



**SECESPOL**

# **POOL HEAT EXCHANGERS**

**LET'S  
EXCHANGE**



## Main reasons to choose SECESPOL pool heat exchangers:



### High performance

Special construction of our 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 reducing deposits.



### Outstanding reliability

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



### Compatible with all types of heating

Our heat exchangers work with boiler, heat pump, geothermal or solar heating systems.



### Easy installation

With a wide range of connections and vertical or horizontal position to be chosen.



### Compatible with all types of pool installations

Wide range of models and sizes will fit most swimming pools, hot tubs, whirlpools and similar recreational water venues.

For nearly 30 years SECESPOL has been producing heat exchangers which work efficiently and reliably all over the world. For that reason we can proudly name ourselves the heat transfer experts.

Our technologically advanced products gain opinion for being economical, dependable and productive. Our engineers are constantly working on developing new technical solutions saving costs, time and environment.



# Swimming pool Heat exchangers



POOL TYPE	HEAT EXCHANGER TYPE				
	B	REV	TI	EVO	PHE
public pool	possible	possible	possible	possible	possible
private pool	possible	possible	possible	best choice	possible
Olympic-size pool	possible	possible	possible	possible	best choice
kids' pool	possible	possible	possible	possible	possible
hot tubs/ spa pools	possible	possible	possible	possible	possible
salt water pool	possible	necessary	necessary	necessary	possible
water park	possible	possible	possible	possible	possible

HEAT SOURCE TYPE	HEAT EXCHANGER TYPE				
	B	REV	TI	EVO	PHE
condensing boiler	possible	possible	possible	possible	possible
coal boiler	possible	possible	possible	possible	possible
geothermal water	possible	possible	necessary	possible	possible
heat pump	possible	possible	possible	possible	possible
solar system	possible	possible	possible	possible	possible
district heating	possible	possible	possible	possible	possible

possible    best choice    necessary

# Swimming pool Heat exchangers



Swimming pool heat exchangers B are shell & tube constructions with **excellent heating properties**.

They offer an ideal solution for installations with **high volume flow** especially swimming pools and whirlpools. Corrugated tubes **boost heat exchange and reduce fouling**. Compact welded units are **durable and dependable**.



## ADVANTAGES

- high volume flow at low pressure loss; no need of by-pass
- compact size
- corrugated tubes intensify heat exchange and reduce fouling
- resistant to aggressive substances in pool water (e.g. fluorine, chlorine)

## CONSTRUCTION

- corrugated tubes of diameter  $\varnothing 8$  mm / 0.31 in
- welded unit; no risk of leakage
- stainless steel 316L / 1.4404







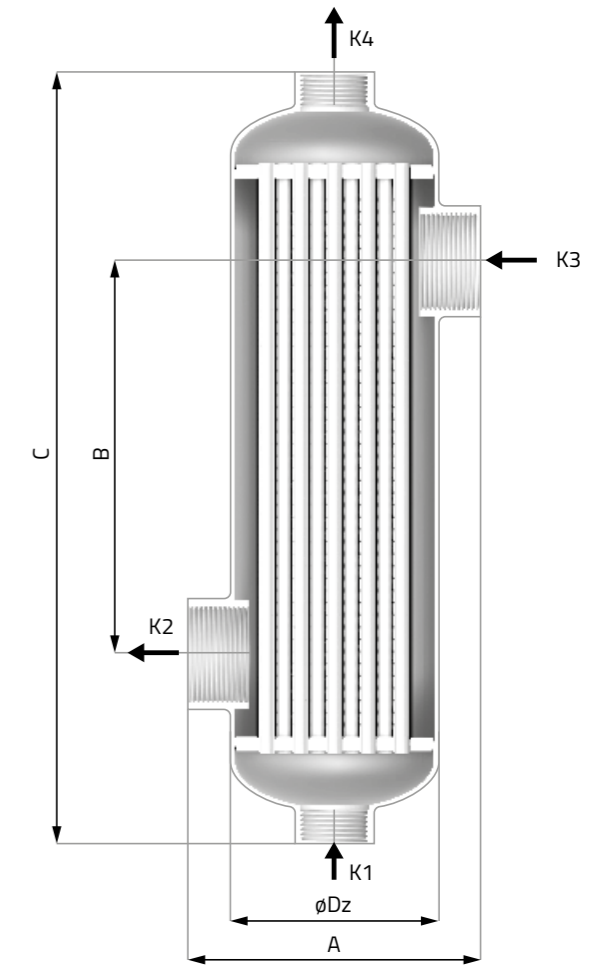
# Heat transfer values

### 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 <sup>3/4</sup> "	G1"
B70	G <sup>3/4</sup> "	G1 <sup>1/2</sup> "
B130	G <sup>3/4</sup> "	G1 <sup>1/2</sup> "
B180	G1"	G1 <sup>1/2</sup> "
B250	G1"	G1 <sup>1/2</sup> "
B300	G1"	G1 <sup>1/2</sup> "
B500	G1"	G2"
B1000	G2"	G2"



## MAX. HEAT LOAD

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

HEAT SOURCE TEMP. INLET		POOL WATER TEMP. INLET		B45		B70		B130		B180		B250		B300		B500		B1000													
°C	°F	°C	°F	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	kw	kBtu/h								
40	104	20	68	6	20	10	34	10	34	16	55	20	68	22	75	25	85	25	85	35	120	44	150	50	170	75	255	75	255	125	425
50	122	20	68	10	34	16	55	18	63	26	89	32	109	36	122	42	145	43	145	55	190	70	240	80	275	110	375	120	410	200	680
60	140	20	68	14	48	22	75	26	89	36	122	44	150	50	170	59	200	61	210	75	255	96	330	110	375	145	495	165	565	275	940
70	158	20	68	18	61	28	96	34	116	46	155	56	190	64	220	76	260	79	270	95	325	122	415	140	480	180	615	210	715	350	1195
80	176	20	68	22	75	34	116	42	143	56	190	68	230	78	265	93	315	97	330	115	390	148	505	170	580	215	735	255	870	425	1450
90	194	20	68	26	89	40	136	50	170	66	225	80	270	92	315	110	375	115	395	135	460	174	595	200	680	250	855	300	1025	500	1705
pool water		flow		m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h
heat source		flow		3	793	3	793	3	793	4	1057	5	1321	4	1057	5	1321	4	1057	5	1321	4	1057	5	1321	4	1057	5	1321	10	2642
pool water		pressure drop		kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi
heat source		pressure drop		2	0.3	3	0.4	4	0.6	2	0.3	3	0.4	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
pool capacity [m <sup>3</sup> ]				up to 15		15-25		25-40		40-55		55-75		75-90		90-160		140-280													
pool capacity [1000 gal]				up to 4		4-6.6		6.6-10.6		10.6-14.5		14.5-19.8		19.8-23.8		23.8-42.3		37-74													

