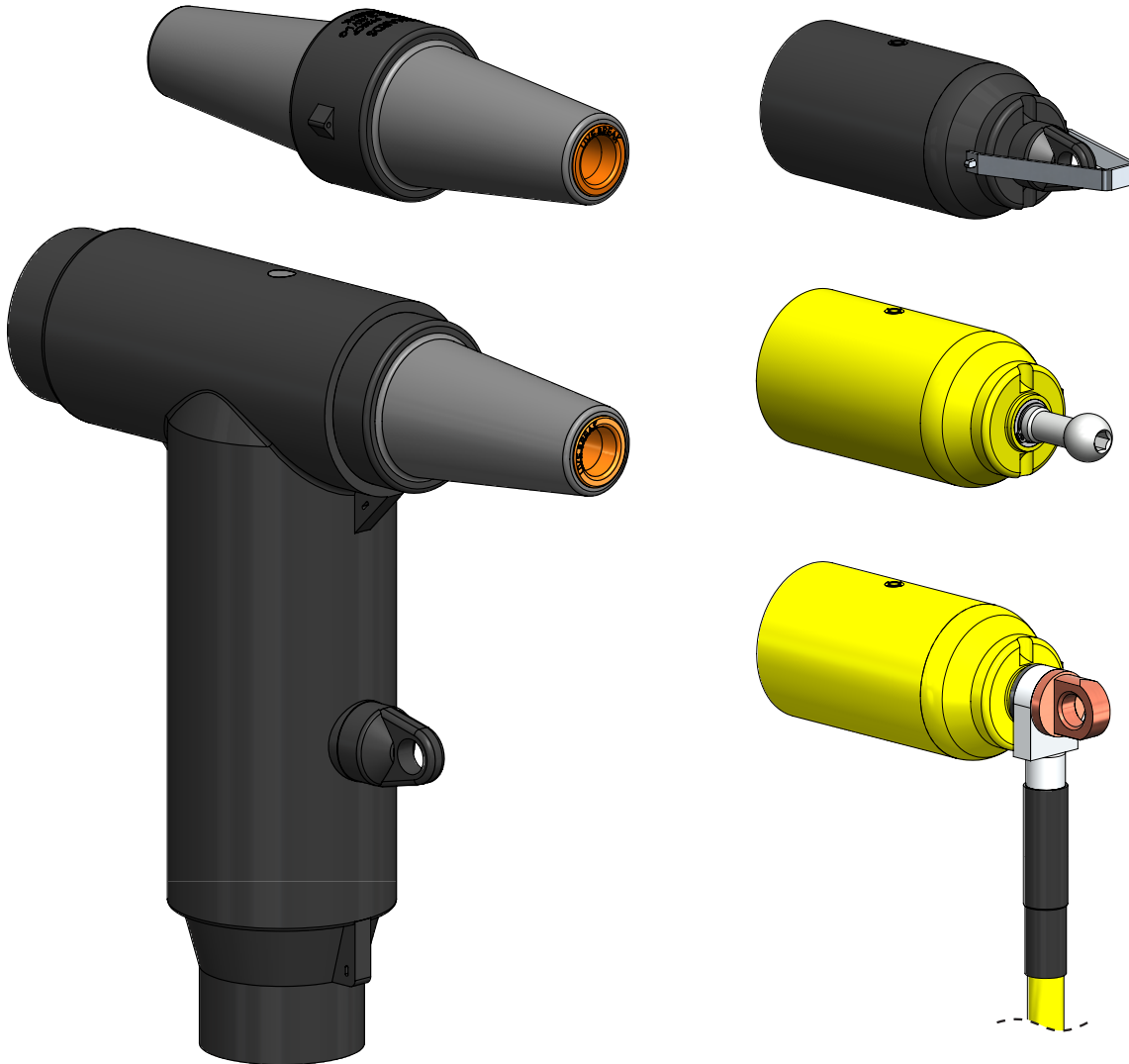


# DT Series | Direct Test Elbow & Plug

The Richards DT Series is an innovative solution specifically engineered for power cable termination, testing and grounding applications. Other options were designed for a different application, or fall short of the features and capabilities system designers and operators have been looking for. Rather than compromise performance, the DT Series provides the complete package. Available in a combination Elbow design or Plug, equipment can now be outfitted with our unique 'Livebreak' interface to perform testing and apply working grounds.

