HUBBELL

Harsh & Hazardous

HAWKE International

Chalmit

GAI-TRONICS A Hubbell Company

HAWKE International

KILLARK

RIGPOWER

Vantage Technology

Victor Lighting

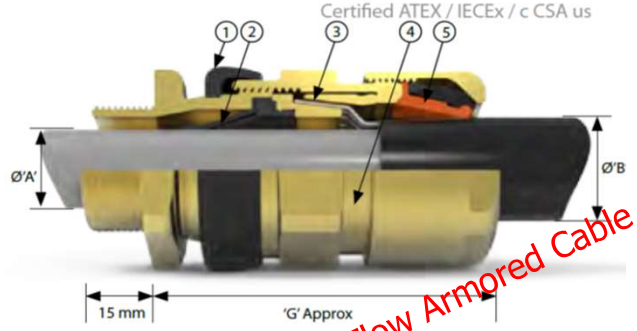
HUBBELL

Harsh & Hazardous

Coldflow Compliant Glands

501/453/UNIV

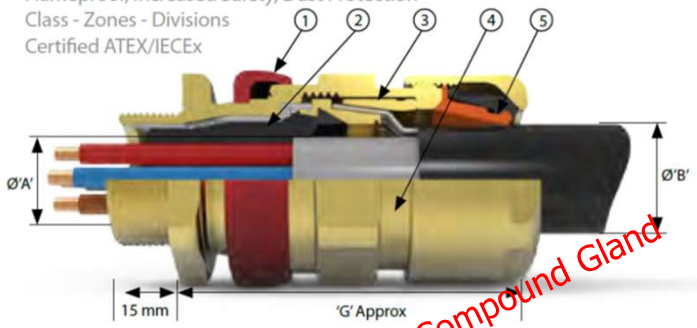
Flameproof, Increased Safety, Dust Protection & Restricted Breathing
Class - Zones
Certified ATEX / IECEx / c CSA us



Cold Flow Armored Cable

ICG/653/UNIV

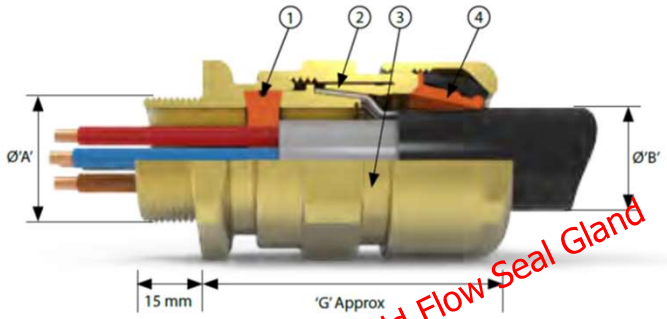
Flameproof, Increased Safety, Dust Protection
Class - Zones - Divisions
Certified ATEX/IECEx



Cold Flow Compound Gland

PSG 553 RAC

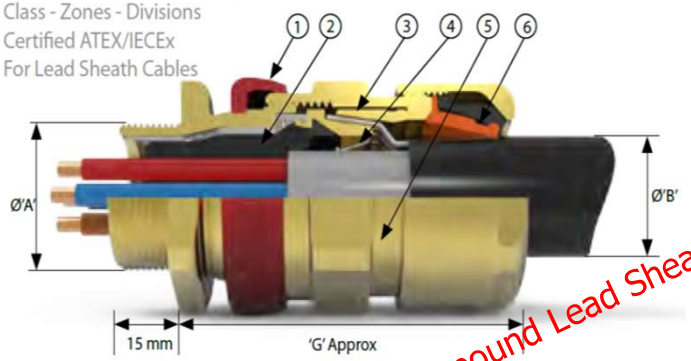
Flameproof Exd & Increased Safety Exe
Dual Certified ATEX / IECEx



Cold Flow Seal Gland

ICG/653/UNIV/L

Flameproof, Increased Safety, Dust Protection
Class - Zones - Divisions
Certified ATEX/IECEx
For Lead Sheath Cables



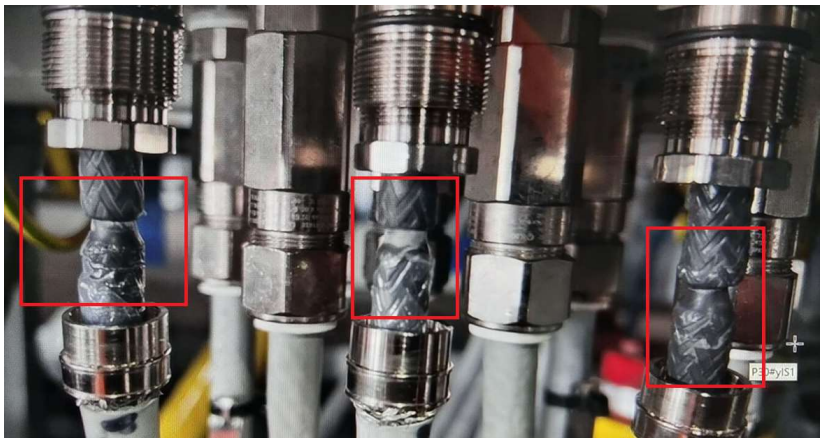
Cold Flow Compound Lead Sheath Gland

IEC 60079-14 (Electrical installation design,selection & erection)

The Section 10.2 "Selection of cable glands" mention:

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. Cable glands and/or cables shall be selected to reduce the effects of "coldflow characteristics" of the cable.

