

# 17.5/24 kV Deadbreak 250A Elbow Connector



## APPLICATION

The Chardon Deadbreak Elbow Connector is a fully shielded and insulated termination for connecting underground cable to transformers, switch gear and other apparatus equipped with deadbreak bushings, junctions, or other deadbreak connectors.

The Chardon Deadbreak Elbow meets all the requirements of HD629.1, EN-50180, EN-50181 & IEC 60502, and is fully interchangeable with competitor's products and mating

products that meet EN-50180 & EN-50181.

Chardon Deadbreak Elbow Connectors are molded using high quality peroxide-cured insulating and semi-conducting EPDM rubber. All insulating rubber is compounded in house, using Chardon-developed proprietary formulations. Chardon Deadbreak Elbow Connectors a copper probe. Combined with the bi-metal compression lug, this ensures a reliable operating connection.

## PRODUCTION TESTS

Tests conducted in accordance with HD 629.1.

- / Minimum Corona Voltage Level – 22 kV < 3 pC
- / AC 1 Minute Withstand – 60 kV
- / Test Point Voltage Test

Tests conducted in accordance with Chardon manufacturing process requirements:

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

## VOLTAGE RATINGS

Maximum Voltage Class ( $U_m$ )	24 kV
AC 5 Minute Withstand	57 kV
Minimum Corona Voltage Level	22 kV < 3pC
BIL and Full Wave Crest (Impulse)	125 kV

## CURRENT RATINGS

Continuous Current	250 A
Overload Current (8 hour maximum)	300 A

## DETAILED COMPOSITION OF THE CHARDON DEADBREAK CONNECTOR

### / SEMICONDUCTING SHIELD

Precision molded peroxide cured semiconducting shield provides ground shield continuity and meets the requirements of IEEE Standard 592.

### / CABLE ENTRANCE

The sized cable entrance provides an interference fit to maintain a watertight seal.

### / DRAIN WIRE TAB

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

### / INSULATION LAYER

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

### / COMPRESSION CONNECTOR

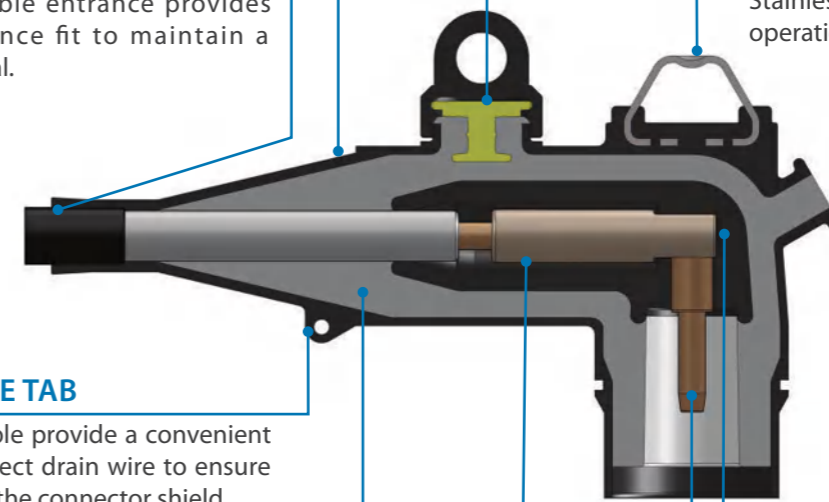
Compression connector is sized to ensure a cool running connection with maximum current transfer.

### / CAPACITIVE TEST POINT

Capacitive test point on molded Elbow with snap-on cap provides a shielded, hotstick operable means to determine circuit condition.

### / PULLING EYE

Stainless steel pulling eye for hotstick operations.



