Type of Gland

Cable Glands

- A device designed to permit the entry of cable into electrical equipment which provide sealing, retention and earthing, bonding, grounding, insulation, strain relief or combination of all these.
- Gland should maintain overall integrity of enclosure in to which it is to be fitted.

Gland Selection

- Gland should be selected on following Points
  1. Type of Cable
  2. Gland Size
  3. Entry Type/Thread Specification of application
  4. Ingress Protection required.
  5. Material
- Type of Cable:
  - Unarmored: Unarmored Cable will require outer seal within Gland to not only provide ingress protection but also degree of retention.
  - Armored: Gland that required clamping mechanism to terminate the armored both mechanically and electrically.
- The Gland will usually be required to provide ingress protection by sealing outer sheath and retention by clamping amour.

Type of Glands:

1. Brass Indoor Type Gland
2. Brass Outdoor Type Gland
3. Brass Straitening Unarmored Cable Gland
4. Brass Weather Proof Gland
5. PG Threaded Gland:
6. Industrial Type Gland

1) Brass Indoor Type Gland

- This Gland is quite handy in use with various types of cable whether plastic, rubberized, metal or any other.
- Application: Dry indoor, for use with all type of SWA cables, plastic or rubber sheathed cable.
- Brass indoor gland suitable for single wire armored, plastic or rubber sheathed cable. Recommended to use with shroud for additional ingress protection.
2) **Brass Outdoor Type Gland**

- This come in stunning high quality material for use in outdoor or indoor application with various types of cables sheathed or unsheathed.
- Brass indoor and outdoor gland popularly used with single wire armored.
- Plastic or rubber sheathed cable. Terminates and secure cable armoring and outer seal grips sheath of cable thus ensuring mechanical strength and earth continuity.
- CW brass glands are also supplied with integral earth facilities.
- Recommended to use PVC shroud for additional ingress protection

**Application:**
- a) Outdoor or indoor, for use with all type of SWA cables, plastic or rubber sheathed cable.
- b) Most suitable for SWA, plastic of rubber (Elastomeric) sheathed cables.
- c) Used in dry indoor conditions.
- d) No loose parts and easy to install.
- e) Save times & money.
- Gland size: 20 mm to 75 mm (S & L)
- Cable Type: Wire Braid Armor.
- Armor Clamping: Three Parts (With Lock Nut).

(3) **Brass Straighting Unarmored Cable Gland**

- Nickel plated or natural brass A2 type cable glands are used with variety of unarmored or rubber sheathed cables.
- Brass indoor and outdoor cable gland suitable for all types of unarmored cables, plastic or rubber sheathed cables.
- **Application:**
  1. For use with unarmored elastomeric and plastic insulated cables.
  2. Indoor & Outdoor whenever it is required to provide sealing on cable outer sheath.

- **Size:** Metric – 20mm to 75mm (S/L)
- **Accessories:** Earth Tag, PVC Shroud, Neo prime Rubber & LSF Rubber, PVC Washer, Brass Lock Nut.
- **Cable Type:** Unarmored

### 4) Brass Weather Proof Gland

- Unlike other types of cable glands, this type cable gland is used precisely with single armored various types of swa cables whether plastic or rubber sheathed ones. this type cable gland is known for its uninterrupted services once the gland is fixed to the desired wires and wire components.
- Suitable for SWA or rubber sheathed cables.
- Outer seal grips bedding layer of cable for use in most climatic conditions.
- Weather proof and water proof.
- Design has separate armor lock rings. Can be supplied with integral earth facility.
- **Gland size:** 20 mm to 75 mm (S & L)

- **Application:**
  1. Outdoor or indoor, for use with single armored, all type of SWA cable, plastic or rubber sheathed cable.
  2. E1W Gland is Weatherproof & Waterproof Cable Gland

- **Cable Type:** Steel Wire Armour
- **Armour Clamping:** Three Part Armour Lock
- **Sealing Technique:** Compression & Displacement Type
- **Sealing Area(s):** Inner & Outer Sheath

### 5) PG Threaded Gland:

- Nickel chrome plated PG threaded cable gland is a custom made threaded gland to meet the needs from the meet industries. Apart from the round headed PG threaded cable gland, we also offer hexagonal gland or any other like spherical rectangular or any other dimensional PG threaded cable gland as per the specification of the customer.
6) **Industrial Cable Gland:**

- Brass gland suitable for wire braid armored, plastic or rubber sheathed cable. Terminates and secure cable armoring and outer seal grips sheath of cable thus ensuring mechanical strength and earth continuity.
- Recommended to use PVC shroud for additional ingress protection

- Cable Type: Wire Braid Armour
- Armour Clamping : Three Part (With Lock Nut)
- Sealing Technique: Compression Type.
- Brass gland suitable for steel tape armored, plastic or rubber sheathed cables. Terminates and secure cable armoring and outer seal grips sheath of cable thus ensuring mechanical strength and earth continuity.
- Recommended to use PVC shroud for additional ingress protection
- Cable Type : Steel Tape Armour
- Armour Clamping : Three Part (With Lock Nut)
- Sealing Technique: Compression Type.

**What is difference between Single Compression and Double Compression?**

- Double compression glands provide extra support to the heavy armored cables entering or exiting the panel while single compression glands are used for light armored cables.
- Normal Cable Gland is also called Single Compression Cable Gland. As the name suggests, while you tighten the gland, the grip or compression is effected only at one place (i.e.) at the cable armour only. There is scope for moisture and corrosive vapour to enter the gland and thus into the cable.
- Whereas in Double-Compression Gland, the compression happens both at the cable armour as well as at the inner sheath. This is sort of two sealing. Hence, chances of moisture or vapour entry are minimised. Hence these glands are also known as Weather-proof cable glands or Flame-proof cable glands.
- The basic difference between single and double compression

1) **Parts of Double comp**
- Gland body
- Gland body Nut
- Cone
- Cone Ring
- Neopen Rubber seal.
- Rubber Washer
- Check Nut.

2) **Single Comp Parts**
- Gland body
- Gland body Nut
- Neopen Rubber seal.
- Rubber Washer
- Check Nut
- Flat washer
- The Basic difference between Single and Double Comp is in Single comp there no cone and cone ring.
- The mechanical support for the cable is only Neopen rubber seal, When u tightening the cable.
- In double camp gland the mechanical support to the cable only cone and cone ring. When doing glanding the cable armor sits on the cone and cone ring act as a lock for armor.
- Single compression and double compression glands are used on the basis of area classification. Those who are affiliated with oil and gas sector they will easily understand about area classification.
- In zone 0 where the presence of hydrocarbon is obvious (IIC) double compression gland is used because the flame path in case of double compression gland is much more than in case of single compression gland.
- The logic behind this is that if there is any explosion inside the terminal box of the motor no flame should be able to come out through the cable gland in order to prevent fire hazards but where there is no presence of hydrocarbons i.e. no danger of fire hazards (IIA/ IIB) single compression glands are used.
- It has nothing to do with mechanical strength. Even in case of lighting fixtures used in IIC zone double compression glands are used.