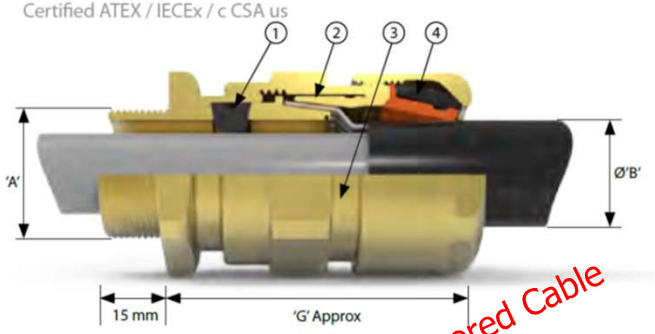
Coldflow in cables can be described as the movement of the cable sheath under the compressive forces created by the displacement of seals in cable glands where the compressive force applied by the seal is greater than the resistance of the cable sheath to deformation. Coldflow could give rise to a reduction in the insulation resistance of the cable, which could remove the protection concept. Low smoke and/or fire resistant cables usually exhibit significant cold flow characteristics.



Compression Glands

501/453/RAC

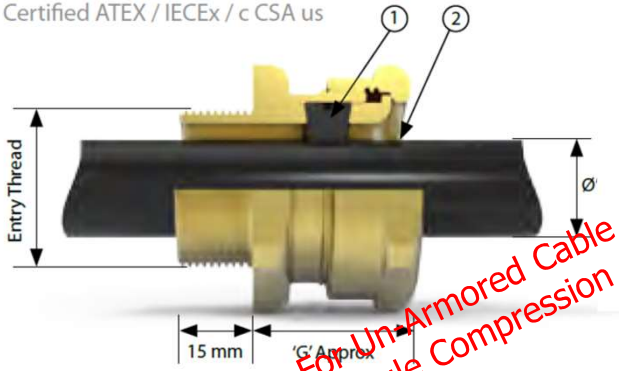
Flameproof, Increased Safety, Dust Protection
Class - Zones
Certified ATEX / IECEx / c CSA us



For Armored Cable

501/421

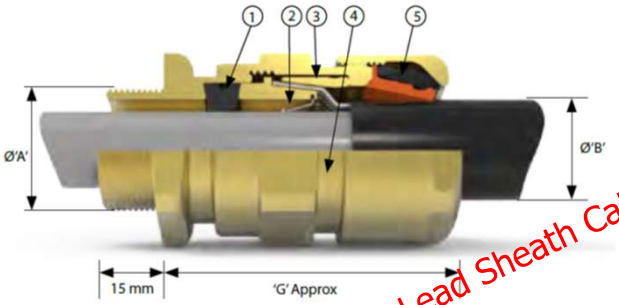
Flameproof, Increased Safety, Dust Protection
Class - Zones
Certified ATEX / IECEx / c CSA us



For Un-Armored Cable
Single Compression

501/453/RAC/L

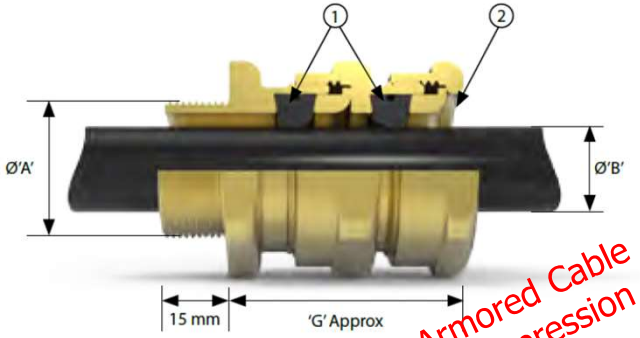
Flameproof, Increased Safety, Dust Protection
Class - Zones Certified ATEX / IECEx / c CSA us
For Lead Sheath Cables



For Lead Sheath Cable

501/423

Flameproof, Increased Safety, Dust Protection
Class - Zones
Certified ATEX / IECEx / c CSA us

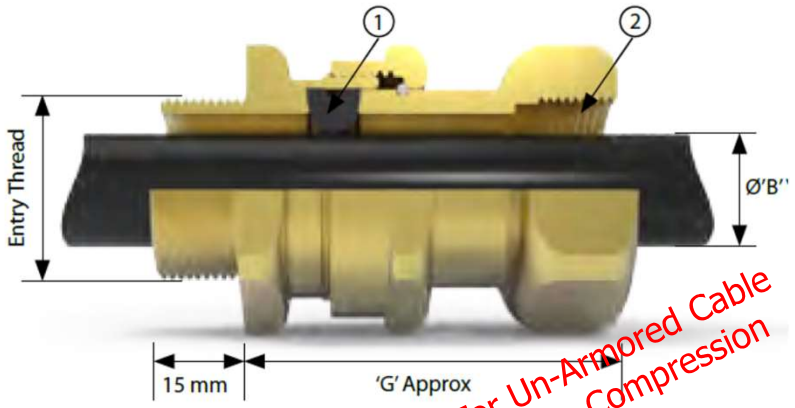


For Un-Armored Cable
Double Compression

Conduit Glands

501/414

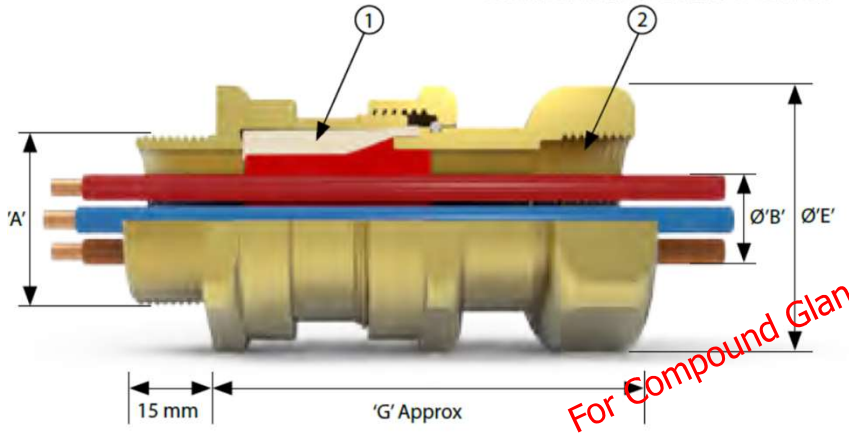
Flameproof, Increased Safety, Dust Protection
Certified ATEX / IECEx / c CSA us



