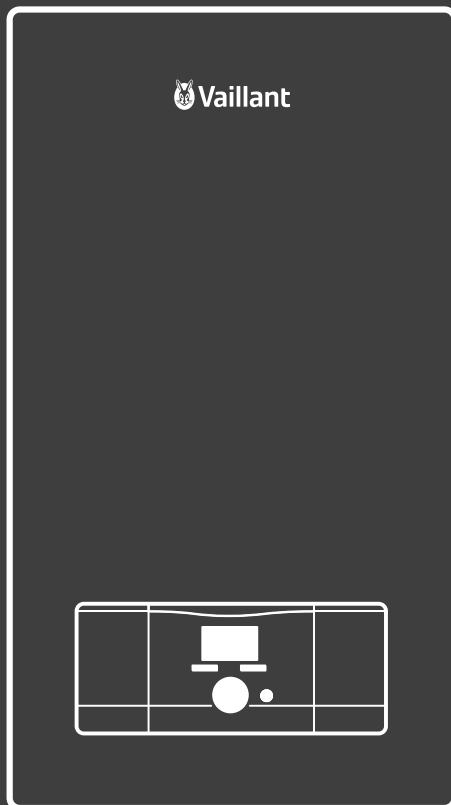


WATERWARE

HEATING



RENEWABLE

Hot Water Systems

Pure VED
Hybrid Mini
Hybrid Maxi
3 Phase Electric
Net Zero



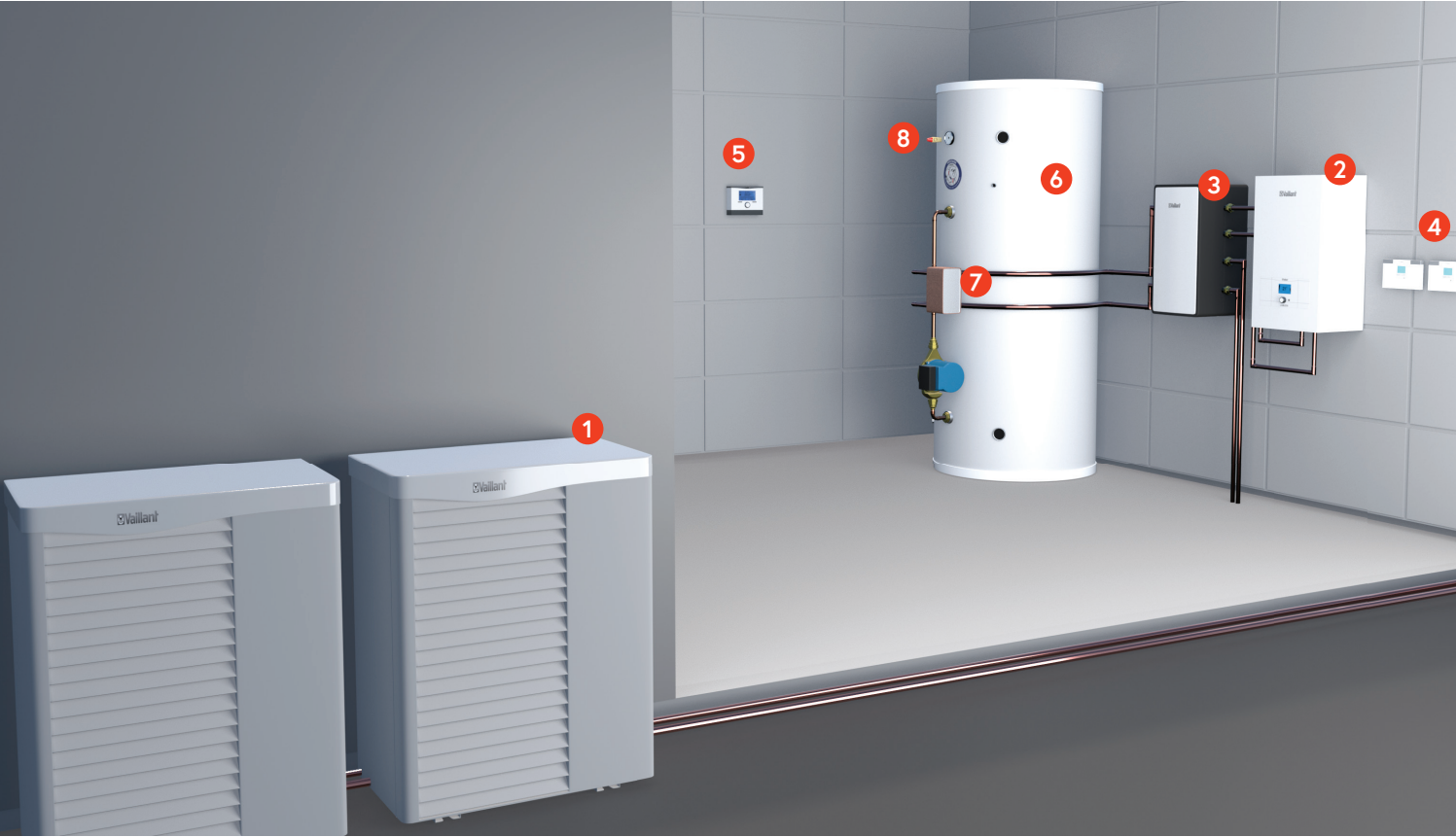
Pure VED **Electric Instantaneous**

Vaillant's new Pure VED fulfills a promise of optimal use of available energy. Whether as a replacement unit or for newly built homes or apartments - Vaillant's electric instantaneous water heaters give you all the options for decentralised hot water supply in the bathroom and kitchen.

The Pure VED, with its attractive design and proven prize-winning technology, delivers a compact and space-saving solution which can be set to either 40°C or 55°C delivery temperature.

Whether for a single or multi-level family house, the Pure VED exclusively fulfills the highest hot water demands even when tapped to multiple points. The Pure VED is controlled electronically and delivers hot water at a rate of 8,10 or 12 litres per minute.

Pure VED	VED E 18/8	VED E 21/8	VED E 24/8	VED E 27/8
Energy efficiency for hot water (A+ to F)	A	A	A	A
Heating output	18 kW	21 kW	24 kW	27 kW
Output control	electronic steered	electronic steered	electronic steered	electronic steered