## WORKING PARAMETERS

Max. pressure: 16 bar / 232 psi

Max. temp.: 165°C / 329°F

## TECHNICAL PARAMETERS

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

Type	Heat exchange area		Tube side capacity		Shell side capacity		Weight		Dimensions							
	m <sup>2</sup>	ft <sup>2</sup>	l	gal	l	gal	kg	lb	A		B		C		øDz	
									mm	in	mm	in	mm	in	mm	in
B45	0.11	1.18	0.52	0.14	0.48	0.13	2.10	4.63	122.0	4.80	75.0	2.95	289.5	11.40	80.0	3.15
B70	0.18	1.94	0.64	0.17	0.84	0.22	3.00	6.61	122.0	4.80	175.0	6.89	389.5	15.33	80.0	3.15
B130	0.23	2.48	0.70	0.18	0.98	0.26	3.30	7.28	122.0	4.80	225.0	8.86	439.5	17.30	80.0	3.15
B180	0.38	4.09	1.21	0.32	1.38	0.36	4.60	10.14	143.6	5.65	193.0	7.60	379.0	14.92	101.6	4.00
B250	0.55	5.92	1.48	0.39	1.99	0.53	5.80	12.79	143.6	5.65	323.0	12.72	509.0	20.04	101.6	4.00
B300	0.73	7.86	1.76	0.46	2.58	0.68	7.30	16.09	143.6	5.65	451.0	17.76	637.0	25.08	101.6	4.00
B500	1.37	14.75	2.76	0.73	4.81	1.27	12.40	27.34	143.6	5.65	884.0	34.80	1103.0	43.43	101.6	4.00
B1000	1.97	21.20	4.55	1.20	7.78	2.06	23.50	51.81	190.0	7.48	680.0	26.77	943.0	37.13	139.7	5.50



# Swimming pool Heat exchangers



The first priority in the process of the REV design was to **enhance heat exchange conditions**. It was obtained by using **3-pass tube bundle** which results in **better utilization of heat source**. It makes REV excellent to work with heat pumps and solar panels but also with standard heat sources like boilers.

Additionally, thanks to short path of heated medium (pool water) in the heat exchanger, **there is very little pressure loss**. **Corrugated tubes** increase **flow turbulence** which further intensifies heat exchange. Titanium versions can be used to work with salt pool 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)
- titanium versions – suitable for salt water pools
- corrugated tubes increase flow turbulence which further intensifies heat exchange
- excellent to work with heat pumps and solar panels

SALT  
WATER

REV HEAT EXCHANGERS



## CONSTRUCTION

- 3-pass construction with flow reversing dish end
- corrugated tubes of diameter  $\varnothing 8$  mm / 0.31 in
- welded unit built of titanium (REV) or stainless steel 316L / 1.4404 (REV S)