For Un-Armored Cable
Single Compression

CSB 656N

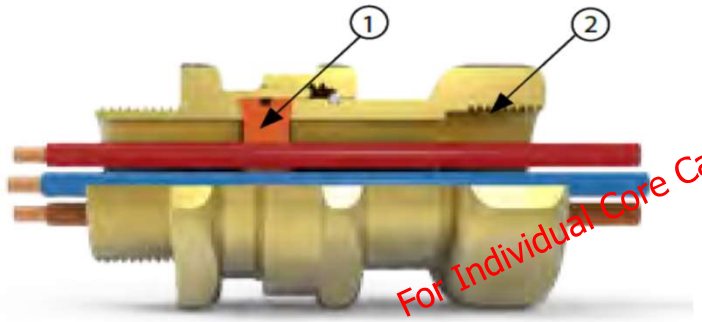
Flameproof, Increased Safety, Dust Protection
Class - Zones
Certified ATEX / IECEx / c CSA us



For Compound Gland

SB/474

Flameproof, Increased Safety, Dust Protection
Certified ATEX/IECEx

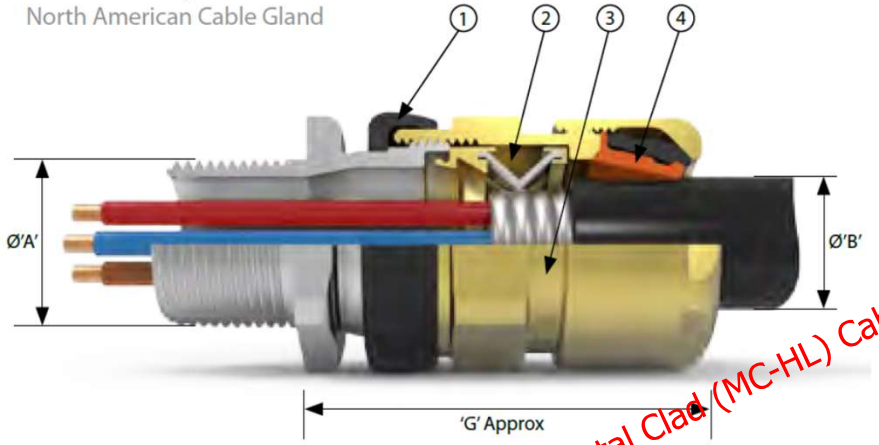


For Individual Core Cable

NEC® Compliant Glands

701

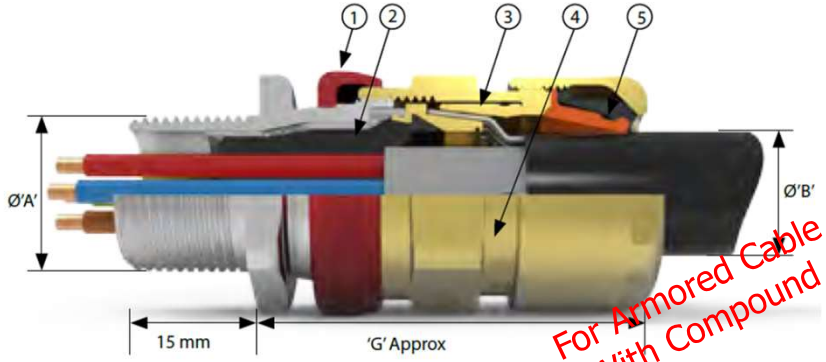
Increased Safety Exe for Zones
North American Cable Gland



For Metal Clad (MC-HL) Cable

753

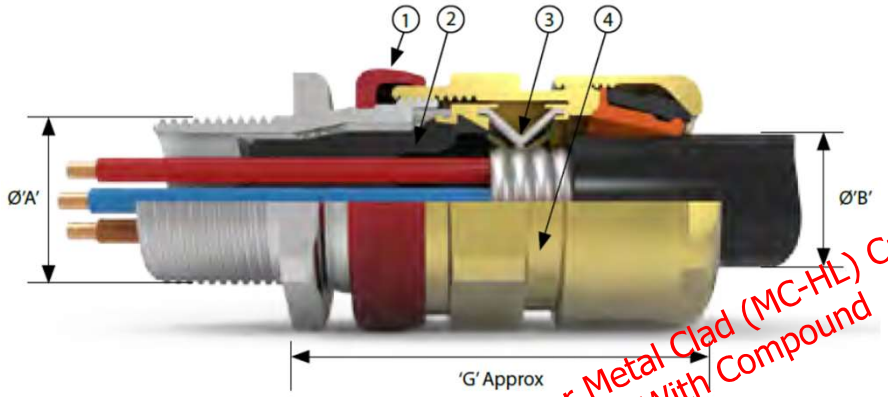
North American
Explosion proof, IECEx and ATEX Approved Flameproof Exd, Increased Safety Exe
(Dual Marked UL & ATEX as standard)



