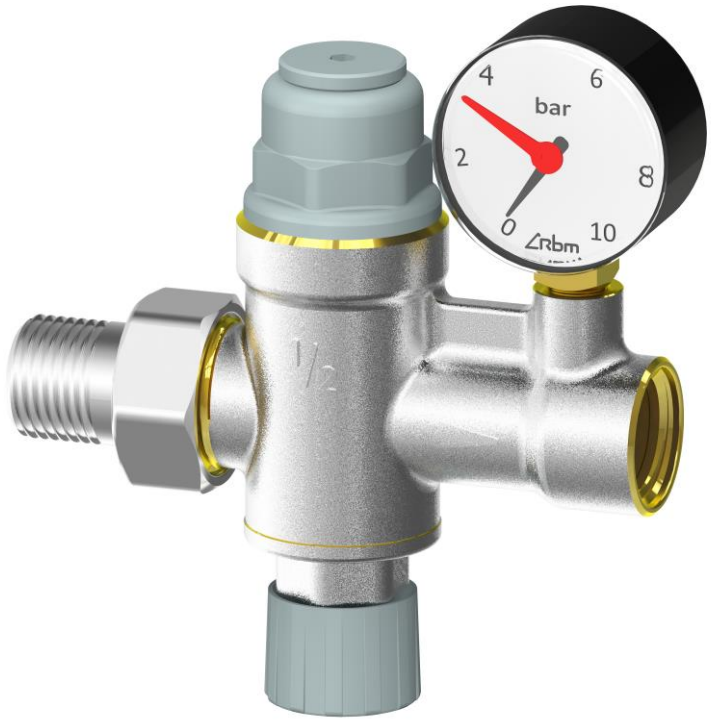
Rbm brass	**Filler** **AUTOMATIC PISTON FILLING UNITS**	CT3153.0_00 EN March 2016



- Multi-function: Pressure reducer, check valve and shut-off valve incorporated;
- PN 16;
- Compact.

PRODUCTION RANGE

AUTOMATIC PISTON FILLING UNIT MODEL *Filler*

Code	Size	Connection	P_{max} upstream	$P_{downstream}$ adjustable	$P_{pre\text{-}calibration}$
3153.04.00	G 1/2“	MF UNI-EN-ISO 228	16 Bar [1600 kPa]	0.5÷4 Bar [50÷400 kPa]	-

DESCRIPTION

RBM Filler is an **automatic** feeding unit that **allows the replenishment of fluid in heating systems**.

It encloses, in a single product, a pressure reducer, a check valve and a shut-off valve.

The pressure reducer is a piston type, equipped with a pressure gauge to detect the output pressure. The cartridge is a compensated seat: upstream pressure variations do not affect the adjustment of the downstream pressure.

USE:

Filler **is an adjustment parts and not for safety**. For this purpose, provide the system with the appropriate safety devices.
They are particularly suited to be used in **heating systems** with the precise task of re-integrating the water that comes out from the system .
During the normal operation of a heating system, part of the fluid is lost through the deaerators, in the form of steam mixed with gases that develop continuously in the circuit. The space left free by the fluid, if it is not properly reinstated, will be occupied by the gases which, dissolved, would form acid solutions that can lead to corrosion.

THE CHOICE:

Filler is intended to be used in plumbing, heating and sanitary systems with upstream pressure not higher than 25 Bar and the required downstream adjustment pressure within the range 0.5÷4 Bar.

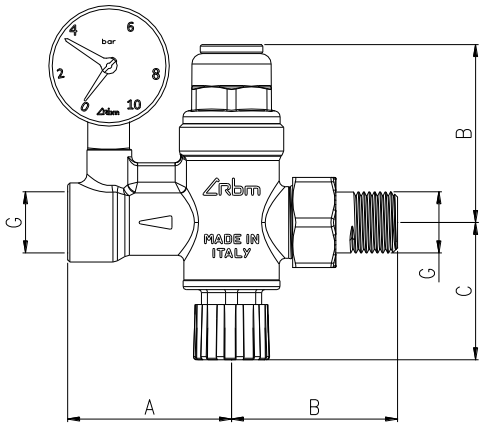
CONSTRUCTION FEATURES

- Body: Nickel-plated brass
- Metal internal components: Brass CW 614N UNI EN 12164
- Rod: Brass CW 614N UNI EN 12164
- Seals: NBR
- Sealing seats: Stainless Steel
- Exterior plastic parts: Nylon 6 with 30% fibreglass
- Pressure gauge holder connection: F G 1/4"

TECHNICAL FEATURES

- Compatible fluid: Water
- Nominal pressure: PN 16
- Maximum upstream pressure: 16 Bar (1600 kPa)
- Adjustable downstream pressure: 0.5÷4 Bar (50÷400 kPa)
- Thread: input: union M UNI-EN-ISO 228
output: F UNI-EN-ISO 228
- Pressure gauge: Scale 0÷10 Bar
- Maximum operating temperature: 80 °C

