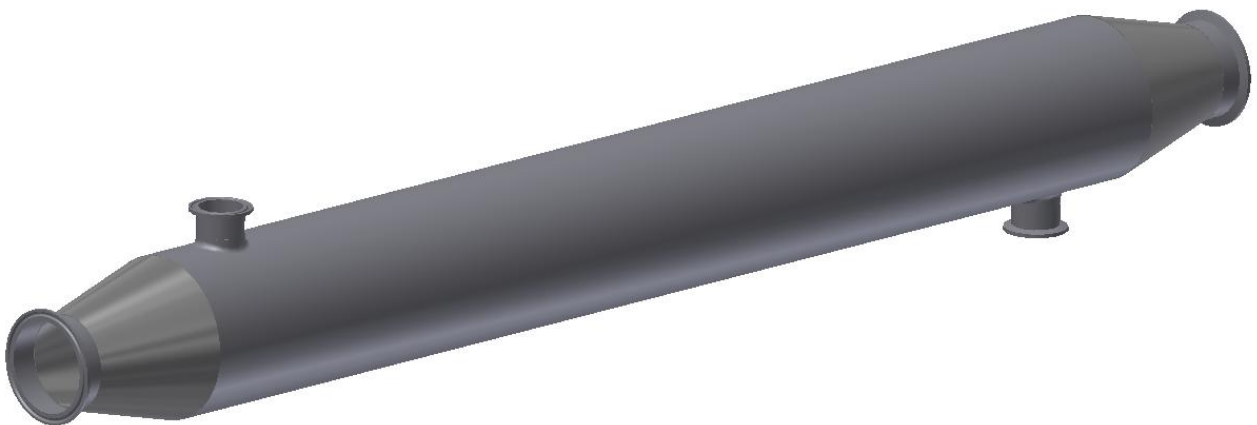




Multitube-
Heatexchanger
0,5 - 8,0M²

INSTALLATION AND OPERATION SPECIFICATION



Installation

Installation & Safety parameters

Before installing the Heat-exchanger, follow these requirement:

1. Make sure that all connections (Product, water, cooling media, steam and condensate) is made so that it is not possible to overhear/cool the heat-exchanger.
2. Make sure that the heat-exchanger is installed technical correct. (Welds, constructions, pipe holders, seal, etc.)
3. It is the user's responsibility that the installation are made correct in reference to safety. Valves and other security installations, check your local authority.
4. If the Heat-exchanger is supplied with steam, then your make sure that the condensate is taken out of the lowest point of the installation.
5. Make sure that Warning signs is placed on the Heat-exchanger. Heat-exchanger incl. pipes have to be installed without danger to the operators.
6. **Never run** the Heat-exchanger above the following limits.

Product:	Max. Pressure	40 Bar G.	Product:	Max. Pressure	60 Bar G.
	Max. Temperature	81 °C		Max. Temperature	81 °C
Steam:	Max. Pressure	3 Bar G.	Steam:	Max. Pressure	5 Bar G.
	Max. Temperature	143 °C		Max. Temperature	158 °C
Cooling:	Max. Pressure	20 Bar G.	Cooling:	Max. Pressure	20 Bar G.
	Max. Temperature	-10 °C		Max. Temperature	-10 °C

The Heat-exchanger is connected (See drawing at page 5). The Heat exchanger should be installed horizontal or vertically.

Operation:

The Heat-exchanger is normally used in connection to process systems. The application is cooling or heating of products ore water, above standings limits.

Technical specification

Type: W-0,5-51-51 to W-08-150-51

Application:

In connection for cooling and heating water and other products.

Design for 40 bar:

Sanitary design outside $\varnothing 129 \times 2,0$ or $\varnothing 209 \times 3,0$ pipes, made of stainless steel aisi 316L. Inside $\varnothing 12 \times 1,0$ mm pipes made of stainless steel aisi 316L. The cooling/heating flow is outside of the $\varnothing 12 \times 1,0$ mm pipes.

Connection:

$\varnothing 129 \times 2,0$ pipes:

$\varnothing 25$ to $\varnothing 51$ neck up pipe with $\varnothing 25$ to $\varnothing 51$ clamps for inlet/outlet cooling and heating.

$\varnothing 51$ to $\varnothing 129$ clamps for inlet/outlet of the product.

