

# Nagman®

Comprehensive Calibration Solutions Provider



## Calibration Systems



TYPE  
OF  
SYSTEMS  
WE OFFER

- PRESSURE
- TEMPERATURE
- ELECTRICAL & ELECTRONICS
- MULTIFUNCTION / MULTIPARAMETER
- SAFETY VALVE TEST BENCHES
- MOBILE CALIBRATION KIT
- MARINE TRAINER KIT
- FLOW & LEVEL

## CALIBRATION TEST BENCH SYSTEMS

Nagman's wide range of Calibration Systems - Test Benches, Workstations, Bench-tops & Mobile Units - are designed & executed to serve as

### Powerful tools for

- Total Quality Management & ISO Conformance with Accuracies Traceable to International Standards
- Total Solution to all Calibration requirements

Thus these serve as an Essential / Integral part of Centralized / Distributed (Site) Calibration / Testing / Q.C. Laboratory Setups in all types of Industries.

Nagman's Calibration Systems - Test Benches, Workstations, Bench-tops & Mobile Units offer Ultimate Flexibility thro' Custom Configuration / Preferences enabling Incorporation / Integration of World's best - Furniture / Utility Modules / Calibration Standards and Test & Measuring Instruments

Nagman also offer Cost Effective / Economy / Budget Solution Calibration Test Benches / Workstations / Mobile Units / Bench-tops - a Complete & Comprehensive range, integrating / interfacing Nagman's own time tested, proven Temperature / Pressure / Multifunction Calibrator modules, Power Supplies & other Utilities etc.

With the wide choice & combination of Modules offered by Nagman, complete Calibration Systems for Dedicated / Single Parameter (Temperature / Pressure / Electrical & Electronics) or for Multiparameter - any combination of parameters can be Designed, Configured & "Built-up" to suit Customer's requirement.

Test Bench Designs include Elevated / Table-top Device Panels (Single / Dual Deck) with Movable Under-Bench Cabinets / Cupboards / Trolleys etc.

Nagman also can offer only Bench-tops for Mounting on Customer Table / Furniture.

Nagman offer - for Remote / Distributed Field / Site Calibration work Compact Mobile Units - combination of Modules & Utilities mounted in a sturdy Trolley case.

Nagman can offer these Test Benches / Bench-tops - one or more - mounted in a Van or Container to serve as "Mobile Calibration Lab" for Site / Field Calibration assignments.

Calibration Accuracies (of Instrument Modules) are Traceable to International Standards & duly verified (where possible before integration) & Certified by Nagman's NABL (equivalent to UKAS) Accredited Associate Company - per ISO 17025:2017 - "Nagman Calibration Services LLP".

Nagman offer these Systems - optionally - with their powerful & unique Calibration Management Software - Calman Plus - interfacing / integrating the various Modules & enabling to perform Calibration Routines Semi-automatically / Automatically.

More than 2,500 Systems are proving their mettle in industries & Projects Worldwide, thro' continued good performance.

### Basic Design & Dimension

Work Table-tops are constructed from high density wood particle board of thickness 25 mm and covered / finished with non-reflective, dissipative antistatic (optional) matt finish plastic laminate, to meet the requirements for applications within the electronic Industry. The surface of the work top is resistive to impacts / discoloring / soldering marks & most of Chemical reagents. Also Antistatic top provided to avoid static discharges while working with electronic components.

## CALIBRATION TEST BENCH SYSTEMS

### Eco-Frame (Economic Heavy Duty)

Basic / Economy Version - High quality / Heavy Duty & Powder coated. 40 mm square tube fabricated 4 or 5 legged C Frame construction, also Stainless Steel / Aluminium Construction.

Metallic constructions, such as frames and angles are from degreased & phosphate treated Sheet Steel, protected with oven backed enamel paint, for better conductivity & dissipation of static charges, to ensure zero potential throughout the working surface.

### "C" Frame

Test Benches / Workstations are available in various dimensions, custom configurable (Lengths from 1000 upto 2400 mm x Depth 1000 mm x Height 800 / 1000 mm), depending on modules fitted in Bench-top / Device Panel Units & to suit customers choice - possible to design & configure as per available space (area) of Customers' Lab.

Solutions for Space Saving "Corner Benches" - "L" shaped straight angle or with "Corner Working Area" - available as option to house

- LED Monitor in Bench-top
- Tools in perforated back panel
- CPU & Document Shelf under the Work Bench Cabinet to effectively use the Corner Space



TRENDY, ERGONOMIC / 'C' FRAME DESIGN

### Bench-tops



Bench-tops are designed to be mounted either on top of the Workbench, or in an Elevated position, with perforated sheet panel at the bottom (to accommodate tools, components storage boxes etc.). One additional (laminated board top) is provided (optionally) over the Device Panels, to place Portable Standards etc.

### Device Panels

Device Panels (Modular designs) are made up of high quality Aluminium metal sheet of 2.5 mm thick, specially crafted (according to the Modules) and surface finished with Aluminium foil that gives an aesthetic look. The 19" chassis techniques permit changing the devices / Modules without any problems.

