Hexonic | HEAT EXCHANGERS

POOL

HEAT EXCHANGERS

Let's exchange

POOL
HEAT EXCHANGERS

Special design of our pool heat exchangers boosts heat transfer and delivers better utilization of heat source. Equipped with straight tubes all of the models ensure low pressure loss thus saving energy. Corrugated straight tubes promote turbulent flow which further intensifies heat exchange and helps reduce fouling.

Cutting-edge technology and durable materials such as titanium and stainless steel, make our heat exchangers resistant to corrosive environments. They can be used with all types of pool water – either treated or salt.

WHY CHOOSE HEXONIC POOL HEAT EXCHANGERS?

- HIGH PERFORMANCE
- EASY INSTALLATION
- OUTSTANDING RELIABILITY
- COMPATIBLE WITH ALL TYPES OF POOL INSTALLATIONS
- COMPATIBLE WITH ALL TYPES OF HEATING
- CAIRO USER-FRIENDLY CAIRO SELECTION SOFTWARE MAKES THE SELECTION PROCESS EASY

HEAT EXCHANGERS

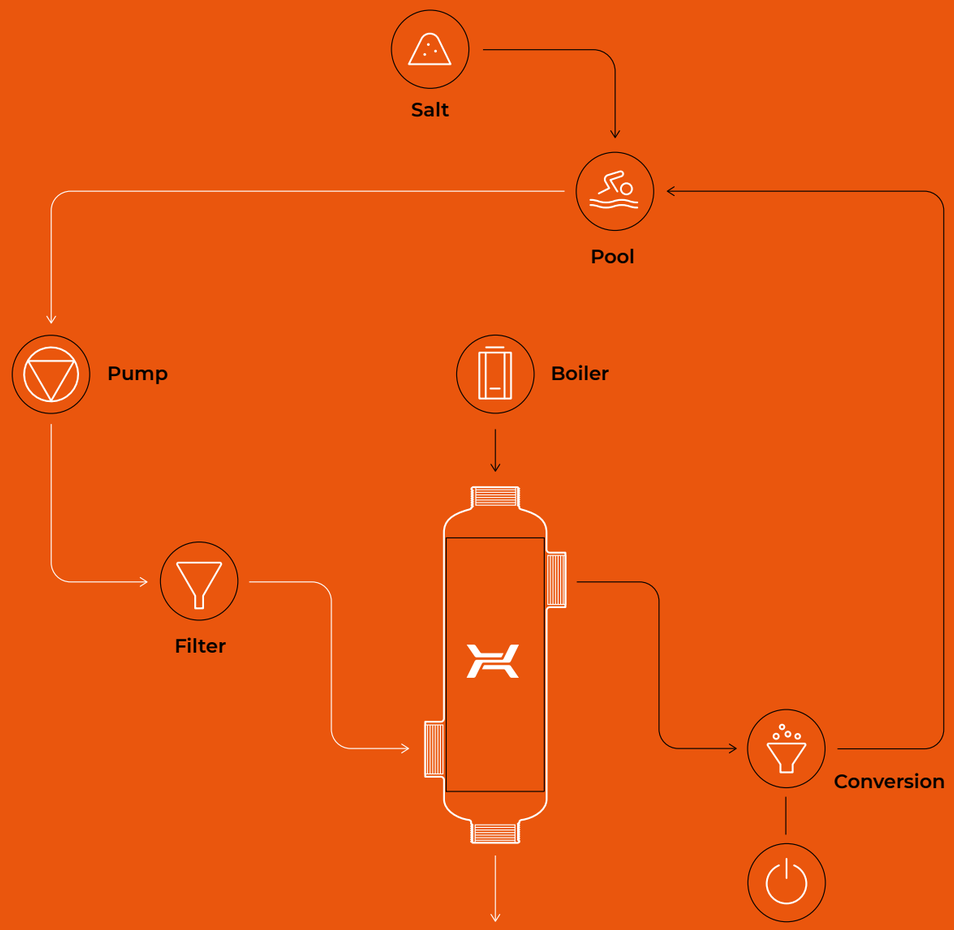


DIAGRAM OF SALT WATER POOL
WITH A HEXONIC POOL HEAT EXCHANGER

APPLIANCE

Pool	HEAT EXCHANGER TYPE			
	B	REV	TI	JAG
Public pool	💧💧	💧💧	💧	💧💧
Private pool	💧💧	💧💧	💧	💧
Olympic-size pool	💧💧	💧💧	💧	💧💧💧
Kids' pool	💧💧	💧💧	💧	💧
Hot tubs / SPA pools	💧	💧💧	💧💧	💧
Salt water pool	—	💧💧💧	💧💧💧	💧
Water park	💧💧	💧💧	💧	💧💧

Heat source type	HEAT EXCHANGER TYPE			
	B	REV	TI	JAG
Condensing boiler	💧	💧💧	💧	💧💧
Coal boiler	💧💧	💧💧	💧	💧
Geothermal water	—	💧💧	💧💧💧	💧
Heat pump	💧	💧💧	💧	💧💧
Solar system	💧	💧💧	💧	💧💧
District heating	💧💧	💧💧	💧	💧💧

💧 possibility 💧💧 best choice 💧💧💧 necessity

B

POOL HEAT EXCHANGERS

B pool heat exchangers are characterized by high thermal efficiency. They are the perfect solution in high-flow systems, in particular pool systems of different types and sizes.