$\varnothing 209 \times 3,0$ pipes:

$\varnothing 25$ to $\varnothing 51$ neck up pipe with $\varnothing 25$ to $\varnothing 51$ clamps for inlet/outlet cooling and heating.

$\varnothing 76,1$ to $\varnothing 154$ clamps for inlet/outlet of the product.

Design for 60 bar:

Sanitary design outside $\varnothing 133 \times 4$ pipes, made of stainless steel aisi 316L. Inside $\varnothing 12 \times 1,0$ mm pipes made of stainless steel aisi 316L. The cooling/heating flow is outside of the $\varnothing 12 \times 1,0$ mm pipes.

Connection:

$\varnothing 133 \times 4,0$ pipes:

$\varnothing 25$ to $\varnothing 51$ neck up pipe with $\varnothing 25$ to $\varnothing 51$ clamps for inlet/outlet cooling and heating.

$\varnothing 51$ to $\varnothing 129$ clamps for inlet/outlet of the product.

Technical data for 40 bar:

Max pressure 4MPa (580 psi)

Min pressure 1,5MPa (217 psi)

Technical data for 60 bar:

Max pressure 6MPa (870 psi)

Min pressure 1,5MPa (217 psi)

Produced in according to:

Directive 97/23/EF - European

Approved for fluids gr. 2 "Non dangerous"



Example:

Cooling capacity 2,3 Kw/°C with 75m³ product flow, 1 CP viscosity and 3m³/h cooling flow.

Max product pressure 4MPa (580 psi)

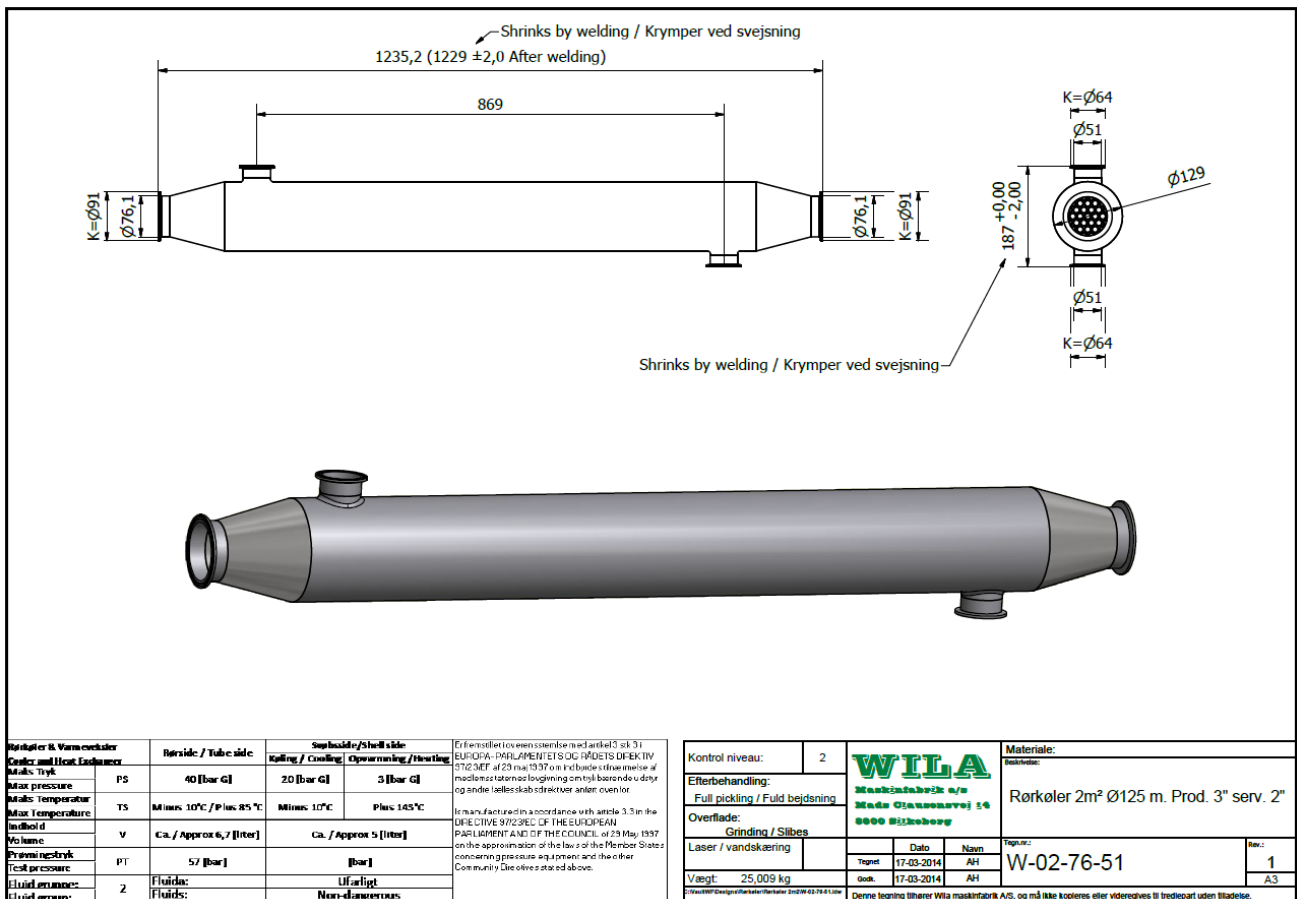
Min medium pressure 1,5MPa (217 psi)

