

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

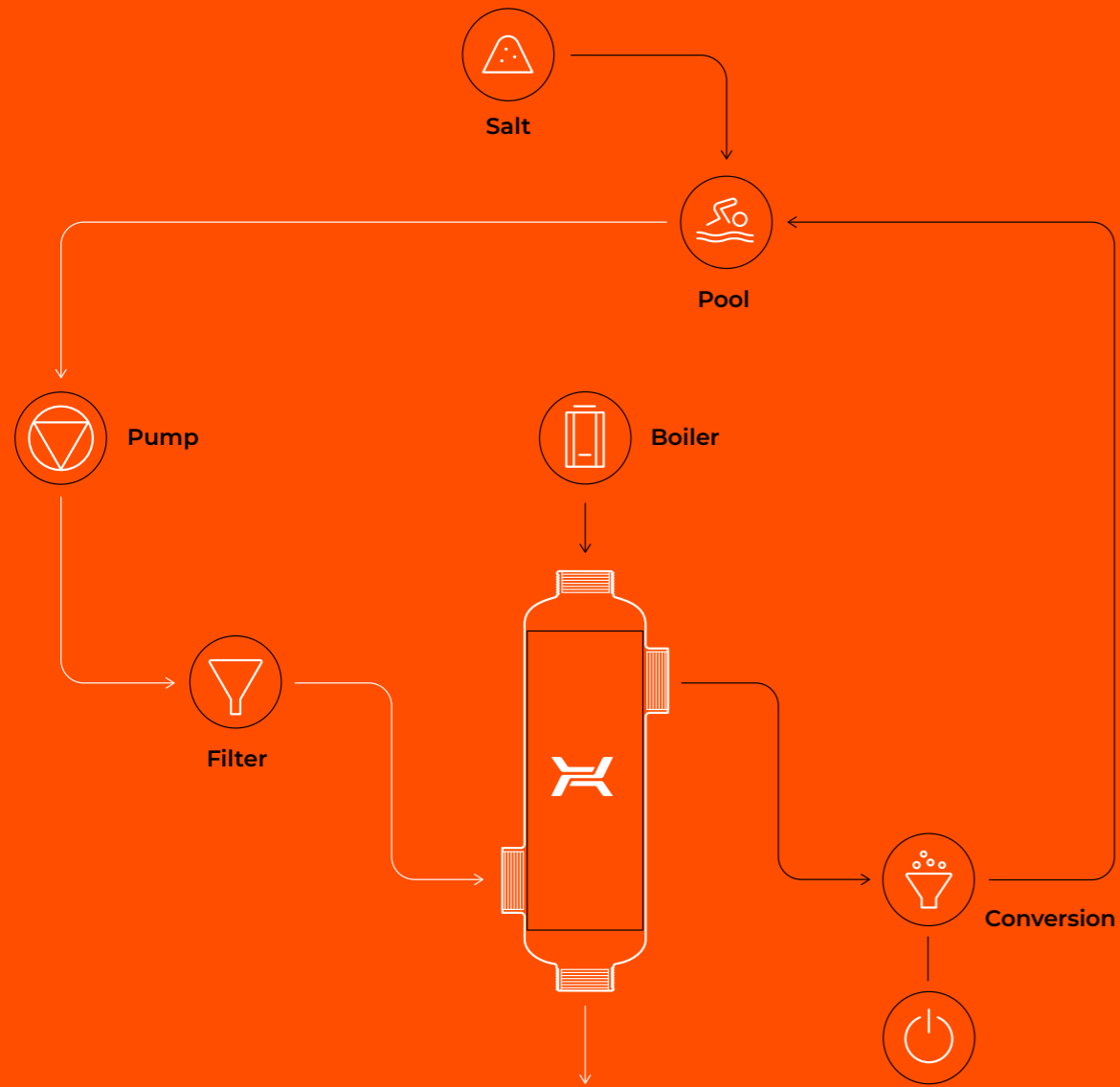


DIAGRAM OF SALT WATER POOL WITH A HEXONIC POOL HEAT EXCHANGER

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

