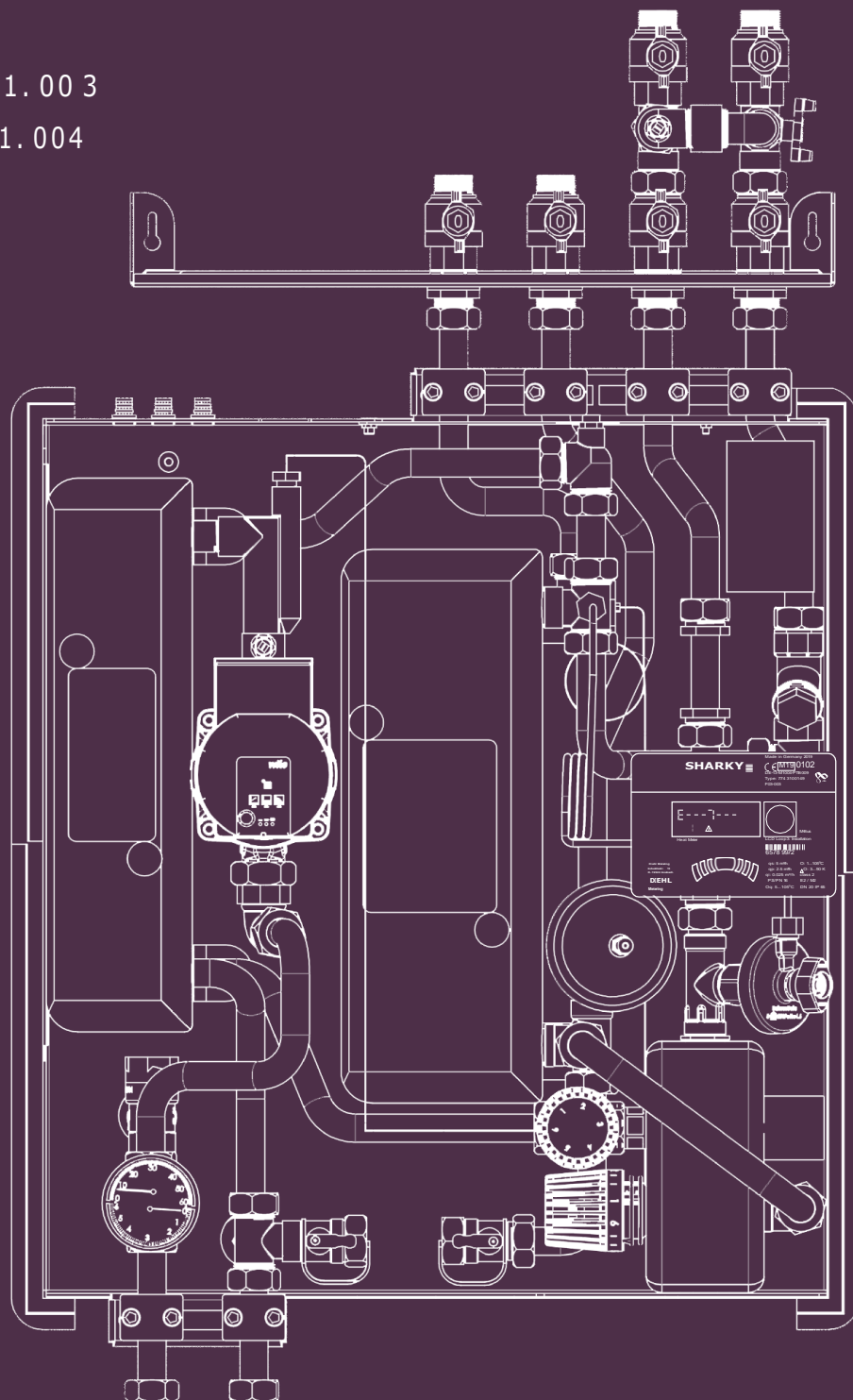


# INDIRECT HEAT INTERFACE UNIT

- 44.01.01.003
- 44.01.01.004



# INDIRECT DHW & SPACE HEATING

## Introduction

The VERSATILE range of indirect heat interface units deliver both instantaneous domestic hot water and heating demand in centralised plant installations.

With a simple, robust, mechanical design, uncomplicated installation and ease of servicing and maintenance, The VERSATILE range of indirect Heat Interface Units offer a range of benefits for installer, architect and specifier.

## Design

The indirect HIU is specifically designed to hydraulically separate the primary circuit from the secondary heating circuit.

Utilising two SWEP plate heat exchangers, the VERSATILE indirect HIU delivers both space heating and instantaneous domestic hot water demand.

Space heating flow temperatures are set using a mechanical thermostat to suit the particulars of any given installation. Two thermostats, with different control ranges, are available, ensuring the unit is suitable for installation with both radiators and UFH.

