



## Provisions

Provisions are put in the shell now ready for future heating. This works by installing provisional pipework lower in the pool structure called deep heat returns. Future heating will then return warm water into the pool allowing the body of water to evenly distribute as the warmth circulates and rises from the lower depths of the pool water.

## Heat Pumps

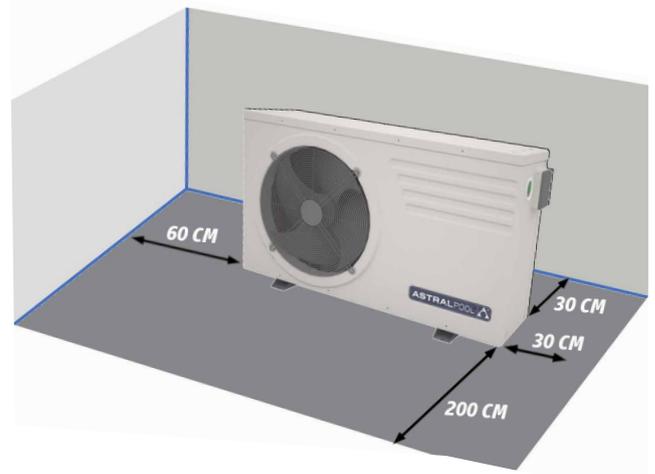
The electric heat pump is sometimes called a "solar heat pump" because of its unique ability to capture heat value from air temperature and turn this to water heating at high efficiency.



A gas heater and heat pump can be used in tandem to offset the heat pumps inability to work at night or in poor weather.

Heat pumps work like a reversed air conditioner. Instead of taking air from a room or building, removing the heat and returning it, a heat pump takes large quantities of air from the atmosphere, the heat contained in the air is removed and transferred to water from the pool or spa passing through the unit.

## Clearance



A heat pump is best sized by the manufacturer and only works to capacity if pool water is covered with a thick thermal blanket.

Sizing should also be compatible with power available as certain models requires single or three phase.

**NOTE: Clearance planning of at least 1 metre around all 4 sides is minimum requirement and will not be installed against a boundary or house wall and must never be enclosed in a filter box or indoor room.**

Use this calculator to size up & check the running costs of your heat pump.

Link:

<https://www.astralpool.com.au/tools-calculators>

## HEAT PUMP



OR



## GAS HEATER

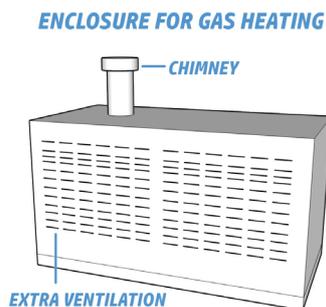




## Gas Heating

Gas heaters are used in large numbers on pools and spas and give great flexibility to the pool owner, because of their rapid heating ability and robustness.

Gas heaters can easily maintain any desired water temperature as typical sizing is based on providing heater capacity capable of achieving a 14°C rise in water temperature in 24 hours. This allows a cold pool to be heated to a beautiful 28°C - 30°C in around one day, even in winter. This heating strength makes gas perfectly suited for pools that are used for entertaining.



### NOTE:

- Clearances and ventilation restrictions apply
- Gas lines need to be run by licensed gas fitter using correct pipe size
- Gas meter may require upgrading
- Gas line to be connected directly from meter
- For 175 – 250 mj heater is 32mm Ø line
- For 400mj heater is 40mm Ø line



### FEATURES OF GAS HEATING

- Energy efficient
- Heating on demand
- High capacity for fast heat up
- Short sharp even flame distribution inside combustion chamber evenly spreading heat across the whole heat exchanger
- Choose when and when not to heat allowing you to budget - reducing operating costs
- Highest quality materials, compact, reliable, efficient and affordable premixed combustion technology
- Long life with robust high engineering plastic with self-cooling design to ensure long life and ability to withstand high pressures
- Flu kit available for indoor set up

## Sunbather Solar



### FLEXIBLE STRIP SOLAR

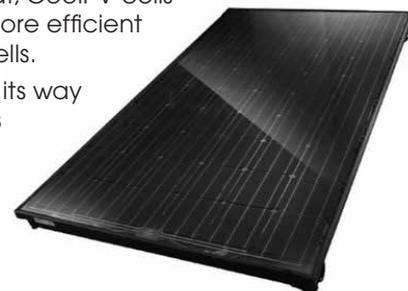
- Sunbather strip is the most versatile and efficient collector available and can be custom made to suit all roof shapes and sizes.
- Strip solar collector can work around chimneys, solar PV panels, skylights, etc.
- It's the best looking solar option.
- It comes with an industry leading 15 year Warranty

### RIGID SUNTUBE-2 SOLAR PANELS

- Rigid solar comes in single moulded panel.
- There are several sizes available.
- Panels are the alternative to the more popular strip.
- They are used for conditions such as steep roofs.
- Proudly Australian Made.
- Every component has been redesigned for greater strength and durability.
- Suntube-2 panels have a 15 years warranty plan.

### COOLPV

- Combining PV Panels with Solar Pool Heating provides four times the energy output from the same roof space.
- By running cool pool water behind the cells to draw off the heat, CoolPV cells are up to 20% more efficient than other PV cells.
- It can even pay its way by selling surplus energy back to the grid.



Link:

<https://www.sunbather.com.au/solar-pool-heating/>