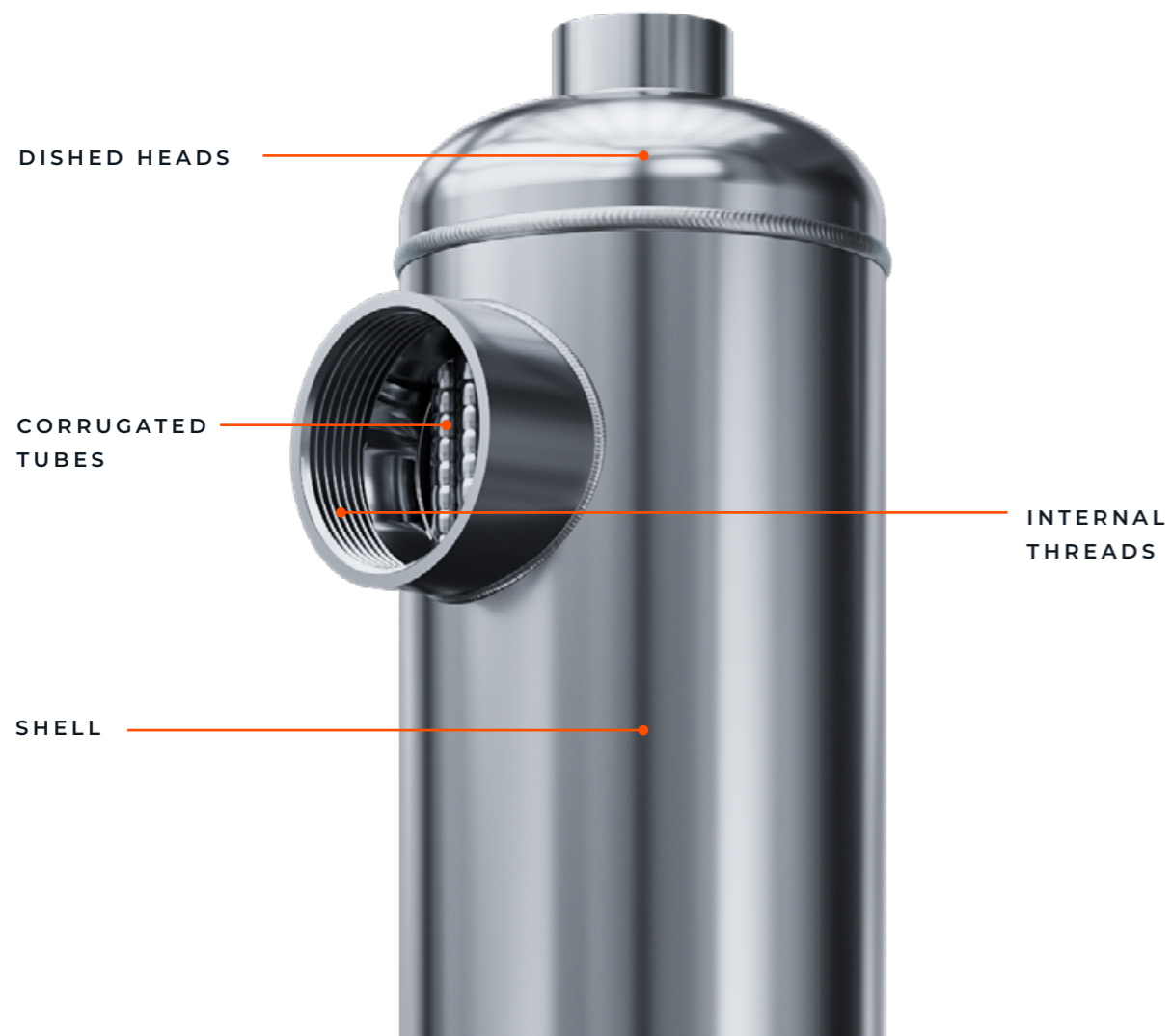
POOL HEAT EXCHANGERS

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



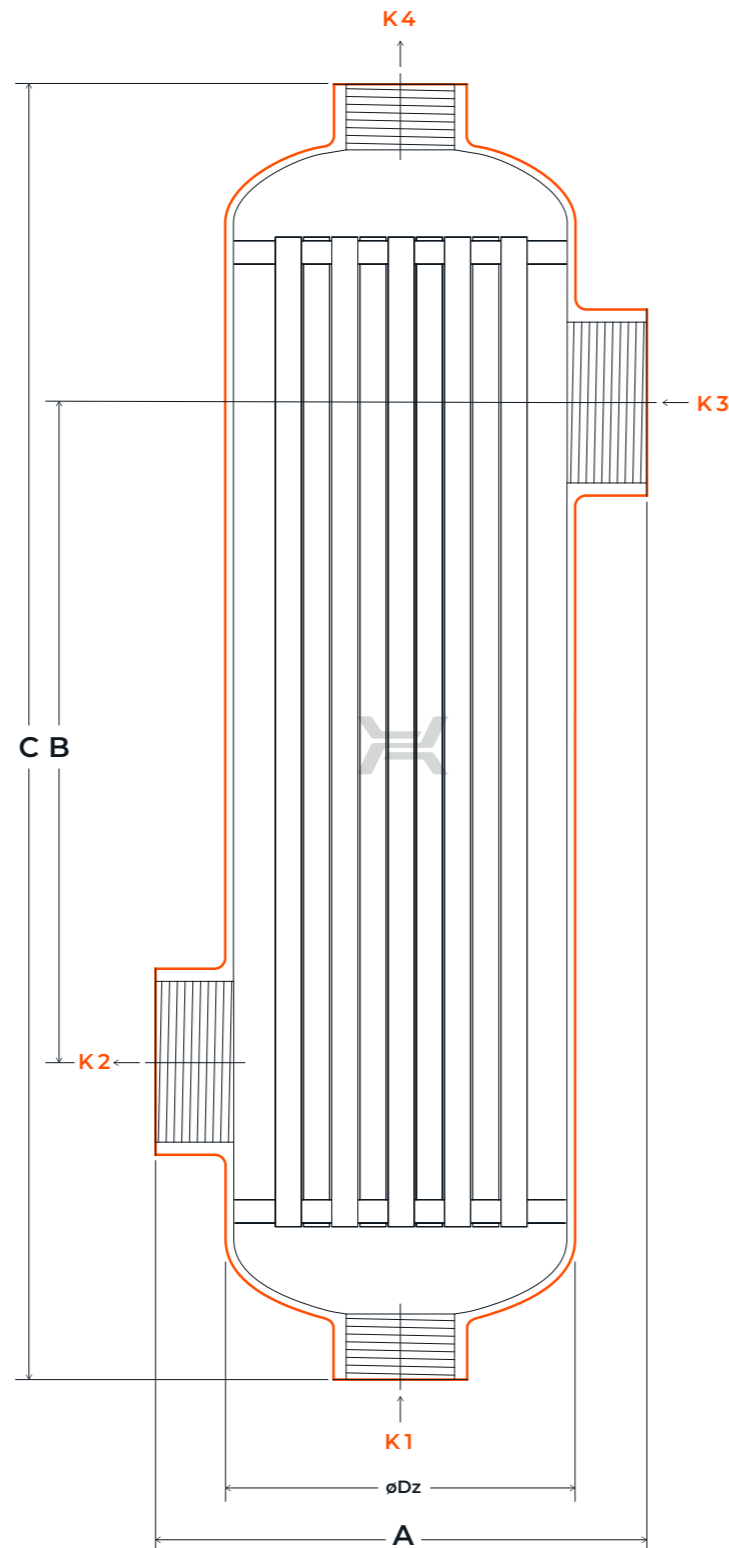
RESISTANCE
TO AGGRESSIVE
SUBSTANCES
IN POOL WATER
(E.G. FLUORINE,
CHLORINE)



