

A pre-configured CalBench for the calibration of process and pressure instrumentation



# **About the Process CalBench**

The CBP-PROC1 CalBench is a package that provides users with the capabilities to perform rapid calibration of process and pressure instrumentation. It is an ideal solution for instrument workshops that require a high performance workstation as the platform for calibration of plant devices and instruments.

- Dedicated process instrumentation calibration bench
- Process calibrator module with 6.5 digit multimeter and PC control centre
- Source and measure voltage, current, resistance, frequency and more
- RTD & thermocouple simulation and measurement, HART communication
- Automatic pressure controller module for vacuum to 20 bar (300 psi)
- Regulated pneumatic pressure calibration module for 0 to 200 bar (3000 psi)
- $\bullet \ \mathsf{Precision} \ \mathsf{pressure} \ \mathsf{measurement} \ \mathsf{modules} \ \mathsf{for} \ \mathsf{pneumatic}, \mathsf{hydraulic}, \& \ \mathsf{differential}$
- Benchtop pumps, pressure adaptor kit, manifold and electrical vacuum pump
  Fixed and variable DC power supply modules for powering devices under test
- Temperature interface module for batch thermocouple calibration
- Dry block calibrators for temperature sourcing, automatic control via EasyCal
- Automated calibration using EasyCal software with printers and extras supplied
- Storage solutions include 5 drawer unit, under bench holder, perfo panel fittings

# **Calibration Capabilities**

# Pressure

Gauges, calibrators, transducers, transmitters, indicators, switches, valves, controllers, manometers, chart recorders.

### Temperature

Temperature sensors, indicators, thermocouple and RTD transmitters, recorders, controllers, thermometers, process calibrators, PRTs, thermistors.

# **Electrical and Process**

Calibrators, mV/mA meters, decade boxes, flow totalizers, DP flow transmitters, pulse meters, tachometers, counters.





**CBP-PROC1: Process CalBench Package**A pre-configured CalBench for the calibration of process and pressure instrumentation

