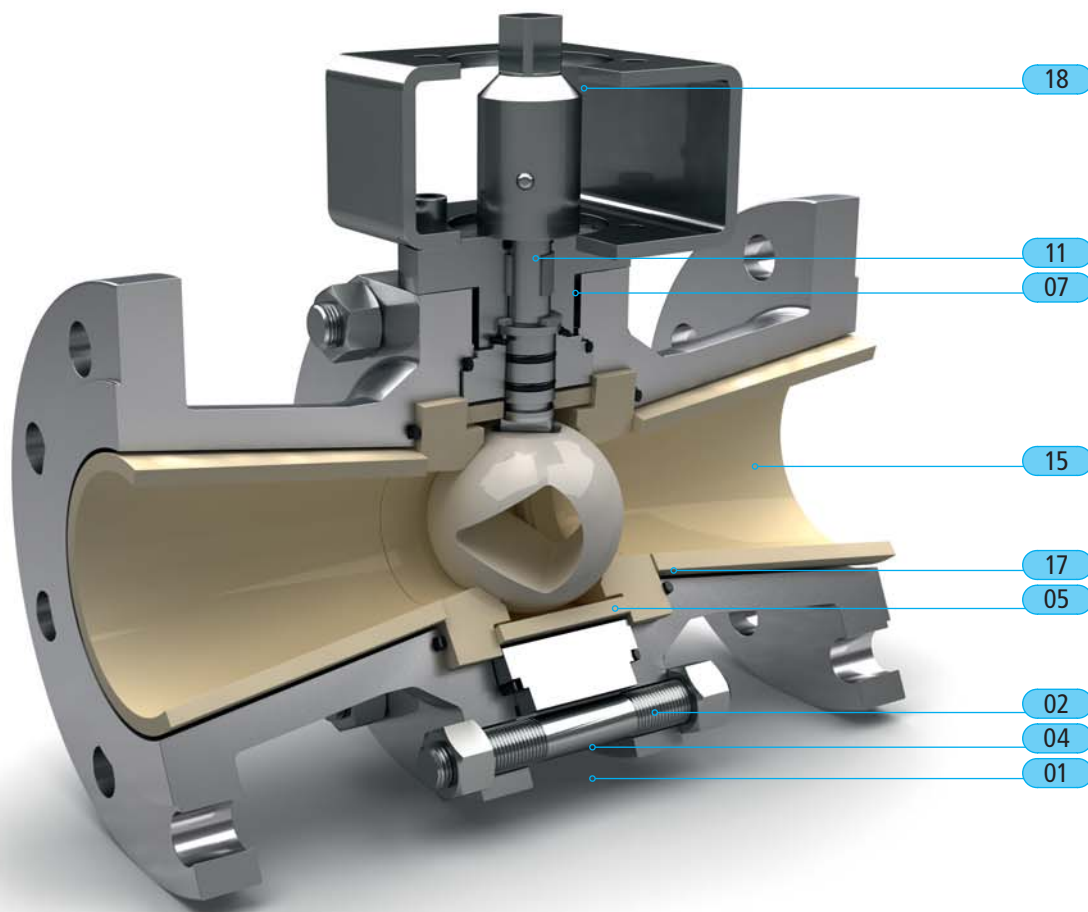


## BALL VALVE • KST-HT

MATERIALS / MATERIAL OPTIONS:



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Item	Part description	Materials	Material options
01	Housing	1.4301	1.4876(H) - 1.4462 - 1.4571 - 1.4539 - C22.8
02	Seat ring	SSiC	Si <sub>3</sub> N <sub>4</sub>
04	Ball socket	SSiC	Si <sub>3</sub> N <sub>4</sub>
05	Ball	Si <sub>3</sub> N <sub>4</sub>	ZrO <sub>2</sub> - 1.4112
07	Packing housing	1.4301	1.4876(H) - 1.4462 - 1.4571 - 1.4539 - C22.8
11	Stem shaft	1.4542	1.4876 - 1.4462
15	Flange	1.4301	1.4876(H) - 1.4462 - 1.4571 - 1.4539 - C22.8
17	Wear protection sleeve	SSiC	Si <sub>3</sub> N <sub>4</sub>
18	Stuffing box gland	1.4301	1.4462 - 1.4571 - 1.4539 - C22.8
	Packages	Graphite	Stuffing box packaging
	Seals	Graphite	
	Bearing bushes	Stellite / Graphite	
	Screws / nuts	A2-/A4-70	21CrMoV57 / 24CrMo5 - 1.4876/1.4910

## FUNCTION:

The CeraValve type KST-HT is a ceramic lined ball valve for the open / close function and the control tasks for use in excessive abrasive and corrosive media at temperatures above 300 °C / 570 °F. Special housing and ceramic materials permit solutions of up to 950 °C / 1740 °F.

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

(e.g. 1.4876H)

Special ceramics that are suitable for high temperatures and thermal shock

Fire-safe design

TA-Luft design

Wafer-type

## TEMPERATURE RANGE:

HT design: max. 450 °C / 842 °F

X-HT design: max 950 °C / 1740 °F

## TYPICAL APPLICATION AREAS:

### Steel works:

- Ore direct reduction (DRI), ore-air mixture at 750 °C / 1380 °F

### Dye production:

- Cl<sub>2</sub>-Gas with Ti<sub>3</sub>Cl<sub>4</sub> at 800 °C / 1470 °F with Ti slurry and coke

### Polysilicon:

- Control of trichlorosilane (TCS) at 500 °C / 932 °F
- Conveying of Si<sub>3</sub>Cl<sub>4</sub> at 400 °C / 752 °F

### Petrochemistry:

- Catalyst "cracking" process 750 °C / 1380 °F
- Recycling of FCC catalyst 400-600 °C / 752-1110 °F

### Energy:

- Biomass to combustible gas (pyrolysis) 600-800 °C / 1110-1470 °F