 HRC	DOCUMENT NUMBER : HRC-LGC-PMS-02-246	 ONGC
	INSTALLATION OF ADDITIONAL LEAN GAS COMPRESSOR AT EPRU, URAN PLANT	
	PIPING MATERIAL SPECIFICATION	

PIPE CLASS : A4A
 RATING : 150
 BASE MATERIAL : CARBON STEEL
 CORROSION ALLOWANCE : 1.5MM
 SPECIAL REQUIREMENT : LOW TEMPERATURE SERVICE

TEMPERATURE (Deg. C) AND PRESSURE (Kg/Sq. cm g) RATINGS

TEMP	-45	38	93	149	204
PRESS	18.63	18.63	17.57	16.17	14.06

SERVICE

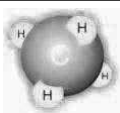
NON CORROSIVE PROCESS - FLAMMABLE / NON FLAMMABLE, NON LETHAL - BELOW - 29 DEG C AND UPTO -45 DEG C. HYDROCARBONS, PROPYLENE, XYLENE, METHANOL, NH3, GAS FLARE, ETC.

NOTES

- 1 NDT REQUIREMENTS AS PER CONSULTANT STANDARD 6-44-0016.
- 5 FOR PERMANENT 'T' TYPE BW STRAINERS, REFER CONSULTANT'S STD 7-44-0303 & 7-44-0304; AND FOR TEMPORARY STRAINERS, REFER CONSULTANT'S STD 7-44-0300; FOR SPACER AND BLIND REFER CONSULTANT'S STD 7-44-0162.
- 7 FOR RESTRICTION ON USE OF BALL, PLUG & BUTTERFLY VALVES, REFER GENERAL NOTES.
- 11 IMPACT TESTING REQUIRED FOR ALL WELDED ITEMS. VALUES SHALL BE AS PER ASME B31.3 TABLE 323.35 AND ASTM A 370.
- 12 VALVES SHALL HAVE EXTENDED BONNET AS PER BS 6364 (NON COLD BOX APPLICATION).

SPECIAL NOTES

ITEM	SIZE	DESCRIPTION	A.CODE
MAINTAINENCE JOINTS	ALL	FLANGED, TO BE KEPT MINIMUM	
PIPE JOINTS	1.5" & BELOW	SW COUPLING	
	2.0" & ABOVE	BUTTWELDED	
DRAINS	ON LINES <= 1.5"	REFER CONSULTANT STD 7-44-0350, DF3	
	ON LINES >= 2.0"	AS PER P&ID. OR 0.75". REFER CONSULTANT STD. 7-44-0351, D4	
VENTS	ON LINES <= 1.5"	REFER CONSULTANT STD. 7-44-0350, VF3	
	ON LINES >= 2.0"	AS PER P&ID. OR 0.75". REFER CONSULTANT STD 7-44-0351, V4	
TEMP.CONN	1.5"	FLANGED. REFER CONSULTANT STD 7-44-0353	



