Heat exchangers

Series S-N

The SN series heat exchangers are double counter-current heat exchangers made of stainless steel. Their design has the following advantages:

- Very high heat exchange ratings due to a special surface coating
- Very low liquid volumes and thus low flow rates due to an ingenious water routing
- The A end is specially designed for large volumes and the B end for small volumes. This results in low consumption for the cooling application
- Very compact size in relation to the cooling capacity
- No seals
- Flow baffles made of silicone at the B end

Specifications:

Materials

Standard design:
Material 1.4404 (AISI 316 LMo)

Baffles only on B circuit: Silicone
Option:
Viton on request.
For special applications, the heat exchangers can be specially passivated and delivered flushed.

Connections:

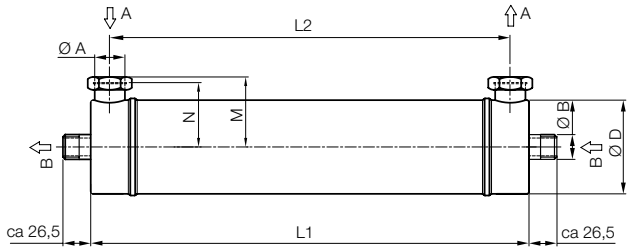
A circuit: outer diameter 1/2"
B circuit: union nut 3/4"

Max. temperature range:
-50°C bis + 250 °C

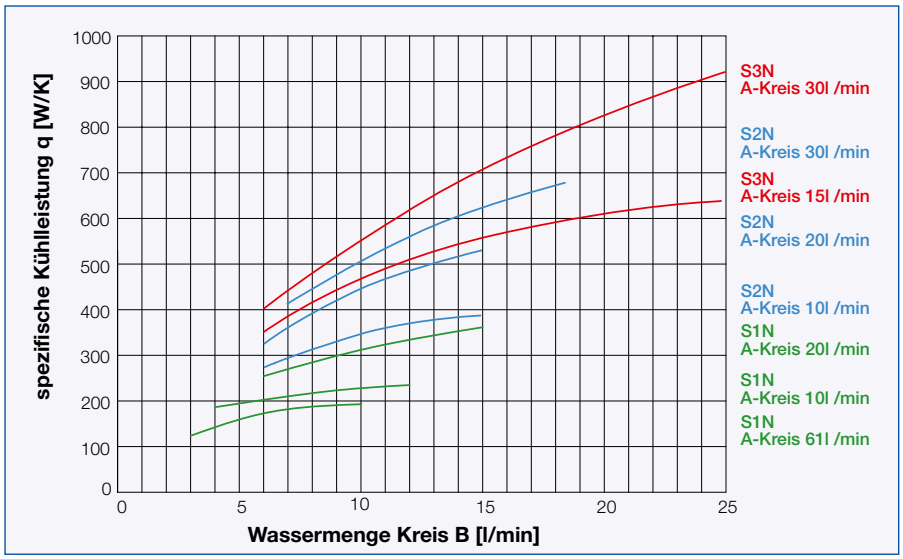
Max. pressure:
A circuit: 15 bar,
B circuit: 25 bar

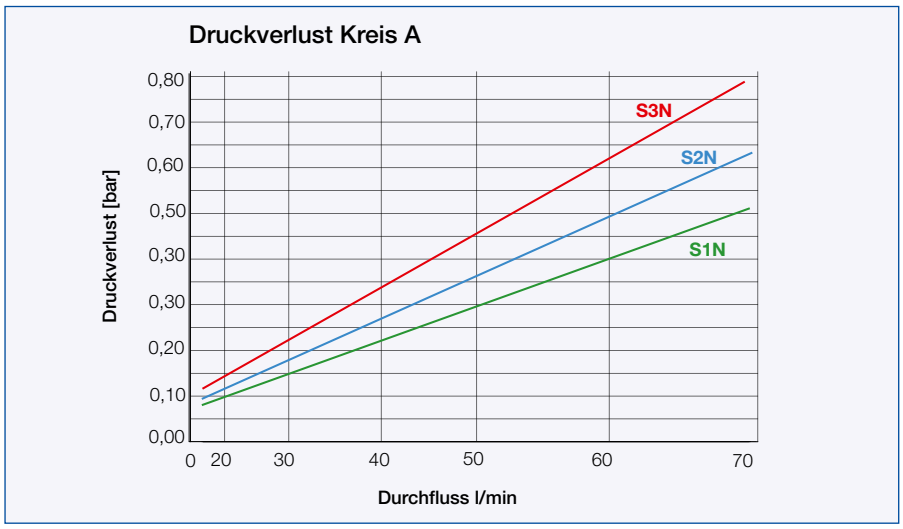
Dimensions:

