



Product brochure





Whether it's marketing leading filters or award-winning water treatment products, we design and manufacture effective solutions for protecting Europe's central heating systems.

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News and content

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ADEY BEST PRACTICE®

ADEY[®], the industry leaders in central heating system maintenance and water treatment, has developed a range of products to help you deliver effective system protection.

The ADEY Best Practice[®] approach promotes the Test, Clean, Protect, and Maintain process.

ADEY manufactures the largest range of magnetic filters available on the market. From the super compact *MagnaClean Atom2*[™], through to a full range of *MagnaClean Commercial*[®] filters specially designed for industrial applications, there is a size and design to suit all applications.

The *MagnaCleanse*[®] technology represents another breakthrough in central heating system protection. The unique and highly effective flushing system from ADEY transforms traditional power flushing, and when used with the range of ADEY *MC+*[™] water treatment products, it provides the complete system water treatment solution.

Developed by industry experts, ADEY's products and services help you to provide the most professional job, every time.



Test

Test and assess the system water quality.

Test and assess the quality of the heating system water with the $MC1+^{\circ}$ inhibitor quick test strips or send a water sample to our UKAS accredited laboratory.



Clean the system using treatment products and flushing to shift any build up in the system pipes, radiators and boiler.

Clean

ADEY[®] cleaners along with ADEY *MagnaCleanse RapidFlush*[®] removes damaging black iron oxide sludge, biofilms, flux residues, scale and other debris which would otherwise collect in the system and could lead to boiler breakdown, reduced efficiency and higher energy bills.





Protect

Protect the system with ADEY *MagnaClean* filters, accessories and treatment products.

ADEY's increased strength high performance *MC1+*[®] inhibitor protects against system corrosion and lime scale deposition, improve heating efficiency and boiler performance. Systems can be further protected from freezing with *MC Zero*[®] and low temperature systems should be treated with *MC10+*[®] Biocide.



Maintain

Provide continuous protection throughout the life of the system with annual servicing and re-dosing with treatment products protection.

Annual servicing and water testing promotes continual system protection.

For continued protection against breakdown inhibitor levels should be tested annually with ADEY's *MC1+* inhibitor quick test strips and topped up if required with ADEY's *MC1+* Protector, and the *MagnaClean* filter should be serviced annually also.



Domestic MagnaClean Filters

Magnetite is the number one contributor to heating system breakdowns which can be avoided through the installation of magnetic filtration products from ADEY.

Due to the incredibly small particle size of black iron oxide, truly effective filtration can only be achieved by using a strong magnetic core as the primary filtration method. This process will work regardless of the size of particles passing through the heating system. It's therefore no surprise that ADEY have sold over 5 million filters in the UK alone and are used by thousands of heating engineers and recommended by specifiers nationwide.

ADEY's range of market leading filters from MagnaClean Atom2 to MagnaClean Professional2XP specifically targets the removal of magnetite within heating systems. This product range provides ongoing protection and ensures high operational efficiency. The unique filter design allows for universal filtration of both magnetic and non-magnetic debris. Our filters are compatible with both radiators and underfloor heating systems, offering a complete solution to heating system protection.

ADEY recognises that heating engineers want to offer their customers quality products and peace of mind for their long-term investment. ADEY filters undergo the equivalent of more than 10 years accelerated life-cycle tests, which, together with a commitment to providing the highest quality components is why the XS-90 and Professional2 filters now come with a 10 year complete product warranty.



MagnaClean Atom2



MagnaClean Atom2[™] with flexi hose, the super flexible compact filter.

with Flexi Hose

MagnaClean Atom2's super compact, in-line design provides multiple installation options enabling greater flexibility, with or without the flexi hose.

Homeowner benefits

- 7% annual saving on heating bills*
- Immediate ongoing system protection
- Extended system life of up to 7 years
- Reduces CO₂ emissions by up to 250kg per year
- 10 year warranty

Installer benefits

- Bi-directional either port can be an inlet
- Can be installed even in the tightest of spaces. Can be installed with or without the flexi hose, enabling ultimate flexibility in installation
- Quick and simple installation
- · Easy access to air vent and drain valve for simple servicing
- Quick and easy chemical dosing using ADEY[®] Rapide[®]

Fit a filter every time

MagnaClean Atom2 should be fitted on the return pipe. Alternative sitings can be located when the return pipe is not available.

ADEY always recommends that a magnetic filter be installed on both new and existing systems to extend the operational life of the boiler as well as reduce maintenance call-outs and heating bills.



ADEY Best Practice essentials:

MC1+ Rapide Central Heating System PROTECTOR MC3+ Rapide Central Heating System CLEANER

Product code: 3/4 BSP : FL1-03-04748-EU







8

Maintain

Canister and threaded ring material : Glass reinforced polymer Fluid capacity : 290 ml Inlet diameter : ¾" BSP Outlet diameter : ¾"BSP Canister thread : Pressure thread Flow configuration : Bi-directional Valve to canister seal : EPDM

Length : 82.5 mm Diamètre : 20 mm

Drain plug material : Brass Drain plug thread : M8 (non standard) Seals: EPDM

Body material : Brass Screw : Brass Thread interface : M6

Material: Stainless Steel Retracted Length (straight): 79mm Connections: F 3/4" BSPP x M 3/4" BSPP

Air vent : 20mm Drain plug: 30mm

Packaged in single units with all components included

No special storage requirements necessary

Internal water operating temperature : 3°C to 95°C Internal operating water pressure : Up to 4.5 bar Maximum flow rate : 50L / min

Full installation instructions are supplied with each filter and are also available to download from adey.com



MagnaClean[™] Micro2



Compact in design, the *MagnaClean Micro2™* is a double action filter that targets the removal of magnetite in smaller central heating systems.

MagnaClean Micro2 delivers exceptional protection against the damaging effects of black iron oxide sludge and non-magnetic debris and is ideal for compact installations where space is limited.

Homeowner benefits

- 7% annual saving on heating bills*
- Immediate ongoing system protection
- Extended system life of up to 7 years
- Reduces CO₂ emissions by up to 250kg per year
- Filter size specifically designed for smaller heating systems
- 10 year warranty

Installer benefits

- High performance compact filter making it ideal for tight spaces
- In-line installation can be completed in just two minutes
- 360° rotational valves providing multiple installation options
- Bi-directional flow so either port can be an inlet for increased flexibility
- Ultra-thin sheath to enhance magnetic capture performance
- Low profile drain valve designed for easier servicing and dosing
- Twin reverse flow that maximises debris capture
- Improved sheath design for dual
 nonmagnetic capture
- Rapid fit connectors for faster servicing
- Quick fit connection for
 MagnaCleanse Kit

Technical specificat



Canister and lid



Fit a filter every time

MagnaClean Micro2 should be fitted in-line on the return pipe. Alternative sitings can be located when the return pipe is not available.

ADEY always recommends that a magnetic filter be installed on both new and existing systems to extend the operational life of the boiler as well as reduce maintenance call-outs and heating bills.

ADEY Best Practice essentials:

MC1+ Central Heating System PROTECTOR MC3+ Central Heating System CLEANER

Product codes: 1" thread: FL1-03-01689-EU Compression olive 22mm: FL1-03-01274-EU



ions

Canister and lid

Material: Glass reinforced nylon Fluid capacity: 250 ml Inlet diameter: 22 mm at valve Outlet diameter: 22 mm at valve Thread: Pressure thread Flow configuration: Bi-directional Main lid seal: EPDM Valve to canister: EPDM

Magnet

Housing: Stainless steel Length: 97.5 mm Diameter: 19 mm

Bleed valve

Body material: Nickel plated brass Screw: Nickel plated brass Thread interface: M6 Seals: EPDM

Drain port

Drain plug material: Nickel plated brass Drain plug thread: M8 Seals: EPDM

Triple seal joints

Body material: Nickel plated brass Seals material: Long life PTFE ball seals O ring material: EPDM 70 seals x3 Valve inlet/outlet: 22 mm

Servicing clearance

Air vent (top): 50 mm Drain Plug (bottom): 50 mm

More information

Max. working temperature: 95°C Max. working pressure: 6 bar Min. installation height: 191 mm Max. flow: 50 L/min (3 m³/h)

Full installation instructions are supplied with each filter and are also available to download from **adey.com**

Inlet/outlet valve

MagnaClean Professional2



Product codes: 1" thread: FL1-03-01688-EU Compression olive 22mm: CP1-03-00022-EU

It's no wonder the MagnaClean Professional2 is the UK's market leading magnetic filter due to its power and capacity to specifically target the removal of magnetite within central heating systems.