Single/Dual Deck Configuration (Based on number of Modules).  
30° viewing angle adjustable (Single) Decks



## CALIBRATION TEST BENCH SYSTEMS

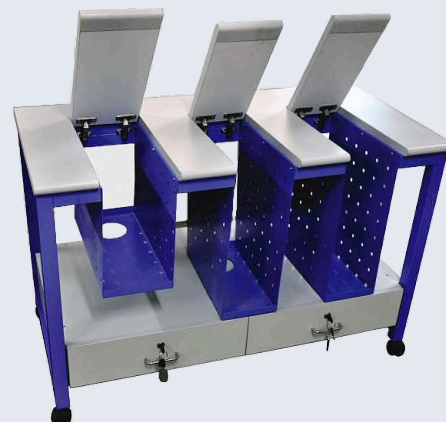
### Cupboards / Trolleys

Cupboards (with/without Drawers) made up of Laminated Chip Board can be designed in the Device Panel to accommodate Primary Standards viz. Dead Weight Testers etc. Separate Cupboard provision for accommodating Manometers / Micro-Manometers is also possible.

For accommodating Portable Calibrators / Reference Standards in the Bench-top, suitable 'Cutouts' can be designed & provided.



Specially designed movable Trolleys, to mount Portable / Semi-portable Reference Standards like Temperature Calibrators while not in use can be easily moved to a convenient location for storage.



### Under Bench Cabinets

Under Bench Cabinets (with 3 or 4 drawers of various heights), constructed in wood / steel are provided with drawer guides and runners for smooth opening & closing. Cabinets are provided with central locking facility & castor wheels. Also fixed with the bench option available



### Ultimate Flexibility

In the pages to follow, Salient Features & Brief Specifications of the Standard/Optional Modules - Common/Utility Modules, Temperature / Pressure / Electrical & Electronics Calibrator Modules, Test & Measuring Instrument Modules etc. are made available for Customer's Choice / Selection, Design & Configuration of Dedicated Temperature / Pressure / Electrical & Electronics or Multifunction / Multi-parameter Calibration Systems - Test Benches, Workstations, Bench-tops & Mobile Units. For complete Specifications, kindly contact us.

### Other Accessories

Varieties of Workstation Accessories & Utilities including Articulated arm for Lamp, Back Ventilation Fans / Soldering Iron & Base, Telephone, PC Monitor etc., LED Lamp, Shelves / Racks for PC, Keyboard Tray, Tool Stand attachment, Pick-up Boxes, Adjustable Auxiliary Tops (to accommodate loose Instruments, Tools, Circuit Diagrams etc.) to attach to the perforated panel. Chairs are available to complete the Workstation as fully equipped Ergonomic System.

We also offer Test Benches / Field Test / Calibration Systems for Flow (Water/Gas), Level, Mass, Mechanical, Dimensional and other Applications incorporating Appropriate Calibration Masters / Standards.

Our Calibration Test Benches are being used in Centralized Test Facilities & ISO/IEC 17025 Accredited Calibration Labs across a Wide Spectrum of Industries around the world, providing these customers with high performance systems for the necessary applications.

## CALIBRATION SYSTEMS

TEST BENCHES • WORKSTATIONS • BENCH-TOPS • MOBILE UNITS

### TYPES OF CALIBRATION SYSTEMS

#### System 1100

Pressure Calibration  
(Primary / Secondary)  
Test Bench

#### System 3600

Pressure Calibration  
Test Bench

#### System 7000

Temperature Calibration  
Test Bench

#### System 5000

Electrical & Electronics  
Calibration Test Bench

#### System 9000

Multifunction / Multiparameter  
Calibration Test Bench

#### Mobical Series

Mobile Calibration / Test kit  
(for Site / Field  
Calibration Use)



CHOICE OF  
COMMON MODULES  
& UTILITIES MOUNTED  
IN DEVICE PANEL

Mains Power Supply - Single/Three Phase

Programmable DC Power Supply (Variable)

230V / 110V AC Socket Panel

Multifunction Calibrator

Precision Digital Multimeter

True RMS Multimeter

Variable AC Power Supply

Soldering Station

Air Supply Modules  
Pressure Panel & Vacuum Panel

Fixed DC Power Supply

*\*External Dry Compressed Air / Vacuum supply required*

## PRESSURE CALIBRATION TEST BENCH

### System 1100 Series

Primary & Secondary Standards



Stainless Steel  
Test Benches  
Also Available

#### Application

Primary Standard & Secondary Standard Pressure Calibration Test Benches - Specially designed for Primary Level / Precision Calibration & Testing of Pneumatic, Electro-Pneumatic & Hydraulic Pressure Instruments.

These Test Benches Calibrate Gauges, Calibrators, Transducers, Transmitters, Indicators, Switches, Valves I/P, P/I Converters, etc. -- both Hydraulic & Pneumatic.

