
PENETRATORS & FEEDTHROUGHS

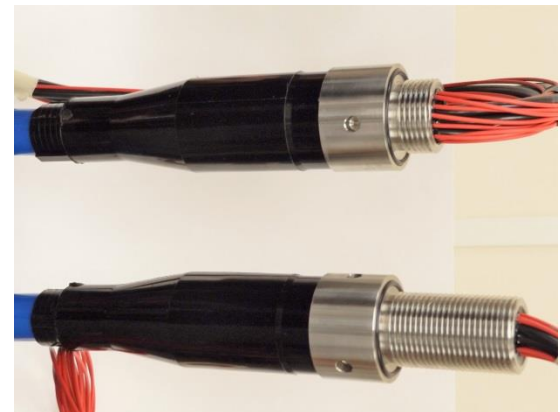
STSubsea have been manufacturing high integrity Penetrators and Feedthroughs for manned and unmanned systems for over 35 years. Although many are based upon standard designs we recognise that these often need to be tailored to specific applications without compromise.

Our expertise and in-house UK capabilities allow us to design and manufacture bespoke solutions, with fully tested assemblies being delivered within in very short timescales. DNV or ABS certified assemblies can also be produced upon request.

These solutions can be for electrical, coaxial, optical or hybrid combinations utilising a variety of housing and overmoulding materials to suit the operational environment.

Mounting options include square or circular flanges, threaded through hole with straight or right angled cable entry. However – nothing is ‘standard’ for STSubsea, please consult for specific requirements.

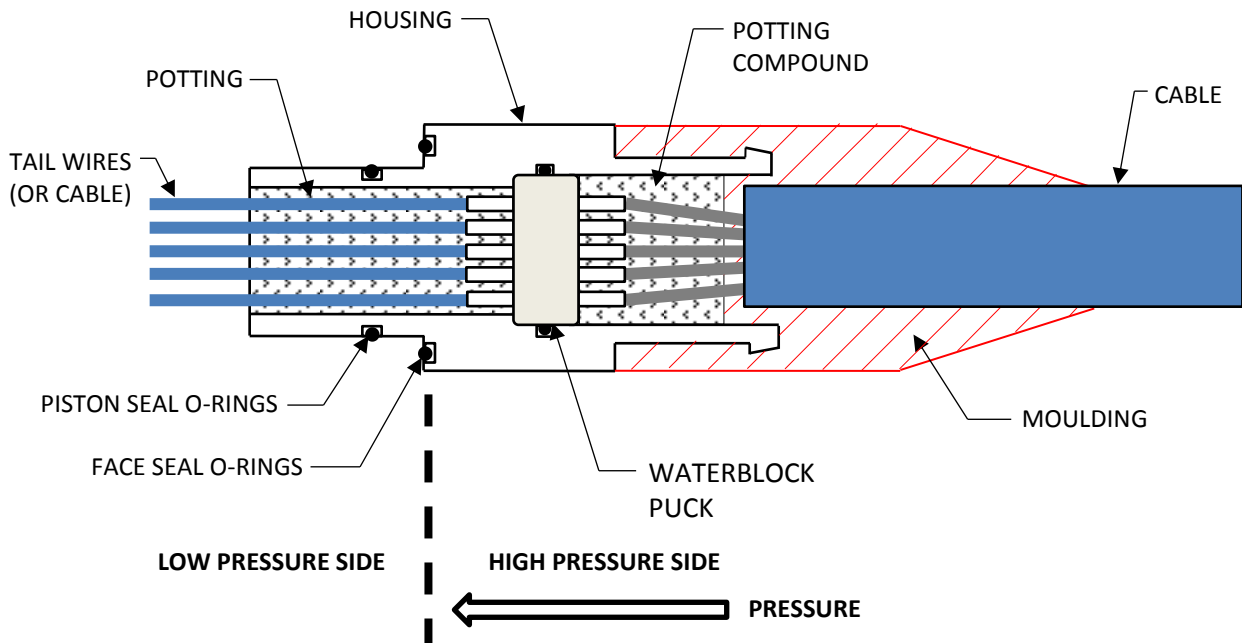
Typical applications include manned or unmanned submersibles, ROV and AUVs, subsea sensors, pipeline pigging, renewable energy and other power transmission. Used in Defence, Science & Technology, Oil & Gas, Diving and other marine or harsh environments.



Key Features and Benefits

- Ease of use, designed to suit specific applications where a traditional interconnect is unnecessary or cost / size prohibitive.
- Low maintenance and cost.
- Designed to suit any electrical, coaxial, optical or hybrid cable configuration.
- High reliability for mission critical applications.
- Sizes from 15mm diameter to over 100mm as standard, contact Sales for other requirements.
- Utilises proven materials and process techniques also used in standard interconnects.
- All UK manufacture for fast delivery – even with bespoke requirements.

Penetrator Key Features



The Penetrator and Feedthrough assembly design can incorporate all or a combination of features :-

- 1) Waterblock Puck* : Comprises solid contacts to suit cable type, with secondary O-Ring seal. Glass-to-metal design for extreme environmental or mission critical applications.
- 2) Housing : Flanged or through hole/threaded mounting, manufactured from a variety of materials ; S/Steel, Titanium, Aluminium, Brass etc. to suit application. Standard STS Connector Bulkheads can be adapted to utilise stock parts or be custom designed.
- 3) Potting : Proprietary material, bonded to Waterblock Puck and Housing to effect a hermetic, pressure resistant seal.
- 4) Piston / Face Seal O-Rings : Seals Penetrator body to the customer housing, 1,2 or more to suit application.
- 5) Cable : Customer free-issue or STS sourced, comprising electrical, coaxial, optical or a hybrid combination of cores.
- 6) Moulding : Polyurethane, Polyethylene, Neoprene or other polymer to suit cable jacket and application requirements. Bonded to the cable and housing, right angle or straight cable entry options.
- 7) Tail Wires (or Cable) : Inboard, dry side of penetrator, length to suit requirements. Options available to have external contacts to allow customer wiring.

* Feedthrough assemblies have the cable passing straight through the body, for less critical application where cost and size are primary requirements. Cable can have waterblock tape or gel filling compounds to minimise risk in case of jacket breach.