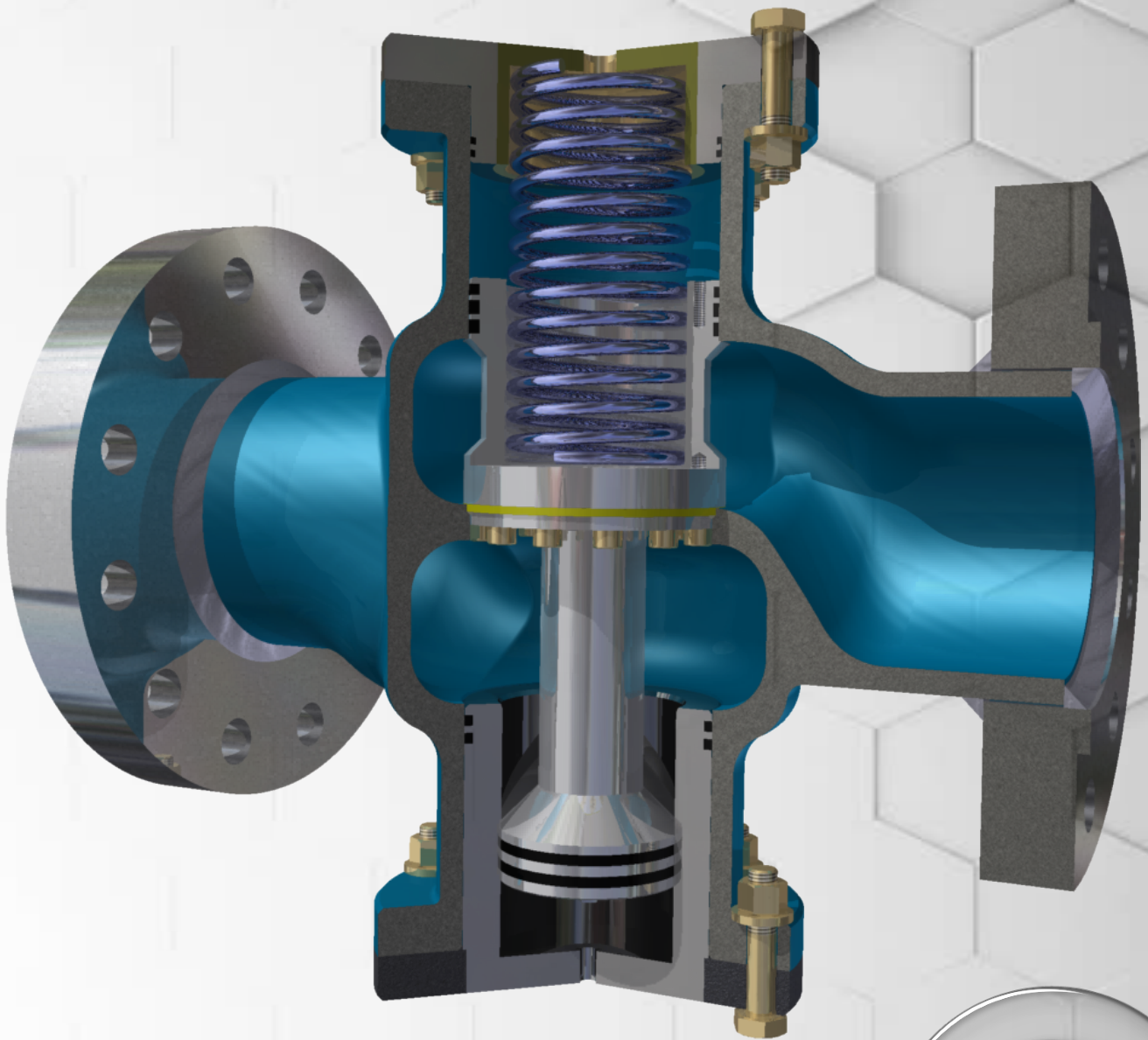
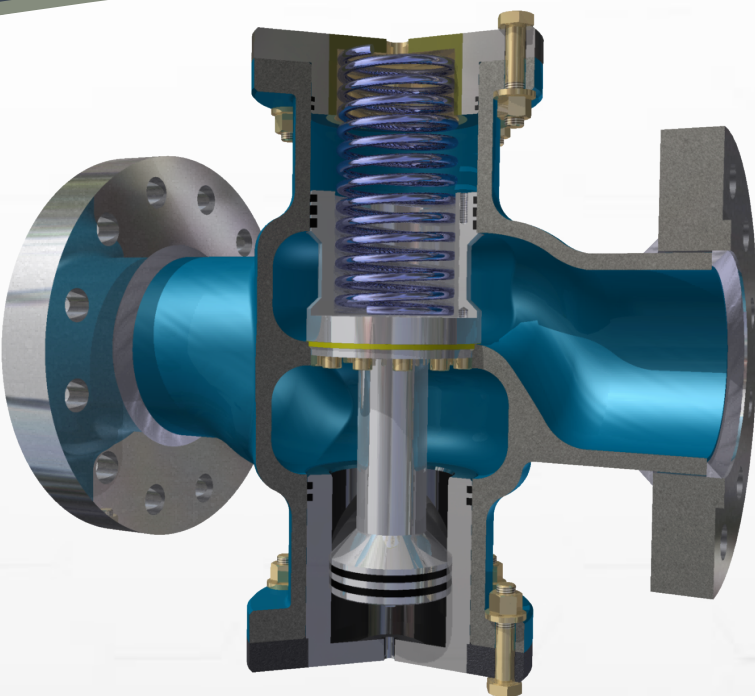


