

# **PUMP TESTING LAB (PTL)**

## **(NABL ACCREDITED)**

Director, (DPTL) :  
Head, (HPTL) : Dr. Sehijpal Singh  
Quality In-charge (QIC), : Dr. Parmjit Singh Bilga  
Office In-charge (OIC) : Er. Prem Singh  
Name of Lab Technician : Mr. Balbir Singh  
Name of Lab Attendant : Mr. Sarbjeet Singh

Floor Area: 713 sq. ft covered area



# NABL

## National Accreditation Board for Testing and Calibration Laboratories

(An Autonomous Body under Department of Science & Technology, Govt. of India)

### CERTIFICATE OF ACCREDITATION

#### PUMP TESTING LABORATORY (MECHANICAL ENGG. DEPTT.)

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2005**

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

Guru Nanak Dev Engineering College, Gill Road, Ludhiana, Punjab

in the discipline of

**ELECTRICAL TESTING**

(To see the scope of accreditation of this laboratory, you may also visit NABL website [www.nabl-india.org](http://www.nabl-india.org))

**Certificate Number** T-2591

**Issue Date** 11/09/2015



**Valid Until** 10/09/2017

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL

N. Venkateswaran  
Program Manager

Anil Relia  
Director

Prof. S. K. Joshi  
Chairman

Fig 1: NABL Certification of Accreditation

Laboratory Pump Testing Laboratory (Mechanical Engg. Deptt.), Guru Nanak Dev Engineering College, Gill Road, Ludhiana, Punjab

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6414 (in lieu of T-2591)

Page 1 of 2

Validity 11.09.2017 to 10.09.2019

Last Amended on 12.10.2017

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	---	--

ELECTRICAL TESTING

I. ROTATING ELECTRICAL MACHNIES				
1.	Submersible Pumpsets	Verification of Marking	IS 8034 Cl. No. 16	Qualitative
		Pump Performance	IS 8034 Cl. No. 7.2	Upto 15 lps Upto 100 m Upto 15 kW Upto 100 A 48 Hz to 52 Hz
		Hydrostatic	IS 8034 Cl. No. 9.1	Upto 70 kg/cm <sup>2</sup>
		No load running of motor	IS 8034 Cl. No. 7.2	Upto 50 kW Upto 100 A Upto 440 V 48 Hz to 52 Hz
		Locked Rotor	IS 8034 Cl. No. 7.2	Upto 50 kW Upto 100 A Upto 440 V Upto 150 Nm
		Insulation Resistance	IS 8034 Cl. No. 7.2	Upto 100 MΩ
		High Voltage	IS 8034 Cl. No. 7.2	Qualitative (Upto 5 kV AC)
		Temperature rise test at rated voltage	IS 8034 Cl. No. 7.1.1.1	5 °C to 50 °C Upto 50 kW Upto 100 A Upto 440 V
		Temperature rise test at reduced voltage	IS 8034 Cl. No. 7.1.1.1	5 °C to 50 °C Upto 50 kW Upto 100 A Upto 440 V
		Direction of rotation	IS 8034: 2013 Cl. No. 10	Qualitative

Ravi Johri  
Convenor

N. Venkateswaran  
Program Director

Mechanical Engineering Department

Fig 2: Submersible Pumpsets testing standards

Laboratory Pump Testing Laboratory (Mechanical Engg. Deptt.), Guru Nanak Dev Engineering College, Gill Road, Ludhiana, Punjab

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6414 (in lieu of T-2591) Page 2 of 2

Validity 11.09.2017 to 10.09.2019 Last Amended on 12.10.2017

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
2.	Submersible Motors	Pump Performance	IS 9283 Cl. No. 16.1(h)	Upto 15 lps Upto 100 m Upto 15 kW Upto 100 A 48 Hz to 52 Hz
		No load running of motor	IS 9283 Cl. No. 16.1(d)	Upto 50 kW Upto 100 A Upto 440 V 48 Hz to 52 Hz
		Locked Rotor	IS 9283 Cl. No. 16.1(f)	Upto 50 kW Upto 100 A Upto 440 V Upto 150 Nm
		Insulation Resistance	IS 9283 Cl. No. 16.1(a), Cl. No. 21.1	Upto 100 MΩ
		High Voltage	IS 9283 Cl. No. 16.1(b), Cl. No. 20	Qualitative (Upto 5 kV AC)
		Balancing of rotor	IS 9283 Cl. No. 5.6 IS 11723 (Part 1) Cl. No. 6.3, Cl. No. 8.3	Grade 6.3
		Temperature rise test at rated voltage	IS 9283 Cl. No. 19	5 °C to 50 °C Upto 50 kW Upto 100 A Upto 440 V
		Temperature rise test at reduced voltage	IS 9283 Cl. No. 19	5 °C to 50 °C Upto 50 kW Upto 100 A Upto 440 V
		Finish of Bearings	IS 9283 Cl. No. 5.5	0.01 μm to 2.93 μm
		Measurement of stator resistance	IS 9283 Cl. No. 16.1 (c)	Upto 300 Ω
		Leakage Current Test	IS 9283 Cl. No. 23	0.1 mA to 300 mA (AC)

Ravi Johri  
Convenor

N. Venkateswaran  
Program Director

Fig 3: Submersible Motors testing standard



**Fig 4: Pump Testing Lab**



**Fig. 5: Pump Testing Area**