# **WASTE WATER HEAT RECOVERY FOR SHOWERS**



# TECHNICAL SPECIFICATION RECOUP DRAIN+ DUO

WASTE WATER HEAT RECOVERY FOR SHOWERS

- · Double-walled copper horizontal heat exchanger
- Designed for integration in wet room spaces
- Patented heat exchanger with built-in shower trap
- Up to 42% heat recovery efficiency \*
- 3 recognised installation methods (System A, B & C)
- Can be incorporated into modular bathrooms
- · Quadratto grate or tile grate cover options
- Horizontal and vertical waste connection options
- No planned maintenance
- · Easy access for cleaning
- SAP listed, SBEM, BREEAM, DEAP & ETL recognised
- · Legionella Control risk assessed







#### **GENERAL DATA**

DESCRIPTION	VALUE
Overall unit dimensions	866 x 310 mm
Minimum recess into structural floor	98 mm
Minimum recess from final finished floor level	114 mm
Material - Heat Exchanger	Copper
Shower flow rate range	5 - 12.5 Litres/min
Max. Mains water inlet pressure	10 bar
Min. Mains water inlet pressure	1 bar
Max. Mains water working temp	85 °C
Mains & Preheated water connection	½" male BSP
Waste water connection	40 - 43 mm
Full product weight	18.1 kg
Water volume - mains water	0.71 Litres

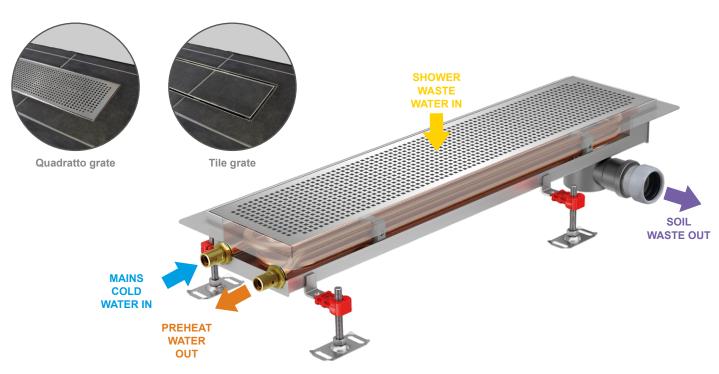
# PERFORMANCE & EFFICIENCY

SHOWER FLOW RATE @	DRAIN+ DUO EFFICIENCY ( RECOVERED ENERGY KW ) *		
40°C (LITRES/MIN)	SYSTEM A	SYSTEM B	SYSTEM C
5.8	41.9% (4.41)		
9.2	41.6% (6.94)		
11.0	40.4% (8.06)	32.9% (6.56)	36.6% (7.30)
12.5	36.7% (9.00)		

<sup>\*</sup> Based on KIWA test data and PCDB figures for SAP 2012

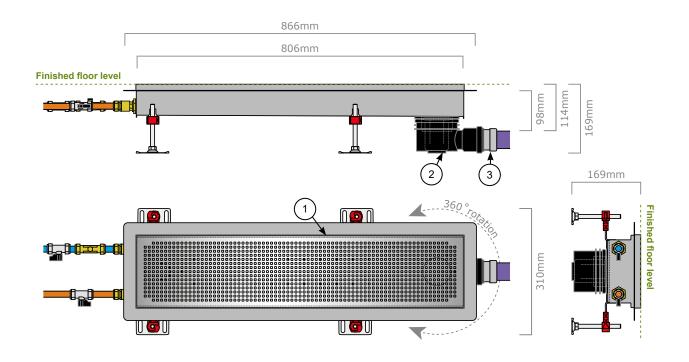
# PRESSURE DROP ON THE MAIN WATER CIRCUIT