Hydrocore Limited Presents

Hydrocore™ Symmetrical Pressure Relief Valve



Hydrocore™ Symmetrical Pressure Relief Valve



HYDROCORE™ SYMMETRICAL
SPRING LOADED RELIEF VALVE

THE AREA-RATIO RELIEF VALVE

The Hydrocore™ Symmetrical (area-ratio) pressure relief valve is a unique development as it enables the use of the valve in high pressure applications as well as low pressure applications, without changes to the valve.

PRINCIPLES OF OPERATION

The Hydrocore™ Symmetrical area-ratio pressure relief valve prevents excessive pressure conditions by discharging fluid from a fluid transfer system into a reservoir or a drain. The valve's piston is in equilibrium state when the opening forces resultant ' F_w ' equals the nitrogen gas closing force ' FG ' or the spring's ' F_{uo} F_{uc} ' force..

NO ACTUATORS, PILOTS OR INSTRUMENTS NEEDED

The Hydrocore™ Symmetrical pressure relief valve prevents the rising of the pipeline pressure ' P_u ' above a preset level. The line fluid pressure powers the valve with no need for external actuators, pilots, instruments or an external power source.

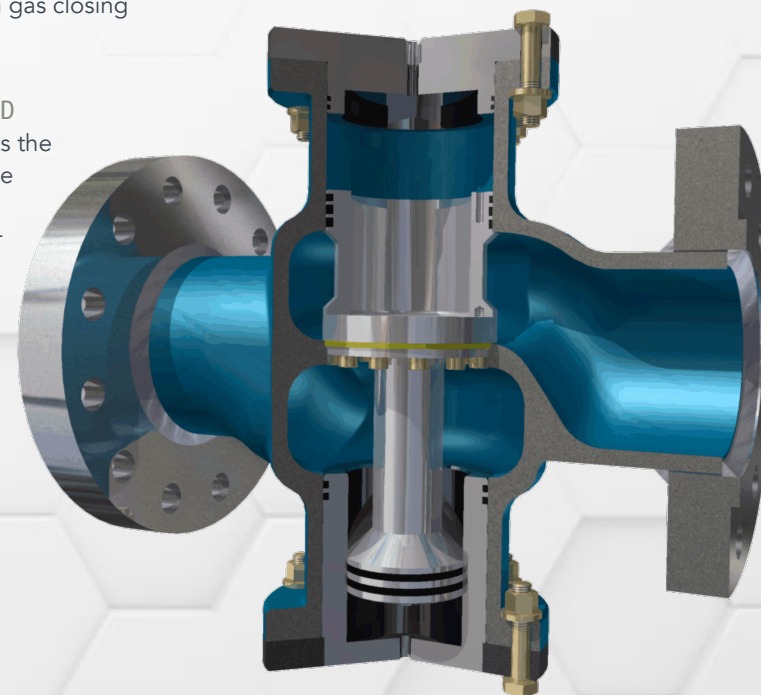
AREAS OF APPLICATION

The Hydrocore™ Symmetrical area-ratio pressure relief valve prevents excessive pressure conditions in fluid transfer systems such as:

- ▶ Industrial Water Systems
- ▶ Municipal Water Supply Systems
- ▶ Pump Stations
- ▶ Mine Water Reticulation
- ▶ Petrochemical Plants

