

# Ferrolli

## AquaCyl

90 – 1000 litres  
stainless steel unvented  
hot water cylinders

indirect, direct and  
twin coil models



KIWA &  
WRAS  
G3  
approved

stainless  
steel

unvented



## 90–300 litres

High quality stainless steel hot water cylinder for use on unvented hot water systems

### Standard features

- No anode
- Easy to install
- Easy to commission
- Simple electrical installation
- Stylish appearance
- Long life stainless steel body
- Low density, low HCFC insulation ensures optimum efficiency
- Easy to adjust immersion heater
- No internal expansion bubble to maintain
- All pipe and electrical connections are possible from cylinder 'front'
- 25 year guarantee



### Components supplied with each cylinder

- Inlet control group (comprising a pressure reducing valve set to 3.0 bar, single check valve, filter and expansion valve set to 6.0 bar)
- Cylinder thermostat
- Energy cut-out valve
- Tundish
- 22mm motorised valve
- Expansion vessel
- Temperature and pressure gauge
- 3kW immersion heater
- For use in vented systems the cylinder may be supplied without the expansion kit



### Guarantee

The stainless steel vessel carries a 25 year guarantee against faulty manufacture or materials, provided that:

- The product is used solely for the storage of mains quality potable water
- The product has not been modified or tampered with
- The product has been installed and maintained by a competent person in accordance with the installation instructions
- The product has not been subjected to damage caused by frost or other external influence
- The Guarantee Card, supplied with the product, has been completed and returned to the manufacturer within 90 days of installation
- Components are guaranteed for 2 years
- Failure to carry out the annual safety check on this product will invalidate the guarantee

# Hot Water Generation Performance

## AquaCyl/SC Indirect Models

Storage Capacity (litres)	90	125	150	170	200	250	300
Hot water generation time from 15° to 65° for indirect cylinder (minutes)	33	45	48	45	48	52	55
Regeneration time for 70% of contents for indirect cylinder (minutes)	23	32	34	31	34	36	38
Heat input (kW)	9.6	9.6	10.8	13.2	14.4	16.8	19.2

## AquaCyl/D Direct Models

Storage Capacity (litres)	90	125	150	170	200	250	300
Hot water generation time from 15° to 65° for direct cylinder (minutes)	105	73	87	99	116	145	174
Regeneration time for 70% of contents for direct cylinder (minutes)	73	51	61	69	81	102	122
Heat input (kW)	3.0	6.0	6.0	6.0	6.0	6.0	6.0

## AquaCyl/TC Twin Coil Models

Storage Capacity (litres)	150	200	250	300
Hot water generation time from 15° to 65° for indirect cylinder (minutes)	26	22	23	27
Regeneration time for 70% of contents for indirect cylinder (minutes)	18	16	16	19
Heat input: top coil (kW)	9.6	14.4	19.2	19.2
Heat input: bottom coil (kW)	10.8	16.8	19.2	19.2

# Technical Specification

## AquaCyl all models

Storage Capacity (litres)	90	125	150	170	200	250	300
SC single coil indirect models	✓	✓	✓	✓	✓	✓	✓
D direct models	✓	✓	✓	✓	✓	✓	✓
TC twin coil models	–	–	✓	–	✓	✓	✓
Overall diameter (mm)	545	545	545	545	545	545	545
Including immersion (mm)	610	610	610	610	610	610	610
Overall height (mm)	747	972	1097	1247	1447	1747	2057
Overall height with expansion vessel on top (mm)	1083	1308	1433	1583	1816	2150	2460
Weight when full (kg)	120	159	188	212	246	299	353
Primary flow/return connections (mm)	22	22	22	22	22	22	22
Cold feed/hot draw off connections (mm)	22	22	22	22	22	22	28
Maximum water supply pressure (bar)	12	12	12	12	12	12	12
System operating pressure (bar)	3	3	3	3	3	3	3
Expansion vessel charge pressure (bar)	3	3	3	3	3	3	3
Expansion relief valve set pressure (bar)	6	6	6	6	6	6	6
Temp & pressure relief valve set pressure (bar)	7	7	7	7	7	7	7
Lift temperature (0°)	90	90	90	90	90	90	90
Maximum primary work pressure (bar)	3	3	3	3	3	3	3

# Specifications

**Immersion Heater:** Long life low noise Incoloy 800 element with twin thermostat, incorporating external adjustment to control temperature setting and manual reset for over-temperature cut-out. High performance titanium element immersion heaters are available to order for hard water applications.

