

IOCL Paradip SRU Tie-In Piping BOQ

Note:-

- 1- NAC6= NACE + HIC
- 2- PIPE QTY IN METRES AND OTHERS IN NUMBERS.
- 3- GALVNISATION AS PER ASTM A153
- 4- NUTS SHALL BE HEAVY HEXAGONAL

S. NO.	ITEM DESCRIPTION	QTY1	FINAL QTY
1	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, 2.0 INCH, XS	5	12
2	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, 3.0 INCH, STD	18	24
3	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, 4.0 INCH, STD	3	12
4	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, 6.0 INCH, STD	19	24
5	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, 8.0 INCH, STD	7	12
6	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, 10.0 INCH, STD	7	12
7	PIPE, B-36.10, ASTM A 106 GR.B, PE, SEAMLESS, IBR, 0.75 INCH, S160	75	96
8	PIPE, B-36.10, ASTM A 106 GR.B, PE, SEAMLESS, IBR, 1.5 INCH, XS	13	18
9	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 3.0 INCH, XS	12	18
10	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 4.0 INCH, STD	12	18
11	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 6.0 INCH, S120	19	24
12	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 6.0 INCH, XS	7	12
13	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 8.0 INCH, STD	7	12
14	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 10.0 INCH, STD	20	30
15	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 10.0 INCH, S80	8	12
16	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 12.0 INCH, S80	2	12
17	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, IBR, 12.0 INCH, STD	7	12
18	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, NACE, 3.0 INCH, STD	17	24
19	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, NACE, 6.0 INCH, STD	10	18
20	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, NAC6, 3.0 INCH, S160	4	12
21	PIPE, B-36.10, ASTM A 106 GR.B, BE, SEAMLESS, NAC6, 10.0 INCH, XS	0.152	12
22	PIPE, B-36.10, ASTM A 106 GR.B(GALV), BE, SEAMLESS, 3.0 INCH, STD	16	24
23	PIPE, B-36.19, ASTM A 312 TP304L, BE, SEAMLESS, 2.0 INCH, 40S	17	24
24	PIPE, B-36.19, ASTM A 358 TP304L CL.1, BE, E.F.S.W, 14.0 INCH, 10S	0.204	12
25	PIPE, B-36.19, ASTM A 358 TP316L CL.1, BE, E.F.S.W, 10.0 INCH, S20	9	12
27	PIPE, B-36.10, ASTM A 671 GR.CC60 CL.32, BE, E.F.S.W, NACE, 24.0 INCH, STD	14	18
29	PIPE, B-36.10, ASTM A 671 GR.CC60 CL.32, BE, E.F.S.W, NACE, 42.0 INCH, XS	2	12
30	PIPE, B-36.10, ASTM A 671 GR.CC60 CL.32, BE, E.F.S.W, NACE, 48.0 INCH, XS	8	12
31	PIPE, B-36.10, ASTM A 671 GR.CC60 CL.32, BE, E.F.S.W, NAC6, 16.0 INCH, STD	13	18
33	PIPE, B-36.10, ASTM A 672 GR.B60 CL.32, BE, E.F.S.W, IBR, 16.0 INCH, STD	0.203	12
34	REINF.PAD, ASTM A 672 GR.B60 CL.32, IBR, 16.0 INCH, STD, 4.0 INCH	1	1
35	REINF.PAD, ASTM A 358 TP304L CL.1, 14.0 INCH, 10S, 2.0 INCH	2	2
36	REINF.PAD, ASTM A 671 GR.CC60 CL.32, NACE, 42.0 INCH, XS, 6.0 INCH	1	1
37	REINF.PAD, ASTM A 671 GR.CC60 CL.32, NACE, 42.0 INCH, XS, 24.0 INCH	1	1
38	REINF.PAD, ASTM A 106 GR.B, IBR, 10.0 INCH, STD, 3.0 INCH	1	1
39	REINF.PAD, ASTM A 106 GR.B, NAC6, 10.0 INCH, XS, 3.0 INCH	1	1
40	FLNG.SW, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, IBR, 0.75 INCH, S160	4	4
41	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 2.0 INCH, XS	2	2
42	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 3.0 INCH, STD	3	3
43	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 4.0 INCH, STD	1	1
44	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 6.0 INCH, STD	2	2
45	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 8.0 INCH, STD	1	1
46	FLNG.WN, B-16.47-B, ASTM A 105 (NORMALISED), 300, RF/125AARH, 36.0 INCH, XS	2	2
48	FLNG.WN, B-16.47-B, ASTM A 105 (NORMALISED), 150, RF/125AARH, 48.0 INCH, XS	4	4
49	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 0.75 INCH, S160	41	41
50	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 1.5 INCH, XS	25	25
52	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, IBR, 3.0 INCH, XS	1	1
54	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 4.0 INCH, STD	1	1
55	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 600, RF/125AARH, IBR, 6.0 INCH, XS	3	3
56	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 600, RF/125AARH, IBR, 6.0 INCH, S120	6	6
57	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 600, RF/125AARH, IBR, 10.0 INCH, S80	3	3
58	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 10.0 INCH, STD	2	2
59	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 600, RF/125AARH, IBR, 12.0 INCH, S80	2	2
61	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 3.0 INCH, STD	2	2
62	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, NACE, 3.0 INCH, STD	8	8
63	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 6.0 INCH, STD	3	3
64	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 20.0 INCH, STD	2	2
65	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 24.0 INCH, STD	3	3
66	FLNG.WN, B-16.47-B, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 36.0 INCH, XS	2	2
67	FLNG.WN, B-16.47-B, ASTM A 105 (NORMALISED), 300, RF/125AARH, NACE, 48.0 INCH, XS	4	4
68	FLNG.WN, B-16.47-B, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 48.0 INCH, XS	1	1
69	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, NAC6, 3.0 INCH, S160	1	1
71	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NAC6, 16.0 INCH, STD	1	1
72	FLNG.WN, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, NAC6, 16.0 INCH, STD	4	4
73	FLNG.WN, B-16.5, ASTM A 182 GR.F304L, 150, RF/125AARH, 2.0 INCH, 40S	2	2
74	FLNG.WN, B-16.5, ASTM A 182 GR.F316L, 150, RF/125AARH, 10.0 INCH, S20	1	1
75	FLNG.SO, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, 8.0 INCH, 6.0 INCH	2	4
76	FLNG.SO, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 8.0 INCH, 6.0 INCH	4	8

	ITEM1	PKG	MATERIAL		MAT	SZ1	SZ2	SCH1	SCH2	TYPE	RATING	EC	SPECIAL	MC		UWT	TWT1	TWT
PIPE	PIPE	PREFAB	A106GRB		CS		2	XS						PIPE2XS		7.48	37.40	89.76
PIPE	PIPE	PREFAB	A106GRB		CS		3	STD						PIPE3STD		11.29	203.22	270.96