COMPATIBILITY WITH ISOLATING VALVES

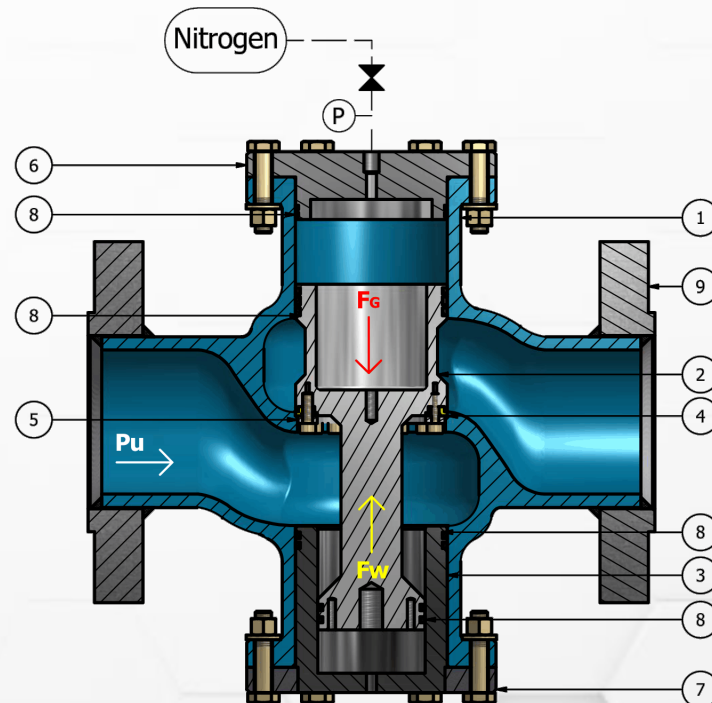
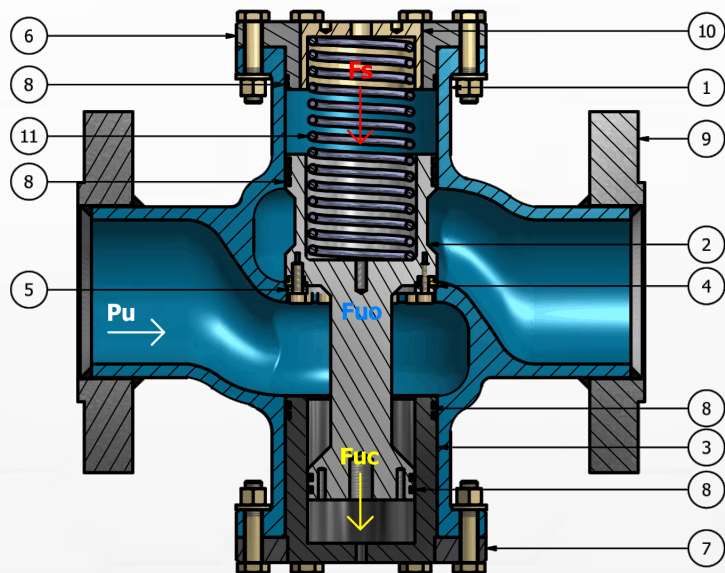
the pressure relief valves are fully compatible with the isolating valves and can be converted with minimal cost and time.



HYDROCORE™ SYMMETRICAL
NITROGEN CHARGED RELIEF VALVE



Hydrocore™ Symmetrical Pressure Relief Valve



| PART | DESCRIPTION | MATERIAL |
|------|--------------|-----------|
| 1 | BODY CASTING | 431SS |
| 2 | SHUTTLE | 431SS |
| 3 | SLEEVE | 431SS |
| 4 | SEAT | UHMPWE |
| 5 | SEAT HOLDER | 431SS |
| 6 | TOP COVER | EN-8 |
| 7 | BOTTOM COVER | EN-8 |
| 8 | SEALS | NITRILE |
| 9 | FLANGE | ASTM A105 |
| 10 | ADJUSTER | 431SS |
| 11 | SPRING | 304SS |

SET POINT ADJUSTMENT

The relief set point can be adjusted by:

- ▶ Setting the adjuster
- ▶ Changing the nitrogen gas pressure in the valve's closing compartment

NITROGEN CHARGED VALVES

The nitrogen charged pressure relief valves are suitable for surge relief pressures exceeding 25 bar. When the system pressure reaches the relief set point, the valve opens to reduce the system pressure.

ADJUSTING THE RELIEF SET-POINT

the pressure relief set-point is adjustable by adding or removing spring washers. Adding spring washers increases the pressure relief set-point and vice versa.

DIMENSIONS

From 25NB (1") until 600NB (24")

RATINGS

From 10 bar (147 psi) until 250 bar (3675 psi)

FLANGES

SABS 1123, ANSI B16.5
BS10, BS4504, ASME B16.34

COUPLINGS

Tapered shoulders and other pipe couplings

