

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 9093-2021* by the International Marine Certification Institute (IMCI, Belgium) when fitted to TRUDESIGN Skin Fittings (Thru Hulls).

1" to 3" sizes comply with ABYC H-27 load standards. (See website).

Type approved by Bureau Veritas to ISO 9093-2021. (Standard Ball Valves ¾" to 3").

Key Features:

- Standard Ball Valve Range includes ½", ¾", 1", 1¼", 1½", 2" and 3".
- Compact Ball Valve Range ¾" and ½" models.
- 6:1 weight savings over Bronze.
- 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.
- Locking feature allows the valve to 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.
- Can be used in Engine Rooms
- "T" Handle or "Lever" Handle options**
- Handle Identification Tags are available to easily identify Ball Valve Function**
- U.V resistant – No degradation from the sun's ultraviolet rays.
- 100% leak tested before leaving factory.

**Does not apply to ½" standard ball valve or ½" Compact ball valve. The ¾" Compact Ball Valve is under ISO test*

***Does not apply to 3" or Compact Ball Valve range*

Key Features Standard Ball Valve

Large handle for easy operation

Lever handle or T Handle Option*

Able to be locked for compliance with toilet waste outlet standards

Valve position is marked for easy identification

Optional handle tags for lever Handles*

Size and thread form is marked on each end of the Valve

BSP or NPS Thread form

Spanner is available for easy and damage free installation

**Does not apply to 3" or Compact Ball Valve range*

Key Features Compact Ball Valve - 1/2" and 3/4"

Large handle for easy operation

Valve position is marked for easy identification

Size and thread form is marked on each end of the Valve

BSP or NPS Thread form

Compact elbows for tight spaces available mid 2025

Size comparison to a standard Ball valve of same thread size

Part Numbers

Ball Valves – Standard - Lever Handle

Part Numbers						Description
BSP			NPS			
TAGGED	NON PKG Barcode 942100712 + XXXX	PKG	PKG Barcode 942100712 + XXXX	TAGGED	PKG	
90471	/	90548	1045	90647	/	Ball Valve ½"
90276	/	90549	1061	90648	/	Ball Valve ¾"
90242	/	90550	1078	90649	/	Ball Valve 1"
90240	/	90551	1085	90650	/	Ball Valve 1 ¼"
90235	/	90552	1092	90651	/	Ball Valve 1 ½"
90472	/	90553	1108	90652	/	Ball Valve 2"
91157	4819	/	/	/	/	Ball Valve 3" with Tag

Ball Valves – Standard - T Handle

Part Numbers				Description
BSP		NPS		
TAGGED	PKG	TAGGED	PKG	
91145	/	/	/	Ball Valve ½" T Handle
91140	/	/	/	Ball Valve ¾" T Handle
91141	/	/	/	Ball Valve 1" T Handle
91142	/	/	/	Ball Valve 1 ¼" T Handle
91143	/	/	/	Ball Valve 1 ½" T Handle
91143	/	/	/	Ball Valve 2" T Handle

Ball Valves - Compact

Part Numbers					Description
BSP			NPS		
TAGGED	PKG	PKG Barcode 942100712 + XXXX	TAGGED	PKG	
91370	91371	5465	91379	/	Ball Valve ½" Compact
91368	91369	5458	91377	/	Ball Valve ¾" Compact

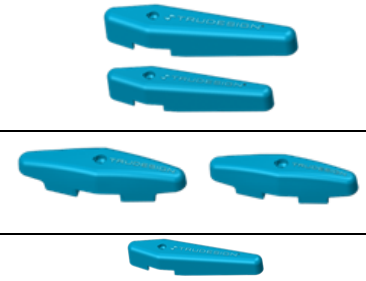
*PKG product is supplied in branded bags