**Outer Casing:** Stainless steel with corrosion resistant base.

**Thermal Insulation:** Rigid polyurethane foam – CFC & HCFC free.

**Approvals & Technical Specification:** 316L grade stainless steel body & coil. Manufactured & tested to MOAT 38. WRAS Approved and Part L compliant.

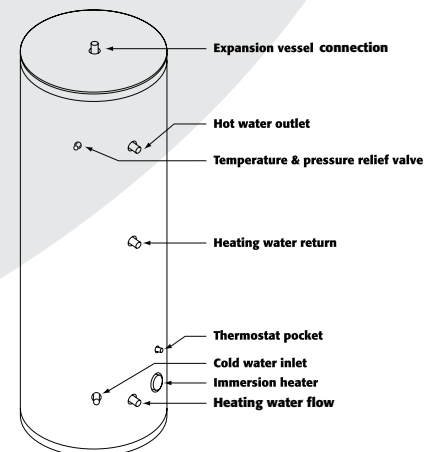
**Pressure Test:** 9 bar.

**Primary Coils:** 22mm continuously wound coil.

**Cylinder Thermostat:** Twin probe with manual reset for over-temperature cut-out.

**Factory Fitted Safety Feature:** Temperature and pressure safety relief valve.

Only 7% heat loss in 24 hours with no external heat input





### Highest specification

Robust Duplex stainless steel, 2mm thick for 510 litre and 3mm thick for the 1000 litre to give longevity of service with a constant operating pressure of 3 bar

**kiwa**  
approved  
product



UK WATER SUPPLY  
REGULATIONS

Built to G3 standards

# 510 – 1000 litres

High quality stainless steel hot water cylinder for use on unvented hot water systems

## Standard features

- Twin coil for fastest heat recovery
- No anode
- Easy to install
- Easy to commission
- Simple electrical installation
- Stylish appearance
- Long life stainless steel body
- Low density, low HCFC insulation ensures optimum efficiency
- Easy to adjust immersion heaters
- No internal expansion bubble to maintain
- All pipe and electrical connections are possible from cylinder 'front'
- 25 year guarantee plus nationwide cover from our own service engineers

## Special features

- Two 3kW immersion heaters fitted as standard (optional 6, 9 and 12kW heaters available)
- 6kW titanium heaters available for hard water areas or for customers with bore holes

## Components supplied with each cylinder

- Inlet control group (comprising a pressure reducing valve set to 3.0 bar, single check valve, filter and expansion valve set to 6.0 bar)
- Cylinder thermostat
- Energy cut out valve
- Tundish
- 22mm motorised valve
- Expansion vessel
- Temperature and pressure gauge
- 3kW immersion heater
- For use in vented systems the cylinder may be supplied without the expansion kit



## Guarantee

The stainless steel vessel carries a 25 year guarantee against faulty manufacture or materials, provided that:

- The product is used solely for the storage of mains quality potable water
- The product has not been modified or tampered with

- The product has been installed and maintained by a competent person in accordance with the installation instructions
- The product has not been subjected to damage caused by frost or other external influence

- The Guarantee Card, supplied with the product, has been completed and returned to the manufacturer within 90 days of installation
- Components are guaranteed for 2 years
- Failure to carry out the annual safety check on this product will invalidate the guarantee

## Hot Water Generation Performance

### AquaCyl/TC Twin Coil Models

Storage Capacity (litres)	510	1000
Hot water generation time from 15° to 65° for indirect cylinder (minutes)	46	91
Regeneration time for 70% of contents for indirect cylinder (minutes)	32	64
Heat input: top coil (kW)	19.2	19.2
Heat input: bottom coil (kW)	19.2	19.2