PIPE	PIPE	PREFAB	A106GRB		CS		4	STD						PIPE4STD		16.08	48.24	192.96
PIPE	PIPE	PREFAB	A106GRB		CS		6	STD						PIPE6STD		28.26	536.94	678.24
PIPE	PIPE	PREFAB	A106GRB		CS		8	STD						PIPE8STD		42.55	297.85	510.60
PIPE	PIPE	PREFAB	A106GRB		CS		10	STD						PIPE10STD		60.29	422.03	723.48
PIPE	PIPE	PREFAB	A106GRB		CS		0.75	S160					IBR	PIPE0.75S160		2.9	217.50	278.40
PIPE	PIPE	PREFAB	A106GRB		CS		1.5	XS					IBR	PIPE1.5XS		5.41	70.33	97.38
PIPE	PIPE	PREFAB	A106GRB		CS		3	XS					IBR	PIPE3XS		15.27	183.24	274.86
PIPE	PIPE	PREFAB	A106GRB		CS		4	STD					IBR	PIPE4STD		16.08	192.96	289.44
PIPE	PIPE	PREFAB	A106GRB		CS		6	S120					IBR	PIPE6S120		54.21	1029.99	1301.04
PIPE	PIPE	PREFAB	A106GRB		CS		6	XS					IBR	PIPE6XS		42.56	297.92	510.72
PIPE	PIPE	PREFAB	A106GRB		CS		8	STD					IBR	PIPE8STD		42.55	297.85	510.60
PIPE	PIPE	PREFAB	A106GRB		CS		10	STD					IBR	PIPE10STD		60.29	1205.80	1808.70
PIPE	PIPE	PREFAB	A106GRB		CS		10	S80					IBR	PIPE10S80		95.98	767.84	1151.76
PIPE	PIPE	PREFAB	A106GRB		CS		12	S80					IBR	PIPE12S80		132.05	264.10	1584.60
PIPE	PIPE	PREFAB	A106GRB		CS		12	STD					IBR	PIPE12STD		73.86	517.02	886.32
PIPE	PIPE	PREFAB	A106GRB		CS		3	STD					NACE	PIPE3STD		11.29	191.93	270.96
PIPE	PIPE	PREFAB	A106GRB		CS		6	STD					NACE	PIPE6STD		28.26	282.60	508.68
PIPE	PIPE	PREFAB	A106GRB		CS		3	S160					NACE+HIC	PIPE3S160		21.35	85.40	256.20
PIPE	PIPE	PREFAB	A106GRB		CS		10	XS					NACE+HIC	PIPE10XS		81.53	12.39	978.36
PIPE	PIPE	PREFAB	A106GRB		CS		3	STD						PIPE3STD		11.29	180.64	270.96
PIPE	PIPE	PREFAB	A312GRTP304L		SS		2	S40S						PIPE2S40S		5.44	92.48	130.56
PIPE	PIPE	PREFAB	A358GRTP304L		SS		14	S10S						PIPE14S10S		41.36	8.44	496.32
PIPE	PIPE	PREFAB	A358GRTP316L		SS		10	S20						PIPE10S20		41.76	375.84	501.12
PIPE	PIPE	PREFAB	A671GRCC60		CS		24	STD					NACE	PIPE24STD		141.12	1975.68	2540.16
PIPE	PIPE	PREFAB	A671GRCC60		CS		42	XS					NACE	PIPE42XS		330.21	660.42	3962.52
PIPE	PIPE	PREFAB	A671GRCC60		CS		48	XS					NACE	PIPE48XS		377.81	3022.48	4533.72
PIPE	PIPE	PREFAB	A671GRCC60		CS		16	STD					NACE+HIC	PIPE16STD		93.27	1212.51	1678.86
PIPE	PIPE	PREFAB	A672GRB60		CS		16	STD					IBR	PIPE16STD		93.27	18.93	1119.24
RPAD	FITT	PREFAB	A672GRB60		CS		16	4 STD					IBR	RPAD164STD		0	0.00	0.00
RPAD	FITT	PREFAB	A358GRTP304L		SS		14	2 S10S						RPAD142S10S		0	0.00	0.00
RPAD	FITT	PREFAB	A671GRCC60		CS		42	6 XS					NACE	RPAD426XS		0	0.00	0.00
RPAD	FITT	PREFAB	A671GRCC60		CS		42	24 XS					NACE	RPAD4224XS		0	0.00	0.00
RPAD	FITT	PREFAB	A106GRB		CS		10	3 STD					IBR	RPAD103STD		0	0.00	0.00
RPAD	FITT	PREFAB	A106GRB		CS		10	3 XS					NACE+HIC	RPAD103XS		0	0.00	0.00
FLNG	FLNG	FLNG	A105(N)		CS		0.75			SW	CL300	RF-B16.5	IBR	FLNG0.75SWCL300RF-B16.5		1.4	5.60	5.60
FLNG	FLNG	FLNG	A105(N)		CS		2	XS		WN	CL150	RF-B16.5		FLNG2XSWNCL150RF-B16.5		2.67	5.34	5.34
FLNG	FLNG	FLNG	A105(N)		CS		3	STD		WN	CL150	RF-B16.5		FLNG3STDWNCL150RF-B16.5		4.97	14.91	14.91
FLNG	FLNG	FLNG	A105(N)		CS		4	STD		WN	CL150	RF-B16.5		FLNG4STDWNCL150RF-B16.5		7.11	7.11	7.11
FLNG	FLNG	FLNG	A105(N)		CS		6	STD		WN	CL150	RF-B16.5		FLNG6STDWNCL150RF-B16.5		10.9	21.80	21.80
FLNG	FLNG	FLNG	A105(N)		CS		8	STD		WN	CL150	RF-B16.5		FLNG8STDWNCL150RF-B16.5		19.23	19.23	19.23
FLNG	FLNG	FLNG	A105(N)		CS		36	XS		WN	CL300	RF-B16.47B		FLNG36XSWNCL300RF-B16.47B		405	810.00	810.00
FLNG	FLNG	FLNG	A105(N)		CS		48	XS		WN	CL150	RF-B16.47B		FLNG48XSWNCL150RF-B16.47B		231	924.00	924.00
FLNG	FLNG	FLNG	A105(N)		CS		0.75	S160		WN	CL150	RF-B16.5	IBR	FLNG0.75S160WNCL150RF-B16.5		0.8	32.80	32.80
FLNG	FLNG	FLNG	A105(N)		CS		1.5	XS		WN	CL150	RF-B16.5	IBR	FLNG1.5XSWNCL150RF-B16.5		1.78	44.50	44.50
FLNG	FLNG	FLNG	A105(N)		CS		3	XS		WN	CL300	RF-B16.5	IBR	FLNG3XSWNCL300RF-B16.5		7.46	7.46	7.46
FLNG	FLNG	FLNG	A105(N)		CS		4	STD		WN	CL150	RF-B16.5	IBR	FLNG4STDWNCL150RF-B16.5		7.11	7.11	7.11
FLNG	FLNG	FLNG	A105(N)		CS		6	XS		WN	CL600	RF-B16.5	IBR	FLNG6XSWNCL600RF-B16.5		35.29	105.87	105.87
FLNG	FLNG	FLNG	A105(N)		CS		6	S120		WN	CL600	RF-B16.5	IBR	FLNG6S120WNCL600RF-B16.5		36.66	219.96	219.96
FLNG	FLNG	FLNG	A105(N)		CS		10	S80		WN	CL600	RF-B16.5	IBR	FLNG10S80WNCL600RF-B16.5		91.28	273.84	273.84
FLNG	FLNG	FLNG	A105(N)		CS		10	STD		WN	CL150	RF-B16.5	IBR	FLNG10STDWNCL150RF-B16.5		24.48	48.96	48.96
FLNG	FLNG	FLNG	A105(N)		CS		12	S80		WN	CL600	RF-B16.5	IBR	FLNG12S80WNCL600RF-B16.5		111.51	223.02	223.02
FLNG	FLNG	FLNG	A105(N)		CS		3	STD		WN	CL150	RF-B16.5	NACE	FLNG3STDWNCL150RF-B16.5		4.97	9.94	9.94
FLNG	FLNG	FLNG	A105(N)		CS		3	STD		WN	CL300	RF-B16.5	NACE	FLNG3STDWNCL300RF-B16.5		7.15	57.20	57.20
FLNG	FLNG	FLNG	A105(N)		CS		6	STD		WN	CL150	RF-B16.5	NACE	FLNG6STDWNCL150RF-B16.5		10.9	32.70	32.70
FLNG	FLNG	FLNG	A105(N)		CS		20	STD		WN	CL150	RF-B16.5	NACE	FLNG20STDWNCL150RF-B16.5		87.67	175.34	175.34
FLNG	FLNG	FLNG	A105(N)		CS		24	STD		WN	CL150	RF-B16.5	NACE	FLNG24STDWNCL150RF-B16.5		113.09	339.27	339.27
FLNG	FLNG	FLNG	A105(N)		CS		36	XS		WN	CL150	RF-B16.47B	NACE	FLNG36XSWNCL150RF-B16.47B		129	258.00	258.00
FLNG	FLNG	FLNG	A105(N)		CS		48	XS		WN	CL300	RF-B16.47B	NACE	FLNG48XSWNCL300RF-B16.47B		731	2924.00	2924.00
FLNG	FLNG	FLNG	A105(N)		CS		48	XS		WN	CL150	RF-B16.47B	NACE	FLNG48XSWNCL150RF-B16.47B		231	231.00	231.00
FLNG	FLNG	FLNG	A105(N)		CS		3	S160		WN	CL300	RF-B16.5	NACE+HIC	FLNG3S160WNCL300RF-B16.5		7.93	7.93	7.93
FLNG	FLNG	FLNG	A105(N)		CS		16	STD		WN	CL150	RF-B16.5	NACE+HIC	FLNG16STDWNCL150RF-B16.5		61.67	61.67	61.67
FLNG	FLNG	FLNG	A105(N)		CS		16	STD		WN	CL300	RF-B16.5	NACE+HIC	FLNG16STDWNCL300RF-B16.5		111.77	447.08	447.08
FLNG	FLNG	FLNG	A182GRF304L		SS		2	S40S		WN	CL150	RF-B16.5		FLNG2S40SWNCL150RF-B16.5		2.54	5.08	5.08
FLNG	FLNG	FLNG	A182GRF316L		SS		10	S20		WN	CL150	RF-B16.5		FLNG10S20WNCL150RF-B16.5		22.63	22.63	22.63
FLNG	FLNG	PREFAB	A105(N)		CS		8	6		SO-RD	CL300	RF-B16.5		FLNG86SO-RDCL300RF-B16.5		26	52.00	104.00
FLNG	FLNG	PREFAB	A105(N)		CS		8	6		SO-RD	CL150	RF-B16.5		FLNG86SO-RDCL150RF-B16.5		13.7	54.80	109.60

77	FLNG.SO, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 10.0 INCH, 8.0 INCH	2	4
