Introduction to the Modular Injection Component, A Third Way to Rejuvenate Cables

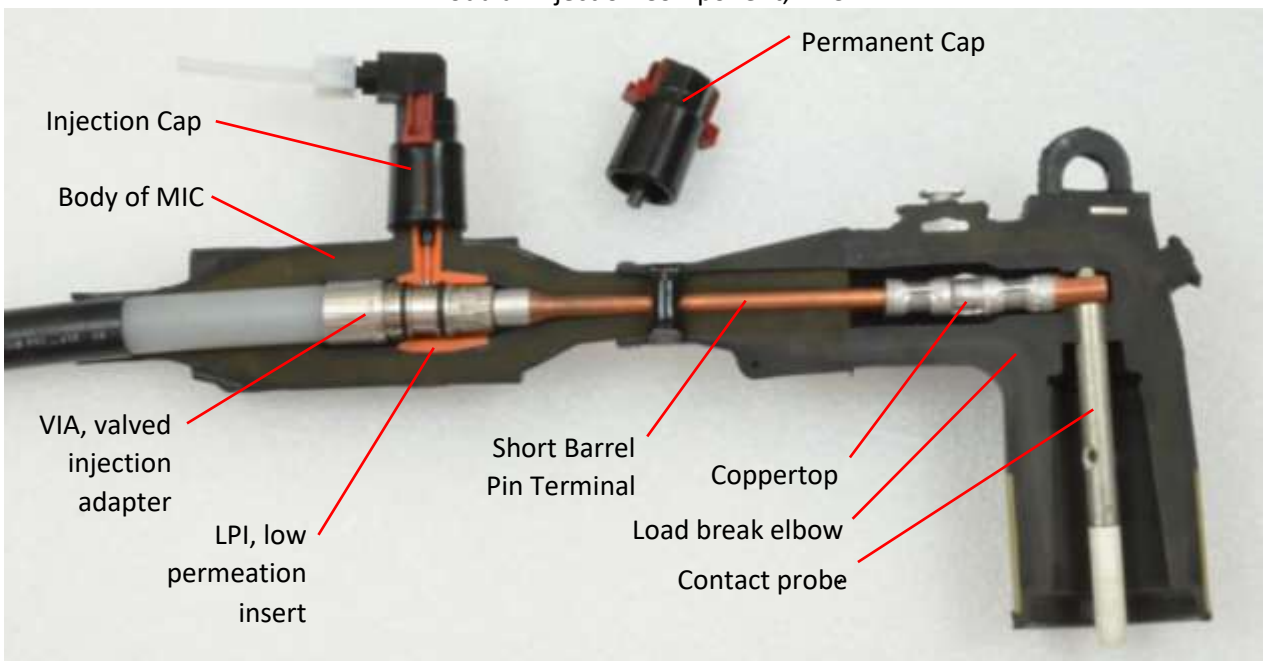
Today it is not possible to perform sustained pressure rejuvenation on an energized cable with dead-front terminations. Unsustained pressure rejuvenation can be performed on energized cables using special injection elbows, but is limited by the pressure capacity of the elbow. Until now, sustained pressure rejuvenation, which can be conducted at pressure appropriate for the cable and application, required that a cable be de-energized and isolated during injection. Once rejuvenation was completed, the cable is returned to service using standard cable accessories.

The new Modular Injection Component (MIC) is the first cable accessory purpose-built and optimized for fluid injection. As well as enabling sustained pressure rejuvenation on energized cables, the MIC system further addresses several other limitations and shortcomings of current injection elbows.

The Low Permeation Insert and the Valved Injection Adapter of the MIC contain the fluid and prevents it from contacting and being absorbed by the rubber of the accessory. The Injection Port Cap locks to keep it from being dislodged by internal pressure and cannot be mistaken for a capacitive test point cap or elbow pull eye. A valve mounted within the MIC sustains fluid pressure in the cable after injection is complete. The valve is opened by the injection cap, which itself only permits fluid flow when engaging the valve. The MIC interfaces with all standard dead-front elbows and splices, load-break and dead-break, and allows all sizes of 15 and 25kV URD cables to be addressed with just three MIC sizes.

Since the MIC is separate from and installed below the elbow, the injection port has full rotational freedom, and length is inherently added to the cable. All injection functions can be accomplished with a hot stick, permitting installation of the component during an outage then injection while the cable is energized.

Modular Injection Component, MIC



This cutaway shows the MIC, a dead front accessory that interfaces between the end of the cable and a standard cable accessory such as a 200A dead-front elbow.