

#### BY **HEATRAESADIA**



# Megaflo SHRU

## **WASTE WATER HEAT RECOVERY**

The Megaflo Shower Heat Recovery Unit (SHRU) is a waste water heat recovery system (WWHRS) that recovers heat from the warm waste water discharged from a shower.

The system operates by waste water from the shower flowing through a heat exchanger, this pre-heats the mains cold water feed to the shower.

The Megaflo SHRU is available in both vertical and horizontal variants.

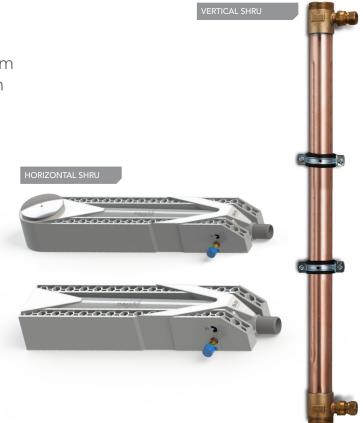


HEAT RECOVERY HEAT RECOVERY **EFFICIENCY** 





WITH ON-SITE SERVICE SUPPORT



#### **FEATURES**

Up to 63% heat recovery efficiency, up to 19°C heat transfer to incoming cold feed Up to 29.4% heat recovery efficiency, up to 9°C heat transfer to incoming cold feed (Horizontal models)

#### **BENEFITS**

High levels of heat recovery reduces energy input into shower

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|--|---|
| 5% - 6% SAP energy efficiency benefits<br>2% - 3% SAP energy efficiency benefits (Horizontal models) | Improves dwelling efficiency scores   |
| Slim and light-weight unit   | Makes for easier installation   |
| Horizontal installation  | Can be installed in apartments and commercial properties unlike other SHRUs             |
| 2 year product warranty  | With on-site service support for additional peace of mind to the installer and end user |
| WRAS approved  | Product approvals to guarantee compliance   |
|  |   |

For more information 01603 420220 | enquiries@megaflo.com | www.megaflo.com

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# **WASTE WATER HEAT RECOVERY**

#### **TECHNICAL SPECIFICATION**

| Model                                      | Vertical SHRU | Horizontal SHRU | Horizontal iZi SHRU |
|--|---------------|-----------------|---------------------|
| Product code                               | 95060005      | 7036150         | 7036160             |
| Recommended shower flow rate range (I/min) | 5.8 to 12.5   | 5.8 to 12.5     | 5.8 to 12.5         |
| Max. mains water inlet pressure (bar)      | 10            | 6               | 6                   |
| Min. mains water pressure (bar)            | 0.1           | 0.1             | 0.1                 |
| Max. water working temperature (°C)        | 90            | 60              | 60                  |
| Mains water connections (mm)               | 15            | 12.7            | 12.7                |
| Waste water connections (mm)               | 43            | 40              | 40                  |
| Weight (kg)                                | 5             | 6               | 5                   |

#### **COMPONENTS**

Supplied with the Megaflo Vertical SHRU

- MEGAFLO SHRU body
- 1/2" BSP compression fittings and washer (2 off)
- 1½" BSP ISO adaptor and washer (2 off) 1½" Straight connector multifitT x BSP coupling (2 off)
- T-fitting ø43mm solvent weld (For 43mm waste pipe)
- 43mm Cap and connection tube
- Wall mounting brackets, screws and 10mm wall plugs
- 15mm Check valve assembly (Cold domestic mains water inlet)
- 50mm Length ø15mm copper tube

In addition to the above it is recommended two full flow 15mm shut off valves are obtained for the installation to enable isolation of the mains water circuit if any replacement is required.

## Supplied with the Megaflo Horizontal SHRU

- Valve cap
- Trap
- Thread ring
- Sealed ring
- Wrench
- Adjustable foot
- Input connector 1/2'
- Output connector 1/2"
- Water discharge

#### Supplied with the Megaflo Horizontal iZi SHRU

- Drain water inlet
- Water discharge
- Input connector 1/2"
- Output connector 1/2"
- Adjustable foot

#### **VERTICAL SHRU PERFORMANCE**

| 10<br>29<br>40 |                          | 10<br>28.2                 |   | 10  |   | 10  |
|----------------|--------------------------|----------------------------|---|---|---|---|
| 29<br>40       |                          | 28.2                       |   | 27.4  |   |   |
| 40             |                          |                            |   | 27.4  |   | 25.2  |
|                |                          | 40                         |   | 40  |   | 40  |
| 40             |                          | 40                         |   | 40  |   | 40  |
| 21             | *                        | 22                         | *   | 23  | *   | 24  |
| 11.5           |                          | 15.7                       |   | 21.9  |   | 31.6  |
| 7.3            |                          | 9.45                       |   | 12.7  |   | 16.9  |
| 9.6            |                          | 21                         |   | 35.1  |   | 79  |
| 63             | 62.4                     | 60                         | 59.3  | 58  | 55.2  | 53  |
|                | 21<br>11.5<br>7.3<br>9.6 | 21 *<br>11.5<br>7.3<br>9.6 | 21     *     22       11.5     15.7       7.3     9.45       9.6     21 | 21     *     22     *       11.5     15.7       7.3     9.45       9.6     21 | 21     *     22     *     23       11.5     15.7     21.9       7.3     9.45     12.7       9.6     21     35.1 | 21     *     22     *     23     *       11.5     15.7     21.9       7.3     9.45     12.7       9.6     21     35.1 |