Heat transfer area = 2,0m²

Liquid volume = Product 6,7L and Medium 7,3L

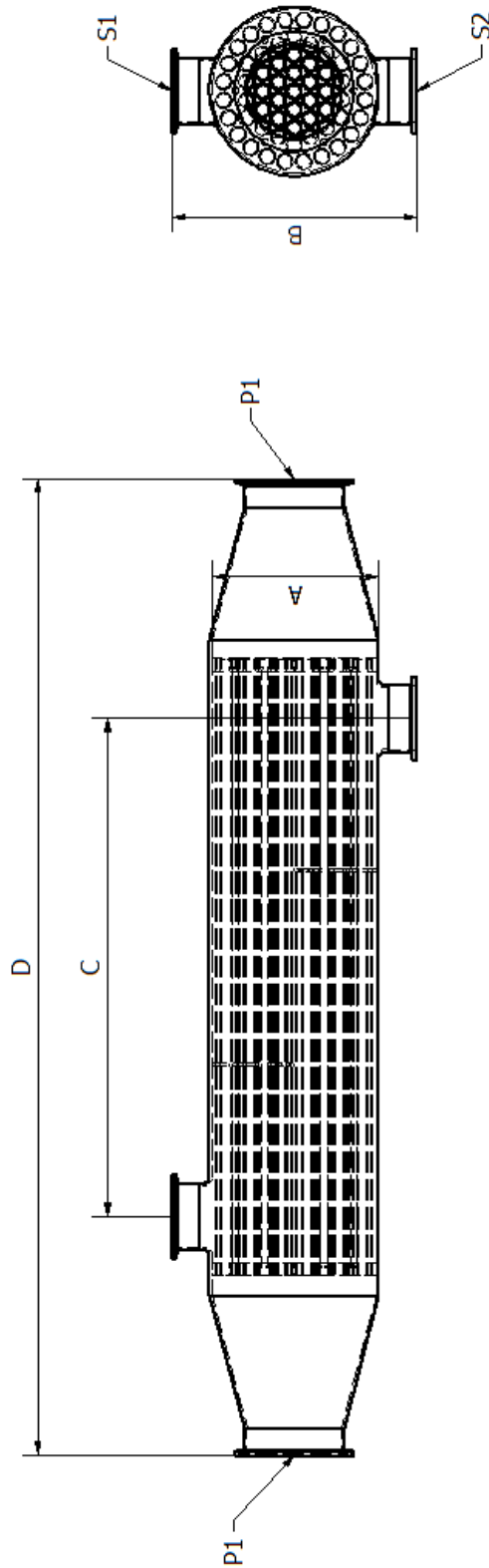
FDA approved materials:

3.1.B certificate, welding certificate and pressure test-sheet.