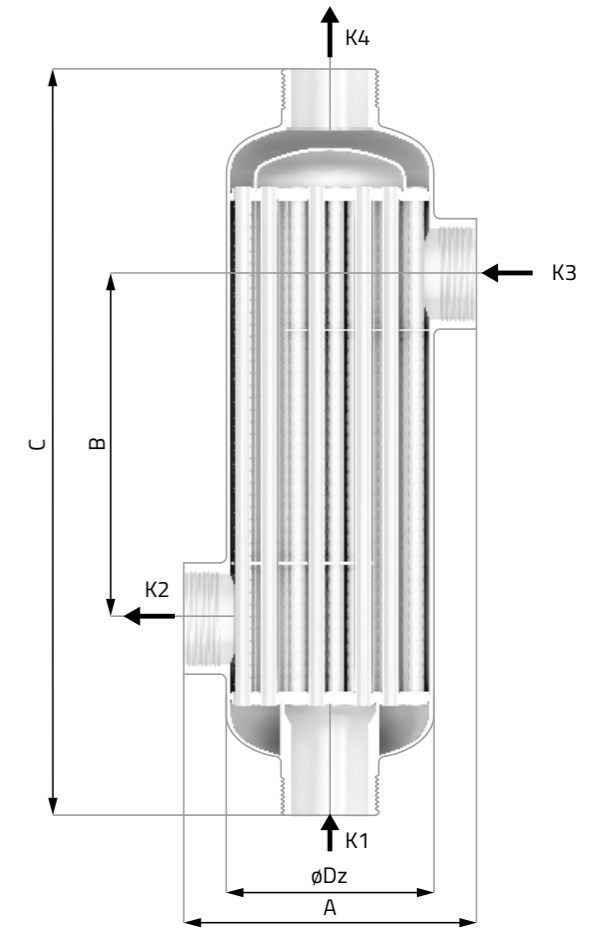
# Heat transfer values



SALT WATER

REV HEAT EXCHANGERS

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



## WORKING PARAMETERS

**Max. pressure:** 16 bar / 232 psi  
**Max. temp.:** 150°C / 302°F

## TECHNICAL PARAMETERS

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

Type	Heat exchange area		Tube side capacity		Shell side capacity		Weight		Material	Dimensions							
	m <sup>2</sup>	ft <sup>2</sup>	l	gal	l	gal	kg	lb		A		B		C		ØDz	
	mm	in	mm	in	mm	in	mm	in		mm	in	mm	in	mm	in	mm	in
REV250	0.29	3.15	0.81	0.21	1.26	0.33	2.1	4.69	T	140	5.5	170	6.7	353	13.9	101.6	4.0
REV350	0.41	4.43	0.99	0.26	1.76	0.46	2.7	5.93	T	140	5.5	270	10.6	453	17.8	101.6	4.0
REV500	0.59	6.34	1.27	0.34	2.53	0.67	3.5	7.78	T	140	5.5	420	16.5	603	23.7	101.6	4.0
REV750	0.89	9.53	1.73	0.46	3.77	1.00	4.9	10.74	T	140	5.5	670	26.4	853	33.6	101.6	4.0
REV1000	1.18	12.72	2.19	0.58	5.03	1.33	6.2	13.70	T	140	5.5	920	36.2	1103	43.4	101.6	4.0
REV250S	0.29	3.15	0.81	0.21	1.26	0.33	3.8	8.38	S	140	5.5	170	6.7	353	13.9	101.6	4.0
REV350S	0.41	4.43	0.99	0.26	1.76	0.46	4.8	10.58	S	140	5.5	270	10.6	453	17.8	101.6	4.0
REV500S	0.59	6.34	1.27	0.34	2.53	0.67	6.3	13.89	S	140	5.5	420	16.5	603	23.7	101.6	4.0
REV750S	0.89	9.53	1.73	0.46	3.77	1.00	8.7	19.18	S	140	5.5	670	26.4	853	33.6	101.6	4.0
REV1000S	1.18	12.72	2.19	0.58	5.03	1.33	11.1	24.47	S	140	5.5	920	36.2	1103	43.4	101.6	4.0

S – stainless steel  
T – titanium

## MAX. HEAT LOAD

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

HEAT SOURCE TEMP. INLET		POOL WATER TEMP. OUTLET		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	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
				m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /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 [m <sup>3</sup> ]				40-70		60-100		80-120		110-160		150-200	
pool capacity [1000 gal]				8.8-15.5		13-22		18-26		24-35		33-44	

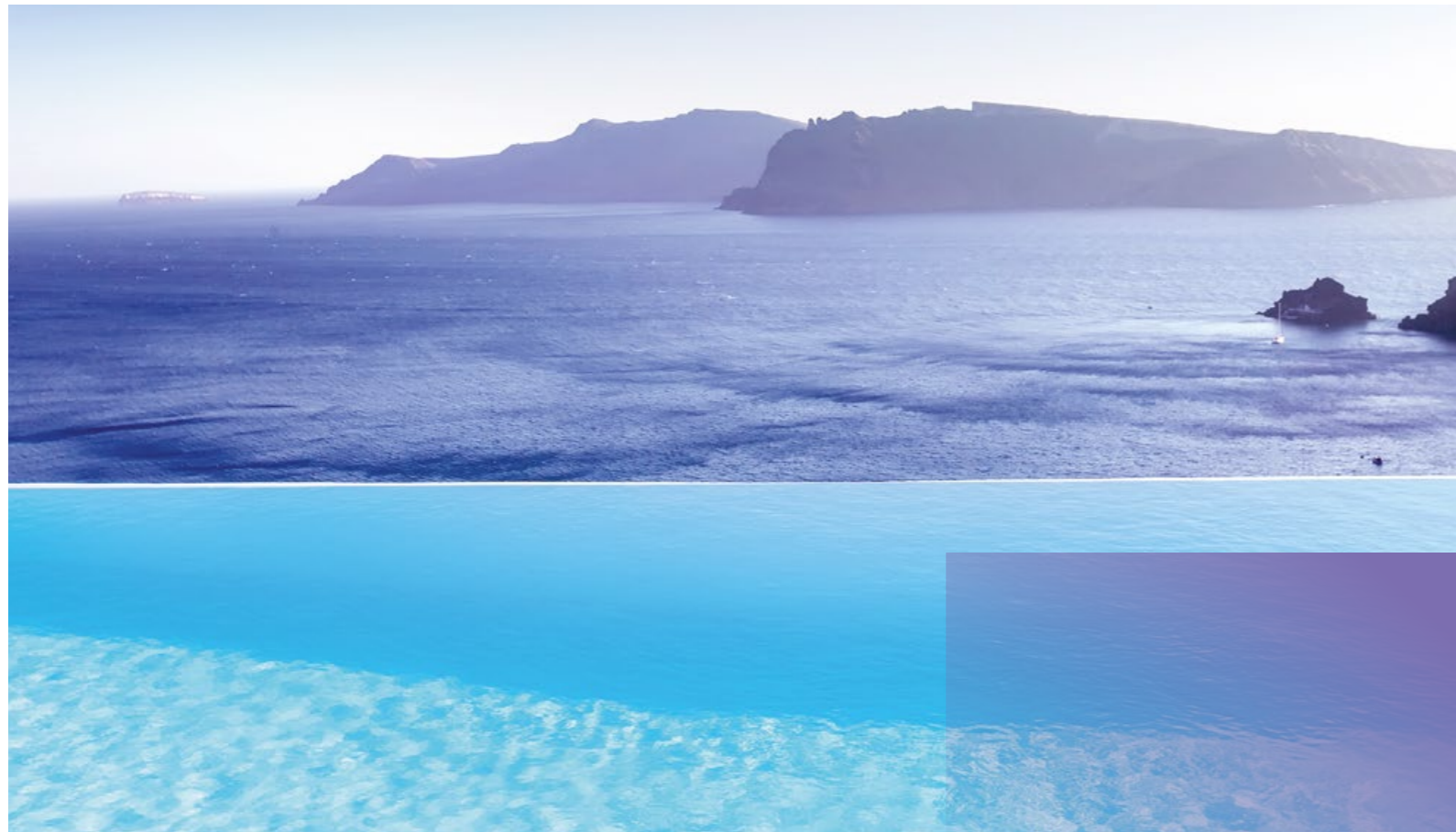


# Swimming pool Heat exchangers



TI is a titanium heat exchanger designed for use in demanding operating conditions especially **swimming pools with salt water**.

