



# MagnaClean<sup>TM</sup>

CMX

## Nano Filter & External Magnetic Jacket

### Product Specification



# MagnaClean CMX Nano<sup>®</sup> & External Magnetic Jacket

## Accelerated magnetite capture

The *MagnaClean CMX* range of 316L stainless steel filters deliver market leading, adaptive water system filtration, offering a completely flexible and bespoke approach to addressing the needs of commercial and industrial heating and chilled water systems. The range fully supports the intent of BSRIA guides BG29/2021 and BG 50/2013 guidance for closed heating and cooling systems for products providing sidestream filtration and chemical dosing capabilities.

The *MagnaClean CMX Nano* sidestream filter has been carefully designed and scaled to work within commercial heating and chilled systems up to 43,200 litres in size. Weighing in at less than 3kg and with a space envelope of just 0.004m<sup>3</sup>, the *CMX Nano*<sup>™</sup> filter is a truly compact and flexible plant room solution, offering powerful magnetic and non-magnetic filtration performance.

Whilst commercial heating and chilled systems may contain a multitude of system debris types, ADEY considers magnetite to be one of the most dangerous and damaging to a commercial system, and it is this belief that led to the development of our innovative, external magnetic jacket accessory for the *CMX Nano* filter, designed to accelerate the capture of magnetic debris from heating and chilled systems.

The *MagnaClean CMX Nano* External Magnetic Jacket features 24 powerful neodymium magnets which work in tandem with the internal magnet array to remove as much damaging magnetite from a commercial system as quickly as possible. With the capacity to vastly accelerate the removal of magnetic debris from both heating and chilled systems, the combination of Nano filter and jacket represents what is possibly the most compact, yet powerful commercial system filter available today.

Made from expanded polypropylene, the external magnetic jacket also provides outstanding thermal insulation protection for the Nano filter, in addition to providing exceptionally high water and chemical resistance, high strength to weight ratio and 100% disassembly and recyclability at the end of its life.

ADEY's *MagnaClean CMX Nano* filter combined with its external magnetic jacket accessory is a highly flexible plant room solution, helping to deliver improved system performance, operational and environmental efficiencies and reduced maintenance and running costs by cleaning-up dirty commercial water systems as quickly as possible. This first-to-market innovation forms yet another essential part of ADEY's package of water management solutions and services for commercial heating and chilled water systems.



Product  
Innovation



Product  
Customisation



Accelerated  
Magnetite Capture



Improved  
Performance



Improved  
Efficiencies

# MagnaClean CMX Nano & External Magnetic Jacket

The *MagnaClean CMX Nano* filter can be fitted practically anywhere where powerful and directed filtration is required, especially in areas which prohibit larger filters being installed on a system. As well as being used to protect system pumps and boilers on primary heating circuits, its compact design provides immense flexibility; for example, to help clean-up large, multi-floor buildings by adding filters to the radiator systems on each level, providing focussed, powerful, floor-by-floor filtration.

The combined magnetic filtration and capture capability provided by the Nano filter and the external magnetic jacket creates an extremely powerful and flexible plant room solution for use across all commercial heating and chilled systems, all within a combined footprint of just 0.01m<sup>3</sup> and just 4.2kg in weight.



43,200 litre capacity



Up to 30 l/min flow rate



Accelerated Magnetite Capture



Improved Performance



Improved Efficiencies



10.0 Bar Max. Pressure



Min/Max. -10°C to +110°C

## Features & Benefits

- **Accelerated magnetite capture accessory**, designed to remove system magnetite as quickly as possible from dirty systems **when combined with the CMX Nano filter**
- **Powerful protection** for system pumps and boilers when installed **on the primary, (boiler) side** of a heating system; **compact enough to be placed on individual, secondary heating and chilled circuits**
- **A compact and lightweight, portable accessory** which can be moved from filter to filter and/or plant room to plant room, **more than doubling the capture capacity of magnetic debris within the filter**
- **Simple servicing & maintenance** – jacket can remain on the filter canister during servicing or can be easily removed via the upper and lower 3mm screw jacks
- **Dual-purpose solution** offering vastly **accelerated magnetite capture and thermal insulation**
- **Can be used in combination with the CMX Nano Pumped Sidestream** for total installation flexibility
- **Helps to improve system performance and efficiency and reduce maintenance and running costs**



