

THE  
DURATECH®  
HEAT PUMP



THE IDEAL SOLUTION ...

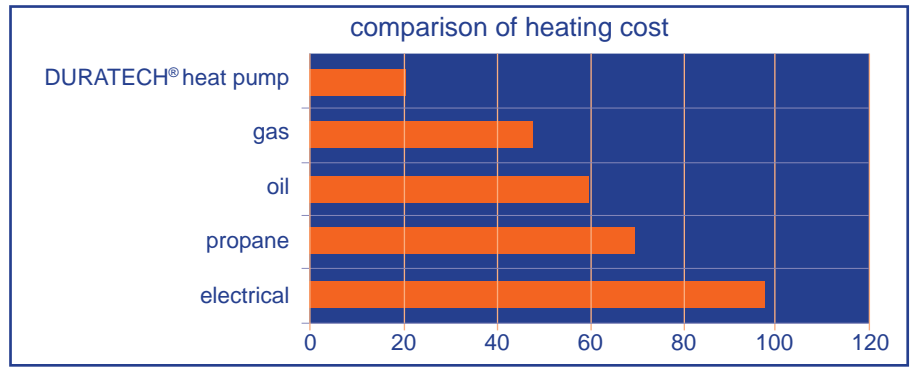


**for heating your  
swimming pool, jacuzzi or spa**

## HIGHLY EFFICIENT AND ECONOMICAL

The energy is collected from the air outside and transferred to the pool water.

For each kW consumed by the DURATECH® heat pump, 4 to 5 kW are returned to the pool.



## USE

The DURATECH heat pump must be installed outside.

It will heat the pool from April to October and will even work with outside temperatures as low as -5°C.

A cooling mode allows the water to be cooled down by the DURATECH heat pump as well.



## ENVIRONMENT

- DURATECH® heat pumps are less harmful to the environment because 80% of the energy produced is collected from the outside air and therefore purely natural.
- Also the gas used, R407C, has no harmful effect on the ozone layer.

## CONSTRUCTED FOR DURABILITY AND LONGEVITY

Using advanced and high quality materials like PVC and “Duranium®” for the heat exchanger means it can resist to erosion from chlorine in the water. Also, the “Duranium®” heat exchanger is oversized to improve efficiency.



## EASY INSTALLATION

The unit is intelligently designed and remarkably compact for easy installation.

Example : The integrated flow switch will sense the water flow and automatically start the heater when the pool pump starts and stop it when the pump shuts off.

## ADVANCED CONTROL

The integrated microprocessor monitors all the sensors and controls the device without any intervention of the user. Electronic display and control with easy operation is standard.



## RUNNING QUIETLY

The use of a high efficient, low sound rotary or scroll compressor, a low noise fan and an oversized heat exchanger, makes the unit to be extremely quiet in operation.

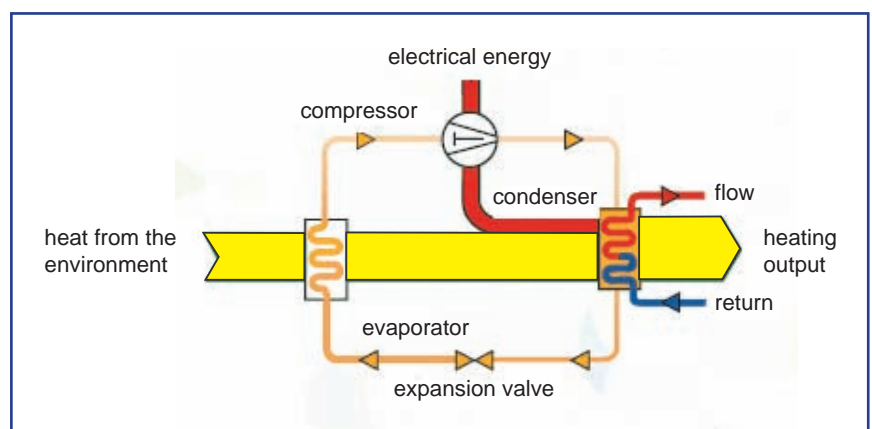
Example: The DURA 8 at 10m distance gives only 32 db(A).

**DURATECH® heat pumps can save you up to 80% in operating costs. Whether you just want to extend your swimming season or swim all season in a warm comfortable pool, the DURATECH® heat pump can pay for itself in just a few years with the operation costs savings.**

## HOW DOES IT WORK?

DURATECH® heat pumps utilize the sun's free heat by collecting and absorbing energy from the outside air. This energy is then transferred to the pool water. Your existing pool pump circulates the water through the heater and warms the pool. The unit contains a fan that draws in outside air and directs it over the surface of the EVAPORATOR (energy collector). The liquid refrigerant within the EVAPORATOR coil absorbs the heat from the outside air and the refrigerant becomes a gas. The warm gas passes through the compressor where it is compressed to form a very hot gas, which then passes through the CONDENSOR (water heat exchanger). It is here that the heat exchange occurs as the hot gas gives up the heat to the cooler swimming pool water circulating through the coil.