For Armored Cable
With Compound

711

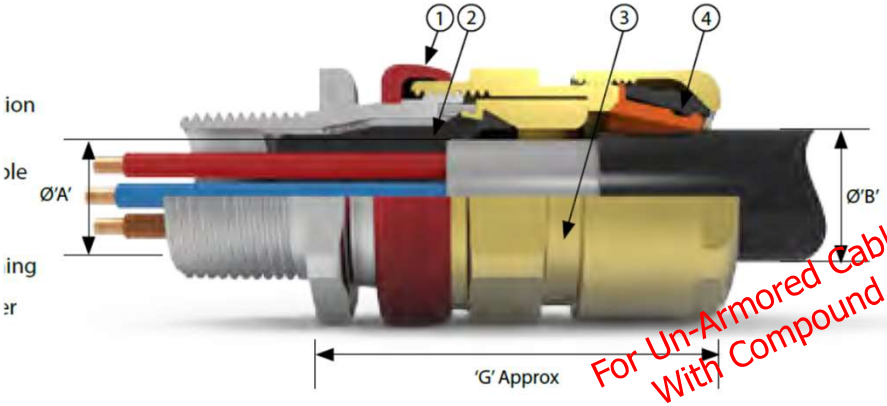
Explosion proof, IECEx and ATEX approved Flameproof Exd,
Increased Safety Exe (Dual Marked UL & ATEX as standard)



For Metal Clad (MC-HL) Cable
With Compound

710

North American
Explosion proof, IECEx and ATEX Approved Flameproof Exd, Increased Safety Exe
(Note: Dual Marked UL & ATEX as standard)