Flow rates on the secondary heating side are controlled by a high efficiency WILO Para 15/7 circulating pump.

Heating demand is dictated by an AFRISO electronically controlled actuator. In combination with a room thermostat, the unit ensures comfort and stability for tenants.

Instantaneous domestic hot water is delivered in an impressive three seconds from opening a DHW outlet. The set temperature of DHW flow is controlled by a mechanical thermostat which sits within the plate heat exchanger.

This not only gives excellent response times due to its position, but also boasts an anti-tamper function to help minimise risk of scalding end users.

There are also a variety of optional accessories offered including a flushing by-pass valve and pre-payment valve for use with a number of different billing systems.

First fix kits are also available, giving the benefit of being able to flush and commission the primary circuit before the unit arrives on site.

In addition to this, every VERSATILE HIU has an EPP cover, maximising heat retention and helping maintain system performance.

## Features & Benefits

- Robust, durable, mechanical design
- Suitable for radiators and UFH
- DHW demands up to 120kW
- DHW response time of three seconds
- Space heating demands up to 15kW
- Bespoke design service available
- Ideal for use in pre-fabricated utility cupboards
- Insulating EPP cover maintains performance
- WRAS approved & CE marked component parts
- High efficiency WILO para circulating pump
- SWEP plate heat exchangers
- CIMM heating and water hammer expansion vessels
- AFRISO safety relief valve and actuator
- AISI 316L stainless steel pipework
- First fix kits available for ease of install
- Pre payment valve option for ease of billing
- Simple to install
- Front facing components for ease of maintenance

# INDIRECT DHW & SPACE HEATING

## Technical Specifications

### Heating

Radiators	40 - 90°C
UFH	20 - 50°C
Secondary circuit max. pressure	10 Bar
Secondary circuit max. operating pressure	2.5 Bar
Max. pressure loss in primary	40 kPa
Max. pressure loss in secondary	40 kPa
Pump	Wilo Para 15/7
Safety relief valve setting	3 Bar
Expansion vessel	8 litres
Heating control circuit (room stat)	240 V

### External Connections

Primary flow	G 3/4" BSP
Primary return	G 3/4" BSP
Secondary flow	G 3/4" BSP
Secondary return	G 3/4" BSP
Cold water inlet	G 3/4" BSP
DHW outlet	G 3/4" BSP

### Domestic Hot Water - DHW

Set Point	20-70°C
Max. pressure	16 Bar
Max. operating pressure	4 Bar
DHW flow rate*	Up to 33 L/m
DHW PHE capacity	33 - 120kW

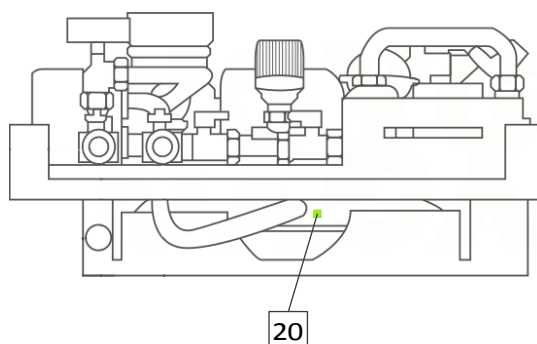
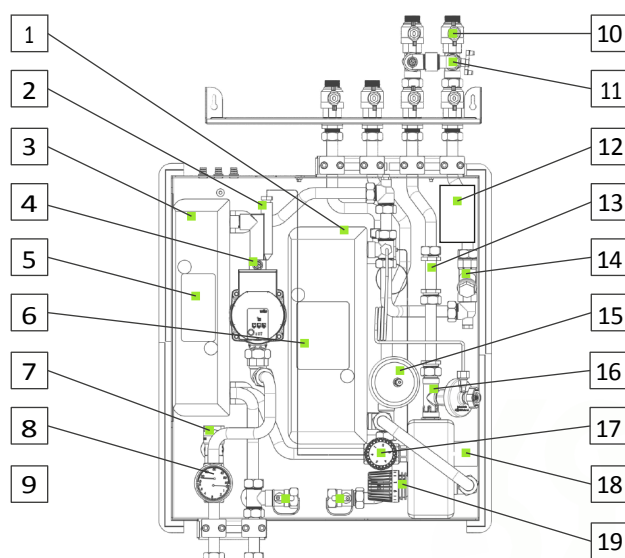
### Primary Side

Max. working pressure	16 Bar
Max. working temperature	90°C
Fluid Medium	Water
DPCV factory setting	40 kPa
Maximum differential pressure	450 kPa

