Ultra-compact magnetic dirt separator

DirtSTOP MINI

Dual-action magnetic dirt separator with filtration, and a transparent collection chamber.

INTRODUCTION

DirtSTOP® MINI is the ultra-compact magnetic dirt separator with filtration for installation below the boiler. The new design allows you to see into the collection chamber and check whether it is necessary to clean out accumulated impurities.

The metal parts of the heating system are subject to corrosion effects, which release ferrous impurities into the water. In the heat generator, these impurities can block the heat exchanger or be attracted by the permanent magnet of the electronic circulation pumps, causing blockages.

Heating systems can also contain other impurities which tend to accumulate in the system parts with reduced transit sections causing obstructions, noise or other malfunctions.

DirtSTOP® MINI helps keep heating systems in the best possible condition. Regular cleaning of the dirt separator is a fast and easy procedure that does not require draining the system if the check valve is installed.

The check valve is included in the package as an accessory, and may or may not be installed, at the installer's discretion.

BENEFITS

DirtSTOP® MINI is an essential component to increase the service life of your heat generator. DirtSTOP® MINI improves the heat exchange and general efficiency of the heating system, protecting it over time thanks to its continuous filtration.

- Can be installed directly below the boiler.
- Transparent filter chamber for monitoring sediment.
- Extremely compact for easy installation even in confined spaces.
- Powerful magnet with diametric polarisation to generate a much more uniform magnetic field, thus optimising capture of all impurities.
- Strainer with 800 µm filter mesh: an exceptional combination of filtering capacity and ease of cleaning.
- Made from Grilamid®, a technopolymer with extraordinary mechanical properties, and brass.

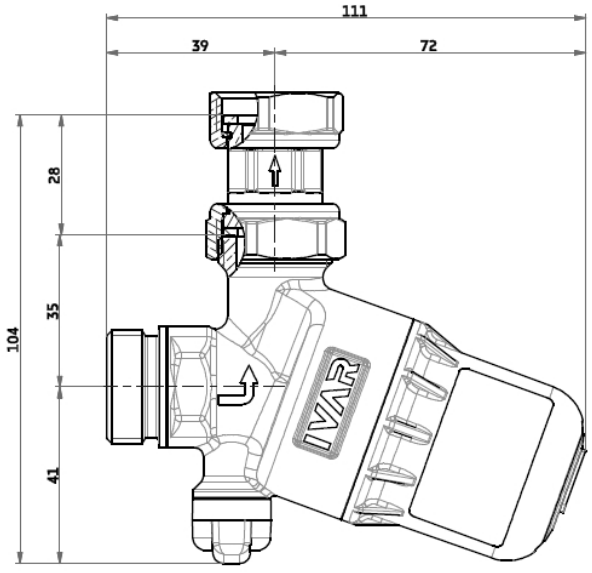
TECHNICAL DATA

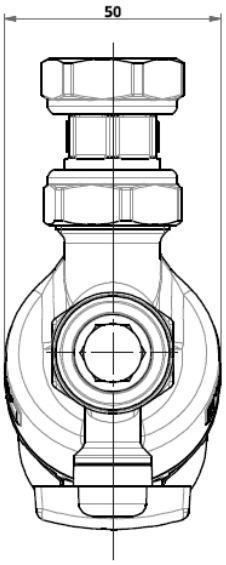
Fluid temperature	0-90°C
Maximum operating pressure	Max 6 bar
Flow coefficient (Kv)	**5.0 m³/h.**
Mesh strainer	800 µm in stainless steel AISI 304
Compatible fluids	Water or glycol solution (max. 50%)
Magnet	Neodymium, magnetic induction B = 1.2 T (12,000 G) Diametric polarisation to maximise capture
Filter connections	3/4" M x 3/4" M
Fitting connections	3/4" F GIR x 3/4" F GIR
Check valve INCLUDED IN THE PACKAGE	