#### Choice of Modules & Utilities

##### Primary Standards

- Dead Weight Testers
- Manometers
- Micro-Manometers

##### Stand-Alone Units

*(To Complement Indicator / Gauges / Manometers / Mimic Panel / Air Supply Modules)*

- Pneumatic Hand Pumps
- Hydraulic Hand Pumps
- Comparison Tester
- Manifolds

##### Secondary Standards

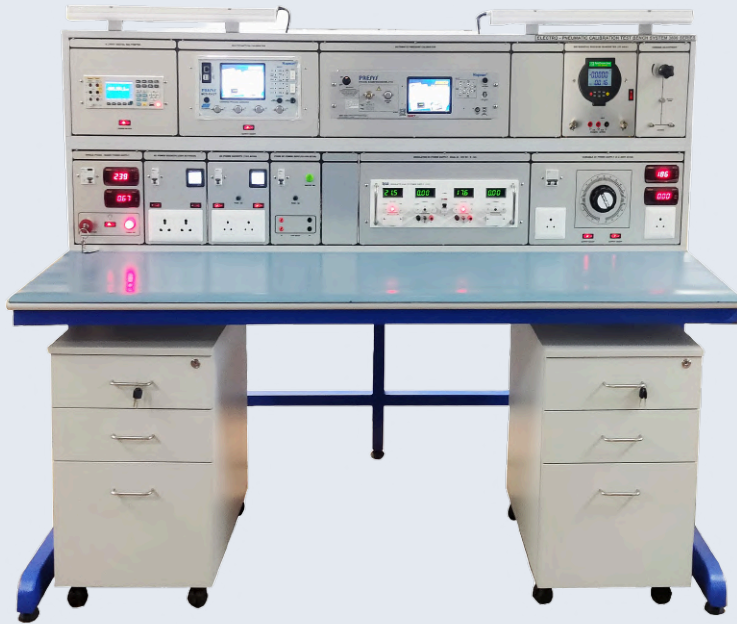
- Digital Pressure Indicator with EPM
- Differential / Absolute / Gauge Pressure Indicator
- Mimic Panel
- Set of Analog Pressure / Vacuum Gauges

#### Industries / Sectors Served

Chemical, Petrochemical, Refineries, Power Generation (Thermal, Gas, Nuclear & Hydro), Oil & Gas, Automation, Automotive, Aeronautics, Cement, Steel, Glass, Sugar & other Process / Manufacturing Industries.

## PRESSURE CALIBRATION TEST BENCH

### System 3600 Series



Stainless Steel  
Test Benches  
Also Available

#### Application

Our pressure Calibration Test Benches are widely used for Testing & Calibration of variety of Pressure & Mechanical parameters - all Instruments mounted in a single workstation.

Automatic Testing & Calibration of Test & Measuring instruments can be performed by integrating our powerful "Calman" Software.

#### Choice of Modules & Utilities

- Digital Pressure Indicator
- Digital Pressure Calibrator
- Digital Pressure Manometer
- Air Set Panel
- Vacuum Panel
- HHP Pump
- PHP Pump
- Comparator
- Dead Weight Tester
- Vacuum & Pressure Comparator
- Soldering Station
- Analog Guage

#### Industries / Sectors Served

Chemical, Petrochemical, Refineries, Power Generation (Thermal, Gas, Nuclear & Hydro), Oil & Gas, Automation, Automotive, Aeronautics, Cement, Steel, Glass, Sugar & other Process / Manufacturing Industries.



## TEMPERATURE CALIBRATION TEST BENCH

### System 7000 Series



Stainless Steel  
Test Benches  
Also Available

#### Application

For work shop Calibration of varieties of Temperature Measurement & secondary devices including Sensors, Indicators, Thermocouple and RTDs Probes / Assemblies / Transmitters, Calibrators, Pyrometers (Infrared), Thermistors, Recorders, Switches and Controllers etc. in quick time.

As this Work station is built-in with varieties of Modules, both Sourcing (simulation of Temperature through Dry Blocks / Oil Baths / Black Body Sources) & Precise Measurement modules and offered with dedicated softwares 'CALTEMP/NICAL'. Temperature Calibration became easy & fully Automatic, & hence the operator need not stand near by the system, to set each & every Measurement Points.

#### Choice of Modules & Utilities

- Sub-Zero Temperature Dry Block Calibrators
- Sub-Zero Temperature Liquid Bath
- Ultra Negative Dry Block Fast Cooler Bath
- Low Temperature Dry Block Calibrators
- Medium Temperature Dry Block Calibrators
- High Temperature Dry Block Calibrator
- Micro Oil Bath
- Black Body Calibration Systems
- Temperature Scanner
- Working Standard RTD / TC Probes
- Mobile Trolley (for Mounting Dry Block Calibrators)