Weights

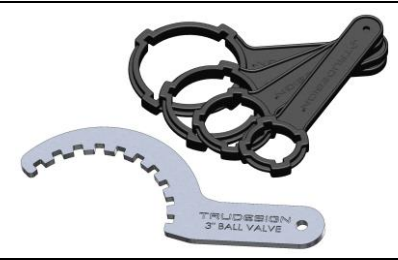
Standard Ball Valve				
Size	½", ¾", 1"	1¼", 1½"	2"	3"
Weight (g/oz)	300 g / 10.6 oz	450 g / 15.9 oz	700 g / 24.7 oz	1,510 g / 53.3 oz
Compact Ball Valve				
Size	½", ¾"	/	/	/
Weight (g/oz)	50 g / 1.5 oz	/	/	/

Part Numbers Continued

Handles		
Part Numbers		Description
NON PKG	PKG	
91155		Ball Valve Replacement Lever Handle Small 25-19-13mm
91156		Ball Valve Replacement Lever Handle Large 50-38-32mm
91290		Ball Valve Replacement Lever Handle 3"
91038		Ball Valve Replacement 'T' Handle Small 25-19-13mm
91040		Ball Valve Replacement 'T' Handle Large 50-38-32mm
91374		Ball Valve Replacement Lever Handle CMPT



Spanners / Wrenches (Standard Ball Valves)			
Part Numbers			Description
NON PKG	PKG	PKG Barcode 942100712 + XXXX	
	90476	0446	Spanner / Wrench Ball Valve 1/2"
	90477	0439	Spanner / Wrench Ball Valve 3/4" & 1"
	90478	0422	Spanner / Wrench Ball Valve 1 1/4" & 1 1/2"
	90479	0415	Spanner / Wrench Ball Valve 2"
	91365		Spanner / Wrench Ball Valve 3" Aluminium



*PKG product is supplied in branded bags

Installation:

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.

Screw Ball Valve onto the skin fitting (Thru Hull) using the correct Ball Valve Spanner (available from TRUDESIGN), or another 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. Mixing parallel and tapered threads can cause strength and sealing problems as the engagement can in some cases be only a few turns.

Thread Sealing

For Thread Sealing Instruction go to our Technical Information Sheet on the TruDesign Website – Scan QR Code

