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DISTRICT INDIRECT HEAT INTERFACE UNIT

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INDIRECT DHW & SPACE HEATING

Introduction

The YGHP DISTRICT range of indirect heat interface units can 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 YGHP DISTRICT range of indirect HIUs offer a range of benefits for both the installer, architect and specifier.

Design

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

Utilising two SWEP plate heat exchangers, the YGHP DISTRICT 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 of temperature 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 it's position, but also boasts an anti-tamper function to help minimise the risk of scalding to end users.

There are also a variety of optional accessories offered including a flushing by-pass valve and a 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 YGHP DISTRICT HIU has an EPP cover, maximising heat retention and helping maintain system performance.



Features & Benefits

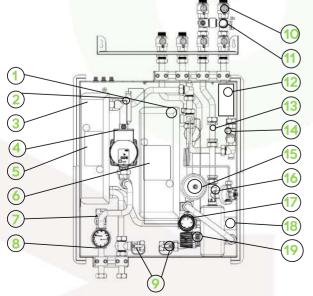
- · Robust, durable, mechanical design
- · Suitable for radiators and UFH
- · DHW demands up to 120kW
- · DHW response time of three seconds
- \cdot Space heating demands up to 15kW
- · Bespoke design service available
- \cdot Ideal for use in pre-fabricated utility cupboards
- · Insulating EPP cover maintains performance
- · WRAS approved & CE marked component parts
- · High efficiency WILO para circulating pump
- · SWEP plate heat exchangers
- \cdot CIMM heating & 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
- \cdot Simple to install
- \cdot Front facing components for ease of maintenance





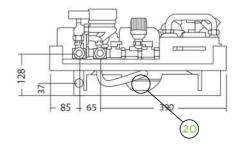
Technical Specification:

Heating		
Heating Radiators		40-90°C
UFH		20-50°C
Secondary circuit max. pressure		10 Bar
Secondary circuit max. operating pr	essure	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 Heating control circuit (room stat)		8 Litres
		240 V
Domestic Hot Water - DHW		
Set point		20-70°C
Max. pressure		16 Bar
Max. operating pressure DHW flow rate*		4 Bar
DHW PHE capacity		Up to 33 L/M
		33 - 120 kW
Primary Side		
Max. working pressure		16 Bar
Max. working temperature		90°C
Fluid medium		Water
DPCV factory setting Maximum differential pressure		40 kPa
Maximum unterential pressure		450 kPa
External Connections		
Primary flow		G 3/4" BSP
Primary return		G 3/4" BSP
Secondary flow		G 3/4" BSP
Secondary return Cold water inlet		G 3/4" BSP
DHW outlet		G 3/4" BSP
		G 3/4" BSP
Electrical Connections		
Main voltage		230V AC <u>+</u> 10%
Power frequency		50-60 Hz
Operating voltage		5 V AC <u>+</u> 10%
Input Protection		0.15 - 3W
FIOLECTION		IP44
	A A	



Component Parts

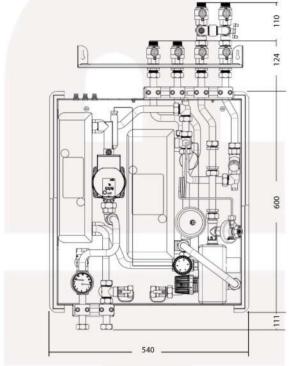
- 1. Plate Heat Exchanger Cover (EPP)
- 2. Manual Air Vent
- 3. Plate Heat Exchanger Cover (EPP)
- 4. WILO Para 15/7 Circulating Pump
- 5. SWEP Heating Plate Heat Exchanger
- 6. SWEP DHW Plate Heat Exchanger
- 7. Safety Relief Valve
- 8. Temperature & Pressure Gauge
- Cold Water Circuit and Secondary Heating Drain Valves
- 10. Primary Circuit Isolating Ball Valves
- 11. Flushing By Pass Valve Assembly
- 12. Electrical Junction Box (Model Specific)
- 13. Stool Piece for Heat Meter
- 14. Y-Pattern Strainer
- 15. CIMM Shock Arrestor Vessel
- 16. BALLOREX Differential Pressure Control Valve
- 17. Heating Thermostatic Control Head
- 18. Thermal Actuator (NC)
- 19. DHW Thermostatic Control Head
- 20. CIMM Heating Expansion Vessel