Built of titanium the exchanger is **resistant to aggressive substances** such as salt, chlorine, fluorine as well as **high pressure and temperature**. Its construction makes the exchanger ideal to work in installations where there is **high volume flow**. Corrugated tubes **intensify heat exchange and reduce fouling**.



## ADVANTAGES

- suitable for use with salt water
- resistant to aggressive substances in pool water (e.g. fluorine, chlorine)
- high volume flow at low pressure loss; no need of by-pass
- corrugated tubes intensify heat exchange and reduce fouling
- compact size

SALT  
WATER

TI HEAT EXCHANGERS



## CONSTRUCTION

- corrugated tubes of diameter  $\varnothing 8$  mm / 0.31 in
- welded units; no risk of leakage
- built of titanium



# Heat transfer values



## MAX. HEAT LOAD

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

HEAT SOURCE TEMP. INLET		POOL WATER TEMP. OUTLET		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

		m <sup>3</sup> /h		gal/h		m <sup>3</sup> /h		gal/h		m <sup>3</sup> /h		gal/h		m <sup>3</sup> /h		gal/h	
pool water	flow	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	
pool water	pressure drop	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						

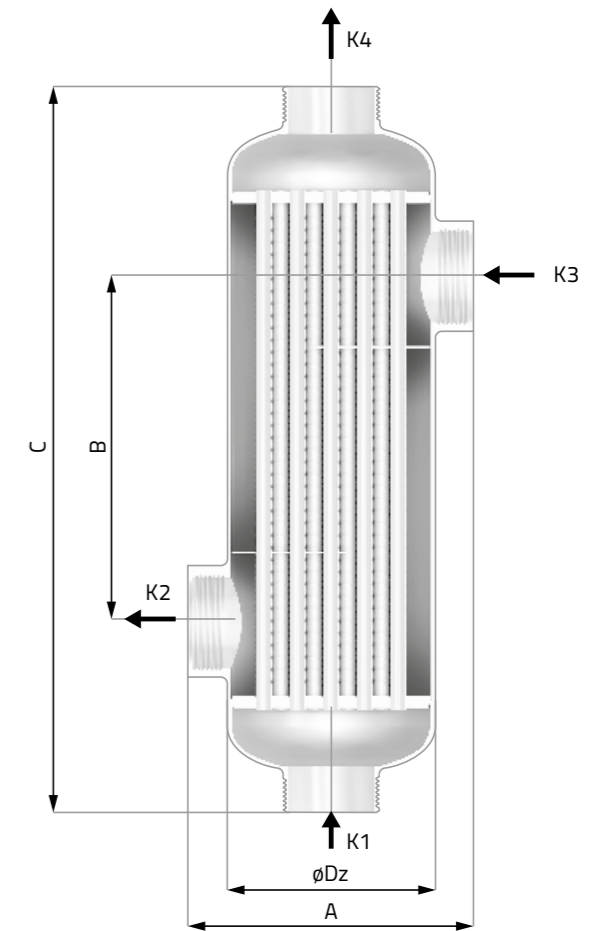
  

pool capacity [m <sup>3</sup> ]	40-70	70-110	90-150	130-180	160-220
pool capacity [1000 gal]	8.8-15.5	15.5-24	20-33	28.5-39.5	35-48.5

SALT WATER

TI HEAT EXCHANGERS

**K1/K4:** inlet / outlet heat source – external thread G1½”  
**K3/K2:** inlet / outlet pool water – internal thread G1½”



## WORKING PARAMETERS

**Max. pressure:** 16 bar / 232 psi

**Max. temp.:** 150°C / 302°F

## TECHNICAL PARAMETERS

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

Type	Heat exchange area		Tube side capacity		Shell side capacity		Weight		Dimensions							
	m <sup>2</sup>	ft <sup>2</sup>	l	gal	l	gal	kg	lb	A		B		C		øDz	
									mm	in	mm	in	mm	in	mm	in
TI250	0.34	3.7	0.94	0.2	1.19	0.3	2.2	4.9	140	5.5	170	6.7	357	14.1	101.6	4.0
TI350	0.48	5.2	1.17	0.3	1.63	0.4	2.7	6.0	140	5.5	270	10.6	457	18.0	101.6	4.0
TI500	0.69	7.4	1.51	0.4	2.34	0.6	3.8	8.3	140	5.5	420	16.5	607	23.9	101.6	4.0
TI750	1.04	11.2	2.08	0.5	3.49	0.9	5.3	11.7	140	5.5	670	26.4	857	33.7	101.6	4.0
TI1000	1.38	14.9	2.64	0.7	4.66	1.2	6.8	15.0	140	5.5	920	36.2	1107	43.6	101.6	4.0



# Swimming pool Heat exchangers



EVO ceramic heat exchangers deliver high performance in demanding operating conditions especially swimming pools and whirlpool baths with **salt water**.

**Ceramic composite** used for tubes is one of the most resistant materials which makes it suitable for great number of chemicals, e.g. **salt or chlorine**. Construction and **high quality surface** of composite materials ensure **long-term durability, dependability and low fouling effect**. The device provides **high thermal performance** and **stable operating parameters**. The exchanger is dismantlable which enables mechanical cleaning.

**EVO EQ** version is a **fully equipped** ceramic heat exchanger **set with autonomous control system**. The set consists of an integrated circulation pump, controller and sensors of water temperature in the swimming pool.