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	G $\frac{3}{4}$ "	G1"
B70	G $\frac{3}{4}$ "	G1 $\frac{1}{2}$ "
B130	G $\frac{3}{4}$ "	G1 $\frac{1}{2}$ "
B180	G1"	G1 $\frac{1}{2}$ "
B250	G1"	G1 $\frac{1}{2}$ "
B300	G1"	G1 $\frac{1}{2}$ "
B500	G1"	G2"
B1000	G2"	G2"

WORKING PARAMETERS

MAX. TEMPERATURE — 329°F
 MAX. PRESSURE — 232 PSI

TECHNICAL PARAMETERS

Type	Dimensions				Heat exchange area	Tube diameter	Weight	Tube side capacity	Shell side capacity
	A	B	C	ϕDz					

	in	in	in	in	ft ²	in	lb	gal	gal
B180	5.7	7.6	14.9	4.0	4.3	0.3	10.8	0.3	0.3
B250	5.7	12.7	20.0	4.0	6.4	0.3	14.1	0.3	0.5
B300	5.7	17.8	25.1	4.0	8.5	0.3	17.6	0.4	0.6
B500	5.7	34.8	43.4	4.0	15.7	0.3	29.7	0.7	1.2
B1000	7.5	26.8	37.1	5.6	22.2	0.3	45.6	1.1	2

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

HEAT TRANSFER VALUES

MAX. HEAT LOAD					
Heat source temperature inlet	Pool water temperature inlet	B180		B250	
°F	°F	kBtu/h	kBtu/h	kBtu/h	kBtu/h
104	68	55	68	75	85
122	68	89	109	122	145
140	68	122	150	170	200
158	68	155	190	220	260
176	68	190	230	265	315
194	68	225	270	315	375
		gal/h	gal/h	gal/h	gal/h
Pool water	Flow	3 170	3 963	3 170	3 963
Heat source		1 057	1 321	1 057	1 321
		psi	psi	psi	psi
Pool water	Pressure drop	1	1.6	1.5	2
Heat source		0.3	0.4	0.4	0.7
Pool capacity [1000 gal]	10.6-14.5		14.5-19.8		

MAX. HEAT LOAD						
B300		B500		B1000		
kBtu/h	kBtu/h	kBtu/h	kBtu/h	kBtu/h	kBtu/h	kBtu/h
85	120	150	170	255	255	425
145	190	240	275	375	410	680
210	255	330	375	495	565	940
270	325	415	480	615	715	1 195
330	390	505	580	735	870	1 450
395	460	595	680	855	1 025	1 705
		gal/h	gal/h	gal/h	gal/h	gal/h
3 170	3 963	3 170	3 434	3 963	3 963	5 283
1 057	1 321	1 057	1 321	1 057	1 321	2 642
		psi	psi	psi	psi	psi
1.7	2.6	2.8	3.2	1	1	1.7
0.6	0.9	0.7	1	0.3	0.4	1.3
19.8-23.8		23.8-42.3		37-74		

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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



