Version 1.1

TUBULAR HEAT EXCHANGER

DETAILED OVERVIEW FOR TYPE 'THE' MEDIUM PRESSURE - 40 BAR

Dimensions overview for type Ø129 & ø209 - 40 bar[g]

Tubular heat exchangers are highly used in the food and beverage industry and in connection with many applications such as CIP units. In the food and beverage industry tubular heat exchangers are often used in systems to reduce or eliminate microbials to make products safe for consumption and to extend their shelf life. A tubular heat exchanger may also be used to heat or cool products prior to filling, drying, concentration or other processes.

INNOVATION – DRIVEN BY PEOPLE

WILA A/S
Mads Clausens Vej 14
8600 Silkeborg
Denmark

Phone: +45 8680 0844

mail@wila.dk
www.wila.dk

VAT number: 27230350

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Introduction

This overview is for Tubular Heat Exchangers manufactured by Wila A/S under the category "THE" hereinafter referred to as "Heat Exchanger". A Tubular Heat Exchanger is by design, two Pressure chambers in a combined housing.

The inner chamber consists of both ends and the insides of all tubes in the tube bundle, hereinafter referred to as "Tube side" or "Product side".

The outer pressure chamber consists of the outside of the tube bundle, and the inside of the exchangers outer shell, hereinafter referred to as "Shell side" or "Service side".

The Heat Exchanger is intended for a fluid to fluid heat transfer, **either** cooling or heating and is made from EN.1.4404 (AISI 316L) stainless steel with a sanitary surface finish. The tube side is suitable for food stuff fluids, such as dairy products and juices. The outside surface roughness is ≤ 1,6µm and the internal tube side surface roughness is ≤ 0,8µm. **All fluid media in use with the Heat exchanger, must be compatible with EN.1.4404 (AISI 316L) Stainless Steel.**

The 40 BAR (580 PSI), maximum product side pressure, heat exchanger design is based on either a Ø129x2mm shell or a Ø209x3mm shell. Other sizes and pressure ratings are also available.

Regulations and Directives

The heat exchanger is designed and manufactured in accordance with
- the European Commission regulation No. 2023/2006 (Good Manufacturing Practices)
- the European Parliament directive No. EN 1935/2004 (Food Contact Materials).
- the European Parliament directive No. EN 1907/2006 (Chemical Restrictions (REACH).
- PED - Article 4.3 (SEP) in the European Parliament directive No. 2014/68/EU (Pressure Equipment Directive). The Heat Exchanger is only designed for fluid group 2 (non-dangerous fluids).

Documentation

1. Customer drawing with description and design data table
2. Declaration of conformity
3. Pressure test certificate
4. User Manual

As Supplement the following can be provided:
5. 3.1 material certificates according to EN 10204
6. Weld-logs with associated welding certificates according to DS/EN ISO 9601-1.

THE group specifications

Group ordering codes and specifications are as listed below. A more detailed group tables with model codes and main dimensions can be found on the following pages.

THE-xx-xxx-40 Concentric heat exchanger for up to 40 bar tube side pressure
-xx- indicates the heat transfer surface area 0.5** – 1 – 2 – 3 – 4* – 6* - 8* m^2
-xxx- indicates the outer diameter of the shell Ø129 mm or 209 mm
*Only Ø209 mm shell size **Only Ø129 mm shell size

Tube side (P1 and P2) connections for the groups are:

Shell size's	Tube side connection size's	
Ø129mm	DN125 – DN100 – DN80 – DN65	in accordance with DIN 32676-A
Ø129mm	4″ (Ø101.6) – 3″ (Ø76.1) – 2.5″ (Ø63.5)	in accordance with ISO 2852-2
Ø209mm	DN150 – DN125 – DN100	in accordance with DIN 32676-A
Ø209mm	4″ (Ø101.6)	in accordance with ISO 2852-2

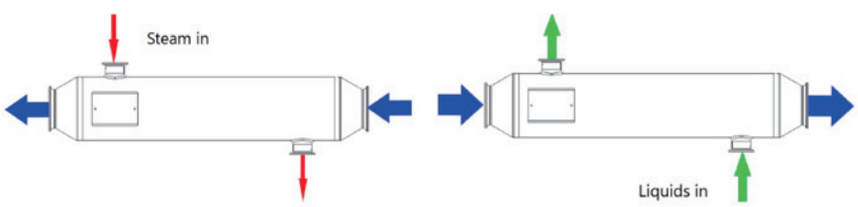
Shell side (S1 and S2) connections, both Ø129 and Ø209, for the groups are:

DN50 – DN40	in accordance with DIN 32676-A
2″ (Ø51) – 1.5″ (Ø38)	in accordance with ISO 2852-2

For both tube and shell sides other connection types and sizes are available.

