

POOL

HEAT EXCHANGERS



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

POOL

HEAT EXCHANGERS

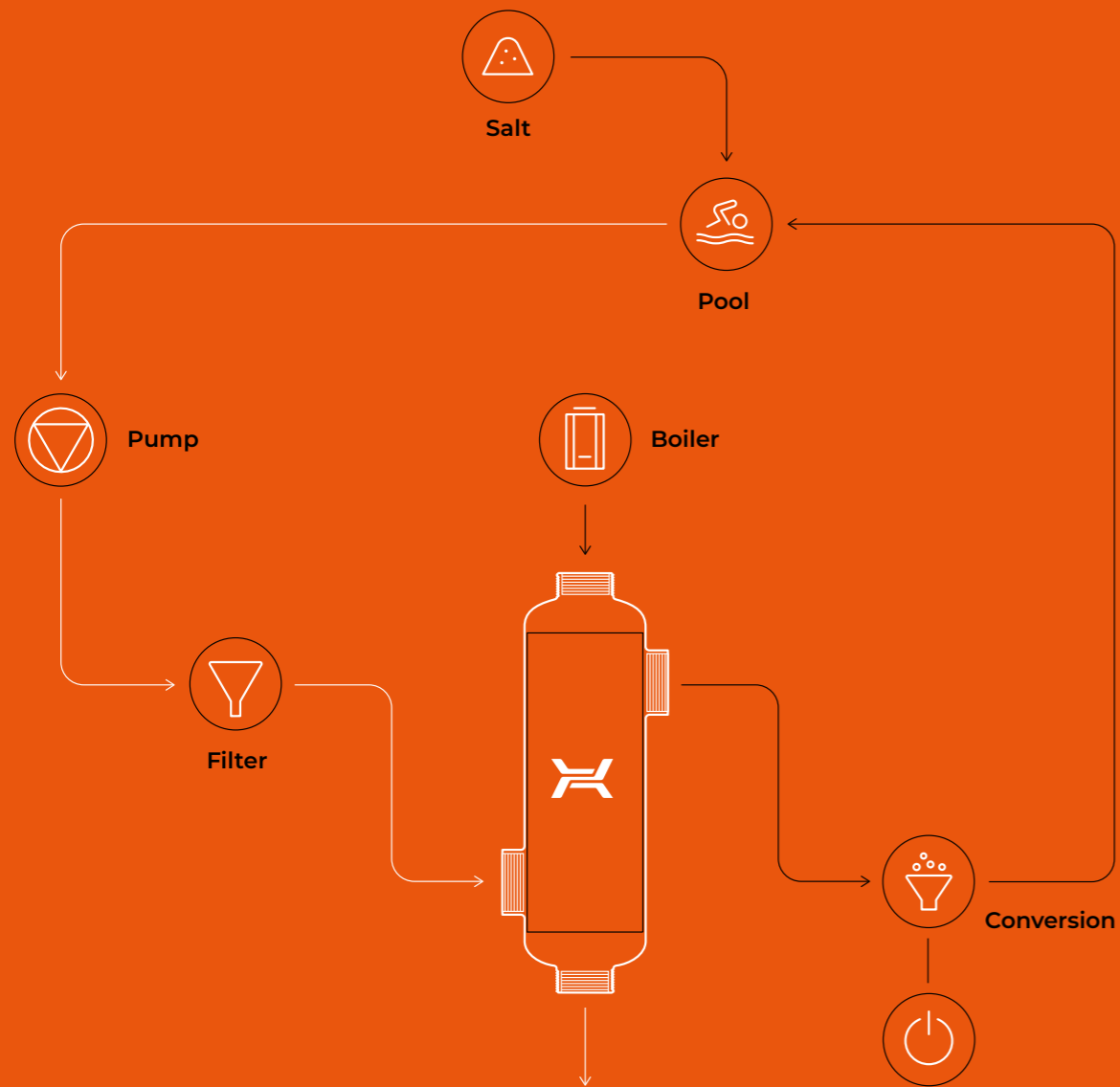


DIAGRAM OF SALT WATER POOL WITH A HEXONIC POOL HEAT EXCHANGER

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



