



WATTS DSPN Series DSP034WN Compact Magnetic Dirt Separator Installation Guide

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WATTS DSPN Series DSP034WN Compact Magnetic Dirt Separator



Introduction

The compact magnetic dirt separator ensures that the boiler stays continually protected, as it retains all impurities present in the system and prevents their circulation, consequently avoiding wear and preventing damage to other components of the system (e.g. pumps and heat exchangers). The DSPN dirt separator removes magnetic and nonmagnetic particles that can damage a closed circuit, especially during the first few days of operation; thereafter, during normal service, the steady passage of fluid through the filter will have the effect of gradually removing all particles from the stream. Thanks to its compact dimensions, the DSPN dirt separator is easily installed under the boiler in domestic systems; the unit must be positioned on the return leg of the circuit, at the boiler inlet. The DSPN dirt separator is intended exclusively for domestic heating systems. If purchased for use in other applications, always contact the manufacturer before proceeding with installation.

TECHNICAL FEATURES

- Plastic $\frac{3}{4}$ " connections: PA66 reinforced plastic.
- Body: PA66 reinforced plastic.
- Cap with magnetic folder: PA66 reinforced plastic.
- Filtering cartridge: stainless steel AISI 304L
- Ball valve: CW 617 N brass.
- Swivel fitting: CW 617 N brass
- O-rings: EPDM.
- Discharge cap and magnet cap: CW 614 N brass
- Magnet: NdFeB – 4500 Gauss
- Magnet container: stainless steel AISI 304L
- Screws: stainless steel AISI 304L

- Filter rate: 500 µm
- Kvs= 2,8 m3/h

OPERATING CONDITIONS

Compatible fluids: water, water + glycol (Max. 30%). Max operating pressure: 3 bar at 90 °C. Operating temperature: 4 to 90 °C.

WARNING: for uses other than those intended, technical approval must be sought from the manufacturer/dealer.

GENERAL WARNINGS

Make certain that the product has not suffered damage in transit.

WARNING: The manufacturer declines all liability for inappropriate or incorrect plumbing connections made as a result of failure to observe the instructions in installation manuals provided with products or disregard for applicable statutory and regulatory requirements. It is forbidden to use the product for purposes other than those intended.

SAFETY WARNINGS

Read the instruction manual thoroughly and keep it with care in a dry and safe place, preferably near the product for easy reference.

- Do not leave packaging materials within the reach of children. It is advisable to keep the packaging for future use, but if not, ensure that it is disposed of in accordance with current statutory regulations.
- In case of damage, visible defects, or abnormal operation, do not use the product, do not use it, and do not attempt to disassemble or tamper with it in any way. Contact the dealer direct to have it repaired.
- Before fitting the product, check that the plumbing system has been installed to professional standards.
- The pack contains all accessories needed to ensure quick and simple installation. Whilst there is no need for special tools, the installation of the product should be entrusted to a professional.

WARNING: In the event that the operating pressure is higher than 3 bar, a pressure-reducing valve must be installed upstream.

WARNING: Ensure the product is not exposed to “water hammering” (instantaneous pressure surge caused generally by the opening and closing of fast-acting valves); should it happen that hammering occurs, install a suitable system to counter the problem (expansion tanks, arrestors, etc.) downstream of the product.

WARNING: The public water supply treated by the product must be of known quality, and in any event, the pH of the water must be between 6.5 and 9.5.

WARNING: Do not use compressed air and gases.

WARNING: The manufacturer will not be held liable for any damage to persons, animals or property in the event of the product being used improperly or contrary to the operating instructions, or tampered with in any way.

The manufacturer declines any liability of whatever nature in the following specific situations:

- Improper use of the product.
- Use contrary to specific national regulations (utilities, installation, and maintenance).
- Installation carried out by unauthorized personnel.
- Problems with the water supply (fluctuations in pressure, supply overpressure).
- Ambient temperature is unsuitable for operating purposes.
- Lack of required maintenance.
- Unauthorized modifications or repairs.

- Use of non-original replacement parts.
- Total or partial failure to observe the instructions

ASSEMBLY AND INSTALLATION

- The DSPN Series dirt separator must be installed by a qualified professional plumber.
- **WARNING:** before carrying out any installation or maintenance operation, make certain that the automatic filling valve of the heating system (if present) is shut off. Install the DSPN dirt separator on the return leg of the heating circuit, at the boiler inlet, to offer the best protection from all impurities in the system, especially when the system is first started up. Ensure that there is sufficient access available for the purposes of repairs and maintenance.
- **WARNING:** The DSPN dirt separator contains powerful magnets. Always take maximum care during installation and whenever maintenance operations are carried out. Do not place the magnetic core on ferrous surfaces.
- **WARNING:** use appropriate protective devices during all installation and maintenance procedures.
- **WARNING:** to avoid damage from frost, avoid installing the product in any location where temperatures could drop below 0 °C.