The unique design of the MagnaClean Professional2 maximises first pass capture, actively trapping any circulating debris therefore providing year-round protection for the whole system. MagnaClean *Professional2* is the first-choice filter for thousands of installers in Europe, delivering exceptional domestic central heating system protection.

Homeowner benefits

- 7% annual saving on heating bills*
- Immediate ongoing system protection
- Extended system life of up to 7 years
- Reduces CO, emissions by up to 250kg per year
- Filter size specifically designed for domestic heating systems
- 10 year warranty

Installer benefits

- In-line installation can be completed in just two minutes
- 360° rotational valves providing multiple installation options
- Bi-directional flow so either port can be an inlet for increased flexibility
- Ultra-thin sheath to enhance magnetic capture performance
- · Low profile drain valve designed for easier servicing and dosing
- Twin reverse flow that maximises debris capture
- · Improved sheath design for dual nonmagnetic capture
- Rapid fit connectors for faster servicing
- Quick fit connection for MagnaCleanse Kit

Fit a filter every time

MaanaClean Professional2 should be fitted in-line on the return pipe. Alternative sitings can be located when the return pipe is not available.

ADEY always recommends that a magnetic filter be installed on both new and existing systems to extend the operational life of the boiler as well as reduce maintenance call-outs and heating bills.

ADEY Best Practice essentials:

MC1+ Central Heating System PROTECTOR MC3+ Central Heating System CLEANER





Canister and lid



Protect

Maintain

Material: Glass reinforced nylon Fluid capacity: 550 ml Inlet diameter: 22 mm at valve Outlet diameter: 22 mm at valve Thread: Pressure thread Flow configuration: Bi-directional Main lid seal: EPDM Valve to canister: EPDM

Housing: Stainless steel Length: 150 mm Diameter: 19 mm

Body material: Nickel plated brass Screw: Nickel plated brass Thread interface: M6 Seals: EPDM

Drain plug material: Nickel plated brass Drain plug thread: M8 Seals: EPDM

Body material: Nickel plated brass Seals material: Long life PTFE ball seals **O ring material:** EPDM 70 seals x3 Valve inlet/outlet: 22 mm

Air vent (top): 50 mm Drain Plug (bottom): 50 mm

Max. working temperature: 95°C Max. working pressure: 6 bar Min. installation height: 244 mm Max. flow: 50 L/min (3 m³/h)

Full installation instructions are supplied with each filter and are also available to download from adey.com

MagnaClean[™] Professional**2XP**



MagnaClean Professional2XP has a larger filter capacity to remove greater volumes of magnetite and is the perfect solution for larger central heating systems.

MagnaClean Professional2XP delivers protection against the damaging effects of black iron oxide sludge and non-magnetic debris. Unlike other filters, it features; specially designed 28mm valves, ultrathin sheath, dual capture chambers, larger canister and sludge capacity, enabling it to capture and remove greater volumes of debris produced by larger systems with more radiators.

• 7% annual saving on heating bills*

Homeowner benefits

- Immediate ongoing system protection
- Extended system life of up to 7 years
- Reduces CO, emissions by up to 250kg per year
- Filter size specifically designed for larger domestic heating systems
- 10 year warranty

Product codes:

1" thread: FL1-03-01690-EU

Fit a filter every time

Installer benefits

Greater filter capacity

installation options

capture performance

• Quick fit connection for

MagnaCleanse Kit

• Designed for larger heating systems

• 360° rotational valves providing multiple

• Bi-directional flow so either port can be

• Ultra-thin sheath to enhance magnetic

· Rapid fit connectors for faster servicing

· Low profile drain valve designed for

easier servicing and dosing

• Improved sheath design for dual non-magnetic capture

an inlet for increased flexibility

MagnaClean Professional2XP should be fitted in-line on the return pipe. Alternative sitings can be located when the return pipe is not available.

ADEY always recommends that a magnetic filter be installed on both new and existing systems to extend the operational life of the boiler as well as reduce maintenance call-outs and heating bills.

ADEY Best Practice essentials:

MC1+ Central Heating System PROTECTOR MC3+ Central Heating System CLEANER

Compression olive 28 mm: FL1-03-01357-EU

Protect



Canister and lid



Material: Glass reinforced nylon Fluid capacity: 840 ml Inlet diameter: 28 mm at valve Outlet diameter: 28 mm at valve Thread: Pressure thread Flow configuration: Bi-directional Main lid seal: EPDM Valve to canister: EPDM

Housing: Stainless steel Length: 225 mm Diameter: 19 mm

Body material: Nickel plated brass Screw: Nickel plated brass Thread interface: M6 Seals: EPDM

Drain plug material: Nickel plated brass Drain plug thread: M8 Seals: EPDM

Body material: Nickel plated brass Seals material: Long life PTFE ball seals **O ring material:** EPDM 70 seals x3 Valve inlet/outlet: 28 mm

Air vent (top): 50 mm Drain Plug (bottom): 50 mm

Max. working temperature: 95°C Max. working pressure: 6 bar Min. installation height: 310mm Max. flow: 80L/min (3 m³/h)

Full installation instructions are supplied with each filter and are also available to download from adey.com

MagnaClean[™]



Specially designed to protect systems with heat pumps or underfloor heating.

The MagnaClean HP is a filter designed specifically for renewable and underfloor heating systems with high flow rates and low pressure drops, helping the system work to optimum efficacy.

MagnaClean HP is a high-performance and easy-to-install filter which ensures uncompromising low-temperature heating system protection.

The design incorporates magnetic and nonmagnetic protection, allowing for separate and mixed system compatibility, protecting both expensive heat pump components and underfloor manifolds in one.

Homeowner benefits

- Protects heating systems from magnetic and non-magnetic debris
- 7% annual saving on heating bills*
- Immediate ongoing system protection with dedicated magnetic and nonmagnetic capture
- Extended system life of up to 7 years
- Reduces CO₂ emissions by up to 250kg per year
- 10 year warranty

Installer benefits

- Dedicated magnetic and non-magnetic capture
- Non-blocking design minimises effect of debris on flow rate
- Incorporates ADEY CycloFlow[™] Technology
- Ideal for use with heat pumps or underfloor heating systems.
- High flow rate up to 80 L/min (5 m³/h)
- Simple installation and servicing

Fit a filter every time

MagnaClean HP should ideally be fitted in-line on the return pipe, Alternative sitings can be located when the return pipe is not available.

MagnaClean HP must be installed indoors and is not suitable for external use. ADEY always recommends that a magnetic filter be installed on both new and existing systems to extend the operational life of the heating equipment as well as reduce maintenance call-outs and maximise system efficiency.

ADEY Best Practice essentials:

MC1+ Central Heating System PROTECTOR MC3+ Central Heating System CLEANER MC10+and MC10+ Rapide Underfloor and Central Heating System BIOCIDE

Product codes: Compression olive 28mm: FL1-03-06223 1" BSP: FL1-03-06224



Techincal specifications





Maintain









Material: Glass reinforced nylon Fluid capacity: 930 ml Inlet diameter: 1" at valve Outlet diameter: 1" at valve Thread: Pressure thread Flow configuration: Directional inlet on bottom port Main lid seal: EPDM Valve to canister: EPDM

Magnet

Housing: Stainless steel Length: 150 mm Diameter: 19 mm

Bleed valve

Body material: Nickel plated brass Screw: Nickel plated brass Thread interface: M6 Seals: EPDM

Valves

57.0

Body material: Nickel plated brass Seals material: Long life PTFE ball seals O ring material: EPDM Valve inlet/outlet: 1" BSPP and 28mm compression

Drain port

Drain plug material: Nickel plated brass Drain plug thread: M8 Seals: EPDM

Servicing Clearance

Air vent (top): 50 mm Drain Plug (bottom): 50 mm

Wire gauze

Material: Stainless steel Diameter: Approximately 90 mm

More information

Operating temperature: 3°C to 95°C Maximum working pressure: 6 bar Maximum flow rate: 80 L/min (5m³/h)

Full installation instructions are supplied with each filter and are also available to download from **adey.com**

MagnaClean TwinTech



MagnaClean TwinTech is a powerful dual-action filter capturing magnetic and non-magnetic debris as well as biological films. Specifically designed for use with underfloor heating systems.

MagnaClean TwinTech delivers protection against the damaging effects of black iron oxide sludge and non-magnetic debris. The dual combination of the high performance magnetic filter and advanced fine wire gauze eliminates both the magnetic sludge along with non-magnetic debris and biological films, making it ideal for use within underfloor systems.

Stainless steel gauze for efficient biological film removal

• Ideal for use with underfloor heating systems.