ADVANTAGES



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



COMPACT SIZE



CORRUGATED
TUBES INTENSIFY
HEAT EXCHANGE
AND REDUCE
FOULING



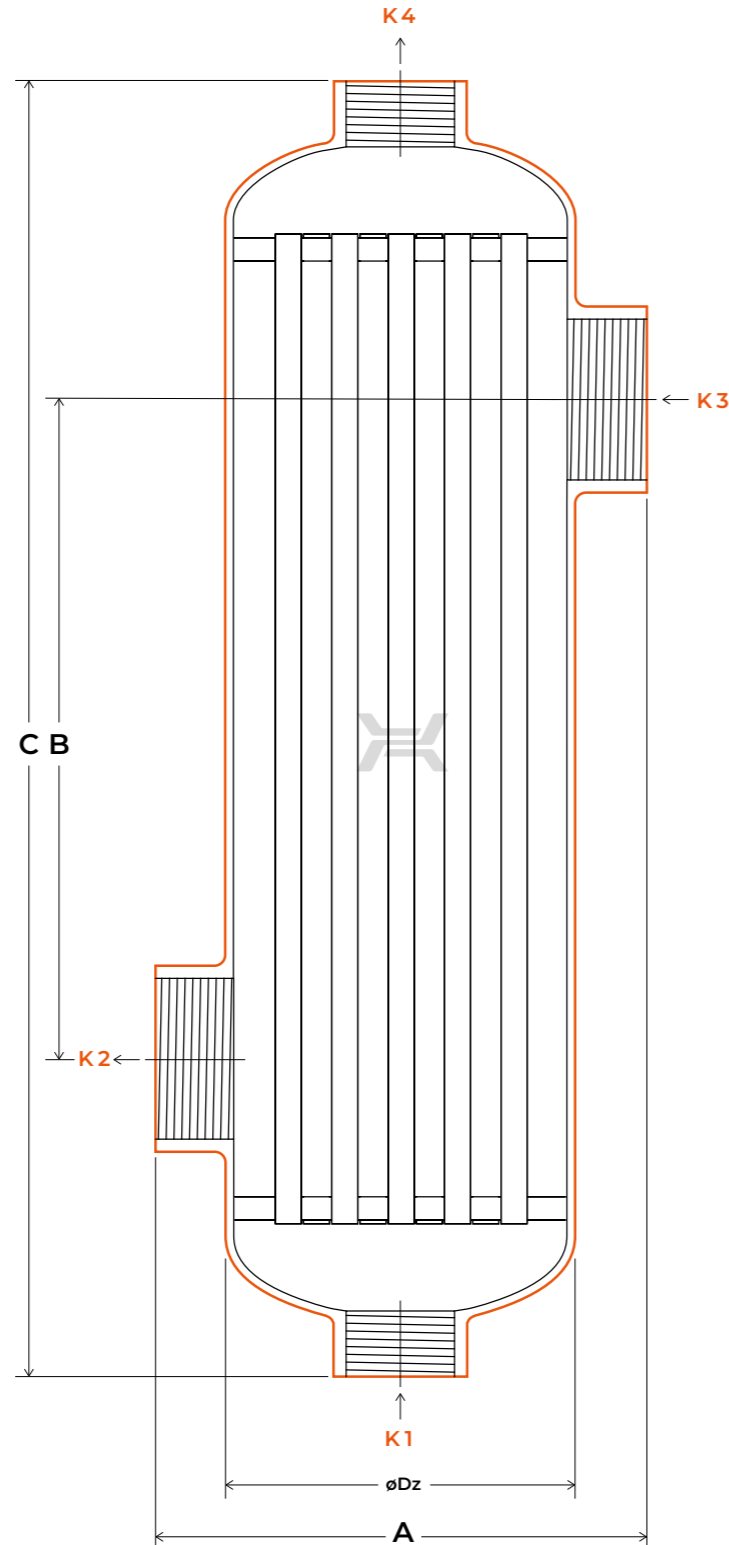
RESISTANCE
TO AGGRESSIVE
SUBSTANCES
IN POOL WATER
(E.G. FLUORINE,
CHLORINE)



