

Digital Pressurisation Units

Product Specification



ADEY[®]

ADEY® Digital Pressurisation Units

Water system pressurisation with advanced digital control

Featuring an integral, unibody break tank design and an intuitive digital control system, ADEY's new range of digital pressurisation units represent the latest innovation in automatic filling and pressure maintenance solutions for sealed heating and chilled systems.

Capable of filling an entire system from empty and monitoring and maintaining design fill pressure, ADEY's Digital Pressurisation Units automatically compensate for minor losses in system pressure by replacing any water that has been lost through slow leaks, air venting etc.

All models across the range are available with either one, (duty) or two, (duty-standby) continuously rated Stuart Turner pumps and are incredibly simple to install, commission and service.

Utilising an innovative microprocessor controller, pressure transducer monitoring and water level sensing, these systems feature intuitive, easy-to-use controls, self-diagnostic functions, configurable volt-free contact alarm outputs and a BMS Modbus interface.

ADEY's range of Digital Pressurisation Units are an integral part of ADEY's complete package of water management solutions and services for commercial heating and chilled systems.

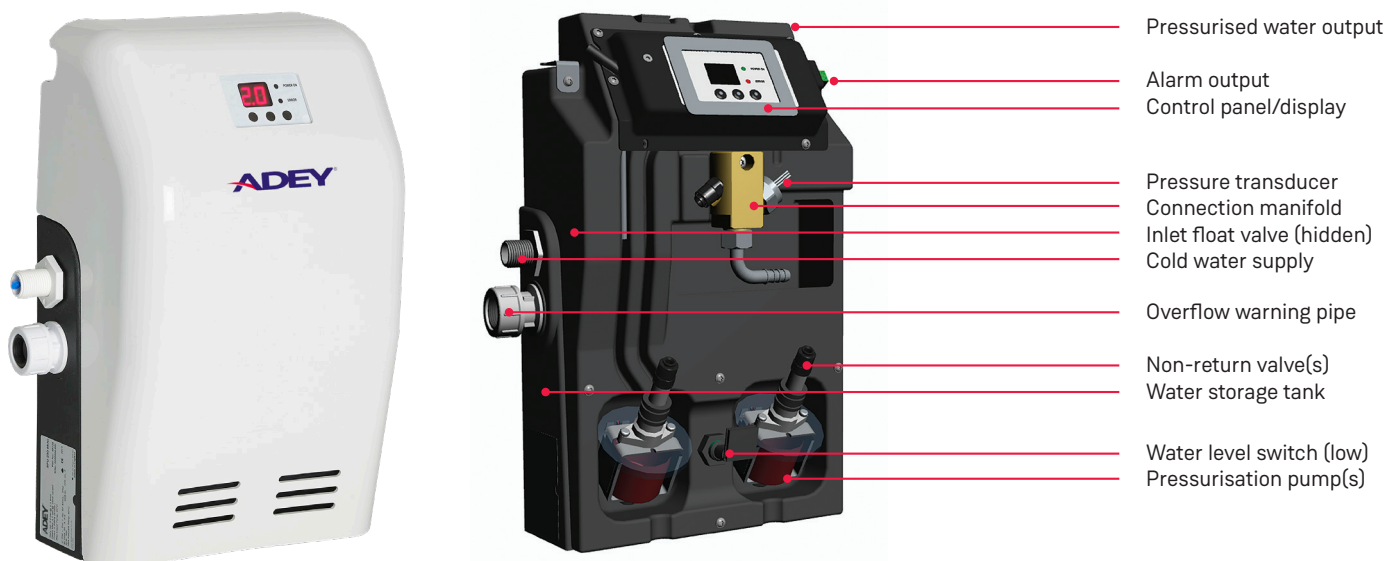


Digital Pressurisation Unit - Mini

Water system pressurisation with advanced digital control

ADEY's Mini Digital Pressurisation Units are suitable for maintaining pressure in large domestic and small commercial sealed heating systems, chilled water systems, refrigeration units and industrial cooling systems up to 3.0 bar in pressure and 6,000 litres capacity.

