

Minerva Portable High Pressure Case

MNR 350 - BMC5/6

AUTONOMOUS HIGH PRESSURE SUPPLY AND ADJUSTMENT SYSTEM FOR BEAMEX MC6 MULTIFUNCTION CALIBRATOR

This case offers improved efficiency to quickly and safely perform clean, high pressure calibrations at your own location.

- Supports pressure ranges with full scale from 20 MPa down to 0.7 MPa in a single system
- Simple, compact and easy to operate
- Built-in refillable 28 MPa storage tanks for pressure supply
- Precise test pressure control using a pressure balanced volume controller
- Protected against overpressure
- Three analogue pressure gauges for monitoring pressure in storage system, regulated supply pressure and pressure at test ports
- Two test ports
- 316 SS high pressure tubing and fittings
- Also version available for Beamex MC5



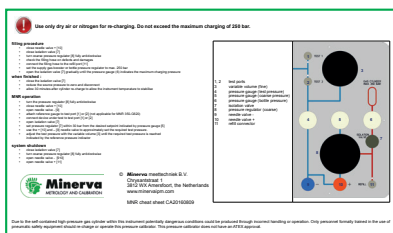
Self contained unit provides pneumatic pressure for calibration and testing up to 250 bar using a Beamex MC6 multifunction calibrator with pressure module.

The unit is designed as an additional tool for your Beamex MC6 multifunction calibrator allowing fast and safe generation of high pneumatic pressure up to max 25 MPa.

OPERATION

The built-in high pressure gas storage system is filled through the appropriate connection. Three separate monitor gauges are mounted to indicate storage system pressure, regulated pressure and pressure at test ports. The maximum test pressure is set using the supply regulator. The test pressure at the two test connections is precisely controlled by two fine metering needle valves and the pressure balanced volume adjuster.

The installed Beamex MC5/6 multifunction calibrator displays the test pressure. Externally generated pressures can also be measured via the test connections. The instrument is supplied with quick-connect test and filling hose, a 1/4" NPT male adaptor for the test connection and filling and a refill connector.



Quick reference guide for safety and ease of use



The Minerva MNR 90 precision volume adjuster allows very fine pressure control to within 100 Pa



The three pressure gauges indicate:
 1. pressure in bottle
 2. pressure set by pressure regulator
 3. pressure at test port



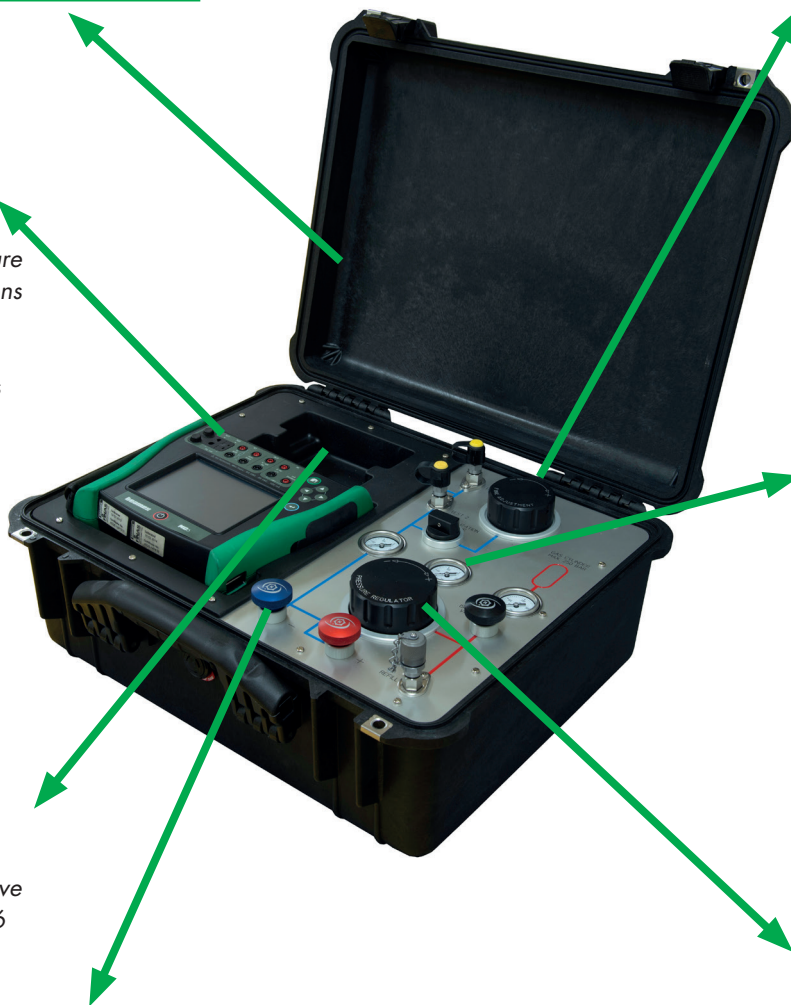
The Minerva MNR 180 pressure regulator is designed specifically for use in calibration and test applications



The internal pressure module connections are located on the top of the MC6 calibrator. There is enough space to easily connect the test hose to the module.



