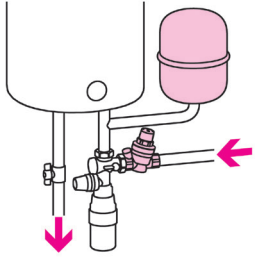
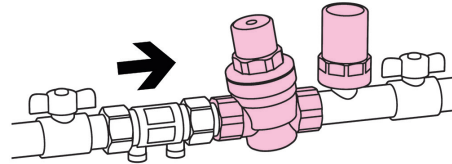


**INSTALLATION**



Install an expansion vessel (between the pressure reducing valve and the water heater) to absorb the pressure increase downstream of the reducing valve (when this is closed), caused by the water heater exceeding the specified temperature.

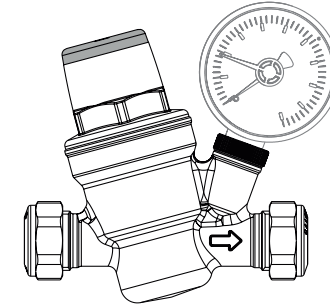


When installed in a system at risk of water hammer, specific devices should be installed to prevent damage to the pressure reducing valve.

**Please leave this manual for the user**

CORE is a registered trademark owned by Smith Brothers Stores Ltd.

Registered office: Unit V2 Winchester Avenue, Blaby ,  
Leicester. LE8 4GZ



**These installation instructions are for the CORE 533 high performance pressure reducing valve with compression ends.**

**INTRODUCTION**

Prior to installation, fit the pressure gauge to the valve using a suitable jointing material.

CORE 533 pressure reducing valves have a specially shaped diaphragm to give accurate pressure regulation in response to changes in downstream pressure.

The control stem housing of the cartridge is made from a plastic material with a low co-efficient of adhesion, which reduces the probability of scale deposits forming, the main cause of pressure reducing valve malfunction.

The cartridge and strainer screen are easily removed for periodic cleaning and maintenance.

The CORE 533 pressure reducing valves are certified according to BS EN 1567 for operating with inlet water temperatures up to 80°C.

The CORE 533 is specifically designed for higher flow rates with a low noise level when operating.

**Warning**

The following instructions must be read and understood before installing and maintaining the product.

**CAUTION: Failure to follow these instructions could result in a safety hazard!**

**CONSTRUCTION DETAILS**

Components	Material	Grade
Body	DZR chrome plated	BS EN 12165 CW602N
Cover	Nylon	PA 6G30
Control stem	Stainless steel	AISI 303
Cartridge	Polymer	PPSG40
Internal components	Polymer	PSU
Diaphragm	EPDM	
Seals	EPDM	

## TECHNICAL DATA

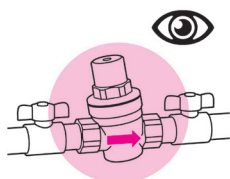
Max inlet pressure:	16 bar
Outlet pressure setting range:	1 to 5.5 bar
Factory setting:	3 bar
Max working temperature:	80°C
Medium:	Potable water
Pressure gauge connection:	G¼
Certification:	BS EN 1567
WRAS approved product:	Yes

## INSTALLATION

Please read these instruction before commencing installation, to ensure the correct fitting position is selected and sufficient space and access is available for adjustment and any future maintenance.

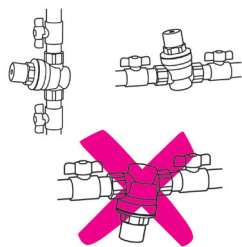


Assembly and disassembly should always be carried out while the system is cold and not under pressure.



The valve must be installed with the flow direction arrow on the body pointing in the same direction as the flow.

It is recommended that service valves should be installed upstream and downstream of the pressure reducing valve should maintenance be required in the future.



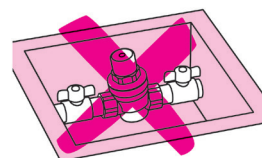
## RECOMMENDED FLOW RATES

For an average flow velocity of 2 m/s, the maximum flow rates according to BS EN 1567 are:

Prod Code	l/m maximum
COREPRV015	21.16
COREPRV022	37.83

The valve can be installed in both horizontal and vertical pipes.

If installed in a horizontal pipe the nylon cover should be upper most as illustrated.



The pressure reducing valves should not be installed below ground, for the following reasons:

- The reducing valve may be damaged by frost.
- Inspection and maintenance operations may be difficult.

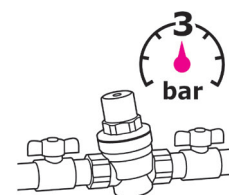
When installing valves with compression ends to BS EN 1254-2 the torques given below should be used to tighten the compression nuts and make a water tight joint.

Ensure the joint is clean and free from debris and burrs.

Seal paste or tape should not be required.

Size Ø	Torque - Nm
15mm	50
22mm	60

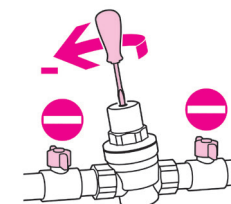
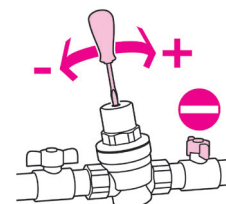
## SETTING



The CORE 533 pressure reducing valve is factory set to 3 bar.

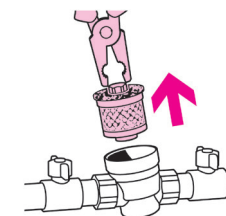
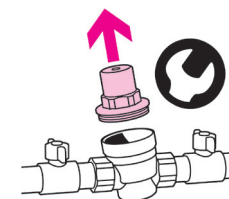
The setting can be changed using a suitably sized screwdriver using the screw visible from the top of the nylon cover.

For a valve fitted with a pressure gauge the outlet pressure can be measured on the pressure gauge, which can be used to continually measure the outlet pressure.



Perform the setting by turning the screw on the top of the plastic casing, clockwise to increase the pressure setting and anticlockwise to decrease it.

## MAINTENANCE



It is recommended to carry out maintenance and cleaning of the removable cartridge on a regular basis, and if the reducing valve does not maintain the set value.

Unscrew the setting screw anti-clockwise to take tension off the internal spring.

Using a suitable sized spanner remove the nylon cover.

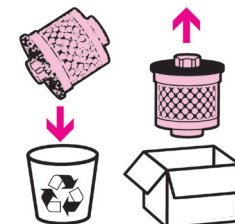
Using pliers or similar tool pull the cartridge out of the body.

Remove the strainer screen from the cartridge.

After inspection and cleaning, the entire cartridge can be refitted or if there are signs of damage replaced with a spare cartridge.

Refit the nylon cover, the minimum tightening torque is 20 ±2 Nm.

Reset the valve to the required outlet pressure using the procedure detailed in 'Setting'.



The damaged cartridge and/or strainer screen should be disposed of in a suitable manner.