



CORE[®]

Core values, quality products



Water Treatment



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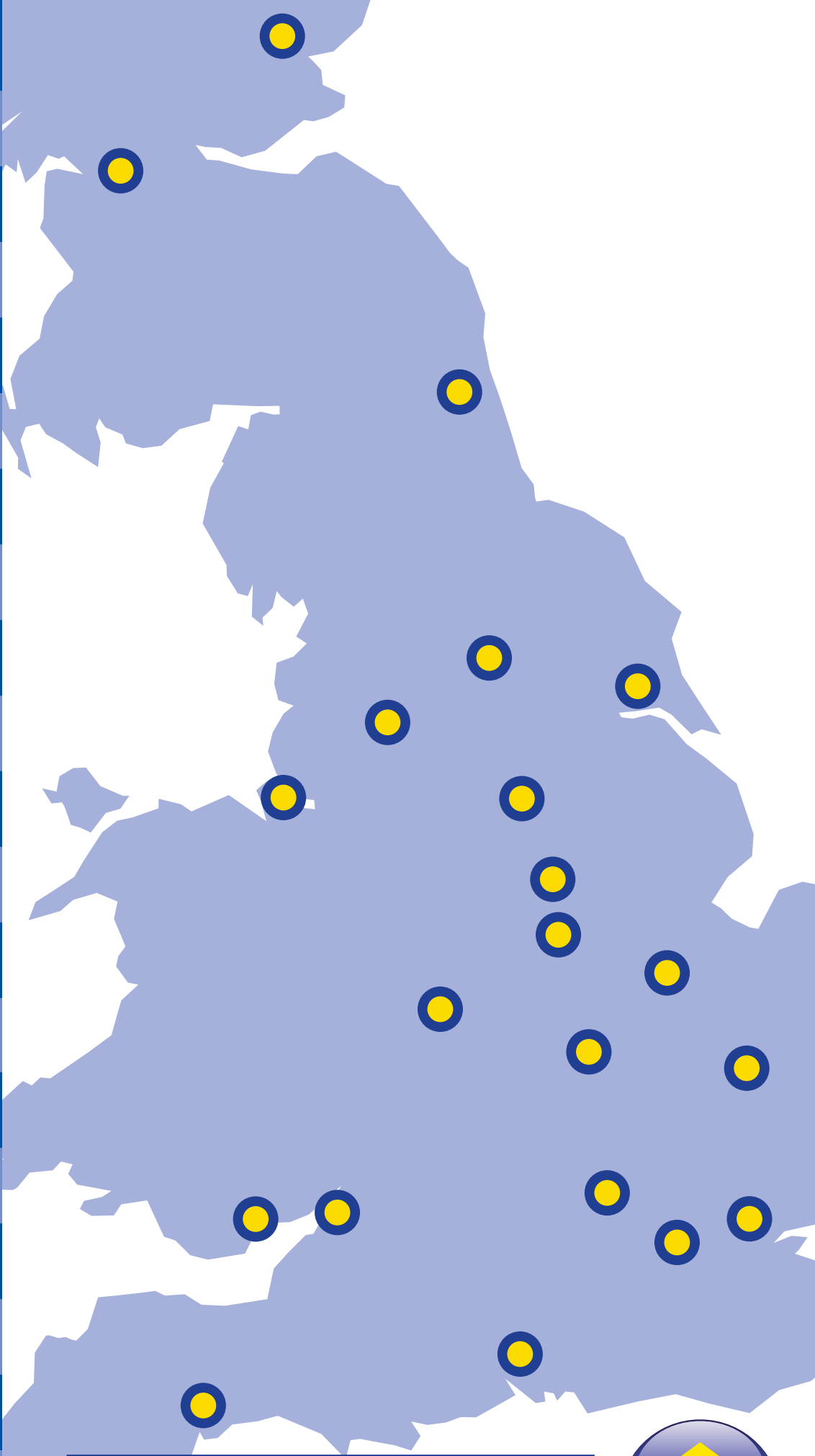
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CORE products are available via our distribution partner



Welcome to the **CORE** Water Treatment brochure, which offers advanced water treatment solutions designed to meet all hygiene, cleaning & protection needs for commercial heating & chilled systems.