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	3/4"	1"
B70	3/4"	1 1/2"
B130	3/4"	1 1/2"
B180	1"	1 1/2"
B250	1"	1 1/2"
B300	1"	1 1/2"
B500	1"	2"
B1000	2"	2"

All connections are available in both BSP (G) and NPT thread standards.

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	ϕDz		l	gal	l				gal			

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	1103	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
				m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /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 [m ³]			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				
22	75	25	85	25	85	35	120	44	150	50	170	75	255	75	255				
36	122	42	145	43	145	55	190	70	240	80	275	110	375	120	410				
50	170	59	200	61	210	75	255	96	330	110	375	145	495	165	565				
64	220	76	260	79	270	95	325	122	415	140	480	180	615	210	715				
78	265	93	315	97	330	115	390	148	505	170	580	215	735	255	870				
92	315	110	375	115	395	135	460	174	595	200	680	250	855	300	1 025				
				m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /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				
4	1 057	5	1 321	4	1 057	5	1 321	4	1 057	5	1 321	4	1 057	5	1 321				
				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				
3	0.4	5	0.7	4	0.6	6	0.9	5	0.7	7	1.0	2	0.3	3	0.4				
				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



SALT WATER

ADVANTAGES



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

Type	Connection size	
	K1 / K4	K2 / K3
REV250	1½"	1½"
REV350	1½"	1½"
REV500	1½"	1½"
REV750	1½"	1½"
REV1000	1½"	1½"

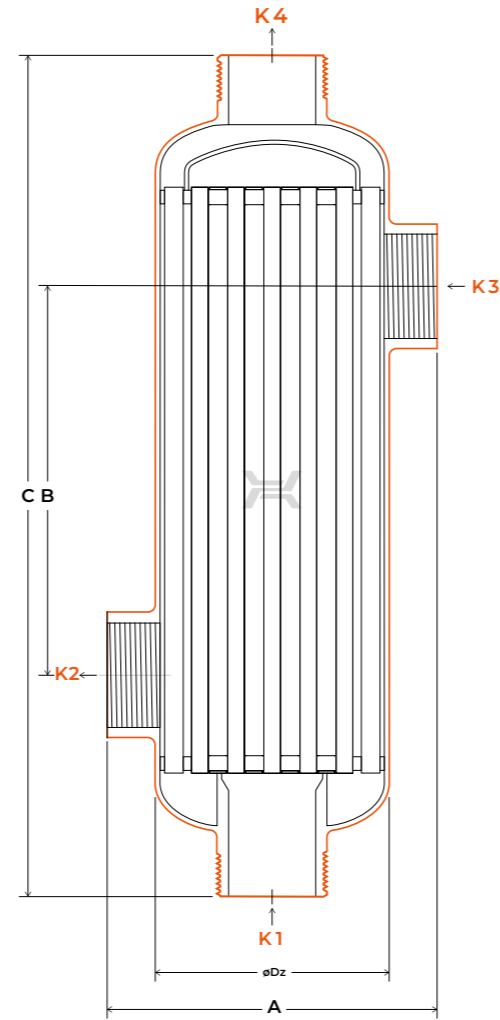
All connections are available in both BSP (G) and NPT thread standards.