## Technical Specification

### AquaCyl/TC Twin Coil Models

Storage Capacity (litres)	510	1000
Overall diameter (mm)	700	800
Including immersion (mm)	700	800
Overall height (mm)	2087	2250
Overall height with expansion vessel on top (mm)	Floor mounted	Floor mounted
Weight when full (kg)	596	1215
Primary flow/return connections (mm)	22	22
Cold feed/hot draw off connections (mm)	22	22
Maximum water supply pressure (bar)	12	12
System operating pressure (bar)	3	3
Expansion vessel charge pressure (bar)	3	3
Expansion relief valve set pressure (bar)	6	6
Temp & pressure relief valve set pressure (bar)	7	7
Lift temperature (0°)	90	90
Maximum primary work pressure (bar)	3	3

Only 7% heat loss in 24 hours with no external heat input



## Specifications

**Immersion Heater:** Long life low noise Incoloy 800 element with twin thermostat, incorporating external adjustment to control temperature setting and manual reset for over-temperature cut-out. High performance titanium element immersion heaters are available to order for hard water applications.

**Outer Casing:** Stainless steel with corrosion resistant base.

**Thermal Insulation:** Rigid polyurethane foam – CFC & HCFC free.

**Approvals & Technical Specification:** 316L grade stainless steel body & coil. Manufactured & tested to MOAT 38. WRAS Approved and Part L compliant.

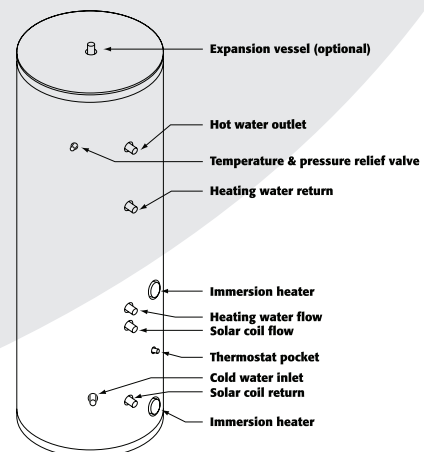
**Pressure Test:** 9 bar.