All **CORE** high-performance chemical formulations are designed to increase system performance whilst reducing maintenance, running costs, energy consumption, water wastage and carbon emissions. The range also includes air & dirt separators, stainless steel dosing pots and a side stream filter.

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Disclaimer: The information within this brochure is believed to be correct at the time of publication; however, the literature is for guideline use only. For complete accuracy, always check the product with a CORE representative. Missing information was either not available or disclosed. It is your responsibility that any product meets the necessary requirements. Any reliance placed upon this information will be totally at the user's risk.

CONFIDENCE

Have total confidence that when Smith Brothers put their name on a **CORE** product, it offers true quality and value that only comes with over 125 years of expertise.

OPPORTUNITY

Value engineer projects without compromising on quality; **CORE** offers excellent opportunities for our customers.

RELIABILITY

With every product fully audited and traceable back to source, reliability is part and parcel of **CORE's** DNA.

EFFICIENCY

Product performance in application with minimal wastage ensures **CORE** offers genuine efficiency.

Core values, quality products

Customers

CORE offers customers a competitively priced, trusted alternative to other branded products across various HVAC categories. With Smith Brothers' ethos of Service and Value (since 1897) applied to every business area, including **CORE**, customers can rely on its quality, regardless of application.

Staff

Whether customer contact occurs at the trade counter, with internal sales or through external sales managers, all staff understand the preferred product choice for our customers. With dedicated staff members employed to ensure product quality with thorough auditing and monitoring systems, SBS staff can trust **CORE** products will service their customers with the utmost confidence.

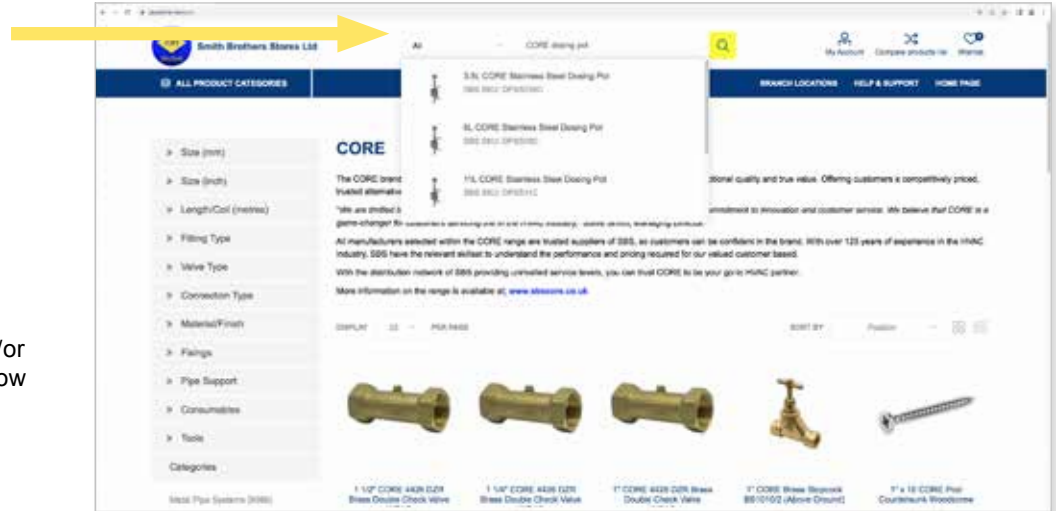
Suppliers

The manufacturers selected within the **CORE** range commit to Smith Brothers that they have trust in their products and are invested in growing market share, while continuing to develop their product at every opportunity. Through constant 360-degree feedback and appraisal, product quality and relationships will strengthen over time.