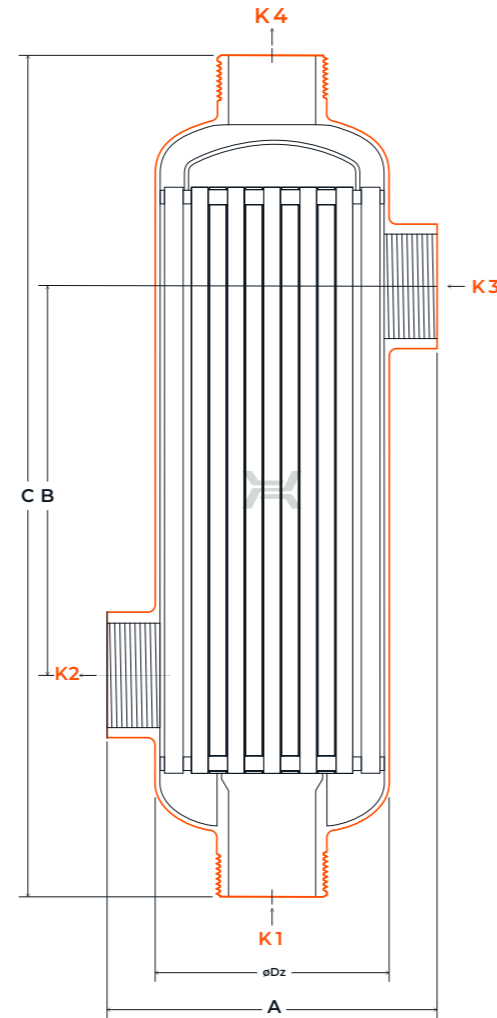
TECHNICAL DATA

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 — 302°F
- MIN. TEMPERATURE — -4°F
- MAX. PRESSURE — 232 PSI



TECHNICAL PARAMETERS

Type	Dimensions				Heat exchange area	Tube diameter	Weight	Tube side capacity	Shell side capacity
	A	B	C	ØDz					
	in	in	in	in	ft²	in	lb	gal	gal
REV250	5.7	6.7	14.5	4	3.4	0.3	5.5	0.2	0.3
REV350	5.7	10.6	18.4	4	4.7	0.3	6.8	0.3	0.5
REV500	5.7	16.5	24.3	4	6.9	0.3	8.6	0.4	0.6
REV750	5.7	26.4	34.2	4	10.3	0.3	11.7	0.5	0.9
REV1000	5.7	36.2	44	4	13.8	0.3	14.8	0.6	1.3

HEAT TRANSFER VALUES

		MAX. HEAT LOAD				
Heat source temperature inlet	Pool water temperature inlet	REV250	REV350	REV500	REV750	REV1000
°F	°F	kBtu/h	kBtu/h	kBtu/h	kBtu/h	kBtu/h
104	90	38	58	75	110	125
	86	48	68	92	135	155
122	90	89	130	170	145	285
	86	100	145	188	270	315
140	97	125	175	230	330	375
	100	115	165	215	300	360
		gal/h	gal/h	gal/h	gal/h	gal/h
Pool water	Flow	2 642	2 642	3 170	3 434	3 963
Heat source		793	925	925	1 057	1 057
		psi	psi	psi	psi	psi
Pool water	Pressure drop	2.9	2.9	4.2	4.9	6.5
Heat source		1.7	2.5	2.9	4.4	5.1
Pool capacity [1000 gal]		8.8-15.5	13-22	18-26	24-35	33-44

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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



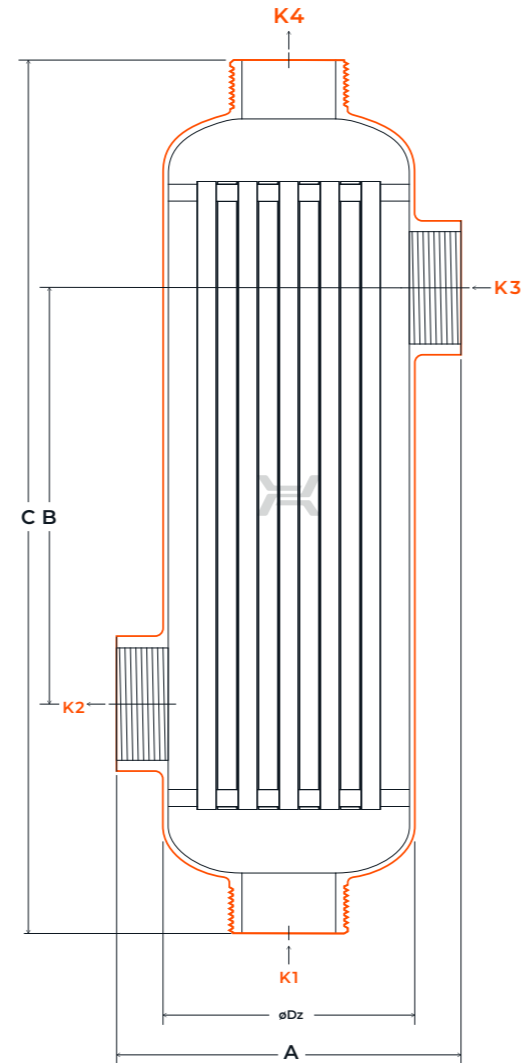
TECHNICAL DATA

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 — 302°F
- MAX. PRESSURE — 232 PSI