The pool water becomes warmer and the hot gas is cooling down as it flows through the CONDENSOR coil, returns to its liquid form and, after passing through the expansion valve, the whole process begins again.



# SPECIFICATIONS

**DURA 6/8/12**



**DURA 17**



**DURA 21/21T/25T**



unit	model	DURA 6	DURA 8	DURA 12	DURA 17	DURA 21	DURA 21T	DURA 25T
heating capacity	kW	6,0	8,5	12,0	17,5	21,0	21,0	25,0
	BTU/h	21000	30000	41000	60000	72000	72000	85300
cooling capacity	kW	4,8	6,8	9,6	14,0	16,7	16,8	20,0
	BTU/h	16500	23500	33000	48000	57000	57000	68500
power input	kW	1,2	1,7	2,4	3,5	4,3	4,2	5,0
performance	C.O.P.	5,0	5,0	5,0	5,0	4,9	5,0	5,0
maximum volume	m <sup>3</sup>	25	35	50	75	90	90	110
running current	A	5,4	7,7	11,1	15,9	19,5	7,35	8,3
maximum current	A	7,0	10	14	22	26	11	12
peak current	A	31	52	62	122	115	50	50
power supply	V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	380/3/50	380/3/50
compressor quantity		1	1	1	1	1	1	1
compressor		rotary	rotary	rotary	scroll	scroll	scroll	scroll
refrigerant		R407C	R407C	R407C	R407C	R407C	R407C	R407C
quantity	Kg	0,6	0,8	1,1	1,3	1,8	1,8	2,2
low pressure	MPa	1,4	1,4	1,4	1,4	1,4	1,4	1,4
high pressure	MPa	3,1	3,1	3,1	3,1	3,1	3,1	3,1
pressure meter		ja	ja	ja	ja	ja	ja	ja
fan quantity		1	1	1	1	1	1	1
fan power input	W	50	120	120	120	200	200	200
fan speed	RPM	870	850	850	850	830	830	830
air flow	m <sup>3</sup> /h	1800	2100	2300	3200	5000	5000	6000
fan direction		horizontal	horizontal	horizontal	horizontal	vertical	vertical	vertical
noise	dB (A)	47	51	54	54	58	58	58
water connection	mm	50	50	50	50	50	50	50
nominal water flow	m <sup>3</sup> /h	2,2	3,0	4,5	6,0	7,5	7,5	9,0
water pressure drop (max)	kPa	8	10	10	10	12	12	12
unit net dimensions (L/W/H)	mm	1005/370/615	1005/370/615	1005/370/615	1115/470/850	720/660/880	720/660/880	720/660/880
unit shipping dimensions (L/W/H)	mm	1070/405/650	1070/405/650	1070/405/650	1200/480/900	760/700/890	760/700/890	760/700/890
net weight/shipping weight	Kg	56/63	60/67	66/73	95/105	125/135	125/135	135/145

measurement conditions:  
 outdoor air temp.: 25°C  
 inlet water temp.: 25°C  
 relative humidity 65%



your distributor:

## Pool Running Costs

Based on 26 week season

Pool Surface Area		Electricity Day Rate	LPG Bottled Gas	Economy Night Rate	Oil	Natural Gas	Heat Pump Electric
Sq.Ft	Sq.M	8p/kw/H	26p/litre	4p/kw/H	34p/litre	48p Therm	8p/kw/H
250	24	780	450	400	350	245	190
300	28	940	540	480	420	305	230
350	33	1110	630	560	490	365	270
400	37	1270	720	640	560	410	305
450	42	1420	810	710	630	460	345
500	46	1575	900	790	700	510	380
550	51	1730	990	870	770	565	420
600	56	1900	1080	950	840	615	450
700	65	2220	1260	1115	985	720	525

The above based on,

1. Air temp 9 degrees C.
2. Average water depth 5'.
3. Solar cover.
4. Air exposure 3 hours a day.

Type of fuel	Cost
Oil	34p /ltr
LPG	8p /ltr
Mains Gas	48p /therm
Electricity Day Rate	8p /kw /hr
Economy 7 Tariff	4p /kw /hr
<b>Heat Pump</b>	8p /kw /hr