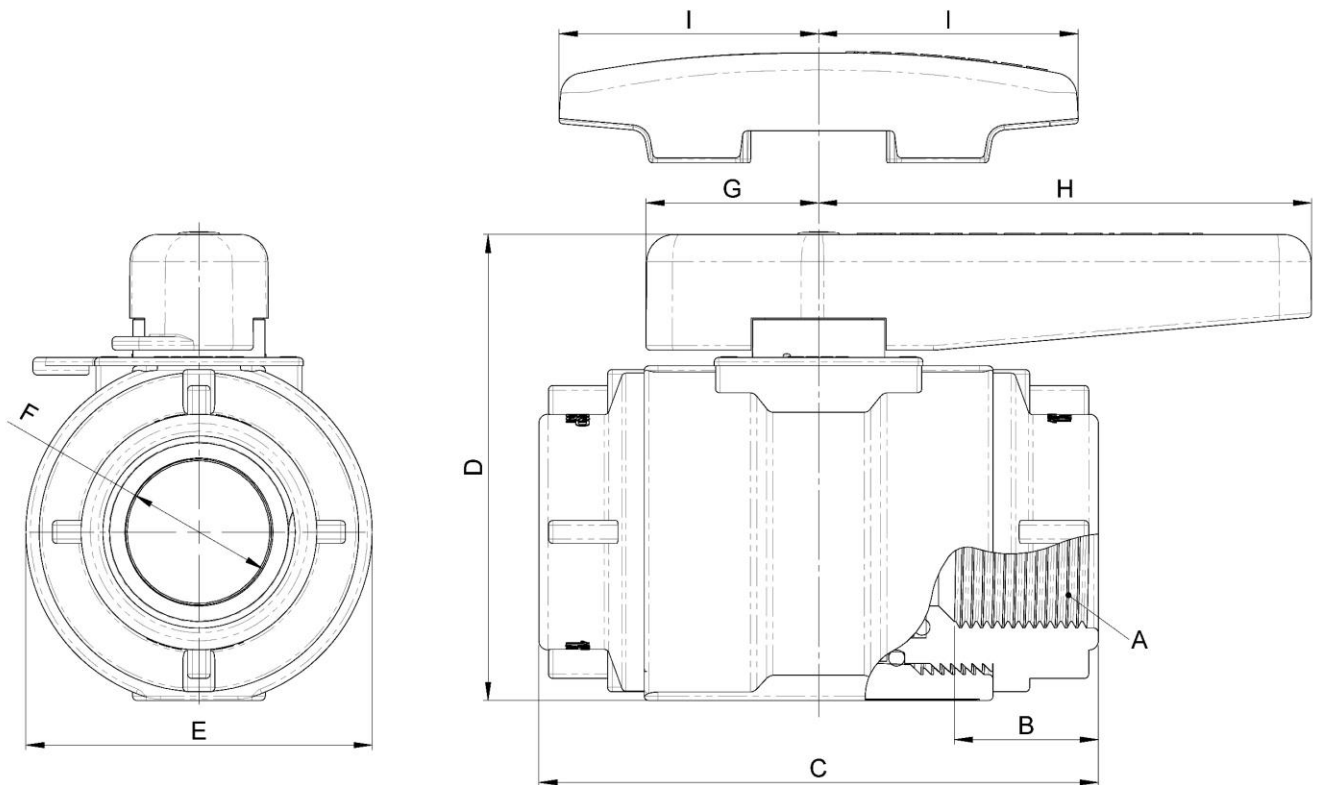


Dimensions – Ball Valves Standard

A	B		C		D		E		F		Lever Handle				T-Handle	
	Size	Length		Length		Height		Width		Minimum Internal ϕ		G		H		I
1/2"	25mm	1"	102mm	4"	88mm	3 4/9"	61mm	2 3/8"	20mm	3/4"	32mm	1 1/4"	93mm	3 2/3"	50mm	2"
3/4"	22mm	6/7"	102mm	4"	88mm	3 4/9"	61mm	2 3/8"	20mm	3/4"	32mm	1 1/4"	93mm	3 2/3"	50mm	2"
1"	22mm	6/7"	102mm	4"	88mm	3 4/9"	61mm	2 3/8"	20mm	3/4"	32mm	1 1/4"	93mm	3 2/3"	50mm	2"
1 1/4"	32mm	1 1/4"	122mm	4 4/5"	102mm	4"	76mm	3"	32mm	1 1/4"	38mm	1 1/2"	108mm	4 1/4"	57mm	2 1/4"
1 1/2"	32mm	1 1/4"	122mm	4 4/5"	102mm	4"	76mm	3"	32mm	1 1/4"	38mm	1 1/2"	108mm	4 1/4"	57mm	2 1/4"
2"	32mm	1 1/4"	141mm	3"	124mm	4 6/7"	99mm	3 7/8"	48mm	1 8/9"	38mm	1 1/2"	108mm	4 1/4"	57mm	2 1/4"
3"	46mm	1 4/5"	205mm	8"	180mm	7"	153mm	6"	75mm	3"	50mm	2"	160mm	6 2/7"	-	-

Dimensions – Ball Valves Compact

A	B		C		D		E		F		Lever Handle				T-Handle	
	Size	Length		Length		Height		Width		Minimum Internal ϕ		G		H		I
1/2"	22mm	7/8"	74mm	2 9/10"	54mm	2 1/8"	39mm	1 1/2"	15mm	3/5"	18mm	5/7"	45mm	1 7/9"	-	-
3/4"	22mm	7/8"	74mm	2 9/10"	54mm	2 1/8"	39mm	1 1/2"	15mm	3/5"	18mm	5/7"	45mm	1 7/9"	-	-



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