Item#	Qty	Code	Basic Description	Basic Purpose
1	1	7080-HD	CalBench Heavy Duty Version (W 2000 x D 850 x H 1568 mm) Framework bench style with worktop, perforated panel, primary console with 7082 mains power controller module.	Provides an ergonomic workspace for various calibration applications. Modules below to be fitted to the primary console for testing workload.
2	1	7137	Perfo Panel Option: 40 piece Tool Hook Kit	For holding various tools and accessories.
3	1	7139	Perfo Panel Option: Shelf (W 450 x D 250 x H 130 mm)	Suitable for storing equipment and tools.
4	1	7133	Magnet Set for Perfo Panel (10 x round, 10 x hook type)	For securing documents and small tools to perfo panel.
5	1	7132	5 Drawer Unit (W 525 x D 550 x H 600 mm)	For storage of equipment, tools, documents etc.
6	3	7134	Slotted Divider Kit for drawers inside 7132	Partitions the drawer units for parts and components.
7	1	7123	CPU/Dry Block Calibrator Holder	For storing dry block calibrators when not in use.
8	1	8060+	Process Calibrator and Control Centre Module Advanced system package for precision source and measure capabilities. Integral process calibrator, 6.5 digit multimeter, PC and EasyCal software. Operation via 12.1 " touch screen display. Built-in communication with compatible modules.	Source and measure process signals for electrical, frequency, temperature. Enables users to calibrate process instrumentation like transmitters, RTDs, thermocouples and more. EasyCal software and accessories included for automation, administration and certificate generation.
9	1	CCPAD	Control Centre Numeric Keypad Module with jog dial	Ergonomic method of data entry to EasyCal software.
10	1	8030B/G20b/CV2b/ BARO	Automatic Pressure Calibrator Module with multiple ranges Sensor 1: 0 to 20 bar (300 psi), 0.01 % FS accuracy. Sensor 2: Vacuum to 2 bar (30 psi), 0.01 % FS accuracy. Sensor 3: Barometric Reference.	For automated pressure calibration. 20 bar range for workload pneumatic testing of gauges, transmitters etc. Ranges can be modified as per customer requirements.
11	1	RMTEG-G200b/0.02	Digital Pressure Gauge Module with Regulator 0 to 200 bar (3000 psi), 0.02 % FS accuracy.	For high range pneumatic calibration work, with a line supply typically from a gas cylinder to enable regulator adjustment.
12	1	XTEG-G700b/0.02/M	Pressure Measurement Module with Control Centre Interface 0 to 700 bar (10,000 psi), 0.02 % FS accuracy.	For hydraulic calibration with accompanying pump.
13	1	XTEG-G100b/0.02/M	Pressure Measurement Module with Control Centre Interface 0 to 100 bar (1500 psi), 0.02 % FS accuracy.	For mid/high range pneumatic calibration work. Used with 7194A pump or T-piece method from RMTEG-G200b/0.02.
14	1	XTEG-CV2b/0.02/M	Pressure Measurement Module with Control Centre Interface Vacuum to 2 bar (30 psi), 0.02 % FS accuracy.	For low range pressure calibration. Used with 7191 pump or T-piece method from 8030B module.
15	1	XTEG-DP700mb/0.02/M	Differential Pressure Measurement Module, Control Centre Interface 0 to $\pm$ 700 mbar (10 psi), 0.02 % FS accuracy.	For differential pressure calibration of transmitters etc. Used with 7191 pneumatic pump for fine control input.
16	1	XTEG-DP250mb/0.02/M	Differential Pressure Measurement Module, Control Centre Interface 0 to $\pm$ 250 mbar (3.6 psi), 0.02 % FS accuracy.	For low range differential pressure calibration of transmitters etc. Used with 7191 pneumatic pump for fine control input.
17	1	7085A	Auto Switching Temperature Distribution Module	Connection module with scanner to enable batch testing of temperature devices like thermocouples.
18	1	7052	30 V DC 3 A Adjustable Power Supply Module - Digital	A variable DC supply to supplement various applications.
19	1	7087	Quad DC Power Supply Module 6 V (20 A), 12 V (10 A), 24 V (6 A), 48 V (3 A).	Provides a DC power supply to various loop instrumentation under test.
20	1	7149	Electrical Vacuum Pump	Provides a vacuum for the 8030B controller module.
21	1	7149-HCO	Housing and Connectivity Option for the 7149 vacuum pump	Compact housing for the 7149 pump, situated under bench.
22	1	7195	Benchtop Hydraulic Pressure Calibration Pump Vacuum to 700 bar (10,000 psi).	Provides hydraulic pressure to 700 bar XTEG module.
23	1	7194A	Benchtop Pneumatic High Pressure Calibration Pump Vacuum to 200 bar (3000 psi).	Pressure generation to 200 bar, suitable for use with pressure modules when compressed air source is not available.
24	1	7191	Pneumatic Benchtop Pump Vacuum to 4 bar (60 psi).	Enables precise, fine control input of low pressure for pneumatic work. Suitable for use with XTEG measurement modules.
25	1	7161P	Quad Port Benchtop Pneumatic Pressure Calibration Manifold For input pressures from vacuum to 200 bar (3000 psi).	For use with the 8030B & RMTEG pressure output modules, enabling multiple pressure UUTs to be set up and tested.
26	1	7198	Pressure Calibration Accessories Kit A comprehensive selection of fittings, adaptors and hoses.	Provides all the required pressure connections and fittings for modules and pumps to UUTs.
27	1	8100	Instrumentation Test Stand	For positioning of UUTs like transmitters & gauges on benchtop.
28	1	8072	Dry Block Calibrator (28 to 660 °C) with metric multi hole insert (1x3,2x4,1x5,1x6,1x9 mm), blank insert, EasyCal software driver.	Temperature source for the calibration of probes, RTDs, and more. Automated operation with 8060+, EasyCal and 7085A.
29	1	8072-METP	Pack of 16 Metric Inserts for 8072: 3 mm to 20 mm holes	Inserts for use with different probe sizes, used with 8072.
30	1	8073	Dry Block Calibrator (100 to 1205 $^{\circ}$ C) with metric multi hole insert (3,4,6 mm), blank insert, EasyCal software driver.	Temperature source for the calibration of thermocouples. Automated operation with 8060+, EasyCal and 7085A.
31	1	8073-METP	Pack of 10 Metric Inserts for 8073: 3,4,5,6,7,8,9,10,11,12 mm	Inserts for use with different probe sizes, used with 8073.
32	1	8002	CalBench Environmental Monitoring System	Measures and logs temperature, relative humidity and barometric pressure, with control centre interface.
33	1	CERTS	Traceable Calibration Certificates For all test modules and additional test equipment	Certifies all calibration modules and additional test instruments have been tested in the TE factory to international standards.