

Waterproof Gland Installation Guide

Introduction

This guide takes the user through the installation process for Index Marine's range of IP68 fully sealed waterproof glands. In order to ensure the IP68 rating is met in use, it is essential that care is taken and any holes in panels and glands are marked and drilled accurately.

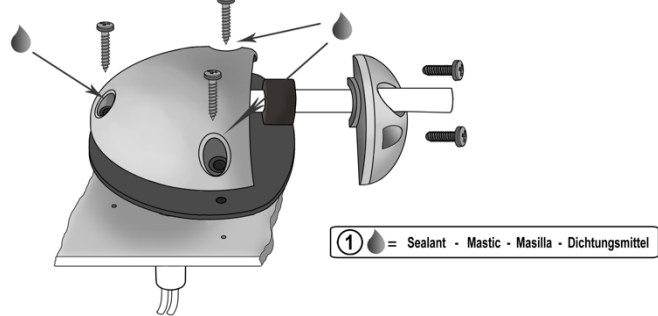
Index Marine glands fall into the following categories, and the correct installation procedures for each type as shown in this document should be followed:

Product Codes	Product Description	Installation Guide Section
SE1, SE5, SE6, SE7	Side Entry Gland family These glands turn the cable emerging from the panel through 90 degrees so that they run tight to the panel's surface for a neat and visually pleasing solution	Section A
DG8	Mini Perpendicular Cable Pass-Through Gland This small size gland seals the smallest of cables passing through panels or bulkheads	Section B
DG20, DG21, DG22, DG30, DG40, DG45, DG50	DG-Series Perpendicular Cable Pass-Through Gland These glands suit cable sizes from 4.5mm upwards, and offer single or multi-cable options. They also allow most connectors found on cables of equipment being installed to pass through without the need to remove and replace the connector	Section C
DR1	DR Series multi-function cable gland, installer-configurable The DG glands allow an array of power and signal cables to be passed through a bulkhead with waterproofing assured. They are ideal when installing complex electronic navigation equipment or similar.	Section D

Note: Care should be taken when drilling and cutting the panel and gland rubber bungs. Safety equipment should be worn to protect the user from cuts or the effects of drilled materials.

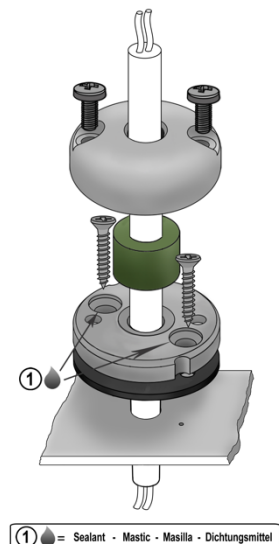
SECTION A – Installing SE-Series Side-entry glands

1. Check contents of package and disassemble gland parts.
2. Mark and drill panel for hole position where the cable will pass through. Ensure hole is sufficiently large that cable will not be damaged by the edges of the hole.
3. Position the main body of the gland over the cable hole and mark fixing holes. Drill fixing holes for screws supplied.
4. Pass cable through the panel.
5. Slide the gasket followed by the main body of the gland over the cable and position them over the cable and mounting holes. Screw the mounting screws into position to firmly clamp the gland body against the panel. (Note: When using the gland in an application where it will be subject to continuous or pressurised water, a sealant should be applied to the mounting holes before the fixing screws are inserted).
6. Select from supplied rubber bungs the one that most closely matches the cable diameter and slide it over the cable to meet the gland body. (Note: To ease the bung over the cable a lubricant may be required. Alternatively the bung may be cut and wrapped over the cable at the correct position).
7. Slide the gland cable shroud over the cable and position it so that the bung sits in between it and the main body of the gland. Fasten the two screws securely to force the bung to grip the cable resulting in a fully waterproof cable fixture.



SECTION B – Installing DG8 Mini Perpendicular Pass-Through Gland

1. Check contents of package and disassemble gland parts.
2. Mark and drill panel for hole position where the cable will pass through. Ensure hole is sufficiently large that cable will not be damaged by the edges of the hole.
3. Position the gland over the cable hole and mark fixing holes. Drill fixing holes for screws supplied.
4. Pass cable through the panel.
5. Slide the gasket followed by the main body of the gland over the cable and position them over the cable and mounting holes. Screw the mounting screws into position to firmly clamp the gland body against the panel. (Note: When using the gland in an application where it will be subject to continuous or pressurised water, a sealant should be applied to the mounting holes before the fixing screws are inserted).
6. Select from supplied rubber bungs the one that most closely matches the cable diameter and slide it over the cable to meet the gland body. (Note: To ease the bung over the cable a lubricant may be required. Alternatively the bung may be cut and wrapped over the cable at the correct position).