With a dry weight of just 3.6 or 4.2kg and a space envelope of just 0.017m³, the Mini range provides a truly compact plant room solution offering simple, one-person fit and serviceability, minimal parts and zero wiring, all housed in a compact, robust and easy to remove cover.



Simple and convenient installation

- Compact, wall mounted design
- Easily configured for left or right-hand connection

Quick and easy to commission

- Unique digital control system with intuitive interface

High reliability

- High-flow, WRAS approved fill valve
- Integrated piston pumps and automated system top-up
- Continuously rated pumps featuring brass pump heads and impellers
- Category 5 backflow protection, Type AB air-gap, weir overflow & warning pipe

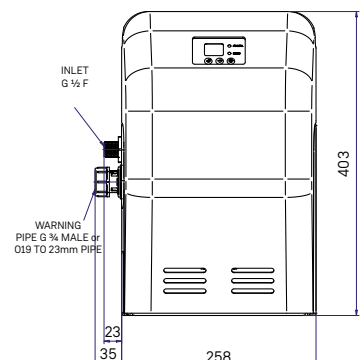
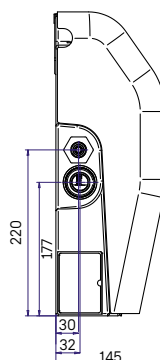
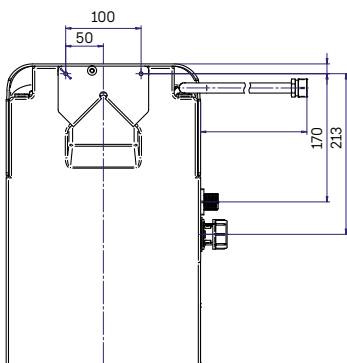
Easy to maintain

- Rapid access with quick release Dual Lock™ cover fixings
- All components including pump(s) easily accessed from the front of the unit

Volumetrics	Mini 130 CP1-03-04911	Mini 230 CP1-03-04912
Depth (mm)	145	145
Width (mm)	293	293
Height (mm)	403	403
Volume (m ³)	0.017	0.017
Weight - incl. fittings (Kg)	3.6	4.2
Weight - filled (Kg)	6.6	7.2

Technical Specification

MINI DIGITAL PRESSURISATION UNIT	MINI 130	MINI 230
Product code	CP1-03-04911	CP1-03-04912
General		
Guarantee	2 years	
Approvals	CE	
Features		
System capacity	Up to 6,000 litres	
Mounting type	Wall mount	
Pump control system	✓	✓
Intelligent control interface	✓	✓
System fill mode	-	-
Dry run protection	✓	✓
Noise rating	60 dB(A)	
Construction		
Front cover	Acrylic-capped ABS	
Break tank	Polyethylene	
Performance		
Maximum Fill Pressure	3.0 bar (300 kPa)	
Maximum flow	1L/min.	
Maximum inlet pressure (tank fill valve)	7.0 bar (700 kPa)	
Maximum working pressure	6.0 bar (600 kPa)	
Ambient air temperature	Min. 4°C / Max. 40°C	
Relative humidity	95% non-condensing	
Min./Max. water temperature	Min 4°C / Max 23°C	
Water tank		
Capacity	2 litres	
Inlet valve	Torbeck (Side entry) 12L/min.	
Fluid category protection	CAT 5 (Type AB air gap with weir)	
Connections		
Cold water inlet (flexible hose)	G ½ male	
Cold water outlet (flexible hose)	15mm compression x 600mm flexible hose	
Overflow (compression fitting)	G ¾ (19/23mm pipe connection)	
Pump		
Number of pumps	1	2
Pump mode	Duty	Duty-standby
Pump type	Solenoid	
Motor type	Piston	
Duty rating (unit)	Int. 30 mins on/30 mins off (S3)	Continuous (S1)
Pump head & seal	PA66/POM NBR	
Control system		
Pressure monitoring	Pressure transducer	
Electrical		
Power supply/phase/frequency	230 V a.c. / 1 / 50 Hz	
Power consumption	100 Watts	
Full load current	0.5 Amps	
Fuse rating	5.0 Amps	
Power cable (pre-wired)	1.5 metres	
Alarm output	Single	
Physical		
IP rating	IPX4	
Width	293mm	
Depth	145mm	
Height	403mm	
Weight - incl. fittings (Kg)	3.6 Kg	4.2 Kg
Weight - filled (Kg)	6.6 Kg	7.2 Kg