HRC

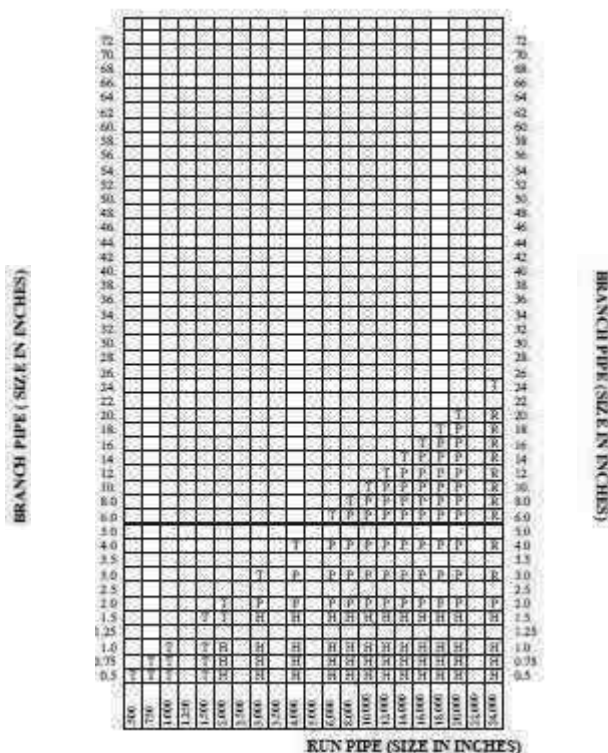
DOCUMENT NUMBER : HRC-LGC-PMS-02-246

INSTALLATION OF ADDITIONAL LEAN GAS COMPRESSOR AT EPRU, URAN PLANT

PIPING MATERIAL SPECIFICATION

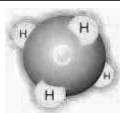


ONGC

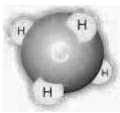


CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
F	SADDLE FUSED JT	T	TEES	J	THREADED
H	H. COUPLING	W	WELDOLETS		
P	PIPE TO PIPE	I	INSTRUMENT TEE		
R	REINFORCED	X	Butter Notch		
S	SOCKETS	L	SWEEPolet		

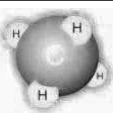
PRESS.CONN	0.75"	SW NIPPLE WITH GATE VALVE TO SPEC AS PER CONSULTANT STD 7-44-354	
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 HRC	DOCUMENT NUMBER : HRC-LGC-PMS-02-246	 ONGC
	INSTALLATION OF ADDITIONAL LEAN GAS COMPRESSOR AT EPRU, URAN PLANT	
	PIPING MATERIAL SPECIFICATION	

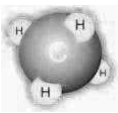
Input Id.	Item Type	Lower Size (Inch)	Upper Size (Inch)	Sch/ Thk	Dmn. STD	Material	Description	Commodity Code	Note No
Pipe Group									
PIP	PIPE	00.500	00.750	S160	B-36.10	ASTM A 333 GR.6	PE, SEAMLESS	PI24677Z5	
PIP	PIPE	01.000	01.500	XS	B-36.10	ASTM A 333 GR.6	PE, SEAMLESS	PI24677Z5	
PIP	PIPE	02.000	02.000	XS	B-36.10	ASTM A 333 GR.6	BE, SEAMLESS	PI24617Z5	
PIP	PIPE	03.000	14.000	STD	B-36.10	ASTM A 333 GR.6	BE, SEAMLESS	PI24617Z5	
PIP	PIPE	16.000	24.000	STD	B-36.10	ASTM A 671 GR.CC60 CL.32	BE, E.FS.W	PI2A313Z5	
PIP	PIPE	26.000	36.000	CALC	B-36.10	ASTM A 671 GR.CC60 CL.32	BE, E.FS.W	PI2A313Z5	
NIP	NIPPLE	00.500	00.750	M	B-36.10	ASTM A 333 GR.6	PBE, SEAMLESS	PN24667Z5	
NIP	NIPPLE	01.000	01.500	M	B-36.10	ASTM A 333 GR.6	PBE, SEAMLESS	PN24667Z5	
Flange Group									
FLG	FLNG.WN	00.500	24.000	M	B-16.5	ASTM A 350 GR.LF2	150, RF/125AARH	FWC5527Z5	
FLG	FLNG.WN	26.000	36.000	M	B-16.47-B	ASTM A 350 GR.LF2	150, RF/125AARH	FWB5527Z5	
FLB	FLNG.BLIND	00.500	24.000		B-16.5	ASTM A 350 GR.LF2	150, RF/125AARH	FBC5527Z5	
FLB	FLNG.BLIND	26.000	36.000		B-16.47-B	ASTM A 350 GR.LF2	150, RF/125AARH	FBB5527Z5	
FEF	FLNG.FIG.8	00.500	08.000		ASME-B16.48	ASTM A 350 GR.LF2	150, FF/125AARH	FGK5521Z5	
FEF	SPCR&BLND	10.000	24.000		ASME-B16.48	ASTM A 350 GR.LF2	150, FF/125AARH	FCK5521Z5	
FEF	SPCR&BLND	26.000	36.000		CONSULTANT' STD	ASTM A 516 GR.70(NORMALISED)	150, FF/125AARH	FCE8921Z5	
Fitting Group									
ELB90	ELBOW.90	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WA683D3Z5	
ELB90	ELBOW.90	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WA683D2Z5	
ELB90	ELBOW.90	02.000	14.000	M	B-16.9	ASTM A 420 GR.WPL6	BW, 1.5D	WAGB44Z15	
ELB90	ELBOW.90	16.000	36.000	M	B-16.9	ASTM A 420 GR.WPL6-W	BW, 1.5D	WAGB54Z15	
ELB45	ELBOW.45	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WB683D3Z5	
ELB45	ELBOW.45	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WB683D2Z5	