### Electrical Connections

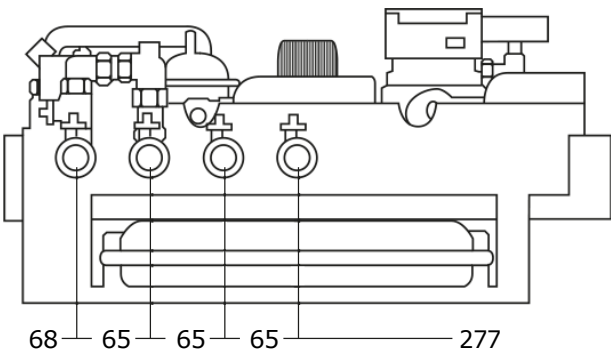
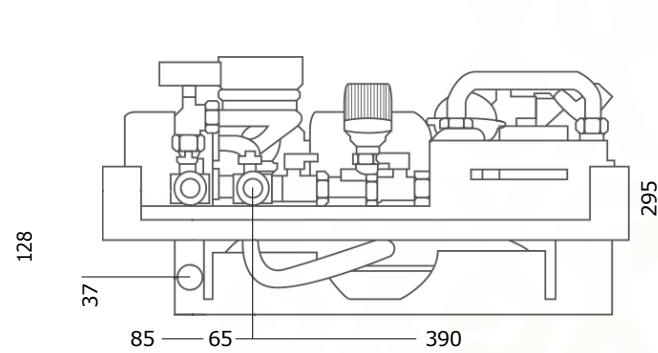
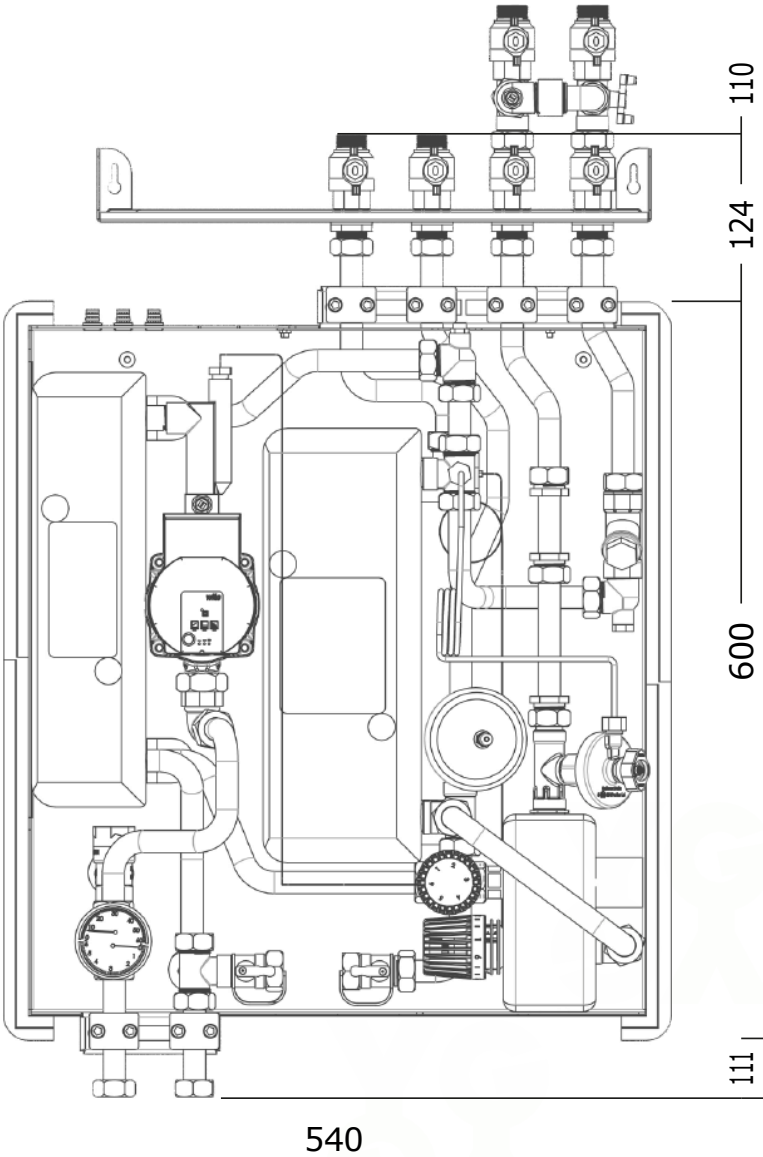
Main voltage	230V AC $\pm$ 10%
Power frequency	50 - 60 Hz
Operating voltage	5 V AC $\pm$ 10%
Input	0.15 - 3W
Protection	IP44