Minimum start flow rate	3 l/min	3 l/min	3 l/min	3 l/min
Standard start flow rate	8 l/min	8 l/min	8 l/min	10 l/min
Optimal start flow rate	12 l/min	12 l/min	12 l/min	12 l/min
Energy efficiency for hot water (A+ to F)	400V/50Hz	400V/50Hz	400V/50Hz	400V/50Hz
Electrical connection	Cable	Cable	Cable	Cable
Protection class	IP25	IP25	IP25	IP25
Water temperature (switchable)	40 / 55°C	40 / 55°C	40 / 55°C	40 / 55°C
Max. inlet temperature	55°C	55°C	55°C	25°C
Height x width x depth	481 / 240 / 99 mm	481 / 240 / 99 mm	481 / 240 / 99 mm	481 / 240 / 99 mm
Weight, unpacked	4,4 kg	4,4 kg	4,4 kg	4,4 kg
Connection cold/hot water	R 1/2	R 1/2	R 1/2	R 1/2
Hot water 25°C temperature rise	10.31 l/p/m	12.1 l/p/m	13.7 l/p/m	15.4 l/p/m



Hybrid Mini

System Description:

Dual aroTHERM air to water heat pumps backed up by an eloBLOCK 3 phase indirect boiler, recovers the hot water cylinders via the Habanero HX recovery system. The control system allows the heat pumps to add the greatest proportion of energy, only using the 3 phase boiler when required. The indirect nature of the heat pumps and boiler extends the plants life, especially in hard water environments.

