

flow optimised design (CFD)
least possible flow losses

1

valve in welded construction
by comparison it features a
low weight, an adapted building
length, special materials
and individual flange standards
are possible, short delivery
times

2

MOD
Manual Opening Device
function control, bleeding,
flushing, filling of the
valve

5

pilot operation, closing time
and response pressure can be
adjusted

optimal response behaviour
low-stress closure

6

balanced cone, customised
 K_{vs} -value
high seat tightness until the
response pressure is reached,
smaller slop tanks possible,
independent from counter-
pressure

7

earthquake-proof
can be used world-wide

8

resistant to vacuum
also suitable for dry
running systems

9

inner parts, pilot valve, piping
and operating elements of
stainless steel, painting as per
DIN ISO 12944 part 5 C5-M
high corrosion protection

3

exchangeable filter in the pilot
system
filter may be changed during
operation, trouble-free
function

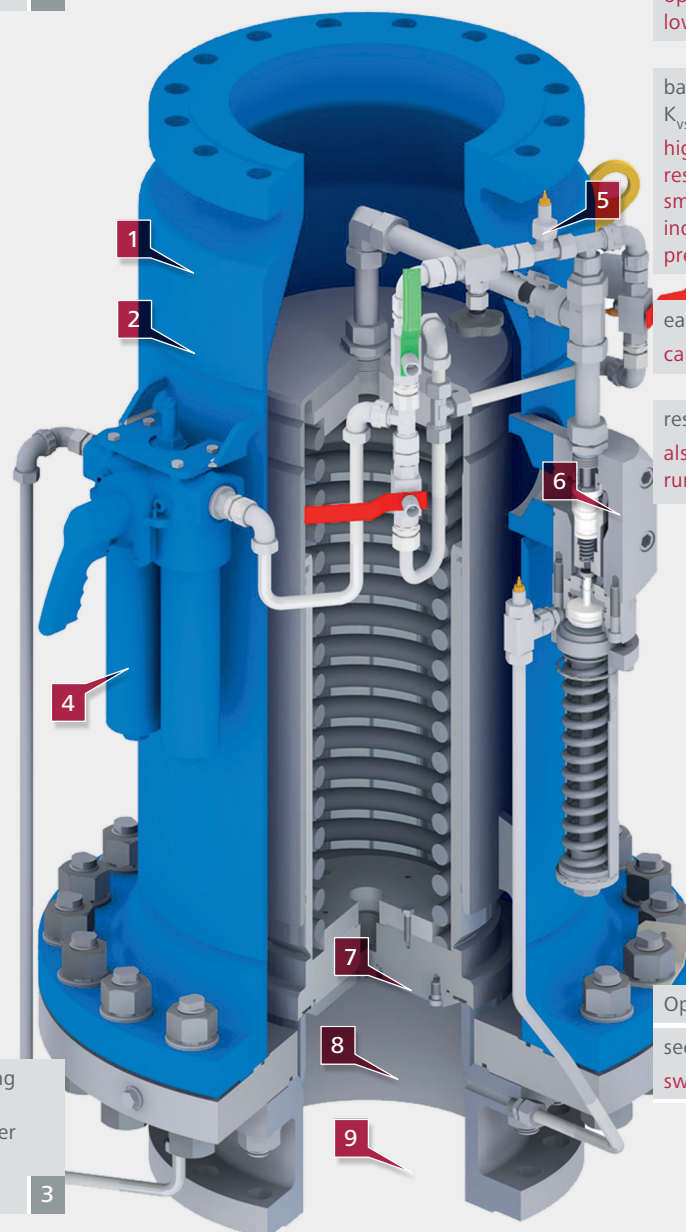
4

Options

second pilot valve
switchable set pressure



flow indicator and / or stroke
sensor
function monitoring, recording



Surge Relief Valve (Peak Load)

SR 6.2



Surge Relief Valve (Peak Load)

SR 6.2

self-energised for extreme flow rates | straightway valve with optimised design with least possible flow loss | directly acting or pilot-operated | shortest possible response times | suitable for all liquids | valve of welded steel, CrNiMo steel or special stainless steel | can be designed for any application, any problem with regards to pressure relief can be solved | versions for vertical or horizontal installation

DN	150 - 400	PN	16 - 160
p ₂	max 160 bar	T	-30 to +130 °C / -22 to +266 °F
C _{VS}	465 - 2,791 US gal/min.	K _{VS}	400 - 2,400 m ³ /h

Pipeline Protection at Russian Seaports

Oil and natural gas are an essential part of Russia's raw material reserves and enormously economically important to the country. Whilst natural gas is predominantly exported through pipelines, a large part of the crude oil is transported abroad on tankers.

For this purpose, loading facilities called seaports are operated at various Russian Black Sea and Baltic ports where large oil tankers are loaded up. The crude oil is transported to these stations via pipelines or trains and temporarily stored in big tanks. Pumps then convey the oil to the ship through pipelines. Movable marine loading arms establish a connection between the pipeline systems on land and the vessel. Should the vessel unexpectedly drift away from the pier, the pipeline connection could be torn apart. In that case an emergency disconnection would be carried out: the connection would be separated with a quick-release coupling and the supply pumps would be shut down.

This emergency disconnection by means of the ESV (emergency shut-down valve) prevents the crude oil from uncontrollably leaking into the sea. However, the short reaction time of the valve produces a serious pressure surge because the kinetic energy within the liquid column is transformed to potential energy (pressure). Mankenberg's SR 6.2P, a quick-opening pilot-operated pressure relief valve, disposes the liquid which caused the pressure peak in a slop-tank. It then soft-closes automatically after the closing pressure has been reached.

Hence, the SR 6.2 is used for the cost-effective and environmentally friendly protection of the plant fulfilling the legal requirements.