

200A, 25 kV Class Loadbreak Elbow



APPLICATION

The Chardon Loadbreak Elbow is a fully shielded, submersible and insulated termination for connecting underground cable to transformers, switchgear, and other apparatus equipped with loadbreak bushings, junctions, or other loadbreak connectors. The bushing insert and loadbreak elbows are the primary components in all ANSI/IEEE loadbreak connections.

The Chardon 25kV Loadbreak Elbow meets all the requirements of IEEE Standard 386, the interface design meets interface 7A (Fig 6 in IEEE Std 386-2016), and is fully interchangeable with competitor's products and mating products that also meet IEEE Standard 386. Chardon Loadbreak Elbows 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 Loadbreak Elbows include a stainless steel pulling eye. An optional capacitive test point is available. Included with the elbow kit is a bi-metal or copper compression connector, and a tin plated copper probe with arc quenching tip.

PRODUCTION TESTS

Tests conducted in accordance with IEEE/ANSI Standard 386.

- / Partial Discharge – 19 kV
- / AC 1 Minute Withstand – 40 kV
- / Test Point Voltage Test

Tests conducted in accordance with Chardon manufacturing process requirements:

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

VOLTAGE RATINGS

Voltage Class	25 kV
Max. Rating Phase to Phase	26.3 kV
Max. Rating Phase to Ground	15.2 kV
AC 1 Minute Withstand	40 kV
DC 15 Minute Withstand	78 kV
BIL and Full Wave Crest	125 kV
Partial Discharge	19 kV

• Revision Date: 08.13.2025

CURRENT RATINGS

Description	Test Parameters
Continuous	200 amps rms
Switching	10 operations at 200 amps rms at 26.3 kV
Fault Close	10,000 amps rms symmetrical at 26.3 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 25 KV LOADBREAK ELBOW

/ SEMICONDUCTING SHIELD

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

/ SEMICONDUCTING INSERT

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

/ LOADBREAK PROBE

Tin plated copper probe with, arc extinguishing tip, allows for dependable switching operations.

/ INSULATION LAYER

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

/ COMPRESSION CONNECTOR

Standard Bi-Metal, or optional Copper, compression connector is sized to ensure a cool running connection with maximum current transfer.

/ PULLING EYE

Stainless steel pulling eye for hotstick switching operations.

