



Rubber Lining for Projects

Trelleborg Rubber Lining - the ONE safeguard for wear and corrosion protection

Trelleborg Rubber Linings can be applied to many surfaces to significantly reduce abrasive wear, provide impact resistance or to prevent corrosion of base structures.

What makes Trelleborg unique is our ability to manufacture Rubber Linings in either cold cured sheet or utilize our hot cure autoclave facilities in Perth, Brisbane or Singapore.

If it is impractical to ship items to our facilities - we can come to you! We manufacture, supply and install our linings - ONE NAME, ONE SOURCE, ONE SYSTEM... TRELLEBORG.



What can be coated with Trelleborg Rubber?

Steel is the structural material most lined with rubber, but new methods of adhesion now enable the lining of other substrates such as - stainless steel and aluminium with specific elastomers. Concrete linings are also possible for mining refurbishment situations.

Examples of mining equipment that has been lined by Trelleborg - some also include fabrication:

- **Agitator Shafts and Blades**
- **Conveyor Pulleys**
- **Pulp Lifters**
- **Pipes and Spool Packages**
- **Baffles and Spirals**
- **Trommels**
- **Cross Beams**
- **Tanks and Vessels**
- **Trunnions**
- **Preformed Liners**
- **Chutes**
- **Hoppers**

It is preferable to have the lining done at our premises either in Perth, Brisbane or Singapore, where special facilities are available and vulcanizing can be done in our autoclaves. Closed tanks can also be used as their own autoclaves

However, constructions that are either too large or unable to be relocated to be vulcanized in our autoclaves, can be lined and cured on site.

Special qualities of rubber have been developed for this purpose and a low temperature curing process is widely used. Our cured rubber linings can provide another solution.

Trelleborg Uncured Rubber Linings

T-LINE 40UC (Uncured)

Features: Autoclave cured black, soft natural rubber for superior wet abrasive resistant applications.

Applications: Ideal for slurry pipework, chutes and vessels.

Colour: **BLACK**

PROPERTIES	UNITS	STANDARD	VALUES
Specific Gravity	g/cm ³	DIN 53479	1.00
Hardness	Shore A	ASTM D2240	40+/-5
Tensile Strength	MPa	ASTM D412	15
Elongation	%	ASTM D412	550
Tear Strength	N/mm	ASTM D624	40
Abrasion Loss	mm ³	DIN 53516	80 at 5N
Temperatures	°C		35/+70



T-LINE 60UC (Uncured)

- Features: Autoclave cured black, soft natural rubber for superior dry abrasion and high impact applications.
- Applications: Ideal for agitator shafts/blades, feeders, chutes, distribution points & pulley lagging.
- Colour: **BLACK**

PROPERTIES	UNITS	STANDARD	VALUES
Specific Gravity	g/cm ³	DIN 53479	1.12
Hardness	Shore A	ASTM D2240	62+/-5
Tensile Strength	MPa	ASTM D412	20
Elongation	%	ASTM D412	400
Tear Strength	N/mm	ASTM D624	60
Abrasion Loss	mm ³	DIN 53516	90 at 10N
Temperatures	°C		50/+85

Note: Typical properties based on laboratory cured samples.

Compound service available to design to specific customer application of operating conditions.



Trelleborg Cured Rubber Linings

TESA RED 40BL (Bonding Layer)

Features: TESA RED has premium wet abrasion resistance, high self cleaning with excellent flexibility.

Applications: Ideal for lining of slurry pipework, chutes, tanks, cyclones, float cells, launders & distribution areas.

Colour: **RED**

PROPERTIES	UNITS	STANDARD	VALUES
Specific Gravity	g/cm ³	DIN 53479	1.00
Hardness	Shore A	ASTM D2240	40+/-5
Tensile Strength	MPa	ASTM D412	20
Elongation	%	ASTM D412	650
Tear Strength	N/mm	ASTM D624	30
Abrasion Loss	mm ³	DIN 53516	80 at 5N
Temperatures	°C		-40/+80



TESA 60BL (Bonding Layer)

Features: Superior resistance to dry abrasion & high impact. Excellent cut & gouge properties when sharp, heavy coarse particles present.