Connections

Always follow your fitting supplier guidelines and local legislations. Depending on the connection size either SH or SSH strong clamp rings (or similar) are recommended. For steam connections the outlet should always be at the lowest point. For liquids, the outlet should be at the highest point for better air venting.



Steam pressure limits

The heat exchanger's shell side maximum pressure and temperature are respectively 20 bar[g] and 70°C for all regular fluids such as cold and hot water. However, these limits vary for steam:

1. For Heat Exchanger sizes 0.5m^2 to 3m^2 these limits are respectively 6 bar[g] and 165°C
2. For Heat Exchanger sizes 4m^2 to 6m^2 these limits are respectively 3 bar[g] and 144°C
3. For Heat Exchanger sizes 8m^2 these limits are respectively 2.3 bar[g] and 136°C

Temperature and pressure limits must be respected at all times !

Data table and nameplate

The following data can be found on the customer drawing for each Heat Exchanger:
Connection sizes, weight and total length can also be found on the drawing.

Design data table		Tube side	Shell side	Unit
Max. Pressure	PS			bar(g)
Max. steam pressure				bar(g)
Max. steam temperature				°C
Max. Temperature	TS			°C
Volume (approx.)	V			Liter
Test pressure	PT			bar(g)
Fluid group	2	Non-dangerous fluid		
Each unit must only be used for cooling or heating, never both !				

This pressure wessel is manufactured in accordance with the EUROPEAN PARLIAMENT AND THE COUNCILS DIRECTIVE - PED:2014/68 - article 4.3 OF 15/5 2014.

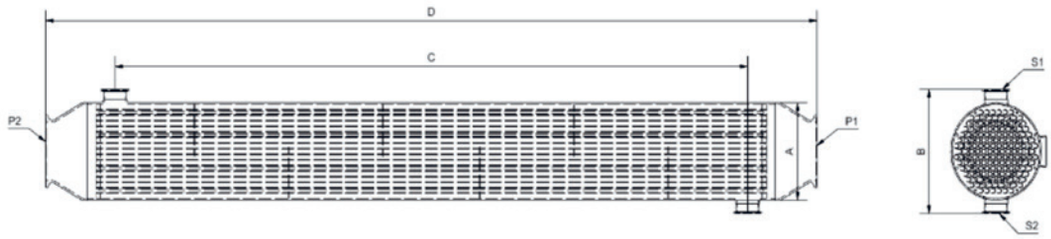
The following data can be found on the nameplate for each Heat Exchanger:

WILA

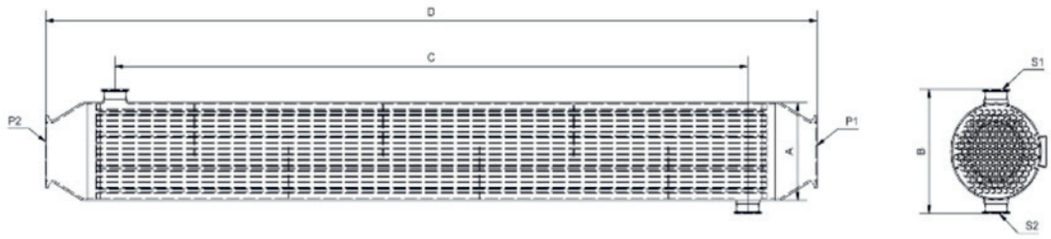
Date:
Fluid group:
Serial No.:
Type:
Drawing No.:
Customer No.:
Shell – if steam max _____barg Tube
/ Temp. min/max [°C] /
Max. pressure [barg]

Mads Clausensvej 14
DK-8600 Silkeborg
Tel. +45 86 80 08 44
Fax. +45 86 80 08 43
Homepage: www.wila.dk
E-mail: mail@wila.dk

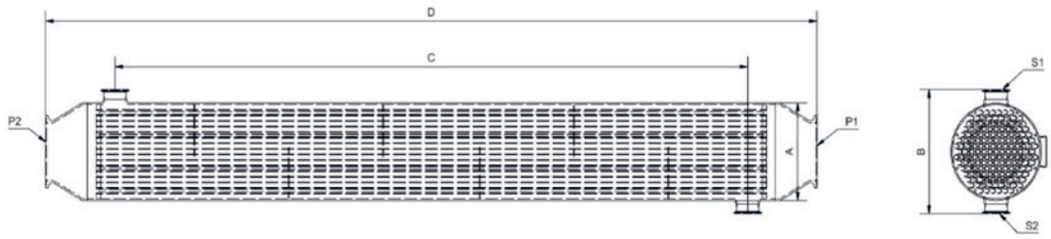
Note:
In the following group tables 'Number of pipes' is for all the pipes running parallel inside the shell.



