

TRUDESIGN™ BALL VALVES



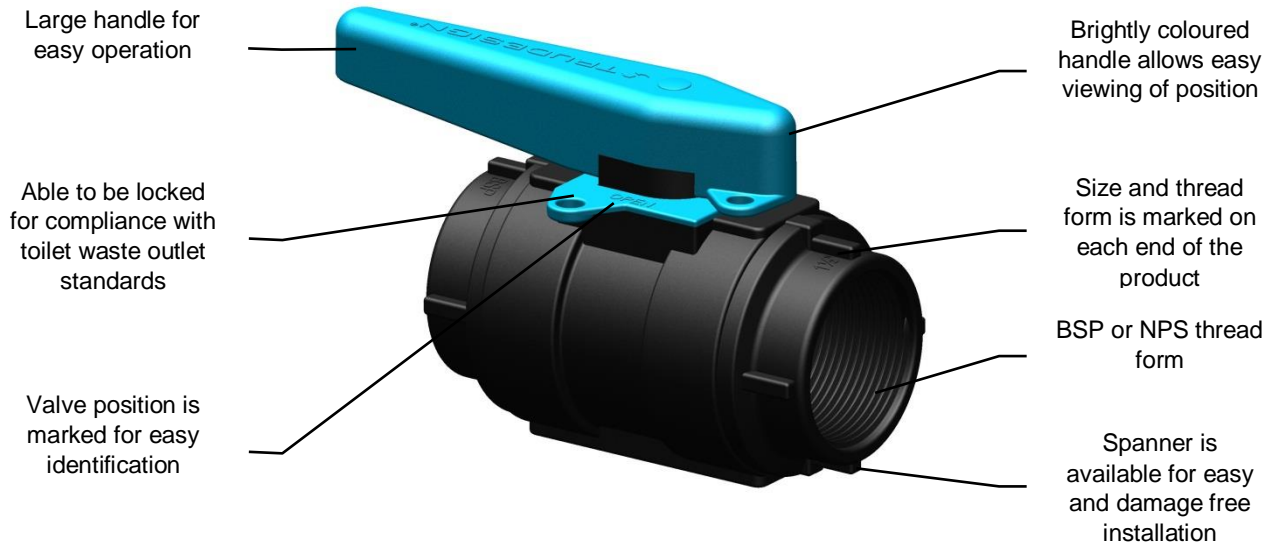
Designed and made in New Zealand **TRUDESIGN™** Certified Ball Valves are specifically designed for use in marine applications above and below the water line.

- Certified to ISO 9093-2 by the International Marine Certification Institute (IMCI, Belgium) when fitted to **TRUDESIGN™** Skin Fittings (Thru Hulls)
- Comply with ABYC H-27 standards when used in conjunction with the **TRUDESIGN™** ABYC collar and Skin Fittings (Thru Hulls).
- Certified by Bureau Veritas to ISO 9093-2.

FEATURES:

- Manufactured from a glass-reinforced Nylon composite – High strength, tough and light weight.
- Immune to corrosion & electrolysis – No corrosion or breakages, increased safety.
- Electrically non-conductive. No electrical bonding.
- Suitable for use on all hull types - aluminium, steel, wood or FRP.
- The ball and sealing rings utilise a PTFE polymer to ensure a smooth action and minimal fouling of the internal ball.
- The Ball Valve and can be locked in the closed position to comply with toilet waste outlet regulations.
- Large operating range – Suitable for all marine conditions from -40°C to +110°C
- Available in both BSP and NPS thread forms
- U.V resistant – No degradation from the sun's ultraviolet rays.
- 100% leak tested before leaving factory.