 HRC	DOCUMENT NUMBER : HRC-LGC-PMS-02-246	 ONGC
	INSTALLATION OF ADDITIONAL LEAN GAS COMPRESSOR AT EPRU, URAN PLANT	
	PIPING MATERIAL SPECIFICATION	

Input Id.	Item Type	Lower Size (Inch)	Upper Size (Inch)	Sch/ Thk	Dmn. STD	Material	Description	Commodity Code	Note No
Fitting Group									
ELB45	ELBOW.45	02.000	14.000	M	B-16.9	ASTM A 420 GR.WPL6	BW, 1.5D	WGBG44Z15	
ELB45	ELBOW.45	16.000	36.000	M	B-16.9	ASTM A 420 GR.WPL6-W	BW, 1.5D	WGBG54Z15	
TEQ	T.EQUAL	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WE683D3Z5	
TEQ	T.EQUAL	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WE683D2Z5	
TEQ	T.EQUAL	02.000	14.000	M	B-16.9	ASTM A 420 GR.WPL6	BW	WGBG44Z25	
TEQ	T.EQUAL	16.000	36.000	M	B-16.9	ASTM A 420 GR.WPL6-W	BW	WGBG54Z25	
TRED	T.RED	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WR683D3Z5	
TRED	T.RED	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WR683D2Z5	
TRED	T.RED	02.000	14.000	M, M	B-16.9	ASTM A 420 GR.WPL6	BW	WRGB44Z25	
TRED	T.RED	16.000	36.000	M, M	B-16.9	ASTM A 420 GR.WPL6-W	BW	WRGB54Z25	
REDC	REDUC.CONC	02.000	14.000	M, M	B-16.9	ASTM A 420 GR.WPL6	BW	WUGB44Z25	
REDC	REDUC.CONC	16.000	36.000	M, M	B-16.9	ASTM A 420 GR.WPL6-W	BW	WUGB54Z25	
REDE	REDUC.ECC	02.000	14.000	M, M	B-16.9	ASTM A 420 GR.WPL6	BW	WVGB44Z25	
REDE	REDUC.ECC	16.000	36.000	M, M	B-16.9	ASTM A 420 GR.WPL6-W	BW	WVGB54Z25	
SWGC	SWAGE.CONC	00.500	03.000	M, M	BS-3799	ASTM A 350 GR.LF2	PBE	WNH836Z25	
SWGE	SWAGE.ECC	00.500	03.000	M, M	BS-3799	ASTM A 350 GR.LF2	PBE	WPH836Z25	
CAP	CAP	02.000	36.000	M	B-16.9	ASTM A 420 GR.WPL6	BW	WFGB44Z25	
CPLF	CPLNG.FULL	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WJ683D3Z5	
CPLF	CPLNG.FULL	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WJ683D2Z5	
CPLH	CPLNG.HALF	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WK683D3Z5	
CPLH	CPLNG.HALF	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WK683D2Z5	
CPLL	CPLNG.LH	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WL683D3Z5	
CPLL	CPLNG.LH	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WL683D2Z5	

 HRC	DOCUMENT NUMBER : HRC-LGC-PMS-02-246	 ONGC
	INSTALLATION OF ADDITIONAL LEAN GAS COMPRESSOR AT EPRU, URAN PLANT	
	PIPING MATERIAL SPECIFICATION	