/ CAPACITIVE TEST POINT

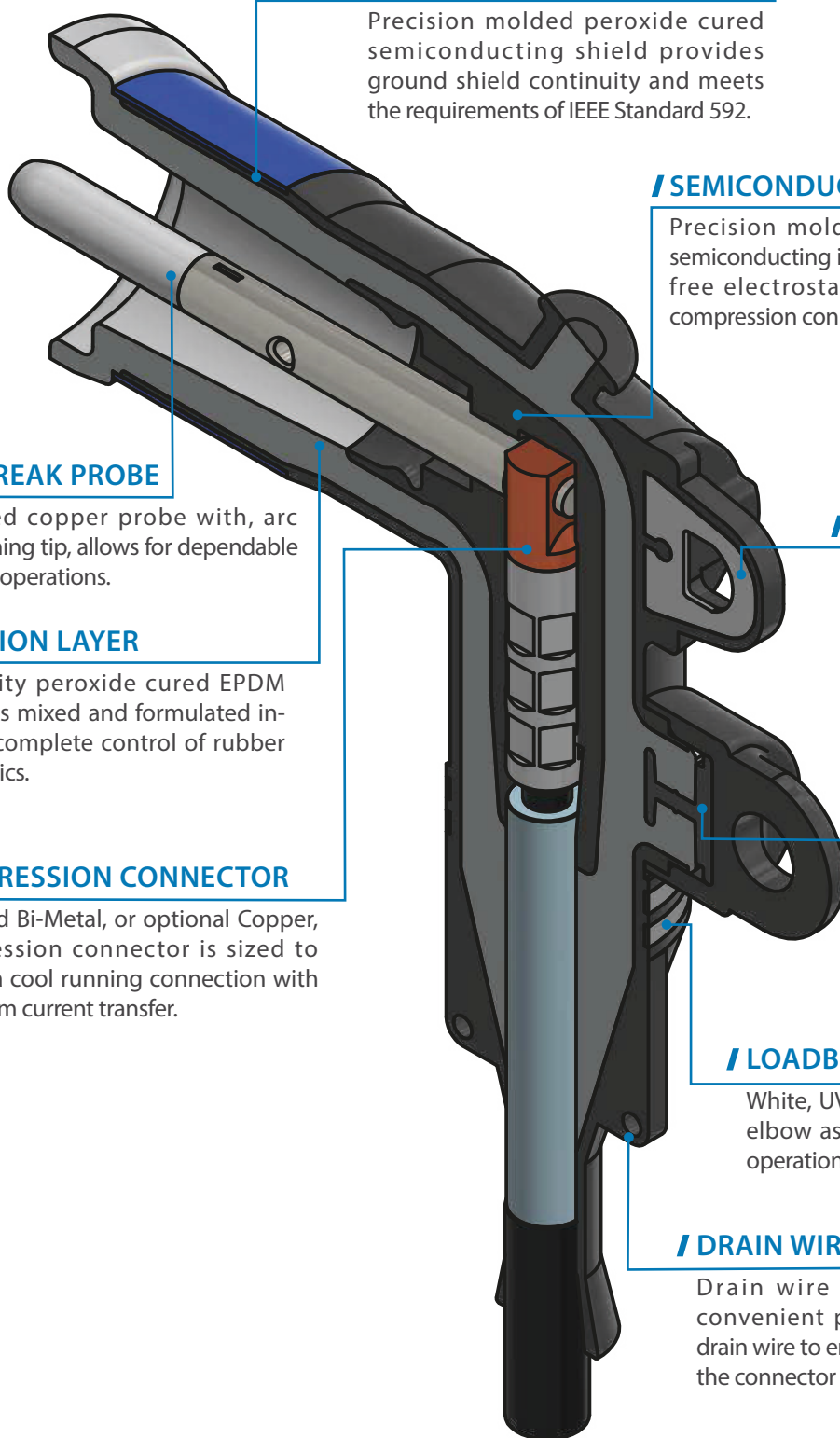
Capacitive test point on molded Elbow with snap-on cap provides a shielded, hotstick operable means to determine circuit condition.

/ LOADBREAK BAND

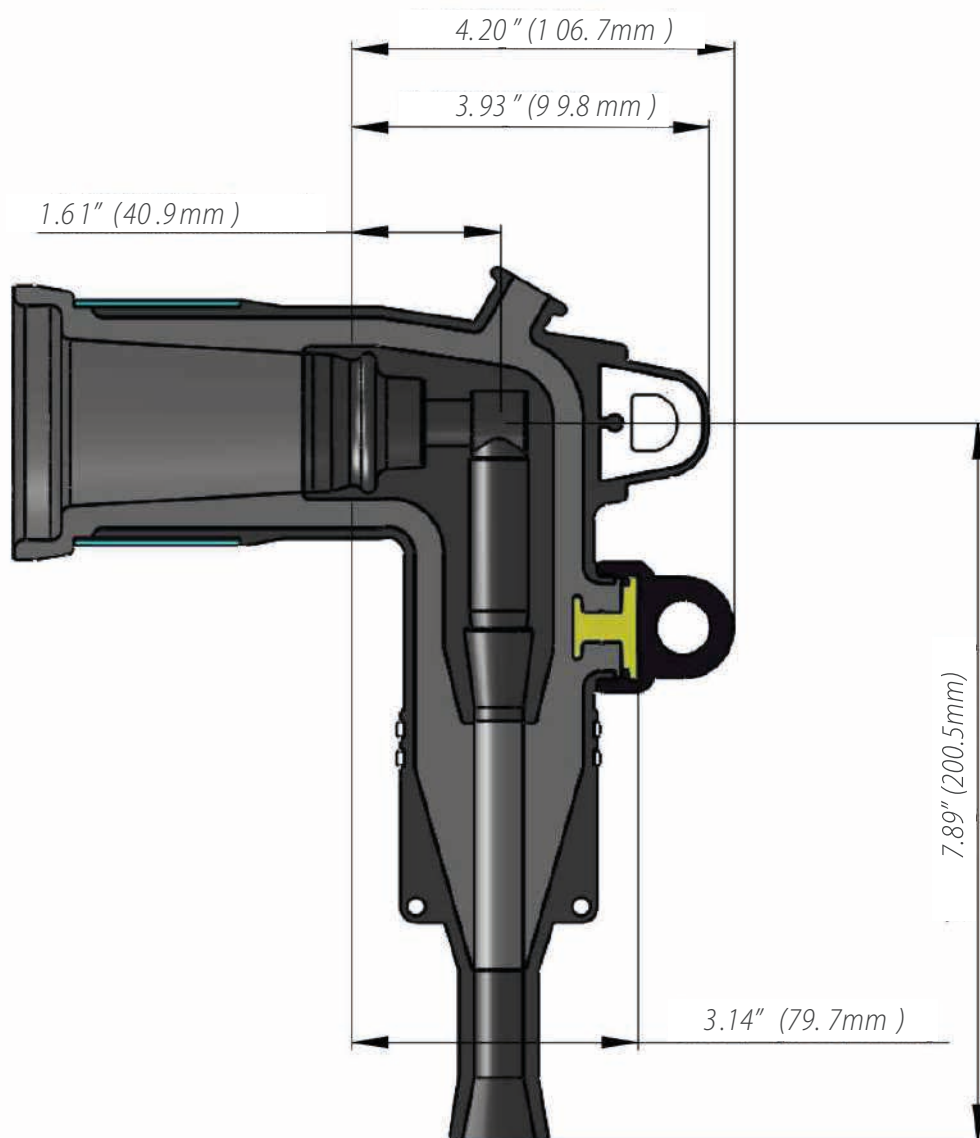
White, UV resistant, band indicates the elbow as rated for 3 phase loadbreak operation.