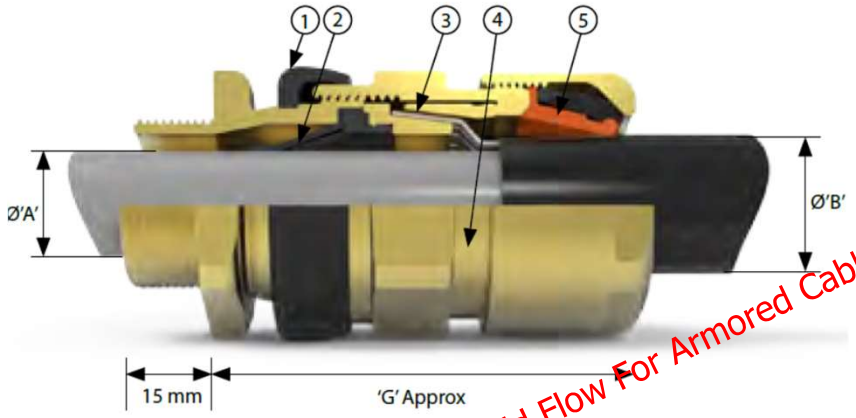


For Un-Armored Cable
With Compound

Mining Glands

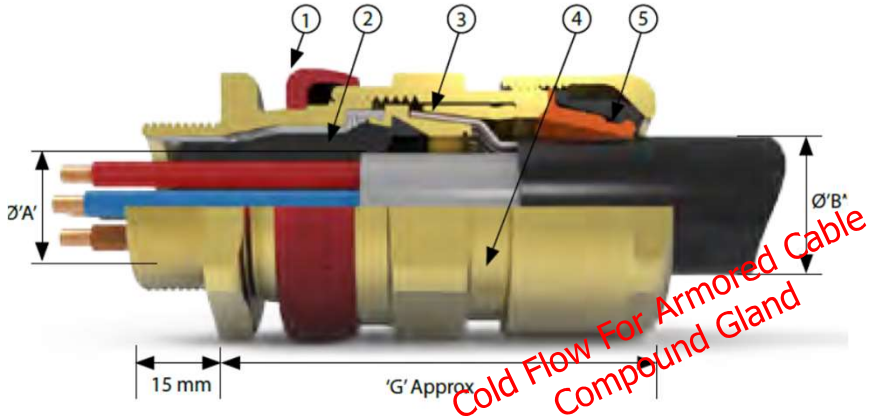
453/UNIV GP1

Mining, Flameproof, Increased Safety
Certified ATEX / IECEx



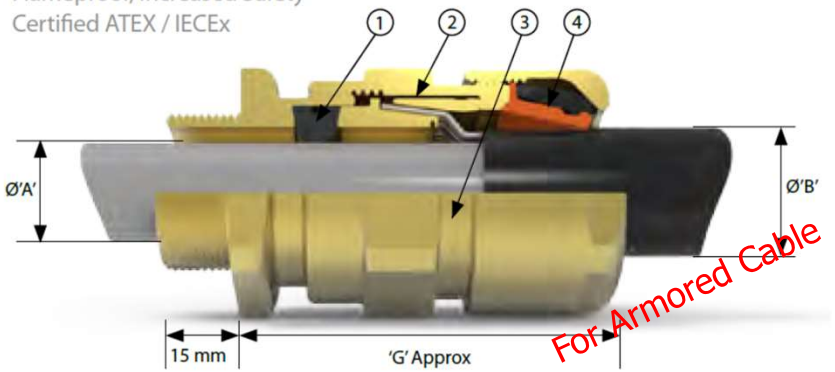
653/UNIV GP1

Mining, Flameproof, Increased Safety, Dust Protection
Certified ATEX/IECEx



453/RAC GP1

Mining
Flameproof, Increased Safety
Certified ATEX / IECEx

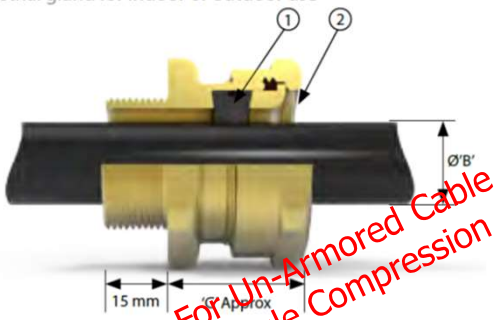


Technical Data	
Ingress Protection	IP66, IP67 and IP68* (30 metres for 7 days, special conditions apply) to IEC/EN 60529
Operating Temperature	-60°C to +80°C
	ATEX/IECEx
ATEX/IECEx Protection Class	Ex IM2 Ex db I Mb, Ex eb I Mb
ATEX Certificate No	CML 19ATEX1165X
IECEx Certificate No	CML 19.0043X
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1 and IEC/EN 60079-7
Additional Certifications	EAC: TC RU C-GB HA91 B 0046 19

Industrial Glands

121

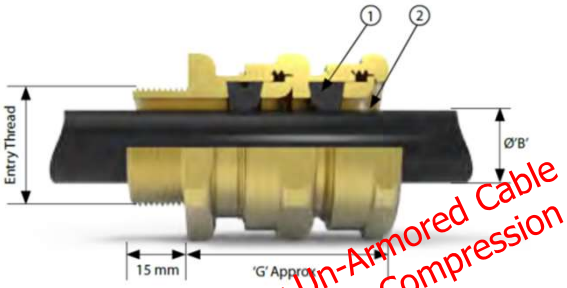
Industrial gland for indoor or outdoor use



For Un-Armored Cable
Single Compression

123

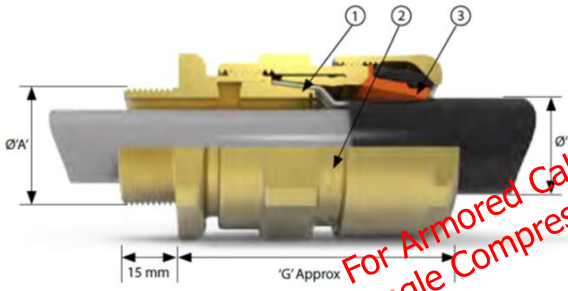
Industrial gland for indoor or outdoor use



For Un-Armored Cable
Double Compression

151/RAC

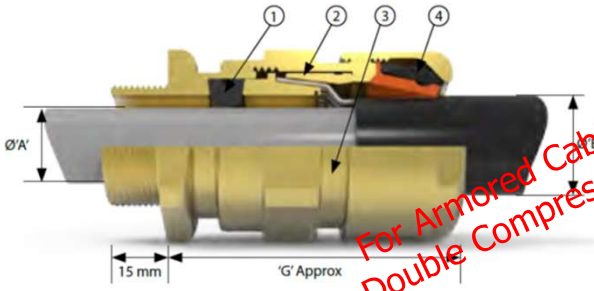
Industrial gland for indoor or outdoor use



For Armored Cable
Single Compression

153/RAC

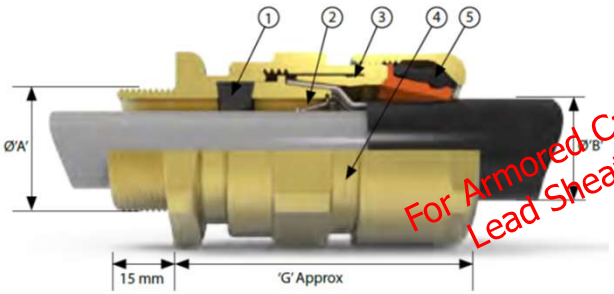
Industrial gland for indoor or outdoor use



For Armored Cable
Double Compression

153/RAC/L

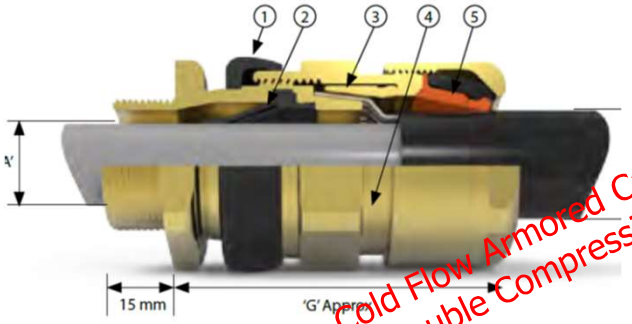
For Lead Sheath Cables. Industrial gland for indoor or outdoor use



For Armored Cable
Lead Sheath

153/UNIV

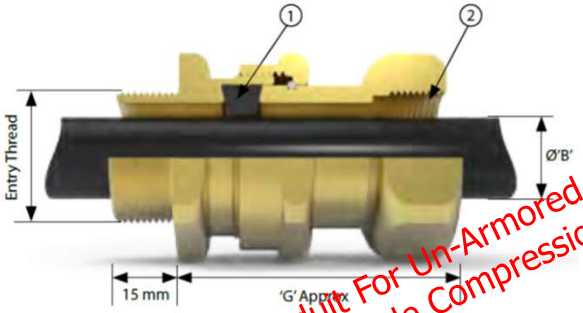
Industrial gland for indoor or outdoor use



Cold Flow Armored Cable
Double Compression

114

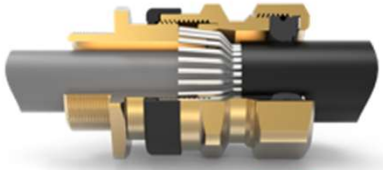
Industrial gland for indoor or outdoor use