The DSPN dirt separator can be installed in different mounting positions:

- horizontal installation with the cap facing forwards, where there is limited space beneath the boiler (e.g. boiler installed in a wall-mounted kitchen unit)

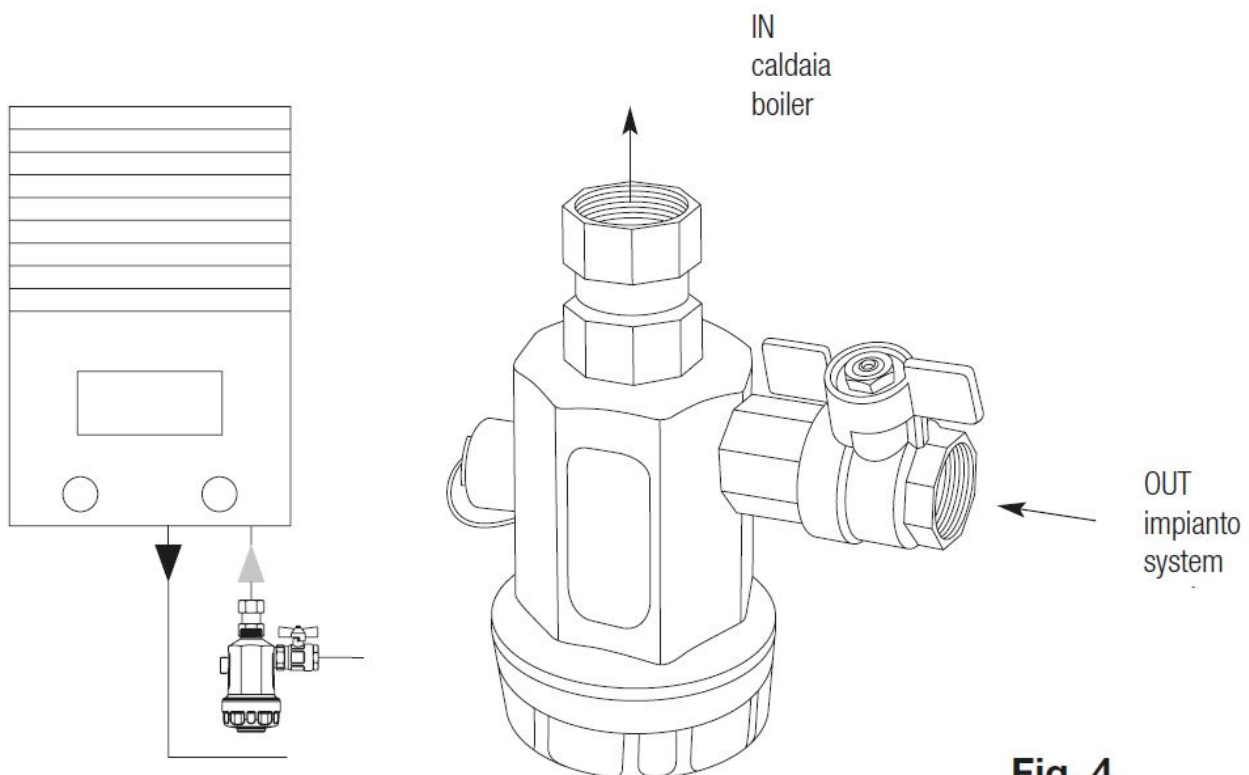


Fig. 4

- vertical installation with the cap facing downwards, where there is more space available.

MAINTENANCE

CLEANING THE FILTER CARTRIDGE:

The filter cartridge can be cleaned periodically by unscrewing the bottom drain plug or the top cap incorporating the magnet holder. When cleaning the DSPN dirt separator, make certain that the boiler is switched off and that the separator has cooled down to ambient temperature before carrying out any maintenance operation, otherwise damage and scalding could occur. To ensure that the product stays intact and efficient over time, routine maintenance, major servicing, and scheduled inspections must be carried out with suitable care.

