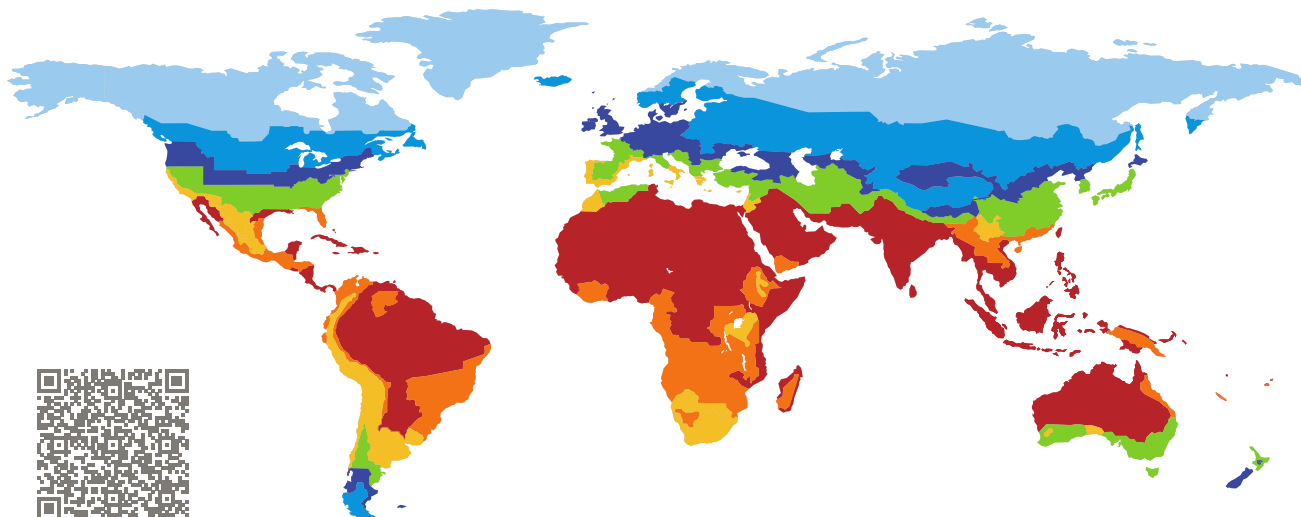


CERTIFICATE

Certified Passive House Component

Component-ID 2173sr00 valid until 31st December 2024

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category: **Drain water heat recovery**
Manufacturer: **Technea,
Leeuwarden,
Netherlands**
Product name: **HR tube 1-21 (Turbo Rotator)**

This certificate was awarded based on the following criteria:

Tested under standard boundary conditions¹ the system reduces the useful energy demand for shower by

57 % \geq 30 %

Further properties

Pressure drop tap water at 8 l/min: 0.29 bar
Connection tap water: Rp 1/2" female
Connection waste water: DN 50

nominal efficiency

69 %

effective dead time

5 s

design flow rate

8 l/min



¹Balanced flow rates, cold water temperature 10 °C,
Temperature at shower head 40 °C, waste water temperature 35 °C,
negligible pipe length, shower time 6 min,
flow rate 8 l/min

Passive House
efficiency class

phE

phD

phC

phB

phA

phA+

all climate zones



phA

**CERTIFIED
COMPONENT**

Passive House Institute