78	FLNG.SO, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 12.0 INCH, 10.0 INCH	4	8
79	FLNG.SO, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, 12.0 INCH, 10.0 INCH	2	4
81	FLNG.SO, B-16.5, ASTM A 105 N (GALV.), 150, FF/125AARH, 3.0 INCH	2	2
83	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 3.0 INCH	2	2
84	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 6.0 INCH	3	3
85	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 8.0 INCH	3	3
86	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 10.0 INCH	1	1
87	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, 12.0 INCH	1	1
88	FLNG.BLIND, B-16.47-B, ASTM A 105 (NORMALISED), 150, RF/125AARH, 44.0 INCH	1	1
89	FLNG.BLIND, B-16.47-B, ASTM A 105 (NORMALISED), 150, RF/125AARH, 48.0 INCH	2	2
90	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 1.5 INCH	25	25
91	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 2.0 INCH	1	1
92	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, IBR, 3.0 INCH	1	1
93	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 4.0 INCH	1	1
94	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 600, RF/125AARH, IBR, 4.0 INCH	1	1
95	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 600, RF/125AARH, IBR, 6.0 INCH	3	3
96	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 600, RF/125AARH, IBR, 10.0 INCH	1	1
97	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 10.0 INCH	2	2
98	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 12.0 INCH	1	1
99	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, IBR, 24.0 INCH	1	1
100	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 3.0 INCH	2	2
101	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 6.0 INCH	1	1
102	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 20.0 INCH	1	1
103	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 24.0 INCH	1	1
104	FLNG.BLIND, B-16.47-B, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 36.0 INCH	1	1
105	FLNG.BLIND, B-16.47-B, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 48.0 INCH	1	1
106	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 300, RF/125AARH, NACE, 3.0 INCH	1	1
107	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 4.0 INCH	1	1
108	FLNG.BLIND, B-16.5, ASTM A 105 (NORMALISED), 150, RF/125AARH, NACE, 16.0 INCH	1	1
109	FLNG.BLIND, B-16.5, ASTM A 182 GR.F304L, 150, RF/125AARH, 2.0 INCH	2	2
110	FLNG.BLIND, B-16.5, ASTM A 182 GR.F316L, 150, RF/125AARH, 10.0 INCH	1	1
111	FLNG.BLIND, B-16.5, ASTM A 105 N (GALV.), 150, FF/125AARH, 2.0 INCH	2	2
112	FLNG.BLIND, B-16.5, ASTM A 105 N (GALV.), 150, FF/125AARH, 3.0 INCH	3	3
113	FLNG.BLIND, B-16.5, ASTM A 105 N (GALV.), 150, FF/125AARH, 4.0 INCH	1	1
114	FLNG.FIG.8, ASME-B16.48, ASTM A 105 (NORMALISED), 300, FF/125AARH, NACE, 3.0 INCH	1	1
115	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, 3.0 INCH	2	2
116	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/250AARH, 6.0 INCH	1	1
117	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, 6.0 INCH	3	3
118	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, 8.0 INCH	2	2
119	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/250AARH, 8.0 INCH	1	1
120	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, IBR, 1.5 INCH	25	25
121	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, IBR, 2.0 INCH	1	1
122	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 300, FF/125AARH, IBR, 3.0 INCH	1	1
123	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 600, FF/125AARH, IBR, 4.0 INCH	1	1
124	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, IBR, 4.0 INCH	1	1
125	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 600, FF/125AARH, IBR, 6.0 INCH	3	3
126	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 3.0 INCH	2	2
127	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 6.0 INCH	1	1
128	FLNG.FIG.8, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 4.0 INCH	1	1
129	FLNG.FIG.8, ASME-B16.48, ASTM A 240 GR.304L, 150, FF/125AARH, 2.0 INCH	2	2
130	FLNG.FIG.8, ASME-B16.48, ASTM A 516N Gr.70 (GALV.), 150, FF/125AARH, 2.0 INCH	2	2
131	FLNG.FIG.8, ASME-B16.48, ASTM A 516N Gr.70 (GALV.), 150, FF/125AARH, 3.0 INCH	3	3
132	FLNG.FIG.8, ASME-B16.48, ASTM A 516N Gr.70 (GALV.), 150, FF/125AARH, 4.0 INCH	1	1
133	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, 10.0 INCH	1	1
134	SPCR&BLND, EIL'STD, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, 44.0 INCH	1	1
135	SPCR&BLND, EIL'STD, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, 48.0 INCH	2	2
136	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, IBR, 10.0 INCH	2	2
137	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 600, FF/125AARH, IBR, 10.0 INCH	1	1
138	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 600, FF/125AARH, IBR, 12.0 INCH	1	1
139	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, IBR, 24.0 INCH	1	1
140	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 20.0 INCH	1	1
141	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 24.0 INCH	1	1
142	SPCR&BLND, ASME B16.47B/EIL'STD, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 36.0 INCH	1	1
143	SPCR&BLND, ASME B16.47B/EIL'STD, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 48.0 INCH	1	1
144	SPCR&BLND, ASME-B16.48, ASTM A 516 GR.70(NORMALISED), 150, FF/125AARH, NACE, 16.0 INCH	1	1
145	SPCR&BLND, ASME-B16.48, ASTM A 240 GR.316L, 150, FF/125AARH, 10.0 INCH	1	1
146	ELBOW.90, B-16.11, ASTM A 105 (NORMALISED), SW, 6000, IBR, 0.75 INCH	42	42
147	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	2	2
148	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 6.0 INCH, STD	2	2
149	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 8.0 INCH, STD	1	1
150	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, IBR, 3.0 INCH, XS	1	1
151	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, IBR, 4.0 INCH, STD	1	1
152	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, IBR, 6.0 INCH, S120	2	2
153	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, IBR, 6.0 INCH, XS	1	1
