



**SPEAR &
JACKSON**

BoilerMag^{XT}

Industrial Heating System Protection



**Installation and
servicing instructions**



www.boilermag.com

BoilermagXT Heating & Cooling System Filter



Thank you for choosing BoilermagXT, please follow the instructions carefully to ensure that this BoilermagXT magnetic filtration system is fitted and maintained correctly.

By completing and returning the guarantee card in the pack you qualify for a 10 year warranty against manufacturing defects. Failure to follow these instructions will invalidate the warranty.



BoilermagXT is a magnetic filtration system for heating systems in larger premises such as industrial, commercial and municipal buildings. For other applications always consult the manufacturer before installing.



This product contains strong magnets. Care and attention should be taken at all times during installation and servicing. Do not place the magnetic cores on any ferrous surfaces or near ferrous objects.



Suitable personal protective equipment should be used during all installation and servicing.



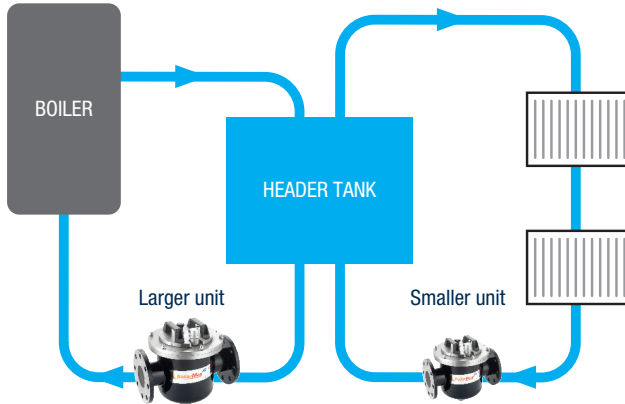
BoilermagXT must be installed by a qualified person in accordance with all relevant current regulations.

Guide to Installation



Ensure the heating system is isolated prior to carrying out installation or maintenance work.

Where to Install



BoilermagXT is typically installed on the return circuit as close to the boiler as possible. On larger systems, such as the one shown, smaller BoilermagXT units may be installed elsewhere to give extra protection for radiators and pipework.

Please also ensure that the BoilermagXT is located in a position which gives adequate access above to lift out the magnets during servicing and maintenance. Also access is required to the underneath of the unit to connect a hose or hold a bucket during draining.

Venting Options

The BoilermagXT unit is fitted with a manual vent, however, an additional Automatic Air Vent has been packaged along with unit separately. The auto-vent will automatically release the trapped air maintaining heating efficiency.

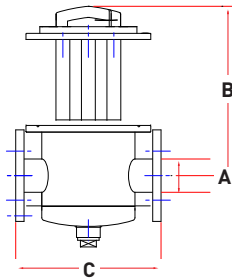
Please note: If using the Automatic Air Vent, operating pressure is reduced to 10 bar and maximum temperature to 110°C respectively.

Please find enclosed the installation instructions for the Automatic Air Vent.

Installing BoilermagXT

1. Identify a suitable location (see 'Where to Install' p3).
2. Ensure enough clearance to carry out cleaning as the rods must be lifted out of the unit to clean. See dimensions in column B in the table below.
3. Mark and then cut out the correct length of pipe section to be removed to accommodate the BoilermagXT unit and isolation valves. Ensure the cut is level and burr free. (Isolation valves are not included in the BoilermagXT pack.)
4. Install appropriate isolation valves to the pipework and fit the valves to the two PN16 flanges (see below for flange dimensions).
5. Position the BoilermagXT in place then align and secure the fittings to connect the unit to the valves.
6. Open the isolation valves and turn on the heating system
7. Complete the BoilermagXT warranty card and return to Spear & Jackson.
8. Run the heating system at normal operating temperature and check installation integrity.

