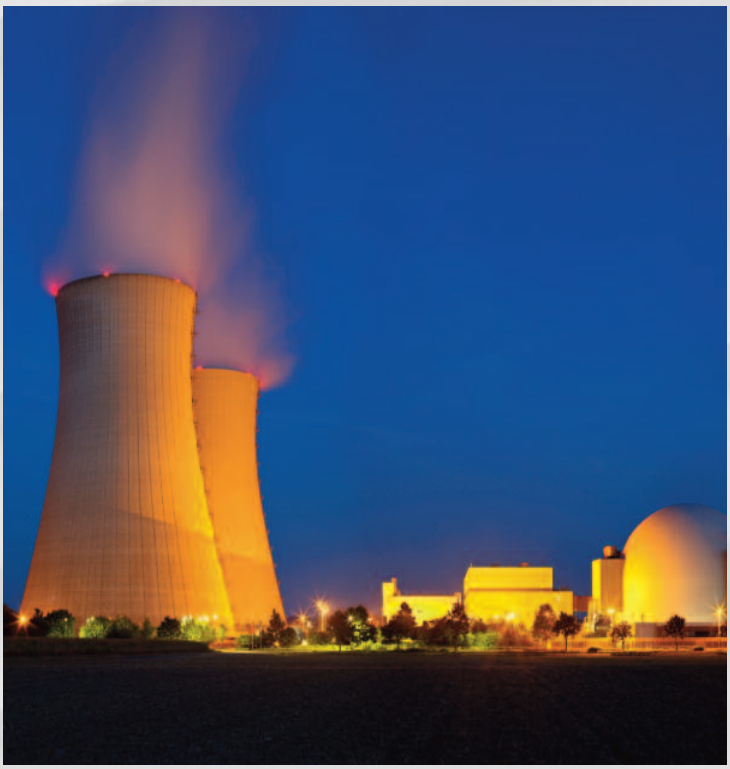
Chrome Molybdenum Steel Plate

Brown McFarlane
Global Steel Solutions



Brown McFarlane offers the widest range of chrome molybdenum steel plate, available ex-stock.

Recognising the growing worldwide demand for plate with elevated temperature properties, we are pleased to offer an extensive stock range to allow you to fast track process plant projects.

Specifications/Grades

ASME/ASTM SA/A	387	Gr. 5 Cl. 2
		Gr.11 Cl. 2
		Gr.12 Cl.2
		Gr.22 Cl.2
BS 1501 Part 2	620, 621 and 622	
BS EN 10028-2	16Mo3	
	13 CrMo Si5-5	
	13 CrMo 4-5	
	13 CrMo 9-10	

Applications

- Flanges
- Heat Exchangers
- High temperature ducting
- Pipe Clamps
- Pressure Vessels
- Valves

Key Benefits

- Cut to size.
- Extensive thickness range 6mm-100mm, sourced from Western European mills.
- Full technical support, with fast & efficient cutting and profiling service.
- Fully accredited quality systems to ISO 9001, 14001 and 18001.
- Wide area plates from stock
- Delivered worldwide by our international logistics organisation.

Weldability for all Grades:

Due to the carbon content and additional alloying elements this grade of steel when welded may be susceptible to hardening, resulting in brittle weld areas. Where the mechanical properties have been obtained by heat treatment, welding may result in a reduction of these properties and post weld heat treatment may be required to restore them.

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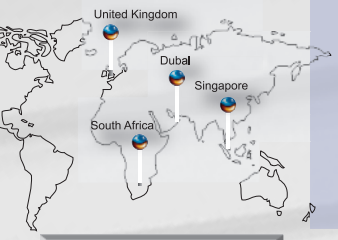

Available Sizes

Thickness: 6/8/10/12.5/13/15/16/20/25/30/35/40mm	Length:12000mm Width: 2000/2500mm
Thickness: 50/60mm	Length:10000mm Width: 2500mm
Thickness: 80mm	Length: 8000mm Width: 2500mm
Thickness: 90mm	Length: 6000mm Width: 2500mm
Thickness: 100mm	Length: 6000mm Width: 2500mm

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BS 1501 Pt 2 621 (modified), ASME SA 387 Grade 11 Cl 2, EN 10028-2 13 CrMo Si 5-5

Chemical Composition

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al (Modified)
Ladle analysis	0.09	0.50	Max	Max	0.50	Max	Max	1.00	0.45	
	0.17	0.65	0.015	0.005	0.80	0.30	0.30	1.50	0.60	0.040

Impact and Mechanical Properties (Based on 20mm thick plate)

Impacts transverse at 0°C, 27J / 19J

Yield Strength N/mm²	Tensile Strength N/mm²	Elongation %
340	515-690	22

BS 1501 Pt 2 620B(modified), ASME SA 387 Grade 12 CL2, EN 10028-2 13 CrMo 4-5

Chemical Composition

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al (Modified)
Ladle analysis	0.09	0.40			0.15			0.8	0.45	
	0.17	0.65	0.025	0.010	0.35	0.30	0.30	1.15	0.60	0.040

Impact and Mechanical Properties (Based on 20mm thick plate)

Impacts transverse at 0°C, 27J / 19J

Yield Strength N/mm²	Tensile Strength N/mm²	Elongation %
340	450-585	22

BS 1501 Pt 2 622, 1515 (Modified) ASME SA 387 Grade 22 Cl 2, EN 10028-2 10 CrMo 9-10

Chemical Composition

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al (Modified)
Ladle analysis	0.08	0.40						2.00	0.90	
	0.14	0.60	0.020	0.010	0.50	0.30	0.30	2.50	1.10	0.010

Impact and Mechanical Properties (Based on 20mm thick plate)

Impacts transverse at 0°C, 27J / 19J

	Yield Strength N/mm²	Tensile Strength N/mm²	Elongation %
Typical Values	310	515-630	18

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