Applications: Ideal for vibratory feeders, impact chutes, transfer points, distribution bins & pulley lagging.

Colour: **BLACK**

PROPERTIES	UNITS	STANDARD	VALUES
Specific Gravity	g/cm ³	DIN 53479	1.12
Hardness	Shore A	ASTM D2240	62+/-5
Tensile Strength	MPa	ASTM D412	18
Elongation	%	ASTM D412	400
Tear Strength	N/mm	ASTM D624	50
Abrasion Loss	mm ³	DIN 53516	90 at 10N
Temperatures	°C		-50/+85

BUTYL

- Features:** A premium synthetic rubber with excellent chemical resistance. It has a high resistance to temperature and permeation. The product has very good weathering properties. This sheeting is available with a CN bonding layer (subject to special order).
- Applications:** Lining of pipes, mixing and storage tanks, columns as well as gaskets and seals in industrial.
- Colour:** **BLACK**

PROPERTIES	UNITS	STANDARD	VALUES
Specific Gravity	g/cm ³		1.2
Hardness	Shore A	ASTM D2240	60+/-5
Tensile Strength	MPa	ASTM D412	9
Elongation	%	ASTM D412	500
Tear Strength	N/mm	ASTM D624	40
Temperatures	°C		-40/+130



REDBACK 43 BL

Features:	Unique two colour abrasion resistant compounds - enables monitoring of wear.
Applications:	Lining of chutes, vessels, sumps when critical wear monitoring is required.
Colour:	BLACK ON RED with CN BONDING LAYER
Dimensions:	6mm Black on 3mm Red, 10mm Black on 5mm Red x 1200mm x 10 metres.
Technical Specification:	Polymer - NR.

PROPERTIES	UNITS	STANDARD	VALUES
Specific Gravity	g/cm ³	DIN 53479	1.00
Hardness	Shore A	ASTM D2240	43±5
Tensile Strength	MPa	ASTM D412	15
Elongation	%	ASTM D412	550
Tear Strength	N/mm	ASTM D624	60
Abrasion Loss	mm ³	DIN 53516	85
Temperatures	°C		-40 / +80

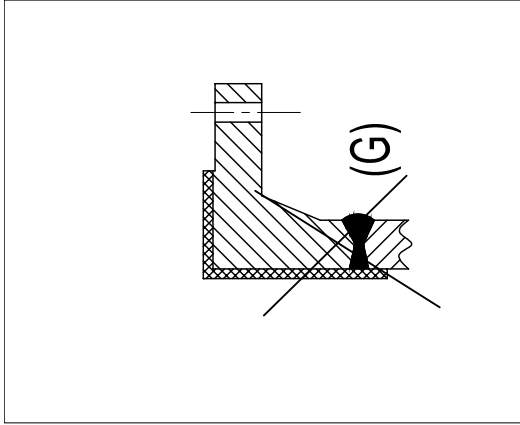
REDBACK 60 BL

Features:	Superior resistant to dry abrasion and high impact. Excellent cut and gouge properties when sharp, heavy coarse particles present.
Applications:	Transfer points, vibratory feeders, impact chutes, distribution bins, pulley lagging.
Colour:	BLACK ON RED with CN BONDING LAYER.
Dimensions:	6mm Black on 3mm Red, 10mm Black on 5mm Red x 1200mm x 10 metres.
Technical Specification:	Polymer - NR.




