

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 02/05/12 Rev. No: 06 LAB 098
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Accreditation No: LAB 098

Awarded to

**Technical Services Centre (TSC). PSQCA,
125-A, Industrial Area, Kot Lakhpat, Lahore**

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **25-11-2015** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of **ISO/IEC 17025:2005**.

The accreditation requires regular surveillance, and is valid until **24-11-2018**.

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

PAKISTAN NATIONAL ACCREDITATION COUNCIL

28-12-2016
Date

Director General

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Testing Laboratory.

Accreditation Scope of TSC-PSQCA Labs. Lahore, Pakistan.

Permanent laboratory premises

Materials/ Products tested	Types of test/ Properties measured	Range of measurement	Minimum detection limit	Uncertainty of Measurement (where applicable) MU (\pm)	Standard specification/ Techniques/ equipment used
Metallic materials	Charpy Pendulum Impact Test at ambient temp V- Notch impact specimen	5 – 350 J	2 J	Low energy level 1.696 High energy level 2.365	ASTM E23-12c Charpy Impact Tester Satec
	Rockwell Hardness Testing Parallel surfaced specimen (20 to 40°C)	HRA (20 – 85) HRC (20 – 70)	0.5HRA 0.5HRC	0.797 HRA 1.195HRC	ASTM E18-15 Rockwell Hardness Tester Macromet
Carbon & Alloy Steel	Tensile Testing at Ambient Temp / Tensile Strength	5KN – 900KN	0.5KN	5.77 N/mm ²	ASTM E8-16a Tensile Testing Machine Shimadzu 1000KN
	Tensile Testing at Ambient Temp / Yield Strength at 0.2 % offset	5KN – 900KN	0.5KN	7.56 N/mm ²	ASTM E8-16a Tensile Testing Machine Shimadzu 1000KN
	Tensile Testing at Ambient Temp / Elongation after Fracture	1 – 90%	1%	0.55%	ASTM E8-16a Tensile Testing Machine Shimadzu 1000KN
	Tensile Testing at Ambient Temp / Reduction in Area	1 – 90%	1%	0.25%	ASTM E8-16a Tensile Testing Machine Shimadzu 1000KN

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Carbon and Low Alloy Steel	Optical Emission Vacuum Spectrometric analysis of carbon and low alloy steel	Iron Base (% of Weight) C 0.044 – 1.1 Mn 0.05 – 2.0 Si 0.05 – 1.0 S 0.005 – 0.055 P 0.005 – 0.085 Ni 0.1-2.0 Cr 0.05-3.0 Mo 0.05-1.0 Cu 0.05-0.3 V 0.05-0.5	0.001%	0.009 % 0.051 % 0.011 % 0.0041 % 0.001 % 0.03 % 0.011 % 0.015 % 0.0048 % 0.0056 %	ASTM E 415-14 Emission Spectrometer Bruker Q8 Magellan Model: QM/V/L S/n. K0081
Stainless Steel	Optical Emission Vacuum Spectrometric analysis of Stainless Steel	Iron Base (% of Weight) C 0.010 – 0.25 Mn 0.05- 2.0 Si 0.06 – 1.0 S 0.005 - 0.055 P 0.005 – 0.03 Cr 12.0 – 22.0 Ni 4.0 – 15.00 Mo 0.1 – 2.5 Cu 0.1-0.5 Ti 0.05-0.5	0.001%	0.00308 % 0.0766 % 0.014 % 0.0012 % 0.0037 % 0.067 % 0.036 % 0.008 % 0.011% 0.0015%	ASTM E 1086-14 Emission Spectrometer Bruker Q8 Magellan
Aluminum	Test Method for Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys	Aluminum Base (% of Weight) Si 0.4 -12.0 Cu 0.05- 2.0 Mg 0.05- 2.0 Zn 0.029- 1.0 Fe 0.18- 0.70 Mn 0.05- 0.50 Cr 0.05-0.25 Ni 0.05-0.25 Ti 0.01-0.25	0.001%	0.024 % 0.0024 % 0.02 % 0.0032 % 0.011 % 0.0024 % 0.0020 % 0.0045 % 0.00092 %	ASTM E 1251-11 Emission Spectrometer Bruker Q8 Magellan

28-12-2016
Date

Director