



**OFFSHORE
DESIGN SECTION:
ENGINEERING
SERVICES
ISO – 9001:2008**

**FUNCTIONAL
SPECIFICATION FOR
ELECTRICAL
CABLE GLANDS**

SPEC. No.	FS 4043
Rev. No.	0
Discipline	Elect
Page 1 of 4	

Functional Specification for Electrical Cable Glands

PREPARED / REVISED BY	REVIEWED BY	APPROVED BY	TOTAL NO. OF PAGES INCLUDING THIS PAGE	DATE	REV.
BR	KR	AS	4	19-09-2016	0

Format No	Ref. Proc. No	Issue No	Rev No	Rev. Date
ODS/SOF/004	ODS/SOP/023	01	00	21.07.2010



**OFFSHORE
DESIGN
SECTION:
ENGINEERING
SERVICES
ISO – 9001:2008**

**FUNCTIONAL
SPECIFICATION FOR
ELECTRICAL CABLE
GLANDS**

SPEC. No.	FS 4043
Rev. No.	0
Discipline	Elect
Page: 2 of 4	

1.0 SCOPE

This Specification defines the minimum requirements for design, manufacture, supply and testing of electrical cable glands and accessories for high voltage and low voltage systems for armoured and non armoured cables on the offshore process / well platforms.

2.0 CODES AND STANDARDS

2.1 Codes Standards and Regulations:

All cables, accessories and other components supplied, shall comply with the latest revisions of the applicable codes and standards.

IEC	IEC 60079.
British Standard	BS EN 50262
B I S	Bureau of Indian Standards

Further the Contractor shall ensure all mandatory Indian statutory requirements are complied with.

3.0 SITE CODITION

All the cables and accessories shall be designed to withstand the conditions specified in the General Design Criteria enclosed elsewhere in the bid package.

4.0 SCOPE OF SUPPLY

The Scope of this specification includes the following items:

- 4.1 The complete cable gland system including body, washer, nut, seal etc.

5.0 TECHNICAL REQUIREMENT

GENERAL:

5.1 All cable glands shall be made of brass and finishing shall be nickel plated.

5.2 Cable Glands shall be double compression type except where soft bedded cables i.e. typically fire resistant are used. For such cables the sealing method should be

Format No	Ref. Proc. No	Issue No	Rev No	Rev. Date
ODS/SOF/004	ODS/SOP/23	01	00	21.07.2010



**OFFSHORE
DESIGN
SECTION:
ENGINEERING
SERVICES
ISO – 9001:2008**

**FUNCTIONAL
SPECIFICATION FOR
ELECTRICAL CABLE
GLANDS**

SPEC. No.	FS 4043
Rev. No.	0
Discipline	Elect
Page: 3 of 4	

chosen to avoid cold flow. Examples of such types are displacement and diaphragm types.

5.3 To meet the ingress protection requirement the space between cable glands, adapters and blanking elements and the enclosure shall be sealed by means of a sealing washer or thread sealant.

5.4 The cable gland shall be selected to match the cable diameter. The use of sealing tape, heat shrink tube or other materials is not permitted to make the cable fit to the cable gland.

FOR CLASSIFIED AREA:

5.5 Cable glands, when installed shall not invalidate the specific characteristics of the type of protection of the electrical equipment on which they are mounted.

5.6 Cable glands shall be in accordance with IEC 60079-0 and shall be selected to maintain the requirements of the protection technique according to Table 10 of IEC 60079-14.

5.7 Where glands are used for unarmored cables in a hazardous area, care should be taken to ensure that they are able to fulfil the requirements of IEC60079-0. Where the product has limitations denoted by an X on the certificate, additional measures should be taken to secure the cable.

5.8 The cable entry system shall comply with one of the following for Ex ‘d’ equipment:

- a) Cable glands sealed with setting compound (barrier cable glands) in compliance with IEC 60079-1 and certified as equipment;
- b) Cables glands with IEC 60079-1 and are certified as equipment

5.9 Design life :

Cables glands and accessories shall be suitable for operations without periodic maintenance applied throughout the design life of the platform specified elsewhere in the bid package.

Format No	Ref. Proc. No	Issue No	Rev No	Rev. Date
ODS/SOF/004	ODS/SOP/23	01	00	21.07.2010



**OFFSHORE
DESIGN
SECTION:
ENGINEERING
SERVICES
ISO – 9001:2008**

**FUNCTIONAL
SPECIFICATION FOR
ELECTRICAL CABLE
GLANDS**

SPEC. No.	FS 4043
Rev. No.	0
Discipline	Elect
Page: 4 of 4	

5.10 Units and information.

All quantities and dimensions shall be expressed in metric units. All information, manual, certificates, data and inscriptions shall be in the English language.

8. INSPECTION AND TESTING

- (a) Test certificates for all cable glands shall be provided to the Company.
- (b) Random inspection of cable glands installed at yard or site shall be carried by company or authorized representative.

11.0 CERTIFICATION

All cables glands and gland accessories of similar design and construction features manufactured by the same Vendor:

- a) Shall have been type tested by an agency of international repute approved by the Company
- b) Shall be having current certification/approval/listing by an agency approved by the Company or UL or FM.

Format No	Ref. Proc. No	Issue No	Rev No	Rev. Date
ODS/SOF/004	ODS/SOP/23	01	00	21.07.2010