STANDARD LOCATION OF CONNECTIONS

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

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			kg	lb		l	gal	l	gal		
	mm	in	mm	in	mm	in	mm	in										
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	1103	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	1103	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

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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	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	245	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	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	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



SALT WATER

ADVANTAGES



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

Type	Connection size	
	K1 / K4	K2 / K3
TI250	1½"	1½"
TI350	1½"	1½"
TI500	1½"	1½"
TI750	1½"	1½"
TI1000	1½"	1½"
TI2000	2"	2"

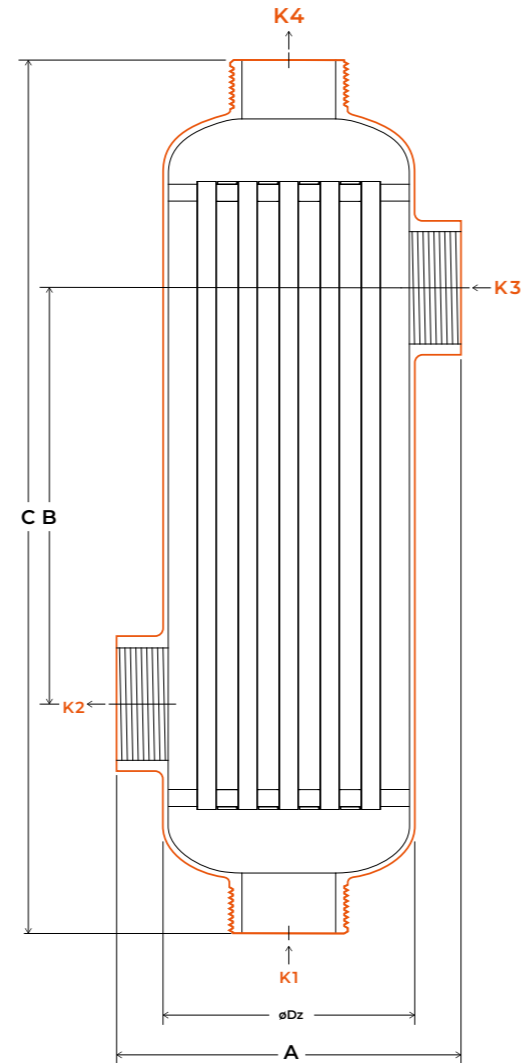
All connections are available in both BSP (G) and NPT thread standards.

STANDARD LOCATION OF CONNECTIONS

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

WORKING PARAMETERS

MAX. TEMPERATURE — 150°C / 302°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	m ²	ft ²	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	1107	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	1141	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	TI250		TI350		TI500		TI750		TI1000	
				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

		m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h
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Pool water	Flow										
		m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h	m ³ /h	gal/h
		12	3 170	15	3 963	24	6 340	20	5 283	17	4 491
Heat source		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
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Pool water	Pressure drop										
		kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi
		9	1.3	18	2.6	58	8.4	59	8.6	58	8.4
Heat source		1	0.1	2	0.3	4	0.6	6	0.9	7	1.0

Pool capacity [m ³]	40-70		70-100		90-150		130-180		160-220	
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JAG

PLATE & FRAME HEAT EXCHANGERS

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.