TECHNICAL PARAMETERS

Type	Dimensions				Heat exchange area	Tube diameter	Weight	Tube side capacity	Shell side capacity
	A	B	C	∅Dz					
	in	in	in	in	ft²	in	lb	gal	gal
TI250	5.7	6.7	14.5	4	4	0.3	5.4	0.3	0.3
TI350	5.7	10.6	18.4	4	5.5	0.3	6.8	0.3	0.5
TI500	5.7	16.5	24.3	4	8	0.3	8.8	0.4	0.6
TI750	5.7	26.4	34.2	4	11.9	0.3	11.9	0.6	0.9
TI1000	5.7	36.2	44	4	15.9	0.3	15.2	0.7	1.2

HEAT TRANSFER VALUES

		MAX. HEAT LOAD				
Heat source temperature inlet	Pool water temperature inlet	TI250	TI350	TI500	TI750	TI1000
°F	°F	kBtu/h	kBtu/h	kBtu/h	kBtu/h	kBtu/h
122	90	44	82	130	185	235
	100	31	51	89	120	165
140	90	78	126	225	295	390
	100	61	102	170	240	305
158	90	113	180	310	410	540
	100	96	155	265	340	465
		gal/h	gal/h	gal/h	gal/h	gal/h
Pool water	Flow	3 170	3 963	6 340	5 283	4 491
Heat source		793	1 057	1 321	1 321	1 453
		psi	psi	psi	psi	psi
Pool water	Pressure drop	1.3	2.6	8.4	8.6	8.4
Heat source		0.1	0.3	0.6	0.9	1
Pool capacity [1000 gal]		8.8–15.5	15.5–24	20–33	28.5–39.5	35–48.5

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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.

SALT WATER

ADVANTAGES



INNOVATIVE
CORRUGATION
DESIGN

10%
↑

UP TO 10% HIGHER
HEAT TRANSFER
EFFICIENCY



ENHANCED FLOW
TURBULENCE

10%
↓

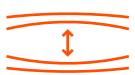
UP TO 10% LOWER
PRESSURE DROP FOR
HIGH FLOW PATTERN