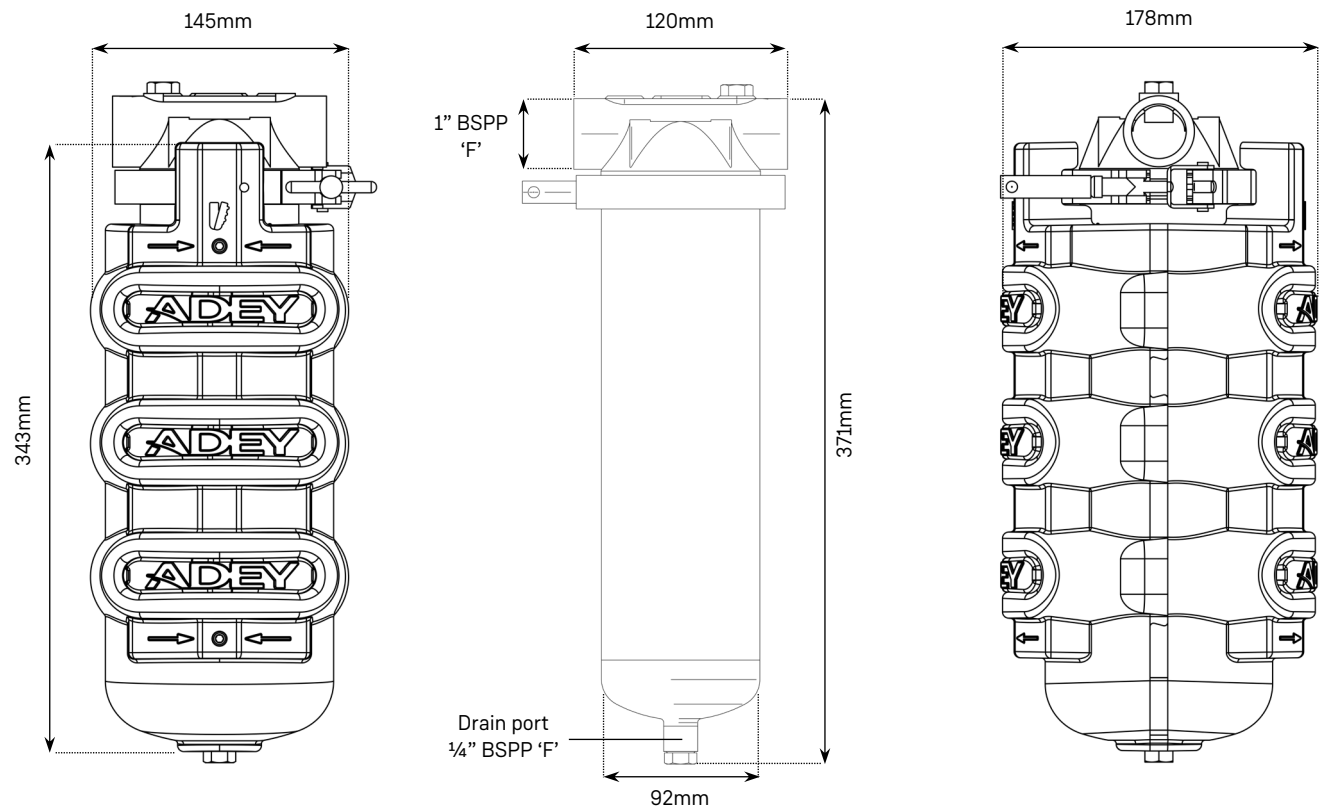
# MagnaClean™

CMX Nano



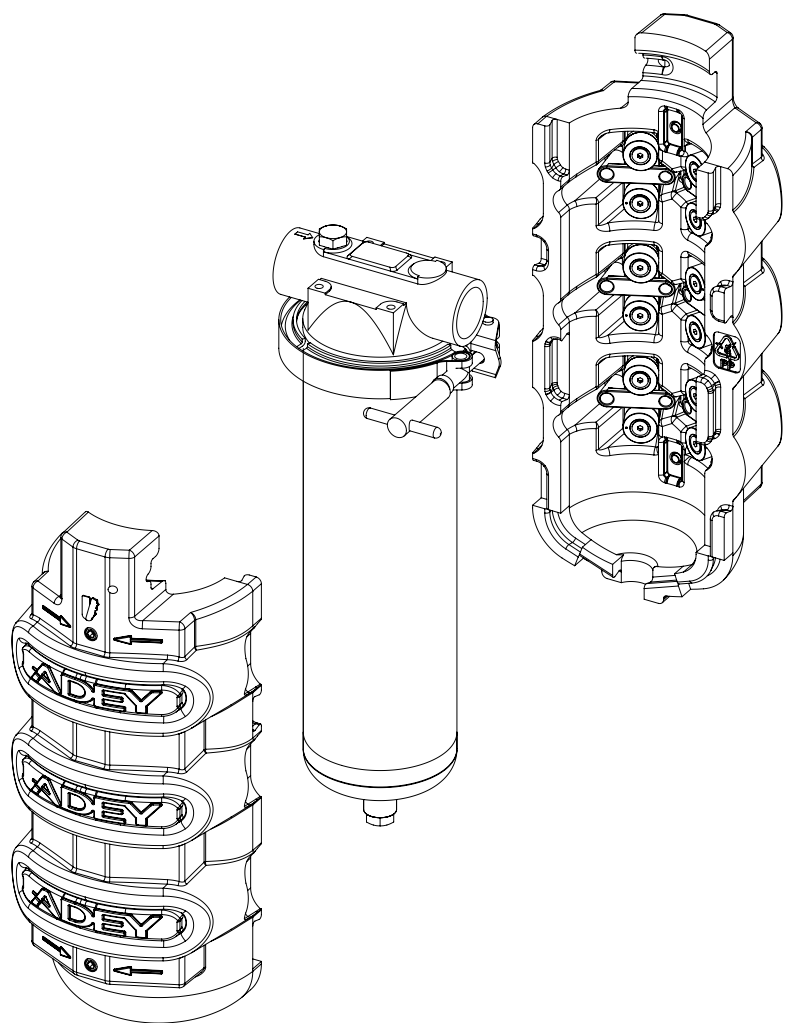
# MagnaClean™

CMX Nano



# Technical Specification

MagnaClean CMX Nano External Magnetic Jacket	
Product code	CP1-03-05667
General	
Guarantee	2 years
Product Assembly	Symmetrical, two-piece construction
Method of connection	Push-fit
Construction	
Material type	Expanded Polypropylene (EPP)
Magnet Specification	
Quantity	24
Type	Neodymium
Dimensions	20mm diameter x 10mm thick
Physical	
Width	145mm
Depth	178mm
Height	343mm
Weight	1.23 Kg



# External Jacket Material Specifications

Properties	Value	Unit	Directive/Standard
Material	Expanded Polypropylene	-	-
Colour	Anthracite	-	-
Weight	45-50	g/l or kg/m3	EN 1602
Application Temperature	Max. Temp: +110	°C	-
Thermal Conductivity +10°C	0.035	W/mK	EN 12667
Building Material Class	B2	-	DIN 4102
	E	-	DIN ISO 2768-1

## Material resistance to chemicals

Exposure Media 7 days immersion at 22°C; Key: 1 = No change; 2 = Slight swelling

- |                            |                                |                                  |
|----------------------------|--------------------------------|----------------------------------|
| • Petrol/Gasoline <b>2</b> | • Acetone <b>2</b>             | • 10% Sulfuric Acid <b>1</b>     |
| • Gas-Oil <b>2</b>         | • Ethyl-Alcohol <b>1</b>       | • 10% Nitric Acid <b>1</b>       |
| • Kerosene <b>2</b>        | • n- Heptane <b>2</b>          | • 10% Hydrochloric Acid <b>1</b> |
| • Mineral Oil <b>2</b>     | • Ethyl-Acetate <b>1</b>       | • 10% Sodium Hydroxide <b>1</b>  |