Major Components:

- 1. aroTHERM 16kW air to water heat pump
- 2. eloBlock 28kW 3 phase
- 3. Arotherm buffer tank
- 4. aroTHERM hydrobox controller
- 5. VRC 700 cascade controller
- 6. Protank commercial series
- 7. Protank Habanero recovery system
- 8. Caleffi safety & temperature control valves

Technical Specifications:		
Maximum power	kW	2x16kW in cascade with 28kW backup
Maximum storage	litres	1x1000L or 2x 500L in parallel
Cold water expansion setting	bar	8 or 10 bar
Over pressure setting	bar	10 or 12 bar
Maximum supply pressure	kPa	650kPa or 800kPa
First hour production	Litres	1,700L @ 60°C
Recovery time	minutes	45mins from 45°C to 65°C
Output options	Direct supply	60-65°C temperature range 0 to 250 L/Min flow range Ringmain ready, Point of use tempering required
	Caleffi Thermostatic	40-55°C temperature range 30 to 250 L/Min flow range Ringmain ready, UV sterilization required
	Caleffi Electronic	40-55°C temperature range 30 to 250 L/Min flow range Ringmain ready, UV sterilization required Data logging and BMS integration standard





Hybrid **Maxi**

System Description:

Cascade of aroTHERM air to water heat pumps backed up by a pair of eloBLOCK 3 phase indirect boilers, recovers the hot water cylinders via the Habanero HX recovery system. The control system allows the heat pumps to add the greatest proportion of energy, only using the 3 phase boiler when required. The indirect nature of the heat pumps and boiler extends the plants life, especially in hard water environments.

Major Components:

1.  aroTHERM 16kW air to water heat pump
2.  eloBlock 28kW 3 phase
3. aroTHERM hydrobox controller
4. VRC 700 cascade controller
5. Protank commercial series
6. Protank Habanero recovery system
7. Vaillant buffer tank
8. Caleffi safety & temperature control valves

Technical Specifications:

Maximum power	kW	6x16kW in cascade with dual 28kW backup
Maximum storage	litres	2x1000L or 4x 500L in parallel
Cold water expansion setting	bar	8 or 10 bar
Over pressure setting	bar	10 or 12 bar
Maximum supply pressure	kPa	650kPa or 800kPa
First hour production	Litres	4,000L @ 60°C
Recovery time	minutes	65mins from 45°C to 65°C
Output options	Direct supply	60-65°C temperature range 0 to 500 L/Min flow range Ringmain ready, Point of use tempering required
	Caleffi Thermostatic	40-55°C temperature range 30 to 275 L/Min flow range Ringmain ready, UV sterilization required
	Caleffi Electronic	40-55°C temperature range 30 to 500 L/Min flow range Ringmain ready, UV sterilization required Data logging and BMS integration standard