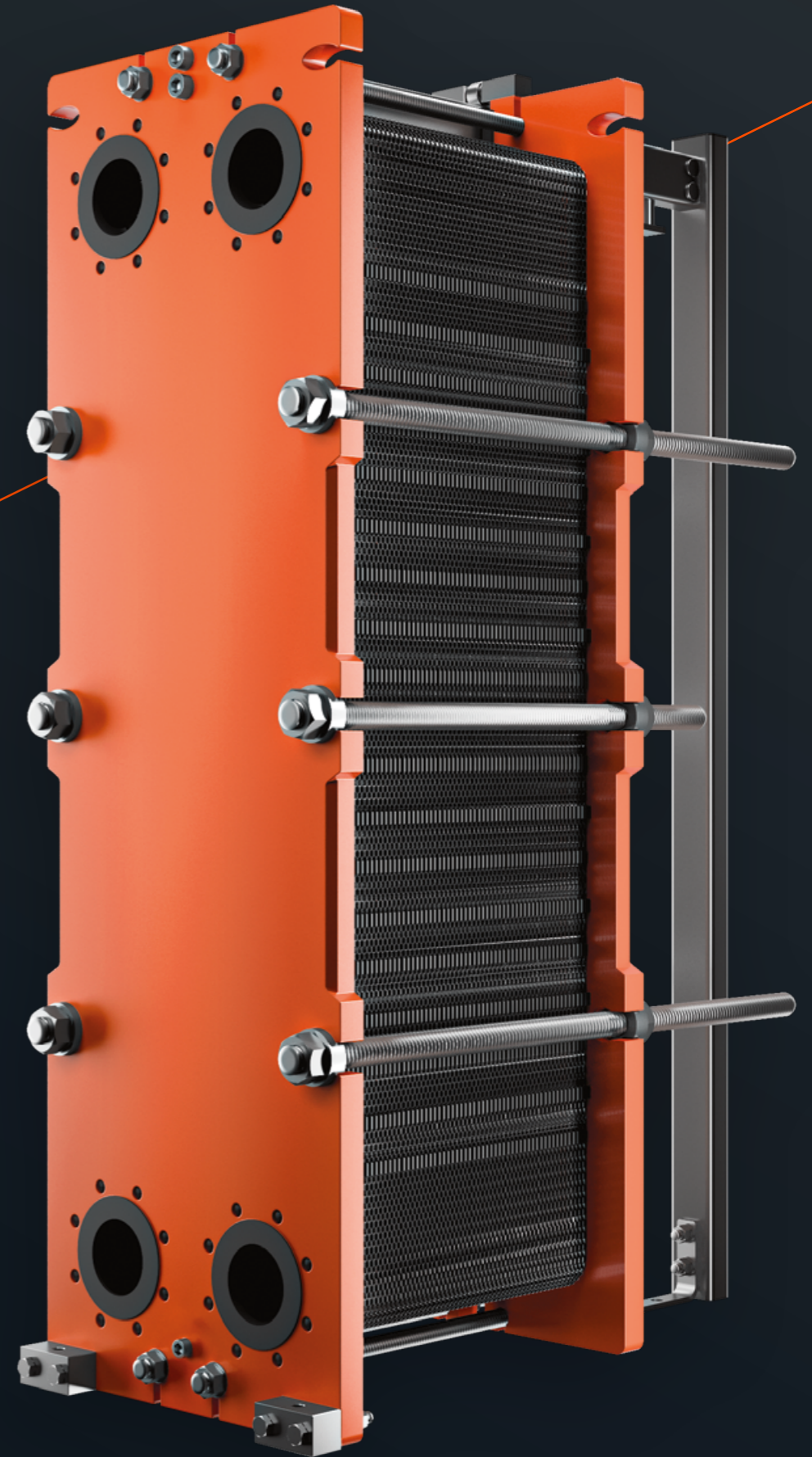
DECREASED
FOULING



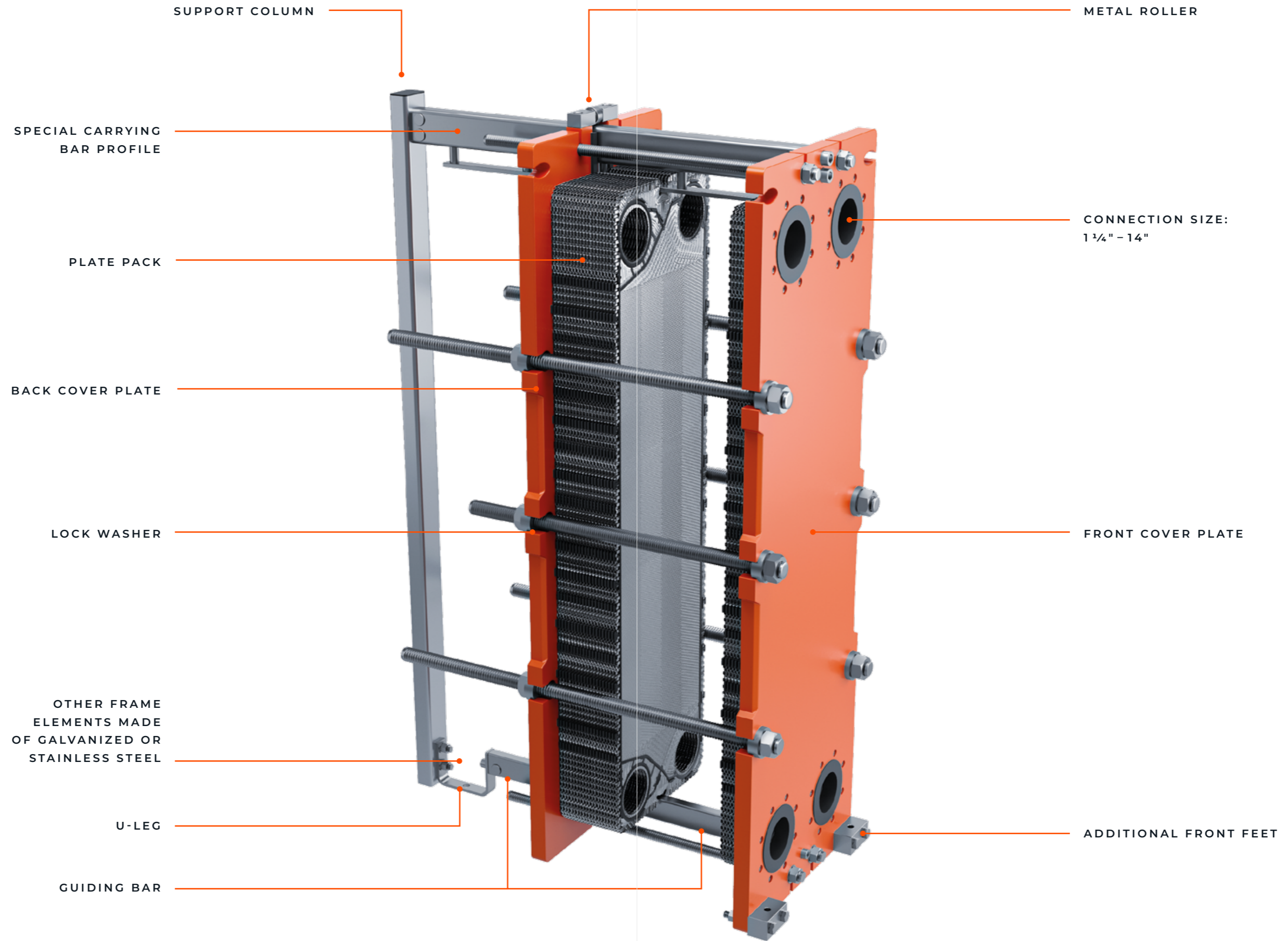
INCREASED HEAT
EXCHANGE AREA