PROPERTIES	UNITS	STANDARD	VALUES
Specific Gravity	g/cm ³	DIN 53479	1.12
Hardness	Shore A	ASTM D2240	62±5
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Elongation	%	ASTM D412	400
Tear Strength	N/mm	ASTM D624	50
Abrasion Loss	mm ³	DIN 53516	90
Temperatures	°C		-50 / +85



Flange Weld Profile Details

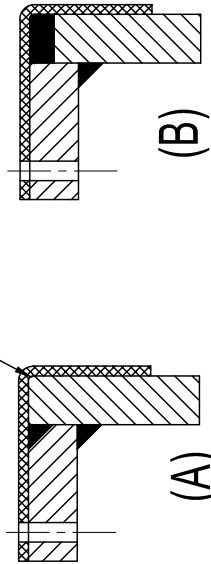


DETAILS SHOWN IN (A), (B), (C), (D), (E) AND (F) ARE ALL PERMISSIBLE
 DETAIL (G) IS NOT PERMISSIBLE
 REF - BS6374 FLANGE WELD PROFILES

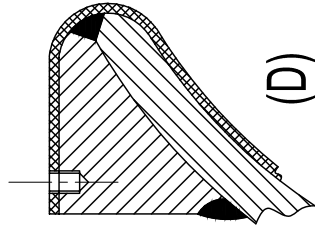
	RUBBER
	STEEL
	WELD

MINIMUM RADIUS - 3MM

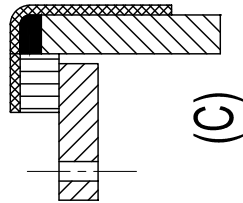
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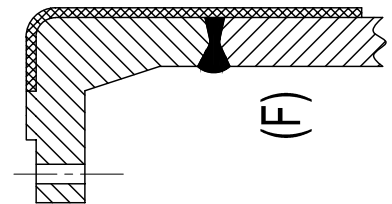
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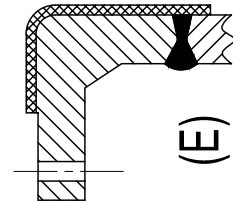
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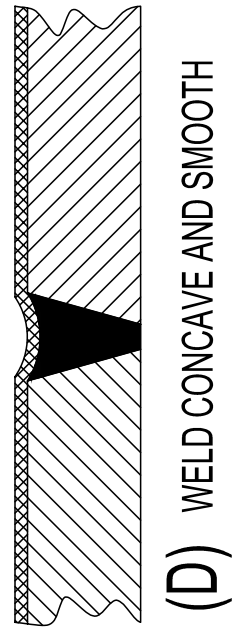
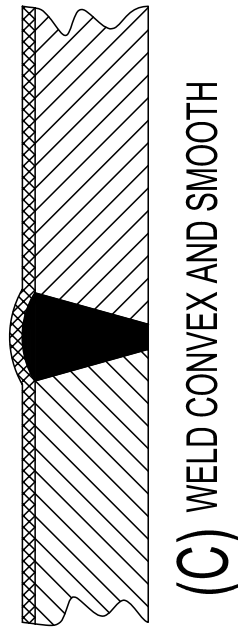
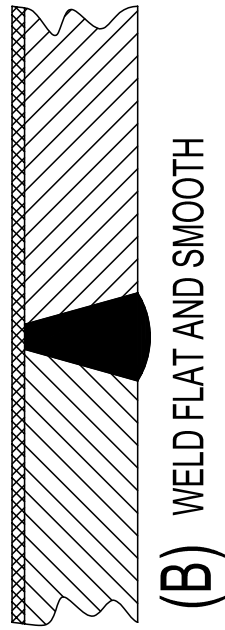
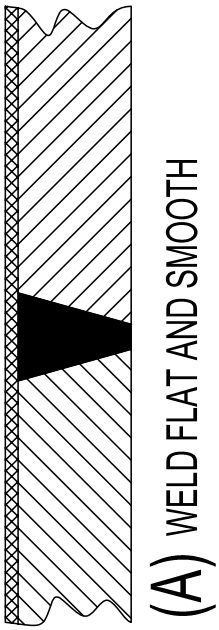
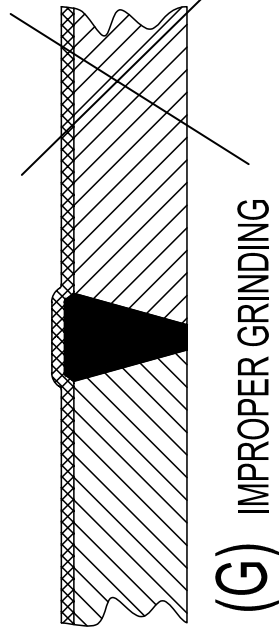
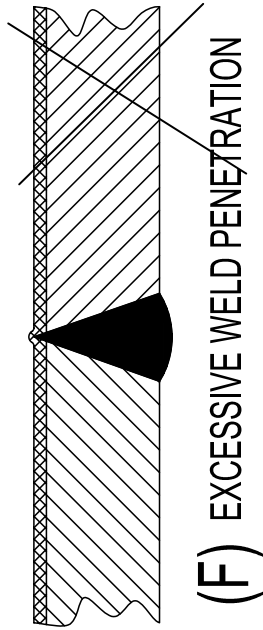
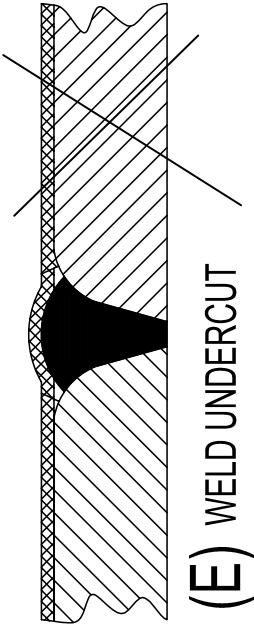
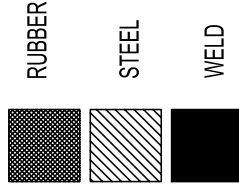