154	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, IBR, 10.0 INCH, S80	1	1
155	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, IBR, 10.0 INCH, STD	2	2

FLNG	FLNG	PREFAB	A105(N)	CS	10	8			SO-RD	CL150	RF-B16.5		FLNG108SO-RDCL150RF-B16.5	19.5	39.00	78.00
FLNG	FLNG	PREFAB	A105(N)	CS	12	10			SO-RD	CL150	RF-B16.5		FLNG1210SO-RDCL150RF-B16.5	29	116.00	232.00
FLNG	FLNG	PREFAB	A105(N)	CS	12	10			SO-RD	CL300	RF-B16.5		FLNG1210SO-RDCL300RF-B16.5	52	104.00	208.00
FLNG	FLNG	FLNG	A105(N)(G)	CS	3				SO	CL150	RF-B16.5		FLNG3SOCL150RF-B16.5	3.7	7.40	7.40
BFLNG	FLNG	FLNG	A105(N)	CS	3					CL150	RF-B16.5		BFLNG3CL150RF-B16.5	4.1	8.20	8.20
BFLNG	FLNG	FLNG	A105(N)	CS	6					CL150	RF-B16.5		BFLNG6CL150RF-B16.5	11.8	35.40	35.40
BFLNG	FLNG	FLNG	A105(N)	CS	8					CL150	RF-B16.5		BFLNG8CL150RF-B16.5	20.5	61.50	61.50
BFLNG	FLNG	FLNG	A105(N)	CS	10					CL150	RF-B16.5		BFLNG10CL150RF-B16.5	32	32.00	32.00
BFLNG	FLNG	FLNG	A105(N)	CS	12					CL150	RF-B16.5		BFLNG12CL150RF-B16.5	50	50.00	50.00
BFLNG	FLNG	FLNG	A105(N)	CS	44					CL150	RF-B16.47B		BFLNG44CL150RF-B16.47B	716.73	716.73	716.73
BFLNG	FLNG	FLNG	A105(N)	CS	48					CL150	RF-B16.47B		BFLNG48CL150RF-B16.47B	928.55	1857.10	1857.10
BFLNG	FLNG	FLNG	A105(N)	CS	1.5					CL150	RF-B16.5	IBR	BFLNG1.5CL150RF-B16.5	1.8	45.00	45.00
BFLNG	FLNG	FLNG	A105(N)	CS	2					CL150	RF-B16.5	IBR	BFLNG2CL150RF-B16.5	2.3	2.30	2.30
BFLNG	FLNG	FLNG	A105(N)	CS	3					CL300	RF-B16.5	IBR	BFLNG3CL300RF-B16.5	7.3	7.30	7.30
BFLNG	FLNG	FLNG	A105(N)	CS	4					CL150	RF-B16.5	IBR	BFLNG4CL150RF-B16.5	7.7	7.70	7.70
BFLNG	FLNG	FLNG	A105(N)	CS	4					CL600	RF-B16.5	IBR	BFLNG4CL600RF-B16.5	18.7	18.70	18.70
BFLNG	FLNG	FLNG	A105(N)	CS	6					CL600	RF-B16.5	IBR	BFLNG6CL600RF-B16.5	39	117.00	117.00
BFLNG	FLNG	FLNG	A105(N)	CS	10					CL600	RF-B16.5	IBR	BFLNG10CL600RF-B16.5	105	105.00	105.00
BFLNG	FLNG	FLNG	A105(N)	CS	10					CL150	RF-B16.5	IBR	BFLNG10CL150RF-B16.5	32	64.00	64.00
BFLNG	FLNG	FLNG	A105(N)	CS	12					CL600	RF-B16.5	IBR	BFLNG12CL600RF-B16.5	134	134.00	134.00
BFLNG	FLNG	FLNG	A105(N)	CS	24					CL150	RF-B16.5	IBR	BFLNG24CL150RF-B16.5	196	196.00	196.00
BFLNG	FLNG	FLNG	A105(N)	CS	3					CL150	RF-B16.5	NACE	BFLNG3CL150RF-B16.5	4.1	8.20	8.20
BFLNG	FLNG	FLNG	A105(N)	CS	6					CL150	RF-B16.5	NACE	BFLNG6CL150RF-B16.5	11.8	11.80	11.80
BFLNG	FLNG	FLNG	A105(N)	CS	20					CL150	RF-B16.5	NACE	BFLNG20CL150RF-B16.5	130	130.00	130.00
BFLNG	FLNG	FLNG	A105(N)	CS	24					CL150	RF-B16.5	NACE	BFLNG24CL150RF-B16.5	196	196.00	196.00
BFLNG	FLNG	FLNG	A105(N)	CS	36					CL150	RF-B16.47B	NACE	BFLNG36CL150RF-B16.47B	404.55	404.55	404.55
BFLNG	FLNG	FLNG	A105(N)	CS	48					CL150	RF-B16.47B	NACE	BFLNG48CL150RF-B16.47B	928.55	928.55	928.55
BFLNG	FLNG	FLNG	A105(N)	CS	3					CL300	RF-B16.5	NACE+HIC	BFLNG3CL300RF-B16.5	7.3	7.30	7.30
BFLNG	FLNG	FLNG	A105(N)	CS	4					CL150	RF-B16.5	NACE+HIC	BFLNG4CL150RF-B16.5	7.7	7.70	7.70
BFLNG	FLNG	FLNG	A105(N)	CS	16					CL150	RF-B16.5	NACE+HIC	BFLNG16CL150RF-B16.5	82	82.00	82.00
BFLNG	FLNG	FLNG	A182GRF304L	SS	2					CL150	RF-B16.5		BFLNG2CL150RF-B16.5	2.3	4.60	4.60
BFLNG	FLNG	FLNG	A182GRF316L	SS	10					CL150	RF-B16.5		BFLNG10CL150RF-B16.5	32	32.00	32.00
BFLNG	FLNG	FLNG	A105(N)(G)	CS	2					CL150	RF-B16.5		BFLNG2CL150RF-B16.5	2.3	4.60	4.60
BFLNG	FLNG	FLNG	A105(N)(G)	CS	3					CL150	RF-B16.5		BFLNG3CL150RF-B16.5	4.1	12.30	12.30
BFLNG	FLNG	FLNG	A105(N)(G)	CS	4					CL150	RF-B16.5		BFLNG4CL150RF-B16.5	7.7	7.70	7.70
F8BLNK	FLNG	FLNG	A105(N)	CS	3					CL300	FF-B16.5	NACE+HIC	F8BLNK3CL300FF-B16.5	2.16	2.16	2.16
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	3					CL150	FF-B16.5		F8BLNK3CL150FF-B16.5	1.14	2.28	2.28
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	6					CL150	FF-B16.5		F8BLNK6CL150FF-B16.5	5.53	5.53	5.53
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	6					CL150	FF-B16.5		F8BLNK6CL150FF-B16.5	5.53	16.59	16.59
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	8					CL150	FF-B16.5		F8BLNK8CL150FF-B16.5	8.5	17.00	17.00
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	8					CL150	FF-B16.5		F8BLNK8CL150FF-B16.5	8.5	8.50	8.50
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	1.5					CL150	FF-B16.5	IBR	F8BLNK1.5CL150FF-B16.5	0.45	11.25	11.25
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	2					CL150	FF-B16.5	IBR	F8BLNK2CL150FF-B16.5	0.68	0.68	0.68
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	3					CL300	FF-B16.5	IBR	F8BLNK3CL300FF-B16.5	2.16	2.16	2.16
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	4					CL600	FF-B16.5	IBR	F8BLNK4CL600FF-B16.5	5.91	5.91	5.91
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	4					CL150	FF-B16.5	IBR	F8BLNK4CL150FF-B16.5	2.77	2.77	2.77
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	6					CL600	FF-B16.5	IBR	F8BLNK6CL600FF-B16.5	15.67	47.01	47.01
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	3					CL150	FF-B16.5	NACE	F8BLNK3CL150FF-B16.5	1.14	2.28	2.28
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	6					CL150	FF-B16.5	NACE	F8BLNK6CL150FF-B16.5	5.53	5.53	5.53
F8BLNK	FLNG	FLNG	A516GR70(N)	CS	4					CL150	FF-B16.5	NACE+HIC	F8BLNK4CL150FF-B16.5	2.77	2.77	2.77
F8BLNK	FLNG	FLNG	A240GR304L	SS	2					CL150	FF-B16.5		F8BLNK2CL150FF-B16.5	0.68	1.36	1.36
F8BLNK	FLNG	FLNG	A516NGR70(G)	CS	2					CL150	FF-B16.5		F8BLNK2CL150FF-B16.5	0.68	1.36	1.36
F8BLNK	FLNG	FLNG	A516NGR70(G)	CS	3					CL150	FF-B16.5		F8BLNK3CL150FF-B16.5	1.14	3.42	3.42
F8BLNK	FLNG	FLNG	A516NGR70(G)	CS	4					CL150	FF-B16.5		F8BLNK4CL150FF-B16.5	2.77	2.77	2.77
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	10					CL150	FF-B16.5		SPBLNK10CL150FF-B16.5	10.93	10.93	10.93
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	44					CL150	FF-B16.47B		SPBLNK44CL150FF-B16.47B	731	731.00	731.00
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	48					CL150	FF-B16.47B		SPBLNK48CL150FF-B16.47B	956	1912.00	1912.00
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	10					CL150	FF-B16.5	IBR	SPBLNK10CL150FF-B16.5	10.93	21.86	21.86