/ DRAIN WIRE TAB

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



DETAILED COMPOSITION OF THE CHARDON 25 KV LOADBREAK ELBOW



ORDERING INFORMATION

Chardon Loadbreak Fuse Elbow kits are packaged in a heavy duty plastic bag.

Each elbow kit includes the following:

- / Silicone Grease
- / Plated Copper Probe
- / Probe Installation Wrench
- / Elbow
- / Bi-Metal or Copper Compression Connector
- / Installation Instructions

To order a Chardon 25 kV Elbow Kit, follow the steps below:

25-LE200	"W"	"X"	"Y"	"Z"
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"W" = Enter **T** if want a Capacitive Test Point

"X" = Cable Range Code (A, B, C or D)

"Y" = Conductor Code (See table)

"Z" = Enter **C** if a Plated Copper Connector is needed
Enter **B** if a Bi-metal Connector is needed

25 kV, 200A Loadbreak Cable Ranges (Insulation Diameter)

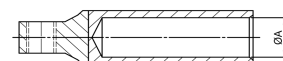
Cable Range Code	Inches	Millimeters
A	0.610 - 0.875	15.49 - 22.23
B	0.720 - 0.985	18.29 - 25.02
C	0.920 - 1.185	23.37 - 30.10
D	1.040 - 1.305	26.42 - 33.15

Conductor Code Table

CONDUCTOR CODE	Concentric or Compressed		Compactor Solid		Inner Diameter ØA(mm)	
	AWG or kcmil	mm ²	AWG or kcmil	mm ²	Copper Lug	Bi-metal Lug
01	#6	-	#4	-	5.5	5.13
02	#4	-	#3	25	6.0	6.55
03	#3	25	#2	35	7.0	7.32
04	#2	35	#1	-	8.5	8.13
05	#1	-	1/0	50	9.0	9.09
06	1/0	50	2/0	70	9.6	10.20
07	2/0	70	3/0	-	12.0	11.35
08	3/0	-	4/0	95	13.3	13.33
09	4/0	95	250	120	14.0	14.00
10	250	120	300	-	15.0	15.21

Example :

To order a standard Chardon 25 kV Loadbreak Elbow with a cable insulation diameter of 0.990", a 3/0 bi-metal compression connector and a capacitive test point, order the following part number: 25-LE200TC08B.





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