FRESH WATER COMBINATION
ECO SWIFT-E (EZ)

TECHNICAL DATA FOR FRESH WATER STATION

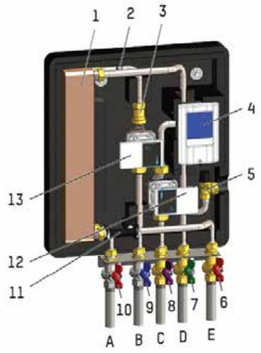
GENERAL
- Max. operating temperature: 95°C
- Max. operating pressure - primary circuit: 3 bar
- Max. operating pressure - secondary circuit: 10 bar
- Safety valve, installed for device protection: 10 bar
- k_{vs} value - primary: 2.2
- k_{vs} value - secondary: 2.3
- Weight: 14 kg

MATERIAL
- Pipes: 1.4403 stainless steel
- Heat exchanger: 1.4403 SVGW stainless steel
- Heat exchanger solder: copper 99.9%
- Insulation: EPP
- Valves: brass or plastic with drinking water approval

PUMP
- Primary side: Wilo Yonos Para 15/7.5 PWM
- Circulation: Wilo Yonos Para Z 15/7.0 RKC

ELECTRICAL CONNECTION INFORMATION
- Mains voltage: 230 VAC + 10%
- Mains frequency: 50...60 Hz
- Power consumption: max. 100W
- Internal fuse: 2A slow-blow 250V
- Protection type: IP40
- Protection class: II

THROUGHPUT MEDIA
- Hot water (VDI 2035; SIA Guidelines 384/1; Austrian standard ÖNORM H 5195-1)
- Cold water



Freshwater station with and without circulation

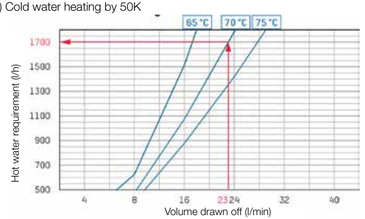
1 Plate heat exchanger
2 Automatic venting
3 Check valve in primary circuit
4 Controller
5 Safety valve in secondary circuit
6 Secondary hot water ball valve
7 Secondary cold water ball valve
8 Circulation ball valve (optional)
9 Primary return ball valve
10 Primary supply ball valve
11 Volume flow and temperature sensors
12 Circulation pump (optional)
13 Primary pump

A Primary heating supply
B Primary heating return
C Circulation connection (optional)
D Secondary cold water connection
E Secondary hot water connection

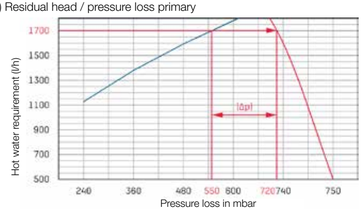
PERFORMANCE TABLES
ECO SWIFT-E (EZ)

Throughput and pressure loss diagrams
Cold water heating by 50K (10...60°C)

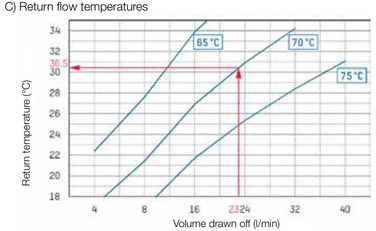
A) Cold water heating by 50K



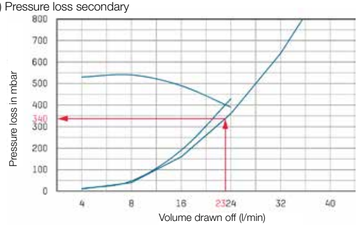
B) Residual head / pressure loss primary



C) Return flow temperatures



D) Pressure loss secondary



Example for interpretation of the throughput and pressure loss diagrams

Provided
- Hot water draw-off rate: 23 l/min
- Hot water flow temperature 70°C

Sought
- Hot water needs in l/h
- Hot water return flow temperature primary in °C
- Pressure loss secondary in mbar
- Pressure loss primary in mbar