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	10					CL600	FF-B16.5	IBR	SPBLNK10CL600FF-B16.5	44.31	44.31	44.31
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	12					CL600	FF-B16.5	IBR	SPBLNK12CL600FF-B16.5	66.63	66.63	66.63
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	24					CL150	FF-B16.5	IBR	SPBLNK24CL150FF-B16.5	98.04	98.04	98.04
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	20					CL150	FF-B16.5	NACE	SPBLNK20CL150FF-B16.5	62.43	62.43	62.43
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	24					CL150	FF-B16.5	NACE	SPBLNK24CL150FF-B16.5	98.04	98.04	98.04
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	36					CL150	FF-B16.47B	NACE	SPBLNK36CL150FF-B16.47B	416	416.00	416.00
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	48					CL150	FF-B16.47B	NACE	SPBLNK48CL150FF-B16.47B	956	956.00	956.00
SPBLNK	FLNG	FLNG	A516GR70(N)	CS	16					CL150	FF-B16.5	NACE+HIC	SPBLNK16CL150FF-B16.5	35.08	35.08	35.08
SPBLNK	FLNG	FLNG	A240GR316L	SS	10					CL150	FF-B16.5		SPBLNK10CL150FF-B16.5	10.93	10.93	10.93
ELB90	FITT	PREFAB	A105(N)	CS	0.75				LR	CL6000	SW	IBR	ELB900.75LRCCL6000SW	0.67	28.14	28.14
ELB90	FITT	PREFAB	A234GRWPB	CS	3		STD		LR		BW		ELB903STDLRBW	2.3	4.60	4.60
ELB90	FITT	PREFAB	A234GRWPB	CS	6		STD		LR		BW		ELB906STDLRBW	11.01	22.02	22.02
ELB90	FITT	PREFAB	A234GRWPB	CS	8		STD		LR		BW		ELB908STDLRBW	21.62	21.62	21.62
ELB90	FITT	PREFAB	A234GRWPB	CS	3		XS		LR		BW	IBR	ELB903XSLRBW	3.08	3.08	3.08
ELB90	FITT	PREFAB	A234GRWPB	CS	4		STD		LR		BW	IBR	ELB904STDLRBW	4.23	4.23	4.23
ELB90	FITT	PREFAB	A234GRWPB	CS	6		S120		LR		BW	IBR	ELB906S120LRBW	20.72	41.44	41.44
ELB90	FITT	PREFAB	A234GRWPB	CS	6		XS		LR		BW	IBR	ELB906XSLRBW	16.41	16.41	16.41
ELB90	FITT	PREFAB	A234GRWPB	CS	10		S80		LR		BW	IBR	ELB9010S80LRBW	60.29	60.29	60.29
ELB90	FITT	PREFAB	A234GRWPB	CS	10		STD		LR		BW	IBR	ELB9010STDLRBW	38.22	76.44	76.44

156	ELBOW90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, NACE, 3.0 INCH, STD	5	5
157	ELBOW90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, NACE, 6.0 INCH, STD	1	1
158	ELBOW90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, NAC6, 3.0 INCH, S160	1	1
159	ELBOW90, B-16.9, ASTM A 234 GR.WPB(GALV), BW, 1.5D, 3.0 INCH, STD	2	2
160	ELBOW90, B-16.9, ASTM A 234 GR.WPB-W, BW, 1.5D, 48.0 INCH, XS	4	4
161	ELBOW90, B-16.9, ASTM A 234 GR.WPB-W, BW, 1.5D, NACE, 20.0 INCH, STD	2	2
162	ELBOW90, B-16.9, ASTM A 234 GR.WPB-W, BW, 1.5D, NACE, 24.0 INCH, STD	1	1
163	ELBOW90, B-16.9, ASTM A 234 GR.WPB-W, BW, 1.5D, NACE, 36.0 INCH, XS	2	2
164	ELBOW90, B-16.9, ASTM A 234 GR.WPB-W, BW, 1.5D, NACE, 48.0 INCH, XS	1	1
165	ELBOW90, B-16.9, ASTM A 234 GR.WPB-W, BW, 1.5D, NAC6, 16.0 INCH, STD	4	4
166	ELBOW90, B-16.9, ASTM A 403 GR.WP316L-WX, BW, 1.5D, 10.0 INCH, S20	1	1
167	ELBOW90, B-16.9, ASTM A 403 GR.WP304L-S, BW, 1.5D, 2.0 INCH, 40S	2	2
168	T.EQUAL, B-16.9, ASTM A 234 GR.WPB, BW, 4.0 INCH, STD	1	1
169	T.EQUAL, B-16.9, ASTM A 234 GR.WPB, BW, 1BR, 10.0 INCH, S80	1	1
170	T.EQUAL, B-16.9, ASTM A 234 GR.WPB, BW, NACE, 3.0 INCH, STD	2	2
171	T.EQUAL, B-16.9, ASTM A 234 GR.WPB-W, BW, NACE, 48.0 INCH, XS	1	1
172	T.EQUAL, B-16.9, ASTM A 234 GR.WPB-W, BW, NAC6, 16.0 INCH, STD	1	1
173	T.EQUAL, B-16.9, ASTM A 403 GR.WP316L-WX, BW, 10.0 INCH, S20	1	1
174	T.RED, B-16.9, ASTM A 234 GR.WPB, BW, 4.0 INCH, STD, 3.0 INCH, STD	1	1
175	T.RED, B-16.9, ASTM A 234 GR.WPB, BW, 12.0 INCH, STD, 8.0 INCH, STD	1	1
176	T.RED, B-16.9, ASTM A 234 GR.WPB, BW, 1BR, 8.0 INCH, S100, 6.0 INCH, S120	2	2
177	T.RED, B-16.9, ASTM A 234 GR.WPB, BW, 1BR, 10.0 INCH, S80, 6.0 INCH, XS	1	1
178	T.RED, B-16.9, ASTM A 234 GR.WPB, BW, 1BR, 10.0 INCH, S100, 6.0 INCH, S120	2	2
179	T.RED, B-16.9, ASTM A 234 GR.WPB, BW, 1BR, 12.0 INCH, STD, 10.0 INCH, STD	2	2
180	T.RED, B-16.9, ASTM A 234 GR.WPB(GALV), BW, 6.0 INCH, STD, 3.0 INCH, STD	2	2
181	SOCKOLET, MSS-SP97, ASTM A 105 (NORMALISED), SW, 6000, 1BR, 8.0 INCH, 0.75 INCH	6	9
182	SOCKOLET, MSS-SP97, ASTM A 105 (NORMALISED), SW, 6000, 1BR, 10.0 INCH, 0.75 INCH	2	3
183	SOCKOLET, MSS-SP97, ASTM A 105 (NORMALISED), SW, 6000, 1BR, 12.0 INCH, 0.75 INCH	6	9
184	SOCKOLET, MSS-SP97, ASTM A 105 (NORMALISED), SW, 3000, 1BR, 18.0 INCH, 1.5 INCH	9	14
185	SOCKOLET, MSS-SP97, ASTM A 105 (NORMALISED), SW, 3000, 1BR, 24.0 INCH, 1.5 INCH	16	24
221	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.5 INCH X 2.5 INCH	96	120
222	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.5 INCH X 3.25 INCH	100	120
223	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.625 INCH X 3.75 INCH	28	40
224	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.625 INCH X 3.25 INCH	12	20
225	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.625 INCH X 3 INCH	16	20
226	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.625 INCH X 4 INCH	8	10
227	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.625 INCH X 4.25 INCH	8	10
228	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.75 INCH X 4 INCH	40	50
229	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.75 INCH X 4.25 INCH	40	50
230	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.75 INCH X 4.75 INCH	32	40
231	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.75 INCH X 5 INCH	24	30
232	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.875 INCH X 5.5 INCH	72	90
233	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.875 INCH X 4.75 INCH	108	130
234	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.875 INCH X 5.75 INCH	20	30
235	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 0.875 INCH X 6.5 INCH	8	10
236	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.0 INCH X 7.75 INCH	108	130
237	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.0 INCH X 8.75 INCH	88	110
238	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.0 INCH X 11.25 INCH	52	70
239	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.125 INCH X 8 INCH	32	40
240	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.125 INCH X 9.5 INCH	176	220