#### **HORIZONTAL SHRU PERFORMANCE**

| Shower flow rate                            | 5.9 l/min | 9 l/min | 12 l/min |
|---|-----------|---------|----------|
| T1 Cold domestic water in                   | 10        | 10      | 10       |
| T2 pre-heated domestic water out            | 18.7      | 17.9    | 17.6     |
| T3 shower water                             | 40        | 40      | 40       |
| T4 shower water entry on SHRU <sup>1</sup>  | 40        | 40      | 40       |
| T5 shower waste water to waste water line   | 30.7      | 31.5    | 32.0     |
| Shower energy consumption <sup>2</sup> (kW) | 12.3      | 18.9    | 25.1     |
| Recovered energy <sup>3</sup> (kW)          | 3.6       | 5.1     | 6.5      |
| Pressure drop domestic water (kPa)          | 13.9      | 36.2    | 50.0     |
| Efficiency of recovery unit (%)             | 29.4      | 27.2    | 25.8     |

<sup>1</sup>Standard test conditions 2Energy consumption in kW = kg/s \* 4,2 \* (T3 - T1) 3Energy recovered kW = shower flow rate kg/s \* 4,2 \* (T2 - T1)

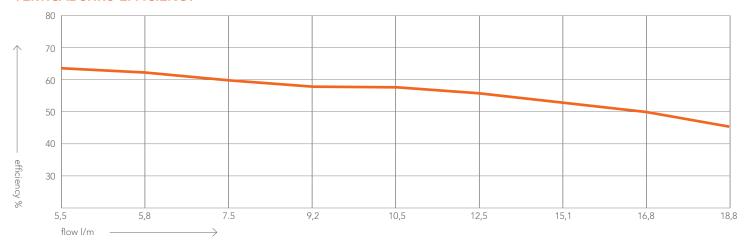
#### **ACCESSORIES**

Horizontal SHRU Shower Valve (not suitable for Horizontal iZi SHRU) 7036403

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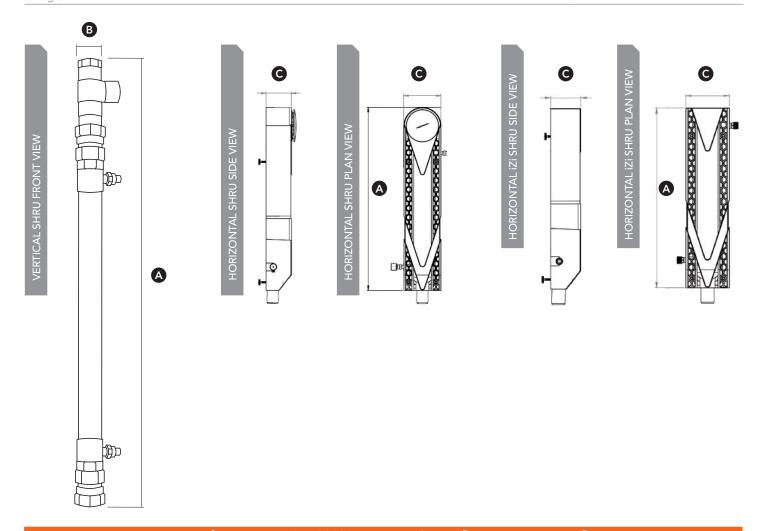
KIWA-Gastec deceleration according to NEN 5128 A1:2009, published 1 May 2009.  $^{1}$ Standard test conditions  $^{2}$ Energy consumption in kW = kg/s \* 4,2 \* (T3 - T1)  $^{3}$ Energy recovered kW = shower flow rate kg/s \* 4,2 \* (T2 - T1)

## **VERTICAL SHRU EFFICIENCY**



# **DIMENSIONS**

| Model                                      | Vertical SHRU | Horizontal SHRU | Horizontal iZi SHRU |
|--|---------------|-----------------|---------------------|
| A Overall length without fittings (mm)     | 2060          | 650             | 540                 |
| <b>B</b> Outside diameter of external tube | 42            |                 |                     |
| C Width                                    |               | 130             | 130                 |
| <b>D</b> Height                            |               | 90              | 90                  |



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DATA SHEET

# Megaflo SHRU

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#### **CODES OF PRACTICE/LEGISLATION**

#### Legislation

- Building Regulations Part G and Part L (England and Wales).
- Scottish Building Standards Section 4 and Section 6.
- Building Regulations (Northern Ireland)
   Parts F1 and F2 and Part P.
- Water Supply (Water Fittings) Regulations (England and Wales).
- The Water Byelaws 2004 (Scotland).
- Water Supply (Water Fittings) Regulations (Northern Ireland).

#### Megaflo Vertical SHRU approvals:

- WRAS Approved 1205386

#### Megaflo Horizontal SHRU & iZi SHRU approvals:

- WRAS Approved 1312074





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Megaflo may introduce modifications to their products from time to time. Consequentially the details given in this data sheet are subject to alteration without notice.



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