For stock and technical information for each product, our distribution partner houses all this information online at www.sbsonline.net. There are a number of ways to find the information explained below:

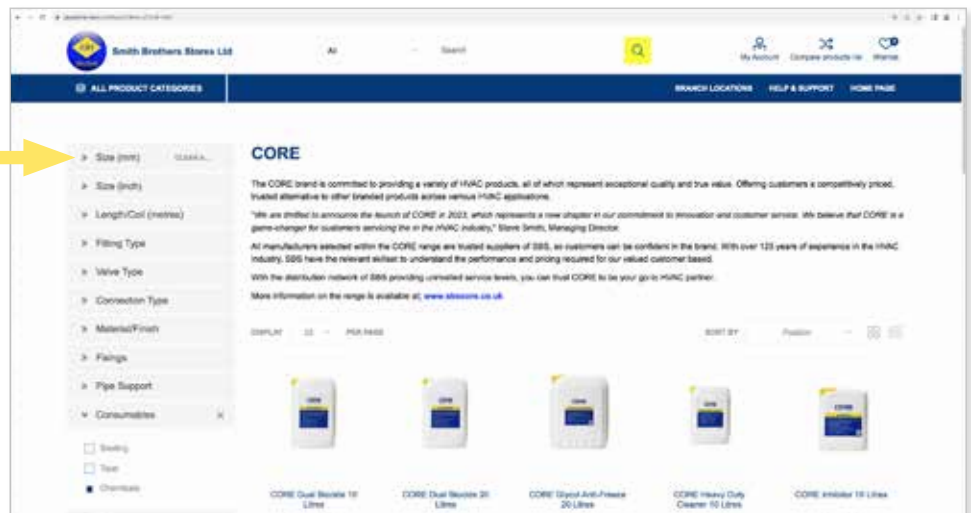
Search Bar

Type the product code or product description into the search bar and click into the relevant product.



Advanced Search

This feature allows users to search generic terms but only CORE as a manufacturer, and/or a certain category to help narrow down search further.

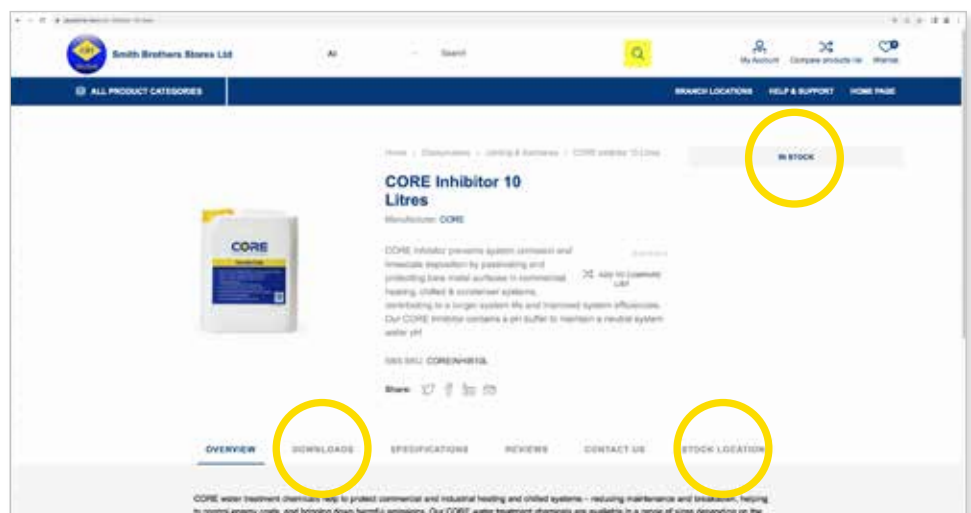


View the full range and filter www.sbsonline.net/CORE

Visit the URL to view every single product within the range; once on this page, customers can use the left hand side filters to locate their desired product.