B type exchangers are shell and tube exchangers equipped with straight corrugated tubes. They can be used in systems with high medium flow in comparison to transferred thermal power. It is a proven solution for pool and solar systems or small oil preheating systems.

The use of corrugated tubes intensifies heat exchange and increases self-cleaning possibilities. Compact, welded B type exchangers are highly durable and reliable.

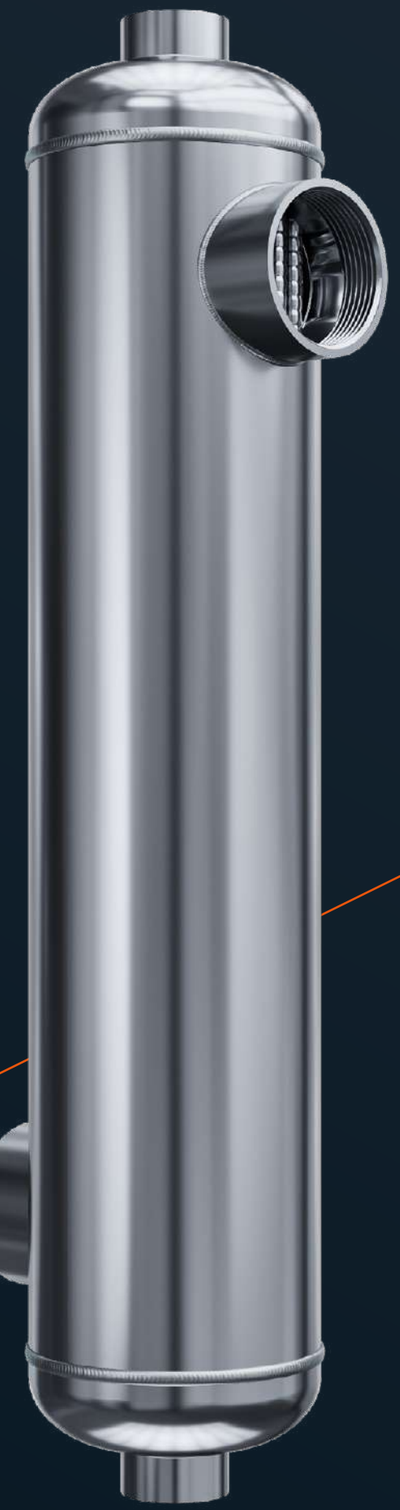
DESIGN

HIGH VOLUME FLOW AT LOW PRESSURE LOSS; NO NEED OF BY-PASS

COMPACT SIZE

CORRUGATED TUBES INTENSIFY HEAT EXCHANGE AND REDUCE FOULING

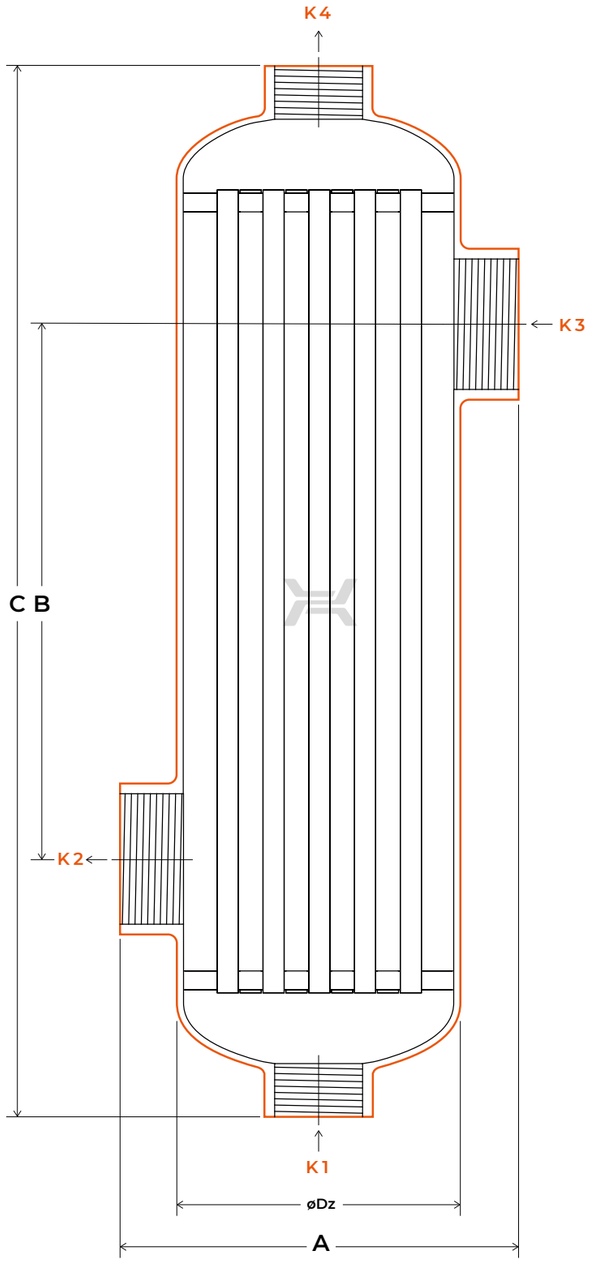
RESISTANCE TO AGGRESSIVE SUBSTANCES IN POOL WATER (E.G. FLUORINE, CHLORINE)



TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

K1 / K4 — inlet / outlet heat source – internal thread
K3 / K2 — inlet / outlet pool water – internal thread



Type	Connection size	
	K1, K4	K2, K3
B45	G¾"	G1"
B70	G¾"	G1½"
B130	G¾"	G1½"
B180	G1"	G1½"
B250	G1"	G1½"
B300	G1"	G1½"
B500	G1"	G2"
B1000	G2"	G2"

WORKING PARAMETERS

MAX. TEMPERATURE — 165°C / 329°F
MAX. PRESSURE — 16 BAR / 232 PSI

TECHNICAL PARAMETERS

Type	Dimensions								Heat exchange area		Tube diameter		Weight		Tube side capacity		Shell side capacity	
	A		B		C		ØDz											
	mm	in	mm	in	mm	in	mm	in	m²	ft²	mm	in	kg	lb	l	gal	l	gal
B45	122	4.8	75	3.0	289,5	11.4	80	3.1	0,1	1.2	8	0.3	2,1	4.6	0,5	0.1	0,5	0.1
B70	122	4.8	175	6.9	389,5	15.3	80	3.1	0,2	1.9	8	0.3	3	6.6	0,6	0.2	0,8	0.2
B130	122	4.8	225	8.9	439,5	17.3	80	3.1	0,2	2.5	8	0.3	3,3	7.3	0,7	0.2	1,0	0.3
B180	143,6	5.7	193	7.6	379	14.9	101,6	4.0	0,4	4.1	8	0.3	4,6	10.1	1,2	0.3	1,4	0.4
B250	143,6	5.7	323	12.7	509	20.0	101,6	4.0	0,6	5.9	8	0.3	5,8	12.8	1,5	0.4	2,0	0.5
B300	143,6	5.7	451	17.8	637	25.1	101,6	4.0	0,7	7.9	8	0.3	7,3	16.1	1,8	0.5	2,6	0.7
B500	143,6	5.7	884	34.8	1 103	43.4	101,6	4.0	1,4	14.7	8	0.3	12,4	27.3	2,8	0.7	4,8	1.3
B1000	190	7.5	680	26.8	943	37.1	139,7	5.5	2,0	21.2	8	0.3	23,5	51.8	4,6	1.2	7,8	2.1

All dimensions and technical data are approximate only and may be changed without further notice.

MAX. HEAT LOAD

MAX. HEAT LOAD													
Heat source temperature inlet		Pool water temperature inlet		B45		B70		B130		B180			
°C	°F	°C	°F	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h
40	104	20	68	6	20	10	34	10	34	16	55	20	68
50	122	20	68	10	34	16	55	18	63	26	89	32	109
60	140	20	68	14	48	22	75	26	89	36	122	44	150
70	158	20	68	18	61	28	96	34	116	46	155	56	190
80	176	20	68	22	75	34	116	42	143	56	190	68	230
90	194	20	68	26	89	40	136	50	170	66	225	80	270

		m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h
Pool water	**Flow**	12	3 170	12	3 170	12	3 170	12	3 170	15	3 963
Heat source		3	793	3	793	3	793	4	1 057	5	1 321

		kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi
Pool water	**Pressure drop**	14	2.0	12	1.7	15	2.2	7	1.0	11	1.6
Heat source		2	0.3	3	0.4	4	0.6	2	0.3	3	0.4

Pool capacity [m³]	up to 15	15–25	25–40	40–55

All dimensions and technical data are approximate only and may be changed without further notice.

MAX. HEAT LOAD																	
B250				B300				B500				B1000					
kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h
22	75	25	85	25	85	35	120	44	150	50	170	75	255	75	255	125	145
36	122	42	145	43	145	55	190	70	240	80	275	110	375	120	410	200	680
50	170	59	200	61	210	75	255	96	330	110	375	145	495	165	565	275	940
64	220	76	260	79	270	95	325	122	415	140	480	180	615	210	715	350	1195
78	265	93	315	97	330	115	390	148	505	170	580	215	735	255	870	425	1450
92	315	110	375	115	395	135	460	174	595	200	680	250	855	300	1025	500	1 705

m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h
12	3 170	15	3 963	12	3 170	15	3 963	12	3 170	13	3 434	15	3 963	15	3 963	20	5 283
4	1 057	5	1 321	4	1 057	5	1 321	4	1 057	5	1 321	4	1 057	5	1 321	10	2 642

kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi
10	1.5	14	2.0	12	1.7	18	2.6	19	2.8	22	3.2	7	1.0	7	1.0	12	1.7
3	0.4	5	0.7	4	0.6	6	0.9	5	0.7	7	1.0	2	0.3	3	0.4	9	1.3

55–75	75–90	90–160	140–280

REV

POOL HEAT EXCHANGERS

REV pool heat exchangers achieve very high heat exchange coefficient thanks to the 3-pass tube bundle.