Input Id.	Item Type	Lower Size (Inch)	Upper Size (Inch)	Sch/ Thk	Dmn. STD	Material	Description	Commodity Code	Note No
Fitting Group									
CPLR	CPLNG.RED	00.500	00.750		B-16.11	ASTM A 350 GR.LF2	SW, 6000	WM683D3Z5	
CPLR	CPLNG.RED	01.000	01.500		B-16.11	ASTM A 350 GR.LF2	SW, 3000	WM683D2Z5	
Valves Group									
GAV	VLV.GATE	00.500	01.500		API-602	BODY-ASTM A 350 GR.LF2,TRIM-STELLITED,STEM- SS 304	SW, 800, 3000, B-16.11, SHT NO.- 51003	51003ZZZ5	
GAV	VLV.GATE	02.000	24.000		API-600	BODY-ASTM A 352 GR.LCB,TRIM-STELLITED,STEM-SS304	FLGD, 150, B-16.5, RF/125AARH, SHT NO.- 51303	51303ZZZ5	
GLV	VLV.GLOBE	00.500	01.500		BS-5352	BODY-ASTM A 350 GR.LF2,TRIM-STELLITED,STEM-SS304	SW, 800, 3000, B-16.11, SHT NO.- 52003	52003ZZZ5	
GLV	VLV.GLOBE	02.000	16.000		BS-1873	BODY-ASTM A 352 GR.LCB,TRIM-STELLITED,STEM-SS304	FLGD, 150, B-16.5, RF/125AARH, SHT NO.- 52303	52303ZZZ5	
CHV	VLV.CHECK	00.500	01.500		BS-5352	BODY-ASTM A 350 GR.LF2,TRIM-STELLITED	SW, 800, 3000, B-16.11, SHT NO.- 53003	53003ZZZ5	
CHV	VLV.CHECK	02.000	24.000		BS-1868	BODY-ASTM A 352 GR.LCB,TRIM-STELLITED	FLGD, 150, B-16.5, RF/125AARH, SHT NO.- 53303	53303ZZZ5	
BLV	VLV.BALL	00.500	16.000		BS-5351	BODY-ASTM A352 GR.LCB / ASTM A350 GR.LF2,TRIM-BODY SEAT- RPTFE	FLGD, 150, B-16.5, RF/125AARH, SHT NO.- 54303	54303ZZZ5	
BFV	VLV.BTRFLY	03.000	24.000		BS-5155	BODY-ASTM A 352 GR.LCB,TRIM-SS 304	WAF, 150, B-16.5, WAF/125AARH, SHT NO.- 56303	56303ZZZ5	
BFV	VLV.BTRFLY	26.000	36.000		BS-5155	BODY-ASTM A 352 GR.LCB,TRIM-SS 304	FLGD, 150, B-16.47 B, RF/125AARH, SHT NO.- 56317	56317ZZZ5	
Bolt Group									
BOS	BOLT.STUD	00.500	36.000		B-18.2	BOLT:A320 GR.L7, NUT:A194 GR.4		BS42007Z5	
Gasket Group									
GAS	GASKET	00.500	24.000		B-16.20-ANSI B16.5	SP.WND SS316+CAF	SPIRAL, 150	GK63172Z5	
GAS	GASKET	26.000	36.000		B-16.20-ANSI B16.47B	SP.WND SS316+CAF+ I RING	SPIRAL, 150	GK56172Z5	

 HRC	DOCUMENT NUMBER : HRC-LGC-PMS-02-246	 ONGC
	INSTALLATION OF ADDITIONAL LEAN GAS COMPRESSOR AT EPRU, URAN PLANT	
	PIPING MATERIAL SPECIFICATION	

Input Id.	Item Type	Lower Size (Inch)	Upper Size (Inch)	Sch/ Thk	Dmn. STD	Material	Description	Commodity Code	Note No
Trap/Strainer Group									
TSR	STRNR.TEMP	01.500	24.000		CONSULTANT' STD	B:A516GR.70(NOR M);INT:SS304	CONETYPE, 150,FF/125AARH	ST17531Z5	
PSR	STRNR.PERM	00.500	01.500		MNF'STD	B:A350GR.LF2;INT: SS304	SW, Y-TYPE, 800	SP345D515	
PSR	STRNR.PERM	02.000	14.000	M	CONSULTANT' STD	B:A420GR.WPL6;IN T:SS304	BW, T-TYPE	SP16544Z5	
PSR	STRNR.PERM	16.000	24.000	M	CONSULTANT' STD	B:A420GR.WPL6W; INT:SS304	BW, T-TYPE	SP16644Z5	