See stocking information

Once the user has located and clicked within the relevant product, the next screen gives both companywide (top right) and individual stocking location (bottom right).



See technical documents

Within the downloads tab, customers can view, print and download technical product information like data sheets.

Fast and accurate testing of inhibitor concentration

The CORE Inhibitor Quick Test Kit delivers fast and accurate testing of inhibitor concentration within commercial heating and chilled systems. After taking a system water sample, the test strips only need to be dipped in the sample for a second, prior to revealing the results after just ten seconds.

- Fast and accurate testing of CORE inhibitor levels in heating and chilled systems
- On-site results within 10 seconds
- Colour scale included on bottle
- Contains 50 test strips



CORE Inhibitor Quick Test Kits

Size	Product Code
50 Strips	COREINHIBQTS

Inhibitor Dosage Calculator

Dosing advice for all chemicals (except Glycol)

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 x 0.40% = 24. Therefore, **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 x 0.40% = 15. Therefore, **ADD 15 litres** of CORE Inhibitor.*

The concentration of CORE Glycol Anti-Freeze can be adjusted for lower levels of freeze protection, reducing the freezing point of water in direct proportion to its concentration within the system:

- 25% concentration provides protection down to -11°C
 - 2.5L of Glycol Anti-Freeze & 7.5L of water for every 10L of system water
- 30% concentration provides protection down to -14°C
 - 3.0L of Glycol Anti-Freeze & 7.0L of water for every 10L of system water
- 35% concentration provides protection down to -17°C
 - 3.5L of Glycol Anti-Freeze & 6.5L of water for every 10L of system water
- 40% concentration provides protection down to -22°C
 - 4.0L of Glycol Anti-Freeze & 6.0L of water for every 10L of system water

Please note: Minimum dose for full corrosion protection is 25% concentration

No need for system shutdown

Our CORE Dosing Pot is a high-quality stainless steel vessel which is fatigue resistant due to its design. The Pot fully complies with the latest BSRIA BG50/2021 recommendations regarding avoiding dead legs.

The unit is supplied with loose components, so connections can be fitted in an orientation best suited to the system.