REV heat exchangers are intended for use mainly in swimming pool installations. The main priority in their design was to improve heat exchange conditions. This was achieved by using the 3-pass design of the tube bundle, which results in better utilization of source thermal power. Additionally, thanks to the short path of pool water (heated medium) through the exchanger, the flow speed remains high.

Corrugated tubes increase flow turbulence, which further intensifies heat transfer. REV heat exchangers are made in two material versions – stainless steel or titanium. REV works perfectly with heat pumps, solar panels, but also standard heat sources, e.g. gas-fired boilers.

DESIGN

UNIQUE 3-PASS TUBE BUNDLE ENABLES BETTER UTILIZATION OF THE HEAT SOURCE AND CREATES EXCEPTIONAL HEAT EXCHANGE RESULTS

LITTLE PRESSURE LOSS ON THE SHELL SIDE (POOL WATER)

EXCELLENT TO WORK WITH HEAT PUMPS AND SOLAR PANELS

TITANIUM VERSIONS – SUITABLE FOR SALT WATER POOLS

CORRUGATED TUBES INCREASE FLOW TURBULENCE WHICH FURTHER INTENSIFIES HEAT EXCHANGE

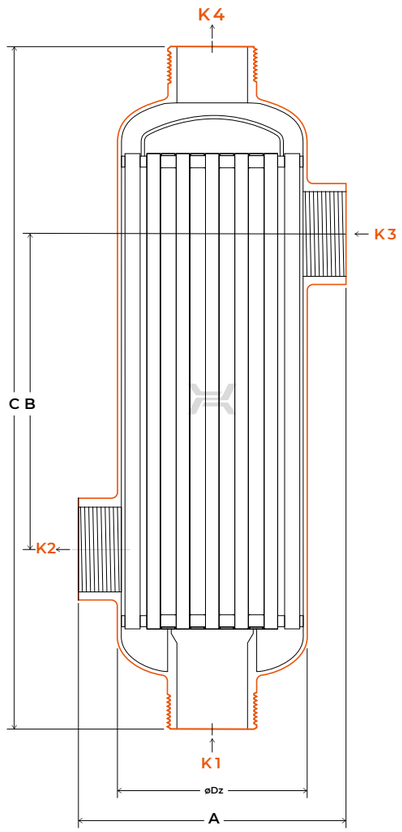
TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

K1 / **K4** — inlet / outlet heat source
external thread G1½"
K3 / **K2** — inlet / outlet pool water
internal thread G1½"

WORKING PARAMETERS

MAX. TEMPERATURE — 150°C / 302°F
MIN. TEMPERATURE — -20°C / -4°F
MAX. PRESSURE — 16 BAR / 232 PSI



TECHNICAL PARAMETERS

Type	Dimensions								Heat exchange area		Tube diameter		Weight		Tube side capacity		Shell side capacity	
	A		B		C		ØDz											
	mm	in	mm	in	mm	in	mm	in	m²	ft²	mm	in	kg	lb	l	gal	l	gal
REV250S	140	5.5	170	6.7	353	13.9	101,6	4	0,3	3.2	8	0.3	3,8	8.4	0,8	0.2	1,3	0.3
REV350S	140	5.5	270	10.6	453	17.8	101,6	4	0,4	4.4	8	0.3	4,8	10.6	1,0	0.3	1,8	0.5
REV500S	140	5.5	420	16.5	603	23.7	101,6	4	0,6	6.3	8	0.3	6,3	13.9	1,3	0.3	2,5	0.7
REV750S	140	5.5	670	26.4	853	33.6	101,6	4	0,9	9.5	8	0.3	8,7	19.2	1,7	0.5	3,8	1.0
REV1000S	140	5.5	920	36.2	1 103	43.4	101,6	4	1,2	12.7	8	0.3	11,1	24.5	2,2	0.6	5,0	1.3
REV250T	140	5.5	170	6.7	353	13.9	101,6	4	0,3	3.2	8	0.3	2,1	4.7	0,8	0.2	1,3	0.3
REV350T	140	5.5	270	10.6	453	17.8	101,6	4	0,4	4.4	8	0.3	2,7	5.9	1,0	0.3	1,8	0.5
REV500T	140	5.5	420	16.5	603	23.7	101,6	4	0,6	6.3	8	0.3	3,5	7.8	1,3	0.3	2,5	0.7
REV750T	140	5.5	670	26.4	853	33.6	101,6	4	0,9	9.5	8	0.3	4,9	10.7	1,7	0.5	3,8	1.0
REV1000T	140	5.5	920	36.2	1 103	43.4	101,6	4	1,2	12.7	8	0.3	6,2	13.7	2,2	0.6	5,0	1.3

S – Stainless Steel T – Titanium

All dimensions and technical data are approximate only and may be changed without further notice.