Dimensions

Multitube Heatexchanger 0,5 to 8,0m²



Type	P1	S1/S2	A	B	C	*D	Antal rør
W-0,5-125-(S1/S2)	DN125(II)	Ø25-Ø51	Ø129	187	129	304	61
W-0,5-100-(S1/S2)	DN100	Ø25-Ø51	Ø129	187	129	398	61
W-0,5-101-(S1/S2)	ISO 4"	Ø25-Ø51	Ø129	187	129	396	61
W-0,5-80-(S1/S2)	DN80	Ø25-Ø51	Ø129	187	129	468	61
W-0,5-76-(S1/S2)	ISO 3"	Ø25-Ø51	Ø129	187	129	489	61
W-0,5-63-(S1/S2)	ISO 2,5"	Ø25-Ø51	Ø129	187	129	529	61
W-0,5-51-(S1/S2)	ISO 2"	Ø25-Ø51	Ø129	187	129	584	61

Type	P1	S1/S2	A	B	C	*D	Antal rør
W-01-125-(S1/S2)	DN125(II)	Ø25-Ø51	Ø129	187	379	554	61
W-01-100-(S1/S2)	DN100	Ø25-Ø51	Ø129	187	379	648	61
W-01-101-(S1/S2)	ISO 4"	Ø25-Ø51	Ø129	187	379	646	61
W-01-80-(S1/S2)	DN80	Ø25-Ø51	Ø129	187	379	718	61
W-01-76-(S1/S2)	ISO 3"	Ø25-Ø51	Ø129	187	379	739	61
W-01-63-(S1/S2)	ISO 2,5"	Ø25-Ø51	Ø129	187	379	779	61
W-01-51-(S1/S2)	ISO 2"	Ø25-Ø51	Ø129	187	379	834	61

Type	P1	S1/S2	A	B	C	*D	Antal rør
W-02-125-(S1/S2)	DN125(II)	Ø25-Ø51	Ø129	187	869	1044	61
W-02-100-(S1/S2)	DN100	Ø25-Ø51	Ø129	187	869	1138	61
W-02-101-(S1/S2)	ISO 4"	Ø25-Ø51	Ø129	187	869	1136	61
W-02-80-(S1/S2)	DN80	Ø25-Ø51	Ø129	187	869	1208	61
W-02-76-(S1/S2)	ISO 3"	Ø25-Ø51	Ø129	187	869	1229	61
W-02-63-(S1/S2)	ISO 2,5"	Ø25-Ø51	Ø129	187	869	1269	61
W-02-51-(S1/S2)	ISO 2"	Ø25-Ø51	Ø129	187	869	1324	61

Type	P1	S1/S2	A	B	C	*D	Antal rør
W-03-125-(S1/S2)	DN125(II)	Ø25-Ø51	Ø129	187	1359	1534	61
W-03-100-(S1/S2)	DN100	Ø25-Ø51	Ø129	187	1359	1628	61
W-03-101-(S1/S2)	ISO 4"	Ø25-Ø51	Ø129	187	1359	1626	61
W-03-80-(S1/S2)	DN80	Ø25-Ø51	Ø129	187	1359	1698	61
W-03-76-(S1/S2)	ISO 3"	Ø25-Ø51	Ø129	187	1359	1719	61
W-03-63-(S1/S2)	ISO 2,5"	Ø25-Ø51	Ø129	187	1359	1759	61
W-03-51-(S1/S2)	ISO 2"	Ø25-Ø51	Ø129	187	1359	1814	61

Type	P1	S1/S2	A	B	C	*D	Antal rør
W-011-150-(S1/S2)	DN150(II)	Ø25-Ø63,5	Ø209	267	105	623	163
W-011-125-(S1/S2)	DN125(II)	Ø25-Ø63,5	Ø209	267	105	603	163
W-011-100-(S1/S2)	DN100	Ø25-Ø63,5	Ø209	267	105	699	163
W-011-101-(S1/S2)	ISO 4"	Ø25-Ø63,5	Ø209	267	105	697	163
W-011-80-(S1/S2)	DN80	Ø25-Ø63,5	Ø209	267	105	769	163
W-011-76-(S1/S2)	ISO 3"	Ø25-Ø63,5	Ø209	267	105	791	163

*Dimension after welding $\pm 2,0$. Shrinks by welding.