3 Phase Electric

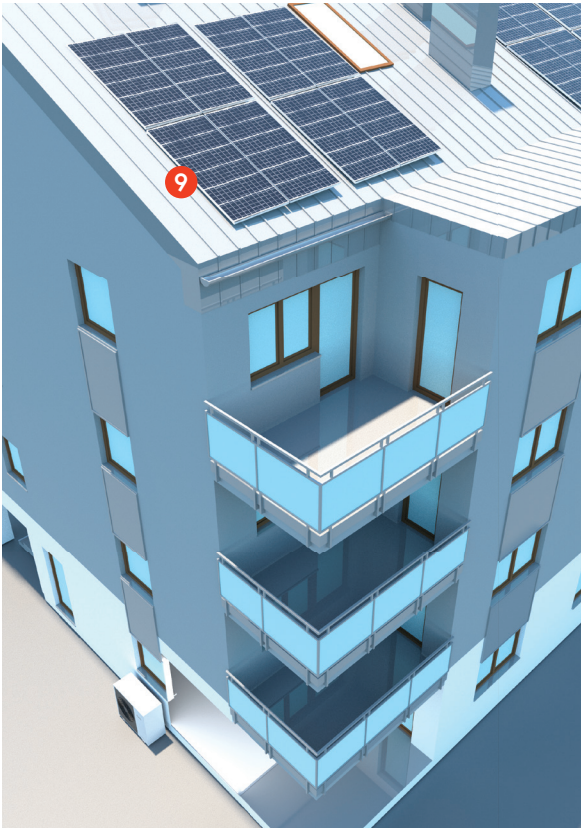
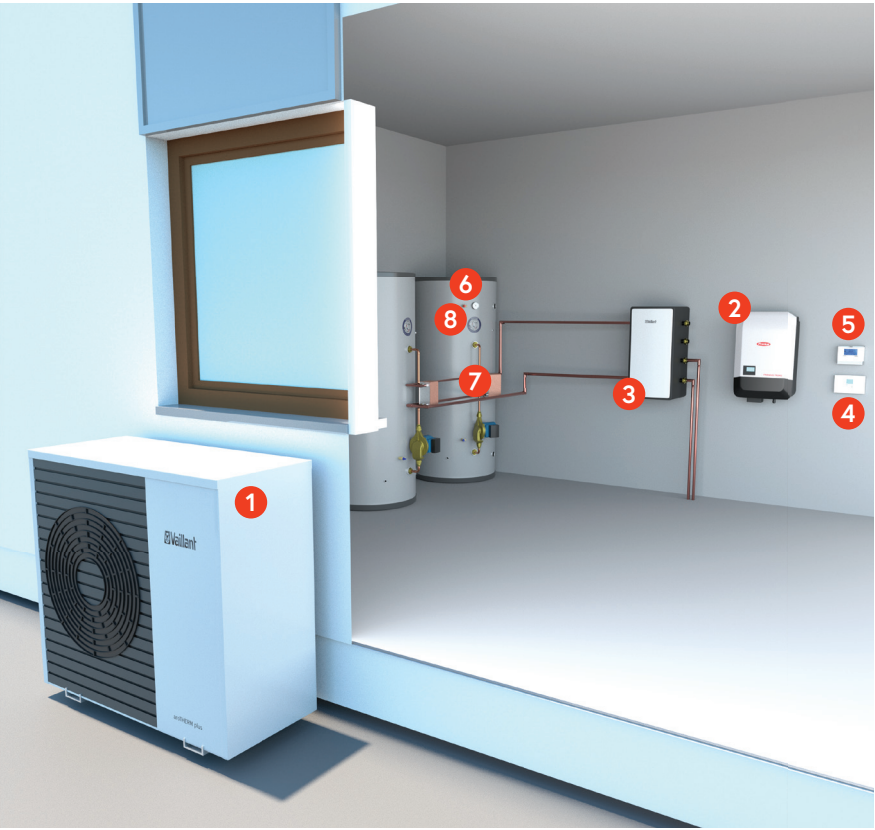
System Description:

eloBLOCK 3 phase indirect boilers, recovers the hot water cylinders via the Habanero HX recovery system. This allows a scalable solution where multiple boilers can be added in a cascade. The indirect nature of the boilers extends the plants life, especially in hard water environments.

Major Components:

- 1.  eloBlock 28kW 3 phase
- 2. VRC 700 cascade controller
- 3. Protank commercial series
- 4. Protank Habanero recovery system
- 5. Caleffi safety & temperature control valves

Technical Specifications:		
Maximum power	kW	4x28kW in cascade
Maximum storage	litres	2x1000L or 4x 500L in parallel
Cold water expansion setting	bar	8 or 10 bar
Over pressure setting	bar	10 or 12 bar
Maximum supply pressure	kPa	650kPa or 800kPa
First hour production	Litres	4,500L @ 60°C
Recovery time	minutes	25mins from 50°C to 70°C
Output options	Direct supply	60-80°C temperature range 0 to 500 L/Min flow range Ringmain ready, Point of use tempering required
	Caleffi Thermostatic	40-55°C temperature range 30 to 275 L/Min flow range Ringmain ready, UV sterilization required
	Caleffi Electronic	40-55°C temperature range 30 to 500 L/Min flow range Ringmain ready, UV sterilization required Data logging and BMS integration standard



Net Zero

System Description:

An aroTHERM air to water heat pump is connected to a 40L buffer which recovers the hot water cylinders via the habanero HX recovery system. The heat pump is supported by a 5kW PV system which is designed to 100% offset the power required to drive the system annually. The control system allows the heat pumps to boost the water temperature in the tanks when the PV system is producing power and coast when the system is using grid energy. Twin electric elements in the buffer provide back up to the system. The indirect nature of the heat pump and heat exchanger extends the plants life, especially in hard water environments.

