Maintenance

When checking, cleaning or replacing the complete regulating cartridge:

1. Shut off the reducer.
2. The special construction of the regulating unit does not require any adjustment of the calibrated pressure, which can be left at the set value.
3. Remove the upper cover, using the spanner provided. The supper cover is integral with the internal regulating cartridge.
4. Check and clean the filter.
5. The whole self-contained cartridge can be refitted or replaced with a spare. When the cartridge is screwed back into the body, the pressure indication windows will return to the original position.
6. Reopen the shut-off valves. The pressure will return to the original set value

Installation Tips

Installation below ground

It is not advisable to install pressure reducers below ground, for the following reasons:

- The reducer may be damaged by frost
- There will be problems with the inspection and maintenance operations
- The pressure gauge will be difficult to read

Water Hammer

This is one of the main reasons for the failure of pressure reducers.

During the installation of "at risk" systems, specific appropriate devices should be installed to absorb water hammer.

WARRANTY

If any material defect arising from the manufacturing process is found in a new tap or valve Waterware Services Ltd. will undertake to repair or replace it (at its option). This undertaking will not apply if:

1. The defect is brought to Waterware's attention later than 5 years from the date of manufacture.
2. Failure by any person to follow installation instructions or installation in an environment outside the recommended limitations or relevant NZ and or Australian Standards and local plumbing codes. No installation should proceed without installation instructions and claims instructions were missing are not accepted as a means of avoiding this condition.
3. Evidence cannot be produced which confirms that the relevant tap or valve was purchased from a known customer of Waterware Services Ltd.
4. Repair work is undertaken without prior arrangement with Waterware Services Ltd.
5. Normal maintenance requirements, refer to specific product maintenance guides.

Waterware Services Ltd. shall in no way be liable for any loss, damage (direct, indirect or consequential), cost or expense suffered or incurred by the purchaser. Obligations accepted by Waterware Products Ltd. are.....

..... in addition to all other rights and remedies had by the Purchaser in law in respect of the valve and does not limit the right the Consumer may have under the Consumers Guarantee Act 1993.

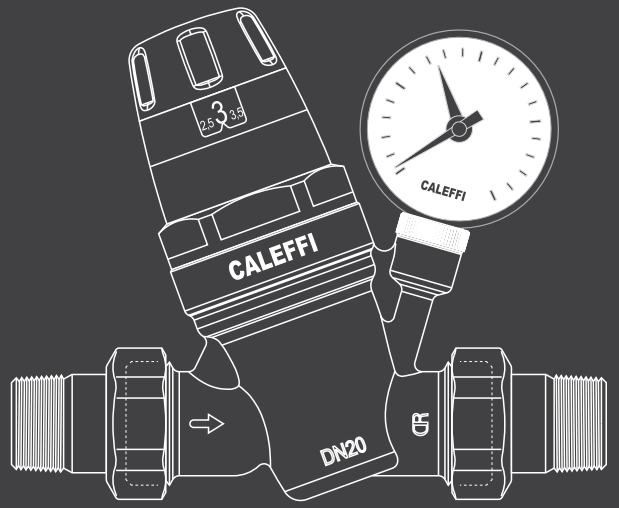
..... subject to the exceptions and conditions previously listed. All expressed or implied conditions, statements or warranties as to the quality or fitness on any purpose of a tap or valve or otherwise are hereby expressly excluded to the fullest extent permitted by law except under conditions and warrants which cannot be legally excluded by law and which are intended in the contract for the supply of the valve by the Trade Practises and any other Act of Law.

WATERWARE

PH 09 273 9191 | info@waterware.co.nz
PO Box 58 776 Botany, Manukau
waterware.co.nz

WATERWARE

Caleffi Adjustable Pressure Limiting Valve 535



20,25,32,40,50mm

Pre-set at 300kPa - Adjustable 100-600kPa

Technical Installation Manual

PH 09 273 9191 | info@waterware.co.nz
PO Box 58 776 Botany, Manukau
waterware.co.nz

535 Caleffi Pressure Reducing Valves

Description

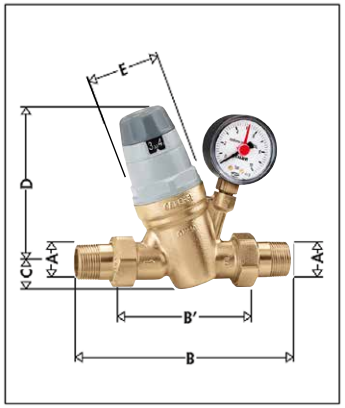
Pressure reducing valves are devices which, when installed on private water systems, reduce and stabilise the pressure entering from the public mains. This incoming pressure is generally too high and variable for direct application to domestic systems. These valves can be used to control inlet pressure to hot water storage.

