



DIY THERMAL SOLAR KIT What's In The Kit?



RESPONSIBLE
CHOICE



ROBUST AND
DURABLE



FULLY
CUSTOMISED
KIT



AUSTRALIAN
MADE

SERIOUSLY TOUGH SOLAR POOL HEATING

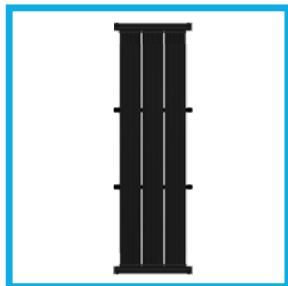
AVAILABLE THROUGH:

NCS
POOL HEATING
SYSTEMS

MANUFACTURED BY:

BOSSTM
SOLAR

RHINO® PANEL COMPONENTS



1 Rhino® Solar Panels

Rhino rigid solar pool heating panels have been designed and built for Australia's tough conditions, offering you the most durable and affordable pool heating solution. Rhino Panels are fixed to the roof using Rhino Roof Mounts and panels are joined together using Rhino Ring Clamp assemblies.



Part #043_613

2 Rhino® Roof Mount MKII

The Roof Mount Assembly is used to fix the panels to both tiled and metal roofs and allows the panels to easily expand and contract. The Roof Mount is installed at both the top and bottom of the system with minimal roof penetrations. This component is manufactured from glass filled polypropylene, making it highly robust and durable.



Part #043_612

3 Rhino® Ring Clamp Assembly

The Ring Clamp Assembly is responsible for panel-to-panel connections and for joining the panels to PVC pipe couplings, End Caps and Flexible couplings. This robust and durable clamping system eliminates the need for rubber hoses and metal ring clamps commonly used in other systems, which require regular maintenance and replacement. Save yourself time and money with this high quality, aesthetically pleasing solution.



4 Rhino® End Cap

End Caps are installed at opposing ends of the Rhino System to seal the header pipes. They are connected to the panels using Ring Clamp Assemblies.



5 Rhino® CVC Pipe Coupling

Manufactured from Chlorinated PVC and specifically designed for Rhino Panels, the CPVC Pipe Coupling joins the panels to 40mm PVC pipe. They are connected to the header pipes using Ring Clamp Assemblies.



6 Rhino® Flexible Coupling Assembly

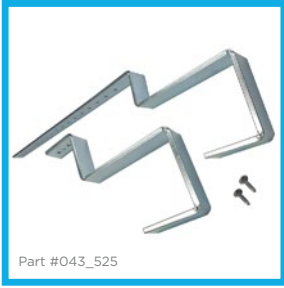
Designed to bend and flex, the Rhino Flexible Coupling absorbs the differing thermal expansion and contraction rates of the PVC pipework and the Rhino panels, without placing undue stress on the connecting components, minimizing the risk of damage.



7 Manifold Plug

Optional Component

The Manifold Plug allows you to install Rhino panels around smaller obstacles quickly and easily. This is particularly convenient when the obstacle falls in the middle of a panel. To install the manifold plug, a hole is cut in the panel around the obstacle. Manifold Plugs are then installed in the header pipes to plug the tubes that have been cut



8 Rhino® Tiled Roof Bracket Assembly

Optional Tile Roof Upgrade

The Rhino® Tiled Roof Bracket is designed to secure the panels to tiled roofs without drilling any holes into the roof.

Used at both the top and bottom of the system, the Tiled Roof Bracket locks around 2 roof battens, providing greater security in high wind regions, while also allowing the panels to easily expand and contract.

Made from thick, durable plated steel the Rhino Tiled Roof Bracket is a long-lasting and durable option

SYSTEM COMPONENTS



9 VacRel Vacuum Relief Valve VHP

The VacRel® is a high-performance Vacuum Relief Valve for Thermal Solar Pool Heating. It has been designed to allow filtered air to easily enter the system when the pump switches off, therefore eliminating internal splits or leaks due to vacuum crush of the collector (absorber). It is designed to be installed on the Supply (cold) PVC pipework in an upright position, usually in a 40mm PVC Tee.



10 TufGauge In-Line Solar Pressure Gauge

The TufGauge is installed on the supply line and allows the installer to ensure the system is running at an appropriate pressure:

Bottom Feed Systems: Designed and installed to automatically fully drain with a TufFilta water strainer fitted - 100 kPa max (15 psi)

Top Feed Systems: Installed with a TufFilta water strainer fitted - 50 kPa max (7 psi)



11 Drain Down/ Equaliser Kit

The Drain Tube is an essential component that allows the supply (feed) pipe to slowly drain back via the return pipe. This will allow the collector and supply pipes to automatically drain back to the pool when the pump is switched off (when combined with a correctly installed system). The Drain Down Kit is installed by drilling an 8.5mm hole in the supply and return pipework, about 1 - 1.5m above the solar pump. The grommets are inserted into the holes, followed by the header barbs. The tube is then inserted onto the header barbs.



12 Tuffiltra High Performance In-Line Solar Filter

The Tuffiltra® is responsible for filtering out debris and fibres which can cause blocked or ruptured tubes, stagnant systems and reduced water flow. It is installed on the supply (cold) line, after the filtration or solar pump.



13 Prosil 60 Black

Prosil Silicone Adhesive is a high-performance neutral cure silicone. It is used to seal any roof penetrations caused during installation of the Rhino panels.