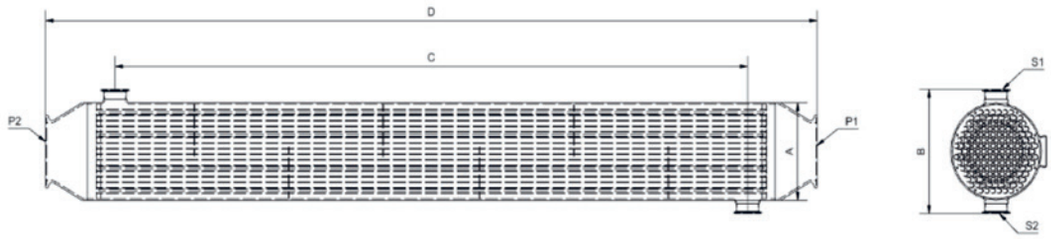
THE-.5-129-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 6 barg / 165°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-.5-129-125-51	W-015485	DN125	Ø51	Ø129	186	130	316	61
THE-.5-129-100-51	W-015484	DN100	Ø51	Ø129	186	130	354	61
THE-.5-129-101-51	W-015483	Ø101.6	Ø51	Ø129	186	130	350	61
THE-.5-129-080-51	W-015482	DN80	Ø51	Ø129	186	130	372	61
THE-.5-129-076-51	W-015481	Ø76.1	Ø51	Ø129	186	130	396	61
THE-.5-129-065-51	W-015480	DN65	Ø51	Ø129	186	130	400	61
THE-.5-129-063-51	W-015479	Ø63.5	Ø51	Ø129	186	130	418	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-.5-129-125-38	W-021158	DN125	Ø38	Ø129	186	130	316	61
THE-.5-129-100-38	W-021157	DN100	Ø38	Ø129	186	130	354	61
THE-.5-129-101-38	W-021156	Ø101.6	Ø38	Ø129	186	130	350	61
THE-.5-129-080-38	W-021155	DN80	Ø38	Ø129	186	130	372	61
THE-.5-129-076-38	W-021154	Ø76.1	Ø38	Ø129	186	130	396	61
THE-.5-129-065-38	W-021153	DN65	Ø38	Ø129	186	130	400	61
THE-.5-129-063-38	W-021152	Ø63.5	Ø38	Ø129	186	130	418	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-.5-129-125-50	W-021151	DN125	DN50	Ø129	186	130	316	61
THE-.5-129-100-50	W-021150	DN100	DN50	Ø129	186	130	354	61
THE-.5-129-101-50	W-021149	Ø101.6	DN50	Ø129	186	130	350	61
THE-.5-129-080-50	W-021148	DN80	DN50	Ø129	186	130	372	61
THE-.5-129-076-50	W-021147	Ø76.1	DN50	Ø129	186	130	396	61
THE-.5-129-065-50	W-021146	DN65	DN50	Ø129	186	130	400	61
THE-.5-129-063-50	W-021145	Ø63.5	DN50	Ø129	186	130	418	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-.5-129-125-40	W-021144	DN125	DN40	Ø129	186	130	316	61
THE-.5-129-100-40	W-021143	DN100	DN40	Ø129	186	130	354	61
THE-.5-129-101-40	W-021142	Ø101.6	DN40	Ø129	186	130	350	61
THE-.5-129-080-40	W-021141	DN80	DN40	Ø129	186	130	372	61
THE-.5-129-076-40	W-021140	Ø76.1	DN40	Ø129	186	130	396	61
THE-.5-129-065-40	W-021139	DN65	DN40	Ø129	186	130	400	61
THE-.5-129-063-40	W-021138	Ø63.5	DN40	Ø129	186	130	418	61