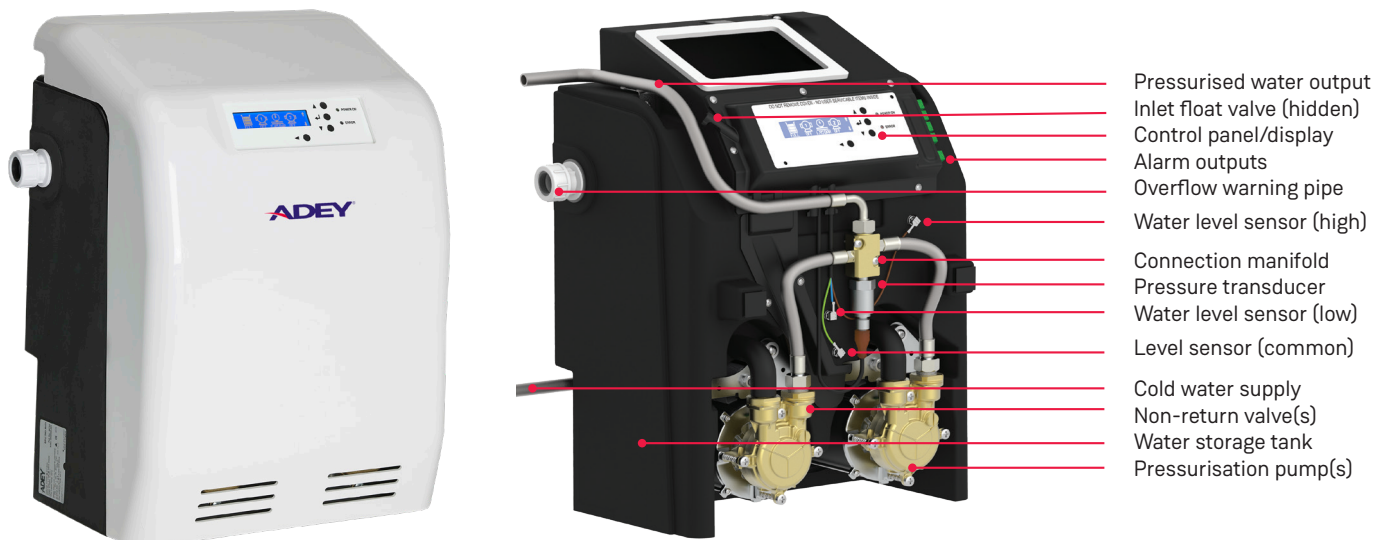


Digital Pressurisation Unit - Midi

Water system pressurisation with advanced digital control

ADEY's Midi Digital Pressurisation Units are suitable for maintaining pressure in large domestic and commercial sealed heating systems, chilled water systems, refrigeration units and industrial cooling systems up to 4.1 bar in pressure and 300,000 litres capacity.

With a dry weight of just 13.4 or 19.4kg and a space envelope of just 0.056m³, the Midi range delivers high performance system pressurisation and monitoring in what is still a highly compact and lightweight solution which can be either floor or wall mounted.