DOCUMENT NUMBER : HRC-LGC-PMS-02-246

INSTALLATION OF ADDITIONAL LEAN GAS COMPRESSOR AT EPRU, URAN PLANT

PIPING MATERIAL SPECIFICATION



	input id	input type	lower size(inch)	upper size(inch)	sch/thk	dmn.std	material	description	commodity code	note no	
pipe group											
	PIP	PIPE	0.50	0.75	S160	B-36.10	ASTM A 106 GR. B	PE,SEAMLESS	P12193320		
	PIP	PIPE	1.00	1.50	XS	B-36.10	ASTM A 106 GR. B	PE,SEAMLESS	P12193320		
	PIP	PIPE	2.00	2.00	XS	B-36.10	ASTM A 106 GR. B	BE,SEAMLESS	P12191320		
	PIP	PIPE	3.00	3.00	STD	B-36.10	ASTM A 106 GR. B	BE,SEAMLESS	P12191320		
	PIP	PIPE	4.00	6.00	XS	B-36.10	ASTM A 106 GR. B	BE,SEAMLESS	P12191320		
	PIP	PIPE	8.00	8.00	11.1	APL 5L	APL 5L GR B PSLI	BE,SEAMLESS	P1AE91720		
	PIP	PIPE	10.00	10.00	12.7	APL 5L	APL 5L GR B PSLI	BE,SEAMLESS	P1AE91720		
	PIP	PIPE	12.00	12.00	14.5	APL 5L	APL 5L GR B PSLI	BE,SEAMLESS	P1AE91720		
	PIP	PIPE	14.00	14.00	15.9	APL 5L	APL 5L GR B PSLI	BE,SEAMLESS	P1AE91720		
	PIP	PIPE	16.00	16.00	10.3	APL 5L	APL 5L GR X-52 PSL 1	BE,SAW	P1A041620		
	PIP	PIPE	18.00	18.00	11.1	APL 5L	APL 5L GR X-52 PSL 1	BE,SAW	P1A041620		
	NIP	NIPPLE	0.50	0.75	M	B-36.10	ASTM A 106 GR B	PBE,SEAMLESS	PN2116720		
	NIP	NIPPLE	1.00	1.50	M	B-36.10	ASTM A 106 GR B	PBE,SEAMLESS	PN2116720		
FLANGE GROUP											
	FLG	FLNG.SW	0.50	1.50	M	B-16.5	ASTM A 105	600,RF/125AARH	FSC016720		
	FLG	FLNG.WN	2.00	14.00	M	B-16.5	ASTM A 105	600,RF/125AARH	FWC016320		
	FLG	FLNG.WN	16.00	18.00	M	B-16.5	MSS SP44 GR.F-52	600,RF/125AARH	FWC816320		
	FLB	FLNG.BLIND	0.50	1.50		B-16.5	ASTM A 105	600,RF/125AARH	FBC016720		
	FLB	FLNG.BLIND	2.00	18.00		B-16.5	ASTM A 105	600,RF/125AARH	FBC016726		
	FEF	FLNG.FIG.S	0.50	1.50		ASME-B16.48	ASTM A 105	600,RF/125AARH	FGK016120		
	FEF	FLNG.FIG.S	2.00	8.00		ASME-B16.48	ASTM A 105	600,RF/125AARH	FGK016120		
	FEF	SPCR&BLIND	10.00	18.00		ASME-B16.48	ASTM A 105	600,RF/125AARH	FCKO16120		
FITTING GROUP											
	ELB90	ELBOW.90	0.50	0.75		B-16.11	ASTM A 105	SW,6000	WA602D320		

D1A

[illegible]

INPUT ID	ITEM TYPE	LOWER SIZE(INCH)	UPPER SIZE(INCH)	SCH/THK	DMN.STD	MATERIAL	DESCRIPTION	COMMODITY CODE	NOTE NO
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FITING GROUP

