



Contact Details

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MASTERHIC - HIC Resistant Steel

Pressure vessel grade material supplied to Petrobras specification N-1706 Class A & B

MASTERHIC is supplied according to ASTM/ASME A / SA 516 Grade 60, 65 & 70

MASTERHIC is Masteel's designation for fine grain pressure vessel steels offering specific and superior properties for sour gas application. Manufactured with desulphurisation, dephosphorisation, ladle refining and vacuum degassing to provide an ultra clean and homogeneous steel. Particularly suited for pressure equipment where wet H₂S corrosion can be a problem.

Features:

- fully tested for susceptibility to Hydrogen Induced Cracking (HIC)
- meets specifications applied by the Oil, Gas and pressure vessel industry
- Petrobras N-1706 Class A & B compliant
- supplied according to NACE MR0175 and MR0103
- low carbon equivalent content with excellent weldability
- supplied up to 3.5 metres in width and up to 12 metres in length
- comprehensive stock range available



Masteel UK are one of the world's leading suppliers of HIC tested material and benefit from over 10 years dedicated service to the global Oil & Gas industry.

Quality Guaranteed



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Masteel UK Limited are an ISO9001 Quality Accredited Company



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Product Information

Plate Size

12 metre x 2.5 metre
12 metre x 3.0 metre
7.5 metre x 3.0 metre
7.5 metre x 2.5 metre

Thicknesses

10mm / 13mm / 16 mm / 20mm / 25mm / 30mm / 35mm / 40mm
10mm / 13mm / 16 mm / 20mm / 25mm / 30mm / 35mm / 40mm
45mm / 50mm / 60 mm / 70mm / 75mm / 80mm / 90mm
45mm / 50mm / 60 mm / 70mm / 75mm / 80mm / 90mm

Material Characteristics (typical values)

Carbon Equivalent	ASTM A 515/516 Grade 60	CE = 0.41% (max.)
	ASTM A 515/516 Grade 70	CE = 0.45% (max.)
Product Chemical Analysis		S = 0.001% (max.)
		P = 0.008% (max.)

Manufacturing

Vacuum de-gassed and calcium treated for globulisation.
Fully killed
Normalised

Microstructural Alignment in accordance with ASTM E 1268

Ultrasonic Testing in accordance with ASTM A578 / 578M Level 1 with supplementary requirement S1 modified

Postweld Heat Treatment

Tested after 3 cycles at 620 to 640 degrees C

Reported tests:

Hardness after first PWHT
Tensile and bend test after final PWHT

HIC Testing

HIC as per NACE TM 0284-2003 Solution A
Ratio of test: 1 test per heat per thickness
Guarantee: 5% CLR 1.5% CTR 0.5% CSR

SSC Testing

SSC tested in accordance with NACE TM 0177 Method A

3 specimens tested and approved

Results based on each individual specimen.

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