



# SELFA

## Valves & Fittings

A total component solution, from source to process

**KD/KY**  
BELLOWS SEALED SHUT OFF LINE VALVES FOR  
UHP AND HP BULK GAS APPLICATIONS

**KD/KY**



**FEATURE a unique proven design**

**KD/KY**

The KD and KY valves are bellows sealed shut off line valves designed for UHP and HP Piping systems. The high integrity makes these valves suitable for a wide range of toxic hazardous, corrosive or flammable fluid applications: bulk gas distribution systems, indoors gas distribution systems, vacuum piping systems, centralized distribution systems for solvents

High resolution spindle

Easy grip handle

Very smooth operation even at 30 bar

End connections in various tube sizes (metric and imperial)

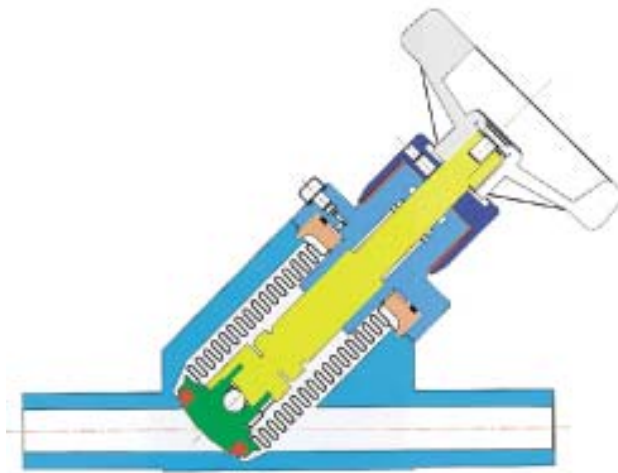
Positive shut off to prevent over torquing or over stressing the bellows

Very high Cv Values

Compact design

Electro-polished wetted surfaces down to Ra<10  $\mu$ inch (0,25  $\mu$ m)

Limited KEL-F surface exposed to the fluid to prevent from permeation



Full flow bellow sealed Valve from 1/2" up to 1"

Integrated versions available

Tube extensions, purge connections or fittings available

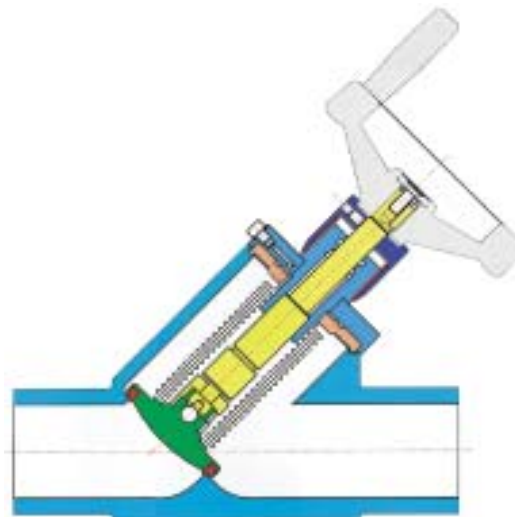
No internal particle shedding components

Individual serial number for full traceability

Assembled, testing & packaging in Class 10 Cleanroom

Double bag packaging with Nitrogen supplied from liquid source

Cleaned for high purity service



High Flow bellow sealed valve 1 1/2" up to 4"

Upstream, downstream and bellows purge ports (Purge valves on request)

# CONSTRUCTION MATERIALS

# KD/KY

Materials		
Wetted	Bellows	316L Stainless Steel
	Body	316L Stainless Steel
	Sealing disc	PCTFE (KEL-F®)
Non-Wetted	Spindel	Brass
	Handle	Plastic
	Other	SSt or Alloy

Surface finish			
Process	Ra. $\mu$ inch	Ra. $\mu$ m	Serie
Passivated	Ra<15 $\mu$ inch	Ra<0,4 $\mu$ m	KD12, KD20, KD25, KY32
	Ra<30 $\mu$ inch	Ra<0,8 $\mu$ m	KY50
	Ra<40 $\mu$ inch	Ra<1 $\mu$ m	KY80, KY100
Electro-polished	Ra<15 $\mu$ inch	Ra<0,4 $\mu$ m	KD12, KD20, KD25, KY32
	Ra<30 $\mu$ inch	Ra<0,8 $\mu$ m	KY50
	Ra<40 $\mu$ inch	Ra<1 $\mu$ m	KY80, KY100
CMP & Electro-polished	Ra<10 $\mu$ inch	Ra<0,25 $\mu$ m	KD12, KD20, KD25, KY32
	Ra<12 $\mu$ inch	Ra<0,3 $\mu$ m	KY50
	Ra<30 $\mu$ inch	Ra<0,8 $\mu$ m	KY80, KY100

## TECHNICAL DATA

Operating Specifications		
Max operating pressure	30 bar	435 psi
Max operating T° (closed)	-20°C<T°<80°C	-4°F<T°<176°F
Max operating T° (open)	-20°C<T°<80°C	-4°F<T°<176°F

Leak tests	
Inboard/Outboard	1x10 <sup>-9</sup> mbar.l/s He max
Across the seat	1x10 <sup>-9</sup> mbar.l/s He max.

