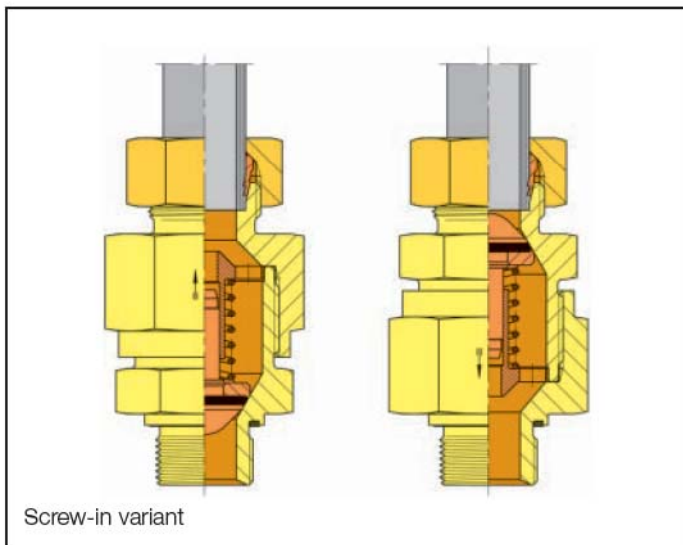
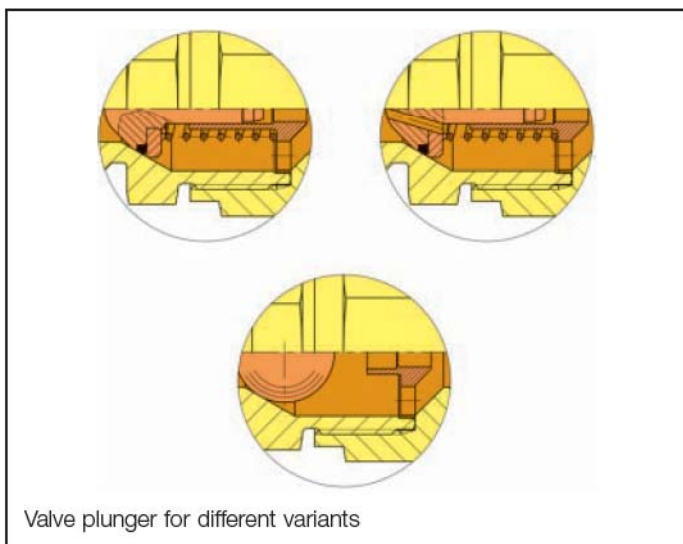


Optimum design



Screw-in variant



Valve plunger for different variants

## Function description Non-return valves

VOSS non-return valves are available in the following design variants:

- Line non-return valves with tube coupling on both ends
- Screw-in non-return valves with metric fine thread or Whitworth pipe thread and sealed with profile seal
- Non-return valve plug-in cartridges
- Inner valve-part installation kit

Non-return valves are also used as intake or pre-loading valves depending on the opening pressure.

- Sealing is carried out by a spring-loaded taper with a chambered soft seal
- Stroke limitation and damping pin on taper reduce wear
- With screw-in non-return valves, flow direction from/to threaded stud
- Especially low-resistance flow due to shape of inner parts

### Opening pressures

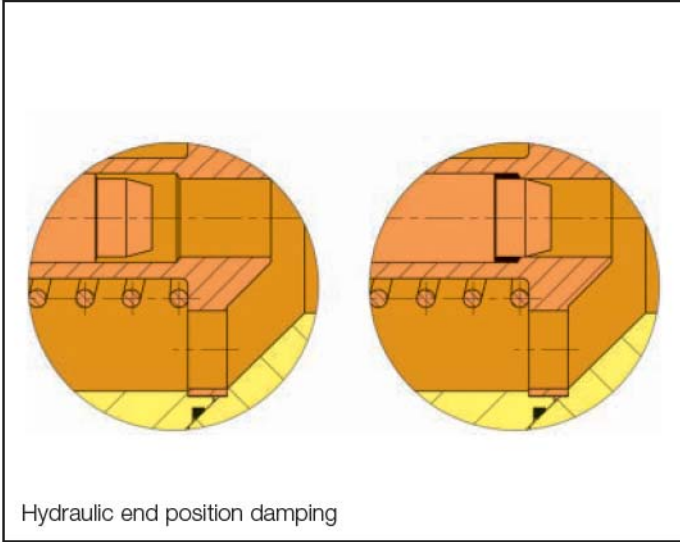
- The opening pressure is 1 bar in the standard design.
- Special opening pressures are listed in the following table for valves with an 2S cutting ring and an ES-4 cutting ring

Table of special opening pressures

	bar	Key No.:	
		2S	ES-4
Special opening pressure	0.2	-20	-30
Special opening pressure	0.5	-19	-29
Special opening pressure	1.5	-21	-31
Special opening pressure	2	-18	-28
Special opening pressure	2.5	-17	-27
Special opening pressure	3	-16	-26
Special opening pressure	4	-14	-24
Special opening pressure	4.5	-13	-23
Special opening pressure	5	-12	-22
Special opening pressure	6	-11	-25

With special opening pressures, the digits 9 and 10 of the Order No. (07 with 2S cutting ring and 09 with ES-4 cutting ring) are replaced with the corresponding Key No. in accordance with the table.