Conduit For Un-Armored Cable
Single Compression

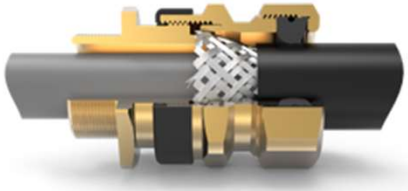
APEX Glands

E1FW



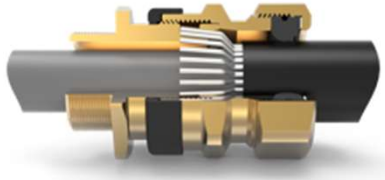
For Un-Armored Cable
And
SWA Cable

E1FX



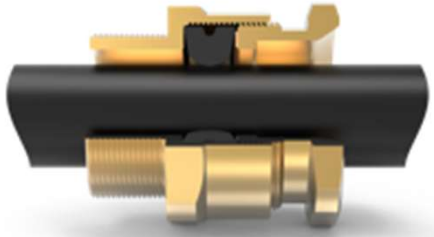
For Un-Armored Cable
And
SWB Cable

E1FU



For Un-Armored Cable
And
SWA / SWB Cable

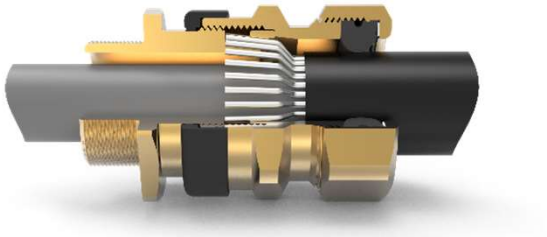
A2F



For Un-Armored Cable
Single Compression
and SWB cable

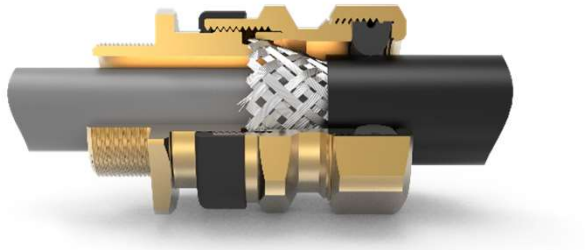
APEX Glands

CWe



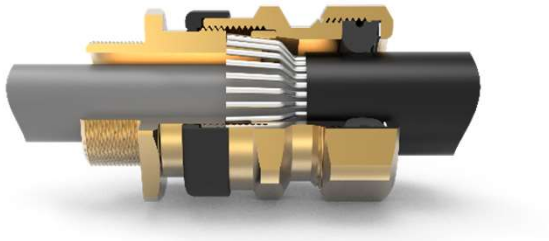
"COLD FLOW COMPLIANT"
For Un-Armored Cable
And
SWA Cable