MATERIALS

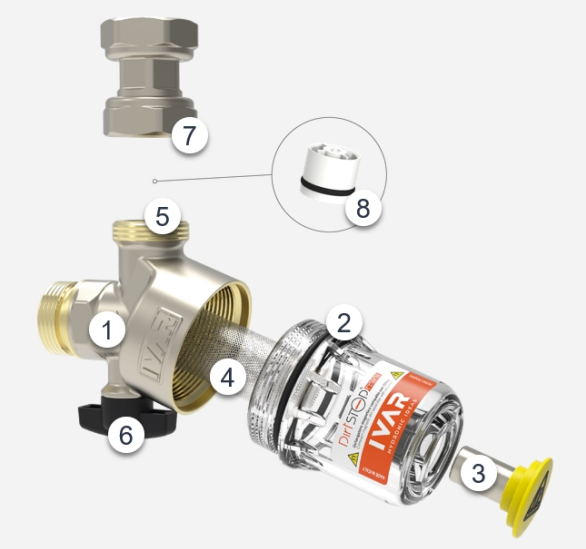
Body	nickel-plated CW617N brass with bare internal surfaces
Filter chamber	GRILAMID® technopolymer
Magnet-holder cap	ABS
Filter	AISI 304 stainless steel
Ball	chrome-plated CW617N brass
Valve sealing gaskets	PTFE
Fittings	CW617N brass
Rod	CW617N brass
Lever	PA6 + GF
Sealing elements	peroxide EPDM

DIMENSIONS





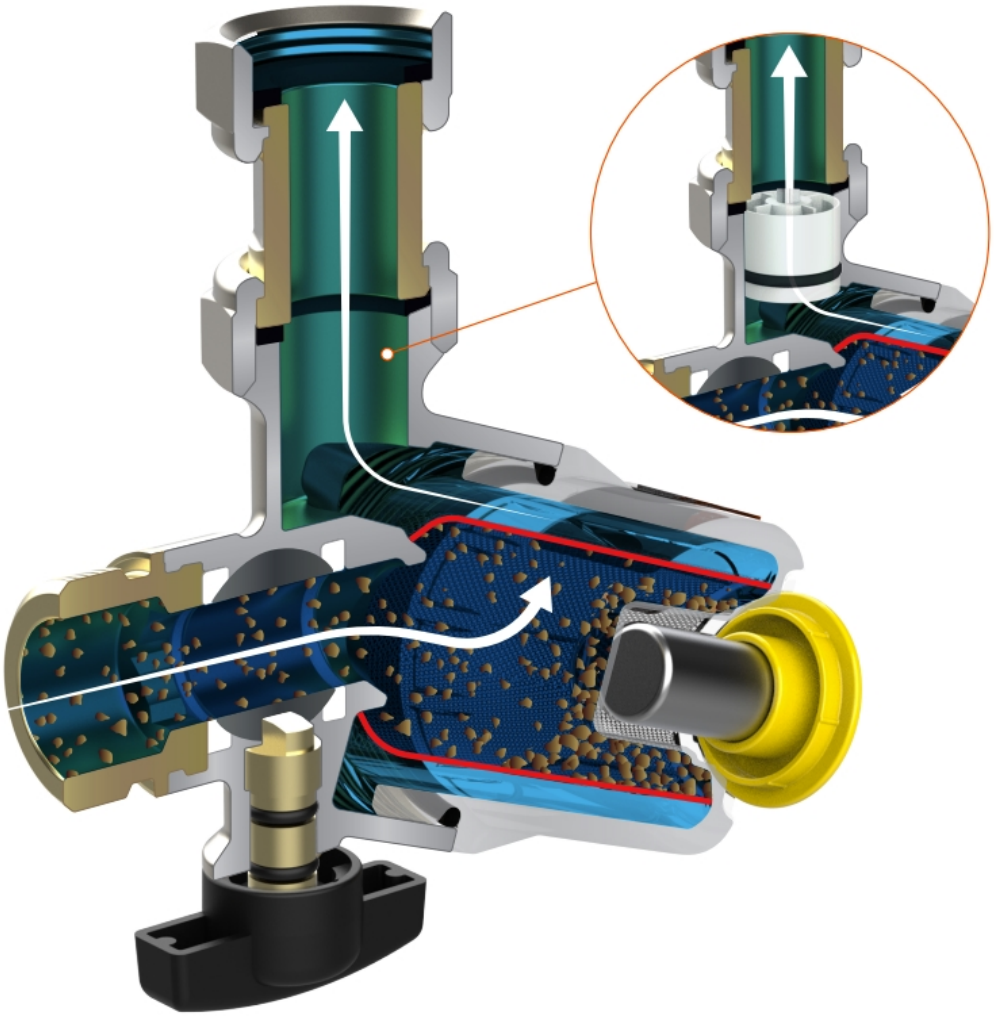
COMPONENTS



1. Body
2. Transparent filter chamber
3. Magnet
4. Mesh strainer
5. Inlet/outlet connections
6. Ball-type shutoff valve (filter chamber closing)
7. Swivel fitting (connection on boiler side)
8. Check valve provided in the package

