

# Transformer Oil, Nitrogen, Silicone and SF6 Gas Leak Sealing Examples

## Leaking Bushing Repair



Leaking Bushing Flange prior to the Clamp Installation

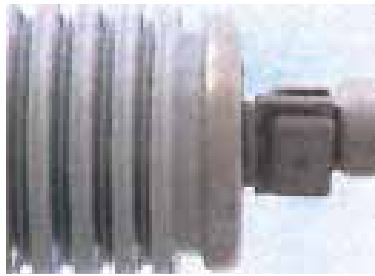


Emergency Custom Fabricated Bushing Clamp



Leaking Bushing Repaired

## SF6 Gas 345kV Breaker Bushing Terminal Ends



SF6 gas 345kV Breaker Bushing Terminal Ends are notorious for leaking where the porcelain goes into the aluminum terminal end. The clamp below is made of cast nylon and would be one style of clamp made for this repair. The clamp and cured sealant are easily removed at a later date.



Cast Nylon Clamp with rubber seals is designed to close on the OD of the aluminum terminal end then drop down and close on the porcelain OD. This will create a barrier around the entire leaking area that will then be injected with Colt's S-22 sealant.

## Flapper Valve Flange



A common oil leak on a transformer is a flapper valve flange. These oil leaks are repaired using our Drill and Tap technique. After the injection is complete, the injectors are removed and Teflon-coated pipe plugs are installed.

## SF6 Gas Leak on a 245kV Bushing

The leak is a casting flaw pin hole. COLT Power Services offered two repair options:

1. Take measurements and fabricate an enclosure that would close on the two flange ODs and encapsulate the leak. Then inject the enclosure with S-22 sealant for the seal. OR
2. Locate the exact spot where the leak was and verify wall thickness of the component. Make a 1/16" drilled & taped hole at this spot. An injection valve would then be installed and pumped with sealant.



The customer chose #2 and the job was sealed.