FEATURES CONTINUED



PART NUMBERS

Internal diameter	BSP Thread	
	Part #	Description
19mm [¾"]	90471	Ball Valve ½" BSP
	90548	Ball Valve ½" BSP PKG
	90276	Ball Valve ¾" BSP
	90549	Ball Valve ¾" BSP PKG
	90242	Ball Valve 1" BSP
	90550	Ball Valve 1" BSP PKG
32mm [1¼"]	90240	Ball Valve 1¼" BSP
	90551	Ball Valve 1¼" BSP PKG
	90235	Ball Valve 1½" BSP
	90552	Ball Valve 1½" BSP PKG
52mm [2"]	90472	Ball Valve 2" BSP
	90553	Ball Valve 2" BSP PKG

NPS Thread	
Part #	Description
90647	Ball Valve ½" NPS
90659	Ball Valve ½" NPS PKG
90648	Ball Valve ¾" NPS
90660	Ball Valve ¾" NPS PKG
90649	Ball Valve 1" NPS
90661	Ball Valve 1" NPS PKG
90650	Ball Valve 1¼" NPS
90662	Ball Valve 1¼" NPS PKG
90651	Ball Valve 1½" NPS
90663	Ball Valve 1½" NPS PKG
90652	Ball Valve 2" NPS
90664	Ball Valve 2" NPS PKG

* PKG denotes product is packaged in a plastic bag with header card. Other product is packaged loose.

WEIGHT

Internal Diameter	Thread Size	Weight (g)	Weight (oz)
19mm [¾"]	½", ¾", 1"	300	10.6
32mm [1¼"]	1¼", 1½"	450	15.9
52mm [2"]	2"	700	24.7

THREAD SEALING

Ensure the skin fitting (Thru Hull) and ball valve location enables full operation of the valve handle. See also our info sheet on **TRUDESIGN™** skin fitting installation. The following sealing methods can be used

- 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.
- 3M™ Marine Adhesive Sealant Fast Cure 4200 is approximately half the strength (once cured) of 3M 5200 which allows for eventual disassembly of the ball valve from skin fitting.
- LOCTITE® 5331 A one-part acetoxysilicone sealant. Starts to cure (tack-free) in approx. 10 minutes, after which hoses can be attached. Full cure is achieved within 12 hours (at min. 40% atmospheric humidity) – refer to product literature. Creates a permanent seal for threaded connections.
- PTFE (Teflon) Thread Tape is a traditional thread sealing method which provides a good seal when applied correctly. However, in some cases if the position or tightness of the Ball Valve is incorrect, it will need to be unscrewed and more tape applied, slowing the assembly process. Additionally, the fittings can sometimes be turned by hand after being installed.
- LOCTITE® 55 Pipe Sealing Cord is a coated multi-filament cord designed as a faster method than Teflon tape to seal threaded fittings. The main advantage is that a component, for example a Ball Valve, could be screwed down then screwed back a turn to suit positioning whilst still maintaining a tight seal. This eliminates the need to remove the entire Ball Valve and apply more tape as with traditional Teflon tape.

FITTING

Screw ball valve onto the skin fitting (Thru Hull) using the correct Ball Valve Spanner (available from TRUDESIGN™), or other appropriate tool.

Tighten to a maximum of 16Nm (12ft/lbs).

Check that the final position of the Ball Valve is such that it allows full movement of the handle from the open to closed position, and that it is clear of objects which may cause inadvertent operation.

Note: The connecting threads on each end of the Ball Valves are a parallel thread form. The advantage of parallel threads over tapered is that there is maximum engagement between the mating threads providing a strong and watertight seal. This is also a requirement to meet international marine standards.

Mixing parallel and tapered threads can cause strength and sealing problems as the engagement can frequently be only a few turns

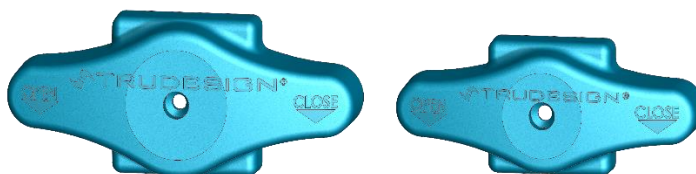
BALL VALVE SPANNER

Part #	Description
90476	Spanner Ball Valve ½"
90477	Spanner Ball Valve ¾" & 1"
90478	Spanner Ball Valve 1¼" & 1½"
90479	Spanner Ball Valve 2"