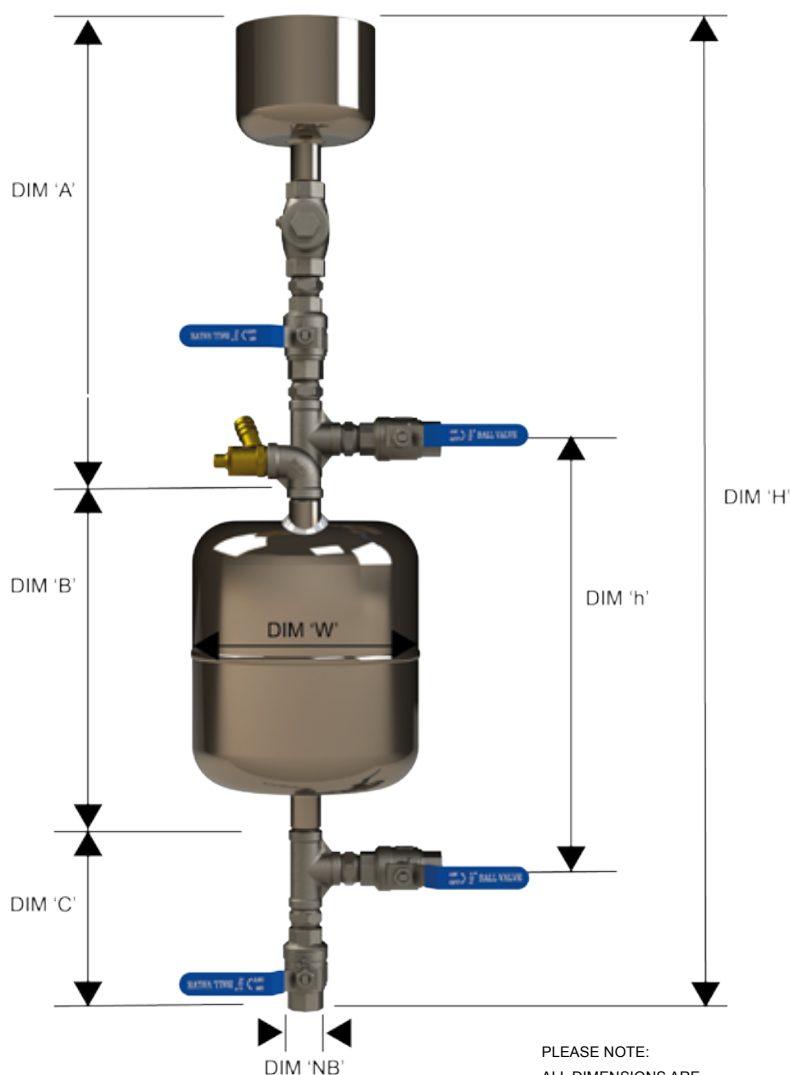
Sizing and Installation

Dosing pots are generally installed in closed systems to enable water treatments and other chemicals to be added to the system without the need to shut a system down, or part thereof.

The size of the dosing pot installed in a system is not critical as multiple doses of chemicals can be put into the system to reach the correct concentration.

The benefits of using a smaller unit are that it is easier to physically handle and also allows for more accurate dosing. However, the time on site for performing multiple doses has to be considered.

This factor should influence your decision when selecting dosing pots.



PLEASE NOTE:
ALL DIMENSIONS ARE
FOR GUIDANCE ONLY.

SIZE	Connection Size (NB)	DIM A	DIM B	DIM C	DIM W	DIM H	DIM h	Weight	Max Working Pressure
3.5L	1/2"	285mm	260mm	130mm	162mm	675mm	310mm	9kg	10 Bar
6L	1/2"	285mm	260mm	130mm	215mm	675mm	310mm	14kg	10 Bar
11L	1/2"	285mm	410mm	130mm	215mm	825mm	460mm	21kg	10 Bar
18L	1/2"	285mm	460mm	130mm	260mm	875mm	510mm	30kg	7 Bar
25L	1/2"	285mm	590mm	130mm	260mm	1005mm	640mm	40kg	7 Bar

CORE Stainless Steel Dosing Pot

Description

Product Code

CORE 3.5L Stainless Steel Dosing Pot

DPSS035C

CORE 6L Stainless Steel Dosing Pot

DPSS06C

CORE 11L Stainless Steel Dosing Pot

DPSS11C

CORE 18L Stainless Steel Dosing Pot

DPSS18C

CORE 25L Stainless Steel Dosing Pot

DPSS25C

Flanged Microbubble Air & Dirt Separator

For use in sealed heating and cooling systems. CORE Air & Dirt Separators protect against damage caused by the deposit of dirt particles, and large amounts of dissolved and undissolved air.

Advantages of using Air & Dirt Separators

Reduction in:

- Corrosion of pipe and fixings
- Dependence on chemicals
- Unwanted dirt build up in radiators, vessels & pipe

CORE Air & Dirt separators are essential when refurbishing older systems or when an open system is converted to a closed system.