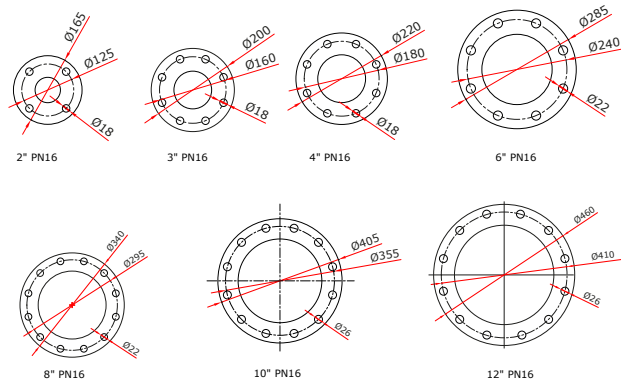
Installation details



Part No.	Inlet / outlet ØA	B	Flange spacing C
BMXT150/2/AAV	2"	305	260
BMXT200/3/AAV	3"	390	360
BMXT200/4/AAV	4"	390	360
BMXT300/6/AAV	6"	360	470
BMXT300/8/AAV	8"	400	525
BMXT400/10/AAV	10"	770	760
BMXT400/12/AAV	12"	820	760

all dimensions in mm unless stated

Flange details



Servicing & Maintenance Instructions

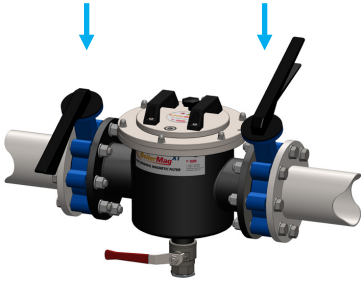


Cleaning and servicing must only be carried out by a qualified person in accordance with all relevant current regulations.

To maintain optimum efficiency we recommend cleaning annually. However when a BoilermagXT is fitted to an existing heating system we recommend more regular checks as it is likely there will be a large build-up of ferrous oxide (black sludge) to clear out.

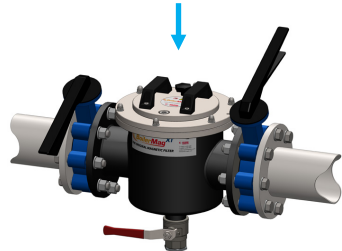
To service and maintain BoilermagXT follow the instructions below:

1



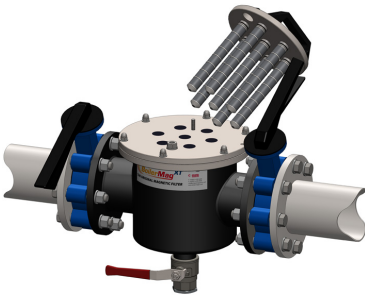
Isolate the heating system and close the isolation valves on either side of the BoilermagXT unit.

2



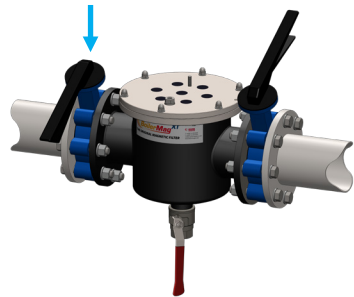
Remove the black tricone positioned on the lid.

3



Lift out the magnetic cores using the handle on top of the unit. *Warning see below*. Be careful not to place the cores on or near ferrous items.

4



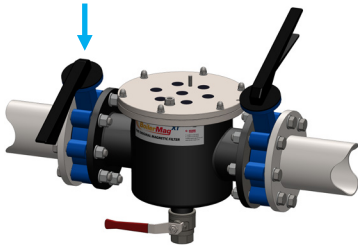
Either place a bucket underneath or connect a hose to the 1/4" drain valve on the underside of the BoilermagXT. Remove the drain plug and open the drain valve. Partially open the inlet isolation valve and allow the contents to drain through the drain valve.