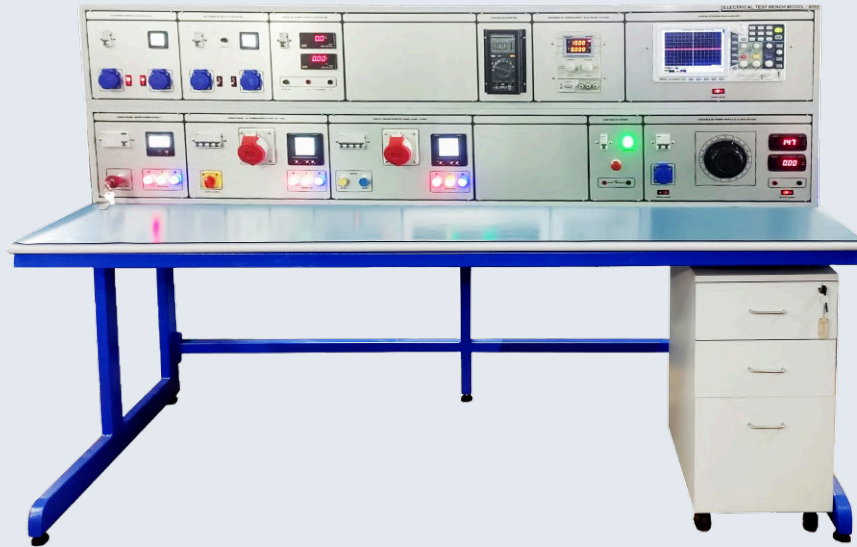
#### Industries / Sectors Served

Chemical, Petrochemical, Refineries, Power Generation (Thermal, Gas, Nuclear & Hydro), Oil & Gas, Automation, Automotive, Aeronautics, Cement, Steel, Glass, Sugar & other Process / Manufacturing Industries.



## ELECTRICAL & ELECTRONICS (SIGNAL) CALIBRATION TEST BENCH

### System 5000 Series



Stainless Steel  
Test Benches  
Also Available

#### Application

This Test Bench is useful for Calibration & Testing of Electrical & Electronic Instruments and equipments including V/A Meters, Multimeters, AC/DC Signal Sources, Clamp Meters, Tachometers, Ohmmeters, Decade Resistance Boxes, Power Supplies, Multifunction Calibrators, Frequency / Signal Generators, Oscilloscopes, Frequency Meters, Timer Counters etc.

#### Choice of Modules & Utilities

- Thermocouple Calibrator
- RTD Calibrator
- Temperature Calibrators
- Loop Calibrators
- Multifunction Process Calibrator
- Digital LCR Meter
- Frequency Counter
- Function Generator
- Digital Storage Oscilloscope
- Soldering / De-soldering Station
- Dual DC Power Supply
- Automatic Pressure Calibrator/Controller
- Multiproduct Calibrator

#### Under Bench / Panel Mounted Devices

- Voltage & Current Source (AC/DC)
- Decade Resistance Box
- Fixed DC Power Supply
- Programmable DC Power Supply
- Decade Inductance Box
- Decade Capacitance Box
- Digital Multimeter
- Hart Communicator
- Standard Resistance
- Rheostat

#### Industries / Sectors Served

Chemical, Petrochemical, Refineries, Power Generation (Thermal, Gas, Nuclear & Hydro), Oil & Gas, Automation, Automotive, Aeronautics, Cement, Steel, Glass, Sugar & other Process / Manufacturing Industries.

## MULTIFUNCTION / MULTIPARAMETER CALIBRATION TEST BENCH

### System 9000 Series



Stainless Steel  
Test Benches  
Also Available

#### Application

Our Multifunction / Multi-parameter Calibration Test Benches are widely used for Testing & Calibration of variety of Temperature, Pressure & Electrical / Electronic parameters - all Instruments mounted in a single workstation.

Automatic Testing & Calibration of Test & Measuring instruments can be performed by integrating our powerful "Calman Plus" Software.

#### Choice of Modules & Utilities

- Mains Power Supply - Single / Three Phase
- Fixed DC Power Supply
- Programmable DC Power Supply (Variable)
- Precision Digital Multimeter
- Digital Pressure Indicator with EPM
- Digital Storage Oscilloscope
- Multifunction Calibrator
- Thermocouple Calibrator
- Temperature Calibrator
- RTD Calibrator
- Air Supply Modules - Pressure Panel
- Air Supply Modules - Vacuum Panel
- Sub-Zero Temperature Dry Block Calibrator
- Sub-Zero Temperature Liquid Bath
- Ultra Negative Dry Block Fast Cooler Bath
- Low Temperature Dry Block Calibrator
- Medium Temperature Dry Block Calibrator
- High Temperature Dry Block Calibrator
- Micro Oil Bath
- Soldering / De-soldering Station
- Decade Resistance Box
- Function Generator
- Loop Calibrators
- Decade Inductance Box
- Decade Capacitance Box

#### Industries / Sectors Served

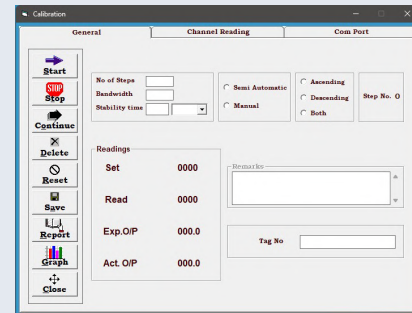
Chemical, Petrochemical, Refineries, Power Generation (Thermal, Gas, Nuclear & Hydro), Oil & Gas, Automation, Automotive, Aeronautics, Cement, Steel, Glass, Sugar & other Process / Manufacturing Industries.

## CALIBRATION MANAGEMENT SOFTWARES

### CALTEMP

Caltemp is a dedicated simple & cost effective Temperature Calibration Software which supports Semi- Automatic & Manual Calibration.