INCREASED PLATE
DURABILITY

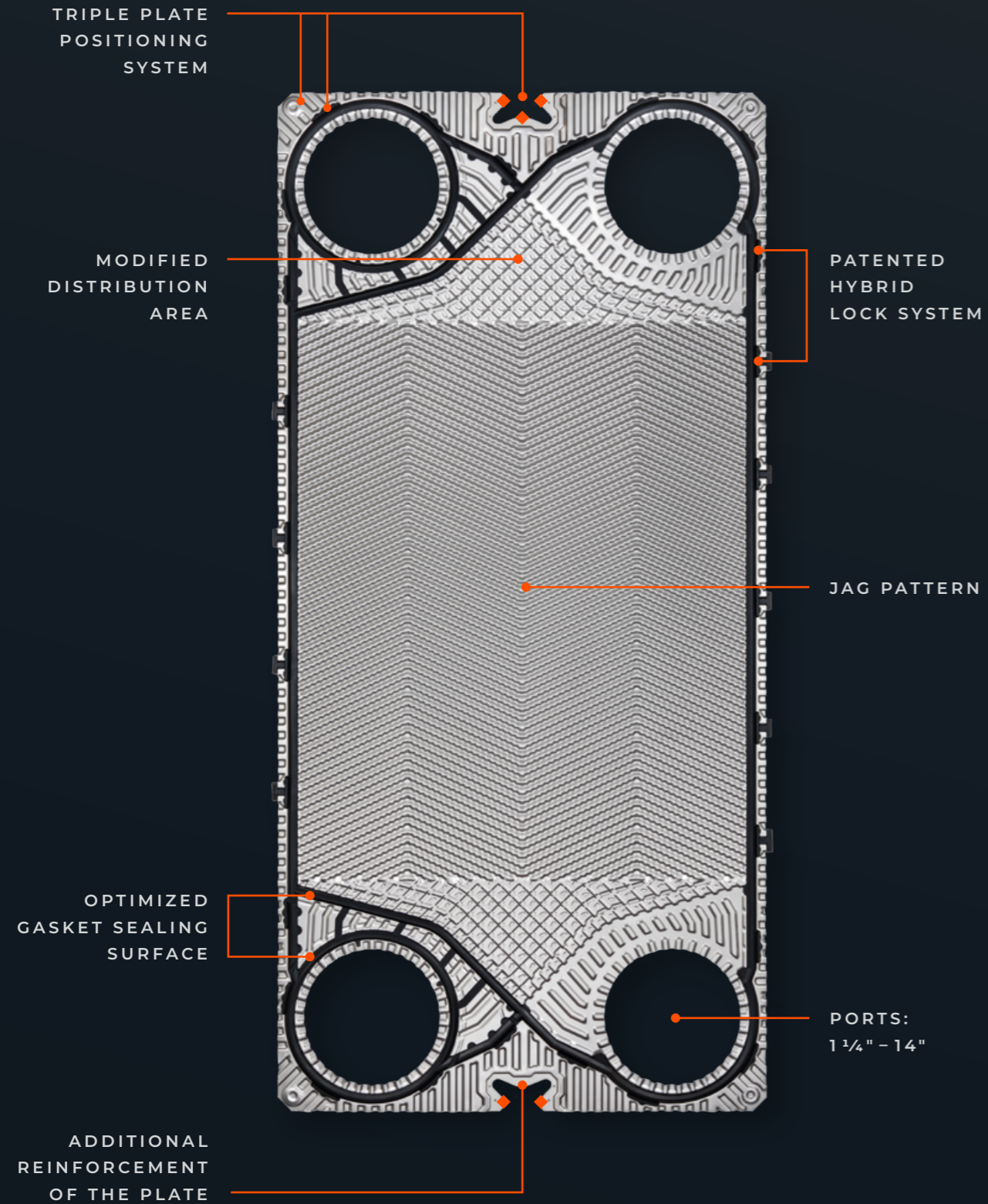


JAG DESIGN



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:

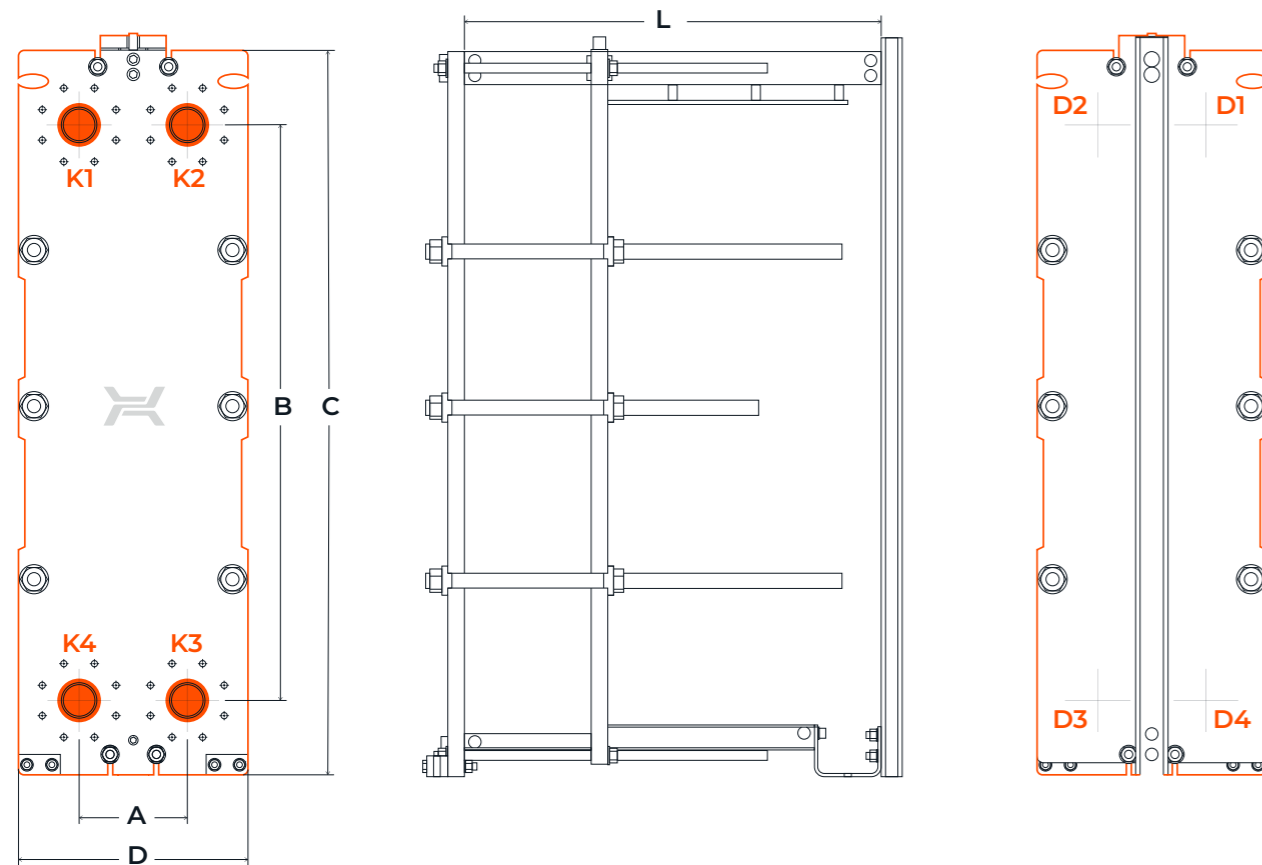
K1 / K4 — inlet / outlet heat source
K3 / K2 — inlet / outlet pool water

WORKING PARAMETERS

MAX. PRESSURE — 150, 250, 300, 400 PSI
 MAX. TEMPERATURE — 300°F
 MIN. TEMPERATURE — -4°F

STANDARD LOCATION OF CONNECTIONS – DOUBLE PASS:

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



TECHNICAL PARAMETERS

JAG Type	Dimensions					Max. № of plates	Connection size
	A	B	C	D	L max.		
	in	in	in	in	in		in
JFA-003	2.8	9.8	15.7	8.3	21.7	85	1 1/4" NPT
JFB-010	5.2	15.7	23	12.4	41.5	145	2" NPT
JFC-015	8.5	15.4	26.4	17.3	41.9	180	3"
JFD-030	10.2	28.7	42.9	21.7	121.7	600	4"
JFE-045	12.8	35.4	52.6	25.82	162.6	800	6"
JFG-100	17.9	55.1	80.9	36.02	242.1	1 200	10"

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Flanges ASME B16.5

HEAT TRANSFER VALUES

JAG Type	The power of heat source	Heat source temperature	Pool volume	Pool water temperature	Water flow	
					Source of heat	Pool
	hp	°F	gal	°F	gal/h	gal/h
JFA-003-P10-10H	13.41	104	3 962.58	89,6	330.2	792.5
JFA-003-P10-18H	20.12	104	7 925.16	89,6	488.7	1 585.0
JFA-003-P10-32H	26.82	104	13 208.6	89,6	660.4	2 641.7
JFA-003-P10-40H	33.53	122	15 850.3	89,6	383.0	3 170.1
JFB-010-P10-16L	46.94	122	23 775.5	89,6	541.6	4 755.1
JFB-010-P10-22L	67.05	122	36 984.1	89,6	766.1	7 396.8
JFC-015-P10-16L	100.58	140	52 834.4	89,6	871.8	10 566.9
JFC-015-P10-22L	134.1	140	71 326.5	89,6	1 162.4	14 265.3
JFC-015-P10-34L	201.15	140	105 669	89,6	1 743.5	21 133.8
JFD-030-P10-54L	268.2	140	145 295	89,6	2 324.7	29 323.1
JFD-030-P10-68L	335.26	140	171 712	89,6	2 905.9	34 342.4
JFE-045-P10-52L	469.36	158	264 172	89,6	4 068.2	52 834.4
JFE-045-P10-76L	670.51	158	369 840.9	89,6	5 811.8	74 232.3
JFG-100-P10-100L	1 005.77	158	554 761.3	89,6	8 744.1	111 216.4
JFG-100-P10-134L	1 341.02	158	739 681.7	89,6	11 649.9	148 464.7