241	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.125 INCH X 12.25 INCH	88	110
242	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.25 INCH X 8 INCH	20	30
243	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.25 INCH X 9.5 INCH	20	30
244	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.25 INCH X 9.75 INCH	48	60
245	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.25 INCH X 10 INCH	60	80
246	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.25 INCH X 11.25 INCH	16	20
247	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.25 INCH X 11.75 INCH	20	30
248	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7, A194 GR.2H, 1.625 INCH X 14 INCH	64	80
249	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7(GALV), A194 2H(GALV), 0.625 INCH X 4.0 INCH	12	20
250	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7(GALV), A194 2H(GALV), 0.625 INCH X 3.75 INCH	28	40
251	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7(GALV), A194 2H(GALV), 0.625 INCH X 3.25 INCH	8	10
252	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7(GALV), A194 2H(GALV), 0.625 INCH X 4.25 INCH	8	10
253	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 0.625 INCH X 3.75 INCH	8	10
254	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 0.625 INCH X 4.0 INCH	8	10
255	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 0.75 INCH X 4.0 INCH	24	30
256	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 0.75 INCH X 4.25 INCH	32	40
257	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 0.75 INCH X 4.75 INCH	8	10
258	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 0.875 INCH X 6.75 INCH	88	110
259	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 0.875 INCH X 8.75 INCH	44	60
260	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 1.125 INCH X 7.5 INCH	40	50
261	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 1.125 INCH X 8.75 INCH	20	30
262	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 1.125 INCH X 9.5 INCH	44	60
263	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 1.125 INCH X 12.25 INCH	44	60
264	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 1.25 INCH X 8.0 INCH	60	80
265	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 1.25 INCH X 9.5 INCH	20	30
266	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NACE, 1.875 INCH X 17.75 INCH	80	100
267	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NAC6, 0.625 INCH X 3.75 INCH	8	10

FITT	PREFAB	A234GRWPB		CS		3		STD				BW	NACE	ELB903STDLRBW		2.3	11.50	11.50	
ELB90	FITT	PREFAB	A234GRWPB		CS		6	STD			LR	BW	NACE	ELB906STDLRBW		11.01	11.01	11.01	
ELB90	FITT	PREFAB	A234GRWPB		CS		3	S160			LR	BW	NACE+HIC	ELB903S160LRBW		4.23	4.23	4.23	
ELB90	FITT	PREFAB	A234GRWPB(G)		CS		3	STD			LR	BW		ELB903STDLRBW		2.3	4.60	4.60	
ELB90	FITT	PREFAB	A234GRWPB		CS		48	XS			LR	BW		ELB9048XSLRBW		1080.36	4321.44	4321.44	
ELB90	FITT	PREFAB	A234GRWPB		CS		20	STD			LR	BW	NACE	ELB9020STDLRBW		139.11	278.22	278.22	
ELB90	FITT	PREFAB	A234GRWPB		CS		24	STD			LR	BW	NACE	ELB9024STDLRBW		201.49	201.49	201.49	
ELB90	FITT	PREFAB	A234GRWPB		CS		36	XS			LR	BW	NACE	ELB9036XSLRBW		604.34	1208.68	1208.68	
ELB90	FITT	PREFAB	A234GRWPB		CS		48	XS			LR	BW	NACE	ELB9048XSLRBW		1080.36	1080.36	1080.36	
ELB90	FITT	PREFAB	A234GRWPB		CS		16	STD			LR	BW	NACE+HIC	ELB9016STDLRBW		88.43	353.72	353.72	
ELB90	FITT	PREFAB	A403GRWP316L		SS		10	S20			LR	BW		ELB9010S20LRBW		26.6	26.60	26.60	
ELB90	FITT	PREFAB	A403GRWP304L		SS		2	S40S			LR	BW		ELB902S40SLRBW		0.75	1.50	1.50	
EQTEE	FITT	PREFAB	A234GRWPB		CS		4	STD				BW		EQTEE4STDW		6	6.00	6.00	
EQTEE	FITT	PREFAB	A234GRWPB		CS		10	S80				BW	IBR	EQTEE10S80BW		68	68.00	68.00	
EQTEE	FITT	PREFAB	A234GRWPB		CS		3	STD				BW	NACE	EQTEE3STDW		3.82	7.64	7.64	
EQTEE	FITT	PREFAB	A234GRWPB		CS		48	XS				BW	NACE	EQTEE48XSBW		1498.5	1498.50	1498.50	
EQTEE	FITT	PREFAB	A234GRWPB		CS		16	STD				BW	NACE+HIC	EQTEE16STDW		115	115.00	115.00	
EQTEE	FITT	PREFAB	A403GRWP316L		SS		10	S20				BW		EQTEE10S20BW		34.7	34.70	34.70	
RDTEE	FITT	PREFAB	A234GRWPB		CS		4	3 STD	STD			BW		RDTEE43STDSTDW		5.29	5.29	5.29	
RDTEE	FITT	PREFAB	A234GRWPB		CS		10	8 STD	STD			BW		RDTEE108STDSTDW		39.27	39.27	39.27	
RDTEE	FITT	PREFAB	A234GRWPB		CS		8	6 S100	S120			BW	IBR	RDTEE86S100S120BW		28	56.00	56.00	
RDTEE	FITT	PREFAB	A234GRWPB		CS		10	6 S80	XS			BW	IBR	RDTEE106S80XSBW		54	54.00	54.00	
RDTEE	FITT	PREFAB	A234GRWPB		CS		10	6 S120	S120			BW	IBR	RDTEE106S120S120BW		83.08	166.16	166.16	
RDTEE	FITT	PREFAB	A234GRWPB		CS		12	10 STD	STD			BW	IBR	RDTEE1210STDSTDW		58.84	117.68	117.68	
RDTEE	FITT	PREFAB	A234GRWPB(G)		CS		6	3 STD	STD			BW		RDTEE63STDSTDW		11.7	23.40	23.40	
HCPLNG	FITT	PREFAB	A105(N)		CS		0.75					CL6000	SW	IBR	HCPLNG0.75CL6000SW		0.29	1.74	2.61
HCPLNG	FITT	PREFAB	A105(N)		CS		0.75					CL6000	SW	IBR	HCPLNG0.75CL6000SW		0.29	0.58	0.87
HCPLNG	FITT	PREFAB	A105(N)		CS		0.75					CL6000	SW	IBR	HCPLNG0.75CL6000SW		0.29	1.74	2.61
HCPLNG	FITT	PREFAB	A105(N)		CS		1.5					CL3000	SW	IBR	HCPLNG1.5CL3000SW		0.57	5.13	7.98
HCPLNG	FITT	PREFAB	A105(N)		CS		1.5					CL3000	SW	IBR	HCPLNG1.5CL3000SW		0.57	9.12	13.68
