

# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK



0172

Accredited to  
ISO/IEC 17025:2005

### Exova (UK) Ltd

Issue No: 034 Issue date: 19 September 2011

Exova (UK) Ltd  
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Testing performed at the above address only

#### DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
Austenitic stainless steels and wrought, nickel-rich, chromium-bearing alloys  Stainless steels and related alloys	<u>Corrosion Tests</u>	
	Susceptibility to intergranular attack	ASTM A262-02a Practices A, B, C & E ASTM G28-02 (2008) Method A
	Pitting corrosion resistance	ASTM G48-03 (2009) Method A
	<u>Mechanical Tests</u>	
	Bend	BS EN ISO 7438:2005 DNV-OS-F101 Oct 2007
	Fracture toughness:	
	CTOD (Temperature range -196°C and -120°C to ambient)	BS 7448:Part 1:1991
	Hardness:	
	Brinell hardness (1/30)	ASTM E10-10 BS EN ISO 6506-1:2005
	Rockwell (B and C scales)	ASTM E18-08b BS EN ISO 6508-1:2005
Vickers (HV5, 10, 30)	ASTM E384-10 BS EN ISO 6507-1:2005	



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METALS, ALLOYS and METAL PRODUCTS	<u>Mechanical Tests</u> (cont'd)  Impact:  Charpy (V notch) (Temperature range -196°C and -120°C to ambient)  Lateral expansion and percent shear  Tensile (Loads up to 1200 kN)  Tensile (Loads up to 50 kN) (Temperature range ambient to 300°C)  Through thickness tensile	BS EN 10045-1:1990 ASTM E23-07a ISO 148-1 :2006  ASTM E23-07a  ASTM E8/E8M-09 ASTM A370-10 BS EN ISO 6892-1 :2009 DNV-OS-F101 Oct 2007  BS EN 10002-5:1992 ASTM E21-09  BS EN 10164:2004 ASTM A770/A770M-03(2007)
Pipe	Ring flattening (Loads up to 1200 kN)	BS EN ISO 8492:2004 ASTM A370-07a ASTM A530/A530M-04(2010)
Clad Material	Shear  <u>Metallurgical Tests</u>	ASTM A264-09 ASTM A265-09
Nickel based alloy 718	Grain size  Inclusion content  Volume fraction by point counting  Macrostructure and Microstructure examination of microstructure	ASTM E112-96(2004) (comparison method)  ASTM E45-2005 Method A and D  ASTM E562-08  API Std 6A718 2 <sup>nd</sup> edition
Ferrous and Non-ferrous products	Microstructural examination	Documented In-House Method MET-2-2



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<p>METALS, ALLOYS and METAL PRODUCTS (cont'd)</p> <p>Weldments</p>	<p><u>Mechanical and Metallurgical Tests</u></p> <p>Tests in accordance with specified welding codes:</p> <p>Bend, Fracture, Hardness, CTOD, Tensile, Impact, Macro examination</p>	<p>BS EN 287:Part 1:2004 BS EN 875:1995 BS EN 895:1995 BS EN ISO 5173 :2010 BS EN 1043-1:1996 BS EN 1320:1997 BS EN 1321:1997 BS EN ISO 9606-2:2004 BS EN ISO 15614-1:2004 BS EN ISO 15614-2 :2005 AWS D1.1/D1.1M:2008 ASME IX-07 API Spec. 5L, 44<sup>th</sup> Edition:2007 API 1104 20<sup>th</sup> Edition:2005 BS 4515-1:2009 BS 4515-2:1999 BS 7448:Part 2:1997</p>
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