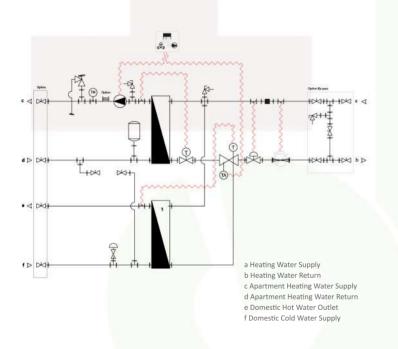
DISTRICT

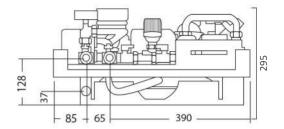


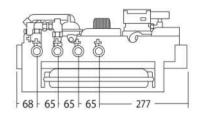
DIMENSIONS



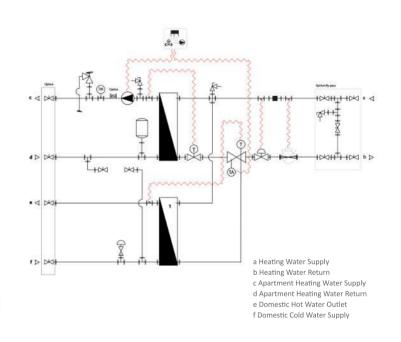
RADIATOR SYSTEM SCHEMATIC



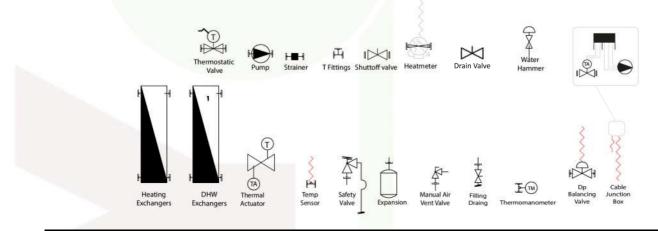




UFH SYSTEM SCHEMATIC



COMPONENT KEY

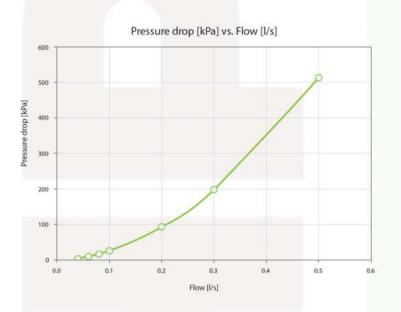






HYDRAULIC CHARACTERISTICS

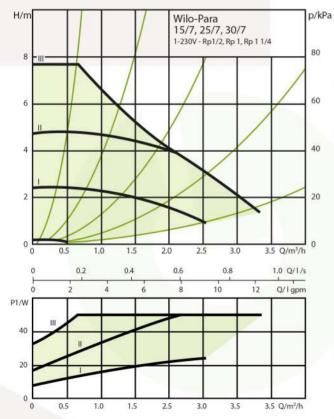
Heating - Primary Circuit Side



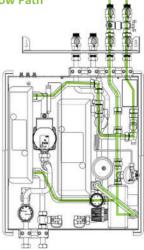
Secondary Heating

WILO Para 15/7 Pump Settings

Constant speed I, II, III

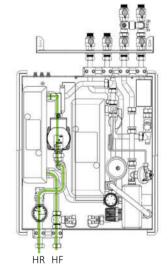


Primary Circuit Flow Path

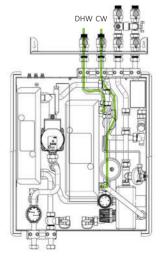


PR PF

Secondary Heating Circuit Flow Path



Domestic Hot Water Flow Path





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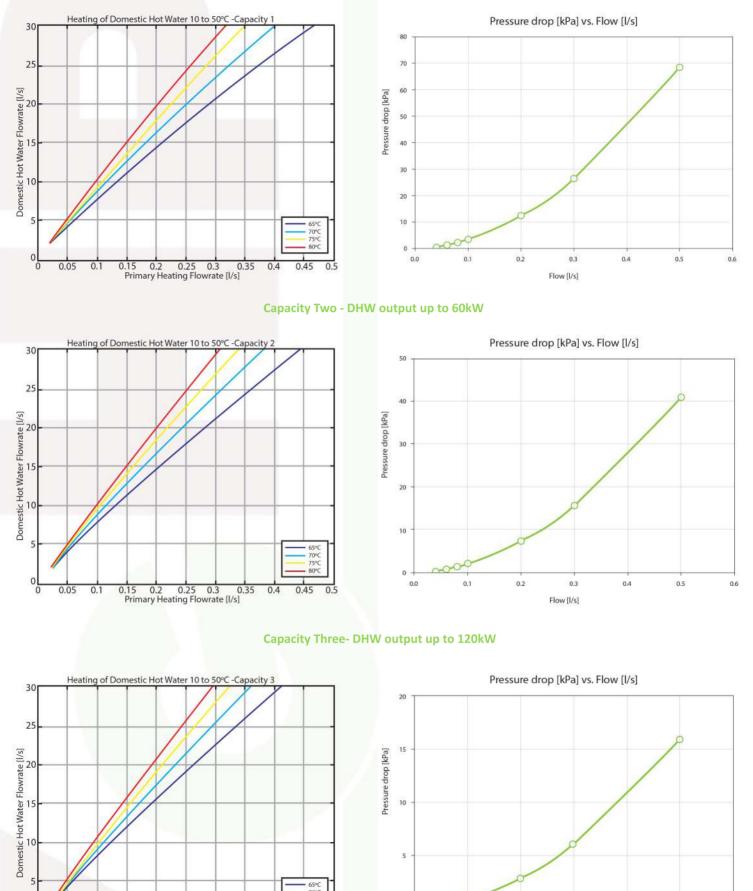
0.05

0.1



DOMESTIC HOT WATER OUTPUT

Capacity One - DHW output up to 40kW



0

0.0

0.1

0.2

0.3

Flow [l/s]

0.4

75%

0.5

0.45

0.4

0.15 0.2 0.25 0.3 0.35 Primary Heating Flowrate [l/s]

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0.6

0.5



UNIT 9, HEMLOCK PARK, HYSSOP CLOSE, CANNOCK, WS11 7FB

E&OE (09/20)

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