**Supported Models:** 650H, MOB 250, FB-06L/S, 1200 HN, R40, BBS SERIES, HC-DB, UNFC100-E



### NICAL

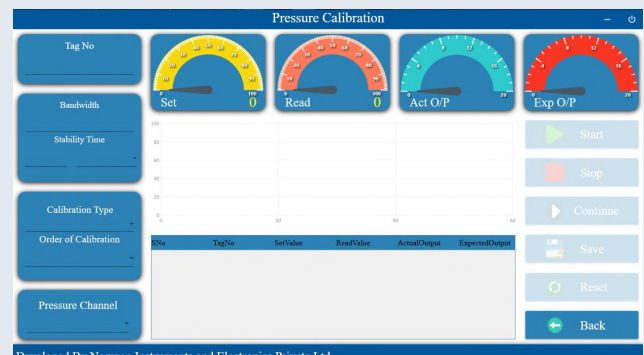
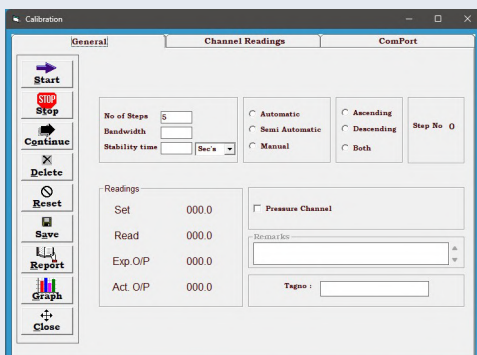
NICAL is a specialized software application used for calibrating and verifying the performance of temperature instruments and sensors, particularly in the industrial sector. NICAL ensures that instruments are precisely calibrated to maintain accuracy, reliability, and compliance with industry standards.

**Supported Models:** NICAL Series, MetCal Series, MTC Series



### CALPRESS

Calpress is tailored for the calibration of various pressure instruments such as pressure gauges, transducers, transmitters, and sensors, ensuring accurate and reliable pressure measurements. The software automates the calibration process, which minimizes human error, enhances efficiency, and ensures consistency in the calibration of pressure instruments. Calpress provides comprehensive data logging capabilities, allowing users to store and manage calibration data, generate detailed calibration reports, and maintain historical records for compliance and quality assurance.



[TOUCH]



## CUSTOMIZED SOFTWARES

Designed & Developed by Nagman, India

### Calman Plus

The Calman Plus Software Package, built on a modular concept, offers maximum flexibility, enabling users to select combinations of calibrators from leading global brands, with the option for future add-ons based on individual requirements.

This allows for semi-automatic and automatic calibration and certificate generation, with the goal of simplifying automatic calibration to be more user-friendly and efficient.

The unique feature of Calman Plus is its ability to communicate with a wide variety of instruments, which helps save on investment costs.

The software also has the capability to integrate the entire calibration system within a plant and link it to a central server.

Additionally, Nagman can develop custom drivers for other makes and models of calibrators and instruments.

### Features

- Capable of storing all information of field instruments in a single database.
- Stores individual calibration information of instruments.
- Communicates with many instruments using RS-232 serial bus; also offers manual calibration for instruments without a serial interface.
- Maintains a history of calibration records.
- Generates calibration reports compliant with ISO 9001 standards.
- Sends reminders for upcoming calibration due dates.
- Provides customizable, user-definable calibration reports.
- Compatible with Microsoft Windows platform.
- Offers powerful graphical presentations.
- Features full-color screens and helpful guides.
- Modular and expandable for future upgrades.
- Allows simultaneous calibration of temperature, pressure, or electrical/signal calibrators (optional).



Instrument Type		Document No.
PRESSURE GAUGE		Certificate No.
Tag No.		Unit
104		
Report		
DEPT-FAI Calibration Report		
Details of Instruments		
Tag No.	104	
Description	PRESSURE GAUGE	
Make	444	
Serial No.	12321	
Range	0 TO 100 mmHg	
Calibration Range	0 TO 100 mmHg	
Accuracy	± 0.5%	
Calibration Date	11-11-2015	
Calibration Due Date	10-11-2016	
Details of Master Instruments		
Description	PRESSURE CALIBRATOR	
Make	HANSON	
Serial No.	1000000001	
Model No.	PM	
Range	0 TO 100 mmHg	
Accuracy	± 0.25 % FS	
Calibration Due Date	11-11-2016	

## CUSTOMIZED SOFTWARES

Designed & Developed by Nagman, India

### DATAMAN

Dataman (Manual Entry) is a robust software solution designed to facilitate the management and analysis of calibration data for various types of instruments which do not have Communication Facility. Dataman simplifies the complex tasks of data handling, documentation, and compliance management associated with calibration processes.

Dataman centralizes the storage and management of calibration data for a variety of instruments, including pressure gauges, temperature sensors, and more, providing a single platform for all calibration-related data. Dataman offers powerful data analysis tools that allow users to generate detailed calibration reports. This helps in maintaining the accuracy and reliability of instruments over time.

Compliance and Documentation Ensures that calibration data and processes comply with international standards such as ISO and other regulatory requirements. The software helps in maintaining proper documentation and audit trails, which is crucial for compliance.