Proper maintenance involves the following steps:

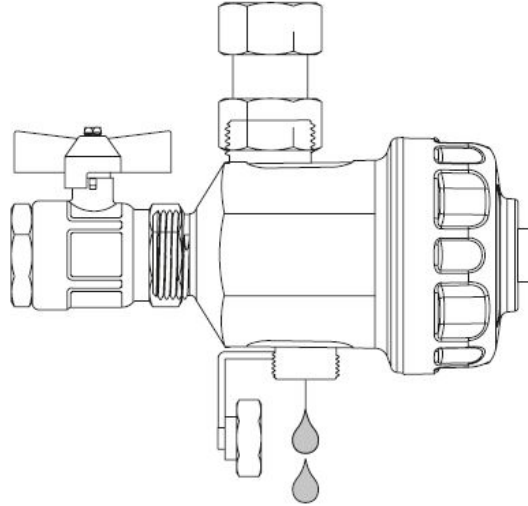


Fig. 1

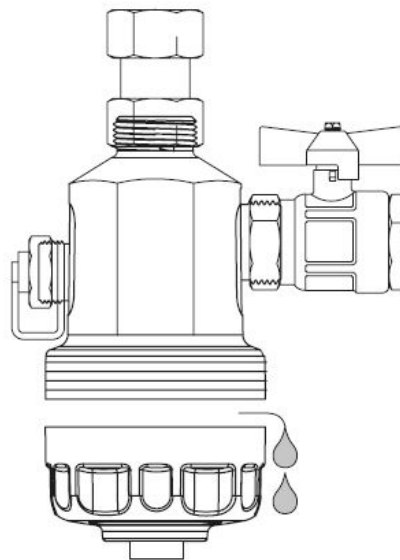


Fig. 2

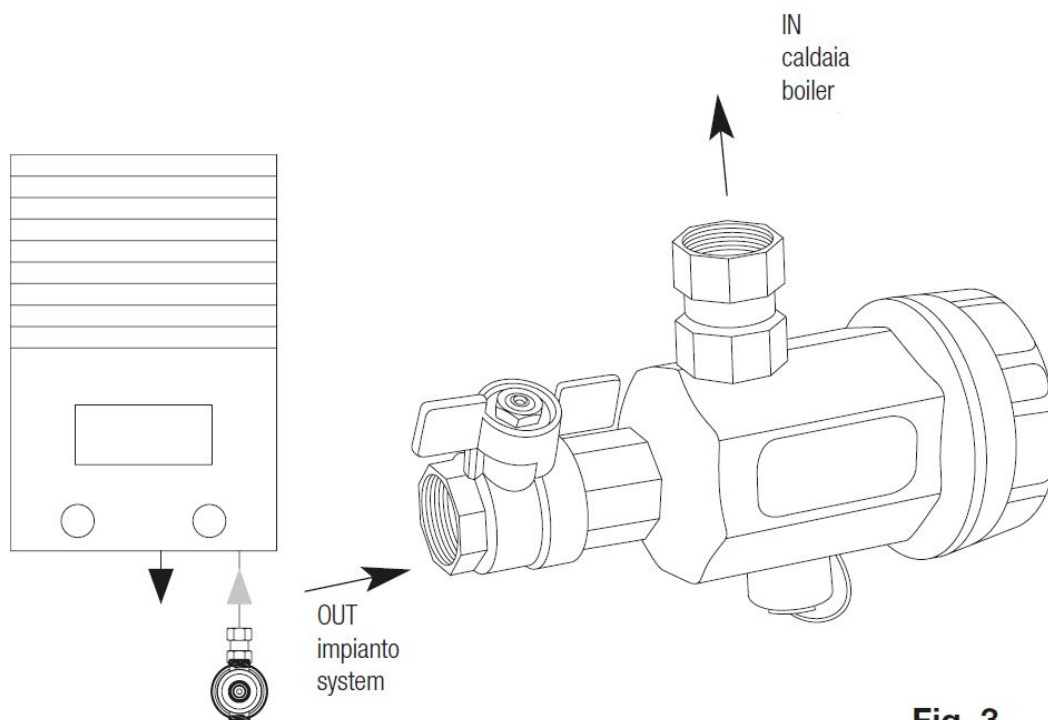


Fig. 3

- Close the ball valve on the inlet side.
- Unscrew the bottom drain plug carefully, and allow the water to run off. If the filter is mounted vertically, unscrew the cap with the magnet holder directly, using the tool provided
- **NOTE:** collect the water drained from the filter in a container of suitable proportions.
- Once the flow of water ceases, unscrew the closing cap with a magnet.
- Unscrew the magnet and take it out.
- Wash the cap with water to remove all impurities completely.
- Check the state of the O-ring, and if worn or degraded, fit a new one.
- Remove the mesh filter element and wash carefully to remove any impurities trapped on the surface. Refitting the dirt separator
- Screw the magnet onto the cap.
- Insert the metal filtering into the specific cap housing.
- Screw the cap to the body and tighten.
- Before returning the separator to normal operation, open the feed valve slowly to check for leaks.
- **NOTE:** the separator should be serviced and cleaned at least twice a year.
- **NOTE:** in the case of a new installation, perform the first cleaning operation after one month.
- **WARNING:** all routine maintenance and major servicing operations must be carried out with the separator isolated from the plumbing circuit. Any operation carried out on the product must be commenced only after reading the safety requirements listed in this manual.
- **WARNING:** the product is user-serviceable only for the purpose of cleaning the filter element. In the case of operations not described here, or classifiable as major servicing, these can be carried out only by skilled professionals.
- **NOTE:** particular operating conditions (type of water, operating pressure, etc.) may dictate the need for more frequent maintenance.