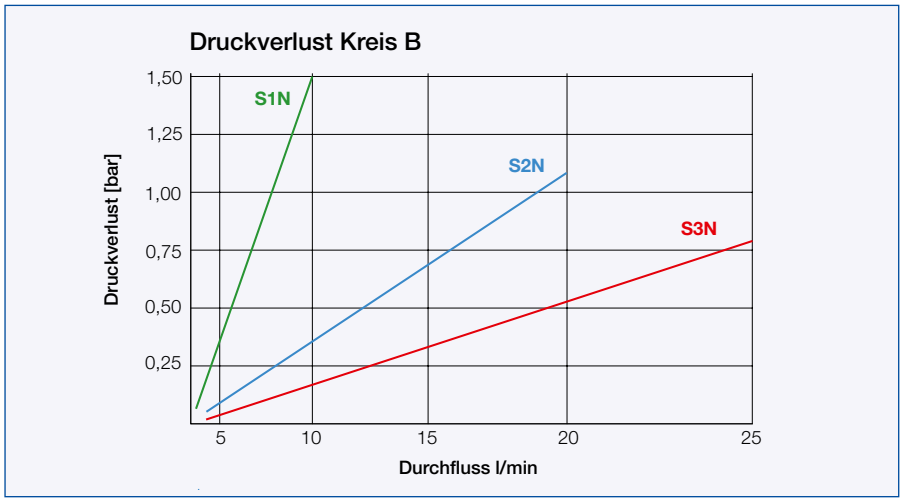
Typ	L1 mm	L2 mm	ØD	ØA	ØB	M	N
S1N	156	130	73	3/4"	1/2"	62	54
S2N	256	230	73	3/4"	1/2"	62	54
S3N	356	330	73	3/4"	1/2"	62	54



Rating calculation:







Note:

The performance of a heat exchanger depends on various parameters. The performance curves should therefore serve as an indication. They apply to pure, airless water. The parameters may change under different operating conditions. The specific cooling capacity refers to initial temperature differences between the inlet temperatures of circuit A and circuit B. The parameters apply to a sufficient outlet temperature difference between the two circuits. Under different operating conditions, there will be different performance figures.

Output **Q** = initial temperature difference ΔT_{in} • specific cooling capacity **q.**
Please check whether the initial temperature difference is ≤ 0 ? If this is the case, please send us your inquiry.

The temperature difference ΔT in K is calculated as follows:

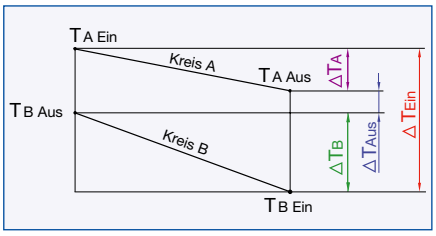
$$\Delta T = \frac{Q}{c \bullet m}$$

whereby in watts, c = 4.183 KJ/kgK and m in kg/s must be used for water Q.
The outlet temperature difference is therefore

$$\Delta T_{out} = \Delta T_{in} - \Delta T_A - \Delta T_B$$

We would be delighted to calculate the heat exchangers to meet your operating conditions.

Technical changes subject to alteration.



Temperature curves A and B in the heat exchanger

Industrial cooling systems
Development of customised cooling systems

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