(F)



(E)

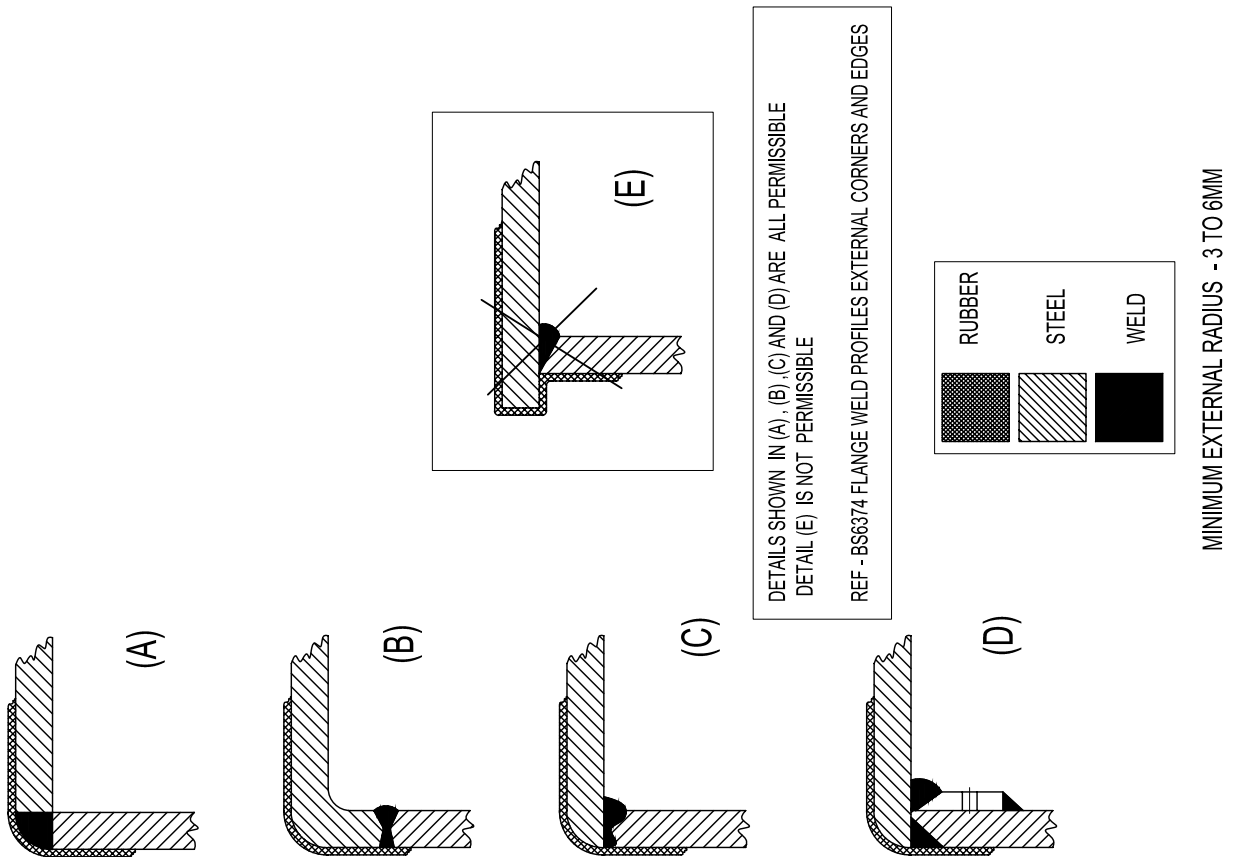