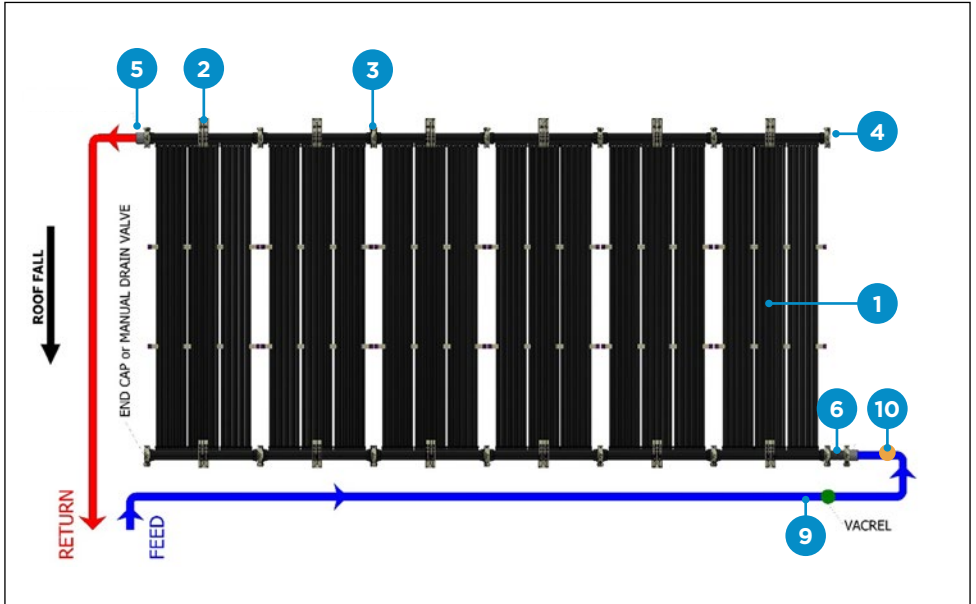
Australian made Solar Pool Heating

BOSS
SOLAR



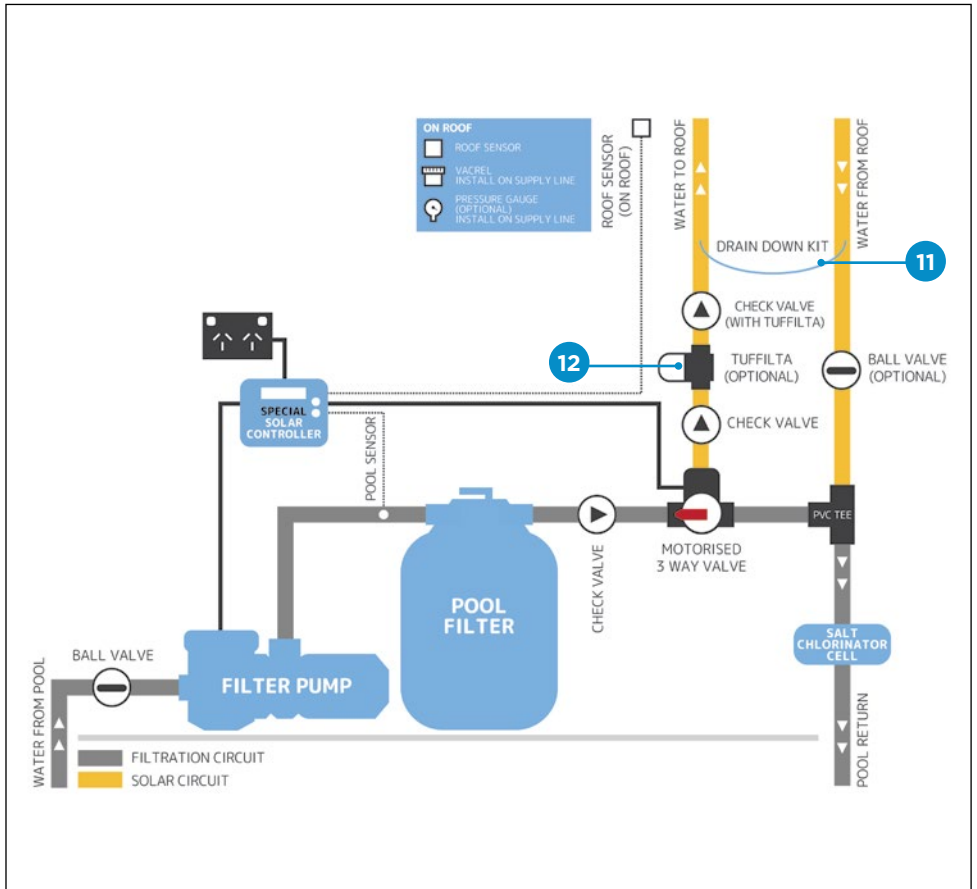
WHERE ARE THEY INSTALLED?

ON THE ROOF



- 1 Rhino Solar Panels
- 2 Rhino Roof Mount MKII
- 3 Rhino Ring Clamp Assembly
- 4 Rhino End Cap
- 5 Rhino CVC Pipe Coupling
- 6 Rhino Flexible Coupling Assembly
(not included in diagram)
- 7 Manifold Plug
(not included in diagram)
- 8 Rhino® Tiled Roof Bracket Assembly
- 9 Vacrel Vacuum Relief Valve VHP
- 10 TufGauge In-line Solar Pressure Gauge

IN THE PUMP HOUSE



11 Drain Down / Equaliser Kit

12 Tuffilta High Performance In-line Solar Filter

**Please Note: This Diagram is based on an Independent / Separate Suction System*



Scan the QR Code to Access & Download the Installation Manual



Rhino Panels are proudly designed and manufactured by Boss Solar: Australia's leading thermals solar pool heating manufacturer



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