

Laboratory **BSL Spectro Lab & Metallurgical Testing Centre, Plot No. 263,
Sector 24, Faridabad, Haryana**

Accreditation Standard **ISO/IEC 17025: 2005**

Discipline **Chemical Testing** **Issue Date** **27.08.2016**

Certificate Number **T-1452** **Valid Until** **26.08.2018**

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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
I. METALS & ALLOYS				
1.	Low Alloy Steel/ Tool Steel	Carbon	ASTM E 415: 2008	0.005 % to 2.00 %
		Sulphur	ASTM E 415: 2008	0.005 % to 0.30 %
		Phosphorous	ASTM E 415: 2008	0.005 % to 0.10 %
		Manganese	ASTM E 415: 2008	0.03 % to 2.00 %
		Silicon	ASTM E 415: 2008	0.01 % to 2.00 %
		Chromium	ASTM E 415: 2008	0.01 % to 13.00 %
		Nickel	ASTM E 415: 2008	0.01 % to 5.00 %
		Molybdenum	ASTM E 415: 2008	0.01 % to 10.00 %
		Titanium	ASTM E 415: 2008	0.02 % to 0.30 %
		Tungsten	ASTM E 415: 2008	0.02 % to 20.00 %
		Vanadium	ASTM E 415: 2008	0.02 % to 2.00 %
		Copper	ASTM E 415: 2008	0.01 % to 1.00 %
		Aluminium	ASTM E 415: 2008	0.01 % to 1.00 %
		Cobalt	ASTM E 415: 2008	0.02 % to 10.00 %
		Boron	ASTM E 415: 2008	0.001 % to 0.015 %
Lead	ASTM E 415: 2008	0.010 % to 0.50 %		

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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
2.	Stainless Steel	Carbon	ASTM E 1086: 2008	0.01 % to 0.50 %
		Sulphur	ASTM E 1086: 2008	0.01 % to 0.30 %
		Phosphorous	ASTM E 1086: 2008	0.01 % to 0.05 %
		Manganese	ASTM E 1086: 2008	0.20 % to 2.00 %
		Silicon	ASTM E 1086: 2008	0.20 % to 1.50 %
		Chromium	ASTM E 1086: 2008	10.00 % to 30.00 %
		Nickel	ASTM E 1086: 2008	0.30 % to 25.00 %
		Molybdenum	ASTM E 1086: 2008	0.05 % to 3.00 %
		Titanium	ASTM E 1086: 2008	0.02 % to 0.30 %
		Tungsten	ASTM E 1086: 2008	0.02 % to 0.40 %
		Copper	ASTM E 1086: 2008	0.01 % to 1.00 %
		Niobium	ASTM E 1086: 2008	0.05 % to 1.10 %
3.	Cast Iron	Carbon	ASTM E 999: 2012	1.60 % to 4.00 %
		Sulphur	ASTM E 999: 2012	0.01 % to 0.30 %
		Phosphorous	ASTM E 999: 2012	0.01 % to 0.95 %
		Manganese	ASTM E 999: 2012	0.03 % to 1.00 %
		Silicon	ASTM E 999: 2012	1.00 % to 3.00 %

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	Cast Iron	Chromium	ASTM E 1999: 2012	0.05 % to 1.00 %
		Nickel	ASTM E 1999: 2012	0.05 % to 2.00 %
		Molybdenum	ASTM E 1999: 2012	0.05 % to 0.50 %
		Titanium	ASTM E 1999: 2012	0.02 % to 0.10 %
		Copper	ASTM E 1999: 2012	0.03 % to 0.50 %
		Magnesium	ASTM E 1999: 2012	0.01 % to 0.20 %
		Boron	ASTM E 1999: 2012	0.001 % to 0.010 %
4.	Aluminum & Aluminum Alloys	Silicon	ASTM E 1251: 2011	0.10 % to 13.00 %
		Copper	ASTM E 1251: 2011	0.01 % to 8.00 %
		Iron	ASTM E 1251: 2011	0.05 % to 2.00 %
		Zinc	ASTM E 1251: 2011	0.05 % to 4.00 %
		Magnesium	ASTM E 1251: 2011	0.10 % to 4.50 %
		Nickel	ASTM E 1251: 2011	0.03 % to 2.00 %
		Manganese	ASTM E 1251: 2011	0.05 % to 1.30 %
		Chromium	ASTM E 1251: 2011	0.03 % to 0.25 %
		Titanium	ASTM E 1251: 2011	0.01 % to 0.50 %
		Tin	ASTM E 1251: 2011	0.05 % to 0.60 %
		Lead	ASTM E 1251: 2011	0.05 % to 0.60 %

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5.	Copper & Copper Alloys	Tin	BS EN 15079: 2007	0.02 % to 10.5 %
		Lead	BS EN 15079: 2007	0.02 % to 13.50 %
		Zinc	BS EN 15079: 2007	0.03 % to 42.00 %
		Nickel	BS EN 15079: 2007	0.03 % to 7.50 %
		Aluminum	BS EN 15079: 2007	0.03 % to 12.00 %
		Iron	BS EN 15079: 2007	0.08 % to 5.00 %
		Silicon	BS EN 15079: 2007	0.06 % to 5.00 %
		Manganese	BS EN 15079: 2007	0.05 % to 4.00 %
		Cobalt	BS EN 15079: 2007	0.02 % to 3.00 %
		Beryllium	BS EN 15079: 2007	0.005 % to 3.00 %
		Phosphorous	BS EN 15079: 2007	0.03 % to 1.00 %
		Sulphur	BS EN 15079: 2007	0.02 % to 0.30 %
Chromium	BS EN 15079: 2007	0.06 % to 1.00 %		

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