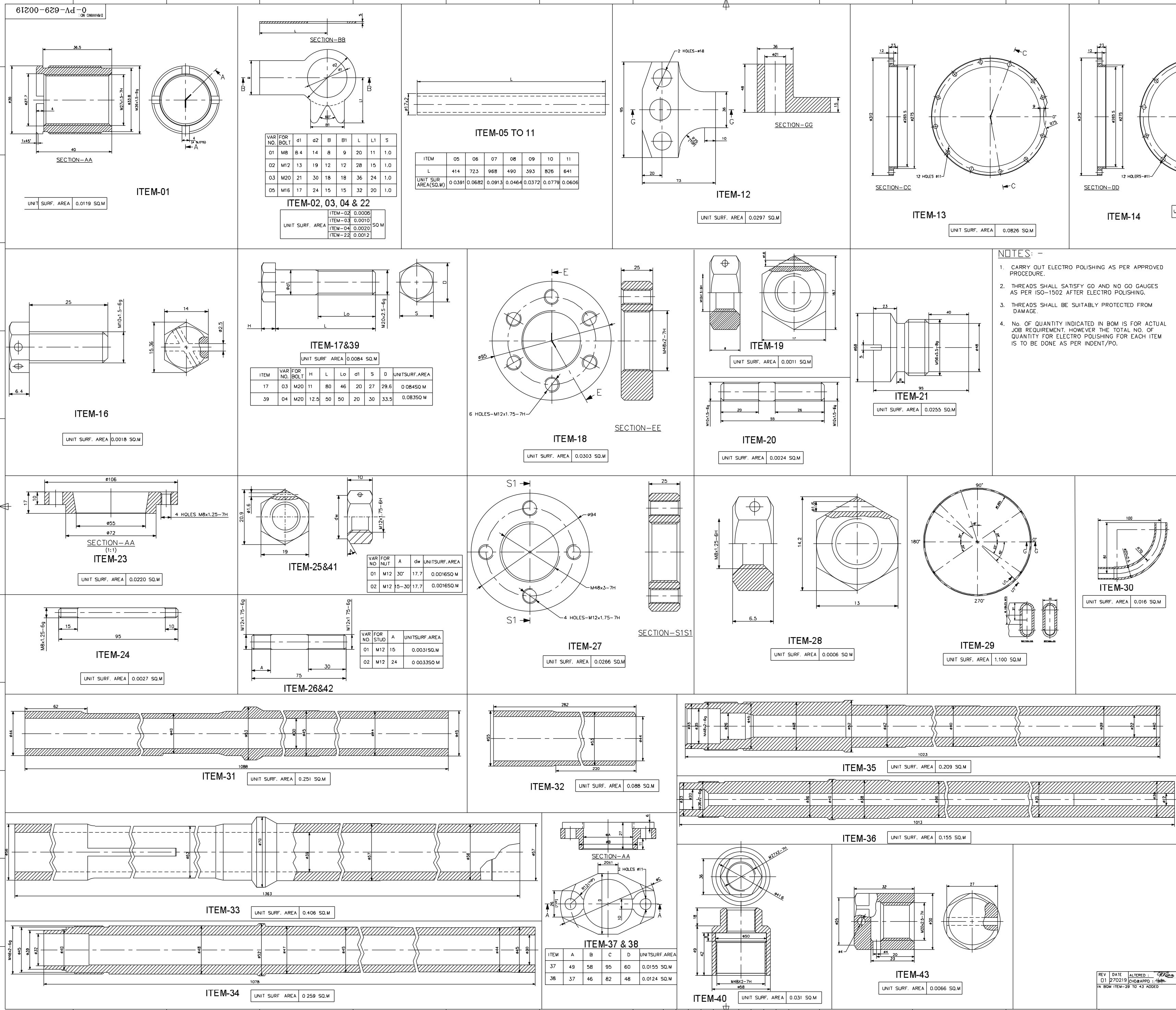

VAR FOR NO. BOLT	d1	d2	B	B1	L	L1	S
01 M8	B 4	14	8	9	20	11	1.0
02 M12	13	19	12	12	28	15	1.0
03 M20	21	30	18	18	36	24	1.0
05 M16	17	24	15	15	32	20	1.0

UNIT SURF. AREA		
ITEM-02	0.0006	SQ.M
ITEM-03	0.0010	SQ.M
ITEM-04	0.0020	SQ.M
ITEM-22	0.0012	SQ.M

ITEM	05	06	07	08	09	10	11
L	414	723	968	490	393	826	641
UNIT SUR AREA(SQ.M)	0.0391	0.0682	0.0913	0.0464	0.0372	0.0779	0.0606

ITEM	VAR NO.	FOR BOLT	H	L	Lo	d1	S	D	UNITSURF.AREA
17	03	M20	11	80	46	20	27	29.6	0.0845Q.M
39	04	M20	12.5	50	50	20	30	33.5	0.083SQ.M

VAR NO	FOR NUT	A	dw	UNITSURF.AREA
01	M12	30°	17.7	0.0016SQ.M
02	M12	15-30°	17.7	0.0016SQ.M

VAR NO.	FOR STUD	A	UNITSURF.AREA
01	M12	15	0.0031SQ.M
02	M12	24	0.0033SQ.M

ITEM	A	B	C	D	UNITSURF.AREA
37	49	58	95	60	0.0155 SQ.M
38	37	46	82	48	0.0124 SQ.M

NOTES: -

1. CARRY OUT ELECTRO POLISHING AS PER APPROVED PROCEDURE.
2. THREADS SHALL SATISFY GO AND NO GO GAUGES AS PER ISO-1502 AFTER ELECTRO POLISHING.
3. THREADS SHALL BE SUITABLY PROTECTED FROM DAMAGE.
4. No. OF QUANTITY INDICATED IN BOM IS FOR ACTUAL JOB REQUIREMENT. HOWEVER THE TOTAL NO. OF QUANTITY FOR ELECTRO POLISHING FOR EACH ITEM IS TO BE DONE AS PER INDENT/PO.