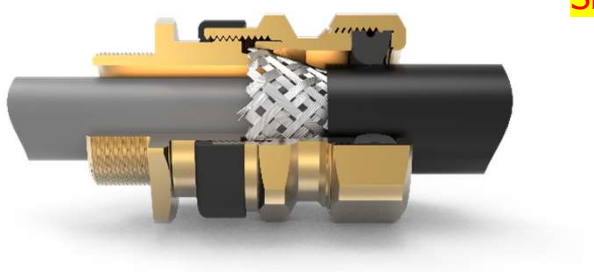
CXe



"COLD FLOW COMPLIANT"
For Un-Armored Cable
And
SWB Cable

CUe





"COLD FLOW COMPLIANT"
For Un-Armored Cable
And
SWA / SWB Cable

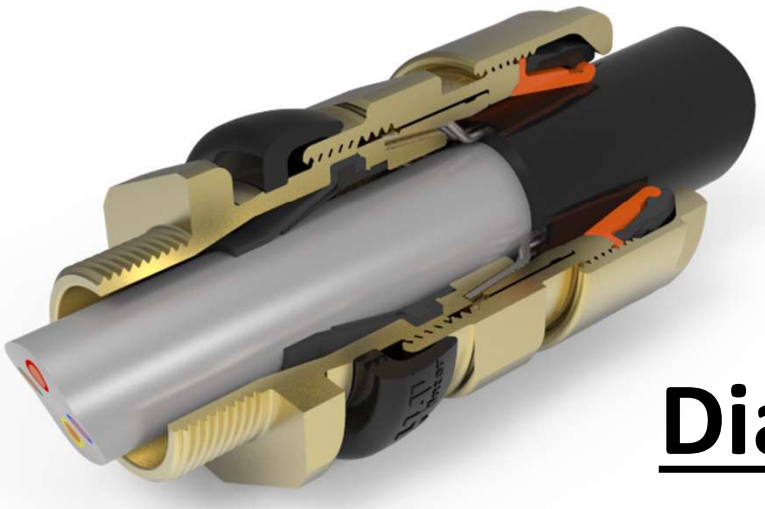
Similiar to 501/453 UNIV but Exe only

CABLE GLANDS

501/453/UNIVERSAL

501/453/ UNIVERSAL
Same trusted design – new look and added features

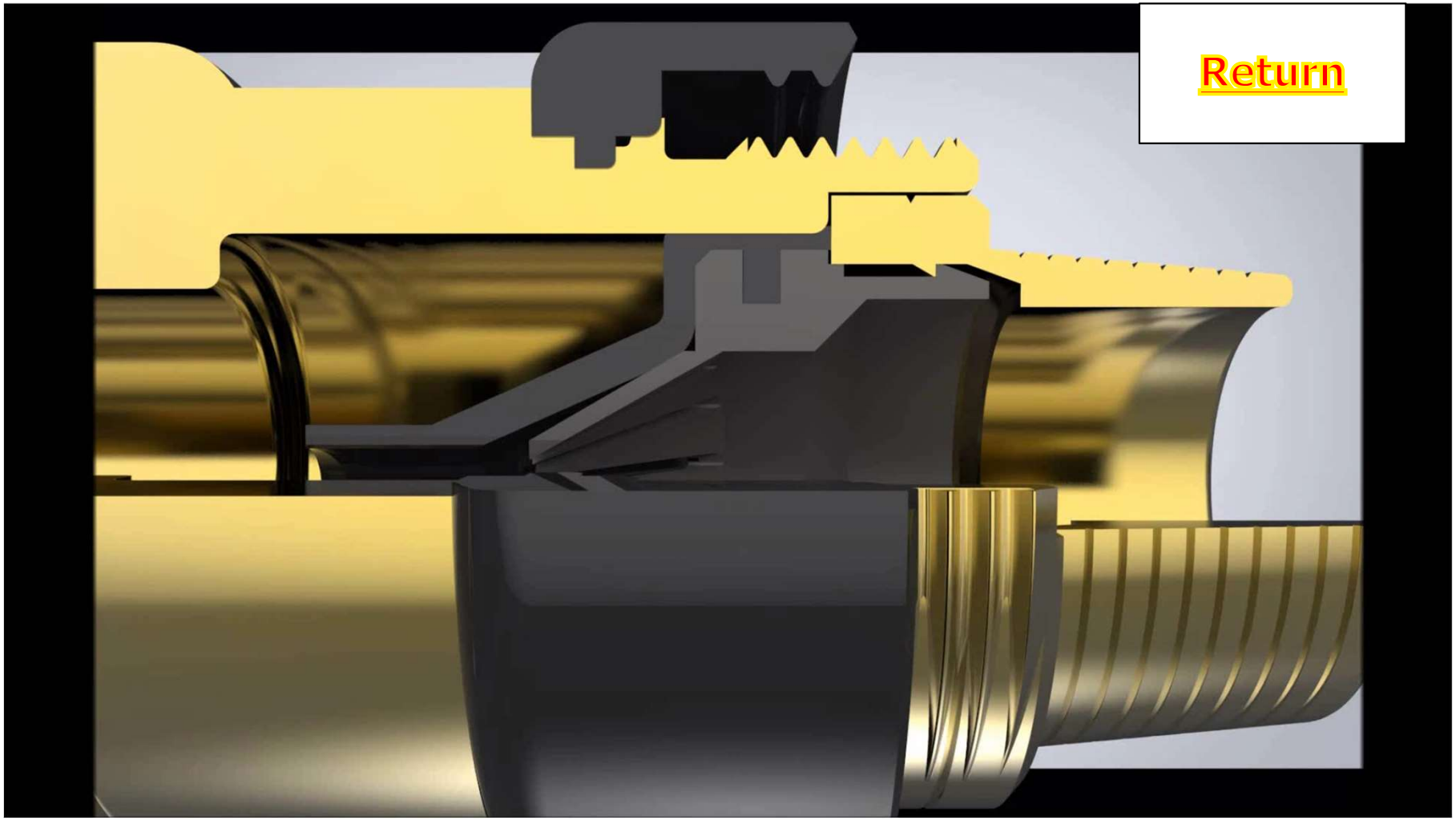
The only known ***independently*** tested non-barrier gland ***proven*** to not cause damage to a cables' inner sheath and to meet the Essential Health & Safety requirements when fitted to an actual cable – ***not*** a solid stainless steel test mandrel



The passive **Diaphragm seal** conforms to the maximum and minimum cable inner sheath diameters with no compression, no seal displacement and no tightening onto the cable inner sheath required

Diaphragm seal = no coldflow

Diaphragm Seal



Key Features

- Ability to convert 501/453/Universal to ICG/653/UNIV with Compound conversion kits.

CABLE GLANDS

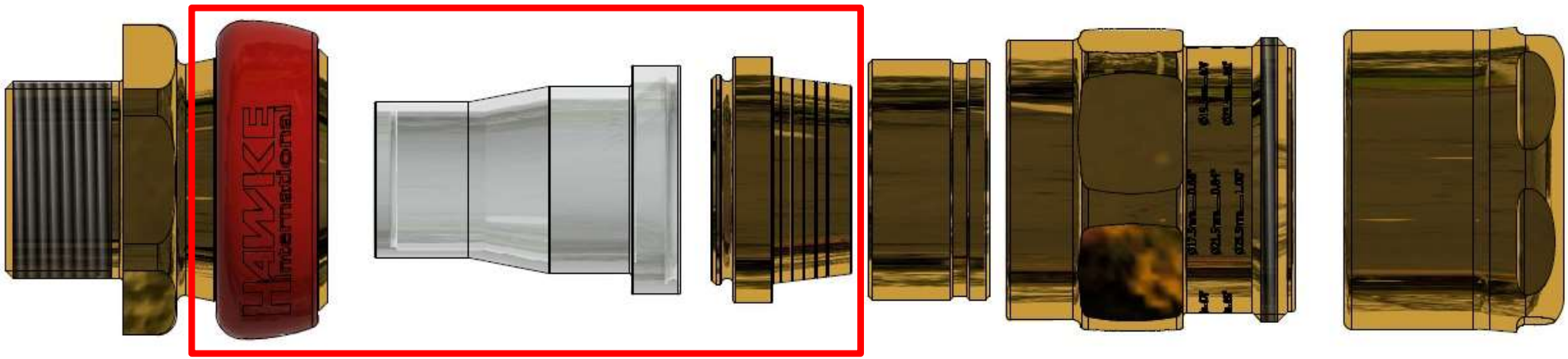
HUBBELL
Harsh & Hazardous

CABLE GLANDS

Chalmit · GAI-TRONICS A Hubbell Company · HAWKE International · KILLARK · RIGPOWER · Vantage Technology · Victor Lighting