Solution process
- In diagram A) at the interface of the draw-off rate 23l/min and primary flow 70°C, a hot water requirement of 1700l/h is read
- In diagram B) at a hot water requirement of 1700 l/h a primary pressure loss of 550 mbar is read. The pump delivery head is 700 mbar; minus the pressure loss this results in a residual pump delivery head of 170 mbar (Δp).
- In diagram C) at the stated draw-off rate of 23l/min and the selected flow temperature of 70°C, a primary return flow temperature of 30.5°C is read.
- In diagram D) the secondary pressure loss is read as 340 mbar with the data provided.

SPECIAL STORAGE TANK
FRESH WATER COMBINATION
ECO SWIFT-E (EZ)

NEW FRESH WATER STATION WITH HIGH-EFFICIENCY PUMPS

ECO SWIFT

Head office and factory: Austria Email AG
A-8720 Knittelfeld, Austriastrasse 6
Tel. (03512) 700-0, Fax (03512) 700-239
Internet: www.austria-email.at
Email: office@austria-email.at

Factory customer service: Tel. (03512) 700-297
Email: kundendienst@austria-email.at

Northern/Eastern Germany
D-14770 Brandenburg, Beetzseeufer 3
Tel. 0049/(0)3381 / 766-0
Fax 0049/(0)3381 / 766-244
Email: sgobi@austria-email.at

Southern Germany
D-92637 Weiden/Opf.,
Parksteiner Strasse 49
Tel. 0049/(0)961 / 63 490-0
Fax 0049/(0)961 / 63 490-30
Email: ahirmer@austria-email.at
www.austria-email.at

FRESH WATER COMBINATION
ECO SWIFT-E (EZ)

The ECO SWIFT-E (EZ) – fresh water combination, consisting of a fresh water station and a buffer tank, is used for demand-driven heating of drinking water on a flow-through principle. It is used in existing and new heating systems that are heated by using solid fuel boilers, heat pumps and solar installations.

The ECO SWIFT-E (EZ) – fresh water combination replaces storage tanks for drinking water in an additional tank and offers a high degree of protection from legionella by avoiding stagnant water.

BENEFITS AT A GLANCE

- NEW High-efficiency system operation through the use of HE pumps
- Rapid response sensor - through constant water temperature - even with sudden load changes (e.g. when additional hot water is required)
- Large throughput range of up to 40 litres/min - this makes the device suitable for use in single and multi-family households
- Highly energy-saving through minimum possible energy use and maximum possible temperature spread
- Supports temperature stratification in the buffer tank
- Compact design
- Electronic controls
- Optimum protection from calcification

FRESH WATER STATION - MODE OF OPERATION

The drinking water in the ECO SWIFT-E (EZ) is heated to the draw-off temperature using the throughput principle. In this process, the minimum amount of heating water is supplied to the integrated heat exchanger from the buffer tank that is needed to maintain a constant draw-off temperature.

A low return temperature can be expected from the heating water to the buffer tank as a result of the special heat exchanger design. The electronic controls detect and store the consumed heat quantity by acquiring the data on temperature differences and volume flows.

- **ECO SWIFT E without circulation**
- **ECO SWIFT EZ with circulation**

The ECO SWIFT EZ fresh water station is fitted with a circulation connection, which includes a pump. This pump is controlled by the integrated control system using a separate programme. The ECO SWIFT-E fresh water station is not fitted with a circulation connection

NEW FRESH WATER STATION WITH HIGH-EFFICIENCY PUMPS

FRESH WATER COMBINATION
ECO SWIFT-E (EZ)

BUFFER TANK PZ/PZR

The buffer tank comes from the well-established PZ/PZR product line, which is suitable for all central hot water heating systems, irrespective of whether these are based on solid fuel or oil-fired boilers, heat pumps, solar systems, gas or electric tankless water heaters. The buffer tanks are fitted externally with a stove-enamelled powder coating for optimum protection from corrosion.