NEODYMIUM MAGNETS

WARNINGS FOR APPROPRIATE USE

The neodymium magnets used in the FDM-1ME appliance are contained inside a steel cylinder, conveniently sealed to prevent the magnets themselves from coming out. The magnetic cylinder assembly can, however, be a potential source of danger and the warnings below must be respected.

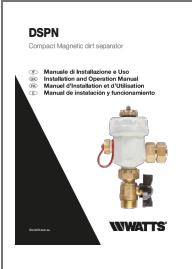
- **WARNING:** Electrical conductivity Magnets are made of metal and conduct electricity.
- **WARNING:** Pacemakers Magnets can influence the regular functioning of pacemakers and implanted defibrillators. If you have either of these devices, keep a safety distance of at least 30 cm from the magnets. Warn people who have these devices to stay away from the magnets.
- **WARNING:** Magnetic field Magnets generate an extended, powerful magnetic field. They can damage televisions and laptop computers, credit or debit cards, digital storage devices, mechanical clocks, hearing aids, speakers, and other devices. Keep the magnets away from all devices and objects that could be damaged by intense magnetic fields.
- **WARNING:** Airplane transport Magnetic fields generated by inappropriately packaged magnets can influence airplane navigation devices. Only ship the magnets by air in packaging equipped with sufficient magnetic shielding.
- **WARNING:** Postal shipping Magnetic fields generated by inappropriately packaged magnets can interfere with automatic sorting systems and damage goods in other packages. Use an ample-sized box and arrange the magnets in the middle of the package, surrounding them with packaging material. If necessary, use sheet metal to shield the magnetic field.
- **WARNING:** Effect on people According to current knowledge, the magnetic fields of permanent magnets have no measurable positive or negative effects on people. It is unlikely for the magnetic field of a permanent magnet to constitute harm to health but this risk cannot be entirely excluded. For safety, avoid prolonged contact with the magnets.
- **WARNING:** Heat resistance Neodymium magnets have a maximum operating temperature of 80°C. Most neodymium magnets permanently lose a part of their force of attraction at a temperature over 80°C. Do not use the magnets for applications other than the ones intended

Guarantee

Watts products are thoroughly tested. The said guarantee covers solely replacement or – at the full sole discretion of WATTS – repair, free of charge, of those components of the goods supplied which in the sole view of Watts present proven manufacturing defects. The period of limitation for claims based on defects and defects in title is two years from delivery/the passage of risk. This warranty excludes any damage due to normal product usage or friction and does not include any modified or unauthorized repair for which Watts will not accept any request for damage (either direct or indirect) compensation (for full details see our website). All sales are subject to the Watts terms to be found on www.wattsindustries.com. The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding. Watts Industries reserves the right to carry out any technical and design improvements to its products without prior notice.

Warranty: All sales and contracts for sale are expressly conditioned on the buyer's assent to Watts terms and conditions found on its website at www.wattsindustries.com Watts hereby objects to any term, different from or additional to Watts terms, contained in any buyer communication in any form, unless agreed to in a writing signed by an officer of Watts

Documents / Resources

 The image shows the front cover of the installation guide for the Watts DSPN Compact Magnetic Dirt Separator. It features a technical drawing of the device, which is a compact, cylindrical unit with various ports and a drain valve. The text on the cover includes the model name 'DSPN', the description 'Compact Magnetic dirt separator', and a list of languages for the manual: Italian ('Manuale di installazione e uso'), English ('Installation and Operation Manual'), French ('Manuel d'installation et d'utilisation'), and Spanish ('Manual de instalación y funcionamiento'). The Watts logo is visible in the bottom right corner.	<p>WATTS DSPN Series DSP034WN Compact Magnetic Dirt Separator [pdf] Installation Guide DSPN Series, DSP034WN, Compact Magnetic Dirt Separator, DSPN Series DSP034WN Compact Magnetic Dirt Separator</p>
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References

- [W WATTS EUROPE](#)
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Manuals+.