Simple and convenient installation

- Compact size, wall or floor mounting options
- One-person install and serviceability
- Easily configured for left or right-hand connection

Quick and easy to commission

- Unique digital control system, intuitive interface & backlit LCD display

High reliability

- High-flow, WRAS approved fill valve
- Peripheral pumps with continuously rated induction motors – auto system fill & top-up
- Category 5 backflow protection, Type AB air-gap, weir overflow & warning pipe

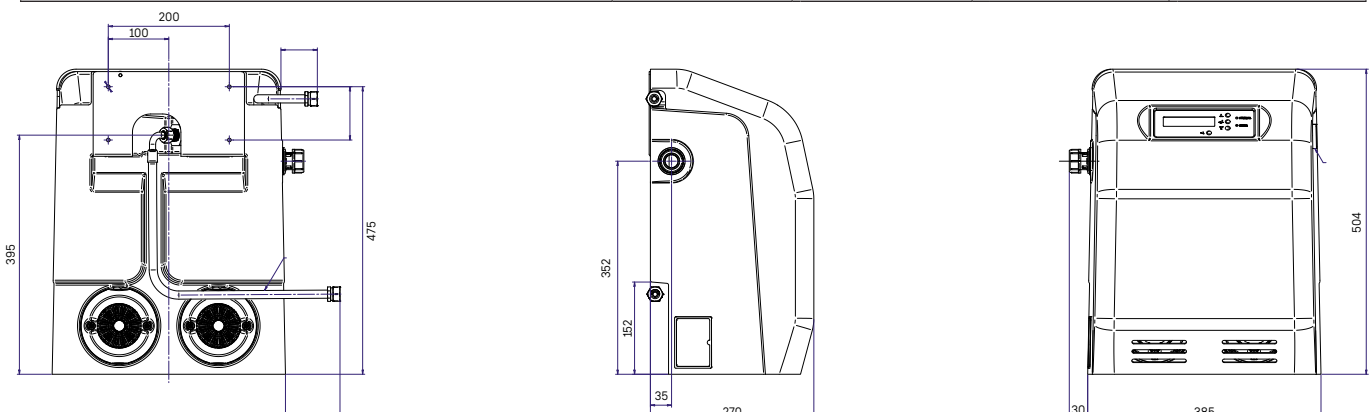
Easy to maintain

- Rapid access with quick release Dual Lock cover fixings
- All components including pump(s) easily accessed from the front of the unit

Volumetrics	Midi 135 CP1-03-04913	Midi 235 CP1-03-04915	Midi 150 CP1-03-04914	Midi 250 CP1-03-04916
Depth (mm)	270	270	270	270
Width (mm)	415	415	415	415
Height (mm)	504	504	504	504
Volume (m ³)	0.056	0.056	0.056	0.056
Weight - incl. fittings (Kg)	13.4	19.4	13.4	19.4
Weight - filled (Kg)	23.4	29.4	23.4	29.4