**Primary Coils:** 22mm continuously wound coil.

**Cylinder Thermostat:** Twin probe with manual reset for over-temperature cut-out.

**Factory Fitted Safety Feature:** Temperature and pressure safety relief valve.

**Options package:** Optional 6kW heaters are available, also stainless steel immersion heaters for hard water areas.



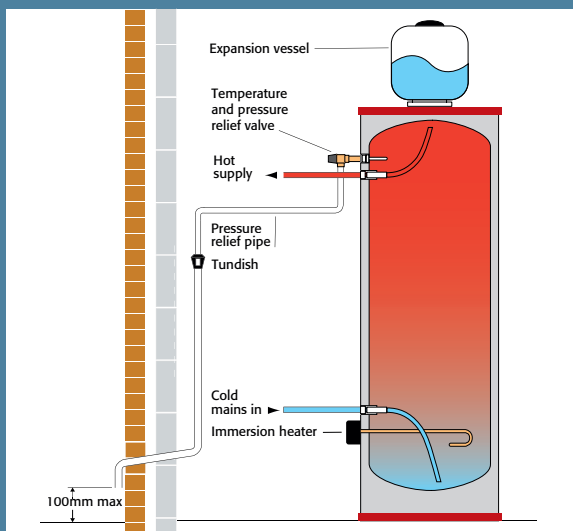


# Standard installation

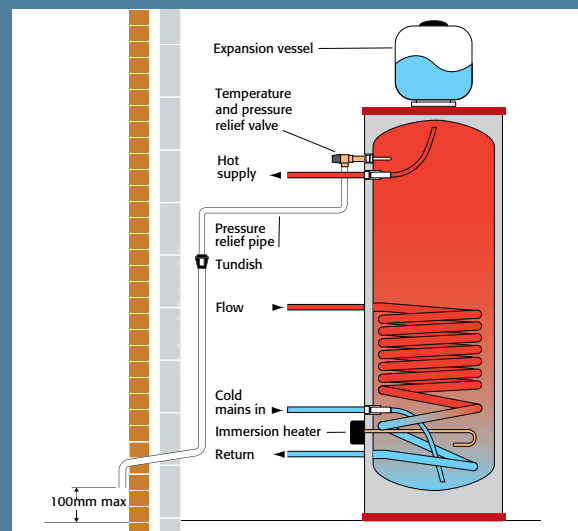
Unvented cylinders over 15 litres must be installed by a “competent person” in accordance with the Building Regulations Document G3. Notice must be given to the local Building Control Officer prior to installation.

## Discharge pipes

Ferroli AquaCyl cylinders are supplied complete with all necessary safety components. Installation must include safety devices to prevent the temperature of the stored water exceeding 100°C at any time. Arrangements must be made for the safe discharge to waste of water that is released when either the temperature and pressure relief valve or the expansion relief valve opens. Pipework must safely deliver hot water from the safety devices to a visible discharge point and cause no danger to people in or about the building.



Direct model installation



Indirect model installation

## British Standards

Ferroli AquaCyl cylinders comply with all relevant British Standards including:

- BS 853 Part 1: Calorifiers, storage vessels for central heating and hot water supply
- BS 1566 Part 2: Specification for single feed indirect cylinders
- BS 7206: Specification for unvented hot water storage units and packages.

AquaCyl temperature and pressure relief components comply with all relevant British Standards including:

- BS 6283 Part 1: Specification for expansion valves for pressures up to and including 10 bar

- BS 6283 Part 2: Specification for temperature relief valves for pressure from 1 bar to 10 bar
  - BS 6283 Part 3: Specification for combined temperature and pressure relief valves from 1 bar to 10 bar.
- AquaCyl expansion vessels comply with all relevant British Standards including:
- BS 4814: Specification for expansion vessels using an internal diaphragm, for sealed hot water systems
  - BS 7766: Specification for assessment of potential for metallic materials to affect adversely the quality of water intended for human consumption.

## Push fit fittings

We advise in all situations that compression fittings are used for connections to cylinder tails provided on our product. Push fit type connections to stainless steel tails provided for water connection to cylinders SHOULD NOT BE USED. Because the gripper rings provided in this type of fitting are themselves made of stainless steel they are unable to achieve adequate ‘bite’ into the tails. Ferroli has experienced push fit fitting failures during stringent testing of the AquaCyl cylinder and will not accept liability for claims resulting from failure of this type of fitting.

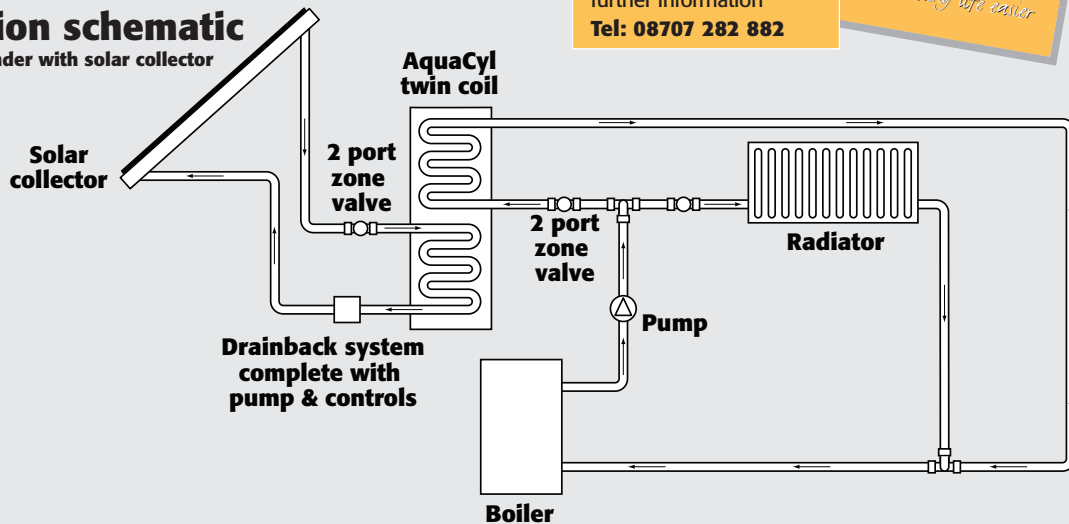
# Solar installation

AquaCyl twin coil cylinders can form the heart of a solar assisted water heating system. A number of solar collector panels may be connected to create a larger system



