Core values, quality products

STAINLESS STEEL SIDE STREAM MAGNETIC FILTER

Technical Data Sheet

MADE IN BRITAIN

Product Overview:

The CORE Side Stream Filter has been designed to operate in the most arduous heating and cooling systems, complying with the latest BSRIA recommendations.

The high quality robust stainless steel vessel is designed to last and benefits from an 'Easy to Clean' centrally mounted high intensity rare earth magnetic rod.

Unlike other side-stream filters, the CORE Side Stream Filter requires no consumables (i.e. no replacement cartridges), saving money and eliminating the hassle of disposing of dirty cartridges, which aids not only the environment but also assists contractors and end users on their Net Zero journey.

The unit can remove damaging magnetic contamination, via the magnetic rod, and non-magnetic debris, via the reusable Stainless Steel mesh basket.

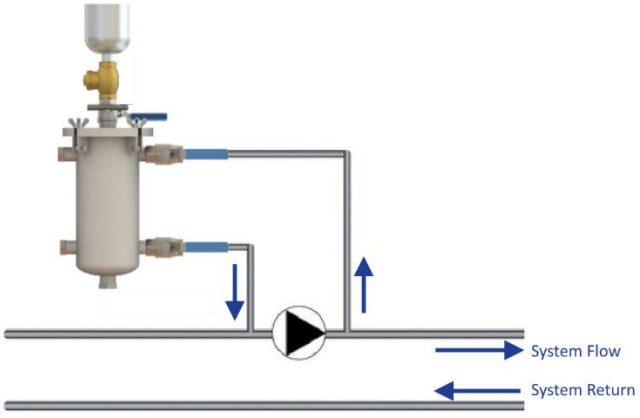
Anti-bacterial filtration is not required - simply follow good practice by adding suitable CORE chemicals to the system via the tundish.

Installation location:

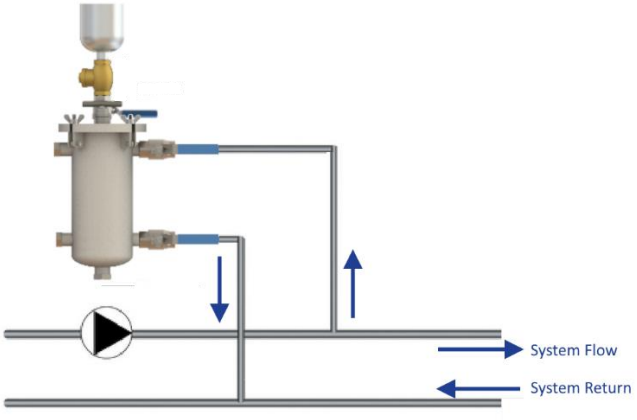
The CORE Side Stream Filter has two inlet connections on the upper half of the main body and two outlet connections on the lower half of the body (only one of each is used depending on flow direction).

Installation location on the system circuit is flexible, although it is recommended to be installed prior to the heat exchanger/boiler/cooler.

Please note, the BSRIA recommended installation circuit is highlighted below, avoiding system dead-legs.



BSRIA Compliant



NOT BSRIA Compliant (but still acceptable)