OPERATION

DirtSTOP® MINI traps the impurities contained in the closed circuit of the heating system. The water is forced to pass through the stainless-steel filter and the powerful neodymium magnet also retains any impurities of ferrous origin, protecting the pump of the heat generator.

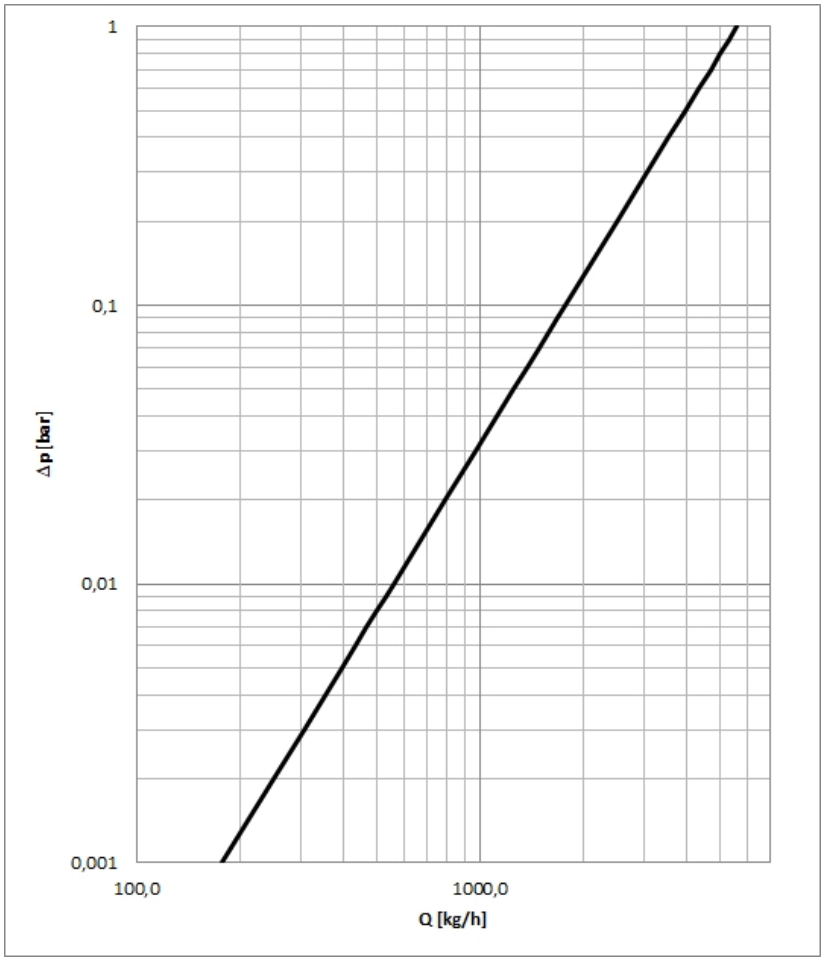


Install DirtSTOP® MINI on the return line of the system, before the heat generator – making sure to follow the direction of flow indicated by the arrow on the body – to catch any impurities in the circuit before they reach the heat generator itself.

When installing DirtSTOP® MINI in a new heating system, the pipework should be flushed in advance to remove any dirt and debris. When installing DirtSTOP® MINI in an existing heating system, it is recommended to clean the system using the cleaner additive IVAR IV400 and then carry out an anti-scaling treatment using an appropriate inhibitor: IVAR IV100HT (for high-temperature heating systems) or IVAR IV100LT (for low-temperature heating systems).

CHARACTERISTIC CURVE

The characteristic curve for DIRTSTOP MINI is given below.