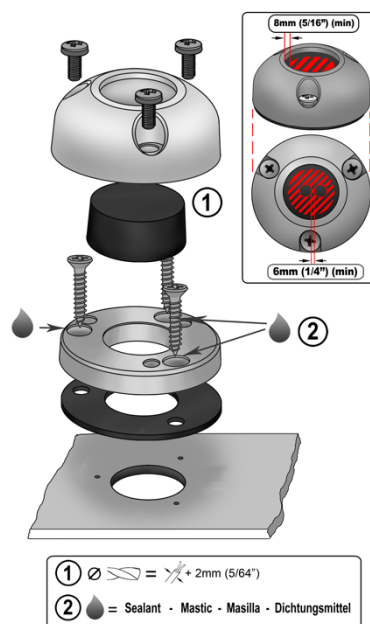


- Slide the gland cable shroud over the cable and position it so that the bung sits in between it and the main body of the gland. Fasten the two screws securely to force the bung to grip the cable resulting in a fully waterproof cable fixture.

SECTION C – Installing DG Multi-Functional Configurable Cable Gland

Please note these instructions refer to single or multiple-cable applications:

- Check contents of package and disassemble gland parts.
- Mark and drill panel for hole position where the cable(s) will pass through. Ensure hole is sufficiently large that cable(s) will not be damaged by the edges of the hole – if multiple cables are being used the panel hole may be drilled to the same diameter as the hole through the gland body. (Note: if the cable has a connector on it that will pass through the shroud and body of the gland, the hole in the panel should be drilled to a size just sufficient for the connector to pass through – in this case the rubber bung should be cut and wrapped round the cable once the cable has been positioned through the mounted gland)
- Position the gland over the cable hole and mark fixing holes. Drill fixing holes for screws supplied.
- Pass cable(s) through the panel.
- Slide the gasket followed by the main body of the gland over the cable and position them over the cable and mounting holes. Screw the mounting screws into position to firmly clamp the gland body against the panel. (Note: When using the gland in an application where it will be subject to continuous or pressurised water, a sealant should be applied to the mounting holes before the fixing screws are inserted).
- For single cable applications: Select from supplied rubber bungs the one that most closely matches the cable diameter, or drill a suitable hole in a blank bung, and slide the bung over the cable to meet the gland body. When drilling a blank bung select a drill size no more than 1mm greater than the diameter of the cable. For multi-cable applications: Drill separate holes of diameter no more than 1mm greater than the diameter of the cable that will pass through it. Ensure that the edges of drilled holes are no closer than 6mm to another drilled hole edge, and no closer than 8mm to the edge of the gland shroud. (Note: To ease the bung over the cable a lubricant may be required. Alternatively the bung may be cut and wrapped over the cable(s) at the correct position).
- Slide the gland cable shroud over the cable(s) and position it so that the bung sits in between it and the main body of the gland. Fasten the fixing screws securely to force the bung to grip the cable(s) resulting in a fully waterproof cable fixture.



SECTION D – Installing DR1 Perpendicular Pass-Through Gland Family

The DR1 offers the most flexibility in configuration, enabling a number of cables of different sizes with or without pre-fitted connectors to be securely passed through panels and bulkheads preserving waterproof integrity.

1. Check contents of package and disassemble gland parts.
2. Mark and drill panel for hole position where the cables will pass through the panel, ensuring that they are within an area 8mm from the edges of the gland shroud. Ensure each hole is sufficiently large that cables will not be damaged by the edges of the hole. (Note: if the cables have connectors that will pass through the shroud and body of the gland, the holes in the panel should be drilled to a size just sufficient for the connector to pass through. Alternatively a section of the panel no bigger than the space in the gland for cables to pass through may be removed from the panel).
3. Position the gland over the cable hole and mark fixing holes. Drill fixing holes for screws supplied.
4. Pass cables through the panel.
5. Slide the gasket followed by the main body of the gland over the cable and position them over the cable and mounting holes. Screw the mounting screws into position to firmly clamp the gland body against the panel. (Note: When using the gland in an application where it will be subject to continuous or pressurised water, a sealant should be applied to the mounting holes before the fixing screws are inserted).
6. Drill separate holes through the rubber bung of diameter no more than 1mm greater than the diameter of the cable that will pass through it. Ensure that the edges of drilled holes are no closer than 6mm to another drilled hole edge, and no closer than 8mm to the edge of the gland shroud. (Note: To ease the cables through the bung a lubricant may be required. Alternatively the bung may be cut and wrapped over the cables).
7. Slide the gland cable shroud over the cables and position it so that the bung sits in between it and the main body of the gland. Fasten the fixing screws securely to force the bung to grip the cables resulting in a fully waterproof cable fixture.

For technical support with any gland installation issue, please contact: enquiries@indexmarine.com