THIS DRG. IS MADE IN-LINE WITH PROCESS REQUIREMENTS

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER/SIZE	ITEM NO / VAR NO	MATERIAL CODE / MATERIAL SPECN	A/C	UNIT / D1	UNIT WEIGHT / QUANTITY	GS	ZONE
	43	PLUG-3				ASTM473TYP420			0.121 / 02		
	42	STUD-M12X1.75(VAR-1)				ASTM473TYP420			0.046 / 16		
	41	NUT-M12X1.75(VAR-1)				ASTM473TYP420			0.034 / 16		
	40	NUT-M48X2-7H				ASTM473TYP420			0.5 / 08		
	39	BOLT-M20X2.5(VAR-4)				ASTM473TYP420			0.19 / 18		
	38	FLANGE-8 (IN-3)				ASTM473TYP420			0.4 / 12		
	37	FLANGE-9 (IN-1&2)				ASTM473TYP420			0.45 / 12		
	36	INSTRUMENTATION NOZZLE-3				SA182F321			7.1 / 12		
	35	INSTRUMENTATION NOZZLE-2				SA182F321			7.4 / 08		
	34	INSTRUMENTATION NOZZLE-1				SA182F321			7.56 / 04		
	33	PIPE-13				SA182F321			12.4 / 10		
	32	PIPE-12				SA182F321			1.6 / 16		
	31	PIPE-11				SA182F321			6.3 / 16		
	30	PIPE-2				SA312TYPE321			0.136 / 06		
	29	COLLECTOR-01				SA213TYP321			13.2 / 01		
	28	NUT-M8X1.25				ASTM473TYP420			0.05 / 16		
	27	FLANGE-4				ASTM473TYP420			0.989 / 04		
	26	STUD-M12X1.75 (VAR-02)				ASTM473TYP420			0.046 / 16		
	25	NUT-M12X1.75 (VAR-02)				ASTM473TYP420			0.034 / 16		
	24	STUD-M8X1.25				ASTM473TYP420			0.038 / 16		
	23	FLANGE-10				ASTM473TYP420			0.440 / 04		
	22	TAB WASHER(VAR-05)				SA240TYP321			0.005 / 16		
	21	PLUG-4(VAR-02)				ASTM473TYP420			1.750 / 08		
	20	STUD-M10X1.5-6g				ASTM473TYP420			0.028 / 204		
	19	NUT-M10X1.5-6H				ASTM473TYP420			0.011 / 204		
	18	FLANGE-13				ASTM473TYP420			0.910 / 04		
	17	BOLT-M20X2.5(VAR-3)				ASTM473TYP420			0.260 / 16		
	16	BOLT-M10X1.5				ASTM473TYP420			0.024 / 16		
	15	FLANGE-6(GDN)				ASTM473TYP420			1.000 / 10		
	14	FLANGE-7(EPN-2&4)				ASTM473TYP420			2.500 / 04		
	13	FLANGE-7(EPN-1&3)				ASTM473TYP420			2.500 / 04		
	12	KEY				ASTM473TYP420			1.000 / 16		
	11	PIPE-7				SA213TYP321			0.480 / 04		
	10	PIPE-6				SA213TYP321			0.620 / 04		
	09	PIPE-5				SA213TYP321			0.296 / 04		
	08	PIPE-4				SA213TYP321			0.370 / 04		
	07	PIPE-3				SA213TYP321			0.730 / 04		
	06	PIPE-2				SA213TYP321			0.545 / 02		
	05	PIPE-1				SA213TYP321			0.312 / 04		
	04	TAB WASHER-VAR-03				SA240TYP321			0.007 / 82		
	03	TAB WASHER-VAR-02				SA240TYP321			0.004 / 180		
	02	TAB WASHER-VAR-01				SA240TYP321			0.002 / 12		
	01	THREADED SLEEVE				ASTM473TYP420			0.12 / 72		

REV	DATE	ALTERED / CHD&APPD
01	270219	IN BOM ITEM-29 TO 43 ADDED

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.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: W.O. D163-001-1-90-629

Bharat Heavy Electricals Ltd
UNIT: HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620014

	NAME	SIGNATURE	DATE
DRN	K.R.	[signature]	110118
CHD	RRV/EARUN	[signature]	110118
APPD	A.S.	[signature]	110118

DEPT NC · CODE 150 · GRADE OF UNTOL. DIM C/M/F · SCALE · WEIGHT (Kg)

TITLE: COMPONENT DETAILS FOR ELECTRO POLISHING
CARD CODE U 01
DRAWING NO: 0-PV-629-00219 · REV 01
Size A0