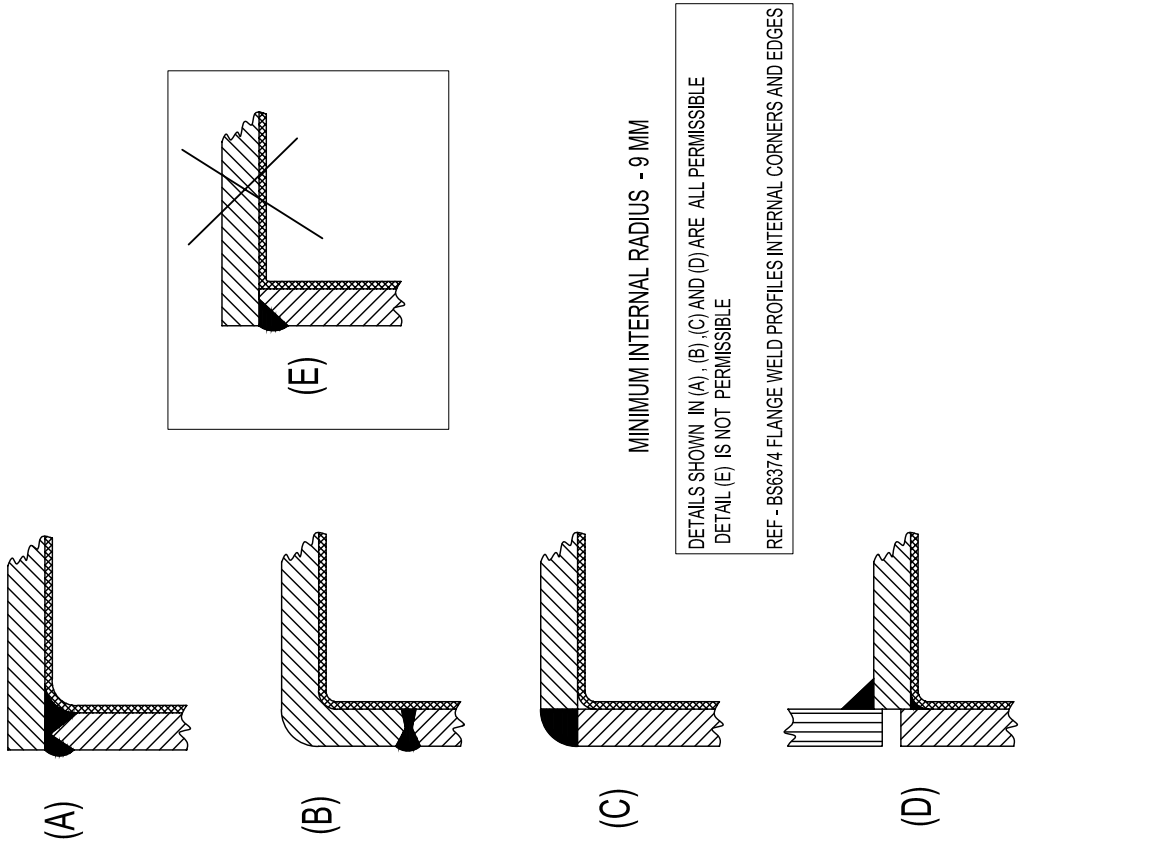
Butt Weld Details



