

INTRODUCTION TO CABLE GLANDS

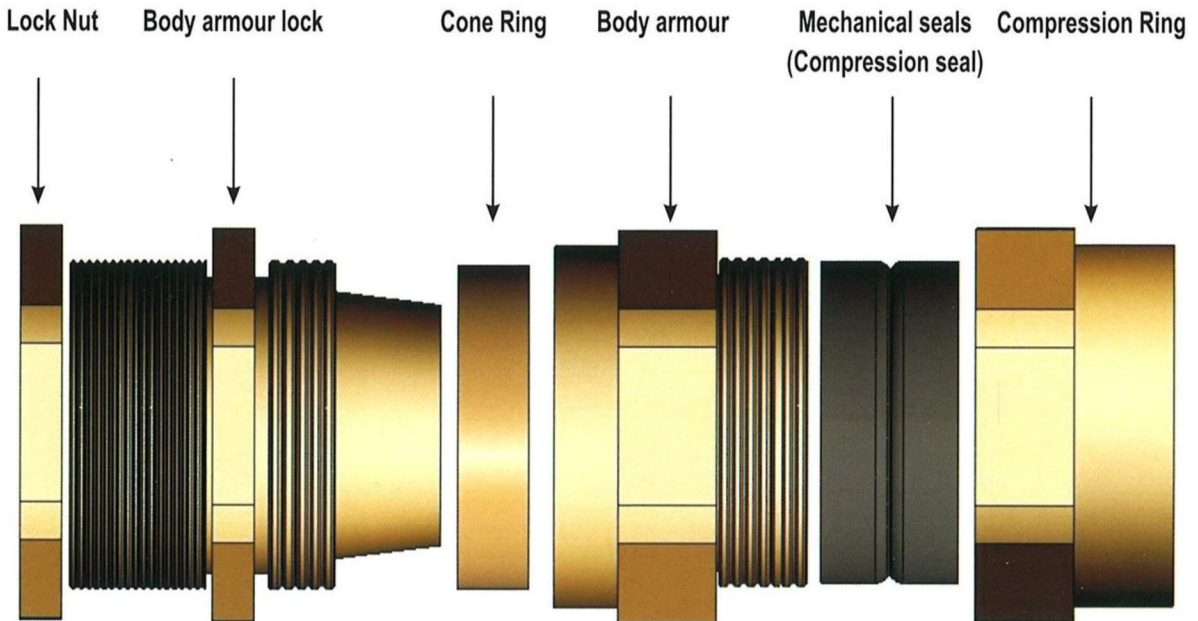
Cable Glands are mechanical cable entry devices, which can be constructed from metallic or non-metallic materials. They are used throughout all industries in conjunction with cable and wiring used in the electrical, instrumentation and automation systems. They are used as a sealing and terminating device to ensure that the characteristics of the enclosure, which the cable enters, can be maintained adequately.



Main Function of the Cable Gland:

- Environmental protection by sealing on the outer cable sheath
- Earth continuity in the case of armoured cables
- To provide a holding force on the cable to ensure adequate levels of cable pull out resistance
- To provide additional sealing on the part of the cable entering the enclosure, when a high degree of ingress protection is required
- When used in hazardous areas they are required to maintain the level of protection of the equipment to which they are attached

CABLE GLAND CONSTRUCTION



- **Body armour** houses power cable and supports in clamping cable to junction boxes or external body
- **Mechanical seals** (compression & displacement type seals) are used to provide ingress protection to cable gland assembly
- **Cone Ring** is used to clamp cable armour and support cable in gland body armour lock
- **Compression Ring** is used to house mechanical seal & provide outer sealing to cable
- **Lock Nut** is used to lock cable gland assembly in junction boxes or external body
- **Earth Tag** is used to maintain earth conductivity from cable to junction boxes or external body
- **Shrouds** are used to increase ingress protection and protect cable gland assembly from physical damage