## Components Parts



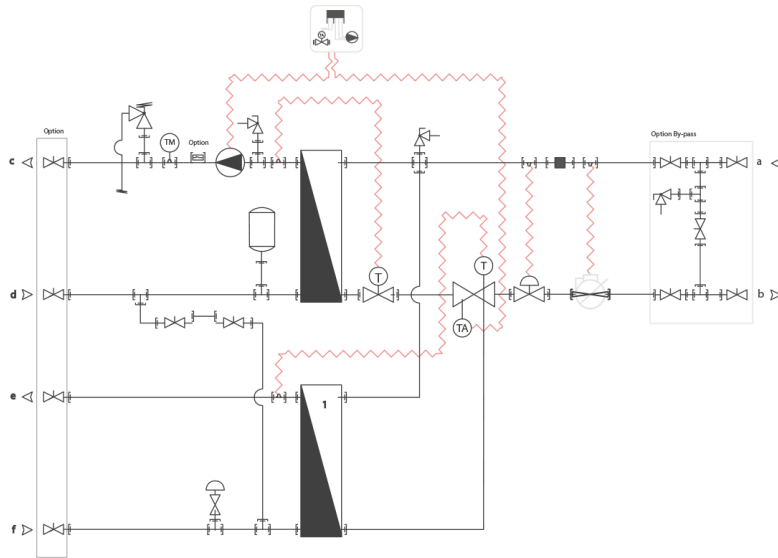
- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Plate heat exchanger cover (EPP)</li> <li>2. Manual air vent</li> <li>3. Plate heat exchanger cover (EPP)</li> <li>4. WILO para 15/7 circulating pump</li> <li>5. SWEP heating plate exchanger</li> <li>6. SWEP DHW plate heat exchanger</li> <li>7. Safety relief valve</li> <li>8. Temperature and pressure gauge</li> <li>9. Cold water circuit and secondary heating drain valves</li> <li>10. Primary circuit isolating ball valves</li> </ol> | <ol style="list-style-type: none"> <li>11. Flushing by pass valve assembly</li> <li>12. Electrical junction box (model specific)</li> <li>13. Stool piece for heat meter</li> <li>14. Y-pattern strainer</li> <li>15. CIMM shock arrestor vessel</li> <li>16. BALLOREX differential pressure control valve</li> <li>17. Heating thermostatic control head</li> <li>18. Thermal actuator (NC)</li> <li>19. DHW thermostatic control head</li> <li>20. CIMM heating expansion vessel</li> </ol> |
|---|---|