Installer benefits

• Dual-action system protection

• Exceptional magnetic capture

- · One-way valve for simple dosing
- Simple installation and servicing

Homeowner benefits

- 7% annual saving on heating bills*
- Immediate ongoing system protection
- Extended system life of up to 7 years
- Reduces CO₂ emissions by up to 250kg per year
- 2 year warranty

Fit a filter every time

MagnaClean TwinTech should be fitted in-line on the return pipe. Alternative sitings can be located when the return pipe is not available.

ADEY always recommends that a magnetic filter be installed on both new and existing systems to extend the operational life of the boiler as well as reduce maintenance call-outs and heating bills.

ADEY Best Practice essentials:

MC1+ Central Heating System PROTECTOR MC3+ Central Heating System CLEANER MC10+and MC10+ Rapide Underfloor and Central Heating System BIOCIDE

Product code: Compression olive 22mm: MCTT001-EU



Protect

Maintain



Canister and lid



Material: Glass fibre reinforced nylon Fluid capacity: 340 ml (chemical bowl) Inlet diameter: 22 mm at valve Outlet diameter: 22 mm at valve Thread: Pressure thread Flow configuration: Flow must enter the bottom port and exit the top port

Housing: Stainless steel Length: 150 mm Diameter: 25 mm

Body material: Nickel plated brass Screw: Nickel plated brass Retainer: Nickel plated brass Ball: Stainless steel Spring: Stainless steel Outer hex: 22 mm

Body material: Nickel plated brass Seals material: Long life PTFE ball seals **O ring material:** Nitrile 70 Valve inlet/outlet: 22 mm

Air vent (top): 50 mm From magnet cap (bottom): 95 mm

Material: Stainless steel Diameter: Approximately 90 mm

Max. working temperature: 95°C Max. working pressure: 3 bar Max. flow: 50 L/min (3 m³/h)

Full installation instructions are supplied with each filter and are also available to download from adey.com

Domestic filter pressure drop flow graphs























aClean[™] Professional2

MagnaCleanse

Magnetite is the number one contributor to central heating breakdowns. *MagnaCleanse* targets its removal, and combined with the implementation of ADEY's Best Practice, provides an extremely effective solution for the ongoing protection of central heating systems.

The use of the *MagnaCleanse* kit delivers a fast and effective flushing process that removes the damaging black iron oxide magnetite and non-magnetic material from central heating systems.

Installer benefits

- Removes all suspended black iron oxide in as little as 2 hours.
- Cleaner remains concentrated within the system throughout the cleaning process
- System water remains heated during the cleaning process giving a faster and more effective clean
- Saves water drain down only required at the end of the cleaning process
- Effective, ongoing protection for the boiler for improved performance and efficiency
- Quick connection directly onto the valves of a *MagnaClean* filter

ADEY's drain valve has been introduced to provide greater control and flexibility during the flushing process. Installed onto the *RapidFlush* filter's lower inlet hose the valve delivers the following benefits.

\$FLIR

Before system flush

\$FLIR

After MagnaCleanse system flush

+ 24.1

+ 61.8°C

- Release system pressure
- Easy *RapidFlush* filter servicing with water drained to clean and disconnect the product
- Easy flushing of residual cleaner from the system
- Assisting in cleansing the system of nonferrous particles

VibraClean[™]

ADEY's VibraClean® radiator agitator is an essential part of the MagnaCleanse flushing process. Tests have shown that it is possible to remove more sludge in 20 seconds than in 30 minutes without VibraClean. The precision agitator liberates sludge and hardened deposits without the need to remove the radiator.

Kit Contents

- The complete *MagnaCleanse* kit gives everything needed to carry out a full system flush: 1x *MagnaCleanse RapidFlush* filter
- 1x VibraClean
- 1x MagnaCleanse hose-to-valve connector
- 2x Hose lengths
- 6x Hose clamps
- 4x Female cam locks
- 1x Drain valve

Product code: MACK01-EU







Commercial and industrial MagnaClean filters

Commercial heating system efficiency is critical and ADEY's range of products delivers results. *MagnaClean Commercial* is a range of filters specially designed for commercial and industrial heating systems. The proven MagnaClean technology effectively tackles black iron oxide sludge and system debris.

Due to the incredibly small particle size of black iron oxide, truly effective filtration can only be achieved by using a strong magnetic This process will work regardless of the size of particles passing through the heating system.

ADEY recognises that heating engineers want to offer their customers quality products and peace of mind for their longterm investment. This is why ADEY have a commitment to providing the highest quality components in every product.



Commercial and Industrial applications

ADEY Commercial products have been developed for light commercial use and heavy industrial applications in the following sectors:

Industrial - factories and production plants

Commercial - office blocks, public and amenity buildings

Residential - high-rise apartments, flats, large houses and estates

Health - hospitals, care centres, practices, etc.

Leisure - sports centres, swimming pools, holiday complexes, hotels and cinemas

Education - universities, colleges and schools

Community - municipal buildings

The installation of a magnetic filter is most effective when accompanied by a comprehensive water treatment programme and dosing the system with ADEY's MC water treatment products.

Guaranteed protection of commercial and industrial central heating systems

applications.

The quality of the filter cast bodies is verified by X-ray analysis. The product also comes supplied with EPDM fill-flange gaskets for robust sealing at high temperatures.

MagnaClean Commercial provides immediately tangible advantages, improving performance and reducing maintenance costs.



MagnaClean Commercial is a range of high powered magnetic filters designed to protect and maintain demanding light commercial heating systems through to heavy industrial

MagnaClean[™] CMX

Market leading adaptive filtration.

The MagnaClean CMX range of 316L stainless steel filters deliver adaptive, market leading water system filtration, offering a completely flexible, bespoke approach to addressing the needs of commercial and industrial heating and chilled water systems.

The filter range has been specifically designed for use within small to large commercial and heavy industrial applications as sidestream filters, with the Midi and Maxi models also providing market leading inline filtration performance. Each model within the range provides adaptive filtration options - magnetic or non-magnetic and combined, dual-filtration capabilities through the combination of powerful, neodymium magnets and superior spun-bonded filter cartridges and needlefelt bag filters.

Each *MagnaClean CMX* filter can be configured and re-configured according to specific system needs and requirements. At point of installation, they should be configured to filter magnetic debris only in order to capture as much magnetite from the system as possible whilst also ensuring that non-magnetic cartridge filters aren't needlessly blocked with magnetic material. Once magnetic

capture rates begin to reduce, cartridge filters and filter bags from 5-50-microns in size can then be introduced to the filter housings to begin the capture of any non-magnetic debris within the system.

Once filter cartridges are required, the Midi filter within the range could then be configured with its three magnets together with two 10-micron filters and one 20-micron filter, helping to maintain flow and pressure performance across the filter by reducing the likelihood of all three cartridge filters blocking with debris from the system. Any combination of cartridge filters can be configured according to specific system requirements through the four-pack filter kits available to purchase separately.

The innovative MagnaClean CMX range of filters is a highly efficient and flexible product solution. Delivering market leading dualfiltration performance, improved system efficiencies and reduced maintenance and running costs, the CMX range is an integral part of ADEY's compelling package of water management solutions and services for commercial heating and chilled water systems.

MagnaClean CMX range



MAXI



MagnaClean CMX Nano

Innovative, adaptive sidestream filtration

The *MagnaClean CMX* Nano sidestream filter is constructed from high quality, polished 316L stainless steel and 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 0.004m³, the Nano filter is a truly compact plant room solution offering high performance, adaptive magnetic and non-magnetic filtration, simple, low-cost installation and maintenance and improved energy efficiencies.





43,200 Litre

Capacity

Up to 30 l/min

Flow Rate

10 Bar Max

Pressure

Features & Benefits

- Marine-grade, 316L stainless steel construction
- Compact & lightweight space-saving solution
- Adaptive filtration options magnetic or non-magnetic and combined, dual-filtration
- Effortless, tool-free servicing and maintenance
- 10.0 bar maximum working pressure
- Temperature range -10°C to 150°C
- Optional insulation jacket accessory

ADEY System Kit

An ADEY system kit is available for the *MagnaClean CMX* Nano filter comprised of three 20-micron cartridge filters, an automatic air vent, magnetite scraper tool and five litres of ADEY's award winning *MC1+*[®] *Protector* which passivates and protects bare metal surfaces.







Technical specifications MagnaClean CMX Nano



MagnaClean CMX Midi

Innovative, adaptive sidestream & inline filtration

The MagnaClean CMX Midi filter is constructed from high quality, polished 316L stainless steel and has been carefully designed and scaled to work within medium-sized industrial and commercial heating and chilled systems up to 93,000 litres in size.