| • Toluene <b>2</b>         | • Methyl Ethyl Ketone <b>2</b> | • Ammonium Solution <b>1</b>     |

## BSRIA Compliance Guidelines

The *MagnaClean CMX* range meets the intent of BSRIA guides BG 29/2021 Pre-commission cleaning of pipework systems and BG 50/2013 Water treatment for closed heating and cooling systems, for products providing sidestream filtration and chemical dosing capabilities as referenced in the following sections of those guides and when installed in accordance with published guidelines:

- Sidestream filtration BG 29/2021; Section 2.3.8 and BG 50/2013; Section 2.4.2
- Chemical water treatment BG 29/2021; Section 2.3.8 and BG 50/2013; Section 2.4.3
- Corrosion monitoring technology and services BG 29/2021; Section 2.3.8

The additional features of the products are consistent with the descriptions in BG 50 including:

- Magnetic filtration BG 50/2013; Section 5.1.3
- Disposable media filters BG 50/2013; Section 5.1.5
- Passive deaeration BG 50/2013; Section 5.2.1

Our UKAS accredited service for chemical and microbiological analysis with state of the art testing facilities based in Sittingbourne, Slough and Manchester offer a 3-day turnaround on chemical testing as standard.

**ADEY Commercial offers a comprehensive range of partial and full-suite chemistry and microbiology testing** in order to meet the intent of BG29/2021 and BG50/2013 with regard to the management of commercial water treatment programmes, as described below:

- Connections between existing systems BG 29/2021; Section 8.2 – Water Sampling
- Management of the water treatment programme BG 50/2013; Sections 6.2 – 6.5





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