Dimensions

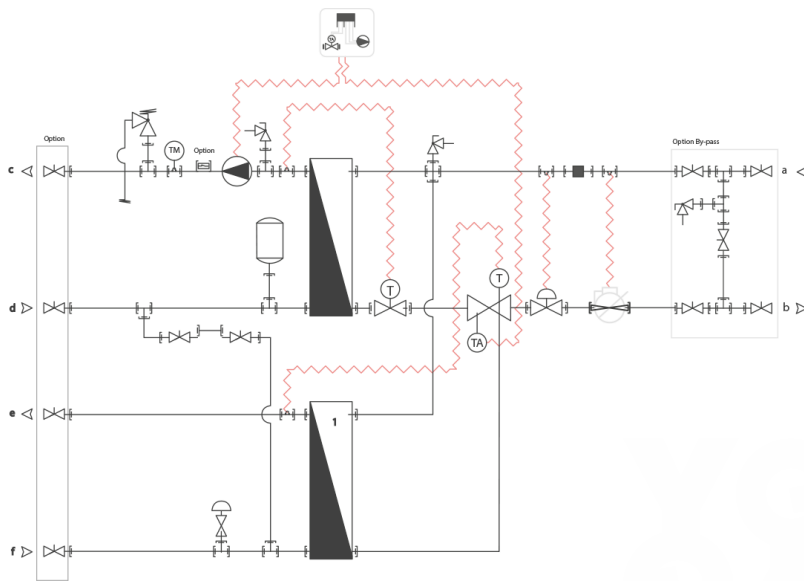


# INDIRECT DHW & SPACE HEATING

## Schematics

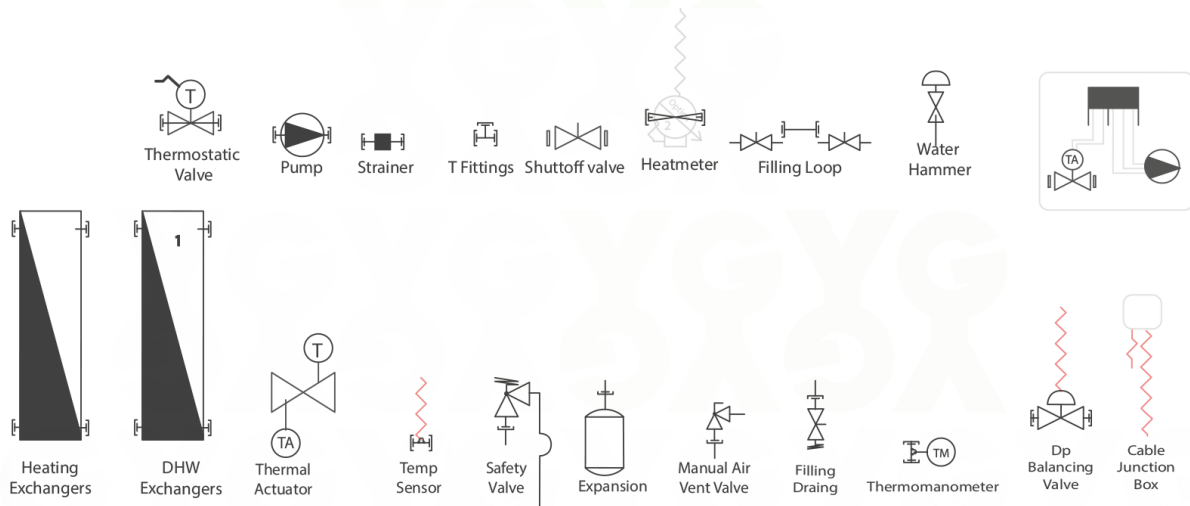


- a) Heating Water Supply
- b) Heating Water Return
- c) Apartment Heating Water Supply
- d) Apartment Heating Water Return
- e) Domestic Hot Water Outlet
- f) Domestic Cold Water Supply



- a) Heating Water Supply
- b) Heating Water Return
- c) Apartment Heating Water Supply
- d) Apartment Heating Water Return
- e) Domestic Hot Water Outlet
- f) Domestic Cold Water Supply