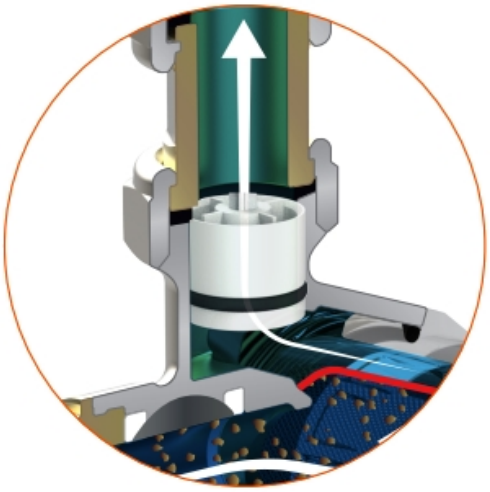


INSTALLATION

DirtSTOP® MINI is designed to be installed without having to make modifications to the component. Just open the package and install the dirt separator.

Fig.1

The check valve supplied in the package must be installed following the correct direction of flow, with the o-ring downwards as shown in the image:



MAINTENANCE

The quantity of debris that accumulates in DirtSTOP® MINI will depend on the condition of the heating system.

Carry out routine cleaning of DirtSTOP® MINI one month after initial installation. Subsequently, perform routine cleaning every two months during the heating season, or as required.

For further information on maintenance, see the product instruction sheet.

Cleaning requires the ball valve to be closed and the return water from the system collected if the supplied check valve is not installed Fig.2. Instead, if the check valve has been installed it is possible to proceed directly with cleaning, as shown in Fig.3.

