Norwegian and Chinese engineers have been working together to optimize the performance.

The microprocessor and the settings can be easily adjusted on the Display Panel. The microprocessor receives information and adjusts continuously the values to maintain the optimal energy gain from the Heat Pump.

Connecting the Heat Exchanger to the filtration system is fast and easy.

For split models we can supply ready filled refrigerant connection pipes for easy and fast installation. We can also supply extending connectors for longer distance.

We can supply extra flow sensors and piping systems. Our engineers can install them into your new or existing filtration system.

Titanium Heat Exchanger is one of the most important components for a long durability of the Heat Pumps. The construction of the titanium Heat Exchanger is very important for the energy gain we can obtain.

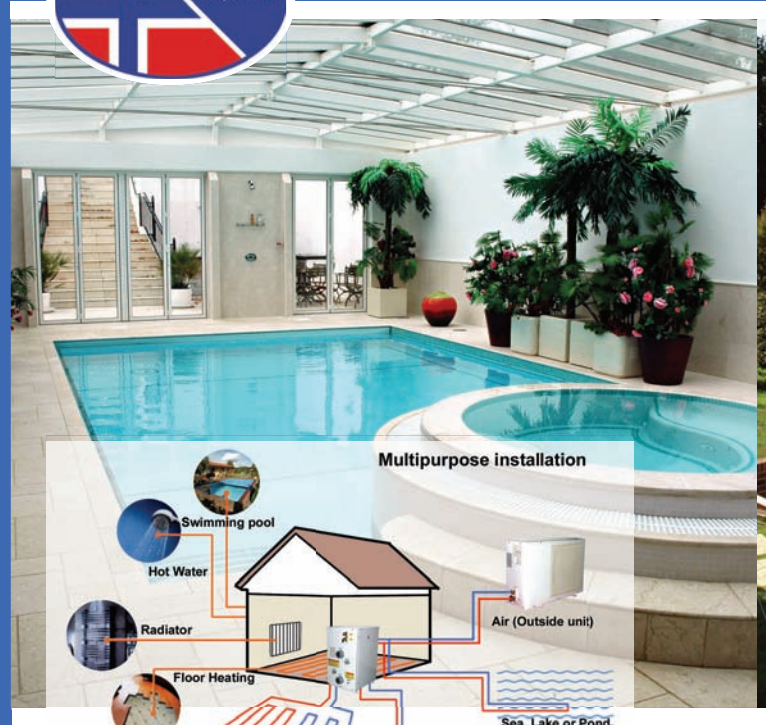
The final testing and check-up before packing. Long term testing ensures all components of the PROTEAM Heat Pumps to work as they should.

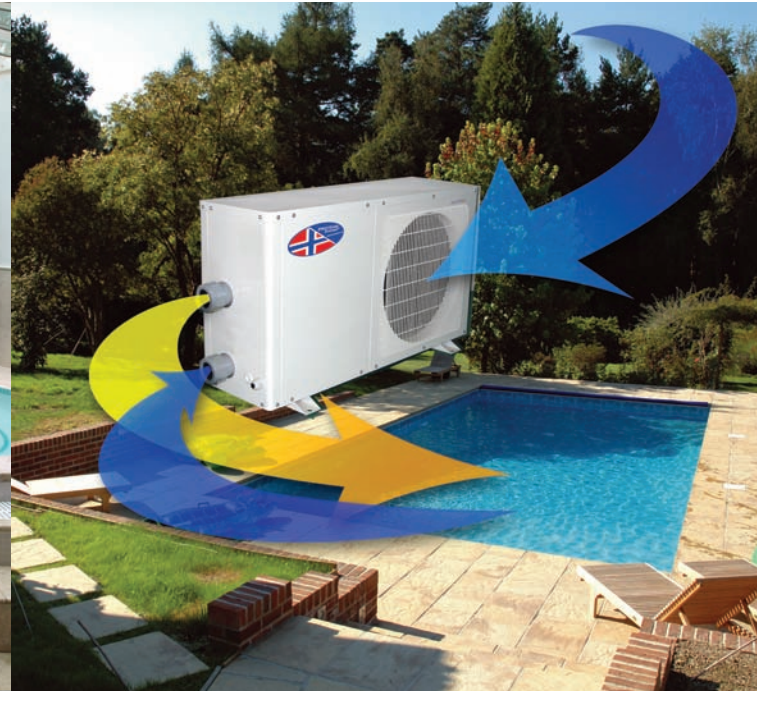
Testing and verifying of sensors and functions on each unit ensure you a high quality with the highest heat gain.

