

## SKIN FITTINGS with TAIL



Designed and made in New Zealand, TruDesign Skin Fittings (Thru Hulls) with tail are precision moulded from glass-reinforced Nylon composite.

- Certified to ISO 9093-2 by the International Marine Certification Institute (IMCI, Belgium).
- Type Approved by Bureau Veritas to ISO 9093-2.

TruDesign Skin Fittings (Thru Hulls) with tail eliminate all corrosion and bonding problems associated with electrolysis giving peace of mind with respect to the safety of your vessel.

### Features:

- Manufactured from a glass-reinforced Nylon composite – High strength, tough and light weight.
- Compatible with all hull types – Can be used on aluminium, steel, wood, composite & GRP hulls.
- Immune to corrosion & electrolysis – No corrosion breakages, increased safety.
- Chemical resistant – Unaffected by diesel, petrol, chemicals, and antifouling paints.
- U.V resistant – Will not degrade or discolour from the sun's ultraviolet rays.
- Paintable – Paintable with all types of antifoul.
- Long Tail – allows for two hose clips as per ISO and ABYC Standards
- Large operating range – Suitable for all marine conditions from -40°C to +110°C

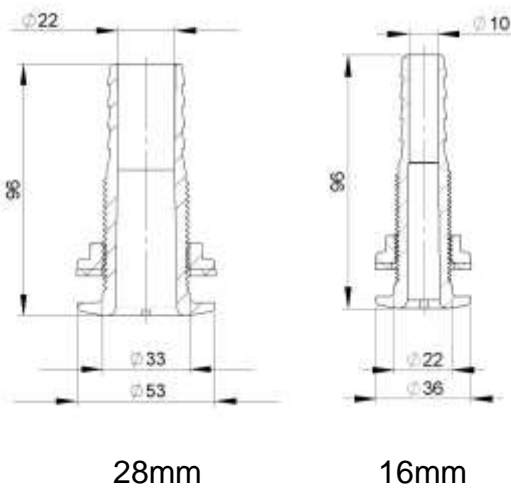
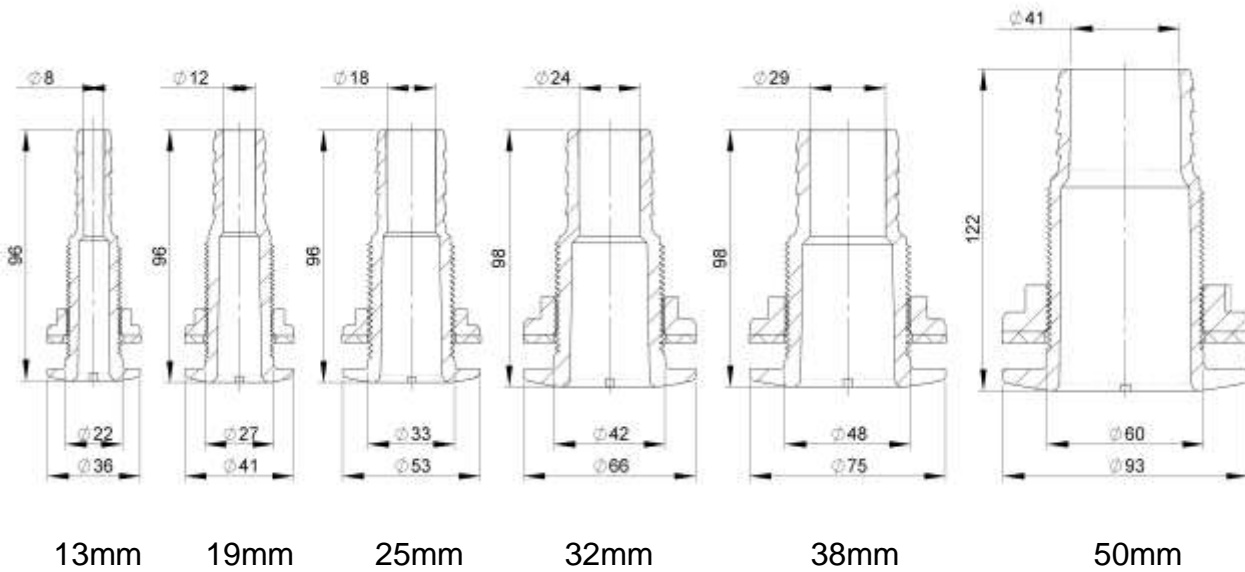


## Technical

TruDesign Skin Fittings (Thru Hull) with tail are suitable for installation in all types of hull construction; steel, aluminium, composite, fibreglass – cored and solid, wood, wooden sandwich and caulked solid wood hulls. Ensure fittings are always installed in the centre of individual planks. Skin Fittings **with Tail are not allowed for below water applications or below the heel line**. For below the water line only use a Skin Fitting with Ball Valve attached (Seacock).