Optional	
Purging	Purge ports- Purge Valves
Sealing disc	Vespel, Tenic , other under request
Special tests	Particule, Moisture, THC
Analysis	SEM, Esca and Auger Analysis

KD full flow & KY high flow Valves - Tube connections							
	KD12	KD20	KD25	KY32	KY50	KY80	KY100
Nominal Diameter	9,4 mm	15,75 mm	22,1 mm	29,7 mm	47,5 mm	72,1 mm	97,38 mm
Stroke	14	20	20	20	25	45	55
Min. Dia. tube conn.	12 mm	19 mm	25,4 mm	33,7 mm	50,8 mm	76,1 mm	101,6 mm
Max. Dia. tube conn.	19,05 mm	29 mm	48,3 mm	48,3 mm	63,5 mm	88,9 mm	114,3 mm
Max. Conn. with adpater	38,1 mm	60,30 mm	88,9 mm	88,9 mm	114,3 mm	114,3 mm	-

**DIMENSIONS**

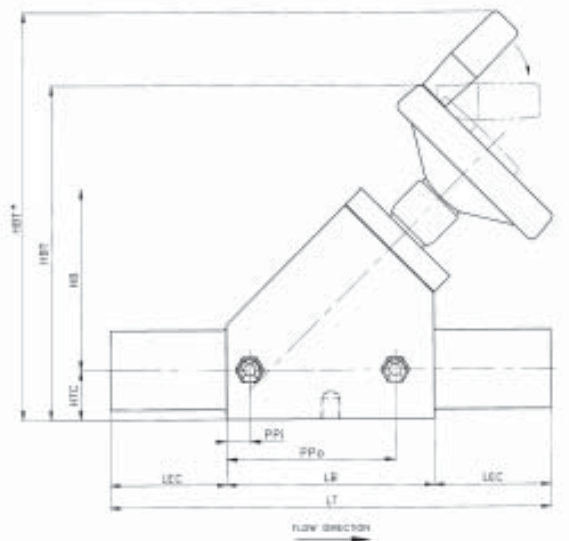
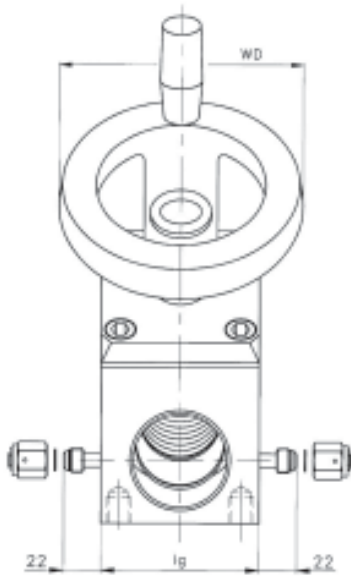
**KD/KY**

**KD full flow Valves - Outline dimensions**

Valve Serie	Flow Coefficient CV	Length Body LB	Length End Conn. LEC	Length Total LT	Height Body HB	Height Total HBT	Height Total+Grip HBT*	Diameter Handle WD	Dim. Ppi to Conn Ppi	Dim. Ppo to Conn Ppo	Body Width lg	Height to tub. center HTC	Aprox. Weight Kg
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg
<b>KD12</b>	2,5	74	100	274	73	140	-	80	4,5	62	44	11	1,6
<b>KD20</b>	13	90	100	290	88	190	227	125	9,5	75	62	27	4,2
<b>KD25</b>	25	90	100	290	88	190	227	125	9,5	75	62	27	4,3

**KY high flow Valves - Outline dimensions**

Valve Serie	Flow Coefficient CV	Length Body LB	Length End Conn. LEC	Length Total LT	Height Body HB	Height Total HBT	Height Total+Grip HBT*	Diameter Handle WD	Dimension PPI to Conn. Ppi	Dimension PP to PP Ppo	Body Width lg	Height to tube center HTC	Aprox. Weight Kg
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg
<b>KY32</b>	38	94	100	294	92	195	231	125	15	79	62	27	4,3
<b>KY50</b>	79	125	100	325	115	223	260	125	20	105	80	35	6,5
<b>KY80</b>	182	198,5	100	398,5	184	376	435	250	26	172	124	48	24
<b>KY100</b>	328	241	100	441	220	442	499	300	40	201	164	70	48



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