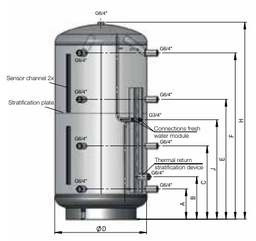
- Nominal contents 800 and 1000 litres
- Large surface set of tubes with PZR type
- Operating pressure 3 bar, test pressure 4.5 bar buffer tank
- Operating pressure max. 10 bar, test pressure 15 bar in set of tubes with PZR type
- 2 sensor channels for variable positioning of the sensors with PZ/PZR type
- External powder coating (colour variations)

ECO SKIN 2.0 - INSULATION

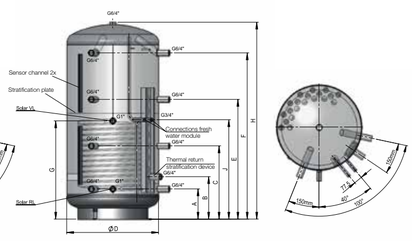
The extremely successful heat insulation ECO SKIN is moving into the second generation: Improved thermal insulation properties and optimised fine tuning for handling purposes. We've made something good even better! ECO SKIN 2.0 is innovative insulation for large and buffer tanks that stands out significantly from previously offered soft-foam insulation.

- Stable, shape-retaining polystyrene sheath
- Perfect fit and therefore no chimney loss
- Insulated connection caps for the ports
- Premium cardboard packaging with carry handles
- With ECO SKIN 2.0 insulation you can save up to **€** 3,100.00 in energy costs over the life time of a 1000-litre tank

ECO SWIFT PZ



ECO SWIFT PZR



ECO DESIGN - LABELING

Type	Content l	Heat loss in EN 12897 in kWh/24h	Heat loss in EN 12897 in Watt	Zapf Profile
PZ 800	780	2,59	107,9	3XL
PZR 800	780	2,59	107,9	3XL
PZ 1000	960	3,02	125,8	4XL
PZR 1000	960	3,02	125,8	4XL

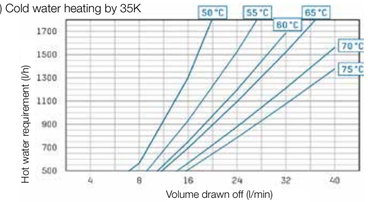
TECHNICAL DETAILS

Type	Content l	Dimensions in mm H	H with insulation:	øD	øD with insulation:	A	B	C	E	F	G	J	Tilt height mm	Register surface m2	Register contents l
PZ 800	780	1700	1785	790	990	260	365	630	1030	1430	-	855	1750	-	-
PZR 800	780	1700	1785	790	990	260	365	630	1030	1430	845	855	1750	2.4	15.6
PZ 1000	960	2050	2135	790	990	310	415	745	1250	1710	-	1030	2090	-	-
PZR 1000	960	2050	2135	790	990	310	415	745	1250	1710	1030	1030	2090	3.0	19.2

PERFORMANCE TABLES
ECO SWIFT-E (EZ)

Throughput and pressure loss diagrams
Cold water heating by 35K (10...45°C)

A) Cold water heating by 35K



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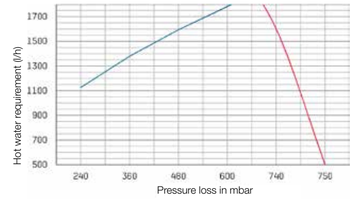
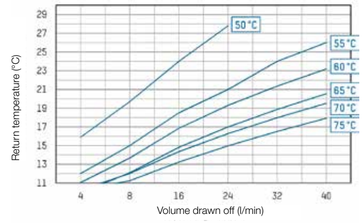


C) Return flow temperatures



D) Pressure loss secondary