

TufLock[®]

DIY THERMAL SOLAR KIT

What's In The Kit?



SWIM
LONGER



LOW RUNNING
COST



ADAPTS TO
ALL ROOFS



FULLY
CUSTOMISED
KIT



AUSTRALIAN
MADE

AUSTRALIAN MADE SOLAR POOL HEATING

AVAILABLE THROUGH:

NCS
POOL HEATING
SYSTEMS

MANUFACTURED BY:

BOSS[™]
SOLAR

TUFLOCK® DIY SOLAR COMPONENTS



1 TufLock Solar Collector

TufLock Solar Collector (Absorber) are installed on the roof of a building and are responsible for collecting the heat from the sun and transferring it to the pool water that is being pumped through the tubes. Unlike a standard solar collector, TufLock does not require any measuring, cutting, stripping, or collaring by you.

The TufLock System will be designed in the NCS Factory and delivered with a Quick Coupling System attached to the pre cut Absorber for quick and installation.



2 TufLock Manifold

The TufLock Manifolds are responsible for delivering water to and from the TufLock Solar Collector. Each manifold is moulded in a single piece with unique connection ports. These ports allow for quick and easy insertion of the TufLock Solar Collector. Individual Manifolds are glued together to create the Supply and Return Manifold Pipes.



3 Barb Lock

Barb Locks are used to secure the TufLock Solar Collector to the TufLock Manifolds. Once the installer has inserted the Solar Coil into the ports of the Manifold, the Barb Lock is inserted into the moulded slots to lock the components together.

If required, Barb Locks can be removed by carefully sliding a long flathead screwdriver under the length of the Barb Lock and carefully lifting.



4 TufLock Manifold Mount

The TufLock Manifold Mount allows you to support up to three 40mm pipes, including the Supply and Return Manifold Pipes and the Balance Pipe.



5 Digital Controller with Actuator Valve

Premium automatic solar controller with temperature adjustment, Heating, Cooling & Standby mode features. The unit is fitted with an Actuator Valve to control the flow of water to and from the roof.



6 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.



7 3 Way Valve

Reliable and durable 3 way valve designed for easy automation when used in conjunction with Actuator Valve (5).



8 Silicone Adhesive

Used to attached the TufLock Solar Collector to the roof.



9 White and Black Tee's

Used to connect pipes change the direction of a pipe run, or both.



10 8 x Black 90 Elbows

Allows for the configuration of a piping system to fit in an existing location.



11 TufGauge In-Line Pressure Gauge (Optional)

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)



12 Drain Down/ Equaliser Kit (Optional)

The Drain Tube allows the supply pipe to slowly drain back via the return pipe. This allows 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 & return pipework, about 1 – 1.5m above the solar pump. Grommets are inserted into the holes, followed by the header barbs. The tube is then inserted onto the header barbs.



13 TufFilta High Performance In-Line Solar Filter (Optional)

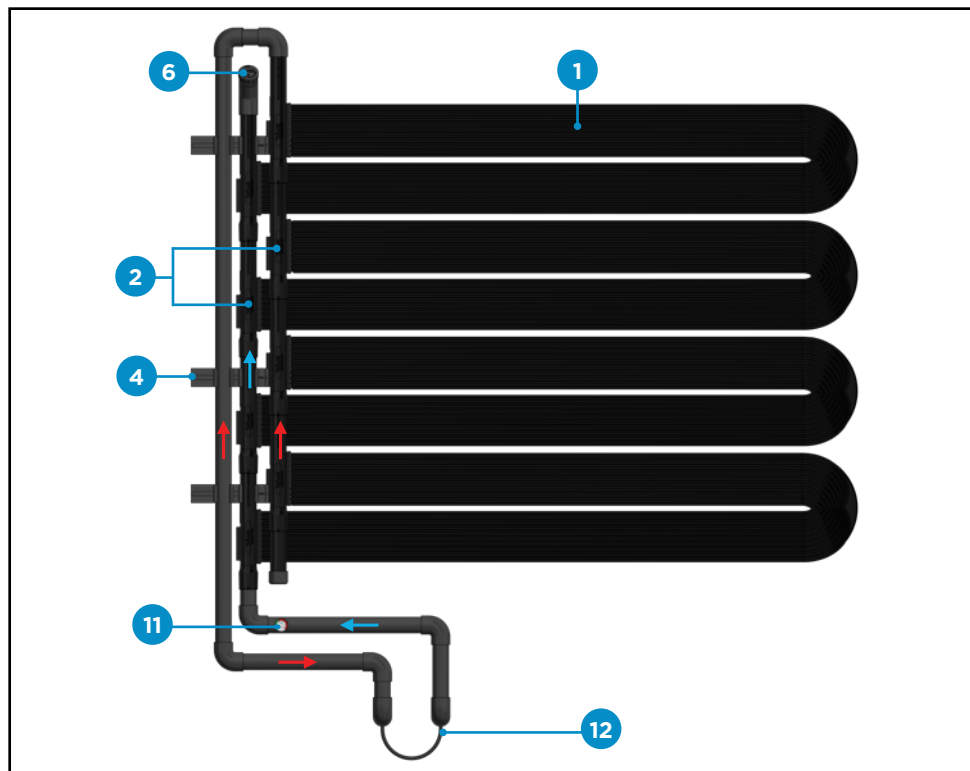
The TufFilta® is responsible for filtering out debris and fibres which can cause blocked or ruptured tubes, stagnant systems and reduced water flow. It is installed on the supply (cold) line, after the filtration or solar pump.

