



# NABL

**National Accreditation Board for  
Testing and Calibration Laboratories**

Department of Science & Technology, India

**CERTIFICATE OF ACCREDITATION**

## FLUID CONTROL RESEARCH INSTITUTE

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

**PALAKKAD, KERALA**

in the field of

**THERMAL CALIBRATION**

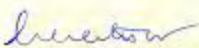
Certificate Number **C-0255**

Issue Date **30/11/2009**

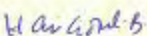
Valid Until **30/06/2011**

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**

Convenor

  
**Dr B. Hari Gopal**

Director

  
**Dr T. Ramasami**

Chairman



# रा.प्र.प्र.बो.

राष्ट्रीय परीक्षण और अंशशोधन  
प्रयोगशाला प्रत्यायन बोर्ड  
विज्ञान एवं प्रौद्योगिकी विभाग, भारत

प्रत्यायन प्रमाण-पत्र

फ्लूइड कंट्रोल रिसर्च इन्स्टीट्यूट

का मूल्यांकन और प्रत्यायन निम्न मानक के अनुसार

आई.एस.ओ./आई.ई.सी. 17025:2005

“परीक्षण एवं अंशशोधन प्रयोगशालाओं की सक्षमता की सामान्य अपेक्षाएँ”

पलक्काड, केरल

में स्थित इसकी सुविधाओं के लिए  
तापीय अंशशोधन  
के क्षेत्र में किया गया।

प्रमाण-पत्र संख्या

अ-0255

जारी करने की तिथि

30/11/2009

वैधता की तिथि

30/06/2011

यह प्रमाण-पत्र उपर्युक्त मानक तथा राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड की अतिरिक्त अपेक्षाओं का निरंतर संतोषप्रद अनुपालन किए जाने पर अनुबंध में निर्दिष्टानुसार प्रत्यायन के क्षेत्र के लिए वैध रहेगा।

रा.प्र.प्र.बो. की ओर से हस्ताक्षरित

एन. वेंकटेश्वरन  
एन. वेंकटेश्वरन

संयोजक

डॉ. हरि गोपाल  
डा वो. हरि गोपाल

निर्देशक

डा टी. रामसानी  
डा टी. रामसानी

अध्यक्ष



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**Department of Science & Technology, India**

## SCOPE OF ACCREDITATION

Laboratory	Fluid Control Research Institute, Palakkad, Kerala		
Accreditation Standard	ISO/IEC 17025: 2005		
Field	Thermal Calibration	Issue Date	30.11.2009
Certificate Number	C-0255	Valid Until	30.06.2011
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Quantity Measured / Instrument	Range	* Calibration Measurement Capability ( $\pm$ )	Remarks
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### AT LABORATORY

(TEMPERATURE CALIBRATION BY FIXED POINTS)

1. Triple point of Hg Cell (-38.8344 °C)	-38.8344 °C	7.1 m °C	Standard Platinum Resistance Thermometer (SPRT)
2. Triple point of Water Cell (0.01 °C)	0.01 °C	6.3 m °C	Fixed point method as per ITS-90, using SPRT&HTPRT of HART
3. Melting point of Ga Cell (29.7646 °C)	29.7646 °C	7.1 m °C	make with HART Super Thermometer Model 1590 &SPRT of Tinsley with HART Super Thermometer Model 1590
4. Freezing point of In Cell (156.5985°C)	156.5985°C	6.8 m °C	
5. Freezing point of Sn Cell (231.928 °C)	231.928 °C	8.2 m °C	
6. Freezing point of Zn Cell (419.527 °C)	419.527 °C	6.6 m °C	
7. Freezing point of Al Cell (660.323 °C)	660.323 °C	8.5 m °C	
8. Freezing point of Ag Cell (961.78 °C)	961.78°C	24 m°C	

\*Fixed Point Demonstrated

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Quantity Measured / Instrument	Range	* Calibration Measurement Capability ( $\pm$ )	Remarks
<b>THERMAL (COMPARISON CALIBRATION)</b>			
	-70°C to 152°C	0.07 °C	Alcohol Bath, Oil Bath & SPRT Models 5187SA & 5698-25 with model 1590 Digital Temperature indicator, RTD with Digital Temperature Indicator Model- ASL-150,ASL-250, Tinsley 5885
	-30°C to 152°C	0.07 °C	Alcohol Bath, Oil Bath & RTD with Digital Temperature Indicator Model:9540,Make:Guildline & Model: DTI 1000, Make: Ametek
	150°C to 300°C	0.2°C	Fluidised Bath, Dry Block Calibrator& RTD with Digital Temperature Indicator Model: ASL 150, ASL-250,Tinsley 5885, Ametek Model DTI 1000
	300°C to 700 °C	0.3 °C	Fluid Bath, Dry Block Calibrator& RTD with Digital Temperature Indicator Model: Tinsley 5885

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Quantity Measured / Instrument	Range	* Calibration Measurement Capability ( $\pm$ )	Remarks
	+100°C to 1200 °C	1.3 °C	High Temperature Calibrator System & STC with Digital Temperature indicator Model: ASL 150, Tinsley 5885
RELATIVE HUMIDITY	10%-95% RH	0.5 %	Humidity Generator, 2500
<b><u>ON-SITE CALIBRATION</u></b>			
<b>(NOISE &amp; VIBRATION LABORATORY)</b>			
THERMAL (COMPARISON CALIBRATION)	-40 °C to 700 °C	0.3°C	Dry Block Calibrators & RTD with Digital Temperature Indicator Model: ASL 150, ASL-250, Tinsley 5885, Ametek Model DTI 1000 Guideline: 9540

\* Measurement Capability is expressed as an uncertainty ( $\pm$ ) at a confidence probability of 95 %

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