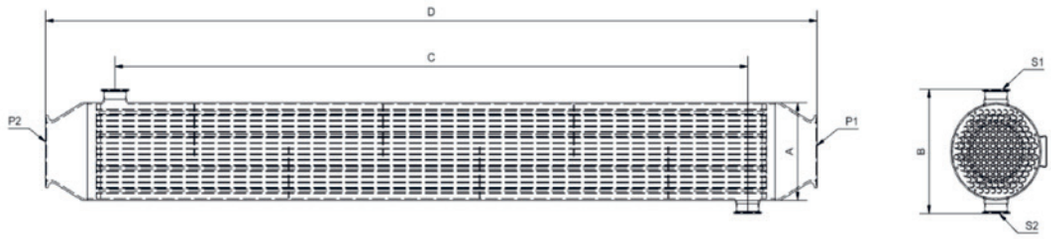
THE-01-129-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 6 barg / 165°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-129-125-51	W-015492	DN125	Ø51	Ø129	186	380	566	61
THE-01-129-100-51	W-015491	DN100	Ø51	Ø129	186	380	604	61
THE-01-129-101-51	W-015490	Ø101.6	Ø51	Ø129	186	380	600	61
THE-01-129-080-51	W-015489	DN80	Ø51	Ø129	186	380	622	61
THE-01-129-076-51	W-015488	Ø76.1	Ø51	Ø129	186	380	646	61
THE-01-129-065-51	W-015487	DN65	Ø51	Ø129	186	380	650	61
THE-01-129-063-51	W-015486	Ø63.5	Ø51	Ø129	186	380	668	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-129-125-38	W-021137	DN125	Ø38	Ø129	186	380	566	61
THE-01-129-100-38	W-021136	DN100	Ø38	Ø129	186	380	604	61
THE-01-129-101-38	W-021135	Ø101.6	Ø38	Ø129	186	380	600	61
THE-01-129-080-38	W-021134	DN80	Ø38	Ø129	186	380	622	61
THE-01-129-076-38	W-015841	Ø76.1	Ø38	Ø129	186	380	646	61
THE-01-129-065-38	W-021132	DN65	Ø38	Ø129	186	380	650	61
THE-01-129-063-38	W-021131	Ø63.5	Ø38	Ø129	186	380	668	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-129-125-50	W-021130	DN125	DN50	Ø129	186	380	566	61
THE-01-129-100-50	W-016839	DN100	DN50	Ø129	186	380	604	61
THE-01-129-101-50	W-021128	Ø101.6	DN50	Ø129	186	380	600	61
THE-01-129-080-50	W-021127	DN80	DN50	Ø129	186	380	622	61
THE-01-129-076-50	W-021126	Ø76.1	DN50	Ø129	186	380	646	61
THE-01-129-065-50	W-018074	DN65	DN50	Ø129	186	380	650	61
THE-01-129-063-50	W-021124	Ø63.5	DN50	Ø129	186	380	668	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-129-125-40	W-021123	DN125	DN40	Ø129	186	380	566	61
THE-01-129-100-40	W-021122	DN100	DN40	Ø129	186	380	604	61
THE-01-129-101-40	W-021121	Ø101.6	DN40	Ø129	186	380	600	61
THE-01-129-080-40	W-021120	DN80	DN40	Ø129	186	380	622	61
THE-01-129-076-40	W-021119	Ø76.1	DN40	Ø129	186	380	646	61
THE-01-129-065-40	W-021118	DN65	DN40	Ø129	186	380	650	61
THE-01-129-063-40	W-021117	Ø63.5	DN40	Ø129	186	380	668	61