## ADVANTAGES

- suitable for use with salt or treated water
- dismantlable and cleanable
- low fouling thanks to high quality surface
- EQ version equipped with pump and regulation
- unique ceramic composite technology

SALT  
WATER

EVO HEAT EXCHANGERS



## CONSTRUCTION

- ceramic tube bundle with outer tube diameter of  $\varnothing 7.2$  mm / 0.28 in
- shell made of thick durable plastic
- hot side heads made of aluminium alloy
- shell / pool side connected through plastic sockets
- dismantlable



# Heat transfer values



# EVO

SALT WATER

EVO HEAT EXCHANGERS

EVO EQ plug and play set includes:

- Grundfos Alpha 2 highly efficient circulation pump integrated directly into the shell
- other components for independent work – controller, sensors and wiring



## MAX. HEAT LOAD

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

HEAT SOURCE TEMP. INLET		POOL WATER TEMP. OUTLET		EVO300		EVO400		EVO600		EVO800		EVO1000	
°C	°F	°C	°F	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h
50	122	32	89.6	11	38	18	61	29	99	49	165	78	265
		38	100.4	8	27	13	44	20	68	33	113	51	175
60	140	32	89.6	18	61	31	105	48	165	79	270	120	410
		38	100.4	15	51	25	85	38	130	62	210	95	325
70	158	32	89.6	36	120	42	143	66	225	108	370	168	575
		38	100.4	31	105	36	125	56	191	92	315	140	480
				m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h
pool water		flow		10	2 642	12	3 170	15	3 963	17	4 491	17	4 491
heat source		flow		3	793	4	1 057	4	1 057	5	1 321	7	1 849
				kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi
pool water		pressure drop		13	1.9	19	2.8	26	3.8	27	3.9	29	4.2
heat source		pressure drop		2.5	0.4	4	0.6	6	0.9	9	1.3	28	4.1
pool capacity [m <sup>3</sup> ]				40-80		60-100		100-150		120-180		180-230	
pool capacity [1000 gal]				8.8-18		13-22		22-33		26-39.5		39.5-50.5	

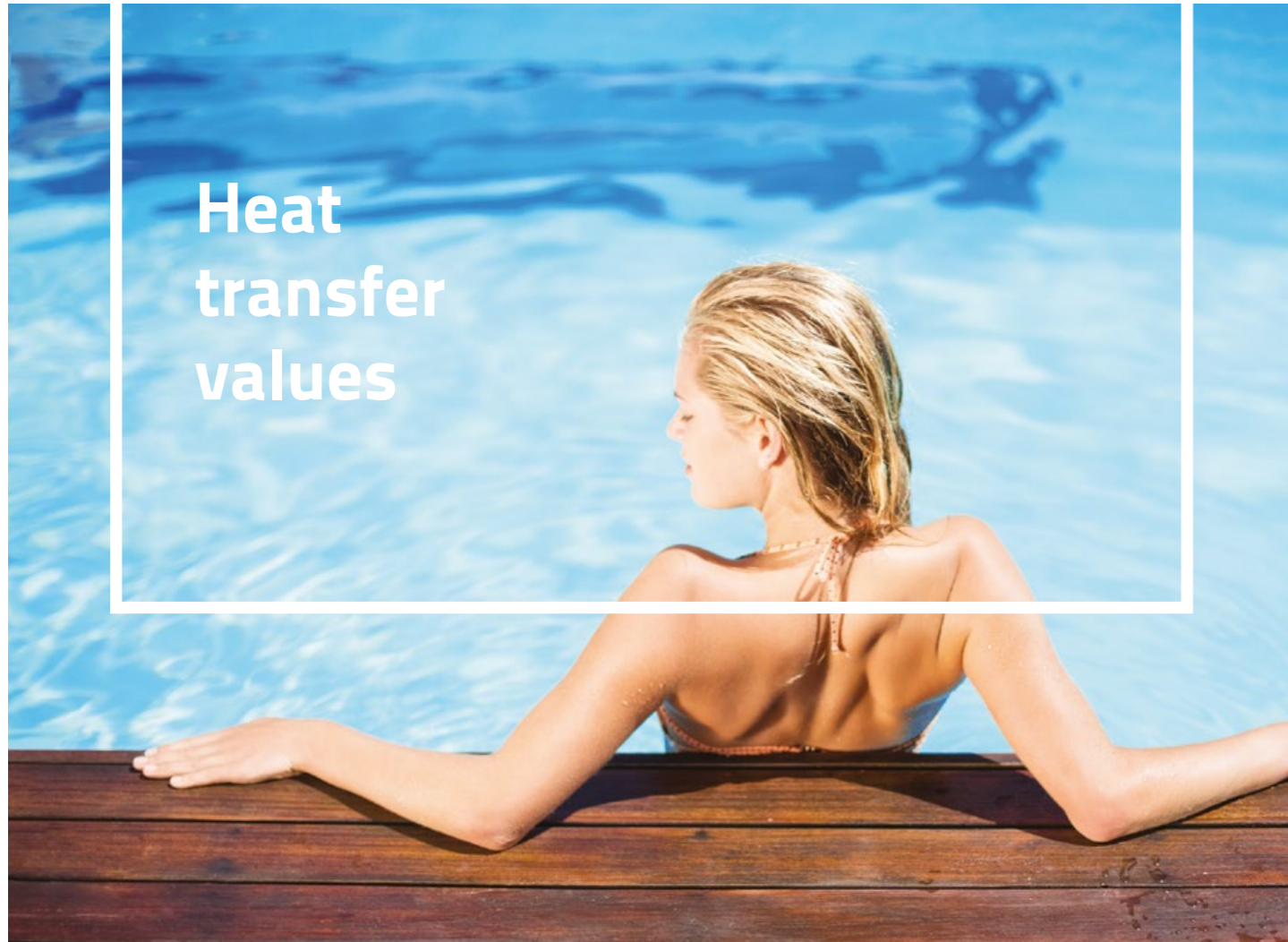
## MAX. HEAT LOAD

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

HEAT SOURCE TEMP. INLET		POOL WATER TEMP. OUTLET		EVO300 EQ		EVO400 EQ		EVO600 EQ	
°C	°F	°C	°F	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h
50	122	28	82.4	10	34	18	61	26	89
		28	82.4	15	51	28	96	40	135
60	140	28	82.4	15	51	28	96	40	135
		28	82.4	21	72	40	135	54	185
				m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h
pool water		flow		17	4 491	17	4 491	17	4 491
heat source		flow		1.5	396	2.5	660	2.5	660
				kPa	psi	kPa	psi	kPa	psi
pool water		pressure drop		40	5.8	36	5.2	33	4.8
heat source		pressure drop		1	0.1	2	0.3	2	0.3
pool capacity [m <sup>3</sup> ]				40-70		60-100		80-130	
pool capacity [1000 gal]				8.8-15.5		13-22		18-28.5	