ADVANTAGES



INNOVATIVE
CORRUGATION
DESIGN

10%
↑

UP TO 10% HIGHER
HEAT TRANSFER
EFFICIENCY



ENHANCED FLOW
TURBULENCE

10%
↓

UP TO 10% LOWER
PRESSURE DROP FOR
HIGH FLOW PATTERN



DECREASED
FOULING

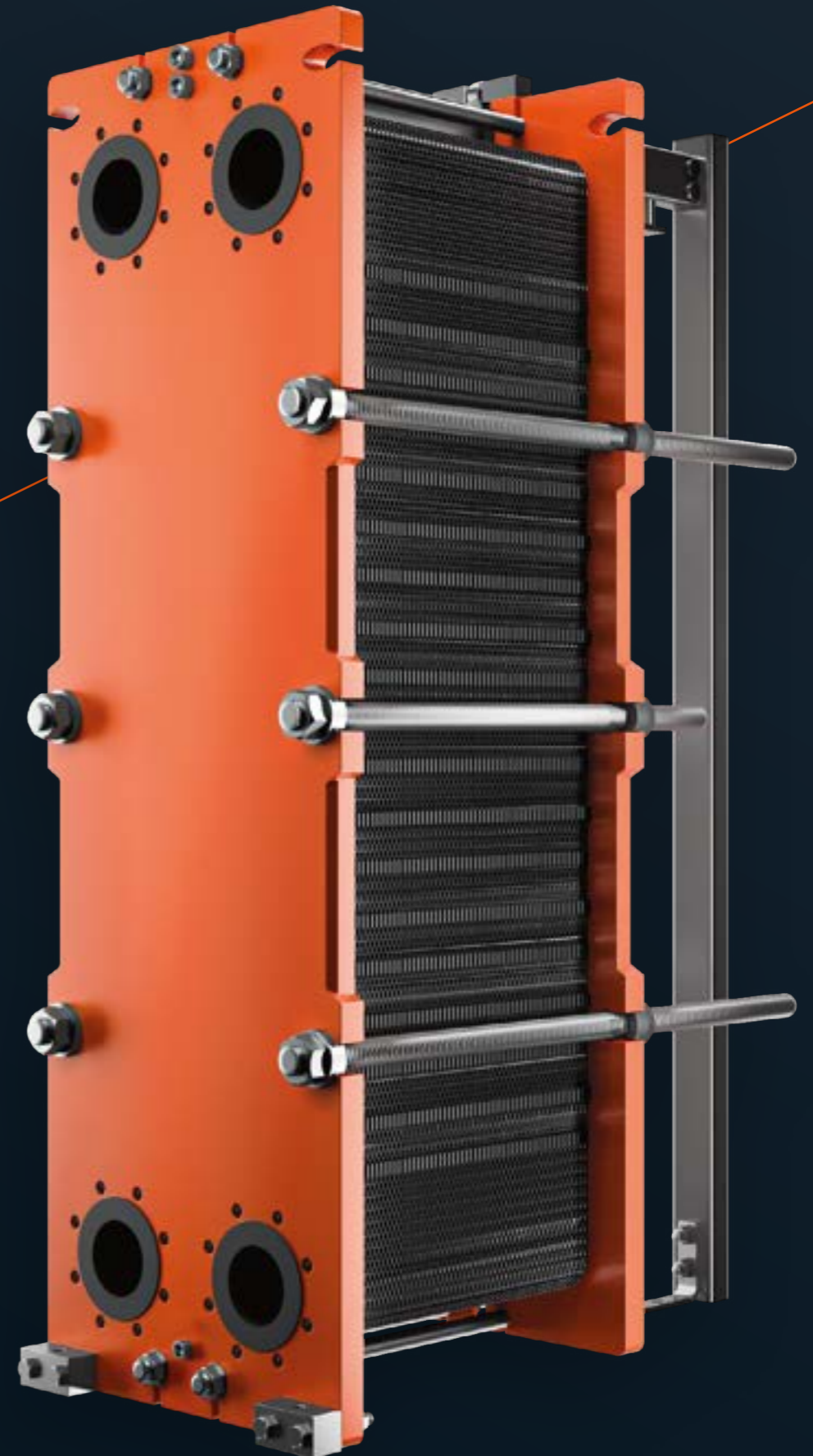