MAX. HEAT LOAD

Heat source temperature inlet		Pool water temperature inlet		MAX. HEAT LOAD REV250		REV350		REV500		REV750		REV1000	
°C	°F	°C	°F	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h
40	104	32	90	11	38	17	58	22	75	32	110	37	125
		30	86	14	48	20	68	27	92	40	135	46	155
50	122	32	90	26	89	38	130	50	170	72	145	83	285
		30	86	29	100	42	145	55	188	79	270	92	315
60	140	36	97	37	125	52	175	68	230	96	330	110	375
		38	100	34	115	48	165	63	215	88	300	105	360

		m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h
Pool water	**Flow**	10	2 642	10	2 642	12	3 170	13	3 434	15	3 963
Heat source		3	793	3.5	925	3.5	925	4	1 057	4	1 057
		kPa	**psi**	**kPa**	**psi**	**kPa**	**psi**	**kPa**	**psi**	**kPa**	**psi**
Pool water	**Pressure drop**	20	2.9	20	2.9	29	4.2	34	4.9	45	6.5
Heat source		12	1.7	17	2.5	20	2.9	30	4.4	35	5.1
Pool capacity [m³]		40–70		60–110		80–120		110–160		150–200	

TI

POOL HEAT EXCHANGERS

TI titanium pool exchangers are intended for use in pool systems with salt water.

TI type exchangers are titanium exchangers intended for use in particular in demanding pool systems with mostly salt water. The use of titanium makes TI resistant to aggressive substances, such as salt, chlorine and fluorine, as well as high pressure and temperature.

The design of the exchangers makes them suited to operate in high-flow systems. Corrugated tubes cause turbulent flow, which intensifies heat exchange and reduces the possibility of sediment accumulation.

DESIGN

- CORRUGATED TUBES INTENSIFY HEAT EXCHANGE AND REDUCE FOULING
- HIGH VOLUME FLOW AT LOW PRESSURE LOSS; NO NEED OF BY-PASS
- RESISTANCE TO AGGRESSIVE SUBSTANCES IN POOL WATER (E.G. FLUORINE, CHLORINE)
- SUITABLE FOR USE WITH SALT WATER
- COMPACT SIZE

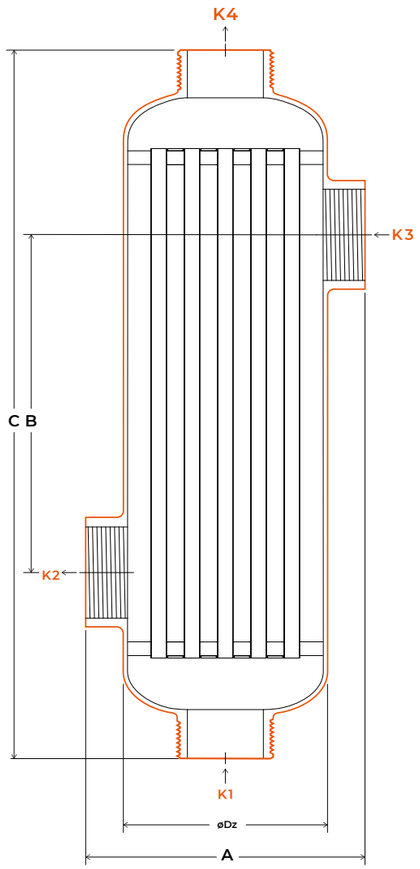
TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS

K1 / **K4** — inlet / outlet heat source
external thread G1½"
K3 / **K2** — inlet / outlet pool water
internal thread G1½"

WORKING PARAMETERS

MAX. TEMPERATURE — 110°C /230°F
MAX. PRESSURE — 16 BAR / 232 PSI



TECHNICAL PARAMETERS

Type	Dimensions								Heat exchange area		Tube diameter		Weight		Tube side capacity		Shell side capacity	
	A		B		C		ØDz											
	mm	in	mm	in	mm	in	mm	in	m²	ft²	mm	in	kg	lb	l	gal	l	gal
TI250	140	5.5	170	6.7	357	14.1	101,6	4	0,34	3.7	8	0.3	2,2	4.9	0,9	0.2	1,2	0.3
TI350	140	5.5	270	10.6	457	18.0	101,6	4	0,48	5.2	8	0.3	2,7	6.0	1,2	0.3	1,6	0.4
TI500	140	5.5	420	16.5	607	23.9	101,6	4	0,69	7.4	8	0.3	3,8	8.3	1,5	0.4	2,3	0.6
TI750	140	5.5	670	26.4	857	33.7	101,6	4	1,04	11.2	8	0.3	5,3	11.7	2,1	0.5	3,5	0.9
TI1000	140	5.5	920	36.2	1 107	43.6	101,6	4	1,38	14.9	8	0.3	6,8	15.0	2,6	0.7	4,7	1.2
TI2000	204	8.03	857	33.74	1 141	44.92	139,7	5.5	2,4	25.8	8	0.3	12	26.46	5,5	1.45	9,53	2.52

All dimensions and technical data are approximate only and may be changed without further notice.

