Barton
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Fact Sheet

BULKHEAD PIPE GLANDS

VAPOUR & WATERPROOF INTEGRITY

Bulkhead vapour and watertight integrity are critical elements of modern vessel construction and are mandated under the **MCA Workboat Code Edition 3**, the **Sport/Pleasure Vessel Code (formerly MGN 280)**, and relevant **IMO standards**.
Penetrations for pipes, tubes, and cables are a known vulnerability in any watertight boundary. These **Bulkhead Pipe Glands** provide a compliant, secure method of sealing services through bulkheads while remaining fully serviceable. Their bolted and clamped assemblies can be removed or adjusted quickly using basic tools, ensuring long-term maintainability without compromising structural integrity.

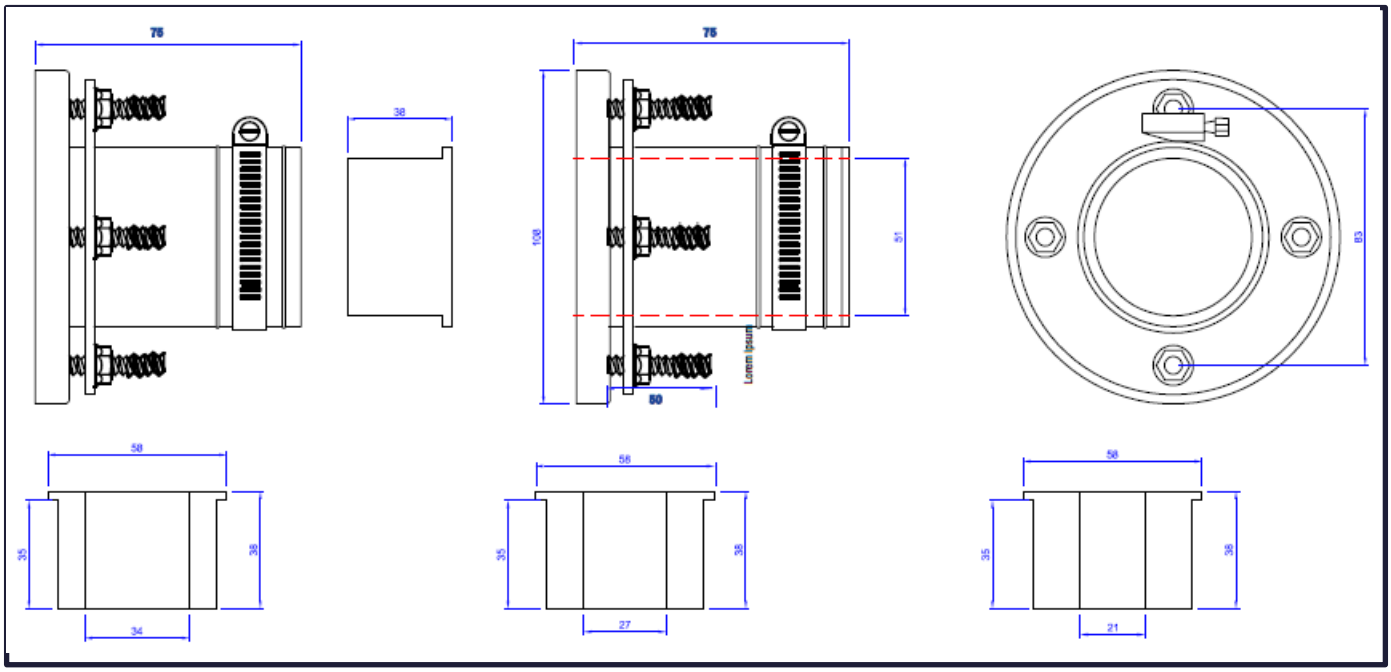
Manufactured from **316 stainless steel** and **Nitrile Rubber (BS2751)**, these glands are engineered for long-term durability in the harshest marine environments, maintaining performance regardless of exposure to oils, fuels, chemicals, or variable environmental conditions. The flexible design accommodates natural pipe movement and adapts to a wide range of bulkhead shapes and angles. A comprehensive selection of inserts and donuts allows compatibility with multiple pipe and cable diameters, with **bespoke sizes available on request**.