# Heat transfer values



## WORKING PARAMETERS

Max. pressure: 3 bar / 43.5 psi

Max. temp.:

tube side: 80°C / 176°F

shell side: 60°C / 140°F

## TECHNICAL PARAMETERS

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

Type	Heat exchange area		Tube side capacity		Shell side capacity		Weight		Dimensions											
	m <sup>2</sup>	ft <sup>2</sup>	l	gal	l	gal	kg	lb	A		B		C		ØDz		E		F	
									mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
EVO300	0.26	2.80	0.4	0.11	1.1	0.28	4.4	9.8	176	6.9	138	5.4	332	13.1	110	4.3	-	-	-	-
EVO400	0.37	3.98	0.5	0.13	1.5	0.40	5.2	11.5	176	6.9	228	9.0	422	16.6	110	4.3	-	-	-	-
EVO600	0.57	6.14	0.6	0.15	2.2	0.58	6.7	14.7	176	6.9	388	15.3	582	22.9	110	4.3	-	-	-	-
EVO800	0.88	9.47	0.7	0.20	3.3	0.88	8.9	19.6	176	6.9	638	25.1	832	32.8	110	4.3	-	-	-	-
EVO1000	1.19	12.81	0.9	0.24	4.5	1.18	11.2	24.6	176	6.9	888	35.0	1082	42.6	110	4.3	-	-	-	-
EVO300EQ	0.26	2.80	0.5	0.14	1.1	0.28	6.3	13.8	176	6.9	138	5.4	467	18.4	110	4.3	339	13.3	90	3.5
EVO400EQ	0.37	3.98	0.6	0.16	1.5	0.40	7.0	15.5	176	6.9	228	9.0	557	21.9	110	4.3	429	16.9	90	3.5
EVO600EQ	0.57	6.14	0.7	0.18	2.2	0.58	8.5	18.7	176	6.9	388	15.3	717	28.2	110	4.3	589	23.2	90	3.5

