

## ASSEMBLY AND MAINTENANCE INSTRUCTIONS

# **DirtOUT**®xL

ISTRU0001HCE.EN.05







## **MULTIFUNCTIONAL MAGNETIC DIRT SEPARATOR**

Prodotto	Codice	Misure
DirtOUT XL (without ball valve)	DF00110034	<sup>3</sup> / <sub>4</sub> " F x <sup>3</sup> / <sub>4</sub> " F
DirtOUT XL (without ball valve)	DF00110100	1" F x 1" F
DirtOUT XL (without ball valve)	DF00110022	ø22 x ø22
DirtOUT XL (without ball valve)	DF00110028	ø28 x ø28
DirtOUT XL (without ball valve)	DF00110100MM	1" F x 1" F
DirtOUT XL (DUAL MODE)	DF00120114	1″ ¼ F x 1″ ¼ F
DirtOUT XL (with ball valve)	DF00100034	3/4" F x 3/4" F
DirtOUT XL (with ball valve)	DF00100100	1" F x 1" F
DirtOUT XL (with ball valve)	DF00100114	1″ ¼ F x 1″ ¼ F
DirtOUT XL (with ball valve)	DF00100022	ø22 x ø22
DirtOUT XL (with ball valve)	DF00100028	ø28 x ø28



## **REQUIREMENTS AND WARNINGS**



Carefully read the instructions in this manual before installing or performing maintenance of the component. Keep the manual in a safe place for future reference.



**WARNING: Magnetic field.** Never position the magnet in the vicinity of pacemakers, electromedical devices, general electronic equipment, magnetic cards etc., as it may damage them or interfere with operation.

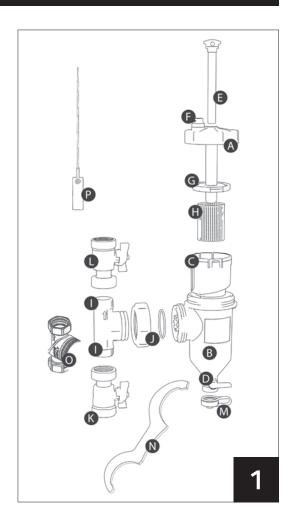


**WARNING:** High temperature fluid. Risk of burns. Before installation and maintenance operations, ensure that the circuit water is at ambient temperature.

To install DirtOUT® XL, contact a qualified plumber authorised to issue an approved Declaration of Conformity.

## **COMPONENTS** (see fig. 1)

- A) Upper cover
- B) Body
- C) Cyclonic insert (patented)
- D) Drainage valve (for routine cleaning)
- E) Magnet
- F) Air vent
- G) Mesh strainer support
- H) Mesh filter: 500 μm for the first cleaning of the system (preassembled), or 800 μm in the package
- I) Plastic inlet/outlet tee (only for DF100 model)
- **J)** Retaining ring nut
- **K)** Inlet shutoff valve (system-side connection)
- L) Outlet shutoff valve (boiler-side connection)
- M) Cap
- N) Dual wrench
- O) Brass inlet/outlet tee (only for DF110 and DF120 models)
- P) Lead seal (optional)



## FOR PLUMBERS: INSTALLATION

Before installing in a new system, the pipelines should be flushed to remove any dirt or waste. Before installation in an existing system, clean the system and then carry out a filmforming treatment. Install DirtOUT® XL near the boiler, on the heating system return line:

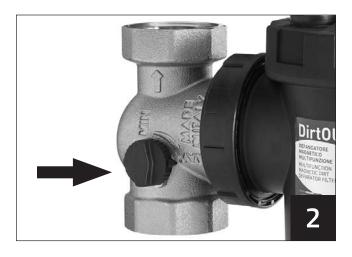
- 1. DirtOUT® XL must be installed with the drainage valve D facing downwards.
- 2. The inlet and outlet pipes may be vertical, horizontal or at a 45° angle. To change the orientation of the connections, completely unscrew the retaining ring nut J using the dual wrench N supplied with the product, disconnect the body B and reposition the connections I in the required angle.
  - Screw the retaining ring nut J back on and tighten.
- 3. Unscrew the screw on the air vent F to bleed off any air trapped in the product.
- 4. DirtOUT $^{\circ}$  XL is supplied with a 500 µm mesh strainer fitted. This strainer is particularly suited to the flow of the system and the first month of operation.
  - It can subsequently be replaced with the 800  $\mu m$  mesh strainer included in the package.