We have experience how to pack the Heat Pumps for a damage-free transport.

Pool Heat Pumps

Your dealer:





Pool Heat Pumps

www.proteam.no

PROTEAM Heat Pumps for Swimming pools

General information for all PROTEAM Heat Pumps

Best in Quality:
- Titanium Heat Exchanger
- Rotary / Scroll Compressor
- R410A Heating Media
- Multifunction Display
- Low Noise Level
- Easy Installation

Best in Price:
Just compare the performance, quality and prices.

Best in Service:
- Stock and skilled service-engineers in UK, Czech Republic and Norway
- Installation Teams
- Extended Warranty

Wide temperature range:
Designed for use indoors or outdoors, in all climates, for all sizes of pools. PROTEAM Heat Pumps are easy to adjust to the optimal settings for your pool and climate. You will obtain maximum performance and energy gain.

Table

Model	Type		INSIDE POOL		OUTSIDE POOL	
		[kW]	size [m³]	size [ft³]	size [m³]	size [ft³]
PP10C-410	Compact	10	20 - 60	200 - 650	15 - 40	150 - 450
PP15C-410	Compact	15	30 - 90	350 - 1000	25 - 70	250 - 750
PP20C-410	Compact	20	40 - 125	500 - 1400	35 - 95	350 - 1050
PP25C-410	Compact	25	50 - 150	600 - 1600	45 - 120	450 - 1300
PP15S-410	Split	15	30 - 90	350 - 1000	25 - 70	250 - 750
PP20S-410	Split	20	40 - 125	500 - 1400	35 - 95	350 - 1050
PP25S-410	Split	25	50 - 150	600 - 1600	45 - 120	450 - 1300

Other models available on request.

Table for use in:
UK, Ireland, Benelux, Switzerland, North France, Germany, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Rumania, Moldova, Ukraine, Belarus, Lithuania, Latvia, Estonia, Middle Russia, Poland, Denmark, South Sweden, South Finland and South Norway.
(Table for other countries available)

PROTEAM Heat Pumps for Swimming pools

COMPACT UNITS
In the same cabinet there are the Energy Collecting Unit and the Heat Exchanger, which are connected to the filtration system.

The collected energy from the outside air is transported through 2 thin pipes to the inside heater, which heats the water going from the filtration system to the pool.

It takes only a few hours to install the system and you can enjoy your nicely warm pool for very low cost.

Table

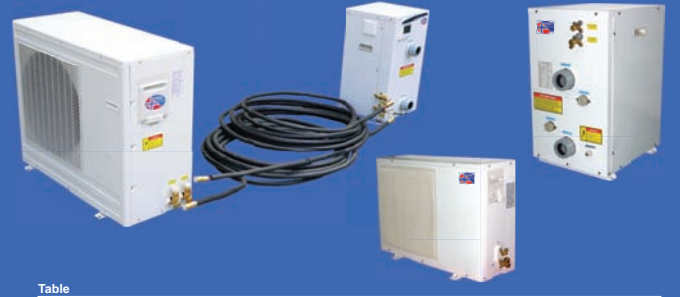
COMPACT	Units	MODEL PP10C-410	MODEL PP15C-410	MODEL PP20C-410	MODEL PP25C-410
Heating capacity in BTU/h	BTU/h	30900	46500	62000	75000
Heating capacity in kW	KW	10,1	15,5	20,1	25,2
Consumption	KW	1,6 - 1,9	2,5 - 2,9	3,3 - 4,0	4,0 - 5,1
Heating media	Refrigerant	410A	410A	410A	410A
Compressor		Rotary	Rotary	Scroll	Scroll
Number of compressors		1	1	1	1
Heat exchanger		titanium	titanium	titanium	titanium
Power supply	Volt/Phase/Hz	230/1/50	230/1/50	230/1/50	230/1/50 // 380/3/50
Running current	A	7,6 / 8,7	11,6 / 13,5	15,6 / 18,3	19,1/23,0 // 7,0/8,7
Feeder cable	mm2	2x2,5 + G	2x2,5 + G	2x6 + G	2x10 // 3x2,5 + G
Fuse (type: enginefuse)	min A	13	16	25	2x32 // 3x13
Noise level	dB (A)	51	54	56	58
Fan power	W	120	120	240	240
Fan speed	rpm	850	850	850	850
Fan orientation		horizontal	horizontal	horizontal	horizontal
Number of fans		1	1	2	2
Water connection	ø mm	50	50	50	50
Water flow volume	m3/h // Gal/h	3 / 660	4,5 / 990	6 / 1320	7,5 / 1650
Water pressure drop	kPa / psi / bar	10 / 1,5 / 0,1	10 / 1,5 / 0,1	10 / 1,5 / 0,1	12 / 1,7 / 0,12
Dimensions (l/w/h)	mm	905/420/650	905/420/650	1200/470/850	1110/470/1250
Shipping dimensions (l/w/h)	mm	1030/440/700	1030/440/700	1250/500/900	1250/500/1300
Weight (netto/shipping)	kg	68/77	75/84	98/108	134/144