The screenshot displays the Dataman software interface for manual entry. It includes fields for Tag No (PT-01), Calibration Type, Set Point Selection (Automatic), Order of Calibration (Ascending), Input Range (0 To 0.5 bar), Calibration Range (0 To 0.5 bar), Output Range (4 To 20 mA), Accuracy (± 1 % of FS), Allowable Limit (± 0.16 bar), and Resolution (0.00 bar). Below these are sections for Source, Source Master Details, and Measure Master Details, each with Description, Source Master Range, and Calibration Due Date fields. A 'Save' button is located on the right. At the bottom, there is a table with columns: S.No, Tag No, Set Value, Actual Value, Expected Output, Actual Output, Error, and Res. The table contains 5 rows of calibration data.

S.No	Tag No	Set Value	Actual Value	Expected Output	Actual Output	Error	Res
1	PT-01	0.00	0.00	4.000	4.000	0.00	1
2	PT-01	0.13	0.13	8.160	8.160	0.00	1
3	PT-01	0.25	0.25	12.000	12.000	0.00	1
4	PT-01	0.38	0.38	16.160	16.000	-0.16	1
5	PT-01	0.50	0.50	20.000	20.000	0.00	1

## MARINE TRAINER KIT



- Temperature Calibrator (50 to 650°C)
- Pressure Calibrators (40 bar & 700 bar)
- Multifunction Calibrator
- TRMS Precision DMM
- Smart DMM
- Clamp Meter (AC/DC/ True RMS 1000A)
- Insulation Tester (50V till 1000V)
- IR Thermometer (-50 to 550°C)
- Tachometer
- Sound Level Meter

## MOBILE CALIBRATION SYSTEMS

### MOBICAL Series

Temperature, Pressure and/or Electrical & Electronics Modules mounted in compartments, placed inside Mobile (sturdy) Trolley case, ready for use as Table-top Unit.

#### Typical Configuration of Modules

##### Mobical PTES

##### Multi-parameter Trainer (Electrical, Electronics, Pressure & Temperature)

- Dry Block Temperature Calibrators (2 Nos.)
- Range : -35 from Ambient to 123°C & 50 to 350°C
- Function Generator
- 5½ digit Digital Multimeter
- Process (Multifunction) Calibrator
- Decade Resistance Box
- Variable AC & DC Power Supply for Units Under Test
- Integrated / Interfaced with
- CPU & foldable Touch Screen Monitor
- CALMAN Plus - Calibration Management Software for Automatic / Semi-Automatic Test / Calibration routines; Data Collection / Storage etc.
- Pressure Calibrator



##### Mobical PT

##### Pressure & Temperature

- Pressure Calibrator - Pneumatic : -0.85 to 25 bar & Hydraulic : Upto 350 bar
- Built-in / External Hand Pumps
- Dual Dry Block Temperature Calibrators
- Range : -35 from Ambient to 123°C & 50 to 350°C
- Multifunction Calibration
- Power Supply for Unit Under Test



##### Mobical EE

##### Electrical & Electronics

- Function Generator
- 5½ digit Digital Multimeter
- Multifunction Calibrator
- Decade Resistance Box
- Variable AC & DC (Programmable) Power Supplies
- Power Supply for Unit Under Test





## SAFETY VALVE TEST BENCH

### System SVTB Series

Safety Valve Test Bench is a very easy, safe, accurate and maintenance free operating work shop test unit for Testing & Calibration of pressure / safety relief valve (spring operated) in the range of 0.5" to 12" (DN - 15 to 300 mm) according to the common international test standards.

Safety Valve Test Bench is designed to provide the operator with a maximum of easiness to calibrate the valves accurately.

As standard, it is operated by cylinder pressure directly. As an option, it can be equipped with booster pump.

It is very compact design as well as its equipment has been fully tried and proven with the benches in operation in our Test shop department since 25-30 years with Zero maintenance/recurring cost.

Feature the unique - 4 claw clamping system, specially designed for quickly clamping all common types and sizes of safety valve up to 12" The specific configuration of the piping, fitting , and control ensure an strong and dynamic lift reaction and accurate test result , high quality and stainless steel gauges measure and display in pressure in kg/ cm (g).



[Portable]

## CALIBRATION MASTERS

(Temperature, Pressure, Signal, Test & Measuring Instruments)

Nagman - an ISO 9001:2015 Certified Company, has developed & introduced several innovative & novel import substitute products for use in (y)our Calibration Systems / Test Benches / Work Stations including,

Dry Block Temperature Calibrators



Black Body Sources



Stirred Baths

Hand Pumps

Master Indicators

Pressure Calibrators

Dead Weight Testers



Comparison Testers

Signal Calibrators

Multifunction Process Calibrators



Test & Measuring Instruments

& many more...

Select Models of our Temperature & Pressure Calibrators are manufactured as per "CE" Norms & are DNV Approved (for use in stringent Marine Applications).