For 8",10" and 12" BMXT units, the weight may exceed safe single person lifting limits. Please check and if required do as 2 persons or alternatively as a mechanical lift.

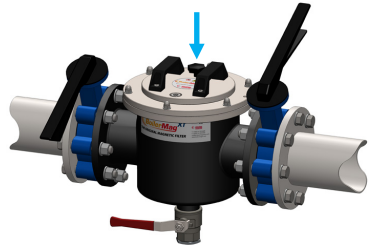
Servicing & Maintenance Instructions

5



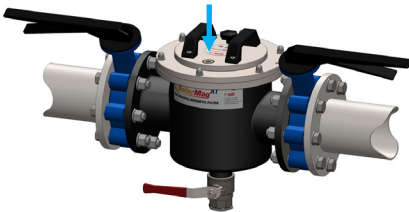
When the draining water runs clear turn off the inlet isolation valve and allow the remaining contents to drain. Close the drain valve and replace the plug.

6



Replace the magnetic core and hand tighten the black tricone to retain. Re-open both isolation valves.

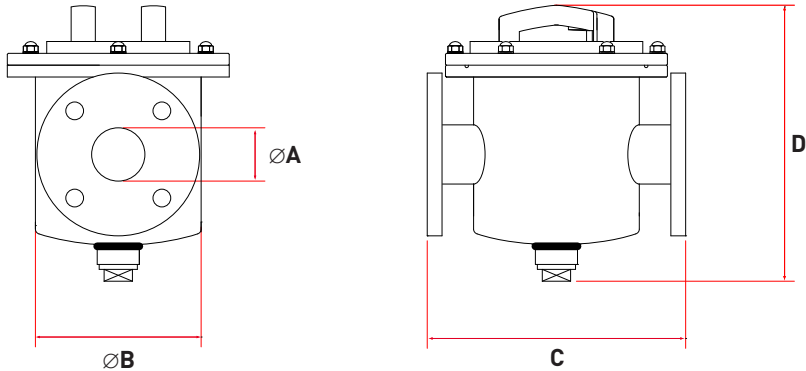
7



If required open the vent shown on the top of the unit to release any trapped air*.

*Automatic Air Vent option also available

Product data



Part No.	Inlet / Outlet Dia. A	Filter Dia. B	Flange spacing C	Height D	No. magnetic rods	Flow rate cubic metres/ hour	Flange type
BMXT150/2/AVV	2"/DN50	170mm	260mm	280mm	5	20	PN16
BMXT200/3/AVV	3"/DN80	220mm	360mm	335mm	7	55	PN16
BMXT200/4/AVV	4"/DN100	220mm	360mm	335mm	7	85	PN16
BMXT300/6/AVV	6"/DN150	325mm	470mm	420mm	9	110	PN16
BMXT300/8/AVV	8"/DN200	325mm	525mm	460mm	9	140	PN16
BMXT400/10/AVV	10"/DN250	406mm	760mm	600mm	16	220	PN16
BMXT400/12/AVV	12"/DN300	406mm	760mm	675mm	16	310	PN16

Performance

Magnetic performance	9,000 gauss high strength
Performance reading	on tube surface
Magnetic material	Rare earth neodymium iron boron (NdFeB)
Magnet grade	N42SH – inspected and confirmed by hysteresograph prior to use
Temperature	5° to 150°C (If using Automatic Air Vent option, the maximum temperature is 110°C)
Operating pressure	12 bar (If using Automatic Air Vent option, the operating pressure is 10 bar)
Drain Valve	1 1/4"

Materials

Housing	304 grade stainless steel
Magnet tube assembly	316 grade stainless steel – aerospace quality
Surface finish	Internal - bead blast External - powder coated, black
Sealing	Viton o-ring, brown
Options	High temperature samarium cobalt magnetic material +250° C
Warranty	10 years

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BoilerMag
Domestic Filter
(22mm/28mm)



1½" connections



Testing Kits and
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