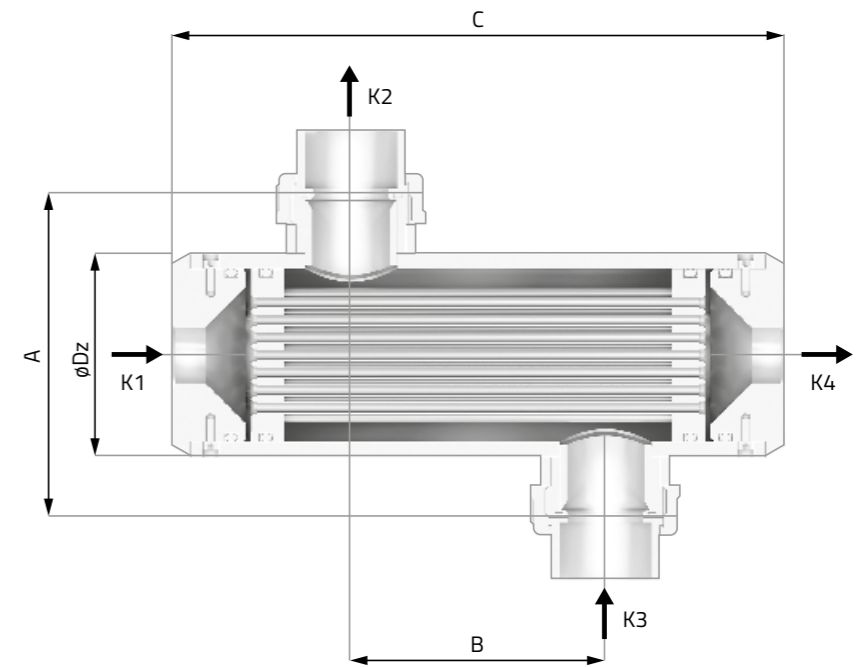
SALT WATER

EVO HEAT EXCHANGERS

### EVO

**K1/K4:** inlet / outlet heat source  
– internal thread G1"

**K3/K2:** inlet / outlet pool water  
– plastic union fitting DN50

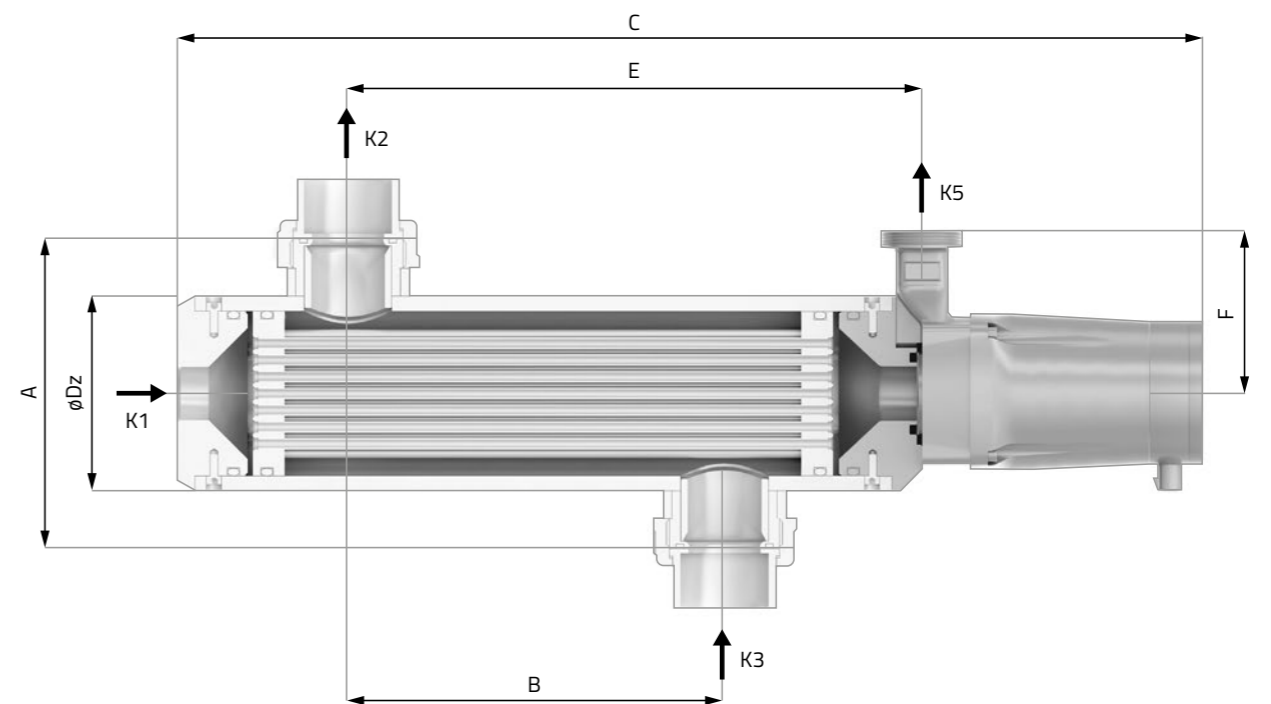


### EVO EQ

**K1:** inlet heat source  
– internal thread G1"

**K5:** outlet heat source  
– external thread G1½"

**K3/K2:** inlet / outlet pool water  
– plastic union fitting DN50





# Plate & Frame Heat exchangers



PHE is characterised by **excellent heat exchange effectiveness** – it is able to heat large volume of water in short time. Additionally, large connection sizes enable **high volume flow**.

Thanks to its flexible design, PHE can be applied in **wide range of swimming pools** from whirlpool baths or kids' pools to big municipal or sport pools.

Versions with titanium plates can be used to work with **salt pool water**. Thanks to its dismantlable construction, the exchanger is **easy to clean** as well as to expand by adding extra plates when needed.



## ADVANTAGES

- excellent heat exchange effectiveness
- applicable in wide range of swimming pool types
- titanium plates versions – suitable for salt water pools
- compatible with all types of heating sources
- flexible design – adaptable to all needs
- dismantlable – easy to clean and expand