INCREASED HEAT
EXCHANGE AREA

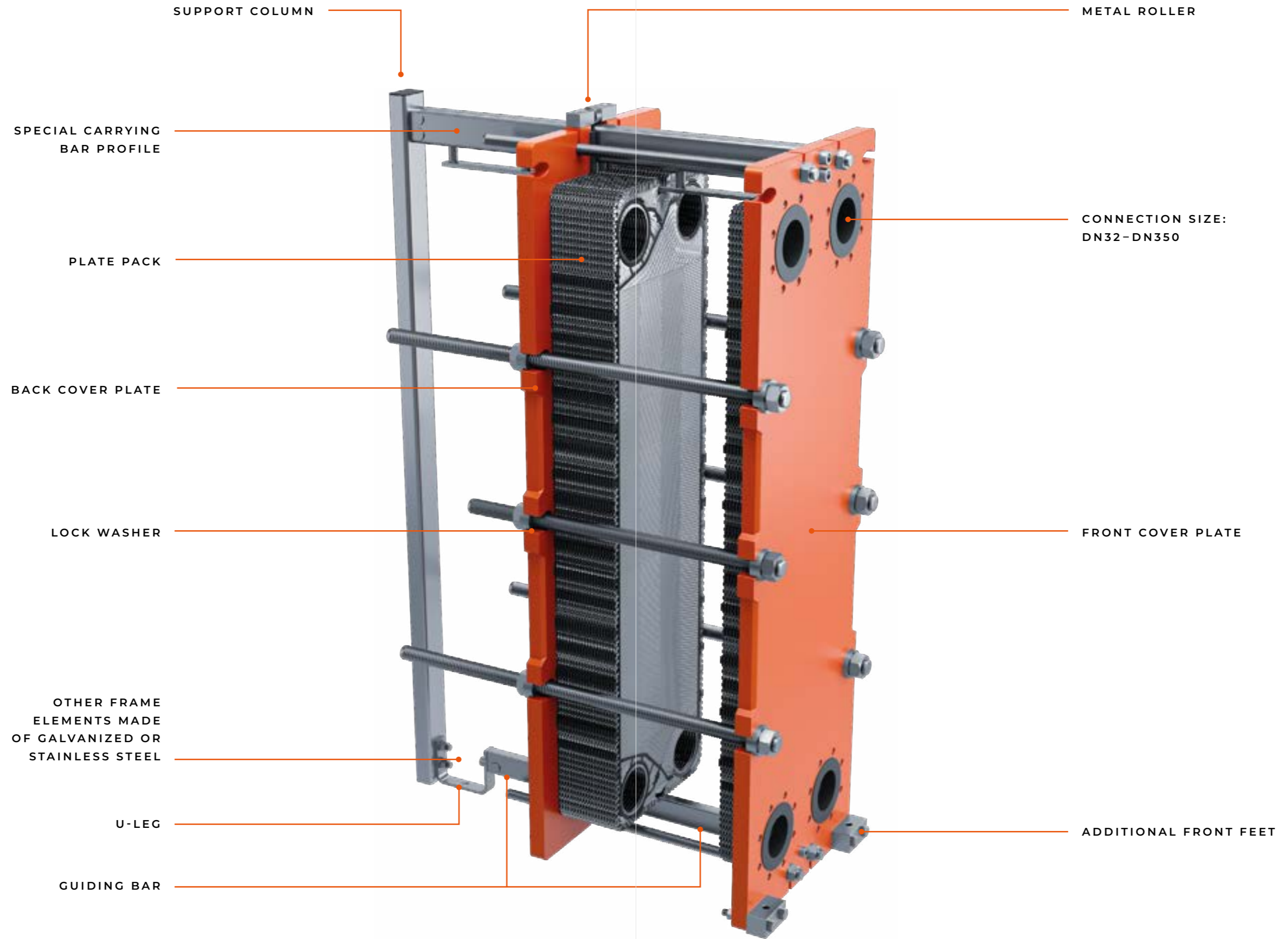


INCREASED PLATE
DURABILITY

SALT WATER



JAG DESIGN



SUPPORT COLUMN

METAL ROLLER

SPECIAL CARRYING
BAR PROFILE

CONNECTION SIZE:
DN32-DN350