The Midi filter provides highly flexible, magnetic and non-magnetic filtration via a powerful neodymium magnet assembly and three cartridge filters, both of which can be configured either independently or in combination to deliver market leading, adaptive system filtration performance.





Features & Benefits

- Marine-grade, 316L stainless steel construction
- · Low-cost installation, reduced maintenance and improved energy efficiencies
- Adaptive filtration options magnetic or non-magnetic and combined, dual-filtration
- Configurable cartridge filter specification to suit exact system filtration requirements
- Effortless, tool-free servicing and maintenance
- 10.0 bar maximum working pressure
- Temperature range -10°C to 150°C
- Optional insulation jacket accessory

ADEY System Kit

An ADEY system kit is available for the MagnaClean CMX Midi filter comprised of three 20-micron cartridge filters, an automatic air vent, magnetite scraper tool and five litres of ADEY's award winning MC1+® Protector which passivates and protects bare metal surfaces.









Lower Chamber drain port: 1/2" BSPT 'M'



 \bigcirc

10 Bar Max

Pressure

30

MagnaClean CMX Maxi

Innovative, adaptive sidestream & inline filtration

The *MagnaClean CMX* Maxi filter is constructed from high quality, polished 316L stainless steel and has been carefully designed and scaled to work within large industrial and commercial heating and chilled systems up to 324,000 litres in size.

The Maxi filter delivers formidable magnetic and non-magnetic filtration performance via a powerful neodymium magnet assembly seated within a needlefelt bag filter and stainless steel basket strainer, all of which can be configured independently and in combination to deliver market leading, adaptive system filtration performance.



Features & Benefits

- Marine-grade, 316L stainless steel construction
- Low-cost installation, reduced maintenance and improved energy efficiencies
- · Adaptive filtration options magnetic or non-magnetic only and combined, dual-filtration
- Stainless steel basket strainer and bag filter combine for highly effective non-magnetic filtration
- Effortless, tool-free servicing and maintenance
- 10.0 bar maximum working pressure
- Temperature range -10°C to 150°C
- Optional insulation jacket accessory

ADEY System Kit

An ADEY system kit is available for the *MagnaClean CMX* Maxi filter comprised of three 25-micron needlefelt bag filters, an automatic air vent and five litres of ADEY's award winning *MC1+* Protector which passivates and protects bare metal surfaces.







Up to 225 I/min

Flow Rate

10 Bar Max

Pressure

324,000 Litre

Capacity

Technical specifications MagnaClean CMX Maxi



Pressure drop flow graphs

For the Air and Dirt Separator product flow rates, see the graphs below.

Air and Dirt Separator



Essential air and dirt separation combined with energy efficiency.

Adey's range of Air & Dirt Separators protect boilers, pumps and fittings used in sealed heating and cooling water systems, extending the service life of pumps, control equipment and other system accessories by filtering out micro air bubbles and dirt particles from the system water without interrupting a systems operation.

The air & dirt separators are supplied fully assembled for ease of installation and as a complete package which includes the following: powder coated carbon steel vessel, inlet & outlet valves, brass draining valve, copper filter and automatic air vent.

The product has a limited 2 year warranty.



Protect

Maintain

















Volume: 9L Height (mm): 765 Width (mm): 350 Maximum flow rate (m³/h): 12.5 Pressure drop (kPa): 3.0 Weight (kg): 20

Body: Carbon steel Air vent material: Brass Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005

Maximum working pressure: 10 bar Minimum operating temperature: 3°C Maximum operating temperature: 99°C Ambient operating temperature: 3° to 40°C

Volume: 10L Height (mm): 765 Width (mm): 350 Maximum flow rate (m³/h): 20 Pressure drop (kPa): 2.7 Weight (kg): 21

Body: Carbon steel Air vent material: Brass Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005









Volume: 24L Height (mm): 936 Width (mm): 470 Maximum flow rate (m³/h): 27 Pressure drop (kPa): 2.9 Weight (kg): 35

Body: Carbon steel Air vent material: Brass

Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005

Maximum working pressure: 10 bar Minimum operating temperature: 3°C Maximum operating temperature: 99°C Ambient operating temperature: 3° to 40°C

Volume: 25L Height (mm): 936 Width (mm): 475 Maximum flow rate (m³/h): 47 Pressure drop (kPa): 3.7 Weight (kg): 38

Body: Carbon steel Air vent material: Brass Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005









Volume: 73L Height (mm): 1,330 Width (mm): 635 Maximum flow rate (m³/h): 72 Pressure drop (kPa): 4.2 Weight (kg): 63

Body: Carbon steel Air vent material: Brass Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005

Maximum working pressure: 10 bar Minimum operating temperature: 3°C Maximum operating temperature: 99°C Ambient operating temperature: 3° to 40°C

Volume: 75L Height (mm): 1,330 Width (mm): 635 Maximum flow rate (m³/h): 108 Pressure drop (kPa): 4.9 Weight (kg): 79

Body: Carbon steel Air vent material: Brass Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005









Volume: 166L Height (mm): 1,676 Width (mm): 775 Maximum flow rate (m³/h): 180 Pressure drop (kPa): 5.3 Weight (kg): 103

Body: Carbon steel Air vent material: Brass Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005

Maximum working pressure: 10 bar Minimum operating temperature: 3°C Maximum operating temperature: 99°C Ambient operating temperature: 3° to 40°C

Volume: 305L Height (mm): 1,676 Width (mm): 890 Maximum flow rate (m³/h): 288 Pressure drop (kPa): 5.9 Weight (kg): 153

Body: Carbon steel Air vent material: Brass Filter material: Copper Drain valve: Brass Finish: Powder coating - RAL 5005





Chemical Dosing Pot



The chemical dosing pot range offers an excellent, controlled and safe method of introducing chemicals into heating and chilled water systems whilst not interrupting system operation.

The chemical dosing pots are supplied fully assembled for ease of installation and as a complete package which consists of the following: powder coated mild steel vessel, inlet (return), outlet (flow), drain and filling valves, tundish, air release valve and wall mounting bracket.

This product has a limited 2 year warranty.

Pressure Equipment Directive 2014/68/EU

Dosing pots conform to the requirements of Pressure Equipment Directive 2014/68/EU and are designed and manufactured according to Sound Engineering Practice (S.E.P).



Fittings: Galvanised Malleable Iron Body: Carbon steel Valves: Brass Tundish: Mild steel Finish: Powder coating - RAL 5005 Maximum working pressure: 10 bar Minimum working pressure: 0.5 bar Minimum operating temperature: 0°C Maximum operating temperature: 99°C



Size (Litres)	H (mm)	h (mm)	W (mm)	P (mm)	А	В	С	D	Weight ^(kg)
3,5	770	186	186	294	1"	1"	1"	1"	13
6	770	250	220	356	1"	1"	1"	1"	17
11	885	365	220	470	1"	1"	1"	1"	21
18	1150	590	220	658	1"	1"	1"	1"	35







10

Maintain

- Ambient operating temperature: 1° to 40°C

MagnaClean CMX



Heating and chilled system sidestream filtration unit with integrated MagnaClean CMX Nano filter and electric, motor-driven circulation pump; automated control system with BMS connectivity providing system/filtration monitoring, pressure differential and temperature sensing.

The MagnaClean CMX Pumped Sidestream filter provides high performance, sidestream filtration when space is a premium and/ or where it isn't possible to install a filter across-a-pump on any heating or chilled system. Featuring a high performance MagnaClean CMX Nano Filter, an integrated Grundfos UPM3 Flex AS pump and the security of pressure differential and temperature sensing with full BMS alarm connectivity, this solution is designed to actively monitor the filter and the filtration of heating and chilled systems in a sidestream configuration for 24 hours a day, even when the system pumps aren't running.



Filter capacity: Up to 43,200 litres Mounting type: Wall mount or fabricated skid

Unit controller: DEK1001 Modbus (RS485) Controller

Cabinet: Powder-Coated Galvanised Steel MagnaClean CMX Nano Filter: Polished 316L Stainless Steel

Maximum working pressure: 10.0 bar Ambient air temperature: Min. +2°C / Max. +40°C Min./Max. water temperature: Min +2°C / Max +100°C

Inlet & outlet: 28mm compression

Pump model: Grundfos UPM3 FLEX AS 25-70 130 Pump type: Circulation (PWM A) Pump head material: Electrocoated Cast-Iron Impeller material: Composite (PES 30% GF) Minimum inlet pressure: 0.5 bar

Housing: Composite (PPS) Sensing element: Silicon-based MEMS Sensor Response time: <0.5 s Electromagnetic compatibility: EN-61326-1







Maintain

System Monitoring: Differential Pressure & Temperature monitoring

Power supply/phase/frequency: 230V / 1 / 50 Hz Power consumption: 60 Watts Full load current: 0.58 Amps Fuse rating: 4.0 Amps Power cable (pre-wired): 1.29 metres

IP rating: IPX65 Width: 425mm Depth: 367mm Height: 615mm Empty weight: 19.5 Kg Filled weight: 23 Kg



367mm

405mm

MagnaClean CMX Nano® & External Magnetic Jacket





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 0.004m³, the CMX Nano[™] 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.

