

**FRI**

Prosperity through research

# Fie Research Institute

22/44, Ganganagar P. O., ICHALKARANJI - 416 116.  
(Dist.Kolhapur) Maharashtra State, INDIA.

■ Phone : (0230) 2441475 ■ Fax : (0230) 2440191

■ E-mail : fri@dataone.in ■ Website : www.fiegroupindia.com

**Accreditation No. NABL C0066**

## CALIBRATION CERTIFICATE OF FORCE MEASURING DEVICE

Date of Calibration : 11/01/2014	Certificate No: FRI/01/14/6607
Next Calibration due on : 11/03/2016	Page No. : 1/2

Calibrated for Krutam Techno Solutions Pvt. Ltd.  
64/B, G.I.D.C. Makarpura Industrial Estate,  
Behind Fire Brigade Station,  
Vadodara – 390 010.

Customer Reference No. D.C. No. 01 Dated on 10/01/2014

Details of Instrument Under Calibration	Instrument	Proving Ring
	Id.No.	A WON 100kN 97506 (KTPL/F/005)
	Capacity	100 kN
	Type	Integral
	Dial Gauge Make	Baker
	1 Div	0.002 mm
	Dial Gauge No.	SLC 236

Date of Receipt 11/01/2014

Mode of Calibration Compression

Machine Used for Calibration  
1) Hydraulic Multiplication System (NPL-FIE-001)  
2) Dead Weight Force Machine (FIE-DWP-003)

Traceability  
1) NPL, Cert.No. 12031657/D5.05/C-085 valid upto 07/07/14  
2) NPL, Cert.No. 12031657/D5.05/C-084 valid upto 07/07/14


Dial Gauge setting  
Large pointer at 12 O'clock position  
Small pointer at 5 revolutions


Temperature 24°C

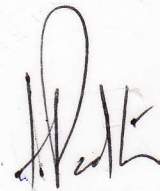
Correction of temperature variation Apply  $\pm 0.027\%$  correction to each reading for each °C rise or fall of temperature.

### Note

- 1) Compression test were made out by using self-aligning Compression pads provided with the force-measuring device.
- 2) Prior to each reading, the dial gauge was lightly tapped on the center of the dial cover.
- 3) The reported uncertainty is at coverage factor  $k=2$  which corresponds to a coverage probability of approximately 95% for a normal distribution, considering the relative error of different components such as Zero, Resolution, Repeatability, Interpolation and combining the uncertainty of applied force.

  
Scientific Asst  
(D.D. Magdum)

  
Sr. Engineer  
(R.V. Tambad)

  
Director  
(Dr. J.C. Padte)