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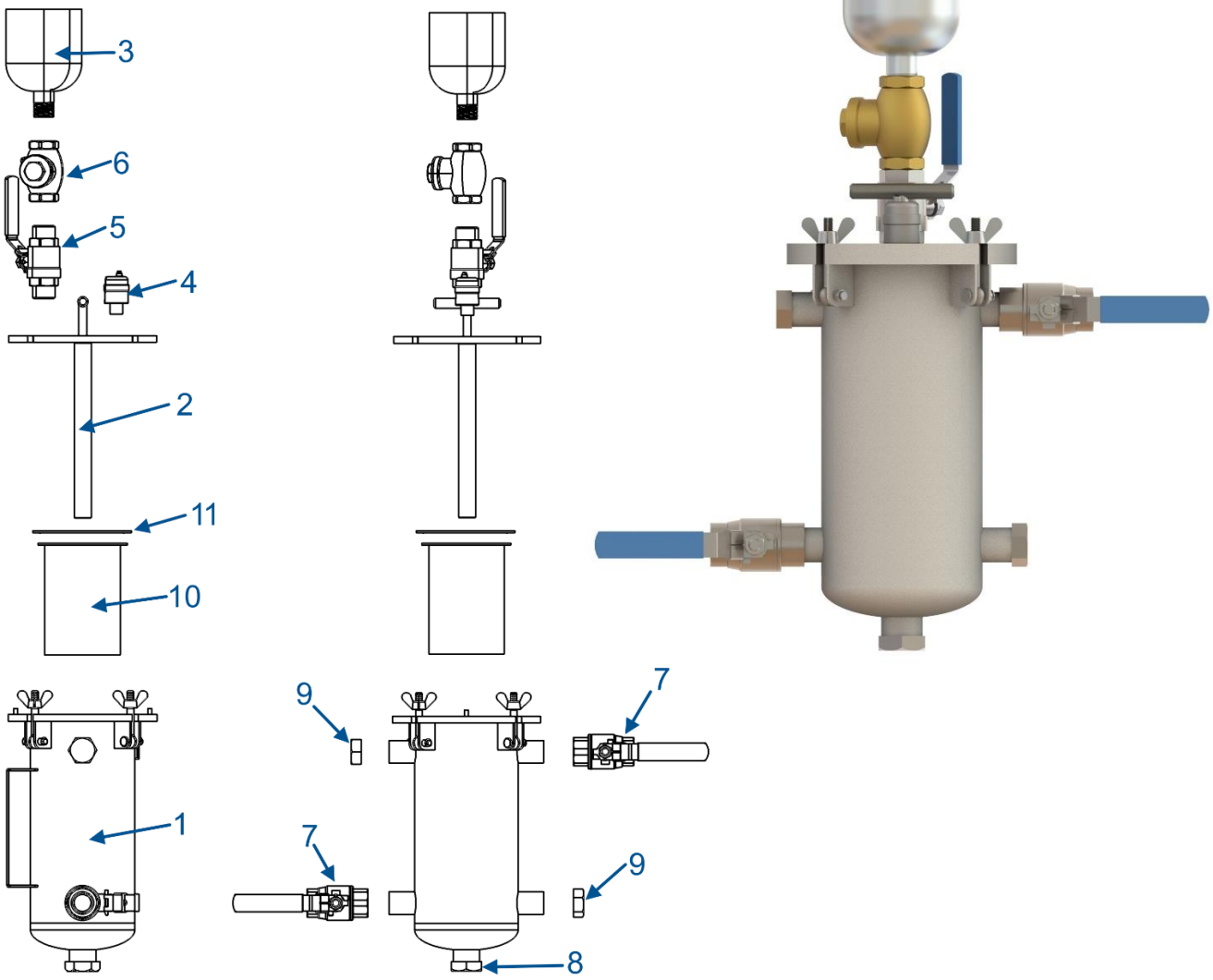
COMPONENTS:



Number	Part
1	*Stainless Steel Body*
2	*Magnetic Rod Assembly*
3	*Tundish (Dosing Pot)*
4	*Automatic Air Vent (AAV)*
5	*Ball Valve*
6	*Non-Return Valve (NRV)*
7	*Ball Valve*
8	*Drain Plug*
9	*Blanking Plug*
10	*Stainless Steel Mesh Basket*
11	*Seal*