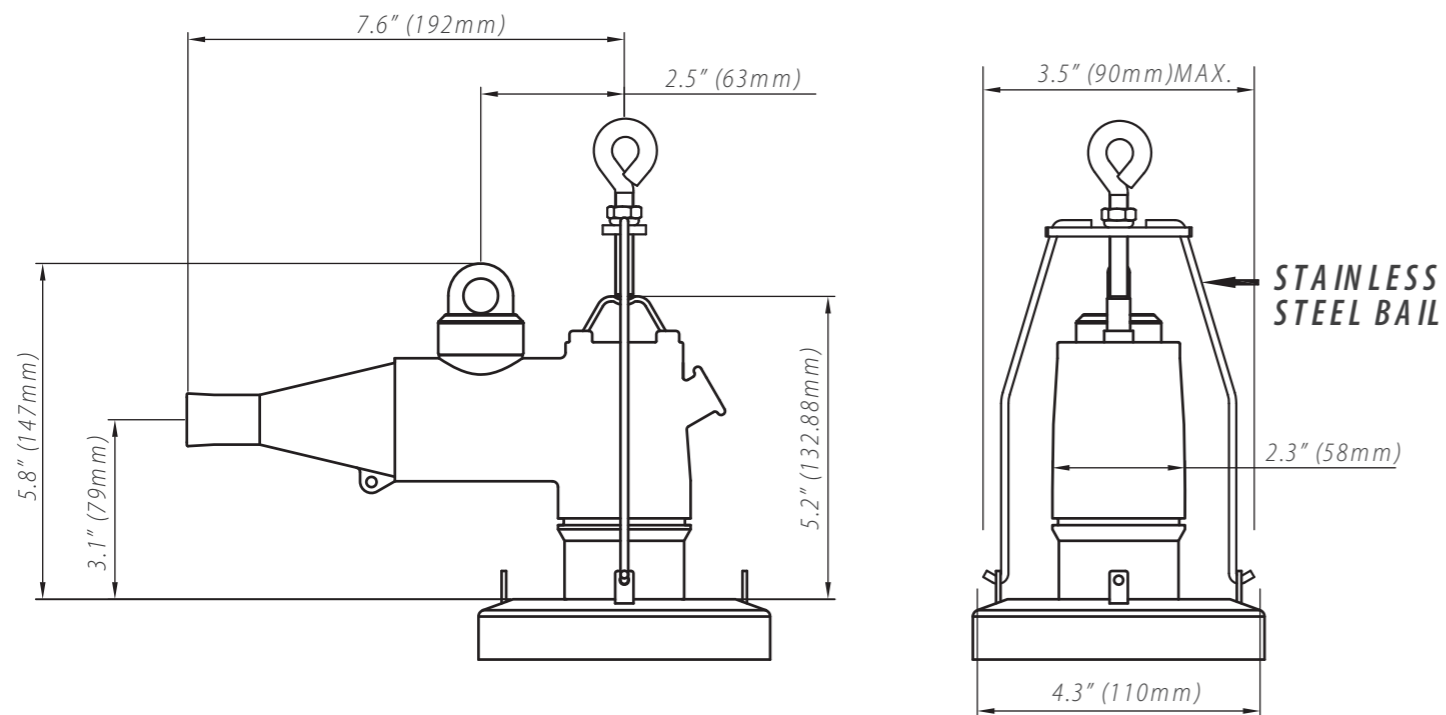
### / SEMICONDUCTING INSERT

Precision molded peroxide cured semiconducting insert provides corona-free electrostatic shielding of the compression connector.

### / PROBE

Tin plated copper probe ensures reliable electrical connection.

## DETAILED COMPOSITION OF THE CHARDON DEADBREAK CONNECTOR



## ORDERING INFORMATION

17.5/24kV Deadbreak Elbow

Each kit Contains:

- / Elbow body
- / Bi-Metal Compression Lug
- / Copper Probe
- / Probe Installation Tool
- / Bail Assembly
- / Silicone Grease
- / Installation Instruction Sheet

To order a Chardon 24kV Deadbreak Elbow Kit, follow the steps below:

**24-CE250**

**"W"**

**"X"**

**"Y"**

**"Z"**

**"W"** = Enter **T** if you need a Capacitive Test Point

**"X"** = Cable Range Code (See Cable Range Table)

**"Y"** = Conductor Code for Compression Connectors (See Conductor Table)

**"Z"** = Enter **C** if a Plated Copper Connector is Desired

If a shear bolt connector (SBC) is selected instead, the part number would be as follows:

**24-CE250**

**"W"**

**"X"**

**"C"**

**SBC CATALOG NO.**

### Cable Range Table (Insulation Diameter)

Cable Range Code	Inches	Millimeters
AA	0.508 - 0.685	12.9 - 17.4
A	0.642 - 0.807	16.3 - 20.5
B	0.768 - 0.945	19.5 - 24.0
C	0.906 - 1.106	23.0 - 28.1

### Conductor Code Table (Compression Connectors)

CONDUCTOR CODE	Concentric or Compressed		Compact or Solid	
	AWG or kcmil	mm <sup>2</sup>	AWG or kcmil	mm <sup>2</sup>
01	#6	-	#4	-
02	#4	-	#3	25
03	#3	25	#2	35
04	#2	35	#1	-
05	#1	-	1/0	50
06	1/0	50	2/0	70
07	2/0	70	3/0	-
08	3/0	-	4/0	95
09	4/0	95	250	120
10	250	120	300	-

### Shear Bolt Connector Selection Guide

CATALOG NO.	Conductor Range(mm <sup>2</sup> )
200SBC-25-50/1-AL	25 - 50
200SBC-70-95/1-AL	70 - 95
200SBC-120/1-AL	120

Example:

For Shear Bolt Connector with a conductor Range between 25-50 mm<sup>2</sup>, the part number would be : 200SBC-B-25-50/1.



200SBC Series



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