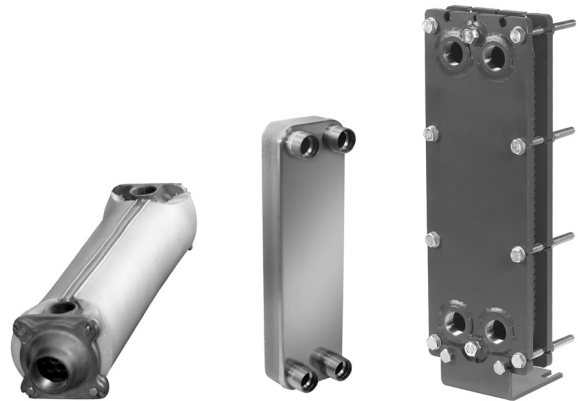




Pool heat exchangers

*Extend
the swimming season
Solutions for all
types of water
treatment*



ITEX - EXEL - FP

USE

Heat indoor and outdoor pools of all sizes and extend the swimming season.

Classified under Article 3.3 of Pressure Equipment Directive 97/23/EC.

PS: maximum allowable pressure.

ITEX (PWA) PLATE HEAT EXCHANGERS AND GASKETS

Removable 316L stainless steel or titanium plates, nitrile gaskets.
Painted steel frame with base.
316 stainless steel threaded couplings.
Maximum heating water temperature: 100°C.
Maximum allowable pressure (PS): 6 bar eff. on each circuit.

Plates can be removed for maintenance.

Suitable for all types of use: stainless steel plates for chlorine treatment; titanium plates for salt electrolysis or sea water pools.

Advantages

These high-performance, ultra-slim heat exchangers require little installation space (can be installed on the ground or on their mounts).

Precautions

Protect the gaskets from damage (one per plate): avoid excessive fluid pressure; protect gaskets when removing plates.

Thoroughly drain both circuits.

EXEL BRAZED-PLATE HEAT EXCHANGERS

Copper-brazed 316 stainless steel plates (non-removable).
Stainless steel threaded unions.
Maximum heating water temperature: 100°C.
Maximum allowable pressure (PS): 10 bar eff. on each circuit.

Precautions

Not suitable for use with salt electrolysis sterilisation systems (e.g. salt sterilisers, salt chlorinators ...).

Advantages

High performance: this ultra-slim, ultra-light heat exchanger requires little installation space (on a floor or clamped onto a mount).

Protect from scale and fouling. As the heat transfer area is inaccessible, chemicals must be used if cleaning is required.

FP TUBULAR HEAT EXCHANGERS

Aluminium brass pipes.

Bronze caps.

Steel shell protected by an insulated jacket.

- Heating water in shell: 8 bar eff. max. (PS) - 110°C
- Pool water in caps: 4 bar eff. max.

Advantages

An extremely robust and reliable tubular heat exchanger provided the correct flow rates are maintained.

Compact: may be fastened to a wall or above a boiler.

Can be used with fresh water or seawater.

Precautions

Not suitable for use with salt electrolysis sterilisation systems (e.g. salt sterilisers, salt chlorinators) and carbon dioxide treatments (gaseous CO₂) to lower pH.

These heat exchangers are classified under Article 3.3 of Pressure Equipment Directive 97/23/EC.

ITEX (PWA) – EXEL SELECTION

Use the table below to determine the water heating time (15–25°C) and heat exchangers needed for the available power and the pool volume.

P: Heating capacity in kW

D: Flow rates in m³/h

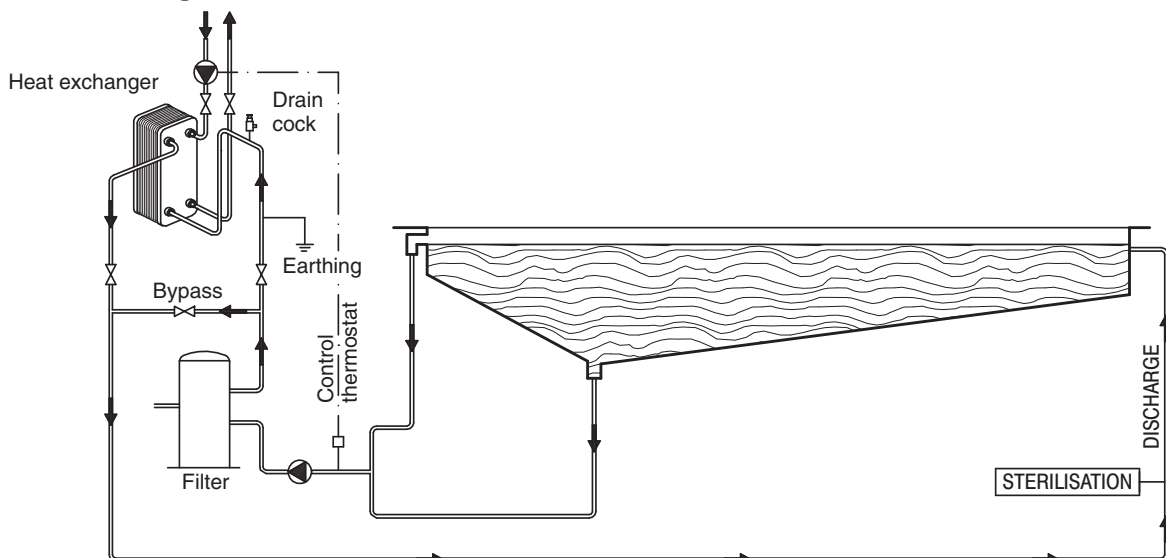
dP: Pressure drop (mWC)