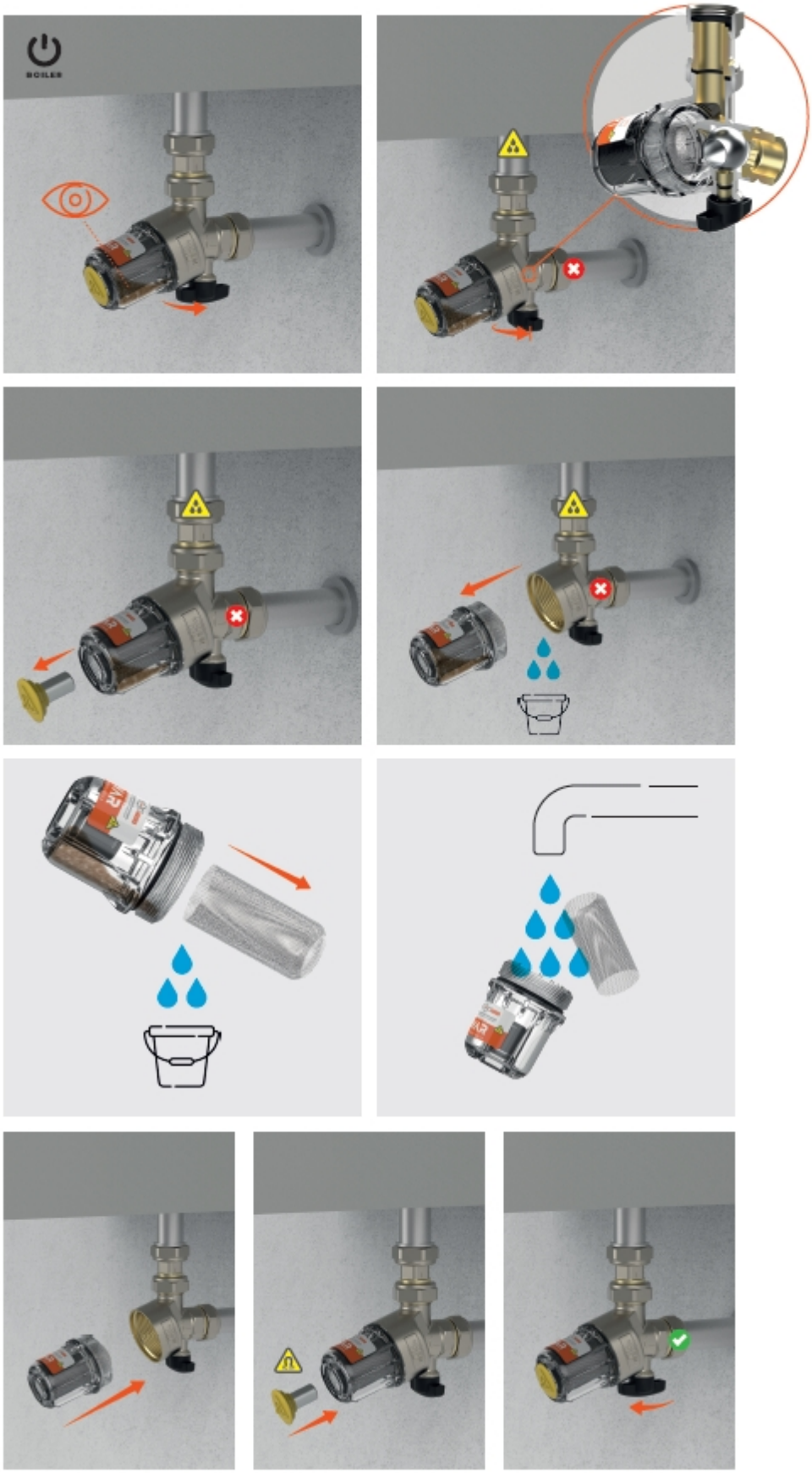


Fig.2

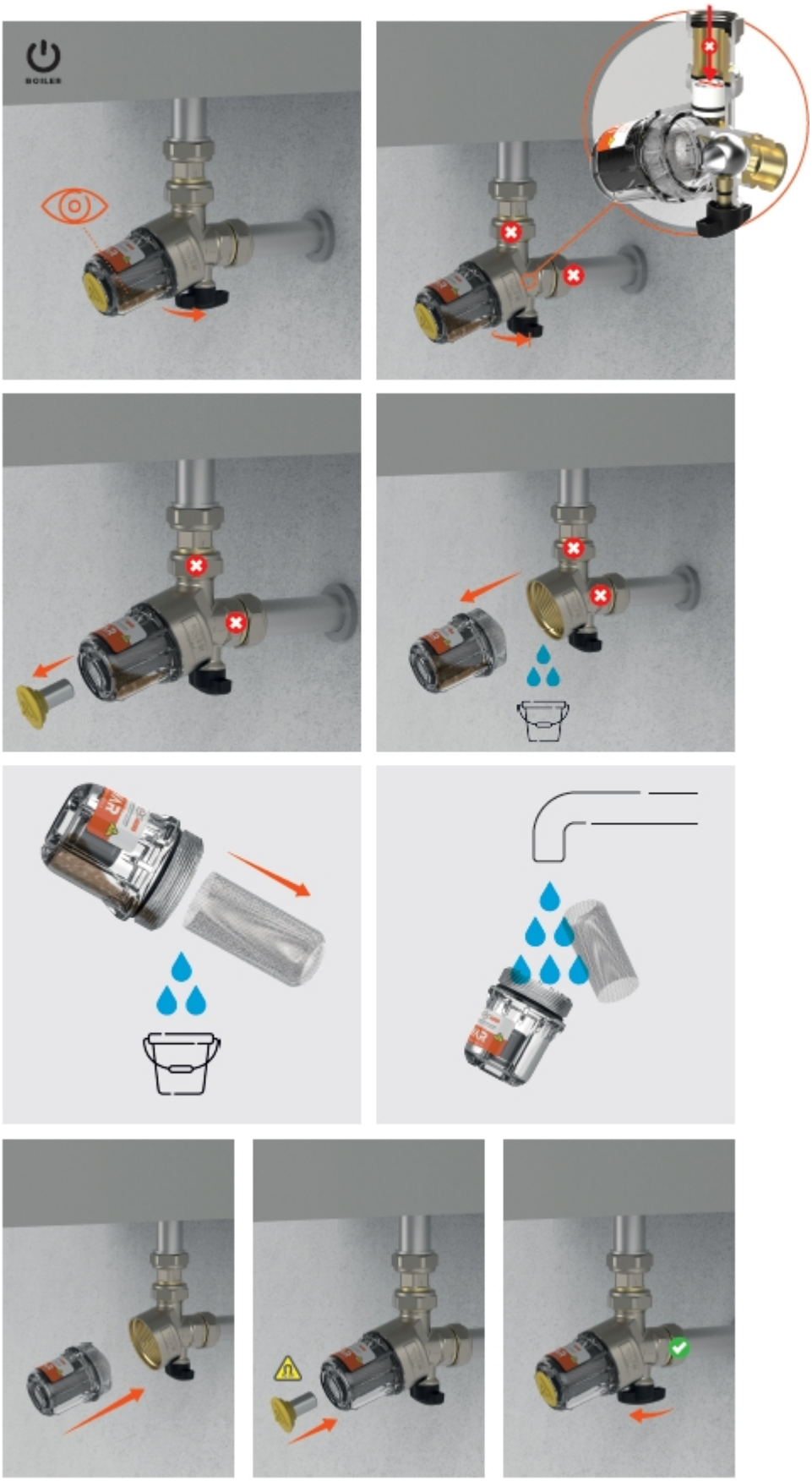
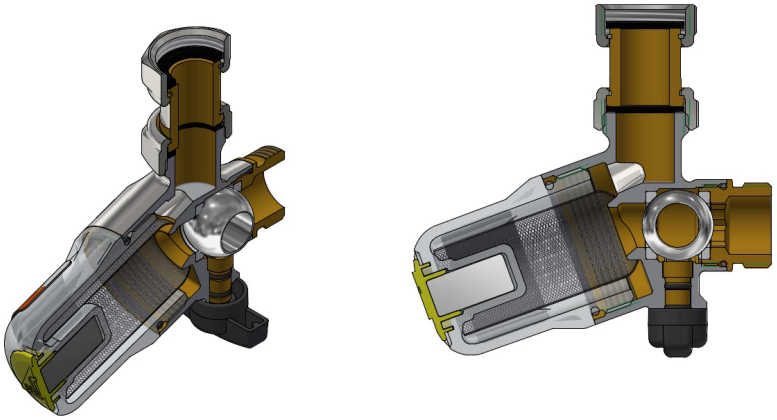
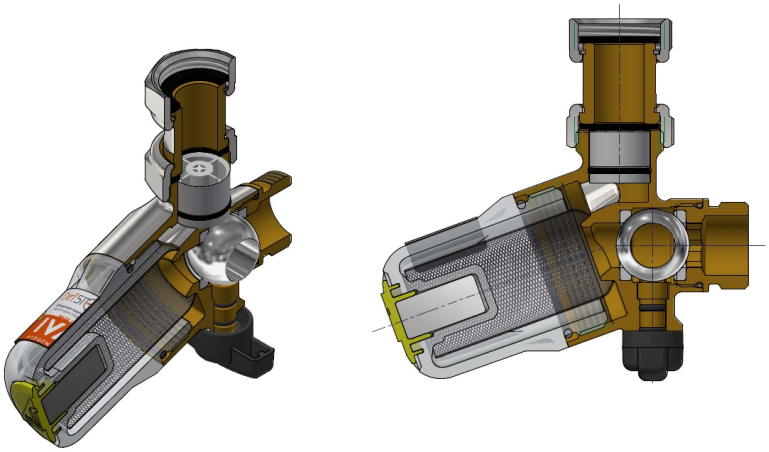