Major Components:

- 1. aroTHERM 16kW air to water heat pump
- 2. Fronius Inverter
- 3. aroTHERM buffer tank
- 4. aroTHERM hydrobox controller
- 5. VRC 700 cascade controller
- 6. Protank commercial series
- 7. Protank Habanero recovery system
- 8. Caleffi safety & temperature control valves
- 9. Solar Panels

Technical Specifications:

Maximum power	kW	16kW with 40L buffer
Maximum storage	litres	2x1000L in parallel
Inverter	kW	Fronius Primo 5.0KW Int Grid Inverter
PV array	Panels	20x 330w REC Twinpeak 2 Mono series solar panels
Cold water expansion setting	bar	8 or 10 bar
Over pressure setting	bar	10 or 12 bar
Maximum supply pressure	kPa	650kPa or 800kPa
First hour production	Litres	2,700L @ 60°C in the first hour
Recovery time	minutes	187mins from 45°C to 65°C
Output options	Direct supply	60-65°C temperature range, 0 to 250 L/Min flow range Ringmain ready, Point of use tempering required
	Caleffi Thermostatic	40-55°C temperature range, 30 to 250 L/Min flow range Ringmain ready, UV sterilization required
	Caleffi Electronic	40-55°C temperature range, 30 to 250 L/Min flow range Ringmain ready, UV sterilization required Data logging and BMS integration standard

SOLUTION DESIGN & SUPPORT

Waterware's expert technical team are here to support you. Our specially trained in-house team provide a range of services which include:

- **Pre-sales: Product and system help and specification**
- **Design and quote**
- **Installation support**
- **After sales troubleshooting and performance advice**

If you are thinking about your home heating and cooling options, whether it be a renovation or a new build project, give us a call. We have a dedicated technical team who are committed to finding the best solution for every situation.

The team will guide you through the design and quoting process from start to finish, providing advice and suggestions to get the best result from your budget. From choosing whether you want radiators or underfloor, to helping weigh up choices such as fuel source. We take into consideration your preferences, compatibility of products, ongoing running cost, and initial system cost.

All of our systems offer a change to merge your heating and cooling with the production of domestic hot water. Electric hot water cylinders can cost up to four times more to run than a natural gas boiler or electric heat pump, and there is no compromise on heating system function

All we need to begin pricing after these details have been discussed, is a floor plan. We return to you a quote and a system description which contains product information, a layout of the materials on your plan, and the system schematic/design. After the initial quote, discussion continues with our technical and sales team until you are happy with everything, from the cost down to the placement of the last component inside the house.



An example of the system description document covering the complete system.

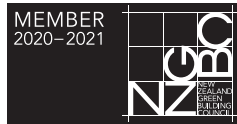
Peace of mind - systems that are designed, purchased, and installed to specification come with Waterware's performance guarantee. Simply put, if the house doesn't heat and cool correctly then we will rectify it at our cost.

Waterware also offers its on-line Knowledge Base as a source for technical troubleshooting and advice.

Note: This is only available with a Waterware trade login

We consider ourselves experts in our field where we strive to answer any technical question you may have about any of our products.

Proud members of



WATERWARE



An air to water heatpump harvests free energy from the ambient environment - it consumes 1 unit of energy to harvest up to 4 i.e. 400% efficient. The unit consumed comes from conventional electricity and over 80% of NZ's electricity comes from renewable technologies like hydro, solar and wind.

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