Features include:

- Flanged connection EN 1092-1 PN16
- Extremely low flow resistance
- Flow Rate up to 1.5 m/s
- 5 Year Warranty

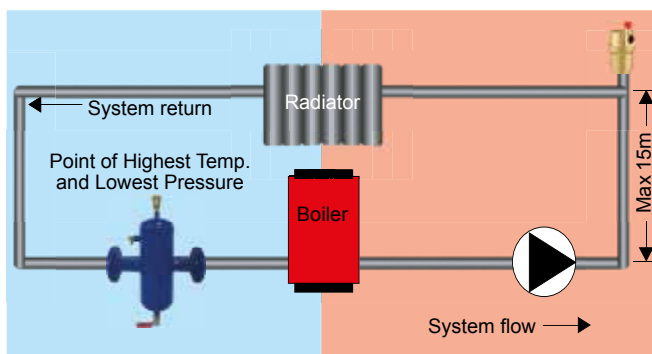
Specifications:

- Maximum working pressure: 10 bar
- Mild steel body with stainless steel filament internals
- Brass valves, automatic air vent & blow down valve
- Suitable for systems with a maximum flow temperature of 110°C
- Suitable for addition of glycol-based antifreeze up to 50%
- In accordance with Pressure Equipment Directive 2014/68/EU Cat SEP and Pressure Equipment (Safety) Regulations 2016

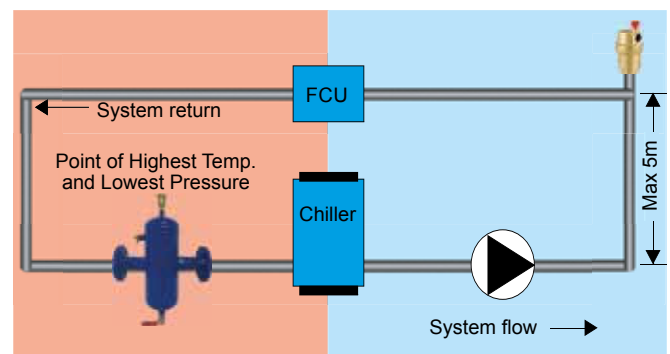


**CORE PN16
flange packs
now
available!**

System Set Up Hot Water



System Set Up Cold Water



CORE Air and Dirt Separators

Description

Product Code

CORE 50nb Combined Air & Dirt Separator PN16	CAD050C
CORE 65nb Combined Air & Dirt Separator PN16	CAD065C
CORE 80nb Combined Air & Dirt Separator PN16	CAD080C
CORE 100nb Combined Air & Dirt Separator PN16	CAD100C
CORE 125nb Combined Air & Dirt Separator PN16	CAD125C
CORE 150nb Combined Air & Dirt Separator PN16	CAD150C
CORE 200nb Combined Air & Dirt Separator PN16	CAD200C

Pipe Size	Length L	Body Dia D	Height H	Flange	Weight (Empty)
50mm	430mm	168mm	600mm	PN16	20kg
65mm	430mm	168mm	600mm	PN16	22kg
80mm	490mm	220mm	800mm	PN16	35kg
100mm	490mm	220mm	800mm	PN16	40kg
125mm	630mm	325mm	970mm	PN16	65kg
150mm	630mm	325mm	970mm	PN16	100kg

Stainless 'Easy Clean' Side Stream Filter

The filter unit is suitable for water applications requiring a side stream filtration unit, which removes dirt and debris from the system, maintaining system performance. The unit has a low pressure drop design and requires minimal assembly time, with the choice of inlet and outlet positions.

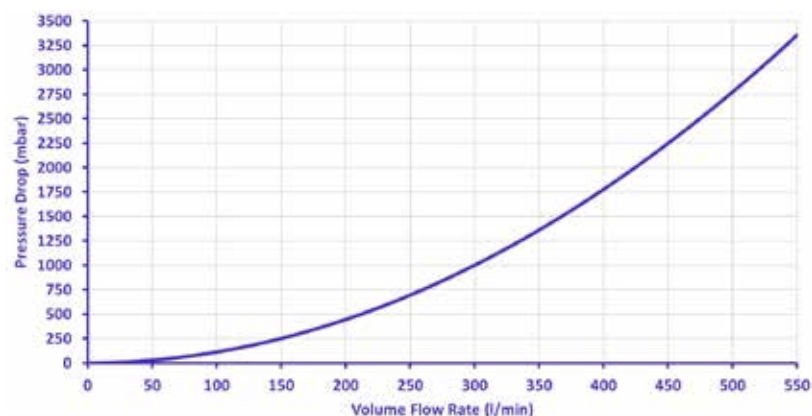
The unit benefits from a non-ferrous reusable stainless steel mesh filter, meaning no replacement filter cartridge costs are required post-purchase. The easy-to-assemble unit only contains 1 magnet, making it simple and easy to clean while still capturing passing ferrous contamination. **Anti-bacterial filtration is not required**, because simply adding CORE biocide to the system treats the entire system.