## TEST & MEASURING INSTRUMENTS

- **201** - Datalogger Precision RTD Thermometer (0.01°C)
- **202** - Type K Thermometer
- **203** - Dual Input Humidity Temperature Meter
- **204** - Datalogger Dual Input Humidity Temperature Meter
- **205** - 4 Channels Datalogger
- **206** - High Precision Thermometer
- **207** - Humidity Temperature Meter (Dew Point, Web Bulb)
- **208** - 8 Channel Datalogger
- **209** - Datalogger Temperature Humidity Recorder
- **216** - 16 Channel Datalogger
- **221** - Sound Level Meter
- **222** - Sound Level Calibrator
- **223** - Datalogger Sound Level Meter
- **224** - Grain Moisture Meter
- **225** - Ultrasonic Thickness Gauge
- **231** - Light Meter
- **233** - LED Light Meter
- **241** - TRMS Inrush Clamp Meter
- **242** - TRMS AC DC Clamp Meter
- **243** - TRMS AC DC Low Current Clamp Meter
- **244** - TRMS Milli-Amp AC DC Clamp Meter (0.1mA)
- **245** - TRMS AC DC Clamp Meter
- **246** - TRMS AC Leakage Clamp Meter (0.001 mA)
- **248** - Flexible True RMS Current Clamp, 3000A AC with 18 inch long probe
- **261/262** - Insulation Tester
- **263** - Earth Resistance Tester
- **271** - Hydrogen (H<sub>2</sub>) Gas Leak Detector
- **272** - Carbon Monoxide (CO) Meter
- **273** - Refrigerant Leakage Detector
- **274** - Combustible Gas Detector
- **281** - Digital Multimeter
- **283** - Precision Digital Multimeter
- **284** - Digital Smart Multimeter
- **286** - Digital Tachometer
- **291** - Hot Wire Anemometer
- **292** - Vane Anemometer
- **294** - Multifunction LCR Tester
- **296** - 2 Channel Vibration Meter (Recording)
- **297** - Vibration Meter
- **6581** - 6½ Digit Precision Digital Multimeter
- **NCFL 21** - Cable Fault Locator
- **NIT Series** - IR Thermometer



## PROJECTS EXECUTED



110+

Countries



## NAGMAN CALIBRATION SERVICES LLP

NABL Accredited Calibration Services (as per ISO / IEC 17025:2017 Standard)  
(Associate Company)  
Chennai - 600 123, India.

This Calibration Lab is equipped with sophisticated Calibration Equipments both Primary & Working / Transfer Standards which are traceable to National & International Standards. Facility includes Computerized Automatic Calibration & Report generation conforming to ISO Standards. Offers a wide range / variety of Calibration related Services covering most Process Parameters & serves almost every type of Industry / Institution / Establishment. Enjoys the unique distinction of obtaining NABL Accreditation (as per ISO / IEC 17025:2017) simultaneously for Thermal, Mechanical (Pressure / Mass / Linear), Electro-Technical, Dimensional, Flow, Control Valve & Level Parameters.

### Control Valves & Safety Relief Valves

Nagman have full-fledged facilities, built-in with all necessary Flow parameter measurements that are essential to test the Control valves directly & to meet the recommended Standards (NASI/ISA-75.02-1996 and ANSI/ISA-75.01-2002), even for very large size Control Valves upto 16".

### High Voltage & HV Hand Gloves (upto 30 kV)

Unique facility to calibrate High Voltage Kit, HV Probes, high Voltage Gloves etc. Range (Max.) AC 28 kV (upto 30 kV for Gloves); DC : 40 kV.)

### NABL Accreditation for Sub-Centre

Nagman Sub-Centre at Mumbai is offering NABL Accredited Calibration Services (as per ISO / IEC 17025:2017) simultaneously for Thermal, Mechanical (Pressure / Mass / Linear), Electro-Technical, Flow parameters.

Our Centre is staffed with qualified & well trained Team Leaders & Engineers in Laboratory Management, Internal Auditing and Proficiency Testing.

Training Workshops on "Calibration Techniques" are conducted periodically at Nagman's Lab at Chennai as well as at customer locations & Online.



## NAGMAN CALIBRATION SERVICES LLP

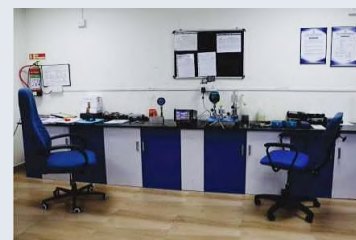
NABL Accredited Calibration Services (as per ISO / IEC 17025:2017 Standard)

(Associate Company)

Chennai - 600 123, India.

### Services Offered:

- Laboratory Calibration - Including "Express" - same day Calibration
- Site Calibration during Plant Shutdown / Routine Maintenance / Commissioning / Performance Trials
- Mobile Calibration Laboratory - Calibration Service at your door steps!
- Comprehensive Calibration Job Packages - Including Mobilization of Master Standards, Manpower etc.
- Consultancy Services for Setting up Calibration Lab & obtaining Accreditation
- Annual Maintenance Contracts - Periodic visits on preplanned dates
- Structured Training Workshops on Calibration Techniques for Technicians / Engineers / Managers - at our Centre or Customer's facility.
- A wide variety of Portable Calibrators, Transfer Standards, Simulators, Dead Weight Testers etc. - a boon to Project Consultants / Executants / Erection & Commissioning Contractors.
- Calibrator Rentals (first time in India)



### Fluid Flow Calibration Laboratory

Nagman, in its constant endeavor to enhance its calibration capabilities had recently ventured into offering Fluid Flow Calibration Services for Process Industries in India. We are pleased to advise that this Laboratory is Accredited by NABL, Delhi for performing Recalibration Services (as per ISO/IEC 17025:2017 Standards).