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 0.01m³ and just 4.2kg in weight.

Technical specifications MagnaClean CMX Nano Jacket

General

Guarantee: 2 years Product Assembly: Symmetrical, two-piece construction Method of connection: Push-fit

Construction Material type: Expanded Polyproylene (EPP)



Magnet Specification

Quantity: 24 Type: Neodymium Dimensions: 20mm diameter x 10mm thick

Physical

Width: 145mm Depth: 178mm Height: 343mm Weight: 1.23 Kg



MagnaClean **DualXP**



The MagnaClean DualXP has two powerful magnetic capture zones to remove greater volumes of iron oxide sludge and is the ideal solution for small and medium sized commercial systems. The advanced technology bridges the gap between the domestic filter range and the MagnaClean Commercial products.

MagnaClean DualXP delivers exceptional protection against the damaging effects of black iron oxide sludge and non-magnetic debris. Each port on the DualXP has integral flow diverters to both the magnetic capture zones, ensuring uniform circulation around the length of the magnets. This reduces the risk of pressure drops.

The DualXP includes telescopic connectors with 1 1/2" BSP threads. Reducing bushes are also supplied for 1 1/4" pipework. Connectors are adaptable to 42 mm or 35 mm pipework.

Technical specifications

- Dual magnetic chambers with four nonmagnetic capture zones
- Unique 1 1/2" BSP telescopic connectors
- Available with reducing bushes to connect to 1 ¼" pipework
- In-line design and 360° rotational connectors provide versatile installation options suitable for both horizontal and vertical pipework
- Two low profile drain valves for easy servicing and dosing
- Ultra-thin sheath enhances magnetic particle capture
- Bi-directional flow; either port can be designated as port entry



















Product code: Telescopic connectors $1 \frac{1}{4}$ " and $1\frac{1}{2}$ " threads (adaptable to 42/35mm pipes): FL1-03-02028-EU



Telescopic connectors make installation easier in horizontal or vertical orientations. These versatile connectors also make retro-fitting far more straightforward. For call-outs on existing installations the MagnaClean DualXP's inherent retrofit characteristics can make fitting quicker saving time and money.

The introduction of the dual magnetic chambers also enables a much smaller installation footprint making it easier for installers, without compromising filter performance. Another advantage of dual chambers is easier dosing of the system via the filter.



Pressure drop flow graphs

For the MagnaClean DualXP product flow rates, see the graphs below.





Pressure Drop for 11/2" Pipe, Flow Up











Material: Glass reinforced nylon Volume: 2.43 litres (when telescopic connectors are retracted) Thread: Pressure thread Flow configuration: Bi-directional - any port can be inlet Main lid seal: EPDM

Housing: Stainless steel Length: 225 mm Diameter: 19 mm

Body material: Nickel plated brass Screw: Nickel plated brass Thread interface: M6 Seals: EPDM

Drain plug material: Nickel plated brass Drain plug thread: M8 Seals: EPDM



Inlet: 1¹/₂" Nominal bore Outlet: 11/2" Nominal bore Body material: Nickel plated brass O ring material: EPDM

Full installation instructions are supplied with each filter and are also available to download from adey.com





MagnaClean[™] Commercial

MagnaClean Commercial is a powerful range of magnetic filters designed to protect and maintain demanding light commercial heating systems through to heavy industrial applications. This technology removes black iron oxide sludge and debris which has proven to be an effective way to maintain and protect commercial heating systems.

MagnaClean Commercial is manufactured to EN 13445:2009 in five sizes to meet the demands of a broad cross section of applications.

Engineered to the highest specification, the single cast mouldings are readily available in 2", 3", 4", 6" and 8" pipe dimensions with PN16 flanges. The quality of the filter cast bodies is verified by X-ray analysis. The product also comes supplied with EPDM full-flange gaskets for robust sealing at high temperatures.

Technical specifications

- Exceptional magnetic capture of black iron oxide; up to 80% better when tested against traditional methods
- Helps restore heating system efficiency and performance; up to 30% more efficient
- Individually accessible magnets allow for easier and safer servicing
- *MagnaClean Commercial* filters with individual magnets are available in: DN50, DN80 an DN100
- Ongoing maintenance costs are reduced
- Construction conforms to Pressure Equipment Directive 97/23/EC
- Easy inspection of debris capture via sight glass
- Collects large and micro particles
- Compatible with all heating systems

Protect

- Simple installation and servicing
- Manufactured in the UK







The image shows the MagnaClean Commercial DN50 filter

Product codes:

MagnaClean Commercial DN50 : CP1-03-01123 MagnaClean Commercial DN80 : CP1-03-01124 MagnaClean Commercial DN100 : CP1-03-01126 MagnaClean Commercial DN150 : CP1-03-01126 MagnaClean Commercial DN200 : CP1-03-02147

Maintain

ifications 50

Casing

Material: 304L stainless steel Drain point: 1¹/₄" BSPP hole, 1¹/₄" BSPT plug Maximum working pressure: 10 bar Maximum working temperature: 100°C Filer dry weight: 25.7kg

Magnets

Material: High power, NdFeB Pocket sleeves: 304L Stainless steel Lid seal: EPDM

Flow flange

Size: PN16, supplied with EPDM gasket Flange thickness: 18 mm Bolt size: M16 Bolt quantity: 4 Bolt hole PCD: 125

Sight glass

Weld material: DIN1.4404 stainless steel

Collar nut: DIN1.4301/DIN1.4307 stainless steel

Glass: Toughened soda lime to BS3463

Product side seal: EPDM

Outer seal: Non-asbestos fibre (KILINGERsil C-4400)

Full installation instructions are supplied with each filter and are also available to download from ${\it adey.com}$



Technical specifications Commercial 3" / DN80

Casing

Material: 304L stainless steel Drain point: 1¹/₄" BSPP hole, 1¹/₄" BSPT plug Maximum working pressure: 10 bar Maximum working temperature: 100°C Filter dry weight: 37.4kg

Magnet

Material: High power, NdFeB Pocket sleeves: 304L Stainless steel Lid seal: EPDM

Flow flange

Size: PN16, supplied with EPDM gasket Flange thickness: 15 mm Bolt size: M16 Bolt quantity: 8 Bolt hole PCD: 160

Sight glass

Weld material: DIN1.4404 stainless steel Collar nut: DIN1.4301/DIN1.4307 stainless steel Glass: Toughened soda lime to BS3463 Product side seal: EPDM Outer seal: Non-asbestos fibre (KILINGERsil C-4400)

Full installation instructions are supplied with each filter and are also available to download from **adey.com**



330 mm

Ø 295 mm

 \bigcirc



Technical specifications Commercial 4" / DN100





Casing

Material: 304L stainless steel Drain point: 1¼" BSPP hole, 1¼" BSPT plug Maximum working pressure: 10 bar Maximum working temperature: 100°C Filer dry weight: 41.5kg

Magnets

Material: High power, NdFeB Pocket sleeves: 304L Stainless steel Lid seal: EPDM

Flow flange

Size: PN16, supplied with EPDM gasket Flange thickness: 15 mm Bolt size: M16 Bolt quantity: 8 Bolt hole PCD: 180

Sight glass

Weld material: DIN1.4404 stainless steel

Collar nut: DIN1.4301/DIN1.4307 stainless steel

Glass: Toughened soda lime to BS3463

Product side seal: EPDM

Outer seal: Non-asbestos fibre (KILINGERsil C-4400)

Full installation instructions are supplied with each filter and are also available to download from **adey.com**



Technical specifications Commercial 6" / DN150



Casing

Material: 304L stainless steel Drain point: 1¼" BSPP hole, 1¼" BSPT plug Maximum working pressure: 10 bar Maximum working temperature: 100°C Filter dry weight: 86.5kg

Magnets

Material: High power, NdFeB Pocket sleeves: 304L Stainless steel Lid seal: EPDM

Flow flange

Size: PN16, supplied with EPDM gasket Flange thickness: 18 mm Bolt size: M20 Bolt quantity: 8 Bolt hole PCD: 240

Sight glass

Weld material: DIN1.4404 stainless steel Collar nut: DIN1.4301/DIN1.4307 stainless steel Glass: Toughened soda lime to BS3463 Product side seal: EPDM Outer seal: Non-asbestos fibre (KILINGERsil C-4400)

Full installation instructions are supplied with each filter and are also available to download from **adey.com**



Technical specifications Commercial 8" / DN200





The MagnaClean Commercial DN200 filter with individual magnets is not currently available.