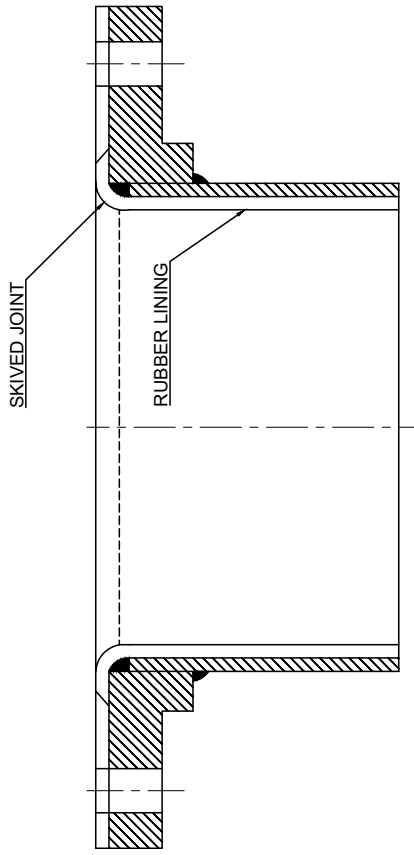
DETAILS SHOWN IN (A), (B), (C) AND (D), ARE ALL PERMISSIBLE
DETAIL (E), (F), AND (G), IS NOT PERMISSIBLE