See separate brochure for further information  
Tel: 08707 282 882

## Installation schematic for twin coil cylinder with solar collector



Ferrol can help you to specify a bespoke AquaCyl twin coil cylinder solar heating solution for larger homes or commercial applications.

Water in the solar collector is pumped through a heat exchanger to heat water in the AquaCyl hot water cylinder. For larger projects solar collectors can be used in tandem on the roof.

Water from the AquaCyl cylinder is used directly at the DHW tap or shower. If necessary, water temperature in the cylinder is topped up by a Ferrol high-efficiency system or open vent boiler.

A separate drainback cylinder is used to store water from the solar collector during the periods when it may be damaged by frost or extreme temperature, or there is no demand for hot water.

The Ferrol control system ensures safe operation of drainback or recharge of water in the solar collector and guarantees optimum efficiency in converting radiant energy from the sun.

# Ferroli



## Ferroli Limited

Ferroli began producing heating appliances and equipment in Italy during the 1950s. Today the company is still family-owned but now operates ten ultra-modern factories in Europe and is developing new production sites and offices in China, Russia and the Ukraine. The Group employs over 2,200 people and produces more than 500,000 boilers per year in addition to its growing business in water heaters and air conditioners.



## Ferroli Domestic Heating Tel: 08707 282 882

Offering gas wall mounted units with outputs from 5kW to 50kW, Ferroli's stylish, compact domestic boilers provide maximum comfort with minimal fuel usage. With a choice of conventional, condensing and combi technologies, there's a boiler to match the heating and hot water requirements of every home. In recent years Ferroli has also become a Northern European leader in solar heating, and has developed underfloor heating systems for the UK market.



## Ferroli Commercial and Industrial Heating Tel: 08707 272 755

Ferroli commercial boilers for pressure jet oil, forced air gas or dual fuel are factory matched with high efficiency burners to provide outputs up to 14,000kW, while meeting the strictest emissions demands. Our range includes high efficiency aluminium, cast iron, steel and stainless steel boilers as well as stainless steel unvented hot water cylinders, pressurisation units and plate heat exchangers. We are also taking a lead in developing underfloor and solar heating solutions.



## Ferroli Technical Helpline and Service Tel: 08707 282 885

The Ferroli technical help desk is able to assist heating engineers at the time of specifying, installing and in-guarantee servicing any of our products. Once the normal guarantee period on our boilers has expired, coverage can be extended cost-effectively with a choice of Ferroli service contracts. All Ferroli service engineers work to Benchmark standards and the Benchmark Code of Practice for the installation, commissioning and servicing of central heating systems.



## Ferroli Spares Tel: 08707 282 882

The rapidly growing popularity of Ferroli as first choice for both domestic and commercial installations means that heating parts stockists offer readily available spares for Ferroli boilers. For less frequently needed items, we maintain a fully-stocked warehouse located centrally in the UK, enabling same-day despatch of just about any part needed to keep your Ferroli boiler running at optimum efficiency.



## Ferroli Training Tel: 08707 282 891

Ferroli understands that well-trained installers are the key to a safe and efficient heating system. That's why we run comprehensive training courses in our purpose-built facilities for everyone concerned in the installation and servicing of Ferroli's range of boilers. We also offer a solar appreciation training day at Burton-upon-Trent or a three day BPEC accredited course. These courses improve installers' knowledge and skills by providing both the theory and the hands-on practical experience essential to maintaining heating system performance and safety.



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## Mixed Sources

Product group from well-managed forests, and other controlled sources  
[www.fsc.org](http://www.fsc.org) Cert no. SA-COC-1487  
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