Technical Specification

MIDI DIGITAL PRESSURISATION UNIT	MIDI 135	MIDI 235	MIDI 150	MIDI 250
Product code	CP1-03-04913	CP1-03-04915	CP1-03-04914	CP1-03-04916
General				
Guarantee	2 years			
Approvals	CE			
Features				
System capacity	Up to 300,000 litres			
Mounting type	Wall or floor mount			
Pump control system	✓			✓
Intelligent control interface	✓			✓
System fill mode	✓			✓
Dry run protection	✓			✓
Noise rating	60 dB(A)	60 dB(A)	62 dB(A)	62 dB(A)
Construction				
Front cover	Acrylic-capped ABS			
Break tank	Polyethylene			
Performance				
Maximum Fill Pressure	3.5 bar (350 kPa)		4.1 bar (410 kPa)	
Maximum flow	17L/min.		20L/min.	
Maximum inlet pressure (tank fill valve)	7.0 bar (700 kPa)			
Maximum working pressure	6.0 bar (600 kPa)			
Ambient air temperature	Min. 4°C / Max. 40°C			
Relative humidity	95% non-condensing			
Min./Max. water temperature	Min 4°C / Max 23°C			
Water tank				
Capacity	8 litres			
Inlet valve	Torbeck (Side entry) 12L/min.			
Fluid category protection	CAT 5 (Type AB air gap with weir)			
Connections				
Cold water inlet & outlet (flexible hose)	15mm compression x 600mm flexible hose			
Overflow (compression fitting)	G ¾ (19/23mm pipe connection)			
Pump				
Number of pumps	1	2	1	2
Pump mode	Duty	Duty-standby	Duty	Duty-standby
Pump type	Peripheral			
Motor type	Induction (thermal trip, auto reset)			
Duty rating (unit)	Continuous (S1)			
Pump head & impeller	Brass			
Control system				
Pressure monitoring	Pressure transducer			
Electrical				
Power supply/phase/frequency	230 V a.c. / 1 / 50 Hz			
Power consumption	380 Watts		545 Watts	
Full load current	1.7 Amps		2.4 Amps	
Fuse rating	5.0 Amps			
Power cable (pre-wired)	1.5 metres			
Alarm output	Multiple			
Physical				
IP rating	IPX4			
Width	415mm			
Depth	270mm			
Height	504mm			
Weight - incl. fittings (Kg)	13.4 Kg	19.4 Kg	13.4 Kg	19.4 Kg
Weight - filled (Kg)	23.4 Kg	29.4 Kg	23.4 Kg	29.4 Kg



Digital Pressurisation Unit - Maxi

Water system pressurisation with advanced digital control

ADEY's Maxi Digital Pressurisation Units are suitable for maintaining pressure in large domestic and commercial sealed heating systems, chilled water systems, refrigeration units and industrial cooling systems up to 8.0 bar in pressure and 300,000 litres capacity.

Simple to install and commission, they are housed in a robust steel enclosure which is suitable for floor mounting only.



Volumetrics	Maxi 180 CP1-03-04998	Maxi 280 CP1-03-04999
Depth (mm)	324	324
Width (mm)	477	477
Height (mm)	780	780
Volume (m ³)	0.121	0.121
Weight - incl. fittings (Kg)	34	45
Weight - filled (Kg)	52	63

Simple to install and commission

- Compact floor mounted unit
- Unique digital control system, intuitive interface & backlit LCD display
- Multiple volt-free contacts & Modbus BMS connectivity to external alarms and systems

High reliability

- High recovery, WRAS approved fill valve – 12 litres per minute @ 1.0 bar
- Peripheral pumps with continuously rated induction motors – auto system fill & top-up
- Category 5 backflow protection, Type AB air-gap, weir overflow & warning pipe
- Dry-run protection