– **ITEX (PWA)** and **EXEL** heat exchangers are selected with the same heating circuit and pool circuit flow rates: the flow rates **D** and **dP** therefore apply to both circuits.

P kW	Pool volume m ³			Heating water temperature									Heat pump 40/33°C range		
	Heating time			90°C			80°C			70°C					
	24 H	48 H	72 H	Type	D	dP	Type	D	dP	Type	D	dP	Type	D	dP
17	30	55	74	PWA.6.11.P5	0.5	0.7	PWA.6.11.P5	0.5	0.7	PWA.6.11.P5	0.6	0.9	PWA.6.11.P9	2.1	2.8
				EXL.4.10	0.5	0.2	EXL.4.10	0.5	0.2	EXL.4.10	0.6	0.3	EXL.4.20	2.1	0.8
24	43	77	104	PWA.6.11.P5	0.7	1.2	PWA.6.11.P5	0.7	1.2	PWA.6.11.P5	0.9	1.7	PWA.6.11.P11	3.0	3.4
				EXL.4.10	0.7	0.4	EXL.4.10	0.7	0.4	EXL.4.10	0.9	0.6	EXL.4.30	3.0	0.8
30	54	96	130	PWA.6.11.P5	0.9	1.8	PWA.6.11.P5	0.9	1.8	PWA.6.11.P7	1.1	1.2	PWA.6.11.P13	3.7	3.7
				EXL.4.10	0.9	0.7	EXL.4.10	0.9	0.6	EXL.4.10	1.1	0.9	EXL.4.30	3.7	1.2
35	63	112	151	PWA.6.11.P5	1.0	2.4	PWA.6.11.P7	1.0	1.2	PWA.6.11.P7	1.2	1.6	PWA.6.11.P15	4.3	3.7
				EXL.4.10	1.0	0.9	EXL.4.10	1.0	0.8	EXL.4.14	1.2	0.6	EXL.4.40	4.3	1.0
40	72	128	173	PWA.6.11.P5	1.2	3.1	PWA.6.11.P7	1.2	1.5	PWA.6.11.P7	1.4	2.1	PWA.6.11.P17	5.0	3.7
				EXL.4.10	1.2	1.1	EXL.4.10	1.2	1.1	EXL.4.14	1.4	0.7	EXL.4.40	5.0	1.3
46	82	148	200	PWA.6.11.P5	1.4	4.0	PWA.6.11.P7	1.4	1.9	PWA.6.11.P9	1.6	1.6			
				EXL.4.10	1.4	1.5	EXL.4.10	1.4	1.4	EXL.4.14	1.6	0.9			
58	105	186	250	PWA.6.11.P7	1.7	2.9	PWA.6.11.P9	1.7	1.7	PWA.6.11.P9	2.0	2.5			
				EXL.4.14	1.7	1.0	EXL.4.14	1.7	1.0	EXL.4.20	2.0	0.7			
70	126	225	303	PWA.6.11.P7	2.0	4.1	PWA.6.11.P9	2.0	2.5	PWA.6.11.P11	2.5	2.3			
				EXL.4.14	2.0	1.4	EXL.4.14	2.0	1.5	EXL.4.20	2.5	1.1			
87	157	280	376	PWA.6.11.P9	2.5	3.6	PWA.6.11.P11	2.5	2.4	PWA.6.11.P13	3.0	2.5			
				EXL.4.20	2.5	1.1	EXL.4.20	2.5	1.1	EXL.4.30	3.0	0.7			
95	172	305	410	PWA.6.11.P9	2.8	4.3	PWA.6.11.P11	2.8	2.9	PWA.6.11.P13	3.3	2.9			
				EXL.4.20	2.8	1.3	EXL.4.20	2.8	1.3	EXL.4.30	3.3	2.9			

Consult us for other temperature ranges and higher power levels (up to ≈900 kW).