MAX. HEAT LOAD

MAX. HEAT LOAD															
Heat source temperature inlet		Pool water temperature inlet		TI250		TI350		TI500		TI750		TI1000			
°C	°F	°C	°F	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h		
50	122	32	90	13	44	24	82	38	130	54	185	69	235		
		38	100	9	31	15	51	26	89	36	120	48	165		
60	140	32	90	23	78	37	126	66	225	86	295	115	390		
		38	100	18	61	30	102	50	170	71	240	90	305		
70	158	32	90	33	113	53	180	91	310	120	410	158	540		
		38	100	28	96	45	155	78	265	100	340	137	465		
				m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h	m³/h	gal/h		
Pool water				12	3 170	15	3963	24	6 340	20	5 283	17	4 491		
Heat source		**Flow**		3	793	4	1 057	5	1 321	5	1 321	5.5	1 453		
				kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi		
Pool water				9	1.3	18	2.6	58	8.4	59	8.6	58	8.4		
Heat source		**Pressure drop**		1	0.1	2	0.3	4	0.6	6	0.9	7	1.0		
Pool capacity [m³]				40–70		70–100		90–150		130–180		160–220			

JAG

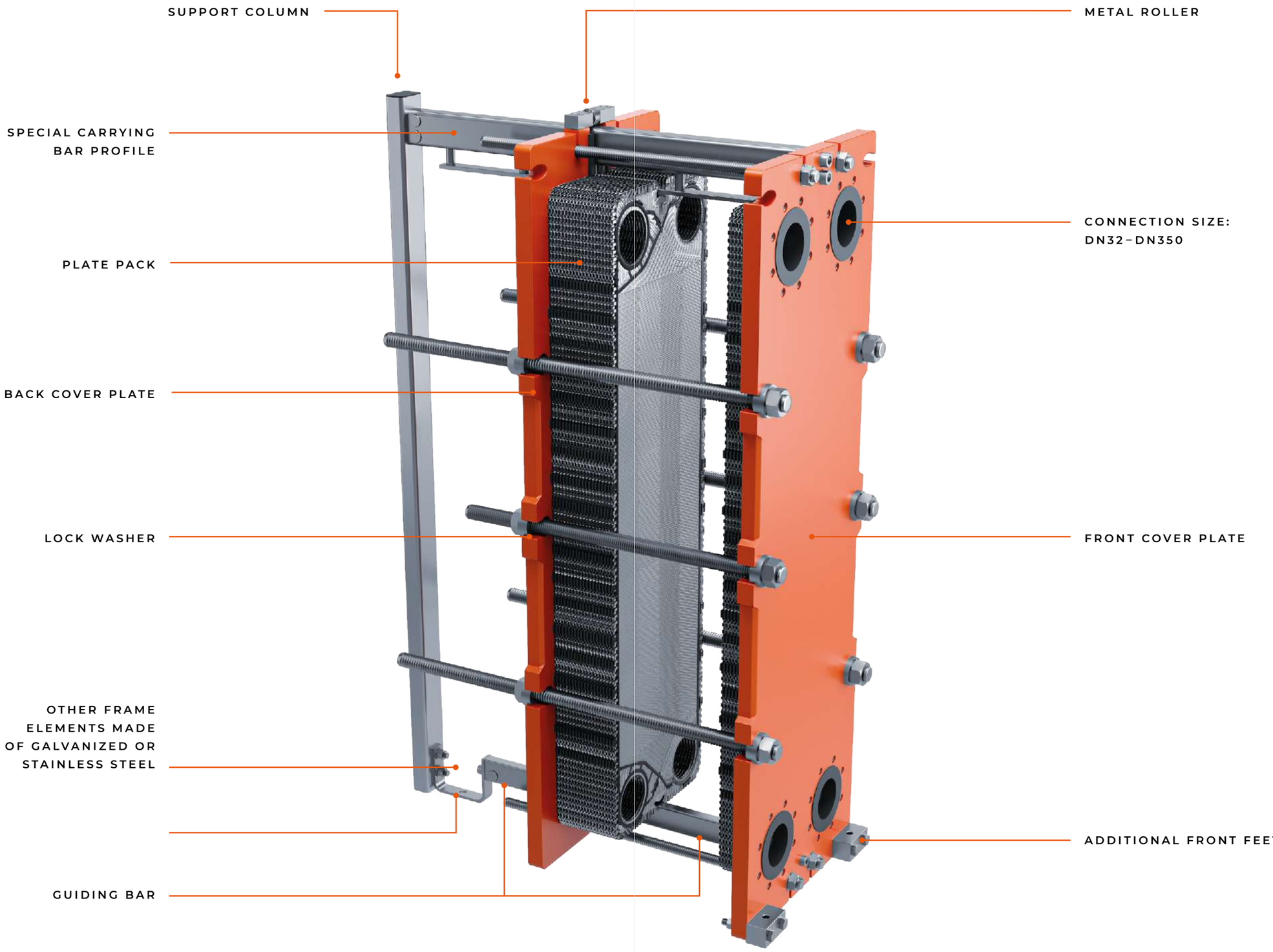
PLATE & FRAME HEAT EXCHANGERS

SALT WATER

From the passion for innovation a new product has been born – JAG Plate Heat Exchanger with inventive jagged pattern of a heating plate. Breaking new ground solution brings not only enhanced flow turbulence but also increased heat exchange area. Together it gives more compact, lighter but most of all more efficient device which can be customized to your individual requirements. Highly efficient JAG Plate Heat Exchanger will become a long-life dependable solution for your applications.