REDE	REDUC.ECC	18.00	18.00	M,M	MSS-SP75	MSS SP-75GR WPHY-52	BW	WBUG14ZZ0	
SWGC	SWAGE.CONC	0.50	3.00	M,M	BS-3799	ASTM A 105	PBE	WNH026ZZ0	
SWGE	SWAGE.ECC	0.50	3.00	M,M	BS-3799	ASTM A 105	PBE	WPH026ZZ0	
CAP	CAP	0.50	0.75		B-16.11	ASTM A 105	SCRF,6000	WP60281Z0	
CAP	CAP	1.00	1.50		B-16.11	ASTM A 105	SCRF,3000	WP60282Z0	
CAP	CAP	2.00	14.00	M	B-16.9	ASTM A 234 GR WPB	BW	WPG684ZZ0	
CAP	CAP	16.00	16.00	M	B-16.9	MSS SP-75GR WPHY-52	BW	WPGG14ZZ0	
CAP	CAP	18.00	18.00	M	MSS-SP75	MSS SP-75GR WPHY-52	BW	WFUG14ZZ0	
FLG	PLUG	0.50	0.75		B-16.11	ASTM A 105	SCRM,6000	WH60291Z0	
FLG	PLUG	1.00	1.50		B-16.11	ASTM A 105	SCRM,3000	WH60292Z0	
CPLF	CPLNG.FULL	0.50	0.75		B-16.11	ASTM A 105	SW,6000	WJ602D3Z0	
CPLF	CPLNG.FULL	1.00	1.50		B-16.11	ASTM A 105	SW,3000	WJ602D1Z0	
CPLF	CPLNG.FULL	1.00	1.50		B-16.11	ASTM A 105	SCRF,3000	WJ60082Z0	
CPLF/2	CPLNG.FULL	1.00	1.50		B-16.11	ASTM A 105	SCRF,3000	WJ60082Z0	
CPLF/1	CPLNG.FULL	0.50	0.75		B-16.11	ASTM A 105	SCRF,6000	WJ60083Z0	
CPLH	CPLNG.HALF	0.50	0.75		B-16.11	ASTM A 105	SW,6000	WK602DSZ0	
CPLH	CPLNG.HALF	1.00	1.50		B-16.11	ASTM A 105	SW,3000	WK602D1Z0	
CPLH	CPLNG.HALF	1.00	1.50		B-16.11	ASTM A 105	SCRF,3000	WK60282Z0	
CPLH/2	CPLNG.HALF	1.00	1.50		B-16.11	ASTM A 105	SCRF,3000	WK60282Z0	
CPLH/1	CPLNG.HALF	0.50	0.75		B-16.11	ASTM A 105	SCRF,6000	WK60281Z0	
CPLL	CPLNG.LH	0.50	0.75		B-16.11	ASTM A 105	SW,6000	WL602D3Z0	
CPLL	CPLNG.LH	1.00	1.50		B-16.11	ASTM A 105	SW,3000	WL602D2Z0	
CPLL	CPLNG.LH	1.00	1.50		B-16.11	ASTM A 105	SCRF,3000	WL60282Z0	
CPLL/2	CPLNG.LH	1.00	1.50		B-16.11	ASTM A 105	SCRF,3000	WL60282Z0	