The MagnaClean Commercial DN150 filter with individual magnets is not currently available.

Casing

Material: 304L stainless steel Drain point: 1¼" BSPP hole, 1¼" BSPT plug Maximum working pressure: 10 bar Maximum working temperature: 100°C Filter dry weight: 86.5kg

Magnets

Material: High power, NdFeB Pocket sleeves: 304L Stainless steel Lid seal: EPDM

Flow flange

Size: PN16, supplied with EPDM gasket Flange thickness: 19 mm Bolt size: M20 Bolt quantity: 12 Bolt hole PCD: 295

Sight glass

Weld material: DIN1.4404 stainless steel Collar nut: DIN1.4301/DIN1.4307 stainless steel Glass: Toughened soda lime to BS3463 Product side seal: EPDM

Outer seal: Non-asbestos fibre (KILINGERsil C-4400)

Full installation instructions are supplied with each filter and are also available to download from ${\it adey.com}$



Pressure drop flow graphs

For the MagnaClean Commercial product flow rates, see the graphs below.





80

90 100 110 115

Industrial Testing

Magnetite, or black iron oxide, is a key contributor to commercial heating system breakdowns which can be avoided through the installation of magnetic filtration products from ADEY. The inevitable build-up of magnetite in a heating system can affect performance resulting in boiler damage and expensive repairs.

Extensive research has shown that magnetic filtration is the most effective means of sludge capture in maintaining and protecting industrial heating systems. Performance testing over a 12-month period by an independent consultant shows significant performance benefits in terms of sludge/ magnetite capture. Energy savings are also achievable when compared with conventional methods of filtration for commercial systems.

100 105

110

Tests compared MagnaClean with a dirt separator and basket filter. Results show MagnaClean Commercial is up to 80% more effective in capturing damaging magnetite sludge than these other forms of filtration and at least 30% more energy efficient.

A 2" MagnaClean collected 1.52kg of magnetite during a two-hour cycle at a flow rate of 27m3/hr. By comparison, a 2" basket filter with an 80 mesh basket collected just 0.02kg. A comparable dirt separator collected 0.31kg of magnetite under the same flow conditions.

Once collected, the magnetite did not wash off the MagnaClean filter even at greater flow rates, reinforcing the case for magnetic filtration over the alternative system protection methods.



a 2" dirt separator and a 2" basket filter.

1.0 —

0.5 —

10 20 30 40 50 60 70

Flow (m3/hr)

In a further highly significant finding, the pressure loss across the fully laden MagnaClean Commercial filter was 53.8% and 68.1% more effective than the dirt separator and basket filter respectively.

Among a growing number of high profile customers already benefitting from ADEY's commercial MagnaClean technology are multiple local authorities, housing associations, universities, schools, hospitals, hotel, sport, leisure and fitness groups.

MagnaClean[™] DRX





Product code:

62

DRX 2" / DN 50 : FL1-03-03781 DRX 2¹/₂" / DN 65 : FL1-03-03814 DRX 3" / DN 80: FL1-03-03782 DRX 4" / DN 100 : FL1-03-03783 MagnaClean DRX introduces a new, innovative and compact design for protecting heating systems. The filter consists of an innovative magnetic belt, containing high-performing neodymium magnets, wrapped around a precision-engineered stainless-steel canister.

The unique magnetic belt technology makes servicing quick and easy. The belt simply needs to be unclipped to release the magnets so that the black iron oxide sludge can be drained away. Minimal space is required around the filter to complete the service, making the compact design ideal where space is limited.

MagnaClean DRX is available in 2", 2¹/₂", 3" and 4" pipe dimensions to meet the demands of different applications. The product comes supplied with EDPM full-flange gaskets for robust sealing at high temperatures.

Technical Benefits

- Effective magnetic capture of black iron oxide (sludge)
- Helps restore heating system efficiency and performance
- Suitable for in-line and side stream installations
- Ongoing maintenance costs are reduced
- Collects large and micro particles
- Patented design ensures low pressure loss
- Simple installation and servicing
- Install on vertical and horizontal pipe runs
- Compatible with all heating systems
- Manufactured in the UK

Accessories available:

• Automatic Air Vent

• Thermal Jacket DRX DN 50 35m³/h DRX DN 65 45m³/h DRX DN 80 65m³/h DRX DN 100 100m³/h



Technical specifications DRX 2" / DN 50





206mm

Casing

Material: Stainless steel Volume Litres (approx): 4.97L Flow Configuration In-line Seals: EDPM Flange gaskets Drain point thread: ¾" BSPT Maximum working pressure: 16 bar Maximum working temperature: 100°C Air vent: Manual

Total unit weight

2": 12.0kg

Magnet Assembly

Casing: PA6 Nylon Magnets - type: Neodymium Magnets - number of: 48 Magnets - dimensions: 20mm Dia x 10mm Thk

Flow flange PED

Flange diameter: 165mm Flange thickness: 18 mm Flange type: PN16 (B16.5 Class 150) Bolt size: M16 Bolt quality: 4 Bolt hole PCD: 125mm Max. flow: 123mm 35³/h

Full installation instructions are supplied with each filter and are also available to download from **adey.com**

Technical specifications DRX 2¹/₂" / DN 65





Casing

Material: Stainless steel Volume Litres (approx): 5.12L Flow Configuration In-line Seals: EDPM Flange gaskets Drain point thread: ¾" BSPT Maximum working pressure: 16 bar Maximum working temperature: 100°C Air vent: Manual

Total unit weight 2.¹/₂": 13.2kg

Magnet Assembly

Casing: PA6 Nylon Magnets - type: Neodymium Magnets - number of: 48 Magnets - dimensions: 20mm Dia x 10mm Thk

Flow flange PED

Flange diameter: 185mm Flange thickness: 18 mm Flange type: PN16 (B16.5 Class 150) Bolt size: M16 Bolt quality: 4 Bolt hole PCD: 145mm Max. flow: 200mm 45³/h

Full installation instructions are supplied with each filter and are also available to download from **adey.com**

Technical specifications DRX 3" / DN 80





Casing

Material: Stainless steel Volume (PED) Litres (approx): 6.36L stainless steel Flow Configuration In-line Seals: EDPM Flange gaskets Drain point thread: ¾" BSPT Maximum working pressure: 16 bar Maximum working temperature: 100°C Air vent: Manual

Total unit weight

3": 15.7kg

Magnet Assembly

Casing: PA6 Nylon Magnets - type: Neodymium Magnets - number of: 64 Magnets - dimensions: 20mm Dia x 10mm Thk

Flow flange PED

Flange diameter: 200mm Flange thickness: 15 mm Flange type: PN16 (B16.5 Class 150) Bolt size: M16 Bolt quality: 8 Bolt hole PCD: 180mm Max. flow: 345mm 65³/h

Full installation instructions are supplied with each filter and are also available to download from **adey.com**

Technical specifications DRX 4" / DN 100





Casing

Material: Stainless steel Volume (PED) Litres (approx): 7.76L stainless steel Flow Configuration In-line Seals: EDPM Flange gaskets Drain point thread: ¾" BSPT Maximum working pressure: 16 bar Maximum working temperature: 100°C Air vent: Manual

Total unit weight 4": 18.9kg

Magnet Assembly

Casing: PA6 Nylon Magnets - type: Neodymium Magnets - number of: 80 Magnets - dimensions: 20mm Dia x 10mm Thk

Flow flange PED

Flange diameter: 220mm Flange thickness: 15 mm Flange type: PN16 (B16.5 Class 150) Bolt size: M16 Bolt quality: 8 Bolt hole PCD: 180mm Max. flow: 200mm 100³/h

Full installation instructions are supplied with each filter and are also available to download from **adey.com**

Pressure drop flow graphs

For the MagnaClean DRX product flow rates, see the graphs below.







Energy Saving Thermal Jackets

The new energy saving thermal jacket from ADEY has been designed specifically for MagnaClean - the market leading range of magnetic filters.