REPLACEMENT "T" HANDLE

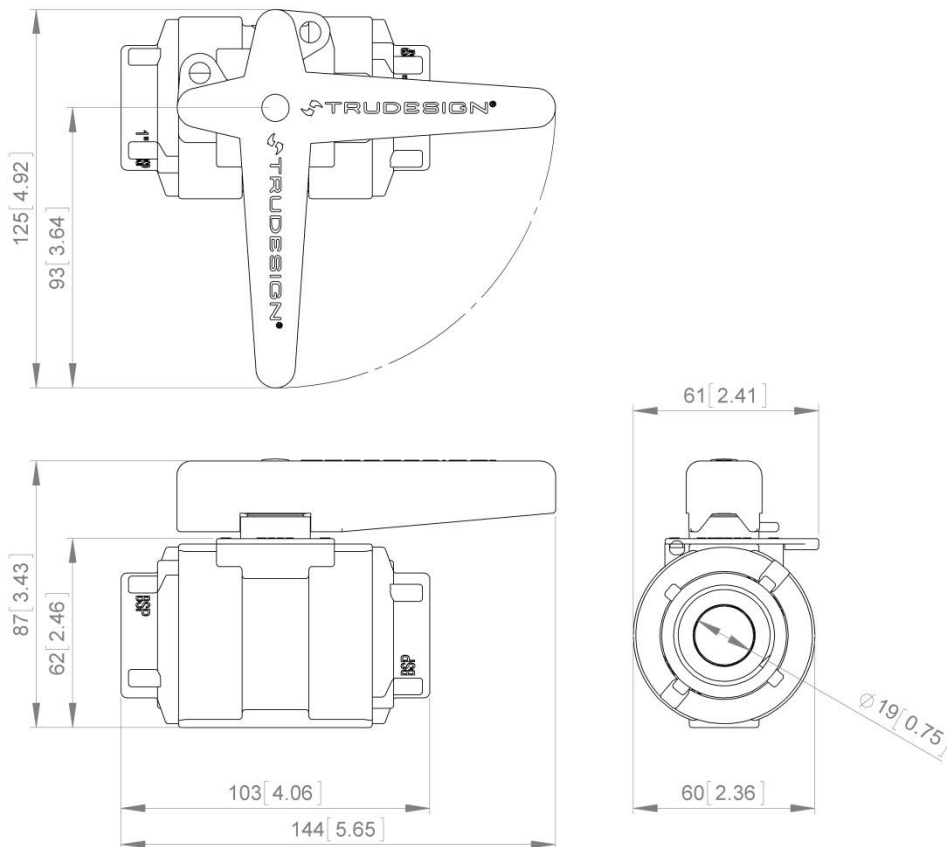
Part #	Description
91038	Replacement T handle Small – 25mm, 19mm, 13mm (1", ¾", ½")
91040	Spanner Ball Valve ¾" & 1" – 50mm, 38mm, 32mm (2", 1½", 1¼")



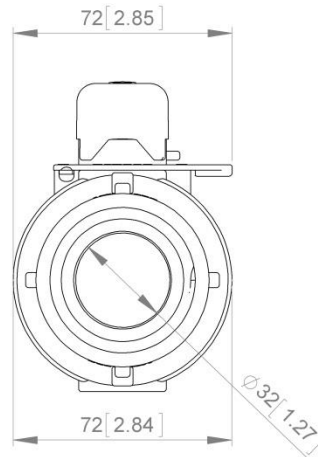
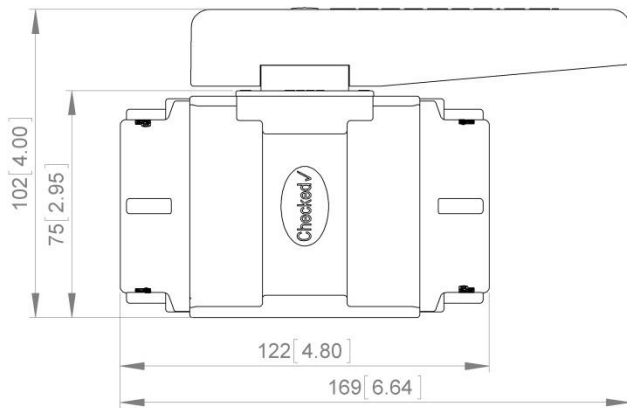
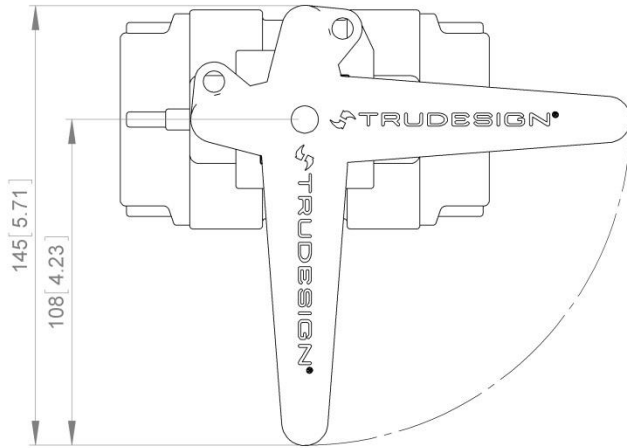
DIMENSIONS