Easy to maintain and service

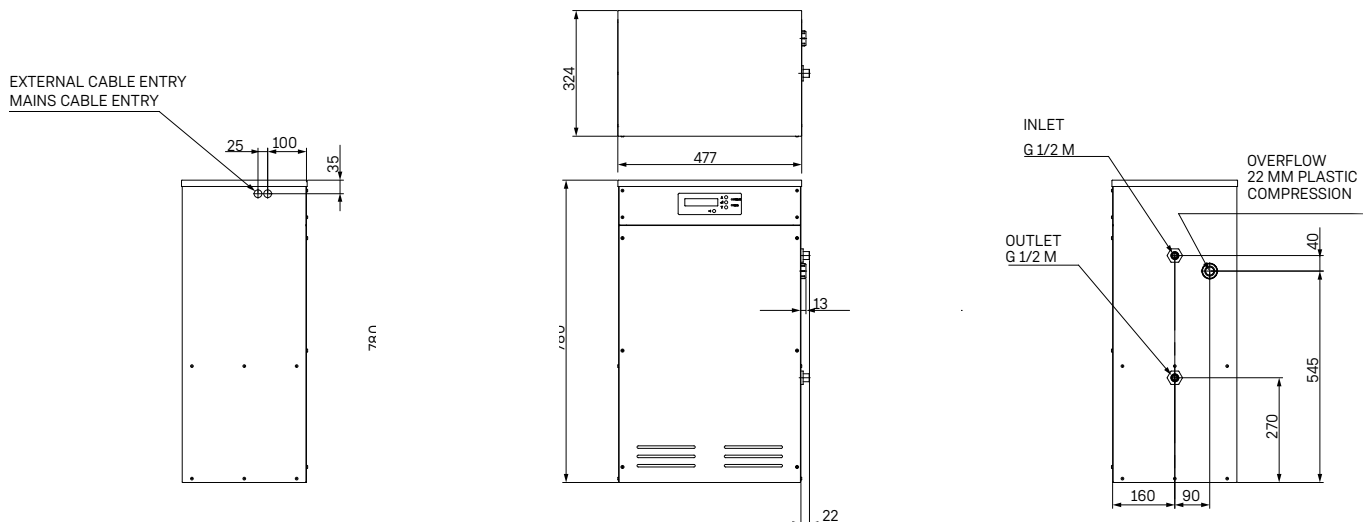
- All components including pump(s) easily accessed from the front of the unit

Performance

- Duty or Duty-Standby options
- Up to 8.0 bar pressure
- 18 litre tank capacity
- Up to 300,000 litre capacity

Technical Specification

MAXI DIGITAL PRESSURISATION UNIT	MAXI 180	MAXI 280
Product code	CP1-03-04998	CP1-03-04999
General		
Guarantee	2 years	
Approvals	CE	
Features		
System capacity	Up to 300,000 litres	
Mounting type	Floor mount	
Pump control system	✓	✓
Intelligent control interface	✓	✓
System fill mode	✓	✓
Dry run protection	✓	✓
Noise rating	70 dB(A)	
Construction		
Enclosure	Power coated steel	
Break tank	Polyethylene	
Performance		
Maximum Fill Pressure	8.0 bar (800 kPa)	
Maximum flow	18L/min.	
Maximum inlet pressure (tank fill valve)	7.0 bar (700 kPa)	
Maximum working pressure	10.0 bar (1000 kPa)	
Ambient air temperature	Min. 4°C / Max. 40°C	
Relative humidity	95% non-condensing	
Min./Max. water temperature	Min 4°C / Max 23°C	
Water tank		
Capacity	18 litres	
Inlet valve and fill rate	Float valve 12L/min.	
Fluid category protection	CAT 5 (Type AB air gap with weir)	
Connections		
Cold water inlet & outlet	G ½ male	
Overflow (compression fitting)	G ¾ (19/23mm diameter pipe compression fitting)	
Pump		
Number of pumps / pump mode	1 / Duty	2 / Duty - Standby
Pump type	Peripheral	
Motor type	Induction (thermal trip, auto reset)	
Duty rating (unit)	Continuous (S1)	
Pump head & impeller	Brass	
Control system		
Pressure monitoring	Pressure transducer	
Electrical		
Power supply (Vac/Ph/Hz)	230 V a.c. / 1 / 50 Hz	
Power consumption (P1)	600 Watts	
Current - full load	3.4 Amps	
Fuse rating	5.0 Amps	
Alarm output	Multiple	
Physical		
IP rating	IPX2	
Width	477mm	
Depth	324mm	
Height	780mm	
Weight - including fittings	34 Kg	45 Kg
Weight - filled	52 Kg	63 Kg



ADEY Digital Pressurisation Units

Features and Benefits



Unique unibody design

Offers a compact unit that can be wall or floor mounted, along with flexible hose connections which can be easily configured for left- or right-hand connection.