Technical Data

Max working pressure: 2500kPa
Max working temperature: 60°C
Suitable for water and compressed air
Valve is preset to 300kPa and includes internal strainer
Adjustable from 100-600kPa by means of an adjustable knob with indicator
Fully serviceable in line
Complete with downstream pressure gauge
Body and parts in contact with the fluid are made of brass P Cu Zn 40 Pb2 or stainless steel AISI 304. The diaphram and seal are made of special non-toxic NBR reinforced rubber and the special shape of the diaphram guarantees accurate regulation.

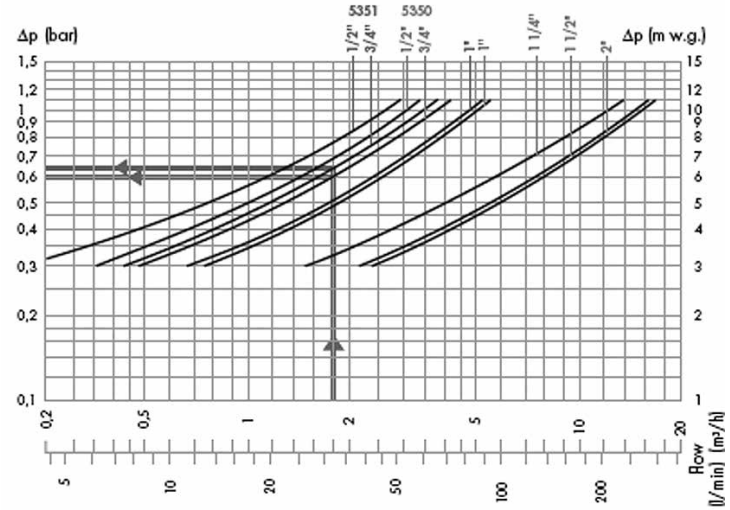
Installation

1. Before installing the pressure reducer, open all the outlets to flush the system and expel any air left in the pipework.
2. Install shut-off valves upstream and downstream to facilitate maintenance operations.
3. The pressure reducer can be installed in either vertical or horizontal pipework. However it must not be installed upside down.
4. Close the downstream shut-off valve.
5. This mechanical pre-setting system with adjustment knob and pressure indicator visible on both sides makes it possible to set the reducer to the required value in the system before installation. The pressure indicator has an incremental movement, so that the pressure can be adjusted continuously, displaying the value at 0.5bar increments.
6. Calibration is carried out by means of the adjusting knob on the upper part of the device. The reducers are pre-set at the factory to a pressure of 3bar.

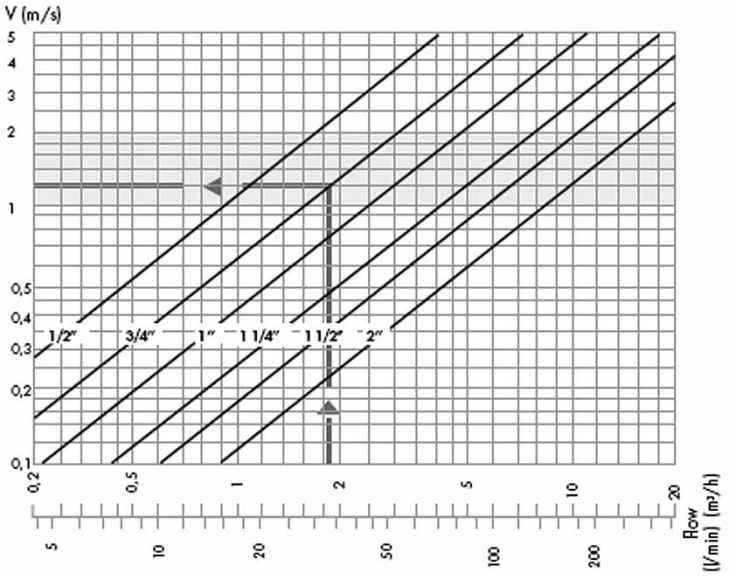


Code	A	B	B'	C	D	E	Weight kg
53506.	1"	180	95*	20,5	112	Ø54	1,38
53507.	1 1/4"	200	110*	40	178	Ø73	2,6
53508.	1 1/2"	220	120*	40	178	Ø73	3,4
53509.	2"	250	130	40	178	Ø73	4,3

7. In view of the pre-setting function, the installation of pressure gauge downstream of the appliance is not essential.
8. After installation, the internal mechanism will automatically adjust the pressure until it reaches the required value.
9. Reopen the downstream shut-off valve slowly.



- *Reference conditions:* *Pressure upstream = 8 bar*
Pressure downstream = 3 bar



Graph conditions 6bar input / 4bar set point.
Sizing: to percent excessive noise and unnecessary wear size the unit for a speed of flow to within 2 m/s and also ensure the resulting pressure drop is within the maximum dynamic pressure available.