All dimensions nominal. **SEA**

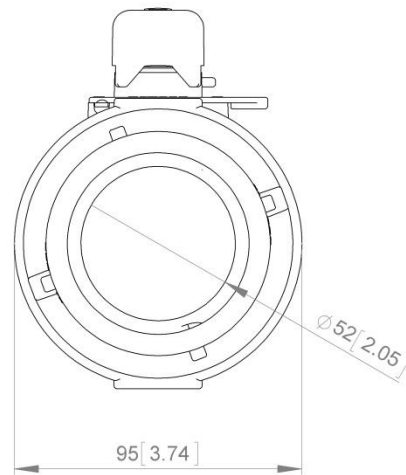
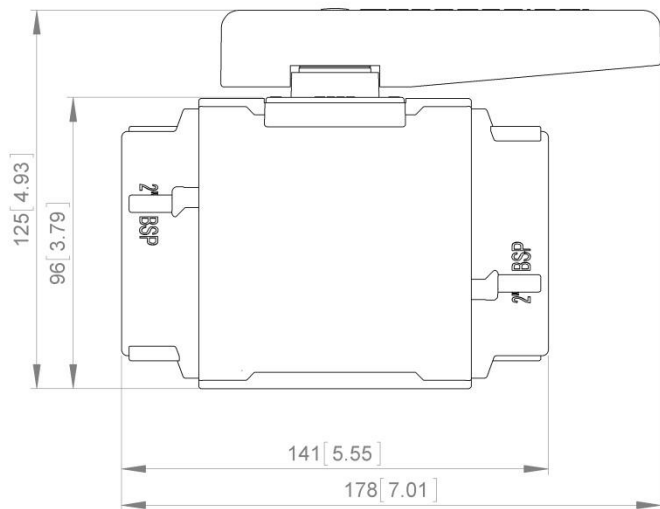
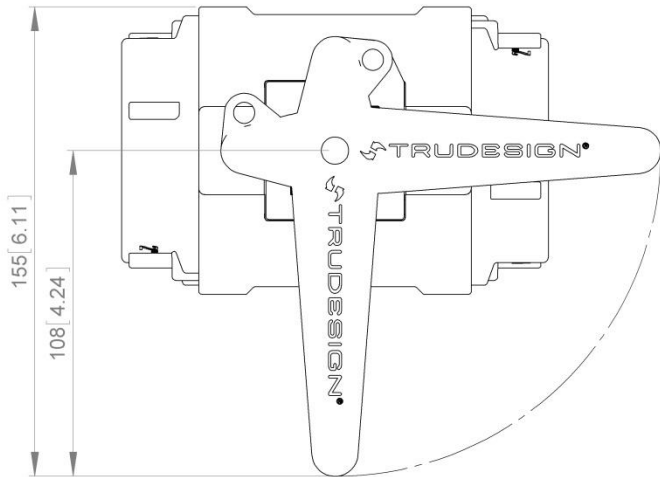
19mm [$\frac{3}{4}$ "] ID $\frac{1}{2}$ " BSP, $\frac{3}{4}$ " BSP, 1" BSP
 $\frac{1}{2}$ " NPS, $\frac{3}{4}$ " NPS, 1" NPS



32mm [1¼"] ID 1¼" BSP, 1½" BSP
 1¼" NPS, 1½" NPS



52mm [2"] ID 2" BSP
 2" NPS



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