Fig.3

DirtSTOP MINI cross-sectional view



With check valve installed



Instructions are available at this link:

CODES

Line	Code	Main connections
DIRTSTOP MINI	520550	3/4" M x 3/4"F

SPECIFICATION SUMMARY

520550	Dirtstop® mini magnetic dirt separator with transparent filter chamber; compact design, with connection union for installation below the boiler. The dual filter action is provided by a neodymium magnet (magnetic induction B = 1.2 T (12,000 G)) and an 800 µm AISI 304 stainless-steel mesh strainer. The neodymium magnet is diametrically polarised and provides a homogeneous magnetic field which maximises the capture of ferrous impurities. The mesh filter captures all other impurities. Impurities, which precipitate out in the transparent filtration chamber, can then be emptied without draining the heating system if the check valve is installed on the boiler inlet. Materials – Body: Grilamid. Ball-type shutoff valve, swivel union and caps: CW617N brass. Sealing elements: peroxide-cured EPDM. Temperature: 0 - 90 °C. Max pressure: 6 bar. Compatible with water or glycol solution, max. 50%. Flow factor Kv: 5 m³/h. Filter connections 3/4" M x 3/4" M, Fitting connections: 3/4" F GIR x3/4" F GIR. **Check valve provided in the package.**

LINEA ARANCIO
TECHNICAL SUPPORT
linea.arancio@ivar.it

IVAR
HYDRONIC IDEAS

WhatsApp

I.V.A.R. S.p.A.

Via IV Novembre 181
25080 Prevalle (BS)

+39 030 68028

www.ivar-group.com