## Component Key

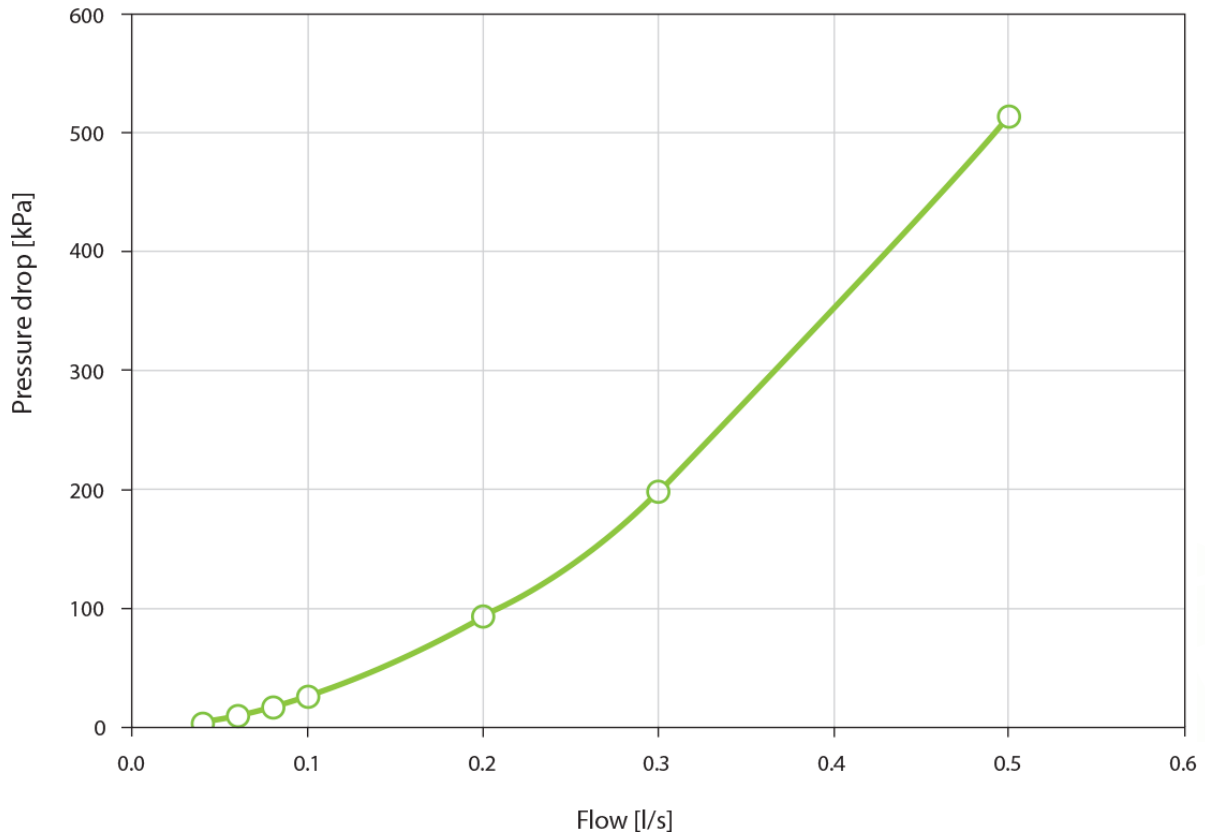


# INDIRECT DHW & SPACE HEATING

## Hydraulic Characteristics

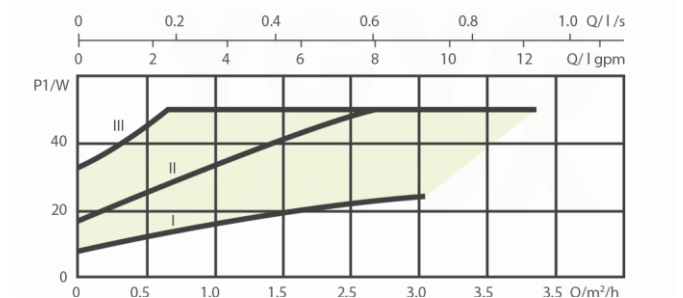
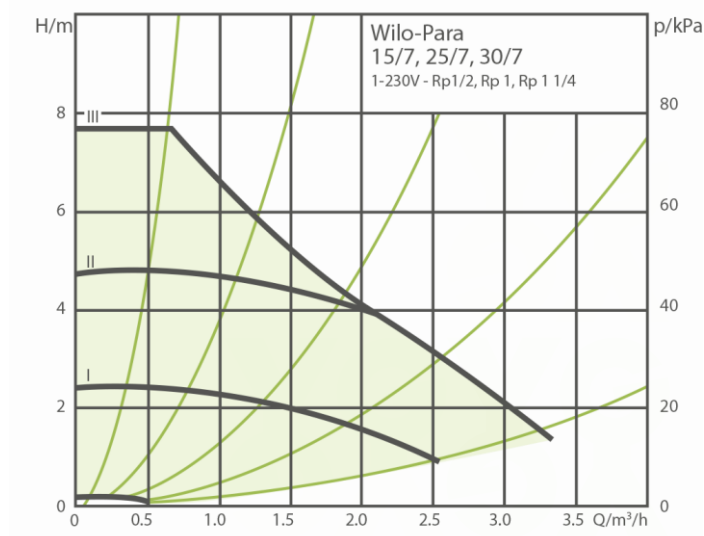
### Heating - Primary Circuit Side

Pressure drop [kPa] vs. Flow [l/s]