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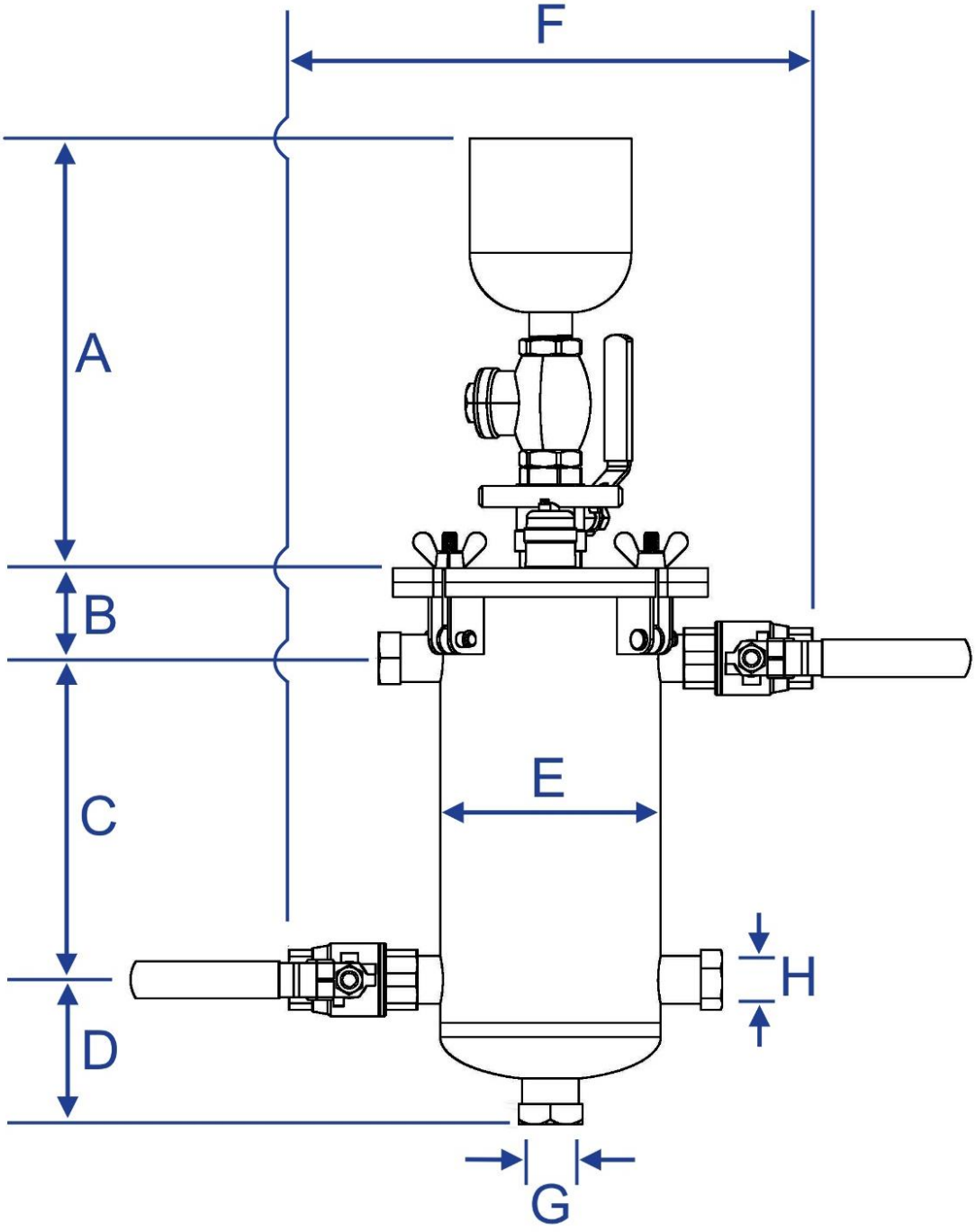
DIMENSIONS:



Dimensions							
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**
300.50mm	63mm	225mm	101mm	154mm	366mm	1” inch	1” inch (x4 off)

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SPECIFICATIONS:

Manufacturing Location	United Kingdom
Body Material	Stainless Steel 304
Inlet and Outlet Pipe	1” inch
Automatic Air Vent	Yes
Operational Mode	Side Stream
Install Orientation	Vertical
Magnet Type	Single ‘Easy to Clean’ Rod
Magnet in Contact with Fluid	Yes
Maximum Flow Rate	100 litres/minute
Maximum Operating Pressure	6 Bar
Low Pressure Drop Design	Yes
Maximum Operating Temperature	+90°C (+194°F)
Minimum Operating Temperature	-20°C (-4°F)
Non-Ferrous Filtration	Yes
Non-Ferrous Filtration Method	Reuseable Stainless Steel Mesh
Chemical Dosing Tundish (Dosing Pot)	Yes
Non-return Valve for Tundish (Dosing Pot)	Yes
Isolation Valves	Yes
Drain Plug	Yes
Maximum Capture on Magnet	1815 grams
Cleaning Method	Wipe Rod Clean – ‘Easy to Clean’
Filter Cartridge Required	No
Warranty	10 Years