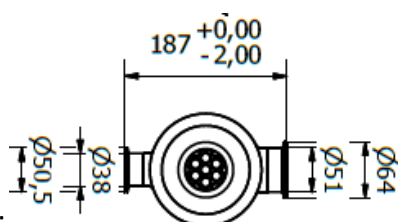
Type	P1	S1/S2	A	B	C	*D	Antal rør
W-021-150-(S1/S2)	DN150(II)	Ø25-Ø63,5	Ø209	267	295	808	163
W-021-125-(S1/S2)	DN125(II)	Ø25-Ø63,5	Ø209	267	295	788	163
W-021-100-(S1/S2)	DN100	Ø25-Ø63,5	Ø209	267	295	884	163
W-021-101-(S1/S2)	ISO 4"	Ø25-Ø63,5	Ø209	267	295	882	163
W-021-80-(S1/S2)	DN80	Ø25-Ø63,5	Ø209	267	295	954	163
W-021-76-(S1/S2)	ISO 3"	Ø25-Ø63,5	Ø209	267	295	976	163

Type	P1	S1/S2	A	B	C	*D	Antal rør
W-031-150-(S1/S2)	DN150(II)	Ø25-Ø63,5	Ø209	267	510	1028	163
W-031-125-(S1/S2)	DN125(II)	Ø25-Ø63,5	Ø209	267	510	1008	163
W-031-100-(S1/S2)	DN100	Ø25-Ø63,5	Ø209	267	510	1104	163
W-031-101-(S1/S2)	ISO 4"	Ø25-Ø63,5	Ø209	267	510	1102	163
W-031-80-(S1/S2)	DN80	Ø25-Ø63,5	Ø209	267	510	1174	163
W-031-76-(S1/S2)	ISO 3"	Ø25-Ø63,5	Ø209	267	510	1196	163

Type	P1	S1/S2	A	B	C	*D	Antal rør
W-04-150-(S1/S2)	DN150(II)	Ø25-Ø63,5	Ø209	267	660	1175	163
W-04-125-(S1/S2)	DN125(II)	Ø25-Ø63,5	Ø209	267	660	1155	163
W-04-100-(S1/S2)	DN100	Ø25-Ø63,5	Ø209	267	660	1251	163
W-04-101-(S1/S2)	ISO 4"	Ø25-Ø63,5	Ø209	267	660	1249	163
W-04-80-(S1/S2)	DN80	Ø25-Ø63,5	Ø209	267	660	1321	163
W-04-76-(S1/S2)	ISO 3"	Ø25-Ø63,5	Ø209	267	660	1343	163

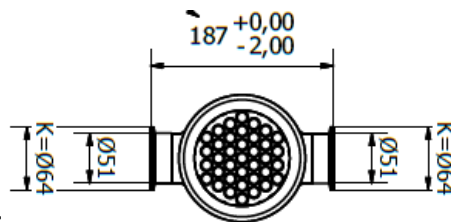
Type	P1	S1/S2	A	B	C	*D	Antal rør
W-06-150-(S1/S2)	DN150(II)	Ø25-Ø76,1	Ø209	267	1040	1555	163
W-06-125-(S1/S2)	DN125(II)	Ø25-Ø76,1	Ø209	267	1040	1535	163
W-06-100-(S1/S2)	DN100	Ø25-Ø76,1	Ø209	267	1040	1631	163
W-06-101-(S1/S2)	ISO 4"	Ø25-Ø76,1	Ø209	267	1040	1629	163
W-06-80-(S1/S2)	DN80	Ø25-Ø76,1	Ø209	267	1040	1701	163
W-06-76-(S1/S2)	ISO 3"	Ø25-Ø76,1	Ø209	267	1040	1723	163

Type	P1	S1/S2	A	B	C	*D	Antal rør
W-08-150-(S1/S2)	DN150(II)	Ø25-Ø76,1	Ø209	267	1455	1970	163
W-08-125-(S1/S2)	DN125(II)	Ø25-Ø76,1	Ø209	267	1455	1950	163
W-08-100-(S1/S2)	DN100	Ø25-Ø76,1	Ø209	267	1455	2046	163
W-08-101-(S1/S2)	ISO 4"	Ø25-Ø76,1	Ø209	267	1455	2044	163
W-08-80-(S1/S2)	DN80	Ø25-Ø76,1	Ø209	267	1455	2116	163
W-08-76-(S1/S2)	ISO 3"	Ø25-Ø76,1	Ø209	267	1455	2138	163



Example 1:

Key for ordering: W-02-51-51/38



Example 2:

Key for ordering: W-02-101-51

Special Heatexchanger

Wila also make Heatexchanger after the customer's request.

We also do special exchanger if they are in line with our concept and can be produced in according to the article 3.3 "Fluids Gr. 2 Non dangerous".