## DIMENSIONS

All dimensions in mm.  
All dimensions nominal.



## FLOW DIAMETER & HULL THICKNESS

Tail Size	Minimum I.D.	Maximum Hull Thickness
13mm	8mm	30mm
19mm	12mm	30mm
25mm	18mm	30mm
32mm	24mm	30mm
38mm	29mm	30mm
50mm	41mm	45mm

28mm	22mm	30mm
16mm	10mm	30mm

## MODELS

90426	Skin Fitting Tail 13mm ½" BSP White	<table border="1"> <thead> <tr> <th colspan="2">Unequal Skin Fittings with Tail</th> </tr> </thead> <tbody> <tr> <td>90436</td> <td>Skin Fitting Tail 28mm 1" BSP White</td> </tr> <tr> <td>90525</td> <td>Skin Fitting Tail 28mm 1" BSP Black</td> </tr> <tr> <td>90810</td> <td>Skin Fitting Tail 16mm 1" BSP White</td> </tr> <tr> <td>90811</td> <td>Skin Fitting Tail 16mm 1" BSP Black</td> </tr> </tbody> </table>	Unequal Skin Fittings with Tail		90436	Skin Fitting Tail 28mm 1" BSP White	90525	Skin Fitting Tail 28mm 1" BSP Black	90810	Skin Fitting Tail 16mm 1" BSP White	90811	Skin Fitting Tail 16mm 1" BSP Black
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90433	Skin Fitting Tail 32mm 1¼" BSP White											
90434	Skin Fitting Tail 38mm 1½" BSP White											
90435	Skin Fitting Tail 50mm 2" BSP White											
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## Location & Drilling

- Skin Fittings with Tail are not allowed for below water applications or below the heel line. For below the water line only use a Skin Fitting with Ball Valve attached (Seacock).
- Ensure there is sufficient room on the inside of the boat to allow the fitting of hoses.
- Mark the location and drill from the inside a pilot hole 3mm in diameter. Select a hole-saw 1 mm larger than the outside thread diameter of the Skin Fitting (Thru Hull). From the inside, use the pilot hole as a centre and drill through the hull with the selected hole-saw.
- It is recommended to locate in protected location to minimize the chance of inadvertent damage.
- Dual hose clamps should be fitted to ensure the hose does not become disengaged from the tail.
- There is no need to tie or bond TruDesign Skin Fittings with Tail electrically together as there are no corrosion or electrolysis problems as can be experienced when using ferrous fittings.



## Recommended Hull Adhesive Sealants & Glues:

First clean all surfaces to be bonded with a general-purpose cleaner.

- 3M™ Marine Adhesive Sealant Fast Cure 5200. A one-part polyurethane adhesive/sealant. Starts to cure (tack-free) in approximately 2 hours, after which hoses can be attached. Full cure takes 24 hours – refer to manufacturer’s product literature.
- SIKAFLEX® 291i Marine Sealant. A one-part polyurethane adhesive/sealant. Starts to cure (tack-free) in approx. 2 hours, after which hoses can be attached. Full cure takes 24 hours – refer to manufacturer’s product literature.
- Bostik® 920 Marine Sealant. A one-part urethane adhesive/sealant. Starts to cure (tack-free) in approx. 2 hours, after which hoses can be attached. Full cure takes 1.5 – 3 days – refer to manufacturer’s product literature.
- West System® (or similar) two-pot epoxy that mixes to a paste. Tip – adding filler to the West System® will increase the viscosity and help minimise “running” of the epoxy. Visit <http://www.westsystem.com/ss/filler-selection-guide/> for more details.

## Fitting & sealing:

- Smear the adhesive or glue on the underside of the Skin Fitting (Thru Hull) flange and a small way up the thread, but no further than the thickness of the hull. It is important not to have any adhesive on the exposed thread area as this could prevent the Nut or Ball Valve from turning.
- If necessary, place two strips of masking tape over the flange and attach to the hull to temporarily hold in place. Go inside the hull to fit the Nut. Note it is good practice to have a backing plate to spread the load especially if there is excessive curvature in the hull or the hull is very thin.
- Hold the thread down near the washer and screw on the Nut. Once the nut is screwed down far enough that you can hold the fitting above the nut do so and continue to screw the nut down onto the washer ensuring it is only finger tight.
- On the outside of the hull clean off any excess adhesive. Tip – use an angled tool or putty knife to ‘blend’ adhesive around the Skin Fitting (Thru Hull) flange and the hull so it is easier to clean when sanding and antifouling in the future.
- After recommended curing times, tighten the nut to no more than 15 ft.lb. There is no need to over-tighten the Nut, especially if epoxy has been used, as the Skin Fitting (Thru Hull) is now an integral part of the hull.

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