

# MECHANICAL VS. INFLATABLE SEALS?

## SEAL TYPE SELECTIONS BASED ON SEALING APPLICATIONS

### SINGLE MECHANICAL SEAL



- **GREAT FOR SAFETY DURING PRESSURE ISOLATION - ONCE SEAL IS SET IT IS LOW MAINTENANCE.**
- **EXTREMELY STABLE SEAL - STEADY STATE SEALING FOR INSTALLATION LIFE.**
- **SEALS WELL OVER WELDS AND CAN BE LOCALLY TIGHTENED MORE TO SEAL BETTER OVER PIPE SURFACE DEFECTS.**
- **TYPICALLY TAKES LONGER TO INSTALL THAN AN INFLATABLE SEAL.**

### SINGLE INFLATABLE SEAL



- **QUICK TO INSTALL - INFLATE SEAL WITH GAS OR LIQUID.**
- **EXCELLENT FOR REPETITIVE HYDROTESTING APPLICATIONS.**
- **SEALS WELL IN OUT OF ROUND PIPES AND IN IRREGULAR SHAPES.**
- **MAY REQUIRE ADDING PRESSURE DUE TO TEMP. CHANGES.**
- **LESS STABLE THAN MECHANICAL SEAL, IF SEAL LOOSES PRESSURE LEAKAGE CAN INCREASE, SOMETIMES QUICKLY, SINGLE INFLATABLE SEAL IS NOT RECOMMENDED FOR PRESSURE ISOLATION WHERE THERE IS RISK TO LIFE!**

### DUAL MECHANICAL SEALS



- **SAME ADVANTAGES AND DISADVANTAGES OF SINGLE MECHANICAL SEAL - WITH INCREASED SAFETY - DOUBLE SEALING BARRIER. THIS DESIGN IS PREFERRED FOR ISOLATIONS!**
- **CAN BE USED AS A DOUBLE BLOCK AND BLEED ISOLATION DEVICE AND USER CAN PRESSURIZE BETWEEN SEALS TO CONFIRM DUAL SEAL INTEGRITY.**
- **PENDING DESIGN, MAY TAKE LONGER TO INSTALL THAN A SINGLE MECHANICAL SEAL.**

### DUAL INFLATABLE SEALS



- **SAME ADVANTAGES AND DISADVANTAGES OF SINGLE INFLATABLE SEAL - WITH INCREASED SAFETY FOR ISOLATION APPLICATIONS WHEN SEALS ARE PLUMBED SEPARATELY!**
- **CAN BE USED AS A DOUBLE BLOCK AND BLEED ISOLATION DEVICE AND USER CAN PRESSURIZE BETWEEN SEALS TO CONFIRM DUAL SEAL INTEGRITY.**
- **PENDING DESIGN, MAY TAKE LONGER TO INSTALL THAN A SINGLE INFLATABLE SEAL.**

### MECHANICAL & INFLATABLE SEAL



- **SAME ADVANTAGES OF SINGLE MECHANICAL AND SINGLE INFLATABLE SEAL.**
- **GREAT FOR OUT OF ROUND AND LARGE SURFACE DEFECT PIPE OR TUNNEL SYSTEMS!**
- **PRESSURE MONITORING REQUIRED FOR INFLATABLE SEAL.**
- **TAKES MORE TIME TO INSTALL THAN SINGLE SEAL DEVICES.**

### HOW THE SEALS WORK

(EXAMPLE: PRESSURE ISOLATION & TEST TOOL)

