

Heat exchenger Purus ShoweReheat

Holder/Issued to

Purus AB Soedra Dragongatan 15, 271 39 Ystad, Sweden

Product description

The heat exchanger is made of two concentric folded stainless steel tubes with a sleeve at each end that connects and seals them against each other. In the inner tube the heated waste water flows and in the gap between the outer and inner pipi the cold tap water flows in the opposite direction.

The heat exchanger is delivered with:

- Type approved controllable non-return valve mounted on the cold water side inlet (type EA according to SS-EN 1717).

- Type approved shut-off valve.

The heat exchanger is connected with type approved flexible hoses intended for drinking water with fittings in dimension G15. Fittings for waste water is Ø 32/40 mm.

Flow capacity on the waste and tap water sides:

At the water flow of 24 l/min (0.4 l/s) through the waste water side of heat exchanger for model type 1, with the water level h = 0.15 m above the bottom of the heat exchanger, the pressure drop of 100 kPa was measured for the tap water flow of 0.36 m3/h.

Intended use

Recovery of heat from waste water from shower for heating incoming cold tap water for a thermostat mixer.

The heat exchanger is installed on the waste water side under the shower cabin. The cold tap water is connected countercurrently to the heat exchanger's shut-off valve and then further from the outlet to the cold water side of the thermostat mixer.

The heat exchanger is suitable for use with shower flows below 10 l/min. High shower flows can cause large pressure drops, see further pressure drop diagrams under comments. Maximum operating pressure for tap water is 1MPa.

Trade name

Purus ShoweReheat.

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Type Approval and decision on production control

Approval

The products satisfies the requirements set forth in chapter 8, 4 § 3 PBL, in respect to and under conditions stated in this type approval, and are therefore approved in accordance with the provisions of the following sections of Boverket Building Regulations (BBR):

Tap water installations Back flow prevention Design tap water Waste water installations^{*} Design waste water 6:62, 1st sentence and 2nd paragraph and general advice
6:624, controllable check valve according to SS-EN 1717 type family EA
6:625, 1st paragraph and 4th paragraph
6:641, 1st paragraph and the last sentence of the 2nd paragraph
6:644, 1st sentence and 2nd paragraph

*Flow capacity drain: Minimum 0.4 I/s for shower according to standard for floor drains with water trap SS-EN 1253-1:2015 ch.4.8.1.

Associated documents

Installation instructions Purus ShoweReheat, dated 2023-09.

Control

The factory production control (FPC) is monitored by an independent inspection body. Control plan: Appendix A dated 2023-10-19, Inspection body: DTI

When the building proprietor performs inspection at the building site, markings shall be checked to ensure that the correct products have been supplied and that they are used in accordance with the conditions in this type approval and associated documents. Further the product shall be accompanied by a manufacturer's assurance, certifying that the product has been manufactured in accordance with the documents on which this type approval is based.

Manufacturing place

Production control includes the following place: Euroflon Tekniska Produkter AB, Drakvägen 6, 591 32 Motala, Sweden

Marking

The products are to be marked at the factory. The marking consists of a text on every packing supplied and includes:

Holder Product type designation Consecutive order number Type approval number Boverket's registered trade mark RISE Accreditation number Certification body Inspection body Purus AB Purus ShoweReheat order number SC0080-16 **+** 1002 RISE DTI

Basis for approval

Reports ETz 6P03693 and ETz 6P03693-01 from SP. Report 166471B from RISE.

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Comments

The heat exchanger is tested according to selected parts in NKB 12 and 13. The product can cause a high pressure drop at higher flows (cold water flows), see diagram below.



Tryckfall som funktion av flöde

Associated documents shall accompany the product or by other means be available to users of the product.

This type approval supersedes the previous type approval with the same number dated 2022-03-28.

Validity

Valid through 2027-03-27.

The validity of this type approval can be verified at RISE homepage. The validity of this type approval expires when the type approved products with the intended use according to this type approval shall be CE-marked according to the Construction Products Regulation (EU) 305/2011.

Stefan Coric

This is a translation from the Swedish original document. In the event of any dispute as to its content, the Swedish original shall take precedence.

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