Applications & Uses:
Barton Bulkhead Pipe Glands and inserts are available in a wide range of sizes, providing maximum flexibility for the pipework and cable systems commonly used across modern vessels. Their design supports pipe alignment in both horizontal and vertical planes, while the inherent gland flexibility reduces stress transfer to the bulkhead and to the pipe walls themselves.

- Tanks and sumps
- Remote filling chambers and reservoirs
- Bulkhead and compartmental sealing of pipes, tubes, and cables
- Compatible with fibreglass, steel, polyethylene, and polypropylene substrates

Rigorous material testing is central to Barton's manufacturing process, ensuring consistent quality and performance across all products.
Full material specifications and test reports are available on request at sales@bartonmarine.com

For technical support, instructional videos and products go to www.bartonmarine.com



ITEM No	PART No	DESCRIPTION	DESIGNED FOR PIPE OD		HOLE CUTTER DIAMETER		FASTENERS		DIMENSIONS (mm)
			mm	INCH	mm	INCH	No	Size	
1	BPG-50	Bulkhead Pipe Gland 50mm OD	45-50	1 3/4-2	60	2 3/8	4	M6	A- 74 B&E ø 85 D- 58 P- 83
2	BPI-20	Bulkhead Reducing Insert 20mm OD for BPG-50	18.5-20	47/64-25/32	–	–	–	–	
2	BPI-25	Bulkhead Reducing Insert 25mm OD for BPG-50	22.5-25	7/8-1	–	–	–	–	
2	BPI-32	Bulkhead Reducing Insert 32mm OD for BPG-50	28 -32	1 1/8-1 1/4	–	–	–	–	
2	BPI-40	Bulkhead Reducing Insert 40mm OD for BPG-50	38-40	1 1/2-1 37/64	–	–	–	–	
3	BPI-OUT	Outboard Well Sealing Gland for BPG-50	–	–	–	–	–	–	

1

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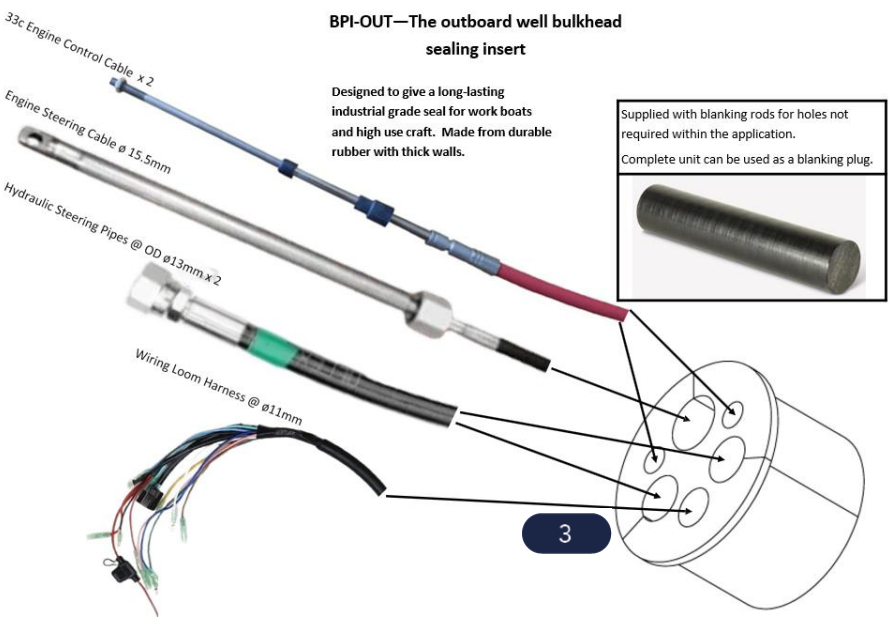

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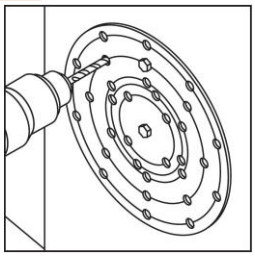
Installation Guide

Barton Bulkhead Pipe Glands have been designed to provide a watertight seal for pipe, duct and cable conduit entries passing through bulkheads.