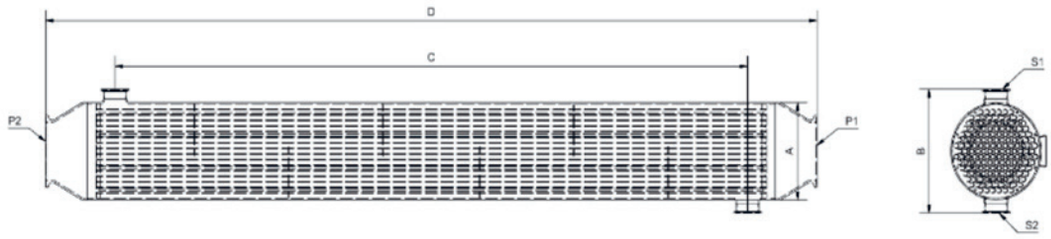
THE-02-129-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 6 barg / 165°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-129-125-51	W-015535	DN125	Ø51	Ø129	186	870	1046	61
THE-02-129-100-51	W-015534	DN100	Ø51	Ø129	186	870	1084	61
THE-02-129-101-51	W-014115	Ø101.6	Ø51	Ø129	186	870	1080	61
THE-02-129-080-51	W-015627	DN80	Ø51	Ø129	186	870	1102	61
THE-02-129-076-51	W-015626	Ø76.1	Ø51	Ø129	186	870	1126	61
THE-02-129-065-51	W-015625	DN65	Ø51	Ø129	186	870	1130	61
THE-02-129-063-51	W-015624	Ø63.5	Ø51	Ø129	186	870	1148	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-129-125-38	W-021116	DN125	Ø38	Ø129	186	870	1046	61
THE-02-129-100-38	W-021115	DN100	Ø38	Ø129	186	870	1084	61
THE-02-129-101-38	W-021114	Ø101.6	Ø38	Ø129	186	870	1080	61
THE-02-129-080-38	W-021113	DN80	Ø38	Ø129	186	870	1102	61
THE-02-129-076-38	W-019448	Ø76.1	Ø38	Ø129	186	870	1126	61
THE-02-129-065-38	W-021111	DN65	Ø38	Ø129	186	870	1130	61
THE-02-129-063-38	W-021110	Ø63.5	Ø38	Ø129	186	870	1148	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-129-125-50	W-021018	DN125	DN50	Ø129	186	870	1046	61
THE-02-129-100-50	W-015963	DN100	DN50	Ø129	186	870	1084	61
THE-02-129-101-50	W-021107	Ø101.6	DN50	Ø129	186	870	1080	61
THE-02-129-080-50	W-021106	DN80	DN50	Ø129	186	870	1102	61
THE-02-129-076-50	W-021105	Ø76.1	DN50	Ø129	186	870	1126	61
THE-02-129-065-50	W-018366	DN65	DN50	Ø129	186	870	1130	61
THE-02-129-063-50	W-021103	Ø63.5	DN50	Ø129	186	870	1148	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-129-125-40	W-021102	DN125	DN40	Ø129	186	870	1046	61
THE-02-129-100-40	W-021101	DN100	DN40	Ø129	186	870	1084	61
THE-02-129-101-40	W-021100	Ø101.6	DN40	Ø129	186	870	1080	61
THE-02-129-080-40	W-021099	DN80	DN40	Ø129	186	870	1102	61
THE-02-129-076-40	W-021098	Ø76.1	DN40	Ø129	186	870	1126	61
THE-02-129-065-40	W-021097	DN65	DN40	Ø129	186	870	1130	61
THE-02-129-063-40	W-021096	Ø63.5	DN40	Ø129	186	870	1148	61



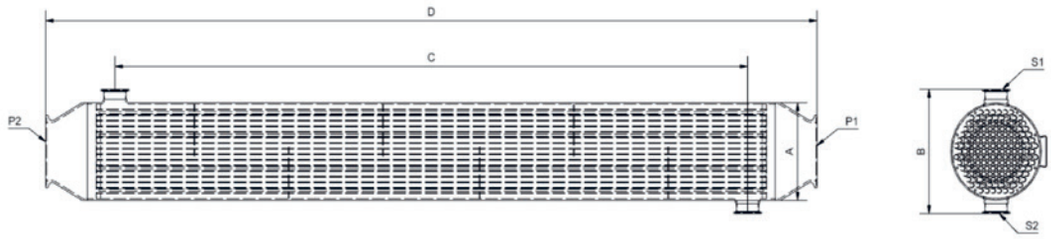
THE-03-129-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 6 barg / 165°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-129-125-51	W-015496	DN125	Ø51	Ø129	186	1360	1546	61
THE-03-129-100-51	W-015495	DN100	Ø51	Ø129	186	1360	1584	61
THE-03-129-101-51	W-015494	Ø101.6	Ø51	Ø129	186	1360	1580	61
THE-03-129-080-51	W-015493	DN80	Ø51	Ø129	186	1360	1602	61
THE-03-129-076-51	W-014165	Ø76.1	Ø51	Ø129	186	1360	1626	61
THE-03-129-065-51	W-015537	DN65	Ø51	Ø129	186	1360	1630	61
THE-03-129-063-51	W-015536	Ø63.5	Ø51	Ø129	186	1360	1648	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-129-125-38	W-021095	DN125	Ø38	Ø129	186	1360	1546	61
THE-03-129-100-38	W-021094	DN100	Ø38	Ø129	186	1360	1584	61
THE-03-129-101-38	W-021093	Ø101.6	Ø38	Ø129	186	1360	1580	61
THE-03-129-080-38	W-021092	DN80	Ø38	Ø129	186	1360	1602	61
THE-03-129-076-38	W-021091	Ø76.1	Ø38	Ø129	186	1360	1626	61
THE-03-129-065-38	W-021090	DN65	Ø38	Ø129	186	1360	1630	61
THE-03-129-063-38	W-021089	Ø63.5	Ø38	Ø129	186	1360	1648	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-129-125-50	W-021088	DN125	DN50	Ø129	186	1360	1546	61
THE-03-129-100-50	W-015968	DN100	DN50	Ø129	186	1360	1584	61
THE-03-129-101-50	W-021086	Ø101.6	DN50	Ø129	186	1360	1580	61
THE-03-129-080-50	W-021085	DN80	DN50	Ø129	186	1360	1602	61
THE-03-129-076-50	W-021084	Ø76.1	DN50	Ø129	186	1360	1626	61
THE-03-129-065-50	W-015024	DN65	DN50	Ø129	186	1360	1630	61
THE-03-129-063-50	W-021082	Ø63.5	DN50	Ø129	186	1360	1648	61
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-129-125-40	W-021081	DN125	DN40	Ø129	186	1360	1546	61
THE-03-129-100-40	W-021080	DN100	DN40	Ø129	186	1360	1584	61
THE-03-129-101-40	W-021079	Ø101.6	DN40	Ø129	186	1360	1580	61
THE-03-129-080-40	W-021078	DN80	DN40	Ø129	186	1360	1602	61
THE-03-129-076-40	W-021077	Ø76.1	DN40	Ø129	186	1360	1626	61
THE-03-129-065-40	W-021076	DN65	DN40	Ø129	186	1360	1630	61
THE-03-129-063-40	W-021072	Ø63.5	DN40	Ø129	186	1360	1648	61