The external pressure module can be stored above the top of the MC6 calibrator.



The space in the mold has been designed to create room for connecting the internal pressure module or the external pressure module. The tight fit ensures a stable setting and yet easy removal. The MC6 shows the pressure at the test ports generated by the control panel.

BEAMEX MC5/6 PRESSURE MODELS *

This Minerva Portable High Pressure Case fits these MC5 and MC6 Digital Pressure Models:



Internal Modules	External Modules	Unit	Range (3*)	Resolution	Accuracy (+/-) (1*)	1 year uncertainty (+/-) (2*)
P6C	EXT6C	kPa bar psi	-100 to 600 -1 to 6 -14.5 to 90	0.01 0.0001 0.001	0.005% FS + 0.01% RDG	0.01% FS + 0.025% RDG
P20C	EXT20C	kPa bar psi	-100 to 2000 -1 to 20 -14.5 to 300	0.01 0.0001 0.001	0.005% FS + 0.01% RDG	0.01% FS + 0.025% RDG
P60	EXT60	kPa bar psi	0 to 6000 0 to 60 0 to 900	0.1 0.001 0.01	0.005% FS + 0.0125% RDG	0.01% FS + 0.025% RDG
P100	EXT100	MPa bar psi	0 to 10 0 to 100 0 to 1500	0.0001 0.001 0.01	0.005% FS + 0.0125% RDG	0.01% FS + 0.025% RDG
P160	EXT160	MPa bar psi	0 to 16 0 to 160 0 to 2400	0.0001 0.001 0.01	0.005% FS + 0.0125% RDG	0.01% FS + 0.025% RDG
-	EXT250	MPa bar psi	0 to 25 0 to 250 0 to 3700	0.001 0.01 0.1	0.007% FS + 0.0125% RDG	0.015% FS + 0.025% RDG

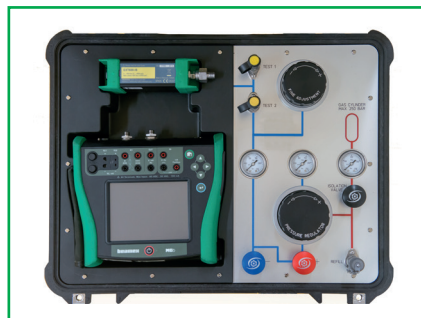
1 * Accuracy includes hysteresis, nonlinearity and repeatability (k=2).

2 * Uncertainty includes reference standard uncertainty, hysteresis, nonlinearity, repeatability and typical long term stability for mentioned period (k=2).

3 * Every internal/external gauge pressure module's range may be displayed also in absolute pressure if the barometric module (PB or EXT B) is installed/connected.

TECHNICAL SPECIFICATIONS

Pressure ranges	See Beamex MC6 digital pressure modules supported table page 3
Pressure measurement specs	See Beamex MC6 digital pressure modules supported table page 3
MNR 350 control range	0 - 25 MPa gauge pressure
Gas storage system	2 x 1 litre capacity, filling pressure limited to 28 MPa, tested to 45 MPa
Monitor gauges	40 mm, analogue, all stainless steel: gas bottle pressure, regulated supply pressure, pressure at test port
Pressure regulator	Minerva Model 180 high pressure regulator, Range 0 - 25 MPa
Volume adjuster	Minerva Model 90, pressure balanced volume adjuster, displacement 11 cm ³ max 67 turn, precise pressure setting to within 100 Pa, stainless steel interior
Needle valves	Fine control valve for test pressure inlet and exhaust
Connections	Low volume Minimess 1215, quick connect couplings with internal check valve
Test / filling hose	Minimess 1215, length 2 meter, including 1/4" NPT male connector
Refill connection	For connection to nitrogen bottle, standard RU-3
Quick lock system in lid	Quick lock system for storing test hose and test connector
Housing	Pelicase. Material: ultra high impact copolymer
Dimensions	405 x 295 x 255 mm (L x W x H)
Weight	Approx. 19 kg
Certification	Pressure Equipment Directive (PED), Transportable Pressure Equipment Directive (TPED), CE conformity declaration
Accessories included	2 meter test / filling hose, 1/4" NPT male test adaptor, RU-3 refill connection
Documentation included	Manual, PED conformity declaration, TPED conformity declaration, CE declaration
Ordering code	MNR 350 - BMC6 or MNR 350 - BMC5



All specifications are subject to change for product improvement and without notice.
 Pelicase is a trademark of Pelican Products, Inc. Beamex is a registered trademark of Beamex Oy Ab.

your distributor:

Minerva Metrology and Calibration

Chrysantstraat 1
 3812 WX Amersfoort, the Netherlands
 tel. +31 33 46 22 000
 info@minerva-calibration.com
 www.minerva-calibration.com