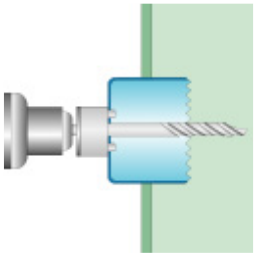
Important:
* Read the installation Instructions first!
* Use the correct hole saw.
* The clamp ring must be secured and all securing nuts installed and tightened in order to prevent water ingress.
* Angled pipe entries must not exceed 15° off centre. Pipe entries in excess of 15° could cause the boot to tear due to prolonged stress and can prevent the formation of a watertight seal.
* Keep all solvents away from the entry boots.
* Incorrect installation will void product warranty!
* For further technical assistance please contact Barton Marine

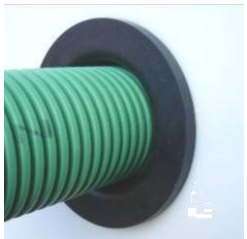
Preparation

Drill a 6.5 to 7 mm hole in the wall of the containment sump or bulkhead at the centre point of the desired pipe entry. Use the clamp ring or template to mark the position of the holes for securing the entry boot. Drill the stud holes (6.5mm).



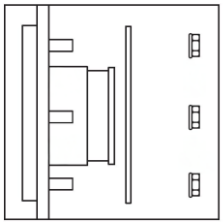
Using the correct hole saw as outlined in the table below, drill out the entry boot opening using the centre hole as a guide. De-burr the hole using sandpaper or de-burring tool to ensure there are no sharp edges to damage the boot.



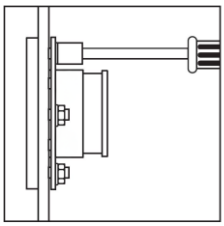


Bolting Up

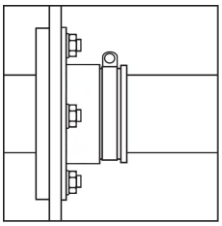
1. Install the Entry Boot from the external side of the bulkhead by pushing the compression ring studs into the stud holes. From the inside, install the clamp ring over the studs and hand tighten the securing nuts.
2. Use a suitably sized ratchet or spanner (10mm) to tighten all the nuts evenly and firmly. Do not over tighten as this may cause deformation of the boot. If a torque wrench is used, the setting should be 6.7 Nm.



3. Insert the appropriate size pipe or conduit into the Boot. Water containing a little liquid soap can be used as a lubricant if required.

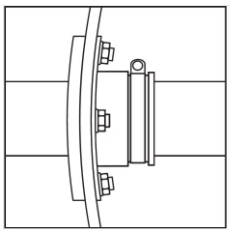


4. Install the hose clamp around the boot and tighten to 3.4 Nm.



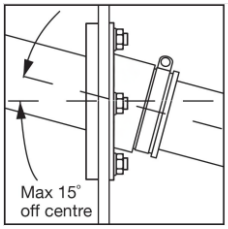
Installation on Curved Surfaces

Bulkhead Pipe Glands maybe installed on curved surfaces which have a diameter greater than 0.8m. The installation procedure is the same as described above, except that the 6.5mm bolt holes should be enlarged to 7.5mm. This is to allow the entry boot studs to move slightly inwards when tightening the nuts. Tighten each nut in stages so that the boot flange and clamp ring can evenly form to the curved surface.



Installation of Angled Pipes

Bulkhead Pipe Glands can accommodate angled entries up to 15° off the centre line.
Note: Exceeding 15° could cause the rubber of the entry boot to tear due to prolonged stress.



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Barton Marine Bulk Head Glands

Material specifications:

BS2751 BA80 Nitrile Rubber

		Test Standard
At Room Temperature		
Hardness (Shore A)	76-85 IRHD	ISO 48
Density	1.21-1.27 g/cm^3	ISO 1183
Min. Tensile Strength	12.5 Mpa	ISO 37
Min. Elongation at break	150%	ISO 37
Max. Compression Set (24hrs @70^{o}c)	20% max	ISO 815-1

Air Ageing (168hrs @70^{o}c)		
Change in hardness	< 10 %	ISO 188
Change in tensile strength	<-10 %	ISO 188
Change in elongation	<-35%	ISO 188

Oil Immertion (24Hrs @40^{o}c)		
Change in volume	< 25%	ISO 1817

Low Temperature resistance		
Temp. at which stiffness remains below 70 Mpa	-15^{o}c	BS 903

Stainless Steel Components

Pressure plate and fastenings 306 stainless steel
Hose clamp 316 stainless steel.