HUBBELL
Harsh & Hazardous

CABLE GLANDS



Key Features

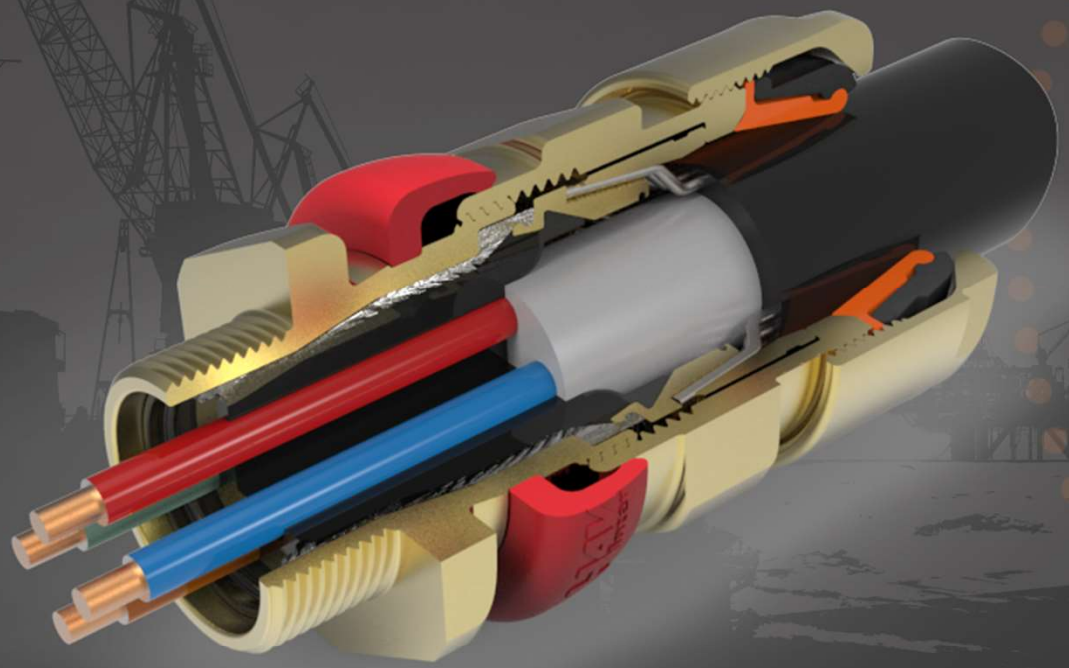
- Ability to convert 501/453/Universal to ICG/653/UNIV with Compound conversion kits.
- Worlds 1st Non-metallic, fully inspectable ATEX, IEXEx & NEC barrier gland solution

CABLE GLANDS

The Difference is Clear

CABLE GLANDS

Worlds only ***globally certified*** IEC and NEC barrier gland with patented ***fully inspectable transparent*** silicone compound pot



Resin is visible during installation

Cured resin is visible to inspector

No metallic flamepath surface to maintain

Key Features

- Ability to convert 501/453/Universal to ICG/653/UNIV with Compound conversion kits.
- Worlds 1st Non-metallic, fully inspectable ATEX, IEXEx & NEC barrier gland solution
- ExPress injectable liquid resin

ICG653/UNIV/EP

Key Features

- Ability to convert 501/453/Universal to ICG/653/UNIV with Compound conversion kits.
- Worlds 1st Non-metallic, fully inspectable ATEX, IEXEx & NEC barrier gland solution
- ExPress injectable liquid resin
- Patented integral tightening guide to help prevent cable damage through overtightening

HUBBELL®
Harsh & Hazardous

CABLE GLANDS

The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. Following the relevant cable gland Installation Instructions, the back seal should be tightened until a seal is formed on the cable outer sheath and then tightened one further turn.

Step 1

Follow cable gland installation instructions until final stage – tightening of rear seal

Step 2

Tighten backnut until a seal is formed onto the cable, then tighten one further turn

Step 3

The backnut should be level with the marking guide corresponding to its diameter – this can be visually inspected and adjusted as necessary

Note: The cable gland installation instructions have a printed cable OD measure for if the cable OD is not known

Key Features

- Ability to convert 501/453/Universal to ICG/653/UNIV with Compound conversion kits.
- Worlds 1st Non-metallic, fully inspectable ATEX, IEXEx & NEC barrier gland solution
- ExPress injectable liquid resin
- Patented integral tightening guide to help prevent cable damage through overtightening
- Ingress protection IP66, IP67, IP X8, IPX9


HAWKE
International
PSG 553 RAC
SB 474
Instant, Multi-Single Seal Barrier Solutions
HUBBELL

So, What's New?

HUBBELL
Harsh & Hazardous

PSG 553 RAC & SB 474

*Our new and **improved** **PSG553/RAC** and **SB474** cable glands have been **re-developed** to improve ease of use and speed of installation. Now utilising our **diaphragm seal concept**, the new products provide a seal on the individual cable cores providing a unique solution for Exd applications with more versatility than ever before.*

HUBBELL

Chalmit · GAI-TRONICS A Hubbell Company · HAWKE International · KILLARK · RIGPOWER · Vantage Technology · Victor Lighting

HUBBELL
Harsh & Hazardous

Any Questions?