

Axial Check Valve

Product summary sheet

Type designation

Check or non-return valve

Mokveld model

TKZ-Y

Size and pressure ratings

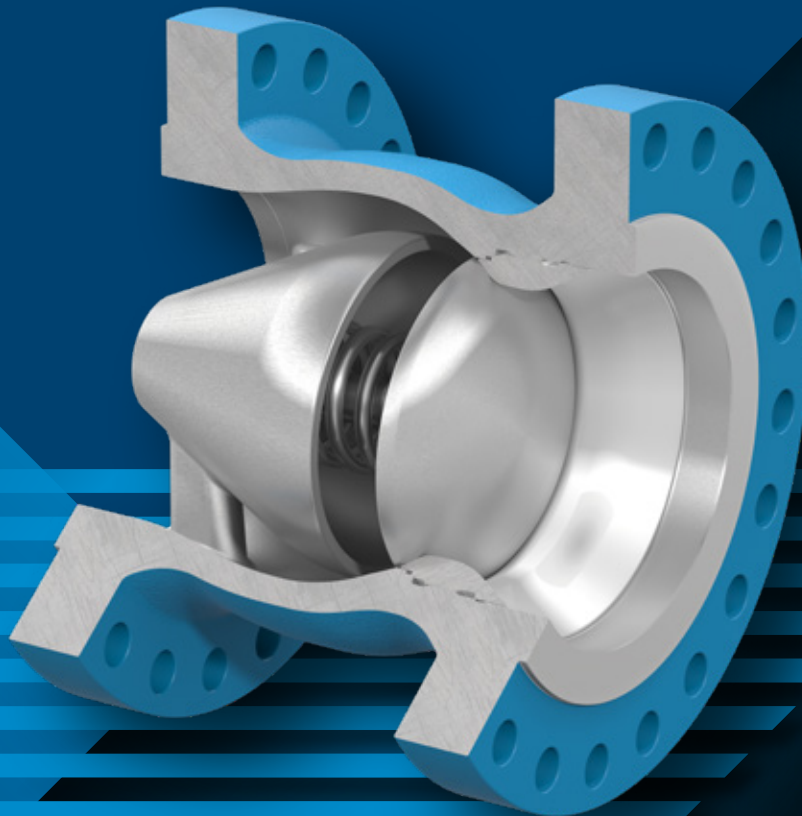
- Sizes 2" - 84"
- Rating ASME Class 150 - 2500
or API 3000 - 10 000
- Higher pressure ratings upon request

In preference to

- Swing check valve
(including controlled closure devices)
- Dual-plate check valve
- Piston check valve

Typical applications

- Transmission pipeline compressor discharge
- LNG compressor train
- Cooling water system (Ethylene, LNG)
- Multiphase pumping
- Subsea pump and flowline application



Mokveld axial check valves offer the following main features:

Axial flow

Streamlined flow path through expanded body avoids turbulence and prevents erosion and vibration. Process downtime and maintenance costs are eliminated.

Low pressure loss

The full opening flow passage and high-pressure recovery of the venturi-shaped body result in very low pressure loss which results in reduced operating cost of pumps and compressors.

Tight shut-off

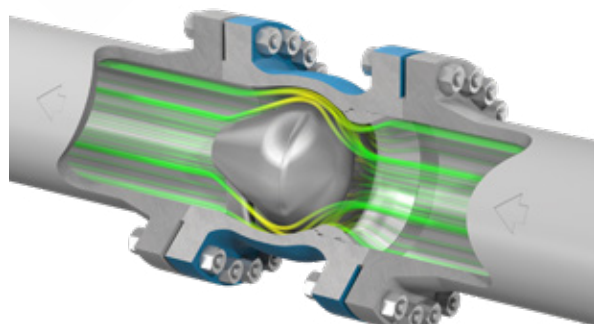
Tight shut-off is obtained by means of metal-to-metal sealing between the disk and the seat. This sealing is not affected by erosion and deformation of material (like with a soft seal).

Low cracking pressure

The stability of a compressor system during start-up benefits from a low cracking pressure. This is achieved with a large disk that has identical effective pressure areas on both sides (line contact sealing).

Easy opening and stable operation

The low static pressure in the venturi-shaped throat area creates a pressure differential over the disc, resulting in easy opening. The axial check valve responds smoothly to changes in flow and remains stable when it is supposed to be.



Non-slam operation

The spring-assisted design ensures ultra-fast closing with virtually no backflow and pressure surges in critical applications such as multi-pump systems or LNG trains.

Maintenance free

Internal construction is based on the application of sound basic mechanical engineering principles. Consequently, the axial check valve does not require any maintenance.

Reliable performance prediction

Both the pressure drop and the dynamic behaviour can be predicted with great accuracy, based on full-scale laboratory flow tests and a mathematical model developed in cooperation with a recognized fluid hydraulic laboratory.

Special features

- Custom-designed valve to meet the clients specific process conditions.
- Fire-safe, cryogenic and subsea design.

For more information, please contact Mokveld.