PLATE PACK

BACK COVER PLATE

FRONT COVER PLATE

LOCK WASHER

OTHER FRAME
ELEMENTS MADE
OF GALVANIZED OR
STAINLESS STEEL

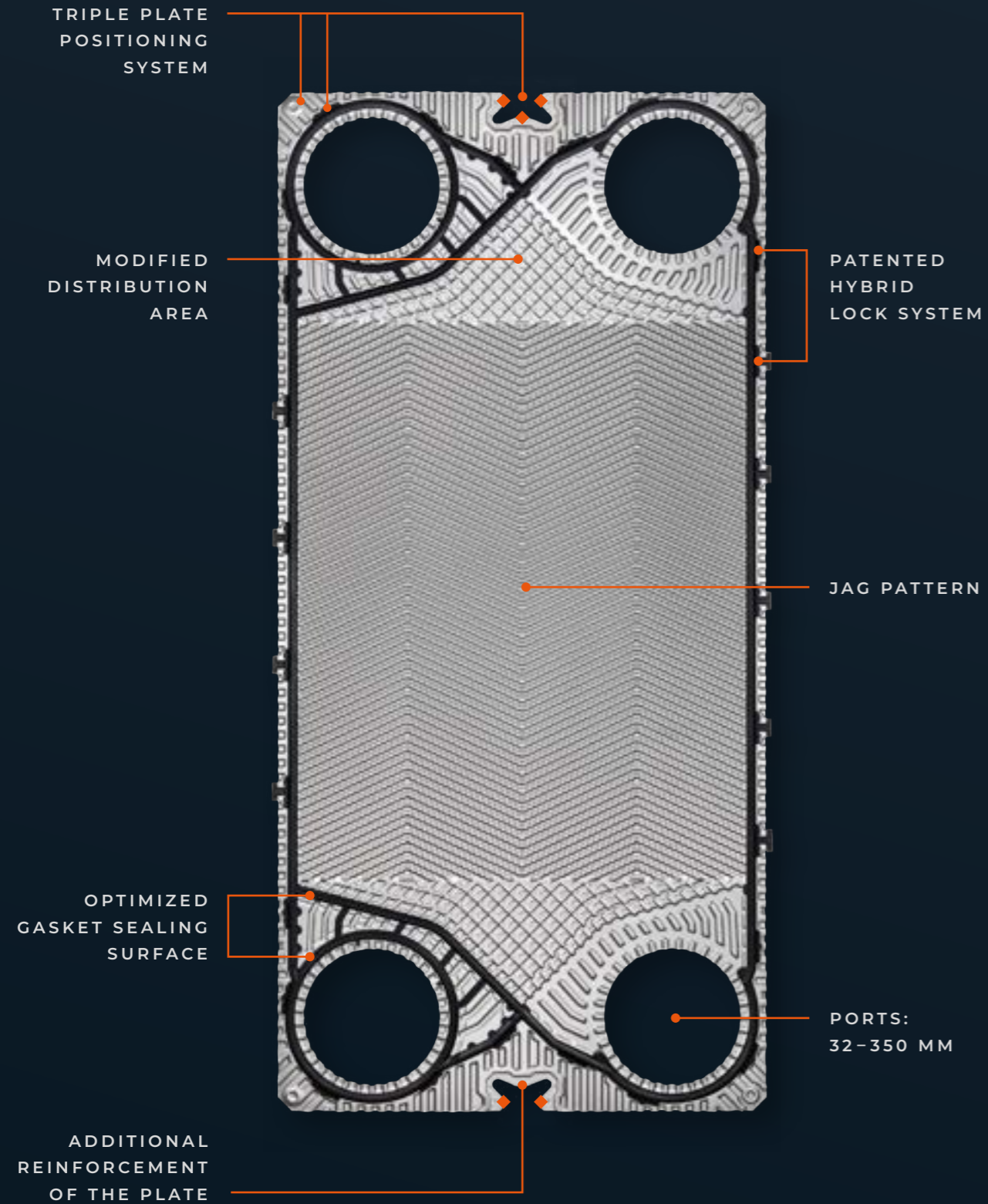
U-LEG

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:

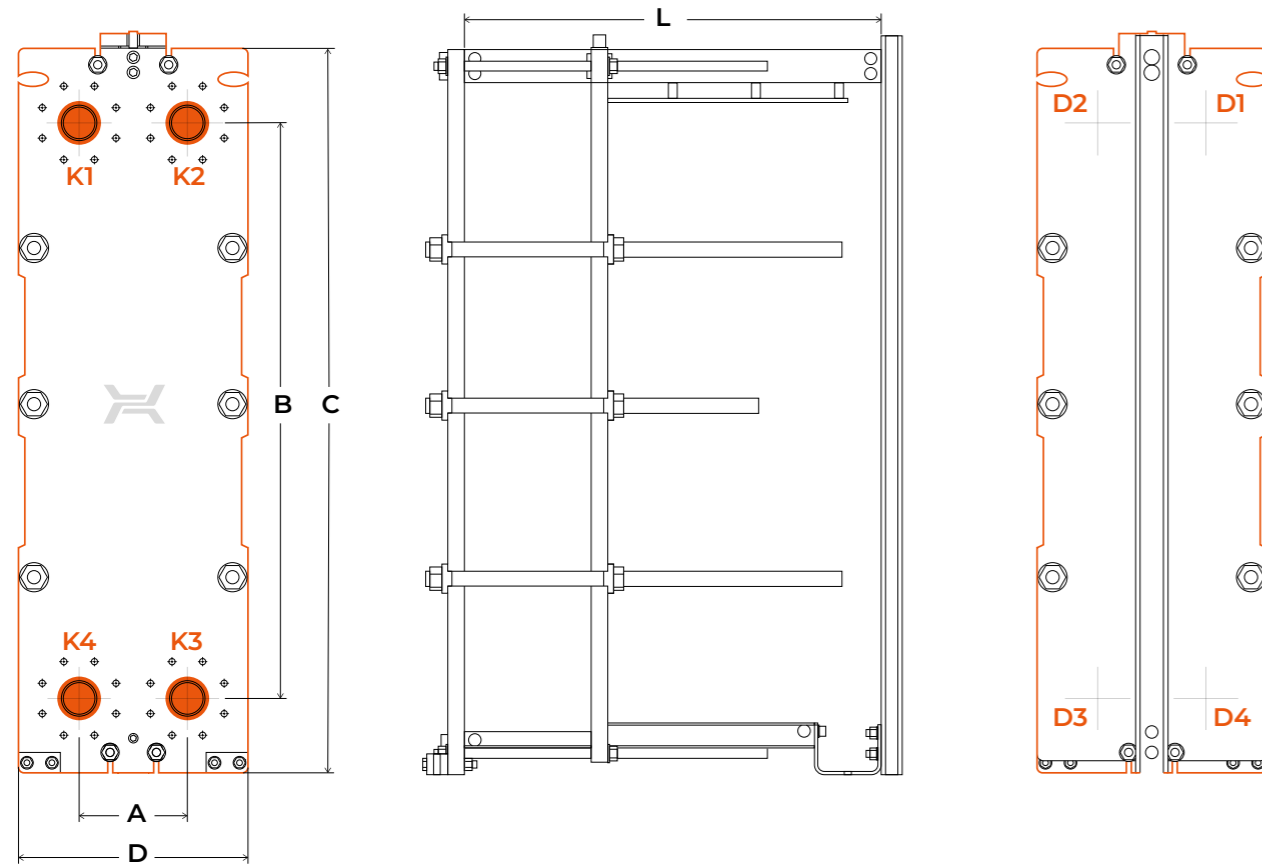
K1 / K4 — inlet / outlet heat source
K3 / K2 — inlet / outlet pool water

STANDARD LOCATION OF CONNECTIONS – MULTI-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. Π° of plates	Connection size		
	A		B		C		D		L max.			mm	in	
	mm	in	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	11/4" NPT	11/4" 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"	

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

Flanges
 ASME B16.5

MAX. HEAT LOAD

JAG Type	The power of heat source		Heat source temperature		Pool volume		Pool water temperature		Water flow			
	kW	hp	°C	°F	m ³	gal	°C	°F	Source of heat		Pool	
									m ³ /h	gal/h	m ³ /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