REF - BS6374 FLANGE BUTT WELD PROFILES

Internal / External Corner Weld Details

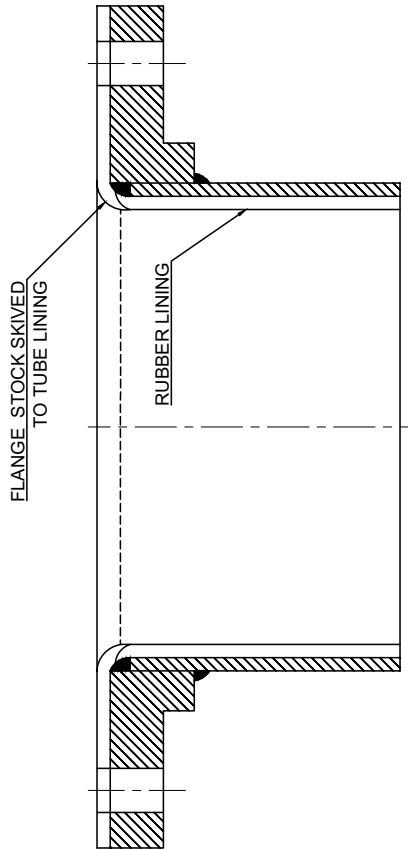


Rubber Lining & Skive Location



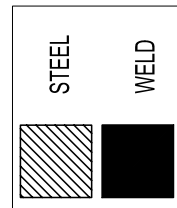
SKETCH 302

Pipe Work



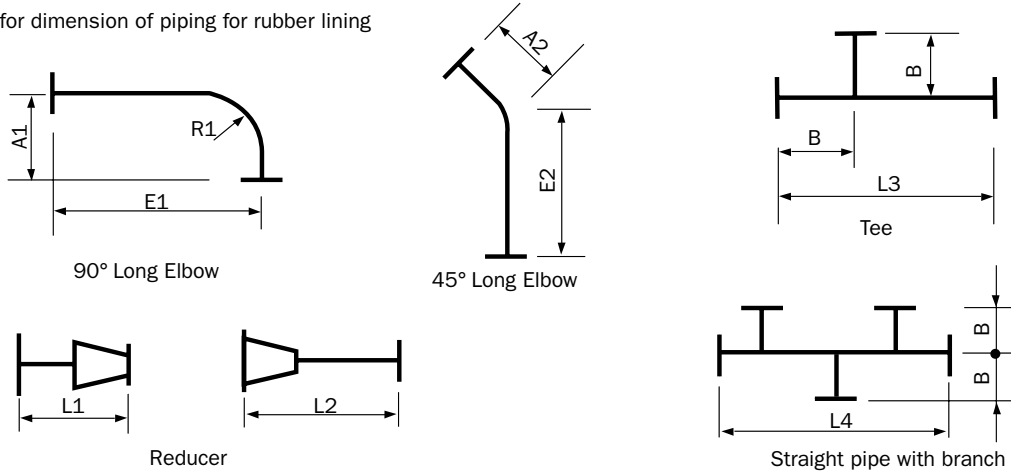
SKETCH 301

Tank Outlets



Dimension of piping

The max. possible size for dimension of piping for rubber lining



Size				Long Elbow				Tee		Reducer		Straight pipe with branch	
				90°		45°				(1)	(2)		
(B)	(A)	A1	E1	A2	E2	B	L3	L1	L2	B	L4		
1B	B	25	A	90	300	90	300	80	2,000	-	2,000	-	-
1 1/4	B	32	A	95	300	95	300	85	2,000	120	2,000	-	-
1 1/2	B	40	A	100	300	100	300	90	2,000	120	2,000	-	-
2	B	50	A	115	500	115	500	100	5,500	130	5,500	-	-
2 1/2	B	65	A	130	500	130	500	115	5,500	150	5,500	-	-
3	B	80	A	150	1,000	150	1,000	125	5,500	150	5,500	-	-
3 1/2	B	90	A	170	1,500	170	1,500	135	5,500	160	5,500	-	-
4	B	100	A	190	1,500	190	1,500	145	5,500	160	5,500	145	1,000
5	B	125	A	195	3,000	195	3,000	165	5,500	200	5,500	165	1,000
6	B	150	A	230	3,000	230	3,000	190	5,500	220	5,500	190	1,000
8	B	200	A	310	3,000	310	3,000	225	5,500	230	5,500	225	1,500
10	B	250	A	385	3,000	385	3,000	270	5,500	250	5,500	270	1,500
12	B	300	A	465	3,000	465	3,000	310	5,500	300	5,500	310	1,500
14	B	350	A	540	3,000	540	3,000	340	5,500	480	5,500	340	1,500
16	B	400	A	615	3,000	615	3,000	370	5,500	500	5,500	370	1,500
18	B	450	A	695	1,000	695	3,000	410	5,500	530	5,500	410	1,500
20	B	500	A	770	1,000	770	3,000	450	5,500	650	5,500	450	1,500
22	B	550	A	845	5,500	800	5,500	490	5,500	650	5,500	490	1,500
24	B	600	A	920	5,500	900	5,500	500	9,000	650	9,000	500	5,500
26	B	650	A	1,000	5,500	1,000	5,500	565	9,000	(900)	9,000	565	9,000
28	B	700	A	1,075	9,000	1,000	9,000	570	9,000	(900)	9,000	570	9,000
30	B	750	A	1,150	9,000	1,100	9,000	625	9,000	(900)	9,000	625	9,000
32	B	800	A	1,225	9,000	1,200	9,000	640	9,000	900	9,000	640	9,000
34	B	850	A	1,300	9,000	1,300	9,000	700	9,000	900	9,000	700	9,000
36	B	900	A	1,380	9,000	1,400	9,000	740	9,000	900	9,000	740	9,000
38	B	950	A	1,455	9,000	1,400	9,000	780	9,000	900	9,000	780	9,000
40	B	1000	A	1,530	9,000	1,500	9,000	820	9,000	900	9,000	820	9,000

Projects completed for major customers include:

- Gorro Nickel
- SPX Olympic Dam
- Ausenco Bemax Spools
- Ravensthorpe
- BHP
- Rio Tinto
- Monadelphous
- Tiwest Shutdown 2010
- Fortescue Desands Project

Overseas Project - Cebu, Philippines.





Brisbane

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