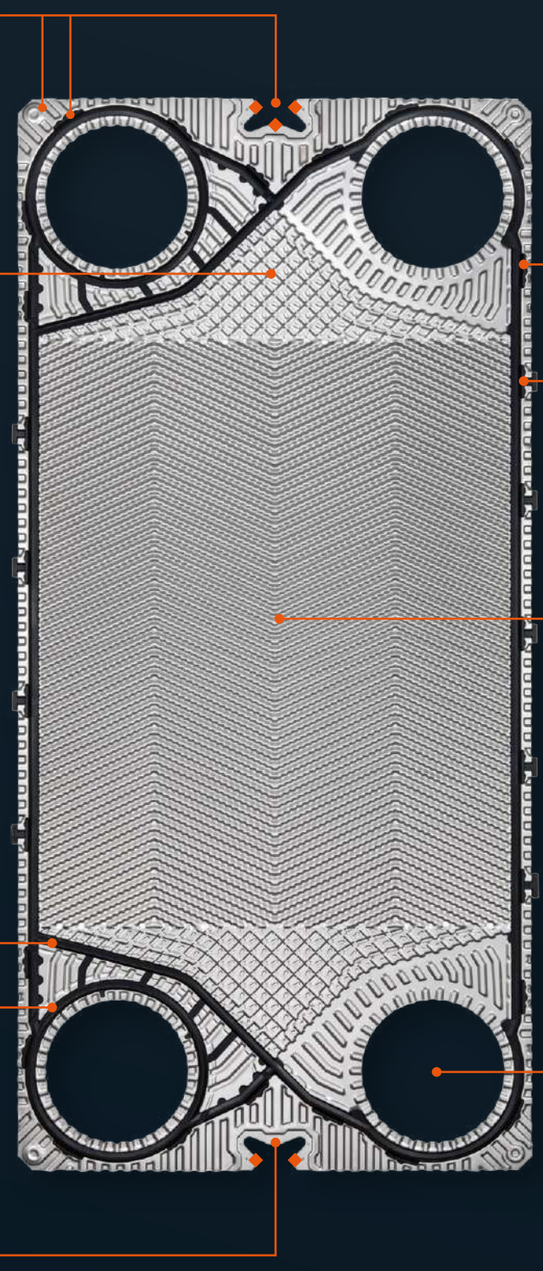
- INNOVATIVE CORRUGATION DESIGN
- UP TO 10% HIGHER HEAT TRANSFER EFFICIENCY
- ENHANCED FLOW TURBULENCE
- UP TO 10% LOWER PRESSURE DROP FOR HIGH FLOW PATTERN
- DECREASED FOULING
- INCREASED HEAT EXCHANGE AREA
- INCREASED PLATE DURABILITY

JAG DESIGN


SUPPORT COLUMN
METAL ROLLER
SPECIAL CARRYING BAR PROFILE
PLATE PACK
CONNECTION SIZE: DN32–DN350
BACK COVER PLATE
LOCK WASHER
FRONT COVER PLATE
OTHER FRAME ELEMENTS MADE OF GALVANIZED OR STAINLESS STEEL
ADDITIONAL FRONT FEET
GUIDING BAR

JAG PLATE
REINVENTED

- FIVE POINT STELLAR SUSPENDING AND ALIGNING SYSTEM



GASKETS
PATENTED HYBRID LOCK SYSTEM

New construction of the patented gasket features two locking methods and an optimized unique shape. The hybrid lock system makes the mounting easier, quicker, and more stable throughout the exchanger assembly process. The innovative shape provides superior sealing capacity even in high pressure applications.

TECHNICAL DATA

STANDARD LOCATION OF CONNECTIONS – SINGLE PASS:

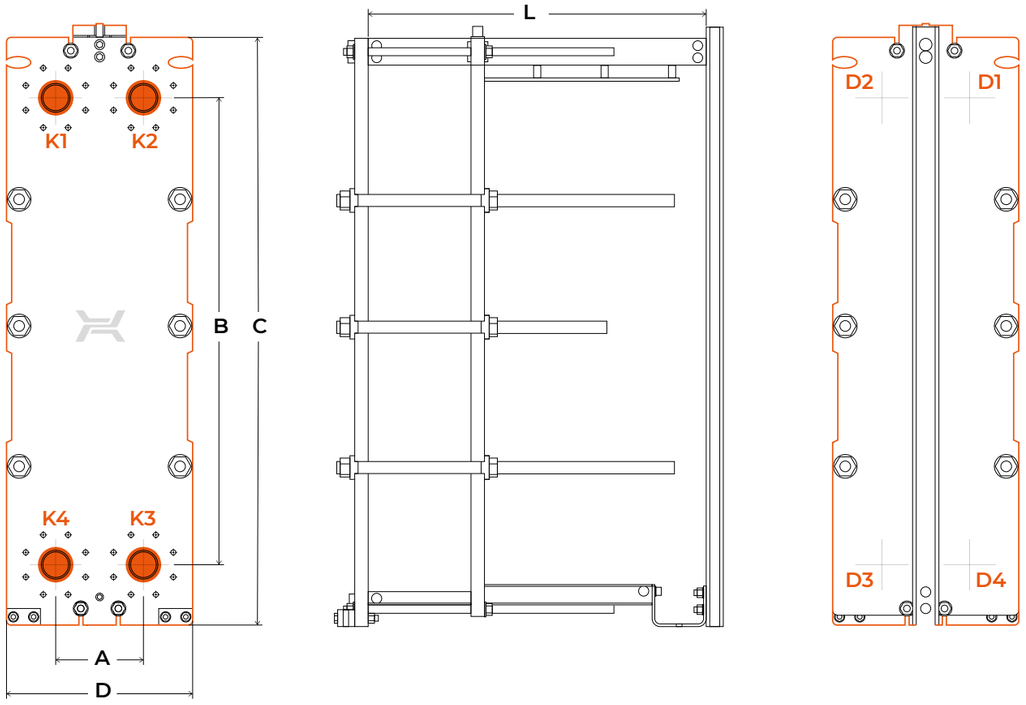
K1 / K4 — inlet / outlet heat source
K3 / K2 — inlet / outlet pool water

STANDARD LOCATION OF CONNECTIONS – DOUBLE PASS:

D4 / K4 — inlet / outlet heat source
K3 / D3 — inlet / outlet pool water

WORKING PARAMETERS

MAX. PRESSURE — 6, 10, 16, 25, 30 BAR / 150, 250, 300, 400 PSI
MAX. TEMPERATURE — 170°C / 300°F
MIN. TEMPERATURE — -20°C / -4°F



TECHNICAL PARAMETERS

Type	Dimensions										Max. nº of plates	Connection size	
	A		B		C		D		L max.				
	mm	in	mm	in	mm	in	mm	in	mm	in		mm	in
JFA-003	70	2.8	250	9.8	400	15.7	210	8.3	550	21.7	85	1 1/4" NPT	1 1/4" NPT
JFB-010	133	5.2	400	15.7	585	23	315	12.4	1 055	41.5	145	2" NPT	2" NPT
JFC-015	215	8.5	390	15.4	670	26.4	440	17.3	1 065	41.9	180	DN80	3"
JFD-030	260	10.2	730	28.7	1 090	42.9	550	21.7	3 090	121.7	600	DN100	4"
JFE-045	325	12.8	900	35.4	1 335	52.6	656	25.8	4 130	162.6	800	DN150	6"
JFG-100	455	17.9	1 400	55.1	2 056	80.9	915	36.02	6 150	242.1	1 200	DN250	10"

Flanges ASME B16.5

All dimensions and technical data are approximate only and may be changed without further notice.

MAX. HEAT LOAD

JAG Type	The power of heat source		Heat source temperature		Pool volume		Pool water temperature		Water flow			
									Source of heat		Pool	
	kW	hp	°C	°F	m³	gal	°C	°F	m³/h	gal/h	m³/h	gal/h
JFA-003-P10-10H	10	13.41	40	104	15	3 962.58	32	89,6	1,25	330.2	3	792.5
JFA-003-P10-18H	15	20.12	40	104	30	7 925.16	32	89,6	1,85	488.7	6	1 585.0
JFA-003-P10-32H	20	26.82	40	104	50	13 208.6	32	89,6	2,5	660.4	10	2 641.7
JFA-003-P10-40H	25	33.53	50	122	60	15 850.3	32	89,6	1,45	383.0	12	3 170.1
JFB-010-P10-16L	35	46.94	50	122	90	23 775.5	32	89,6	2,05	541.6	18	4 755.1
JFB-010-P10-22L	50	67.05	50	122	140	36 984.1	32	89,6	2,9	766.1	28	7 396.8
JFC-015-P10-16L	75	100.58	60	140	200	52 834.4	32	89,6	3,3	871.8	40	10 566.9
JFC-015-P10-22L	100	134.1	60	140	270	71 326.5	32	89,6	4,4	1162.4	54	14 265.3
JFC-015-P10-34L	150	201.15	60	140	400	105 669	32	89,6	6,6	1743.5	80	21 133.8
JFD-030-P10-54L	200	268.2	60	140	550	145 295	32	89,6	8,8	2324.7	111	29 323.1
JFD-030-P10-68L	250	335.26	60	140	650	171 712	32	89,6	11	2905.9	130	34 342.4
JFE-045-P10-52L	350	469.36	70	158	1 000	264 172	32	89,6	15,4	4068.2	200	52 834.4
JFE-045-P10-76L	500	670.51	70	158	1 400	369 840.9	32	89,6	22	5811.8	281	74 232.3
JFG-100-P10-100L	750	1 005.77	70	158	2 100	554 761.3	32	89,6	33,1	8744.1	421	111 216.4
JFG-100-P10-134L	1 000	1 341.02	70	158	2 800	739 681.7	32	89,6	44,1	11649.9	562	148 464.7