

# 200A, 15 kV Class Loadbreak Bushing Insert



## APPLICATION

The Chardon Bushing Insert threads onto a standard 200A bushing well. The combination of the bushing well and bushing insert perform the same function as a one piece integral loadbreak bushing, while providing the flexibility to change the bushing insert in the field, without taking the transformer or other apparatus out of service. The bushing insert and loadbreak elbows are the primary components in all ANSI/IEEE loadbreak connections.

The Chardon Bushing Insert incorporates an all copper current path. This provides reliable and consistent performance under all conditions.

The Chardon Bushing Insert meets all the requirements of IEEE Standard 386, and is fully interchangeable with competitor's products and mating products that also meet IEEE Standard 386. When installed with mating components, the bushing insert provides a fully shielded and fully submersible connection for loadbreak applications.

No special tools are required for installation. The bushing insert can be installed by hand or with the assistance of a torque tool. An internal hex broach allows for the installation by the torque tool.

## PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- Minimum Corona Voltage Level – 11 kV
- AC 1 Minute Withstand – 34 kV

Tests conducted in accordance with Chardon manufacturing process requirements:

- Physical Inspection
- Periodic Dissection
- Periodic X-ray Analysis

## VOLTAGE RATINGS

Voltage Class	15 kV
Max. Rating Phase to Phase	14.4 kV
Max. Rating Phase to Ground	8.3 kV
AC 1 Minute Withstand	34 kV
DC 15 Minute Withstand	53 kV
BIL and Full Wave Crest	95 kV
Minimum Corona Voltage Level	11 kV

• 15KV-BI-REV010615

## CURRENT RATINGS

Description	Test Parameters
Continuous	200 amps rms
Switching	10 operations at 200 amps rms at 14.4 kV
Fault Close	10,000 amps rms symmetrical at 14.4 kV for 0.17 s after 10 consecutive successful switching operations
Short Time	• 10,000 amps rms symmetrical for 0.17 s • 3,500 amps rms symmetrical for 3.0 s

## DETAILED COMPOSITION OF THE CHARDON LOADBREAK BUSHING INSERT

### LOCKING GROOVE

Locking groove assures proper installation by "locking" into elbow.

### ARC SNUFFER ASSEMBLY

Arc quenching material extinguishes gas during loadbreak operations.

### STOP RING

Limits piston and finger contact travel during fault close.

### CONTACT

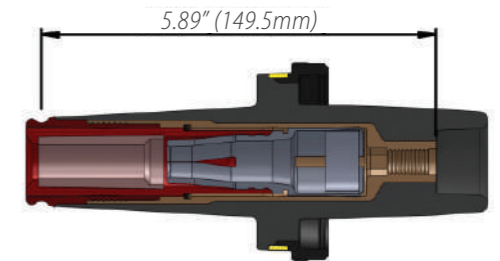
Copper component transfers current from piston contact to bushing well stud.

### CONDUCTING SHIELD

Precision molded peroxide cured conducting shield provides ground shield continuity.

### THREADED CONNECTION TO BUSHING WELL

3/8" – 16 UNC copper threads provided connection to bushing well.



### FINGER CONTACT

Tin plated copper contact provides a consistent current transfer during switching and fault close operations.

### INSULATION LAYER

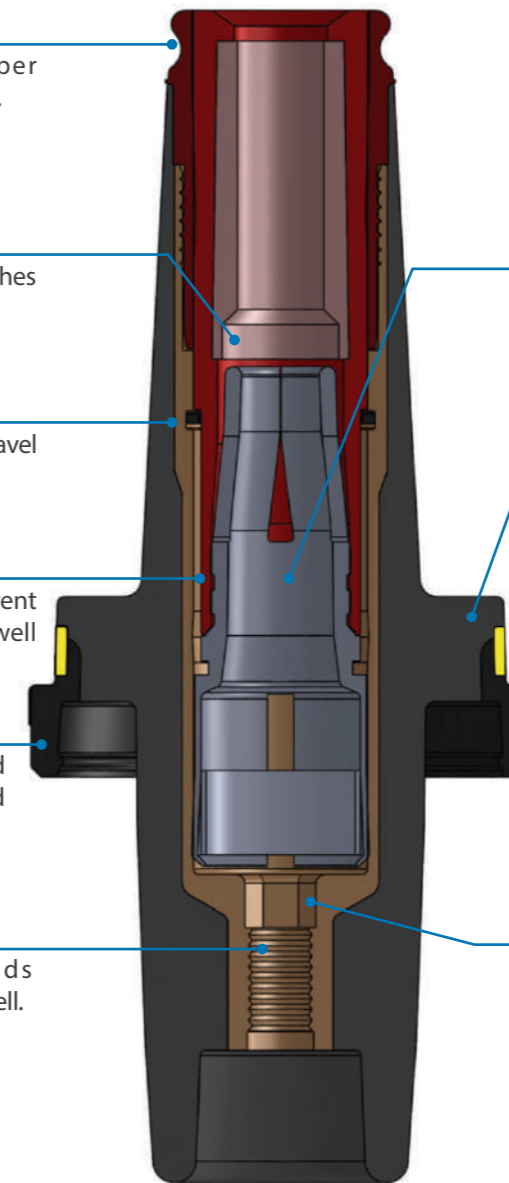
High quality peroxide cured EPDM Insulation is mixed and formulated in-house for complete control of rubber characteristics.

### DRAIN WIRE TAB

Drain wire tabs provide a convenient point to connect drain wire to ensure grounding of the connector shield.

### HEX BROACH

5/16" hex broach permits installation with torque tool.



## ORDERING INFORMATION

15 kV, 200A Loadbreak Bushing Insert

15-LBI200





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