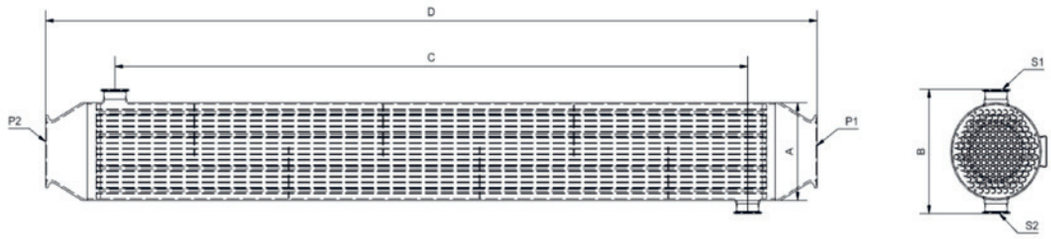
THE-01-209-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 6 barg / 165°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-209-150-51	W-015500	DN150	Ø51	Ø209	266	100	383	163
THE-01-209-125-51	W-015499	DN125	Ø51	Ø209	266	100	427	163
THE-01-209-100-51	W-015498	DN100	Ø51	Ø209	266	100	467	163
THE-01-209-101-51	W-015497	Ø101.6	Ø51	Ø209	266	100	467	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-209-150-38	W-021236	DN150	Ø38	Ø209	266	100	383	163
THE-01-209-125-38	W-021235	DN125	Ø38	Ø209	266	100	427	163
THE-01-209-100-38	W-021234	DN100	Ø38	Ø209	266	100	467	163
THE-01-209-101-38	W-021233	Ø101.6	Ø38	Ø209	266	100	467	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-209-150-50	W-021232	DN150	DN50	Ø209	266	100	383	163
THE-01-209-125-50	W-021231	DN125	DN50	Ø209	266	100	427	163
THE-01-209-100-50	W-018608	DN100	DN50	Ø209	266	100	467	163
THE-01-209-101-50	W-021229	Ø101.6	DN50	Ø209	266	100	467	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-01-209-150-40	W-021228	DN150	DN40	Ø209	266	100	383	163
THE-01-209-125-40	W-021227	DN125	DN40	Ø209	266	100	427	163
THE-01-209-100-40	W-021226	DN100	DN40	Ø209	266	100	467	163
THE-01-209-101-40	W-021225	Ø101.6	DN40	Ø209	266	100	467	163