### Secondary Heating - WILO Para 15/7 Pump Settings

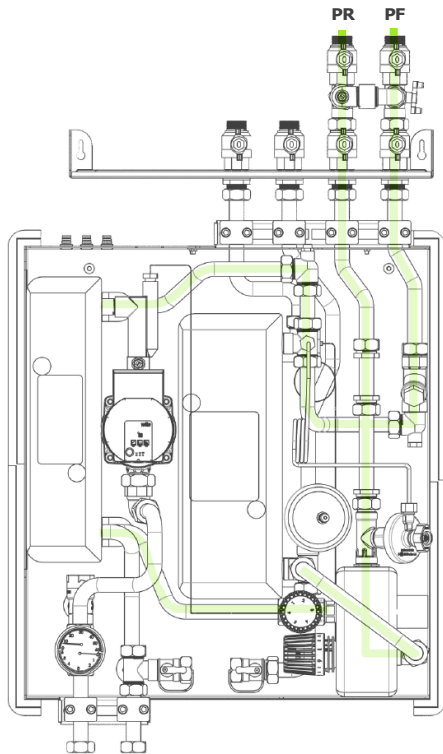
Constant speed I, II, III



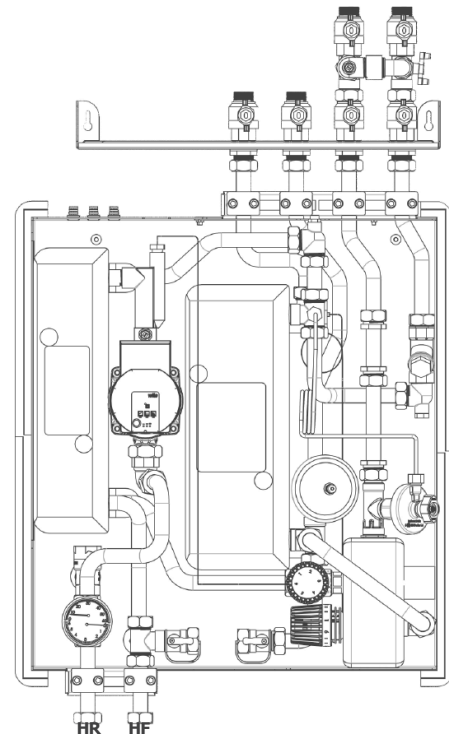
# INDIRECT DHW & SPACE HEATING

## Flow Paths

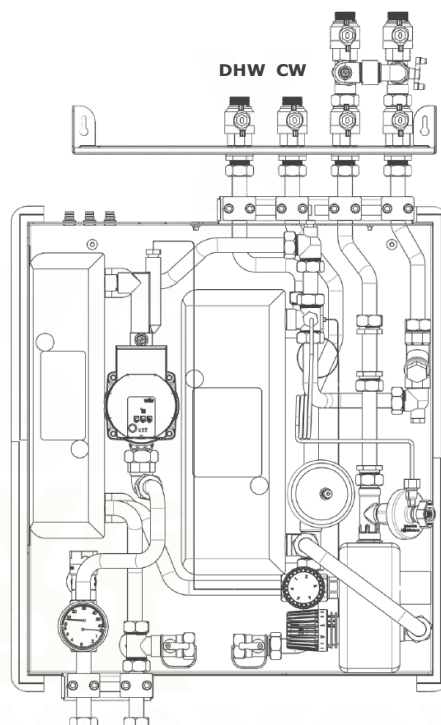
### Primary Circuit Flow Path



### Secondary Heating Circuit Flow Path



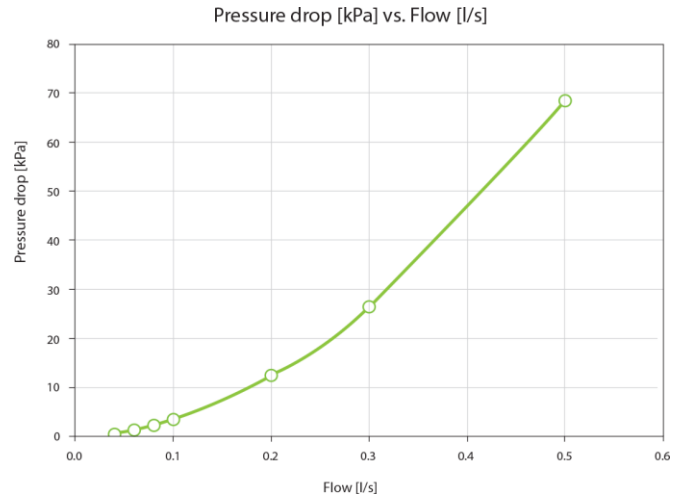
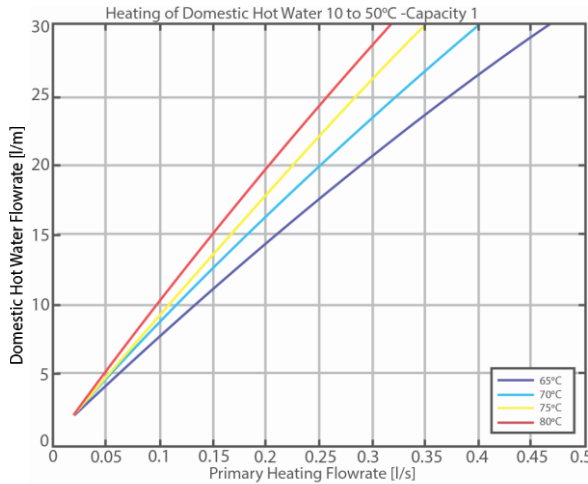
### Domestic Hot Water Flow Path



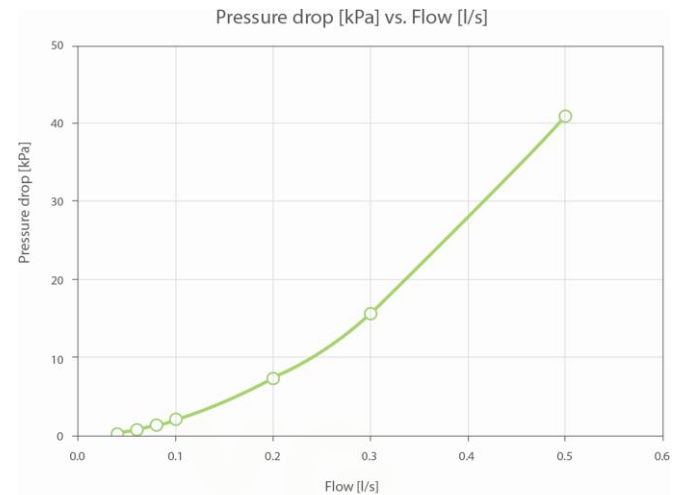
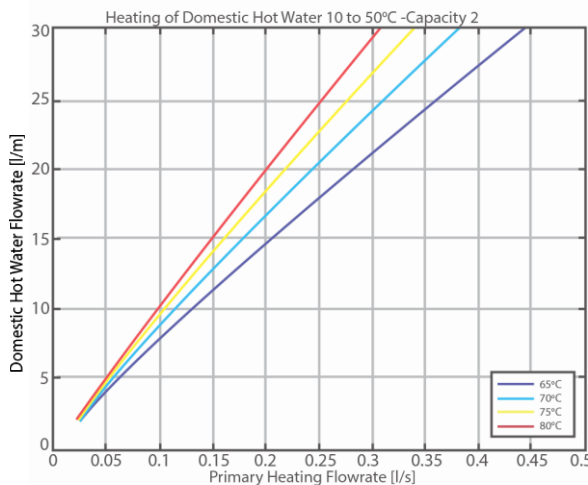
# INDIRECT DHW & SPACE HEATING