BOSS
SOLAR

**Australian made
Solar Pool Heating**

WHERE ARE THEY INSTALLED?

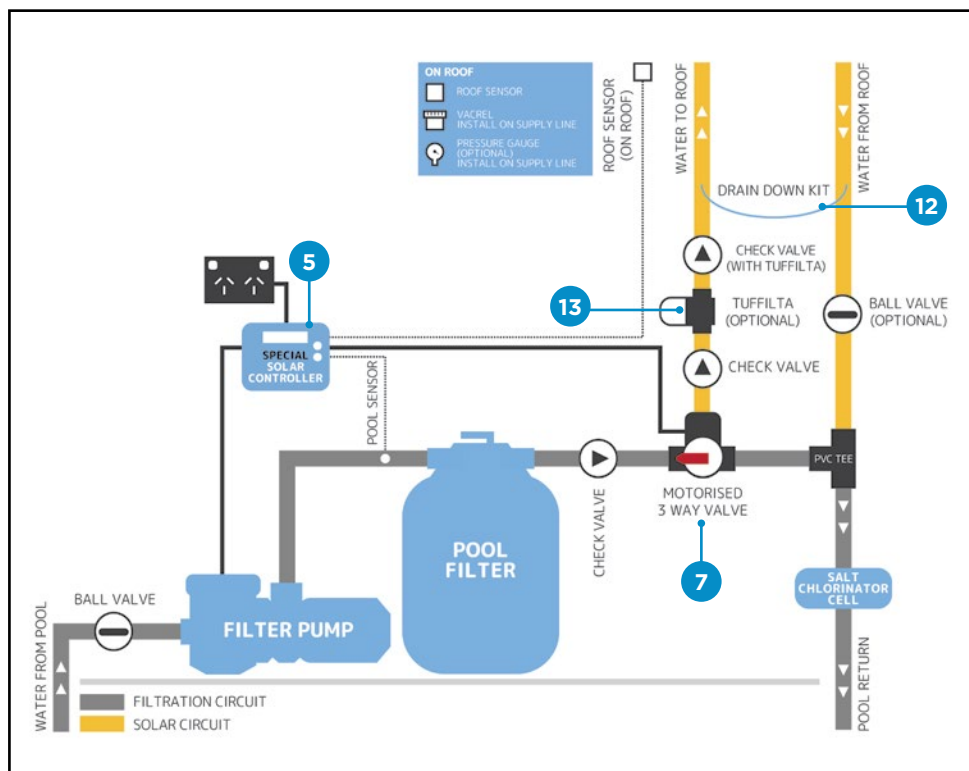
ON THE ROOF



- | | | | |
|---|------------------------|----|---------------------------------------|
| 1 | TufLock Solar Coils | 6 | VacRel Vacuum Relief Valve VHP |
| 2 | TufLock Manifold | 11 | TufGauge In-line Solar Pressure Gauge |
| 3 | Barb Lock | 12 | Drain Down / Equaliser Kit |
| 4 | TufLock Manifold Mount | | |

WHERE ARE THEY INSTALLED?

IN THE PUMP HOUSE



5 Digital Controller with Actuator valve

12 Drain Down / Equaliser Kit

7 3 Way Valve

13 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



**NSW Central Coast
Display Showroom**
Unit B 26 Tathra St,
West Gosford
NSW 2250

**Hunter Valley &
Western NSW**
Muswellbrook
NSW 2333

**Newcastle &
North Coast**
Cardiff
NSW 2285

**Sydney, Hills Shire
& Northern Beaches**
Roseville
NSW 2069

T 1300 138 864 | E sales@ncspoolheating.com.au | W www.ncspoolheating.com.au

MANUFACTURED BY:
BOSS[™]
SOLAR