## Benefits

- Combines testing benefits of Loadbreak with grounding benefits of Deadbreak
- Increases operational efficiency for grounding and safety procedures
- Requires fewer components and exposed interfaces (when using DT Elbow)
- Increases short time current rating from 10kA (with Loadbreak) to 40kA



## Voltage Ratings

Voltage Ratings	
Maximum Voltage Rating – (phase to ground)	21.1kV
Corona Voltage Level – (partial discharge extinction voltage)	26kV
AC Withstand – (1 minute)	50kV
Impulse-Withstand Voltage – (BIL)	162kV BIL <sup>®</sup>

## Current Ratings (Deadbreak Side)

Continuous – (Aluminum)	600A
Continuous – (Copper)	900A
Short-Time Current – (Aluminum)	40kA, 10c. and 10kA, 3s. <sup>®</sup>
Short-Time Current – (Copper)	40kA, 10c. and 10kA, 3s.

## Current Ratings (Livebreak Side)

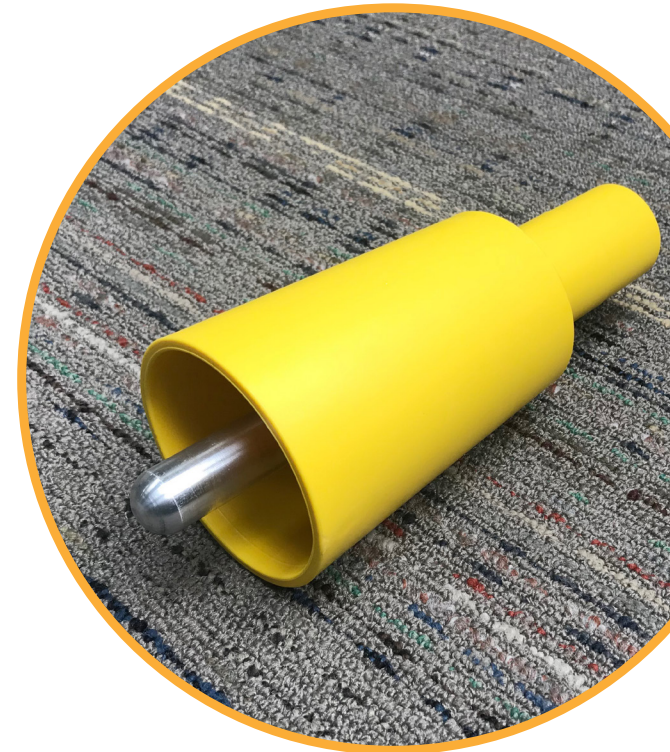
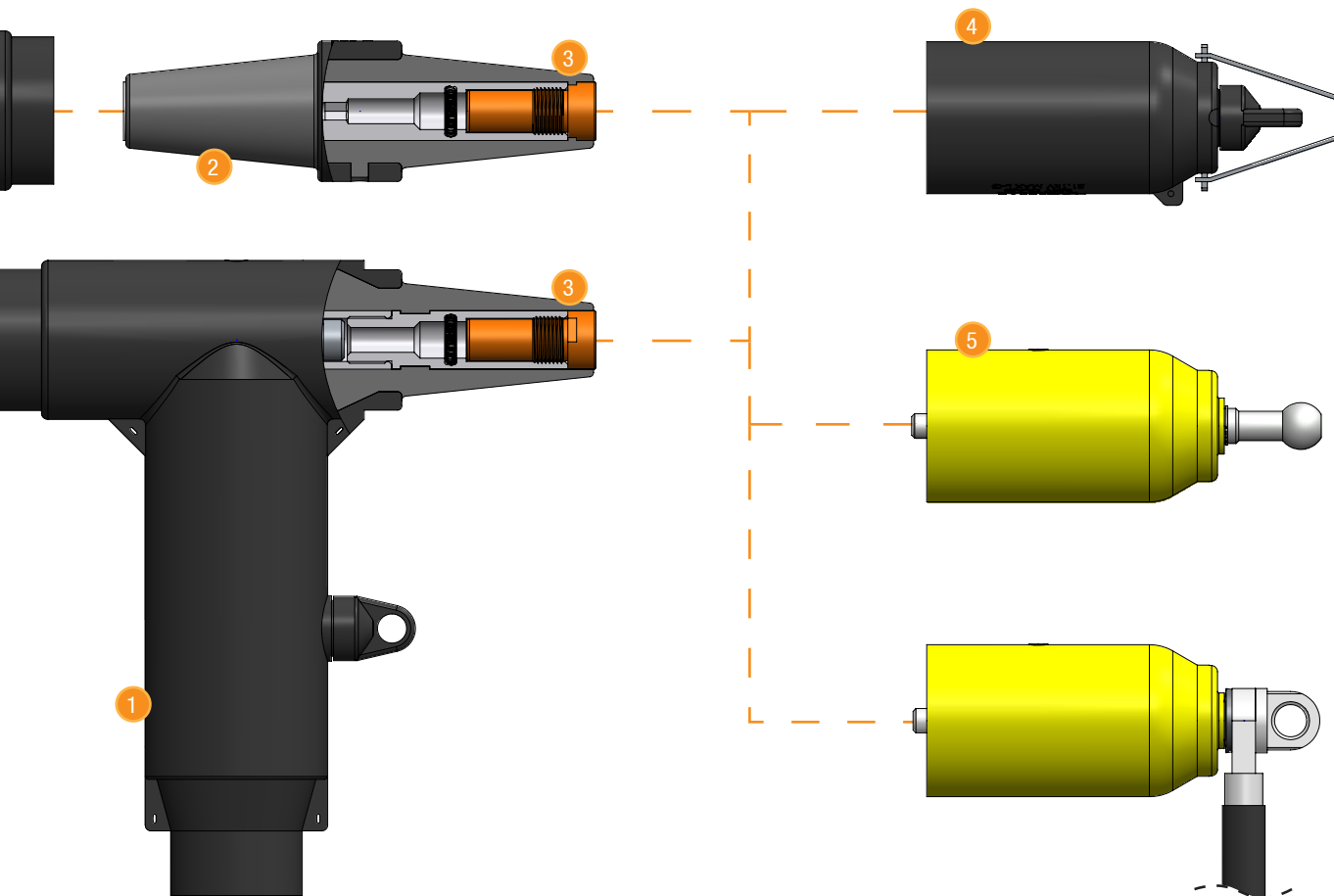
Short-Time Current	40kA, 10c. and 10kA, 3s.
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The 35kV Direct Test Series is qualified to the following industry standards:

- IEEE Std 386-2016: For Separable Insulated Connector Systems
- ANSI C119.4: For Electric Connectors
- IEEE Std 592: For Exposed Semiconducting Shields

<sup>®</sup> Exceeds IEEE 386-2016 requirement

# DT Series | Direct Test Elbow & Plug



DT Livebreak Interface designed for use with 3/4" Test Probe Adapters

## 1. DT Elbow

The DT Elbow (DTE), like all Richards combination designs, incorporates multiple components into a single factory-molded/tested unit. By reducing the number of components and electrical interfaces, assembly is simpler and more reliable. The DTE's internal fastener is rotated by way of a supplied hex tool to engage threads and torque. Each DTE Body accepts an IEEE 386 Figure 13 interface.

## 2. DT Plug

Richards also offers the same innovative interface available in Plug form with the DT Plug (DTP). This plug features an IEEE 386 Figure 13 interface on one side and our innovative Livebreak Interface on the other. The DTP can be installed on the backside of Deadbreak Elbows and Bushing Extenders to provide a convenient ground and test location.

## 3. Livebreak Interface

The DT Series Livebreak Interface is designed and tested to allow the DTIC Insulating Cap to be removed on a possibly energized circuit, providing a convenient point for direct testing. The interface features an insulating polymer nose (shown in orange) and a recessed contact. Using an approved measurement device, system operators can directly verify the circuit is de-energized.

## 4. DTIC Insulating Cap

This specially designed Insulating Cap mates with the Livebreak Interface. The cap features a capacitive test point to perform an initial test, if required, before untightening/removing the cap. Once the cap is removed, system operators can directly test the Livebreak Interface to check for voltage.

## 5. DTGC Grounding Cap

Once a voltage test is performed, this Grounding Cap can be installed on the Livebreak Interface with a hot stick. The cap provides a solidly bolted ground, more secure and robust than Loadbreak grounding connections. In fact, Loadbreak interfaces are only rated to 10kA for 10cycles whereas the DT Series has a rating of 40kA for 10 cycles. The DTGC is available in two styles—copper ball end or cable extension.