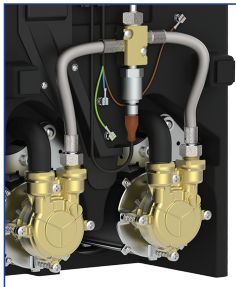
Simple & convenient to install



Advanced digital controls

Featuring an intuitive, easy-to-use menu system and backlit LCD matrix display.

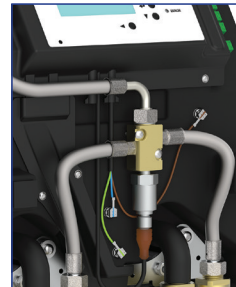
Quick & easy commissioning



Premium quality pumps

Available in single (duty) or twin (duty-standby) continuously rated pump options. Duty-standby models provide balanced usage based on pump run-time, making them highly reliable.

Highly reliable



Precise pressure transducer

Closed-loop control featuring precise system pressure monitoring and top-up. System pressure control operates in 0.1 bar increments.

Monitor & control



Robust break tank

Up to 18 litres capacity and with a WRAS approved fill valve offering high flow rates of 12 litres per minute. Features include Type AB air gap and weir flow.

Category 5 compatible



External alarm

Multiple volt-free contacts and BMS connectivity to external alarms and systems.

System connectivity

Performance

- Duty or Duty-Standby options
- Up to 8.0 bar pressure options
- 2 - 18 litre tank capacity options
- High-flow fill valve
- Quiet operation – from 60dB(A)

Quality

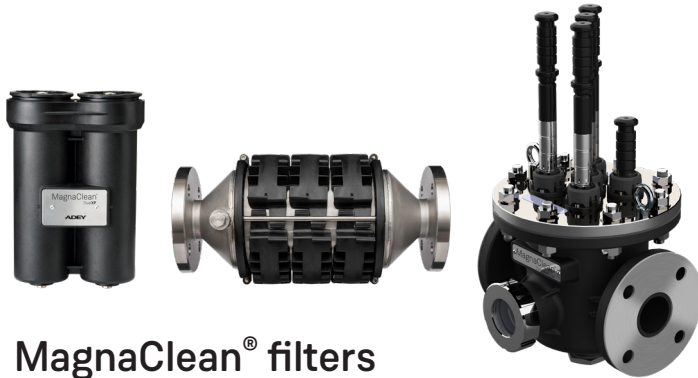
- ISO 9001: 2015
- Built-in safety – low voltage controls
- WRAS approved fill-valve
- BS EN 60335 compliant
- CE & WEEE compliant

Reliability

- 2-year guarantee
- Robust construction
- Continuously rated pumps
- BS EN 60335 compliant
- Dry-run protection

ADEY's Digital Pressurisation Units offer the next generation of automatic filling units for sealed systems. They are extremely compact and feature a unique, unibody break tank design, high quality brass pumps and an advanced digital control system.

ADEY Commercial Products



MagnaClean® filters

Commercial heating system efficiency is critical and ADEY's range of commercial products delivers results. 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 core as the primary filtration method. This process will work regardless of the size of particles passing through the heating system.

Chemical Dosing Pot

ADEY's range of Chemical Dosing Pots provide a safe and controlled method of introducing chemicals into sealed heating and cooling water systems whilst not interrupting a systems operation.

Air and Dirt Separator

ADEY's 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.

Commercial Water Testing

From sample drop-off, through refrigerated transport and professional, accredited laboratory analysis to delivering results to your inbox. Our industry leading water testing service provides a 'closed-loop' of reliability, convenience, accuracy and speed of response.

A full suite of chemical testing is available including metals, anions, solids, glycols and inhibitors.

A complete range of microbiological testing is also available including BSRIA, swimming pools, water hygiene and Legionella.

Award Winning Chemicals

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



ADEY[®]

Telephone: 01242 546717 Email: info@adey.com
www.adey.com



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