INPUT ID	ITEM TYPE	LOWER SIZE(IN CH)	UPPER SIZE(IN CH)	SCH/THK	DMN.STD	MATERIAL	DESCRIPTION	COMMODITY CODE	NOTE NO
FITTING GROUP									
CPLL/1	CPL NG.LH	0.5	0.75		B-16.11	ASTM A 105	SCRF6000	WL60283Z0	
CPLR	CPL NG.RED	0.5	0.75		B-16.11	ASTM A 105	SW,6000	WM602D3Z0	
CPLR	CPL NG.RED	1	1.5		B-16.11	ASTM A 105	SW,3000	WM602D2Z0	
CPLR	CPL NG.RED	1	1.5		B-16.11	ASTM A 105	SCRF3000	WM60282Z0	
CPLR/2	CPL NG.RED	1	1.5		B-16.11	ASTM A 105	SCRF3000	WM60282Z0	
CPLR/1	CPL NG.RED	0.5	0.75		B-16.11	ASTM A 105	SCRF6000	WM60283Z0	
O LET GROUP									
SLT	SOCKOLET	0.5	0.75		MSS-SF97	ASTM A 105	SW,6000	YSS02D3Z0	
SLT	SOCKOLET	1	1.5		MSS-SF97	ASTM A 105	SW,3000	YSS00D2Z0	
WLT	WELDOLET	2	6	M,XXS	MSS-SF97	ASTM A 105	BW	YWS024ZZ0	
TLT	THREDOLET	0.5	0.75		MSS-SF97	ASTM A 105	SCRF6000	YTS0283Z0	
VALVES GROUP									
GAV	VLV. GATE	0.5	1.5		API-602	BODY-ASTM A 105,TRIM-STELLITED,STEM 13% CR,STEEL	SW,800,3000, B-16.11,SHT NO-51001	51001ZZZ0	
GLV	VLV. GLOBE	0.5	1.5		BS-5352	BODY-ASTM A 105,TRIM-STELLITED,STEM 13% CR,STEEL	SW,800,3000, B-16.11,SHT NO-52001	52001ZZZ0	
GLV	VLV. GLOBE	2	12		BS-1873	BODY-ASTM A 216 GR WCB,TRIM STELLITED,STEM13%CR,STEEL	FLGD,600,B-16.5,RF/125AARH,SHT NO-52501	52501ZZZ0	
CHV	VLV. CHECK	0.5	1.5		BS-5352	BODY-ASTM A105.TRIM-STELLITED	SW,800,3000, B-16.11,SHT NO-53001	53001ZZZ0	
CHV	VLV. CHECK	2	18		API-6D	BODY-ASTM A 216 GR WCb,TRIM STELLITED	FLGD,600,B-16.5,RF/125AARH,SHT NO-53591	53591ZZZ0	
BLV	VLV. BALL	0.5	1.5		BS-5351	BODY-ASTM A105.TRIM BODY SEAT-RPTFE	FLGD,600,B-16.5,RF/125AARH,SHT NO-54591	54591ZZZ0	
BLV	VLV. BALL	2	18		API-6D	BODY-ASTM A 216 GR WCB/A234 GR WPB,TRIM/SEAT:(AISI4140 +0.003" ENP)AISI410	FLGD,600,B-16.5,RF/125AARH,SHT NO-54597	54597ZZZ0	

INPUT ID	ITEM TYPE	LOWER SIZE(INCH)	UPPER SIZE(INCH)	SCH/THK	DMN.STD	MATERIAL	DESRPTION	COMMODITY CODE	NOTE NO
VALVES GROUP									
BLV/1	VLV BALL	2	18		API-6D	BODY-ASTM A 216 GR WCB/A234 GR WPB,TRIM SEAT:(AISI4140+0.003 " ENP)/AISI410	BW,600,B- 16.25,SHT NO- 54598	54598ZZZ0	
PLV	VLV .PLUG	0.5	1.5		BS-5353	BODY-ASTM A 105,PLUG- A105+0.003"ENP	SW,800,3000,B- 16.11,SHT NO- 55092	55092ZZZ0	
PLV	VLV .PLUG	2	18		API-6D	BODY-ASTM A 216 GR WCB PLUG ASTM A 216 GR WCB+0.003"ENP	FLGD,600,B- 16.25,RF/125AAR H,SHT NO-55591	55991ZZZ0	
PLV/1	VLV .PLUG	2	18		API-6D	BODY-ASTM A 216 GR WCB PLUG ASTM A 216 GR WCB+0.003"ENP	FLOD.600,B- 16.25,SHT NO 55592	55592ZZZ0	
BELT GROUP									
BOS	BOLT.STUD	0.5	18		B-18.2	BOLT:A193 GR,B 7, NUT:A104 GR 2H		BS 40404Z0	
GASKET GROUP									
GAS	GASKET	0.5	18		B-16.20-ANSI B16.5	SP.WND SS316+GRA FIL	SPIRAL,600	GK65076Z0	
TRAP/STRAINER GROUP									
PSR	STRNR.PERM	0.5	1.5		EIL STD	B:A 105,INT:SS304	SW,Y-TYPE,800	SP103D510	
PSR	STRNR.PERM	2	16	M	MNP STD	B:A234GR. WPB,INT:SS304	BW,T-TYPE	SP33344Z0	