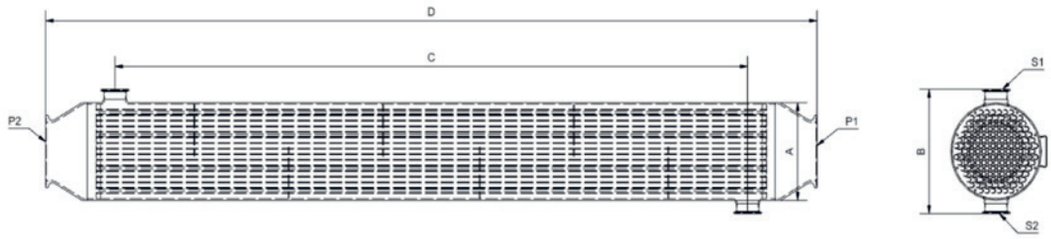
THE-02-209-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 6 barg / 165°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-209-150-51	W-015504	DN150	Ø51	Ø209	266	290	568	163
THE-02-209-125-51	W-015503	DN125	Ø51	Ø209	266	290	612	163
THE-02-209-100-51	W-015502	DN100	Ø51	Ø209	266	290	652	163
THE-02-209-101-51	W-015501	Ø101.6	Ø51	Ø209	266	290	652	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-209-150-38	W-021224	DN150	Ø38	Ø209	266	290	568	163
THE-02-209-125-38	W-021223	DN125	Ø38	Ø209	266	290	612	163
THE-02-209-100-38	W-021222	DN100	Ø38	Ø209	266	290	652	163
THE-02-209-101-38	W-021221	Ø101.6	Ø38	Ø209	266	290	652	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-209-150-50	W-021220	DN150	DN50	Ø209	266	290	568	163
THE-02-209-125-50	W-021219	DN125	DN50	Ø209	266	290	612	163
THE-02-209-100-50	W-021218	DN100	DN50	Ø209	266	290	652	163
THE-02-209-101-50	W-021217	Ø101.6	DN50	Ø209	266	290	652	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-02-209-150-40	W-021216	DN150	DN40	Ø209	266	290	568	163
THE-02-209-125-40	W-021215	DN125	DN40	Ø209	266	290	612	163
THE-02-209-100-40	W-021214	DN100	DN40	Ø209	266	290	652	163
THE-02-209-101-40	W-021213	Ø101.6	DN40	Ø209	266	290	652	163



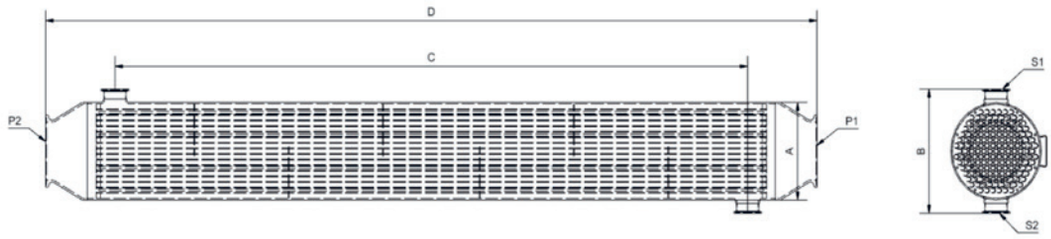
THE-03-209-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 6 barg / 165°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-209-150-51	W-015508	DN150	Ø51	Ø209	266	510	788	163
THE-03-209-125-51	W-015507	DN125	Ø51	Ø209	266	510	832	163
THE-03-209-100-51	W-015506	DN100	Ø51	Ø209	266	510	872	163
THE-03-209-101-51	W-015505	Ø101.6	Ø51	Ø209	266	510	872	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-209-150-38	W-021212	DN150	Ø38	Ø209	266	510	788	163
THE-03-209-125-38	W-021211	DN125	Ø38	Ø209	266	510	832	163
THE-03-209-100-38	W-021210	DN100	Ø38	Ø209	266	510	872	163
THE-03-209-101-38	W-015633	Ø101.6	Ø38	Ø209	266	510	872	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-209-150-50	W-021208	DN150	DN50	Ø209	266	510	788	163
THE-03-209-125-50	W-021207	DN125	DN50	Ø209	266	510	832	163
THE-03-209-100-50	W-021206	DN100	DN50	Ø209	266	510	872	163
THE-03-209-101-50	W-021205	Ø101.6	DN50	Ø209	266	510	872	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-03-209-150-40	W-021204	DN150	DN40	Ø209	266	510	788	163
THE-03-209-125-40	W-021203	DN125	DN40	Ø209	266	510	832	163
THE-03-209-100-40	W-021202	DN100	DN40	Ø209	266	510	872	163
THE-03-209-101-40	W-021201	Ø101.6	DN40	Ø209	266	510	872	163