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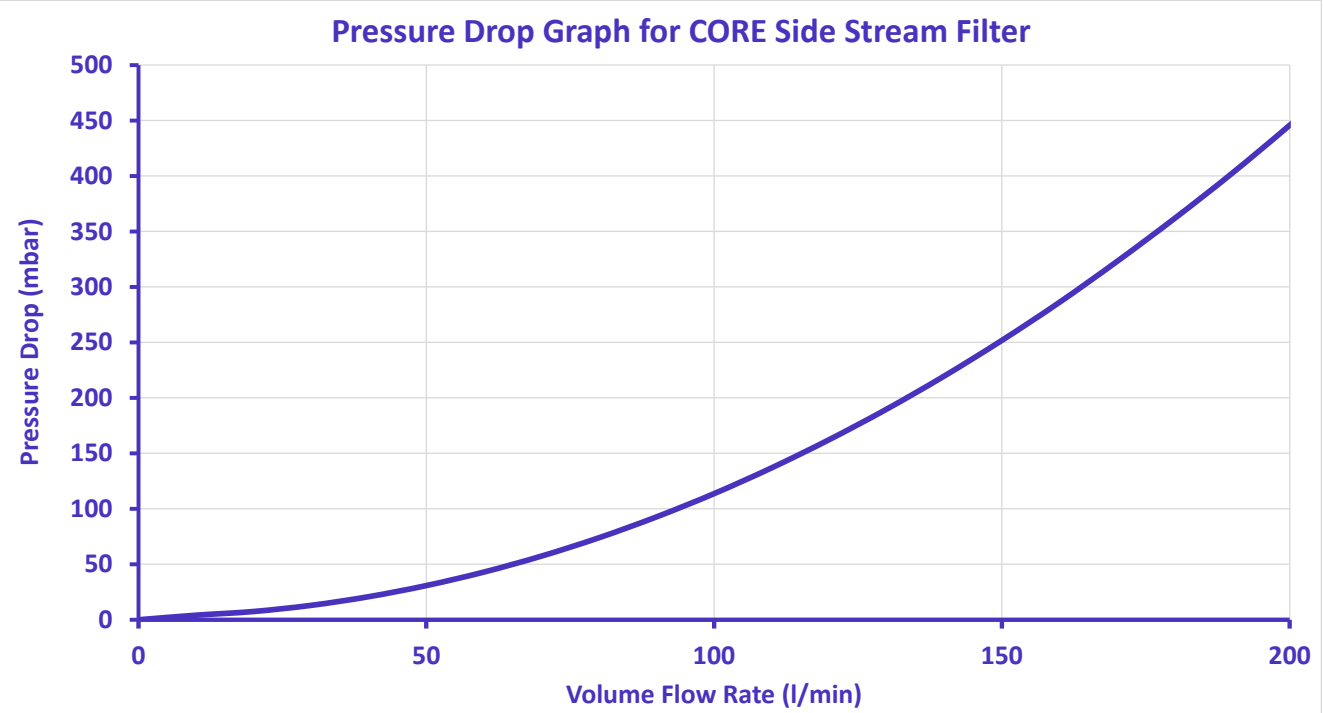
PRESSURE DROP CURVE:



Q&A:

What size system does this work with?

- This can be used on any sized system. Larger volume systems take longer for the filter to process. Simply add the required chemicals such as biocide, inhibitor, etc to suit the volume of the system.

How quick is this to assemble?

- Assembly time is minimal – there are very few parts to assemble. Maintenance is equally quick.

How many inlets and outlets are there?

- There are two inlet pipe positions in the upper half of the Filter and two outlet pipe positions in the lower half of the Filter. Flow should enter an upper inlet and leave by a lower outlet (the bottom outlet is only a drain port to be used during cleaning/maintenance) – simply choose the pipe position that suits your application and fit the blanking plugs to the unused inlet/outlet ports.

Does this unit require a Filter Cartridge?

- No. The stainless steel mesh filter captures non-ferrous debris, and the powerful magnetic filter captures ferrous debris. There is no need for consumables (filter cartridges), reducing landfill and cost.

Do I need an additional Pressure Gauge?

- No. Because there is no internal cartridge that could restrict flow which can result in additional pressure drops.

Does this have a large pressure drop when in use?

- No. The design allows for a low pressure drop even whilst capturing contamination.

Can I add chemicals (biocide, inhibitor, etc) without having to turn the system off?

- Yes. The filter is supplied with a tundish (dosing pot) and non-return valve.

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DOSING ADVICE FOR ALL CHEMICALS (EXCEPT GLYCOL):

Systems should be commissioned, regularly treated and maintained/cleaned in accordance with BSRIA BG 29/2021 and BSRIA BG 50/2021. For dosing amounts, please use the below guidance calculations:

1. Take the combined kW output of the Boilers/Chillers.

2. For a heating system, multiply the kW output by 12 to give an estimated system volume in litres, then multiply by 0.40%.
   e.g. for a 500kW heating system: Multiply 500 x 12 = 6,000 litres
   then multiply by 0.40% = 24
   ADD 24 litres of CORE Inhibitor

3. For a chilled/cooling system, multiply the kW output by 15 to give an estimated system volume in litres, then multiply by 0.40%.
   e.g. for a 250kW chilled system: Multiply 250 x 15 = 3,750 litres
   then multiply by 0.40% = 15
   ADD 15 litres of CORE Inhibitor

Contact your nearest SBS branch for Glycol dosage information