DIMENSIONAL FEATURES

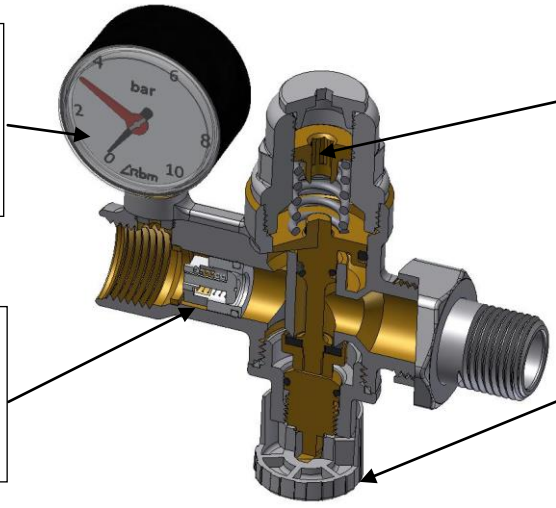


CODE	Size G	A [mm]	B [mm]	C [mm]	D [mm]
3153.04.00	1/2”	55	55,7	46	59,6

CHARACTERISTIC COMPONENTS OF THE FILLER UNIT

Pressure reading pressure gauge:
Displays the pressure downstream of the filling unit, namely the pressure in the circuit to be supplied.

Check valve (VNR):
Prevents the return of the liquid present in the system towards the aqueduct (upstream of the reducer).



Calibration ring:
Allows the adjustment of the calibration value.

Shut-off valve:
Cuts off the power supply and therefore excludes the refill function.
This is useful during system maintenance, or in case of failure of any part of the circuit.

PRESSURE REDUCER CALIBRATION



The final calibration of the pressure reducer must be carried out with the hydraulic circuit completely full and with all utilities closed, otherwise values would be affected by the fact that, during the possible supply, the downstream pressure decreases in relation to the amount of required flow.

The filling unit *Filler* is calibrated by acting on the inner ring nut, turning it clockwise to increase the value and anti-clockwise to decrease it.

Calibration operations:

- Close the shut-off valve downstream of the pressure reducer.
- Calibrate the pressure reducer by acting with the appropriate wrench depending on the models.
- The calibration operation is to be considered complete when the pressure gauge shows the desired pressure.

Warnings:

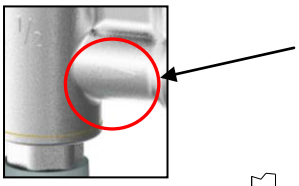
- Perform some discharge manoeuvres to check the stability of the calibration.

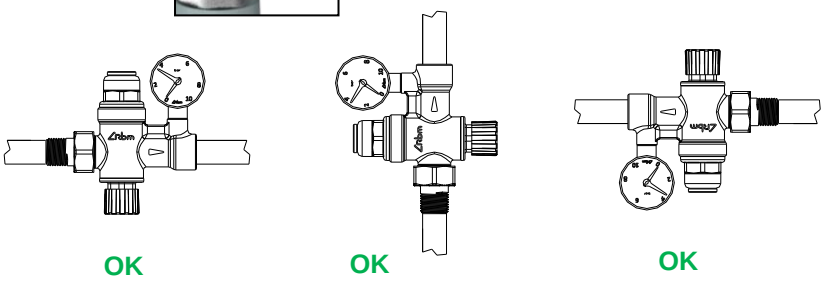
With the system operational, the pressure read on the pressure gauge may be distorted by the overpressure of the thermal system, a possible correction must always be carried out with the system shut down and at ambient temperature.

ASSEMBLY

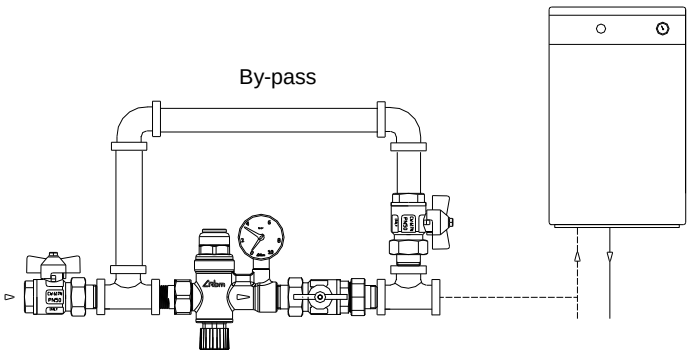
Assembly precautions:

- Always install a filter upstream of the system.
- Carry out routine maintenance on the filters.
- Follow the direction indicated by the flow direction arrow located on the body.
- Use shut-off valves to allow any maintenance work.
- Clean the pipes upstream and downstream of the pressure reducer to avoid damage.
- The filling unit can be mounted vertically, horizontally and upside down.





APPLICATION DIAGRAMS



Layout 1:

Automatic feeding directly to the thermal unit.

The *Filler* is installed on the return circuit, at the boiler input.

The set-up of the *Filler* feeder with by-pass allows significantly reducing the time required to fill the system.
It is recommended to fill the system almost completely using the Bypass and only complete it through the feeder.

SPECIFICATION ITEMS

SERIES 39

Automatic adjustable feeder to top-up closed circuits, piston operated, complete with built-in check valve and dial pressure gauge to view the downstream pressure, model *Filler*.
Nickel plated brass body, sealing seats in stainless steel, NBR seals, max. upstream pressure 16 Bar, adjustable downstream pressure 0.5÷4 Bar, max. operating temperature 80°C, pressure gauge scale 0÷10 Bar, threaded connections MF UNI-EN-ISO 228 with union. Size 1/2".

RBM spa reserves the right to improve and change the described products and related technical data at any moment and without prior notice: always refer to the instructions attached with the supplied components; this sheet is an aid, should the instructions be extremely schematic. Our technical department is always at your disposal for any doubt, problem or clarification.

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