

Laboratory Industrial Radiographic Inspection Co., SP 111, Ambattur Industrial Estate, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025:2005

Discipline Non - Destructive Testing **Issue Date** 09.05.2014

Certificate Number T-2211 **Valid Until** 08.05.2016

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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I. METALS AND ALLOYS

A. RADIOGRAPHY TEST

1.	Weld Joints	Radiography	ASME Sec-V Article 2,22:2013 ASTM E-94-04 (2013) ASME Sec VIII:2013 ASME Sec IX:2013 BS EN 444:1994 ASME B 31.1:2012 ASME B 31.3:2012 AWS D1.1/D1.1 M:2010 ASTM E94-04 (2010) ASTM E 1416-04 BS 2600:1983 BS EN 1435:1997 BS 2910:1994 BS EN 12517:2008 ASTM E 390-01(2006)	X ray:2mm to 50 mm Gamma ray- Iridium 192:5mm to 70mm Cobalt 60: 50mm to 200mm/ max 2% sensitivity
2.	Casting	Radiography	ASME Sec-V Article 2,22:2013 ASTM E-155:2010 ASME E 505:2011 ASME Sec VII:2011 ASME B 16.34:2013 ASME E 1030-05(2011) BS EN 4080:2009 BS EN 12681:2003 ASTM E 186 Vol II:2010 ASTM E 280 Vol II:2010 ASTM E 446 Vol II:2010	X ray:2mm to 50 mm Gamma ray- Iridium 192:5mm to 70mm Cobalt 60: 50mm to 200mm/ max 2% sensitivity

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B. ULTRASONIC TESTING

1.	Weld Joints	Detection of Internal Flaws / Detection of Surface & Sub-Surface Flaws / Thickness measurement	ASME Sec-V Article 4,5:20103 ASME B 31.1:2012 ASME B 31.3:2012 ASTM E 273:10 BS EN1714:1998 BS EN 1713:1998 BS EN 1712:1997 BS EN 583:2008 ASME Sec V III DIV 1:2013	3mm to 300mm/ $\lambda/2$ detection sensitivity
2.	Casting	Detection of Internal Flaws / Detection of Surface & Sub-Surface Flaws / Thickness measurement	ASME Sec-V Article 23:2013 ASTM A 609/A 609M 91 (R- 2012) ASME B 16.34:2013 BS EN 12680:2011	15mm to 500mm/ $\lambda/2$ detection sensitivity
3.	Steel Plates	Detection of Internal Flaws / Detection of Surface & Sub-Surface Flaws / Thickness measurement	ASME Sec-V Article 23:2013 ASTM A 435/A 435M 90 (R- 2012) ASTM A 578/A 578M-07	8mm to 100/ $\lambda/2$ detection sensitivity
4.	Forging	Detection of Internal Flaws / Detection of Surface & Sub-Surface Flaws / Thickness measurement	ASME Sec-V Article 23:2013 ASTM A 388/A 388M-11 ASTM A 745/A 745M-94 (R2012)	10mm to 800mm/ $\lambda/2$ detection sensitivity

C. MAGNETIC PARTICLE TESTING

1.	Weld Joints	Magnetic Particle (Prod & Yoke) Surface Defect & Sub Surface Defect	ASME Sec-V Article 7,25:2013 ASTM E-709-08 ASME Sec VIII Div 1:2013 BS EN 1290:1998 BS EN 1291:1998 AWS D1.1/D1.1M:2010	Surface Defect and Sub-Surface Defect (Upto 5 mm Depth)
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2.	Casting	Magnetic Particle (Prod & Yoke) Surface Defect & Sub-Surface Defect	ASME Sec-V Article 7,25:2013 ASTM Sec V III Div 1:2013 ASME B 16.34:2009 ASTM E 709-08	Surface Defect and Sub-Surface Defect (Upto 5 mm Depth)
3.	Forging	Magnetic Particle (Prod & Yoke) Surface Defect & Sub-Surface Defect	ASME Sec-V Article 7,25:2013 ASTM Sec V III Div 1:2013 ASTM E 709-08	Surface Defect and Sub-Surface Defect (Upto 5 mm Depth)

D. PENETRANT TESTING

1.	Forging	Liquid Penetrant (Solvent Removable) Surface Defect	ASME Sec-V Article 6,24:2013 ASTM E 165-12 ASME Sec VIII Div 1:2013 AWS D1.1/D1.1M:2010 BS EN 1289:1998	Defects open to Surface
2.	Casting	Liquid Penetrant (Solvent Removable) Surface Defect	ASME Sec-V Article 6,24:2013 ASME B 16.34:2013 BS EN ISO 3452:2013 ASME Sec VIII Div 1:2013	Defects open to Surface

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