Designed to insulate the MagnaClean magnetic filter range and retain heat levels, the thermal jackets reduce energy consumption and therefore energy costs and carbon emissions. From the moment the thermal jacket is installed, significant benefits are delivered:

- Energy savings up to £60 year-on-year
- Reduced carbon emissions
- Protection against heat loss
- Frost protection
- Waterproof and suitable for all weather conditions
- Stops condensation on cold-water systems

Product codes:

Domestic Energy Saving Thermal Jacket: MagnaClean Atom2: GE2-01-04704 MagnaClean Micro2 22 mm: CP1-03-02379 MagnaClean Professional2 22 mm: CP1-03-02378 MagnaClean Professional2XP 28 mm: CP1-03-02380

Commercial/industrial Energy Saving Thermal Jacket: MagnaClean CMX Nano: CP1-03-05262 MagnaClean CMX Midi: CP1-03-05263 MagnaClean CMX Maxi: CP1-03-05264 MagnaClean DualXP: CP1-03-02566 MagnaClean Commercial DN50: CP1-03-01885 MagnaClean Commercial DN80: CP1-03-01886 MagnaClean Commercial DN100: CP1-03-01887 MagnaClean Commercial DN150: CP1-03-01888 MagnaClean Commercial DN 200: CP1-03-02253 2" & 2.5" DRX Universal Thermal Jacket: CP1-03-04100

3" DRX Universal Thermal Jacket : CP1-03-04101 4" DRX Universal Thermal Jacket : CP1-03-04102















Award winning water treatment products

Whether it's market leading filters or award-winning water treatment products, we design and manufacture effective solutions for protecting heating systems.

ADEY's advanced water treatment product range has been created to provide a solution for the maintenance and protection of heating systems. The *MC+* range has been specifically designed for use by professional installers as part of the *Best Practice* approach to heating system protection.

ADEY's pioneering work in maintaining and protecting the nation's central heating systems has been rewarded with a second Queen's Award for Innovation. The award specifically recognises the development of new product formulations for the *MC1+ Protector* and *MC3+ Cleaner* range of products, uniquely designed to work in tandem with ADEY's market leading *MagnaClean* filters

Alongside this, ADEY's UKAS accredited laboratory sets the highest standards for water testing within the Heating, Ventilation and Air-conditioning (HVAC) industry, producing premium reports on water quality.







Central Heating System **CLEANER**

MC3+ is a rapid performing and powerful chemical cleaner specially designed to remove central heating system sludge and debris.

MC3+ starts to work as quickly as one hour after application. For maximum flexibility, it can be left in the system for up to 28 days.

- Removes sludge, debris and scale
- High performance chemical cleaner
- Restores heating efficiency
- High concentrate formula
- Helps reduce heating and maintenance bills
- Suitable for all heating systems
- The MC3+ bottle can be dosed into the system through the MagnaClean filter
- *MC3+ Rapide* can be injected into the system via the radiator, air vent or boiler filling loop and can be completed in as little as 20 seconds
- MC3+ Rapide treats 125 litres which is up to 15 standard radiators, 25% more than other brands
- Available in 500ml, 5L, 10L, 25L and 300ml *Rapide* canister



 Product codes:

 300 ml (RAPIDE) : CH1-03-01640-WE

 500 ml : CH1-03-01669-WE

 5 L : CH1-03-01725-EU

 10 L : CH1-03-01726-EU

 25 L : CH1-03-02807-EU

 200 L : CH1-03-03655-EU

 1,000 L : CH2-03-02364-EU

PROTECTOR High performance *MC1+ Protector* prevents both system corrosion and limescale deposition. It maintains boiler and system efficiency and prevents the formation of sludge and scale, contributing to a longer

system life.

15

() 125 L

100m²

• Best in class formulation for mild steel protection to prevent magnetite generation

Central Heating System

- Every bottle of *MC1+* is performance tested
- Protects against corrosion and scale
- Increased strength high performance inhibitor
- Maintains heating efficiency
- Helps reduce heating costs and maintenance bills
- Suitable for all heating systems
- Compatible with all metals
- The MC1+ bottle can be dosed into the system through the MagnaClean filter
- MC1+ Rapide can be injected into the system via the radiator, air vent or boiler filling loop and can be completed in as little as 20 seconds
- Treats 125 litres which is up to 15 standard radiators, 25% more than other brands
- Available in 500ml, 5L, 10L, 25L and 300ml *Rapide* canister







Protect









Rapide Central Heating System PROTECTOR

Protests against corrosion and scale Protège contre la corrosion et le tarte Verhindert Korrosion und Kalkablagerungen Beskytter mot korrosion og kalkabelegg Beschermt tegen corrosive en kalkaansle Protegge contro corrosione e calcare Protege contra la corrosión y las incrutacional

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Protec

ADEY

Central Heating System PROTECTOR

Protects against corrosion and scale Protège contre la corrosion et le tartre Verhindert Korrosion und Kalkablagerungen Beskytter mot korrosjon og kalkbelegg Beschermt tegen corrosiove en kalkaanslag Protegge contra la corrosión y las incrustaciones

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Protec

ADEY

BELGAQUA

Product codes: 300 ml (RAPIDE) : CH1-03-01640-WE 500 ml : CH1-03-01669-WE 5 L : CH1-03-01723-EU 10 L : CH1-03-01724-EU 25 L : CH1-03-02806-EU 200 L : CH1-03-03654-EU 1,000 L : CH2-03-02087-EU

100m²



Compatible and approved by NSF CIAS



Underfloor and Central Heating System BIOCIDE

MC10+ is a concentrated, dual biocide formulated to prevent the formation and growth of bacterial contamination, algae and micro-organisms in underfloor and central heating systems.

- High performance dual biocide with two separate active ingredients making it more effective than a single biocide
- Prevents bacterial contamination and algae
- Designed for use in lower temperature systems such as underfloor heating
- Compatible with all ADEY MC range products
- Ensures efficient system operation
- The MC10+ bottle can be dosed into the system through the MagnaClean filter
- MC10+ Rapide can be injected into the system via the radiator, air vent or boiler filling loop and can be completed in as little as 20 seconds
- Treats 125 litres which is up to 15 standard radiators or 100m²
- Available in 500ml, 10L and 300ml Rapide canister



300 ml (RAPIDE) : CH1-03-02040-WE 500 ml : CH2-03-01438-WE 10 L : CH1-03-02027-EU 25 L : CH1-02-03395-EU 200 L : CH1-03-03649-EU 1,000 L : CH1-03-03648-EU



MC2+[™] Rapide

Central Heating System SILENCER

MC2+ Silencer effectively reduces boiler noise and restores heat efficiency.

- Reduces boiler noise
- Suitable for all heating systems
- Compatible with all metals
- The MC2 bottle can be dosed into the system through the MagnaClean filter
- MC2+ Rapide can be injected into the system via the radiator, air vent or boiler filling loop, and can be completed in as little as 20 seconds
- MC2+ Rapide treats 125 litres which is up to 15 standard radiators, 25% more than other brands
- Available in 300ml Rapide canister

Rap Central Heating Syste SILENCER

Vermindert la lawaaierige boilers Riduce la rumorosità della caldaia Reduce el ruido en la caldera





ΫÓ



 Reduces boiler noise
 Réduit les bruits de chaudière Reduziert Kesselgeräusche Reduserer kjele og radiator støy











Central Heating System LEAK SEALER

MC4+ is an effective solution designed to seal small system leaks and weeping joints.

- High performance leak sealer
- Seals small inaccessible leaks and weeping joints
- Reduces pressure loss on sealed systems
- Avoids costly maintenance repairs
- Reduction in blocked pumps, valves or air vents
- Suitable for all heating systems
- The MC4 bottle can be dosed into the system through the MagnaClean filter
- *MC4+ Rapide* can be injected into the system via the radiator, air vent or boiler filling loop and can be completed in as little as 20 seconds
- *MC4+ Rapide* treats 125 litres which is up to 15 standard radiators, 25% more than other brands
- Available in 300ml Rapide canister





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Protec

ADEY



15

0 125 L

<u>_____</u>

100m²

MC5[™]

Rapid Flush System **CLEANER**

MC5 RapidFlush System Cleaner is an advanced high strength cleaner developed specifically to work with ADEY's MagnaCleanse system and removes central heating system sludge, debris and scale.

MC5 starts to work as quickly as one hour after application. For maximum flexibility, it can be left in the system for up to 7 days.

- Advanced strength formula
- Recommended for use with *MagnaCleanse* and for other mechanically assisted cleaning processes
- Restores system efficiency
- Removes system sludge, debris and scale
- Suitable for all heating systems
- Part L Building Regulation and BS7593
 compliant
- The MC5 bottle can be dosed into the system through the MagnaClean filter
- Treats 100 litres which is up to 10 standard radiators
- Must be removed from the system by conducting a *MagnaCleanse* system flush
- Available in a 500ml bottle











ADVANCED STRENGTH



- Recommended for MagnaCleanse[®]
 flushing and power-flushing
- Removes system sludge, debris and scale
- Suitable for all heating systems
- Environmentally friendly



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MC[™]_{Zero}

Central Heating System ANTI-FREEZE

MCZero is a mono propylene based anti freeze solution designed to prevent freezing in all types of water. Also prevents metal corrosion and scale formation.