Features

Manufacturing Location	UK
Body Material	SS304
Inlet and Outlet Pipe	1"
Automatic Air Vent	✓
Operational Mode	Sidestream
Install Orientation	Vertical
Magnet Type	Single 'Easy Clean' Rod
Magnet In Contact With Fluid	✓
Maximum Flow Rate	100 l/min
Maximum System Volume	unlimited
Max Operating Pressure	6 Bar
Max Operating Temperature	90° C
Non-Ferrous Filtration	✓
Non-Ferrous Filtration Method	Reusable Stainless Steel Mesh
Tundish with Non-Return Valve	✓
Isolation Valves	✓
Additional Consumables Required	None
Drain Plug	✓
Warranty	10 Year
Maximum Capture On Magnet	1815g



Pressure Drop Curve



Inhibitor



Leading corrosion protection

CORE Inhibitor prevents system corrosion and limescale deposition by passivating and protecting bare metal surfaces in commercial heating, chilled & condenser systems, contributing to a longer system life and improved system efficiencies. Our CORE Inhibitor contains a pH buffer to maintain a neutral system water pH.

- High performance heating, chilled & condenser system protection
- Prevents system corrosion & limescale deposition
- Helps to increase & maintain system efficiencies
- Enhanced protection in hard & soft water areas
- Concentrated formula: *Treats system volume at 0.4% dosage rate – 10L treats 2,500L*
- Compatible with all common system metals & materials
- Helps to reduce CO₂ emissions
- Environmentally friendly, non-toxic formula



CORE Inhibitor

Size Product Code

5L COREINHIB5L

10L COREINHIB10L

20L COREINHIB20L

1000L COREINHIB1000L

Dual Biocide

High performance biocide and fungicide

CORE Dual Biocide has been specifically designed to prevent the formation & growth of bacterial contamination, algae & micro-organisms in commercial heating, underfloor heating, low temperature & chilled systems. CORE Dual Biocide contains two, separate active ingredients, making it more effective than a single biocidal treatment.

- Concentrated dual biocide for heating, chilled & condenser systems
- Prevents the formation & growth of bacterial contamination
- Effective against Legionella, Pseudomonas, NRB & SRB bacteria
- Kills fungi & algae
- Compatible with all common system metals & materials
- Non-corrosive, concentrated formula
- Concentrated formula: *Treats system volume at 0.4% dosage rate – 10L treats 2,500L*
- Effective up to 60°C
- Compatible with all CORE range chemicals



CORE Dual Biocide

Size Product Code

10L COREDUALBIOCIDE10L

20L COREDUALBIOCIDE20L

Leave-in Cleaner

No drain, no flush formula

CORE Leave-In Cleaner has been specifically designed to lift & mobilise magnetic & non-magnetic system contaminants (including biofilms), helping to promote their capture via a magnetic & non-magnetic system filter which must be present on any system that this product is used to dose.

CORE Leave-In Cleaner can remain in the system, with no need to drain & flush after treatment.