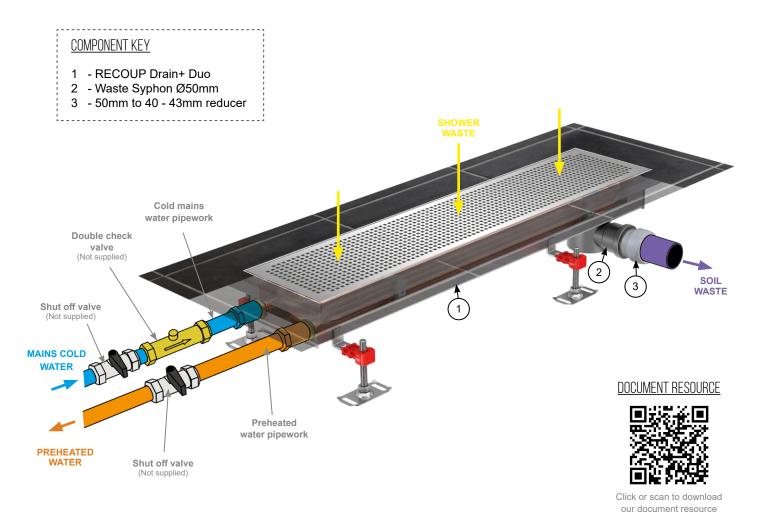
SHOWER FLOW RATE @	<b>Drain+ Duo pressure Drop</b> (BAR)		
40°C (LITRES/MIN)	SYSTEM A	SYSTEM B	SYSTEM C
5.8	0.07	0.04	0.03
9.2	0.17	0.11	0.07
12.5	0.27	0.17	0.11





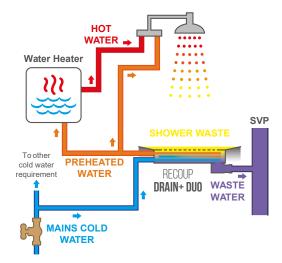
# DRAWINGS & DIAGRAMS







#### INSTALLATION METHODS



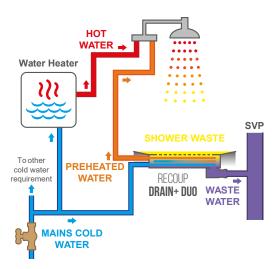
#### SYSTEM A

Preheated water supplied to shower mixer (cold inlet) and the water heater

This installation method provides the highest WWHRS efficiency.

Only one WWHRS unit can supply preheated water to the water heater as System A. All secondary WWHRS units should be connected as System B.

To maximise SAP impact, install WWHRS as System A on the primary shower, or in a room with a shower only.

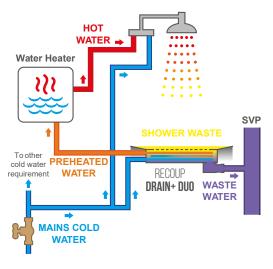


#### SYSTEM B

#### Preheated water supplied to shower mixer (cold inlet) on the shower only

The WWHRS efficiency of this installation method is not as high as System A or C but is the simplest and often the most cost-effective method to install or retrofit.

As preheated water is supplied to the cold side of the shower TMV only, there is no additional connection to the water heater. System B should be used for any secondary showers in a dwelling or where multiple showers are fed from centralised plant.



#### SYSTEM C

#### Preheated water supplied to water heater and only

Greater WWHRS efficiencies are produced than System B but lower than System A. Only one WWHRS unit can feed preheated water to the water heater \$ as System C.

- Combi-Boiler, Cylinder (Any heat source inc. Boiler, Heat Pump, Direct Electric, Solar Thermal), Heat Interface Unit (HIU) or Thermal Store.
- For more detail watch our **installation method animation** here.

# SPECIFYING - RECOUP DRAIN+ DUO

Recoup WWHRS | Drain+ Duo | Installed as System A; System B; System C (delete as appropriate) | to (Add shower(s) install location) Include the line of text above or go to specify.recoup.co.uk for the full Recoup Drain+ Duo product specification.