**Flow Meter Calibration Methods:** Comparison / Gravimetric

**Types of Process Flow Meters that can be calibrated:**

Turbine, Vortex, Coriolis Mass, Electro- Magnetic, Ultrasonic etc.

**Accuracy:** ±0.2% Reading

<b>Flow Lab:</b>	Liquid Mass Flow Rate	Max. 360 TPH	CMC: 0.15%
	Liquid Volume Flow Range	Max. 360 M3/H	CMC: 0.2%
	Quantity of Mass	Max. 5000 Kg.	CMC: 0.04%
	Quantity of Volume	Max. 5 M3	CMC: 0.15%

Visit [www.nagman-calibration.com](http://www.nagman-calibration.com) for more details



## NAGMAN FLOW-LEVEL SYSTEMS & SOLUTIONS LLP

Manufacturer of Flow / Water / Gas & Level Calibration Systems (Associate Company)

Chennai - 600 123, India.



### PROCESS FLOW METER CALIBRATION SYSTEM

#### FLOCAL SERIES

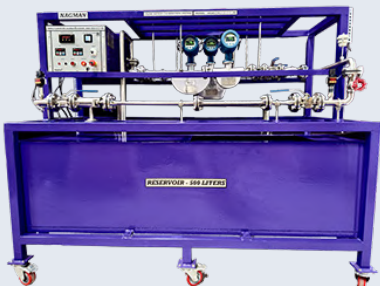
Nagman FLOCAL is designed with advanced features to derive the best Accuracy Levels of Calibration - by Comparison, Volumetric & Gravimetric Methods - to suit the Accuracy Level of Meters Under Test - including Turbine / Electromagnetic / Orifice / Vortex / Coriolis Mass / Ultrasonic / Rotometer / Positive Displacement Flow Meters - thro' both Manual & Automatic modes in accordance with ISO 4185 Standard or equivalent Standards.

**Meter Sizes:** DN-3 upto DN-600

**Flow Rates:** 1 LPM upto 25000 LPM

**Accuracy:** 0.5% upto 0.05%

#### MOBICAL SERIES



**Meter Sizes:** DN-6 upto DN-100

**Flow Rates:** 1 LPM upto 2500 LPM

**Accuracy:** 0.5% upto 0.1%

**Method:** Comparison

### WATER METER CALIBRATION SYSTEM

#### WATCAL SERIES

Various Models to suit Domestic / Industrial / Bulk Water Meters - (Mechanical, Electrical, Ultrasonic etc.).

**Calibration of Multiple Meters/Sizes:**  
DN 10 to DN 300 in 1 or more lines.

**Test/Calibration Methods per ISO 4064/3 Standards.**

#### Gravimetric:

Collection Chamber(s) mounted on Weighing Scale(s) & Volumetric thro' pre-calibrated Volume Chambers.

Precise flow adjustment using Rotameters / Electro-Magnetic Flow Meters.

One or more pumps to suit (with VFD/Manual Throttle for Flow Control).

#### Clamping:

Manual / Pneumatic / Hydraulic etc.

#### Flow Rates :

1 LPM to 335 LPM

(for Domestic Water Meter)

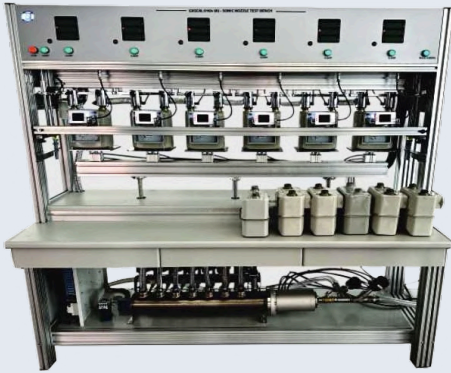
10 LPM to 1500 M3/Hr

(for Industrial Meter)

## NAGMAN FLOW-LEVEL SYSTEMS & SOLUTIONS LLP

Manufacturer of Flow / Water / Gas & Level Calibration Systems (Associate Company)

Chennai - 600 123, India.



### GAS METER CALIBRATION SYSTEM (BELL PROVER)

#### GASCAL SERIES

A Boon for Calibration of Domestic Gas Meters - OEMs, Hotels, Hospitals & R&D Institutions

Flow Rates: 0.018 to 6 Cu.M/Hour

Suitable for Gas Meter Sizes:

G1.6, G2.5, G4, G6

Bell Prover: Capacity 20/100/200 Litres

Accuracy :  $\pm 0.2\%$  &  $\pm 0.5\%$

(Traceable to ISO/IEC 17025 Accredited Laboratory).



### LEVEL CALIBRATION SYSTEM (BELL PROVER)

#### LTR / LCS SERIES

*Universal Platform for Level Devices Calibration*

For Primary,

Interface & Total Liquid Testing & Calibration of various Types

Models of Level Measurement (& Control) Devices including

- Float
  - Displacer
  - Radar
  - Capacitance
  - Ultrasonic
  - Magnetic
- (both Inbuilt & External Chamber types)

**Also available Flow Meters & Level Transmitters.  
Consult us for more details.**

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