THE-04-209-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 3 barg / 144°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-04-209-150-51	W-015511	DN150	Ø51	Ø209	266	650	935	163
THE-04-209-125-51	W-015510	DN125	Ø51	Ø209	266	650	979	163
THE-04-209-100-51	W-015509	DN100	Ø51	Ø209	266	650	1019	163
THE-04-209-101-51	W-013662	Ø101.6	Ø51	Ø209	266	650	1019	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-04-209-150-38	W-018791	DN150	Ø38	Ø209	266	650	935	163
THE-04-209-125-38	W-021199	DN125	Ø38	Ø209	266	650	979	163
THE-04-209-100-38	W-021198	DN100	Ø38	Ø209	266	650	1019	163
THE-04-209-101-38	W-021197	Ø101.6	Ø38	Ø209	266	650	1019	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-04-209-150-50	W-021196	DN150	DN50	Ø209	266	650	935	163
THE-04-209-125-50	W-021195	DN125	DN50	Ø209	266	650	979	163
THE-04-209-100-50	W-015969	DN100	DN50	Ø209	266	650	1019	163
THE-04-209-101-50	W-021193	Ø101.6	DN50	Ø209	266	650	1019	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-04-209-150-40	W-021192	DN150	DN40	Ø209	266	650	935	163
THE-04-209-125-40	W-021191	DN125	DN40	Ø209	266	650	979	163
THE-04-209-100-40	W-021190	DN100	DN40	Ø209	266	650	1019	163
THE-04-209-101-40	W-021189	Ø101.6	DN40	Ø209	266	650	1019	163



THE-06-209-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 3 barg / 144°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-06-209-150-51	W-015514	DN150	Ø51	Ø209	266	1030	1315	163
THE-06-209-125-51	W-015247	DN125	Ø51	Ø209	266	1030	1359	163
THE-06-209-100-51	W-015513	DN100	Ø51	Ø209	266	1030	1399	163
THE-06-209-101-51	W-015512	Ø101.6	Ø51	Ø209	266	1030	1399	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-06-209-150-38	W-021188	DN150	Ø38	Ø209	266	1030	1315	163
THE-06-209-125-38	W-021187	DN125	Ø38	Ø209	266	1030	1359	163
THE-06-209-100-38	W-021186	DN100	Ø38	Ø209	266	1030	1399	163
THE-06-209-101-38	W-021185	Ø101.6	Ø38	Ø209	266	1030	1399	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-06-209-150-50	W-021184	DN150	DN50	Ø209	266	1030	1315	163
THE-06-209-125-50	W-021183	DN125	DN50	Ø209	266	1030	1359	163
THE-06-209-100-50	W-016969	DN100	DN50	Ø209	266	1030	1399	163
THE-06-209-101-50	W-021181	Ø101.6	DN50	Ø209	266	1030	1399	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-06-209-150-40	W-021180	DN150	DN40	Ø209	266	1030	1315	163
THE-06-209-125-40	W-021179	DN125	DN40	Ø209	266	1030	1359	163
THE-06-209-100-40	W-021178	DN100	DN40	Ø209	266	1030	1399	163
THE-06-209-101-40	W-021177	Ø101.6	DN40	Ø209	266	1030	1399	163



THE-08-209-40		Maximum pressure / Maximum temperature						
		40 barg / 85°C	20 barg / 70°C For steam inside shell; 2.3 barg / 136°C					
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-08-209-150-51	W-015517	DN150	Ø51	Ø209	266	1450	1730	163
THE-08-209-125-51	W-014075	DN125	Ø51	Ø209	266	1450	1774	163
THE-08-209-100-51	W-015516	DN100	Ø51	Ø209	266	1450	1814	163
THE-08-209-101-51	W-015515	Ø101.6	Ø51	Ø209	266	1450	1814	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-08-209-150-38	W-021176	DN150	Ø38	Ø209	266	1450	1730	163
THE-08-209-125-38	W-021175	DN125	Ø38	Ø209	266	1450	1774	163
THE-08-209-100-38	W-021174	DN100	Ø38	Ø209	266	1450	1814	163
THE-08-209-101-38	W-021173	Ø101.6	Ø38	Ø209	266	1450	1814	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-08-209-150-50	W-021172	DN150	DN50	Ø209	266	1450	1730	163
THE-08-209-125-50	W-021171	DN125	DN50	Ø209	266	1450	1774	163
THE-08-209-100-50	W-018079	DN100	DN50	Ø209	266	1450	1814	163
THE-08-209-101-50	W-021169	Ø101.6	DN50	Ø209	266	1450	1814	163
Stock number	**Drawing number**	**P1/P2**	**S1/S2**	**A**	**B**	**C**	**D**	**Number of pipes**
THE-08-209-150-40	W-021168	DN150	DN40	Ø209	266	1450	1730	163
THE-08-209-125-40	W-021167	DN125	DN40	Ø209	266	1450	1774	163
THE-08-209-100-40	W-021166	DN100	DN40	Ø209	266	1450	1814	163
THE-08-209-101-40	W-021165	Ø101.6	DN40	Ø209	266	1450	1814	163