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M12X65								ST2NTM12X65		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M12X85								ST2NTM12X85		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M16X95								ST2NTM16X95		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M16X85								ST2NTM16X85		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M16X80								ST2NTM16X80		0.18	2.88	3.60	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M16X100								ST2NTM16X100		0.21	1.68	2.10	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M16X110								ST2NTM16X110		0.22	1.76	2.20	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M20X100								ST2NTM20X100		0.37	14.80	18.50	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M20X110								ST2NTM20X110		0.39	15.60	19.50	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M20X120								ST2NTM20X120		0.41	13.12	16.40	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M20X130								ST2NTM20X130		0.43	10.32	12.90	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M22X140								ST2NTM22X140		0.56	40.32	50.40	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M22X120								ST2NTM22X120		0.51	55.08	66.30	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M22X150								ST2NTM22X150		0.59	11.80	17.70	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M22X165								ST2NTM22X165		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M24X200								ST2NTM24X200		0.84	90.72	109.20	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M24X225								ST2NTM24X225		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M24X285								ST2NTM24X285		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M27X205								ST2NTM27X205		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M27X245								ST2NTM27X245		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M27X315								ST2NTM27X315		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M30X205								ST2NTM30X205		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M30X245								ST2NTM30X245		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M30X290								ST2NTM30X290		1.72	82.56	103.20	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M30X255								ST2NTM30X255		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M30X285								ST2NTM30X285		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M30X300								ST2NTM30X300		1.96	39.20	58.80	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H			M39X355								ST2NTM39X355		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H(G)	CS(G)		M16X100								ST2NTM16X100		0.21	2.52	4.20	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H(G)	CS(G)		M16X95								ST2NTM16X95		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H(G)	CS(G)		M16X85								ST2NTM16X85		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7/A194GR2H(G)	CS(G)		M16X110								ST2NTM16X110		0.22	1.76	2.20	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M16X95							NACE	ST2NTM16X95		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M16X100							NACE	ST2NTM16X100		0.21	1.68	2.10	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M20X100							NACE	ST2NTM20X100		0.37	8.88	11.10	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M20X110							NACE	ST2NTM20X110		0.39	12.48	15.60	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M20X120							NACE	ST2NTM20X120		0.41	3.28	4.10	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M22X175							NACE	ST2NTM22X175		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M22X225							NACE	ST2NTM22X225		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M27X190							NACE	ST2NTM27X190		1.12	44.80	56.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M27X225							NACE	ST2NTM27X225		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M27X245							NACE	ST2NTM27X245		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M27X315							NACE	ST2NTM27X315		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M30X205							NACE	ST2NTM30X205		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M30X245							NACE	ST2NTM30X245		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M45X450							NACE	ST2NTM45X450		0	0.00	0.00	
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM			M16X95							NACE+HIC	ST2NTM16X95		0	0.00	0.00	

268	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NAC6, 0.625 INCH X 4.25 INCH	8	10
269	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NAC6, 0.75 INCH X 4.75 INCH	8	10
270	BOLT.STUD WITH 2 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NAC6, 0.75 INCH X 4.25 INCH	8	10
271	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NAC6, 1.0 INCH X 6.25 INCH	16	20
272	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NAC6, 1.0 INCH X 7.25 INCH	16	20
273	BOLT.STUD WITH 3 NUTS, B-18.2, A193 GR.B7M, A194 GR.2HM, NAC6, 1.25 INCH X 8.75 INCH	40	50
285	GASKET, B-16.20-ANSI B16.5, SP.WND SS316+GRAFIL+ SPIRAL, 300, NAC6, 3.0 INCH	3	5
286	GASKET, B-16.20-ANSI B16.5, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, 0.75 INCH	4	6
287	GASKET, B-16.20-ANSI B16.5, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, 3.0 INCH	3	5
288	GASKET, B-16.20-ANSI B16.5, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, 8.0 INCH	2	3
289	GASKET, B-16.20-ANSI B16.5, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, 12.0 INCH	2	3
290	GASKET, B-16.20-ANSI B16.47B, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, 36.0 INCH	2	3
291	GASKET, B-16.20-ANSI B16.5, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, NACE, 3.0 INCH	4	6
292	GASKET, B-16.20-ANSI B16.47B, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, NACE, 48.0 INCH	2	3
293	GASKET, B-16.20-ANSI B16.5, SP.WND SS316+GRAFIL+ I RING, SPIRAL, 300, NAC6, 16.0 INCH	2	3
294	GASKET, B-16.20-ANSI B16.5, SP.WND SS316L+GRAFIL+ I RING, SPIRAL, 600, 4.0 INCH	3	5
295	GASKET, B-16.20-ANSI B16.5, SP.WND SS316L+GRAFIL+ I RING, SPIRAL, 600, 6.0 INCH	15	23
296	GASKET, B-16.20-ANSI B16.5, SP.WND SS316L+GRAFIL+ I RING, SPIRAL, 600, 10.0 INCH	5	8
297	GASKET, B-16.20-ANSI B16.5, SP.WND SS316L+GRAFIL+ I RING, SPIRAL, 150, 10.0 INCH	3	5
298	GASKET, B-16.20-ANSI B16.5, SP.WND SS316L+GRAFIL+ I RING, SPIRAL, 600, 12.0 INCH	5	8
299	GASKET, B-16.21-ANSI B16.5, NONASB. SYN FIBRE+ RUBR BINDER, FULLFACE, 150, 2.0 INCH, 2 MM	6	9
300	GASKET, B-16.21-ANSI B16.5, NONASB. SYN FIBRE+ RUBR BINDER, FULLFACE, 150, 3.0 INCH, 2 MM	9	14
301	GASKET, B-16.21-ANSI B16.5, NONASB. SYN FIBRE+ RUBR BINDER, FULLFACE, 150, 4.0 INCH, 2 MM	3	5
302	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 0.75 INCH	24	36
303	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 1.5 INCH	50	75
304	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 2.0 INCH	9	14
305	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 3.0 INCH	6	9