Air 24: °C, water: 25 °C, relative humidity: 80 %

PROTEAM Heat Pumps for Swimming pools

SPLIT UNITS
The Split System has two units.
The Energy Collecting Unit is positioned outside and the Heat Exchanger Unit inside, normally in the filtration room, connected to the filtration system.

It is important that the Heat Exchanger is made of a high quality titanium material, which we use on all PROTEAM Heat Pumps. (Chlorinated pool water is very aggressive)
The Outside Unit is collecting the energy (heat) from the air. Inside Unit is a small cabinet, which is easy to fit in the filtration room.



Table

SPLIT MAIN UNIT	Units	MODEL PP10S-410-M	MODEL PP15S-410-M	MODEL PP20S-410-M	MODEL PP25S-410-M
Heating capacity in BTU	BTU/h	30900	46500	62000	75000
Heating capacity in kW	W	10,1	15,5	20,1	25,2
Consumption	W	1,6 - 2,0	2,4 - 3,1	3,3 - 4,2	3,9 - 5,3
Heating / cooling media	Refrigerant	410A	410A	410A	410A
Compressor		Rotary	Rotary	Scroll	Scroll
Number of compressors		1	1	1	1
Power supply	Volt/Phase/Hz	230/1/50	230/1/50	230/1/50	230/1/50 // 380/3/50
Running current	A	7,6 / 8,7	11,6 / 13,5	15,6 / 18,3	19,1/23,0 // 7,0/8,7
Feeder cable	mm2	2x2,5 + G	2x2,5 + G	2x4 mm2+G	6mm2// 3x2,5mm2+G
Fuse (type: enginefuse)	min A	13	16	25	2x32 // 3x13
Noise level	dB (A)	51	54	56	58
Fan power	W	75	75	120	200
Fan speed	rpm	850	850	850	830
Fan orientation		horizontal	horizontal	horizontal	vertikal
Number of fans		1	1	1	1
R410A Liquid pipe	ø Zoll	1/4"	3/8"	3/8"	3/8"
R410A Gas pipe	ø Zoll	1/2"	5/8"	3/4"	3/4"
Maximum pipe length	m / feet	15 / 50	25 / 82	40 / 130	40 / 130
Units height difference	max m / feet	8 / 26	10 / 32	15 / 50	15 / 50
Dimensions (l/w/h)	mm	820/320/540	890/380/705	650/650/880	650/650/880
Shipping dimensions (l/w/h)	mm	910/330/575	980/415/770	750/750/980	750/750/980
Weight (netto/shipping)	kg	42/46	57/62	75/81	98/108
HEAT UNIT (Water unit)		**PP10S-410-H**	**PP15S-410-H**	**PP20S-410-H**	**PP25S-410-H**
Heat exchanger		titanium	titanium	titanium	titanium
Water connection	ø mm	32	50	50	50
Water flow volume	m3/h // Gal/h	3 / 660	4,5 / 990	6 / 1320	7,5 / 1650
Water pressure drop	kPa / psi /bar	10 / 1,5 / 0,1	10 / 1,5 / 0,1	10 / 1,5 / 0,1	12 / 1,7 / 0,12
Dimensions (l/w/h)	mm	340/280/640	340/280/640	450/360/600	450/360/600
Shipping dimensions (l/w/h)	mm	370/355/670	370/355/670	530/410/630	530/410/630
Weight (netto/shipping)	kg	17/32	20/34	36/42	36/42

Air 24: °C, water: 25 °C, relative humidity: 80 %