- Top plug tightening torque: from 8 to 10 Nm
- Adjustable tee ring tightening torque: from 8 to 10 Nm
  - Tightening torque of the shut-off valves (when provided): from 6 to 8 Nm

## BY-PASS ADJUSTMENT (see fig. 2)

Only for code DF00120114 (1"  $\frac{1}{4}$ ) it is possible to reduce the flow rate passing through the device, from the minimum flow rate in START mode to the maximum flow rate in ECO mode.



## FOR PLUMBERS/SYSTEM OWNERS:

#### **MAINTENANCE**

The quantity of waste that accumulates in DirtOUT® XL depends on the condition of the system. Perform ROUTINE CLEANING and SPECIAL CLEANING operations in observance of the specified schedules.

#### **ROUTINE CLEANING**

Perform routine cleaning every three months during the heating season.

### Procedure:

- 1. Turn off the boiler and ensure that the system water is at ambient temperature\*.
- 2. Note the system operating pressure as indicated on the boiler gauge\*.
- 3. Remove the lead seal P(optional) and extract the magnet E from the upper cover A and remove it completely.
- 4. Close the inlet shut-off valve (system side), alternatively make sure to shut off the water using suitable shut-off tools, before it enters the DirtOUT® XL.
- 5. Unscrew the cap M and place a bucket underneath it.
- 6. Open the drainage valve D for 2-3 seconds, close again and then wait a few seconds. Repeat this operation a second time.
- 7. Reinstall the cap M.
- 8. Replace the magnet E. Optionally: replace the lead seal P.
- 9. Restart the system, restoring the pressure noted in step 2\*.

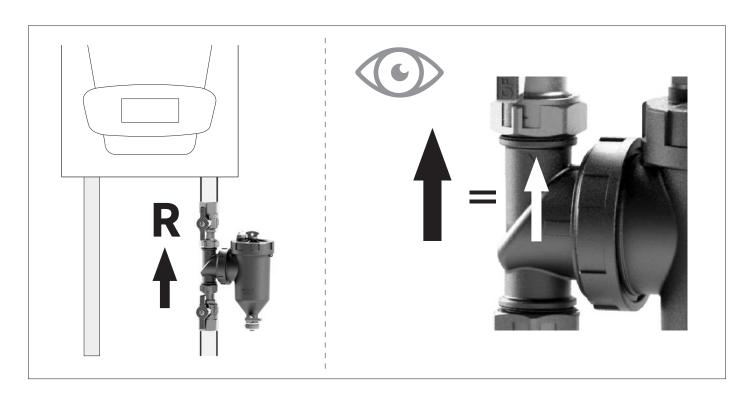
## SPECIAL CLEANING - MESH STRAINER REPLACEMENT Perform the special cleaning procedure at least once a year.

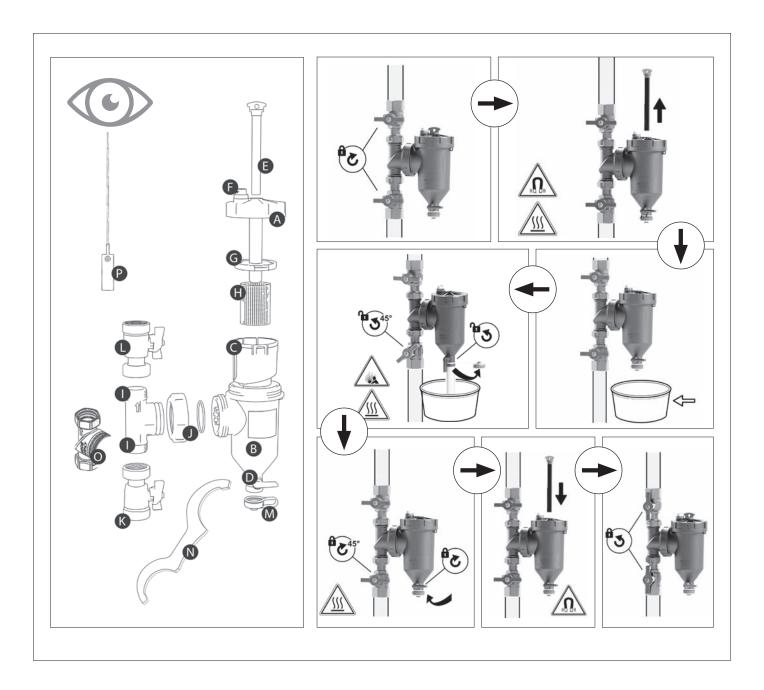
#### Procedure:

- 1. Turn off the boiler and ensure that the system water is at ambient temperature\*.
- 2. Note the system operating pressure as indicated on the boiler gauge\*.
- 3. Close the shut-off valves K and L to cut off the portion of the system where DirtOUT® XL is installed, alternatively cut off the portion of the system where DirtOUT® XL is installed using suitable shut-off tools.
- 4. Remove the lead seal P(optional) and extract the magnet E from the upper cover A and remove it completely.
- 5. Unscrew the upper cover A using the dual wrench N included with the product.
- 6. Unscrew the retaining ring nut J. Disconnect DirtOUT® XL from the system.
- 7. Rinse the mesh strainer H and all other components under running water.

- 8. Reinsert the cyclonic insert C, the required mesh strainer H and the mesh strainer support G in the body.
- 9. Close the upper cover and reconnect DirtOUT® XL to the inlet/ outlet connections I, screwing down the retaining ring nut J.
- 10. Replace the magnet E . Optionally: replace the lead seal P.
- 11. Ensure that the drainage valve D is closed.
- 12. Reopen the shut-off valves K and L, alternatively reconnect the portion of the system where DirtOUT® XL is installed using suitable shut-off tools.
- 13. Restart the system, restoring the pressure noted in step 2\*.

\*Note: consult the operation and maintenance manual of the boiler if necessary.





## **WARRANTY**

The magnetic dirt separator is guaranteed for 2 years from the date of purchase. The warranty does not cover malfunctions due to failure to observe the instructions in this manual.

## **ENVIRONMENT**

The product must be disposed of in accordance with local regulations.

## **TECHNICAL DATA**

Maximum operating pressure 3 bar

Temperature 0 - 90 °C

Magnete Neodymium, magnetic induction B=1,4T(14.000G)

Mesh strainer 800 µm in stainless steel AISI 304 500 µm in AISI 304 stainless steel

for initial system cleaning (pre-installed)

Compatible fluids Water or glycol solution (max. 50%)

Flow factor Kv With ball valve:

DF00100022 m<sup>3</sup>/h 6,4 DF00100028 m<sup>3</sup>/h 6,7

DF00100034 m<sup>3</sup>/h 6,4 DF00100100 m<sup>3</sup>/h 6,7

DF00100114 m<sup>3</sup>/h 6,9

Without ball valve:

DF00110034 m<sup>3</sup>/h 6,6 DF00110100 m<sup>3</sup>/h 6,9

DF00110022 m<sup>3</sup>/h 6,6 DF00110028 m<sup>3</sup>/h 6,9

DF00120114  $m^3/h$  7,4 min ÷ 15,1 max

Containment capacity 400 ml

Connections With ball valve:

ø 22 x ø 22 Copper pipe (DF00100022)

ø 28 x ø 28 Copper pipe (DF00100028)

<sup>3</sup>/<sub>4</sub>" F x <sup>3</sup>/<sub>4</sub>" F (DF00100034) 1" F x 1" F (DF00100100)

1"1/4 F x 1"1/4 F (DF00100114)

Without ball valve:

3/4" F x 3/4" F (DF00110034) 1" F x 1" F (DF00110100)

ø 22 x ø 22 Copper pipe (DF00110022) ø 28 x ø 28 Copper pipe (DF00110028)

1" ½ F x 1" ½ F (DF00120114)