306	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 4.0 INCH	3	5
307	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 6.0 INCH	13	20
308	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 8.0 INCH	8	12
309	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 10.0 INCH	10	15
310	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 12.0 INCH	6	9
311	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 24.0 INCH	3	5
312	GASKET, B-16.20-ANSI B16.47B, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 44.0 INCH	3	5
313	GASKET, B-16.20-ANSI B16.47B, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, 48.0 INCH	8	12
314	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NACE, 3.0 INCH	6	9
315	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NACE, 6.0 INCH	5	8
316	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NACE, 20.0 INCH	4	6
317	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NACE, 24.0 INCH	5	8
318	GASKET, B-16.20-ANSI B16.47B, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NACE, 36.0 INCH	4	6
319	GASKET, B-16.20-ANSI B16.47B, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NACE, 48.0 INCH	3	5
320	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NAC6, 4.0 INCH	3	5
321	GASKET, B-16.20-ANSI B16.5, LS SP.WND SS316+FLEX GRAFIL+IR, SPIRAL, 150, NAC6, 16.0 INCH	3	5
		3120.56	4093.00

ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM		M16X110							NACE+HIC	ST2NTM16X110	0.22	1.76	2.20
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM		M20X120							NACE+HIC	ST2NTM20X120	0.41	3.28	4.10
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM		M20X110							NACE+HIC	ST2NTM20X110	0.39	3.12	3.90
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM		M24X160							NACE+HIC	ST2NTM24X160	0.72	11.52	14.40
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM		M24X185							NACE+HIC	ST2NTM24X185	0	0.00	0.00
ST2NT	BOLT	BOLT	A193GRB7M/A194GR2HM		M30X225							NACE+HIC	ST2NTM30X225	0	0.00	0.00
GASKET	GASK	GASKET	SS316+GRAPH		3				MSW+GRAPH	CL300	RF-B16.5	NACE+HIC	GASKET3MSW+GRAPHCL300RF-B16.5	0.19	0.57	0.95
GASKET	GASK	GASKET	SS316+GRAPH		0.75				MSW+GRAPH	CL300	RF-B16.5		GASKET0.75MSW+GRAPHCL300RF-B16.5	0.04	0.16	0.24
GASKET	GASK	GASKET	SS316+GRAPH		3				MSW+GRAPH	CL300	RF-B16.5		GASKET3MSW+GRAPHCL300RF-B16.5	0.19	0.57	0.95
GASKET	GASK	GASKET	SS316+GRAPH		8				MSW+GRAPH	CL300	RF-B16.5		GASKET8MSW+GRAPHCL300RF-B16.5	0.73	1.46	2.19
GASKET	GASK	GASKET	SS316+GRAPH		12				MSW+GRAPH	CL300	RF-B16.5		GASKET12MSW+GRAPHCL300RF-B16.5	1.41	2.82	4.23
GASKET	GASK	GASKET	SS316+GRAPH		36				MSW+GRAPH	CL300	RF-B16.47B		GASKET36MSW+GRAPHCL300RF-B16.47B	0	0.00	0.00
GASKET	GASK	GASKET	SS316+GRAPH		3				MSW+GRAPH	CL300	RF-B16.5	NACE	GASKET3MSW+GRAPHCL300RF-B16.5	0.19	0.76	1.14
GASKET	GASK	GASKET	SS316+GRAPH		48				MSW+GRAPH	CL300	RF-B16.47B	NACE	GASKET48MSW+GRAPHCL300RF-B16.47B	0	0.00	0.00
GASKET	GASK	GASKET	SS316+GRAPH		16				MSW+GRAPH	CL300	RF-B16.5	NACE+HIC	GASKET16MSW+GRAPHCL300RF-B16.5	2.1	4.20	6.30
GASKET	GASK	GASKET	SS316L+GRAPH		4				MSW+GRAPH	CL600	RF-B16.5		GASKET4MSW+GRAPHCL600RF-B16.5	0.32	0.96	1.60
GASKET	GASK	GASKET	SS316L+GRAPH		6				MSW+GRAPH	CL600	RF-B16.5		GASKET6MSW+GRAPHCL600RF-B16.5	0.56	8.40	12.88
GASKET	GASK	GASKET	SS316L+GRAPH		10				MSW+GRAPH	CL600	RF-B16.5		GASKET10MSW+GRAPHCL600RF-B16.5	1.14	5.70	9.12
GASKET	GASK	GASKET	SS316L+GRAPH		10				MSW+GRAPH	CL150	RF-B16.5		GASKET10MSW+GRAPHCL150RF-B16.5	1.14	3.42	5.70
GASKET	GASK	GASKET	SS316L+GRAPH		12				MSW+GRAPH	CL600	RF-B16.5		GASKET12MSW+GRAPHCL600RF-B16.5	1.41	7.05	11.28
GASKET	GASK	GASKET			2				NM-FLAT	CL150	FF-B16.5		GASKET2NM-FLATCL150FF-B16.5	0.11	0.66	0.99
GASKET	GASK	GASKET			3				NM-FLAT	CL150	FF-B16.5		GASKET3NM-FLATCL150FF-B16.5	0.19	1.71	2.66
GASKET	GASK	GASKET			4				NM-FLAT	CL150	FF-B16.5		GASKET4NM-FLATCL150FF-B16.5	0.32	0.96	1.60
GASKET	GASK	GASKET			0.75				MSW+GRAPH	CL150	RF-B16.5		GASKET0.75MSW+GRAPHCL150RF-B16.5	0.04	0.96	1.44
GASKET	GASK	GASKET			1.5				MSW+GRAPH	CL150	RF-B16.5		GASKET1.5MSW+GRAPHCL150RF-B16.5	0.08	4.00	6.00
GASKET	GASK	GASKET			2				MSW+GRAPH	CL150	RF-B16.5		GASKET2MSW+GRAPHCL150RF-B16.5	0.11	0.99	1.54
GASKET	GASK	GASKET			3				MSW+GRAPH	CL150	RF-B16.5		GASKET3MSW+GRAPHCL150RF-B16.5	0.19	1.14	1.71
GASKET	GASK	GASKET			4				MSW+GRAPH	CL150	RF-B16.5		GASKET4MSW+GRAPHCL150RF-B16.5	0.32	0.96	1.60
GASKET	GASK	GASKET			6				MSW+GRAPH	CL150	RF-B16.5		GASKET6MSW+GRAPHCL150RF-B16.5	0.56	7.28	11.20
GASKET	GASK	GASKET			8				MSW+GRAPH	CL150	RF-B16.5		GASKET8MSW+GRAPHCL150RF-B16.5	0.73	5.84	8.76
GASKET	GASK	GASKET			10				MSW+GRAPH	CL150	RF-B16.5		GASKET10MSW+GRAPHCL150RF-B16.5	1.14	11.40	17.10
GASKET	GASK	GASKET			12				MSW+GRAPH	CL150	RF-B16.5		GASKET12MSW+GRAPHCL150RF-B16.5	1.41	8.46	12.69
GASKET	GASK	GASKET			24				MSW+GRAPH	CL150	RF-B16.5		GASKET24MSW+GRAPHCL150RF-B16.5	3.56	10.68	17.80
GASKET	GASK	GASKET			44				MSW+GRAPH	CL150	RF-B16.47B		GASKET44MSW+GRAPHCL150RF-B16.47B	0	0.00	0.00
GASKET	GASK	GASKET			48				MSW+GRAPH	CL150	RF-B16.47B		GASKET48MSW+GRAPHCL150RF-B16.47B	0	0.00	0.00
GASKET	GASK	GASKET			3				MSW+GRAPH	CL150	RF-B16.5	NACE	GASKET3MSW+GRAPHCL150RF-B16.5	0.19	1.14	1.71
GASKET	GASK	GASKET			6				MSW+GRAPH	CL150	RF-B16.5	NACE	GASKET6MSW+GRAPHCL150RF-B16.5	0.56	2.80	4.48
GASKET	GASK	GASKET			20				MSW+GRAPH	CL150	RF-B16.5	NACE	GASKET20MSW+GRAPHCL150RF-B16.5	2.87	11.48	17.22
GASKET	GASK	GASKET			24				MSW+GRAPH	CL150	RF-B16.5	NACE	GASKET24MSW+GRAPHCL150RF-B16.5	3.56	17.80	28.48
GASKET	GASK	GASKET			36				MSW+GRAPH	CL150	RF-B16.47B	NACE	GASKET36MSW+GRAPHCL150RF-B16.47B	0	0.00	0.00
GASKET	GASK	GASKET			48				MSW+GRAPH	CL150	RF-B16.47B	NACE	GASKET48MSW+GRAPHCL150RF-B16.47B	0	0.00	0.00
GASKET	GASK	GASKET			4				MSW+GRAPH	CL150	RF-B16.5	NACE+HIC	GASKET4MSW+GRAPHCL150RF-B16.5	0.32	0.96	1.60
GASKET	GASK	GASKET			16				MSW+GRAPH	CL150	RF-B16.5	NACE+HIC	GASKET16MSW+GRAPHCL150RF-B16.5	2.1	6.30	10.50
														42924.41	57197.01	