## Domestic Hot Water Output

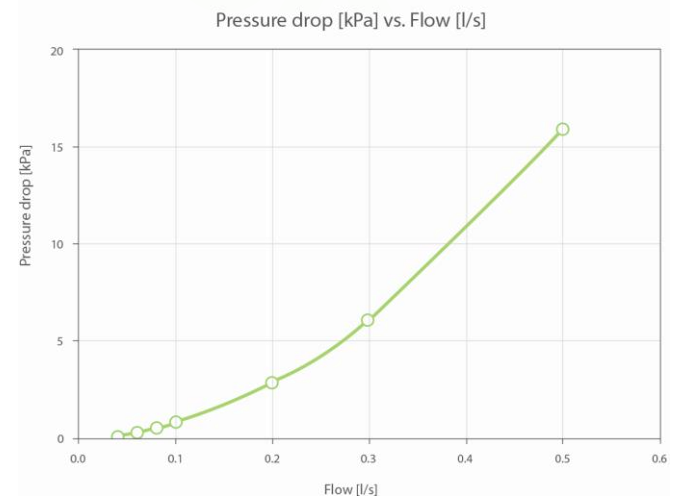
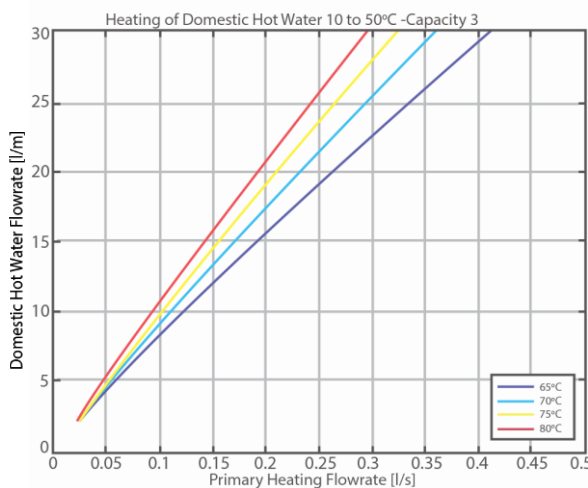
### Capacity One - DHW Output Up To 40kW



### Capacity Two - DHW Output Up To 60kW



### Capacity Three - DHW Output Up To 120kW





# INDIRECT DHW & SPACE HEATING

## HIU Ancillaries

### First Fix Kit

The VERSATILE first fix kit is ideal for your VERSATILE HIU. No matter what model of HIU you have selected, our first fix kit is available to suit. By allowing installers to pipe, place and plan the HIU on the wall or within a MEP cupboard.

The first fix kit includes: HIU bracket and support.

Available for all VERSATILE HIUs.



### Flushing Bypass

The VERSATILE flushing bypass is the perfect option to isolate the heat interface unit from the rest of the system. By having the ability to isolate the unit, it allows for ease of maintenance, flushing and cleaning. The H pattern design adds to the ease of maintenance and allows for ease of access.

Available for all VERSATILE HIUs.



### Isolation Ball Valves

The VERSATILE isolation ball valves are ideal when purchasing a VERSATILE HIU. By allowing the pipework to be isolated from the unit it allows maintenance, flushing and cleaning to be carried out on the unit without affecting any other components of the system.

Available for all VERSATILE HIUs.



### Secondary Heating Strainer

The Versatile secondary heating strainer provides an additional Y pattern strainer to install on the heating circuit to protect from debris and offer maximum efficiency on the Versatile HIUs.



# INDIRECT DHW & SPACE HEATING

## HIU Ancillaries

### Pre Payment Valve

The VERSATILE pre payment valve and actuator can be used with all third party billing companies. Installed within the VERSATILE HIU to prevent any unauthorised tampering.

Available for all VERSATILE HIUs.



### Isolation Ball Valve Insulation Covers

The VERSATILE isolation ball valve insulation covers add to the overall heat retention of the unit. Covering all avenues of heat loss is paramount to maintaining the efficiency of the VERSATILE HIU. By insulating the isolation ball valves efficiency can be increased even further.

Available for all VERSATILE

HIUs.



### Secure - Liberty

The Secure meters liberty 100 connect works hand in hand with the VERSATILE HIU to deliver a seamless experience to the tenant. Creating a communication centre with the in home display, the liberty connect makes it easy for the user to control energy usage from home or on the move.

Available for all VERSATILE HIUs.



### Versatile Maintenance Service Plans and Packages

The Versatile Maintenance service plans and packages are designed offer around the clock maintenance and support to your Versatile HIU. With varied plans designed to suit all development sizes, maintenance can ensure your heat network system is kept in full working order.

Available for all Versatile HIUs.



versatile  
Enrich your space

Beechmount Homepark, Clogherboy, Navan, Co. Meath, C15 WR60

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