TCO™ Redefining Well Solutions

FN Retreivable Valve

FNR

Product Description

TCO's FN and HN modules can be supplied in a wireline retrievable configuration to suit 1.5" ISO 17078 side pocket mandrels. The retrievable device utilises the same technology and qualified components as the permanent installed device.

The TCO FN Retrievable is the FN-Series Valve packaged in a retrievable valve chassis. The FN Retrievable valve can be installed in any ISO 17078/API 19G compliant Side Pocket Mandrels.

TCO's FN-Series product line comprises the most advanced U-tube protection devices in the industry. FN-Series products prevent the hydrostatic fall-through of injected fluids from the chemical injection line into the wellbore.

Conventional solutions tend to result in cavitation, scaling and chemical damage, and suffer from inherent leakage. In contrast, the TCO FN-Series provides a proprietary method of achieving a leak-free system, even in low-flow or no-flow conditions.

The FN-Series is the industry leader in overcoming the U-tube effects caused by the potential syphoning fall-out of fluids in the control line. Developed using unique proprietary and patented technologies, TCO's FN-Series represents the cutting edge of development in this important area of deep-set downhole chemical injection systems.

Making use of TCO's reliable and field-proven modular approach, FN-Series devices are supplied with our ISO 14310 V0 barrier qualified HN-Series check valves to complete the well barrier envelope. This provides operators with a purpose-built overall injection solution with the highest level of integrity.

TCO's modular approach enables FN-Series devices to be combined to meet any standard or special application need, whether the operator requires a rupture cartridge for injection line system integrity testing, or multiple in-line filtration modules to protect the system from initial debris.

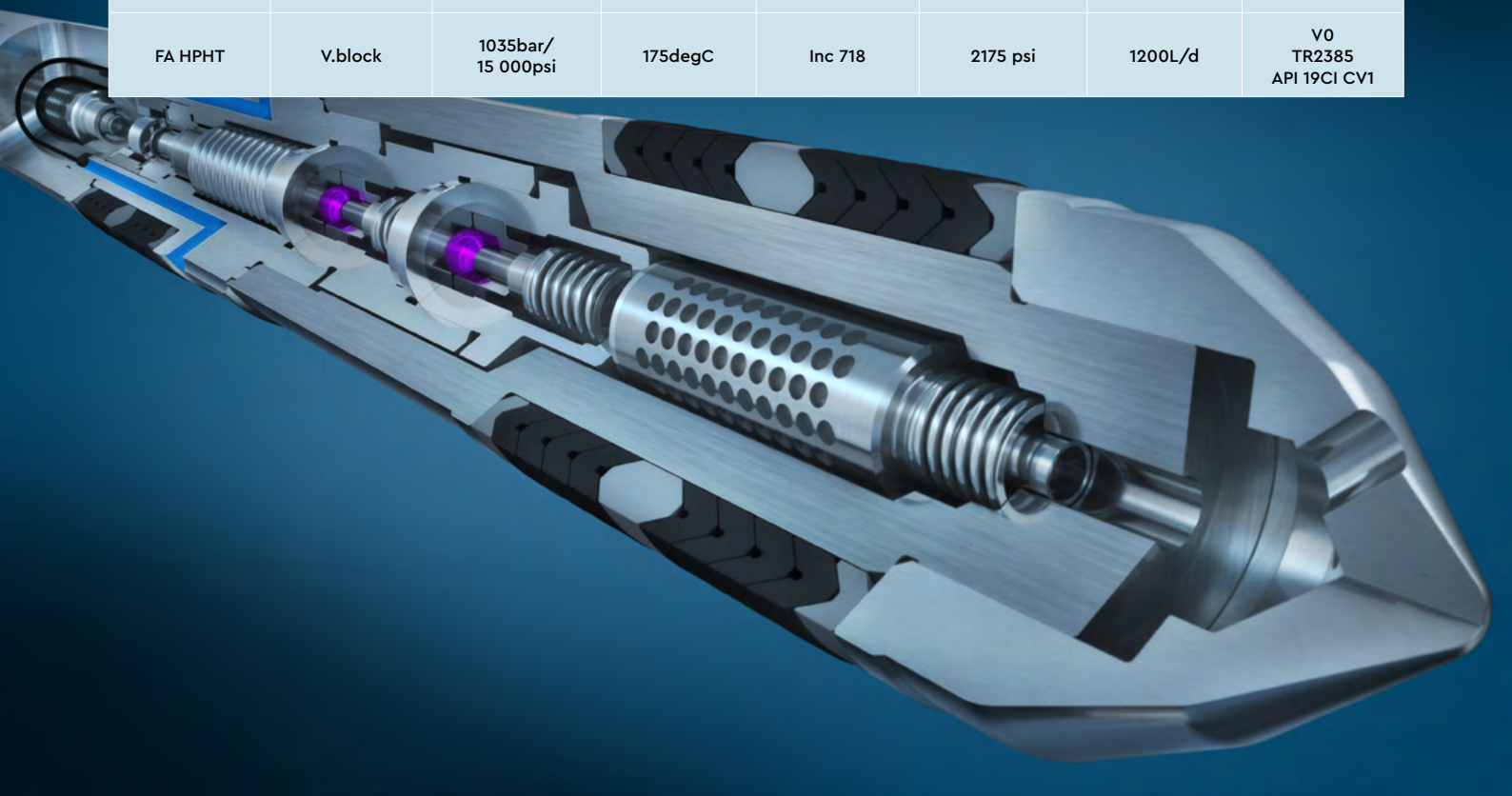
TCO™ Redefining Well Solutions

FN Retreivable Valve

Features & Benefits

- Dual check valves
- High integrity back-pressure element
- Unique HX-type rupture cartridge
- Equinor TR2385 qualified – Appendix G
- ISO 14310 V0 barrier qualified (HN-series check valves)
- Eliminates u-tube/syphoning fall-out
- Zero leakage in a low-flow or no-flow state
- Temperature rating up to 150°C
- Pressure rating up to 690bar
- Testable system integrity
- Inline Catch Screen debris filter
- OD 1,5''
- API 19CI CV1 validated

Applications

- Deep installations
- Depleted reservoirs
- Artificial lift
- Dual check valves, completes well barrier envelope
- Latch as per running tool requirements

Product Type	OD	Pressure rating	Temp.	Material	Back Pressure	Flow Rate	ISO 14998
FNR	1,5''	690bar/ 10 000psi	150degC	Inc 625/825/718	1000–5000 psi	24–1200L/d	V0 TR2385 API 19CI CV1
FA HPHT	V.block	1035bar/ 15 000psi	175degC	Inc 718	2175 psi	1200L/d	V0 TR2385 API 19CI CV1