SALT WATER

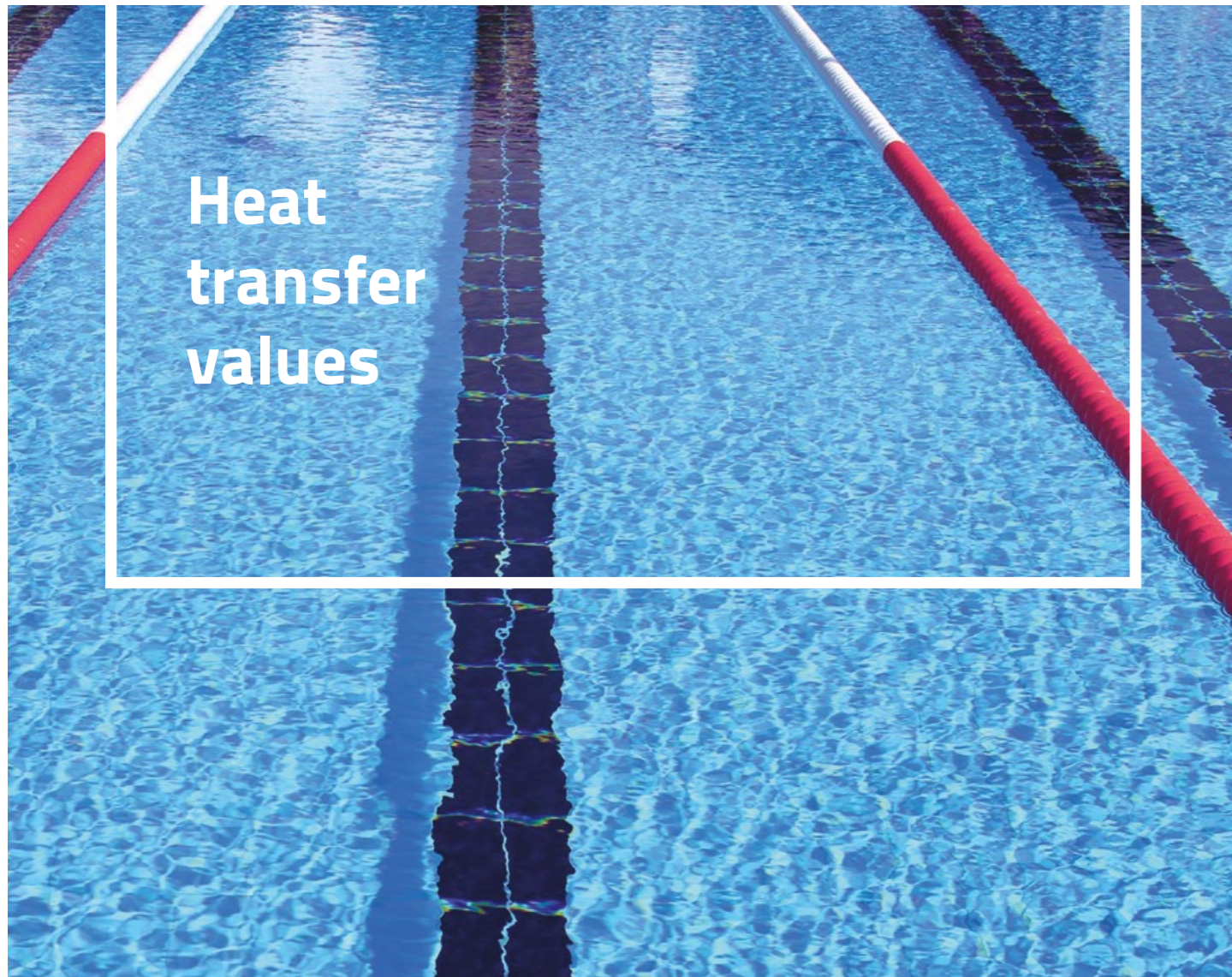
PLATE & FRAME HEAT EXCHANGERS



## CONSTRUCTION

- plate material: stainless steel 316L / 1.4404, titanium
- gasket material: NBR, EPDM, Viton
- gasket type: glueless "clip-on"
- connections:
  - ports for flanges, painted carbon steel, NBR lining, EPDM lining, clad with stainless steel or titanium
  - threaded connections, stainless steel or titanium
- frames material: carbon steel (industrial standard), stainless steel (hygienic standard)





SALT WATER

PLATE & FRAME HEAT EXCHANGERS

**Standard location of connections – single pass:**

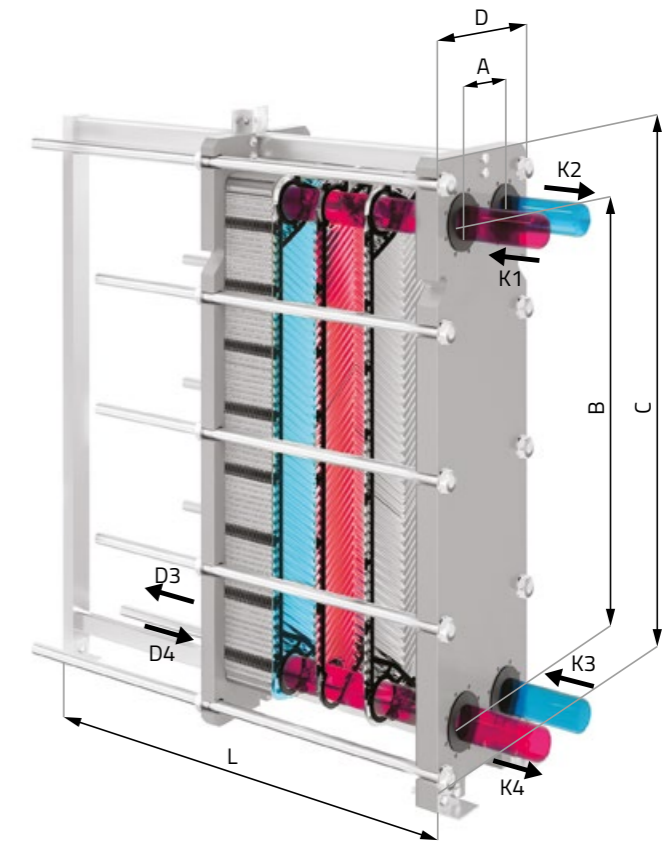
**K1/K4:** inlet / outlet heat source

**K3/K2:** inlet / outlet pool water

**Standard location of connections – double pass:**

**D4/K4:** inlet / outlet heat source

**K3/D3:** inlet / outlet pool water



**MAX. HEAT LOAD**

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

HEAT SOURCE TEMP. INLET		POOL WATER TEMP. OUTLET		FA-004	FA-008	FB-007	FB-014	FB-020	FC-009	FC-019	FC-031	FD-021	FD-051
°C	°F	°C	°F	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h
40	104	32	68	40	136	59	201	182	621	266	908	380	1297
50	122	35	68	85	290	111	379	500	1706	738	2518	854	2914
60	140	38	68	145	495	173	590	725	2474	1057	3607	1408	4804
				m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h	m <sup>3</sup> /h	gal/h
pool water		flow		10	2642	10	2642	40	10567	40	10567	40	10567
heat source				4	1057	4	1057	25	6604	25	6604	25	6604
				kPa	psi	kPa	psi	kPa	psi	kPa	psi	kPa	psi
pool water		pressure drop		27	3.9	30	4.4	22	3.2	21	3.0	38	5.5
heat source				5	0.7	5	0.7	8	1.2	8.5	1.2	15	2.2
				pool capacity [m <sup>3</sup> ]		116		140		490		635	
				pool capacity [1000 gal]		30.6		37.0		129.4		167.7	

**WORKING PARAMETERS**

**Max. pressure:** 16 bar / 233 psi

**Max. temp.:** 110°C / 230°F

**TECHNICAL PARAMETERS**

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

Type	Max. no. of plates	Connection type	Connection size	Dimensions									
				A		B		C		D		L max	
				mm	in	mm	in	mm	in	mm	in	mm	in
FA-004	91	thread	G1 <sup>1</sup> / <sub>4</sub> "	70	2.76	381	15.00	473	18.62	190	7.48	500	19.69
FA-008	91	thread	G1 <sup>1</sup> / <sub>4</sub> "	70	2.76	656	25.83	755	29.72	190	7.48	500	19.69
FB-007	148	thread	G2"	126	4.96	394	15.51	596	23.46	300	11.81	1000	39.37
FB-014	148	thread	G2"	126	4.96	694	27.32	896	35.28	300	11.81	1000	39.37
FB-020	148	thread	G2"	126	4.96	894	35.20	1096	43.15	300	11.81	1000	39.37
FC-009	180	ports	DN65	192	7.56	380	14.96	626	24.65	395	15.55	1000	39.37
FC-019	180	ports	DN65	192	7.56	700	27.56	946	37.24	395	15.55	1000	39.37
FC-031	180	ports	DN65	192	7.56	1050	41.34	1296	51.02	395	15.55	1000	39.37
FD-021	700	ports	DN100	225	8.86	719	28.31	1181	46.50	480	18.90	4000	157.48
FD-051	700	ports	DN100	225	8.86	1365	53.74	1824	71.81	480	18.90	4000	157.48



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