- Prevents freezing
- Best in class formulation for mild steel protection to prevent magnetite generation
- Protects against corrosion and scale
- Increased strength high performance inhibitor
- Maintains heating efficiency
- Helps reduce heating costs and maintenance bills
- Suitable for all heating systems
- Compatible with all metals

For the long-term protection of domestic central heating systems against freezing and the damaging effects of metallic corrosion of all metals and alloys found in heating systems including mild steel, copper and aluminium and their alloys.

Dosage guide:

Concentration	25%	30%	35%	40%
Protection	-11ºC	-15°C	-18ºC	-22ºC





Product codes : 5 L : CP1-03-00900-EU 10 L : CP1-03-01045-EU 25 L : CH1-03-02808-EU 200 L : CH1-03-03710-EU 1,000 L : CH2-03-02534-EU



MC^{Zerŏ}

Low Temperature Heating & Cooling system INHIBITED **ANTI-FREEZE**

MCZERO+ is a high-performance heat transfer fluid designed to protect underfloor heating systems and heat pumps against corrosion, limescale and bacterial contamination, while providing frost protection from -3°C to -18°C.

- Concentrated heat transfer fluid suitable for air and ground source heat pumps and underfloor heating
- Frost protection from -3°C at a concentration of 10%
- Protects against corrosion, limescale and bacterial contamination
- Non-hazardous
- Compatible with all materials commonly found in heat pump and underfloor heating systems

For the long-term protection of heat pumps and underfloor systems against frost, corrosion, limescale and bacterial contamination. Compatible with all metals and materials commonly found in heat pumps and underfloor heating systems.

Dosage guide:

Concentration	10%	15%	20%	25%
Protection	-3ºC	-5°C	-6ºC	-9ºC
Concentration	30%	35%	40%	
Protection	-12ºC	-15°C	-18ºC	











Product codes: 10L: CH1-03-03455-EU 25L: CH1-03-03113-EU 200L: CH1-03-03711-EU 1,000L: CH2-03-03067-EU

MC40+

Central Heating System CLEANER and DESCALER

High strength MC40+ is a powdered cleaner specially designed to remove limescale deposition and system corrosion. Rapid performing MC40+ delivers an advanced clean, with a highly concentrated formula, as one container treats 125 litres.

- High performance, advanced cleaner
- Rapidly removes limescale, sludge
 and debris
- Free-flowing powder makes the product ideal for use with ADEY's MagnaCleanse
- Treats 125 litres
- Restores heating efficiency of existing systems
- Suitable for all heating systems and all water types
- Neutraliser sachets included within the pack



Nettoyant et détartrant puissant pour systèmes de chauffage
Potente detergente e decalcificante per impianti di riscaldamento
Potente limpiador y descalcificador para sistemas de calefacción
Starker Reiniger und Entkalker für Heizungssysteme
Kraftig rengjørings- og kalkfjerningsmiddel for varmesystemer



Product codes:

1.85kg acid cleaner + 2 sachets neutraliser (450g): CH1-03-03420

<u>)</u> 1.5%

<u>()</u> 1251

20kg acid cleaner (no neutraliser included): CH1-03-03246

MC35[™]

Commercial Non-Drain **CLEANER**

MC35 is specifically designed to lift and mobilise magnetic and non-magnetic system contaminants including biofilms, helping to promote their capture via a sidestream or inline dual-filtration system filter.

- High performance cleaner and sanitiser containing MC1+[®] Inhibitor protection to passivate and protect bare metals during cleaning, preventing the risk of under-deposit corrosion
- Biocidal agent helps to break down biofilms & bacteria
- A dual magnetic & non-magnetic system filter must be present on any system that this product is dosed with
- Formula can remain in the system indefinitely, with no need to drain and flush after treatment
- MC1+ Protector levels must be tested and checked after 7 days to ensure a high level of system protection is maintained
- Compatible with all ADEY chemicals
- Doses at 0.4% of system volume
- Non-hazardous, non-toxic, biodegradable formula
- For use in commercial heating, chilled & condenser systems only

Available sizes:

| 10L | 25L







Product codes: 10L: **CH1-03-05608-EU** 25L: **CH1-03-05609-EU**

Scale reducers



Where mains water hardness levels go beyond 200 ppm, Part L of the Building Regulations states that provision must be made to treat the feed water to water heaters and hot water circuit of combination boilers to reduce the rate of limescale accumulation and the subsequent decline in energy efficiency.

ADEY scale reducers provide the ideal solution with *ElectroScale* and *MagnaScale*.

Long term limescale protection

- Immediate long-term limescale protection for homes and commercial properties
- No running costs and no mains power supply required
- Flexible installation fits both horizontal and vertical pipework
- Maintenance free

To achieve an effective level of protection, install *ElectroScale* on the incoming water supply after the water meter and primary filter units (if installed). This ensures that the whole property is protected.

ElectroScale MagnaScale Magnetic limescale prevention

- MagnaScale has been designed to protect individual appliances where limescale would otherwise build up
- Immediate limescale protection
- No running costs and no mains power supply required
- Maintenance free

To achieve an effective level of protection, install MagnaScale as close to the appliance as possible , without exceeding maximum operating temperature.









Water testing

Testing the quality of the central heating system water is an essential part of ADEY's Best practice process. ADEY's water testing delivers a fast, accurate and reliable service, providing an online facility which produces reports on water quality and an explanation of the likely causes of system problems. Recommendations are made using ADEY's Best Practice to restore the heating system to full efficiency.

The ADEY Water Test Kit comes complete with vials to collect the system and mains water samples, and an envelope to send on to the UKAS accredited water testing laboratory.

UKAS accredited laboratory

ADEY's Water Testing Laboratory is the only laboratory within the heating, ventilation and air-conditioning (HVAC) industry to be UKAS accredited, delivering the most accurate and reliable results for the testing of both system and mains water. ADEY's water testing service conducts comprehensive tests on a broad range of parameters including determination of corrosion products, scale deposition, pH, chloride, conductivity and inhibitor levels.

The water test results are made available

within 24 hours of the sample arriving at the

laboratory, via a secure web portal followed

by an email notification.

Wate Te 0 ADEY

Protector level testing

ADEY's MC1+ Quick Test kit delivers fast and accurate on-site testing of the MC range inhibitor concentration in the central heating system.

After draining off some system water, the test strip only needs to be dipped in the solution for a second. Results are then revealed after just ten seconds.

MC1+ Quick Test Kits are suitable for testing the levels of MC1, MC1+ and MC1+ Rapide.







Product codes: Water Test Kit : CP1-03-00626-EU

MC1+ Quick Test : CP1-03-00742-01





ADEY ProCheck

Make the invisible problem, visible.

 $\mathsf{ADEY}^{\textcircled{0}}$ has launched a next-generation water testing kit which provides lab-style results instantly to a smartphone, enabling installers to visualise the need for water treatment to the homeowner and treat water quality issues in one site visit.

The revolutionary ADEY ProCheck universal water test kit and supporting app is the first of its kind to offer onsite lab-style analysis of system water, providing instant (independent) validation of system health via an app and reporting platform.

ADEY ProCheck kit: CP1-03-05132-WE ADEY ProCheck refill kit: PK2-03-05133-WE



Only available in France and Austria.

ADEY ProCheck gives you...



Instant lab-style test and results on your phone



Results for inhibitor, corrosion and pH levels in the system



Independent recommendation for corrective action where required

*Test report generation and ADEY ProCheck Report Management System access included for the first 12 months.



ADEY ProCheck Kit.



Includes:

- 1 x Waterproof case
- 25 x Test strips
- 10 x Test cards
- •1 x Water sampler
- •1 x Activation code for ADEY ProCheck app
- •1 x Access to Report Management System*

Refill kits are available from your local merchant. The refill kits do not contain the activation code. The code is only included in the ADEY *ProCheck* main test set.



Certification of water system health to send via email



Record of all tests via the ADEY ProCheck Report Management System

NOTES

News and content

To watch informative videos about how to use our products, please visit our website adey.com

In these videos, Dr. Neil Watson, our Technical Director, explains the important information relating to our products and services. His details, step by step, the water treatment process in central heating systems, which we recommend as part of our ADEY *Best Practice*.

Visit our Facebook, Twitter and LinkedIn pages for the latest ADEY news, events and products and contact us directly.

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