Installation diagram



FP SELECTION

Use the table below to determine the water heating time (15–25°C) and heat exchangers needed for the available power and the pool volume.

P: Heating capacity in kW

D: Flow rates in m³/h

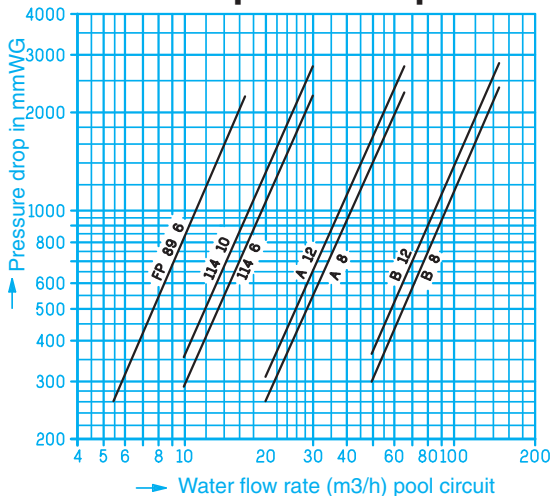
dP: Pressure drop (mWC)

– FP tubular heat exchangers are selected with different flow rates: **D** and **dP** apply to the heating circuit only. Refer to the graph for the pool circuit. The flow rates must be maintained within the minimum and maximum limits.

P kW	Pool volume m ³			Heating water temperature								
	Heating time			90°C			80°C			70°C		
	24 H	48 H	72 H	Type	D	dP	Type	D	dP	Type	D	dP
17	30	55	74	FP.89.6	0.7	0.1	FP.89.6	0.7	0.1	FP.89.6	0.7	0.1
24	43	77	104	FP.89.6	1.0	0.1	FP.89.6	1.0	0.1	FP.89.6	1.0	0.1
30	54	96	130	FP.89.6	1.3	0.2	FP.89.6	1.3	0.2	FP.114.6	1.3	0.1
35	63	112	151	FP.89.6	1.5	0.3	FP.89.6	1.5	0.3	FP.114.6	1.5	0.1
40	72	128	173	FP.89.6	1.8	0.3	FP.114.6	1.8	0.1	FP.114.6	1.8	0.1
46	82	148	200	FP.89.6	2.0	0.4	FP.114.6	2.0	0.1	FP.114.10	2.0	0.1
58	105	186	250	FP.114.6	2.5	0.2	FP.114.6	2.5	0.2	FP.114.10	2.5	0.3
70	126	225	303	FP.114.6	3.1	0.3	FP.114.10	3.1	0.4	FP.114.10	3.1	0.4
87	157	280	376	FP.114.10	3.8	0.7	FP.114.10	3.8	0.7			
95	172	305	410	FP.114.10	4.2	0.8	FP.114.10	4.2	0.8			

Consult us for other temperature ranges and higher power levels (up to ≈900 kW).

Flow rates and pressure drops - FP heat exchangers

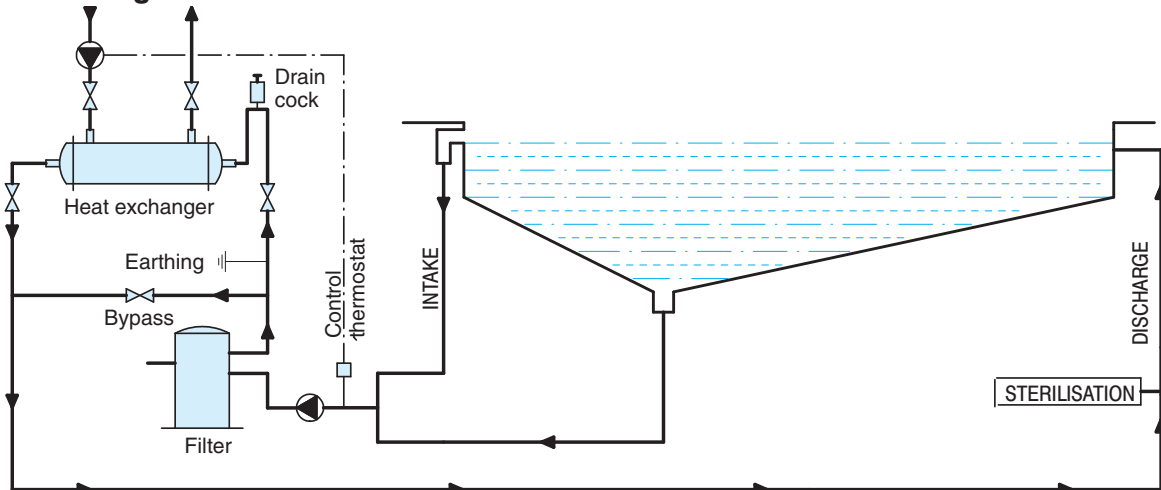


To limit corrosion and erosion, always maintain the pool circuit at the required water flow rate:

- FP 89 6 to 17 m³/h
- FP 114 10 to 30 m³/h
- FP A 20 to 65 m³/h
- FP B 50 to 150 m³/h

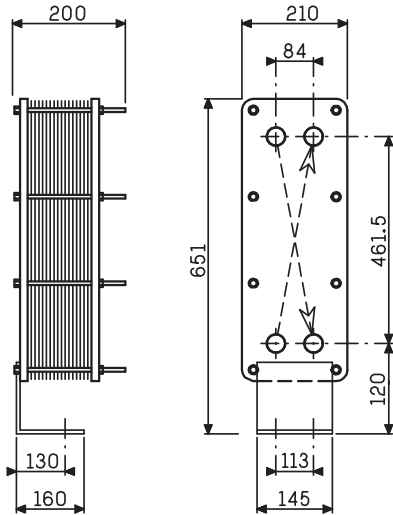
If necessary, install a by-pass.

Installation diagram



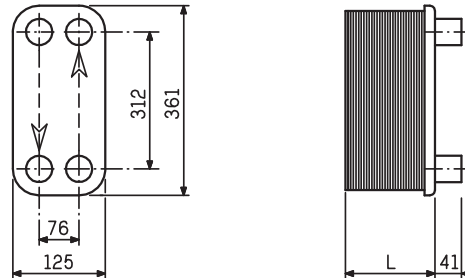
DIMENSIONS

ITEX (PWA 6)



Connections : four threaded coupling, 1 1/4" G 316 stainless steel
Mass : approx. 40 kg

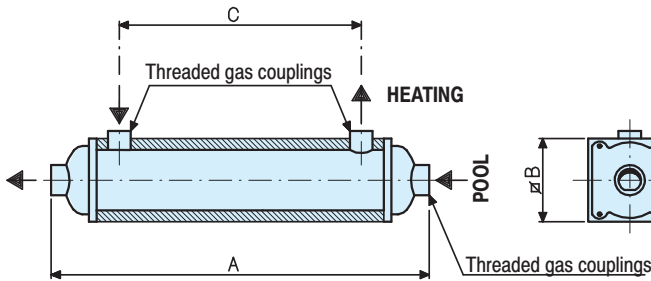
EXEL



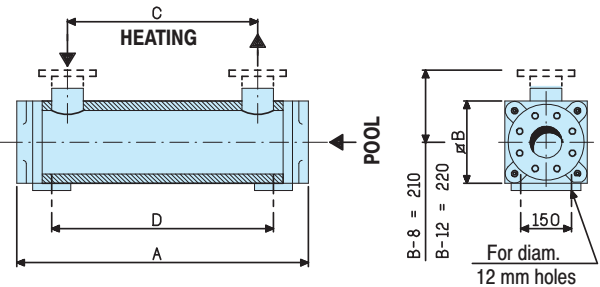
EXL	4.10	4.14	4.20	4.30	4.40
L	31	40	54	54	100

Connections : four R 1" threaded unions (tapered gas)
Mass : approx. 7 kg

FP-89 / FP-114



FP-A / FP-B



ITEX (PWA)	Stainless steel plates	Titanium plates
	With base	With base
6.11 P 5	4969195 ●	4974507 ●
6.11 P 7	4969196 ●	4974508 ●
6.11 P 9	4969197 ●	4974509 ●
6.11 P 11	4969198 ●	4974510 ●
6.11 P 13	4969199 ●	4974511 ●
6.11 P 15	4969200 ●	4974512 ●
6.11 P 17	4969201 ●	4974513 ●
EXL	code	●
4.10 G2/G2	4917087	●
4.14 G2/G2	4917088	●
4.20 G2/G2	4917089	●
4.30 G2/G2	4917090	●
4.40 G2/G2	4917091	●

FP	FP fresh water	Set of 2 pool circuit counter flanges	FPM seawater
89-6	4904293 ●	●	4904293 ●
114-6	4904294 ●	●	4904294 ●
114-10	4904295 ●	●	4904295 ●
A-8	4904296 ●	D028517 ●	D000078 ●
A-12	4904297 ●	D028517 ●	D000086 ●
B-8	4904298 ●	D028525 ●	D000094 ●
B-12	4904299 ●	D028525 ●	D000108 ●