

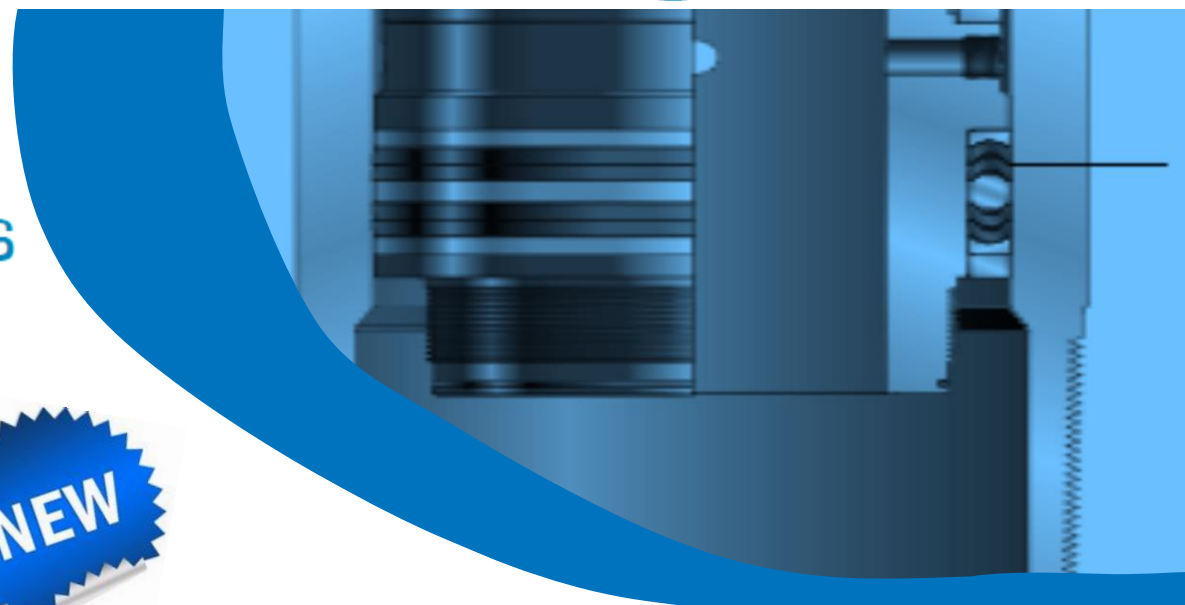


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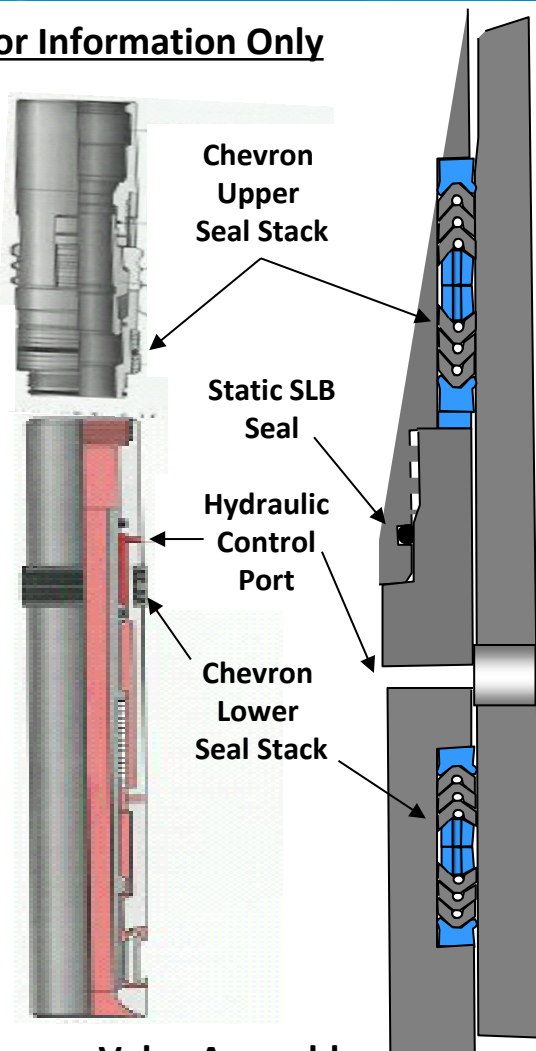
# MAC-PAC Leak Sealing Solution



*“Successful Isolation of Downhole Safety Valve  
Packing Stack using Mac-Pac”*

# Otis WRDHSV with B-Seals & Swellable 'O' Rings Stack

## For Information Only



Flapper Valve Assembly

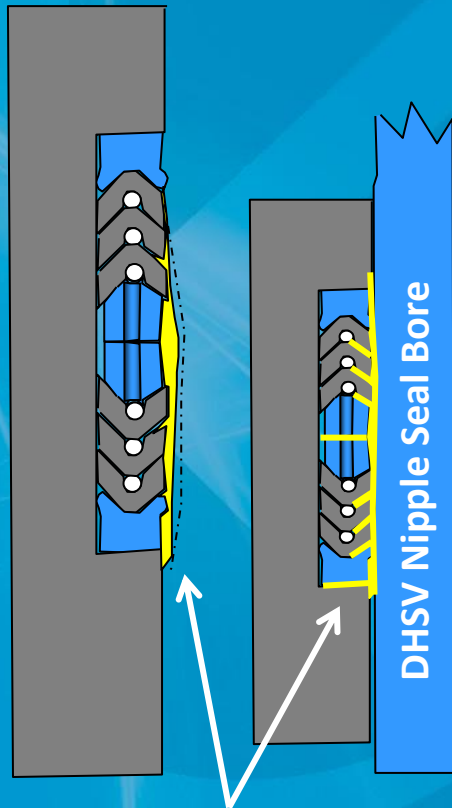
## Background

- ❑ KCI were requested by a Major Oil and Gas Operator to create an isolation on a Wireline Retrievable Down Hole Safety Valve (WRDHSV) Packing Stack to fill any damaged or wire tracked areas in the seal bores to create an isolation.
- ❑ Various steps had been taken to address this issue without success. All indications lead to damage within the Upper Seal Bore of the DHSV assembly.
- ❑ KCI provided the Engineering and Product to carry out the operation.
- ❑ KCI proposed to coat the outer surfaces of the Packing Stacks with 500mls of Activated Mac-Pac Sealant. This will coat the internal seal bores of the DHSV nipple for isolation and containment.

# Otis WRDHSV with B-Seals & Swellable 'O' Rings Stack

## Deployment Detail

- ❑ 500mls of Activated Mac-Pac Sealant applied to the Upper and Lower Seal Stacks. (See picture below)
- ❑ The Lower Packing Stack will squeeze through the Upper Seal bore depositing some sealant into the damaged areas. The Upper & Lower Packing Stacks will then enter their corresponding Seal Bores at the same time.
- ❑ The sealant below the Upper Packing Stack will start to engage and smear onto the Seal Bore filling all corroded or damaged areas.
- ❑ Once the Mac-Pac cured the customer obtained a good pressure test on the Control Line and Inflow test on the Safety Valve retaining full functionality.



Sealant coating the Seal Stack filling any damaged areas creating an isolation.

## Mac-Pac Applied at surface