- High performance heating, chilled & condenser system protection
- Prevents system corrosion & limescale deposition
- Helps to increase & maintain system efficiencies
- Enhanced protection in hard & soft water areas
- Concentrated formula: *Treats system volume at 0.4% dosage rate – 10L treats 2,500L*
- Compatible with all common system metals & materials
- Helps to reduce CO₂ emissions
- Environmentally friendly, non-toxic formula



CORE Leave-in Cleaner

Size Product Code

10L CORECLEANER10L

20L CORECLEANER20L

Heavy-Duty Cleaner

Advanced, high strength chemical cleaner

CORE Heavy-Duty Cleaner has been specifically designed for the rapid cleaning of all heating, chilled and condenser systems, removing system sludge, debris and scale. CORE Heavy-Duty Cleaner can be left in the system for up to 7 days only. The system should then be thoroughly drained & flushed before refilling with clean system water. Immediate dosing of CORE INHIBITOR should then be carried out to fully protect the system.

- Heavy-duty cleaner for heating, chilled & condenser systems
- Removes system sludge, debris & scale
- Helps restore system performance & efficiencies
- Starts to work as quickly as one hour after application
- Can be left in the system for up to 7 days
- Concentrated formula: *Treats system volume at 0.4% dosage rate – 10L treats 2,500L*
- Compatible with all CORE range chemicals



CORE Heavy Duty Cleaner

Size Product Code

10L COREHDCLEANER10L

System Cleaner

Rapid, powerful chemical cleaner

CORE System Cleaner has been specifically designed for cleaning new & existing heating, chilled and condenser systems, removing system sludge, debris and scale. For maximum flexibility, CORE System Cleaner can be left in the system for up to 28 days. The system should then be thoroughly drained and flushed before refilling with clean system water. Immediate dosing of CORE INHIBITOR should then be carried out to fully protect the system.

- Powerful cleaner for heating, chilled & condenser systems
- Removes system debris, scale, flux & oils
- Helps restore system performance & efficiencies
- Includes CORE INHIBITOR protection to protect bare metal surfaces during cleaning
- Can be left in the system for up to 28 days
- Concentrated formula: *Treats system volume at 0.4% dosage rate – 10L treats 2,500L*
- Compatible with all CORE range chemicals
- Helps to reduce CO₂ emissions
- Environmentally friendly, non-toxic formula



CORE System Cleaner

Size	Product Code
10L	CORESUSCLEANER10L

Glycol Anti-Freeze



High performance anti-freeze and protector

CORE Glycol Anti-Freeze is a monopropylene, glycol-based antifreeze, designed to prevent freezing in all types of water which incorporates our CORE INHIBITOR, helping to protect underfloor heating systems, chillers, boilers and their associated chilling & heating systems against corrosion & scale formation and maximising the heat transfer properties of the system. CORE Glycol Anti-Freeze offers protection down to -22°C at 40% concentration.

- Monopropylene Glycol Anti-Freeze for chilled & condenser systems
- Low toxicity, food & beverage grade glycol
- Includes CORE INHIBITOR protection to help protect against corrosion & limescale formation
- Helps to increase & maintain system performance & efficiencies
- Concentrated formula
- Compatible with all common system metals & materials
- Protection down to -22°C at 40% concentration
- Helps to reduce CO₂ emissions
- Environmentally friendly, non-toxic formula



CORE Glycol Anti-Freeze

Size	Product Code
20L	COREGLYCOL20L

During the sales journey, Smith Brothers aims to provide the installer with all the service and support they require on every CORE product, making the purchasing journey easier than ever. While our objective is to give all the resources available pre-sale, we understand aftersales care is just as important, which is why CORE and SBS are integrated throughout their processes.

Support

Information



Technical documents published online viewable 24/7
sbscore.co.uk/technical-documents

Product codes provided to make it easy to order with SBS

Product selectors to help choose correct product within the range

Aftersales



SBS have ISO 9001 approved product failure reporting
As CORE is exclusive to Smith Brothers, it means any product issues experienced will be fully investigated and promptly resolved

CORE & SBS are integrated throughout their operation:
Personnel from both CORE and SBS can perform on-site visits to resolve any issues, or provide additional support if required








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Up-to-date**



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