**Ordering example:** Non-return valve 0 6 00 01 20 07 with 6 bar opening pressure 0 6 00 01 20 11

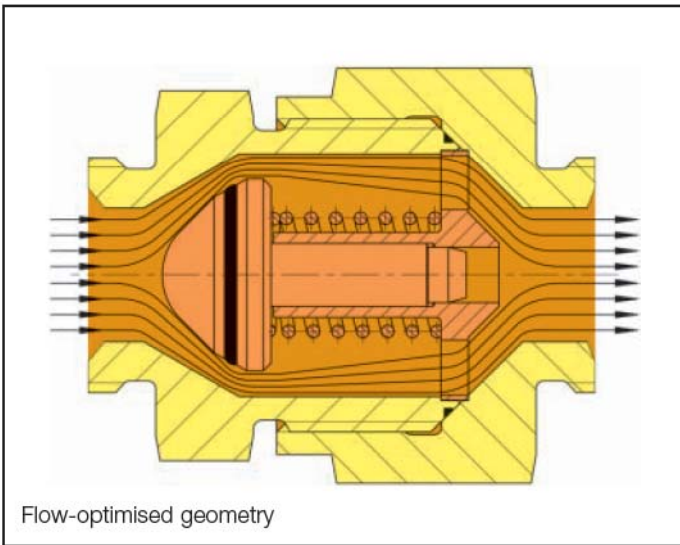


Hydraulic end position damping

The valves can always be realised with opening pressures (e.g. 0.1 bar) or even without springs as intake valves. With opening pressures of less than 0.5 bar, a vertical installation position with an upward flow direction is recommended (to avoid friction forces and ensure a centred sealing seat). However, then the plunger weight affects the opening pressure.

Opening-pressure tolerance  $\pm 20\%$

Valves under 0.2 bar:  
no tolerance specification possible  
(too many influencing factors).



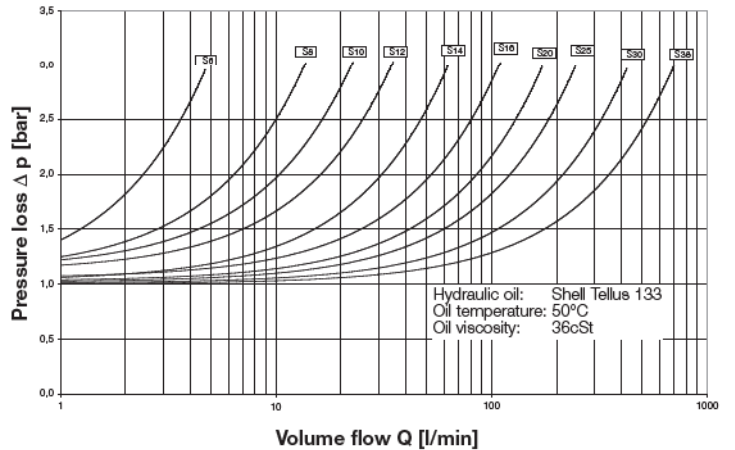
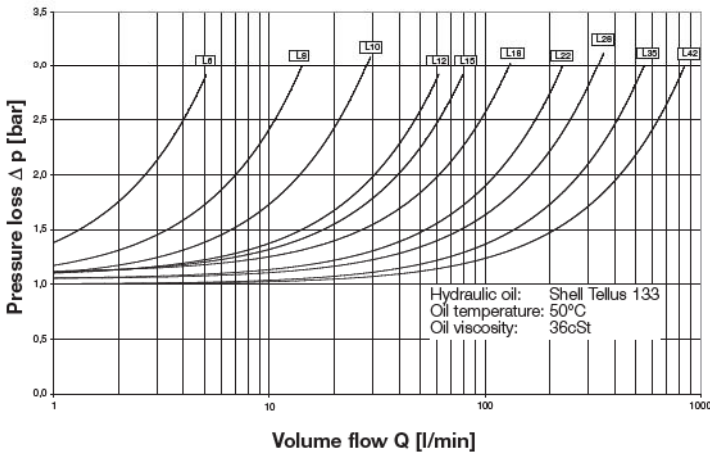
Flow-optimised geometry

## Maximum opening pressure

Tube OD	max. opening pressure bar	Tube OD	max. opening pressure bar
L 6 – L 28	6	S 6 – S 30	6
L 35	5	S 38	5
L 42	2		

Pressure loss curves: Non-return valves, opening pressure 1 bar, L series  
VOSS Art. No.: 0 6 00 xx xx xx - 0 6 04 xx xx xx

Pressure loss curves: Non-return valves, opening pressure 1 bar, S series  
VOSS Art. No.: 0 6 00 xx xx xx - 0 6 04 xx xx xx



Flow resistances