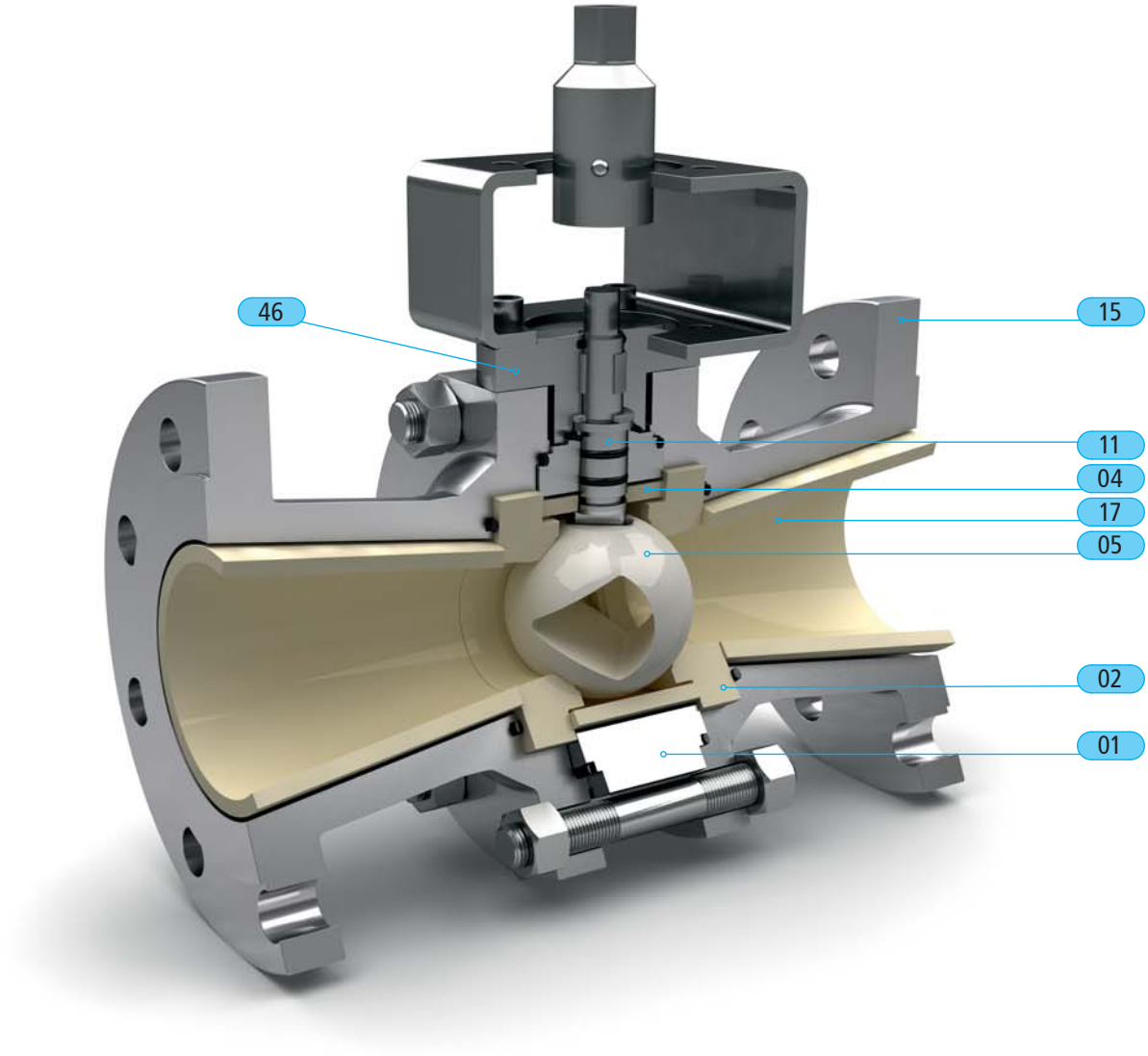
BALL VALVE • KST

MATERIALS / MATERIAL OPTIONS:



Item	Part description	Materials	Material options
01	Housing	1.4301	1.4462 - 1.4571 - 1.4539 -C22.8 - PVDF -PP - 3.7035
02	Seat ring	Al_2O_3	Si_3N_4 - SSiC -
04	Ball socket	Al_2O_3	Si_3N_4 - SSiC
05	Ball	ZrO_2	Si_3N_4 - WoC -2.4605 - 1.4112
11	Stem shaft	1.4462	3.7035 - Tantal - ZrO_2 - 2.4605
15	Flange	1.4301	1.4462 - 1.4571 - 1.4539 -C22.8 - PVDF -PP - 3.7035
17	Wear protection sleeve	Al_2O_3	Si_3N_4 - SSiC
46	Bonnet flange	1.4301	1.4462 - 1.4571 - 1.4539 -C22.8 - 3.7035
	O-rings	FKM(Viton)	FFKM (Kalrez)
	Seals	FKM(Viton)	PTFE - Viton/FEP - graphite
	Bearing bushes	PTFE	
	Screws / nuts	A2-/A4-70	

FUNCTION:

The CeraValve type KST is a ball valve with ceramic lining for open / olose function and control tasks to be used in excessively abrasive and corrosive media. It is to be preferably used if special requirements are placed on the stem sealing, on the housing materials (PVDF, titanium) or if there are very high or very low operating temperatures and high pressures.
The basic principle is based on the floating ball design. The seats are rigid (fixed), the ball has a defined clearance and is pressed against the downstream seat by the differential pressure, sealing it.
The ¼-turn movement of the ball between 0 and 90° releases an accurately defined opening cross-section. The geometric shape of the ball defines the function and control characteristics.
This ball valve has a "three part body" design. Consequently, it can be adapted to existing pipelines and the flow and control characteristics can be optimised.
These valves are available with manual lever or gear box, as well as with pneumatic, electric and hydraulic actuators. The actuator is mounted by means of a yoke and adapter arrangement. All customary actuators can be used as part-turn valve actuators.
Special connections are possible.

NOMINAL SIZE RANGE:

Flange connections DN 15 (1/2") up to DN 300 (12")
Center housing: DN 15 (1/2") to DN 150 (6")

PRESSURE RANGE:

PN 10 to PN 63
ANSI class 150, class 300, and class 600
Other nominal pressure ranges on request

OVERALL LENGTH:

according to EN 558-1 Series 1+27
According to ASME / ANSI B16.10 / EN 558-2 Series 37+38

OPTIONS:

all metallic materials for the housing
Plastic housing (e.g. PP or PVDF)
Fire-safe design
TA-Luft design
High temperature design (KST-HT type)
Wafer-type
Chemistry design (KSC type)

TEMPERATURE RANGE:

Standard: -30 °C to +180 °C / -22 °F to +356 °F
Up to 310 °C / 590 °F possible with Kalrez + graphite

TYPICAL APPLICATION AREAS:

Steel works:

- Control valve for coal injection (PCI)
- Expansion valve for coal silo
- Dosing of additive in Electric arc furnace (EAF): e.g. carbon powder
- Raw iron desulphurisation with CaC, SiO_2, MgO_2 …
- Slag formation with quartz sand

Paper & pulp:

- Control valve for lime slurry
- Control valve for Kaolin, talcum, pulp with wood residue…

Chemistry: (with PVDF housing)

- Solid-containing media with a low pH value

Abbreviations:
PCI: Pulverised Coal Injection
EAF: Electric Arc Furnance