

Knife Gate Valves - KCS Series

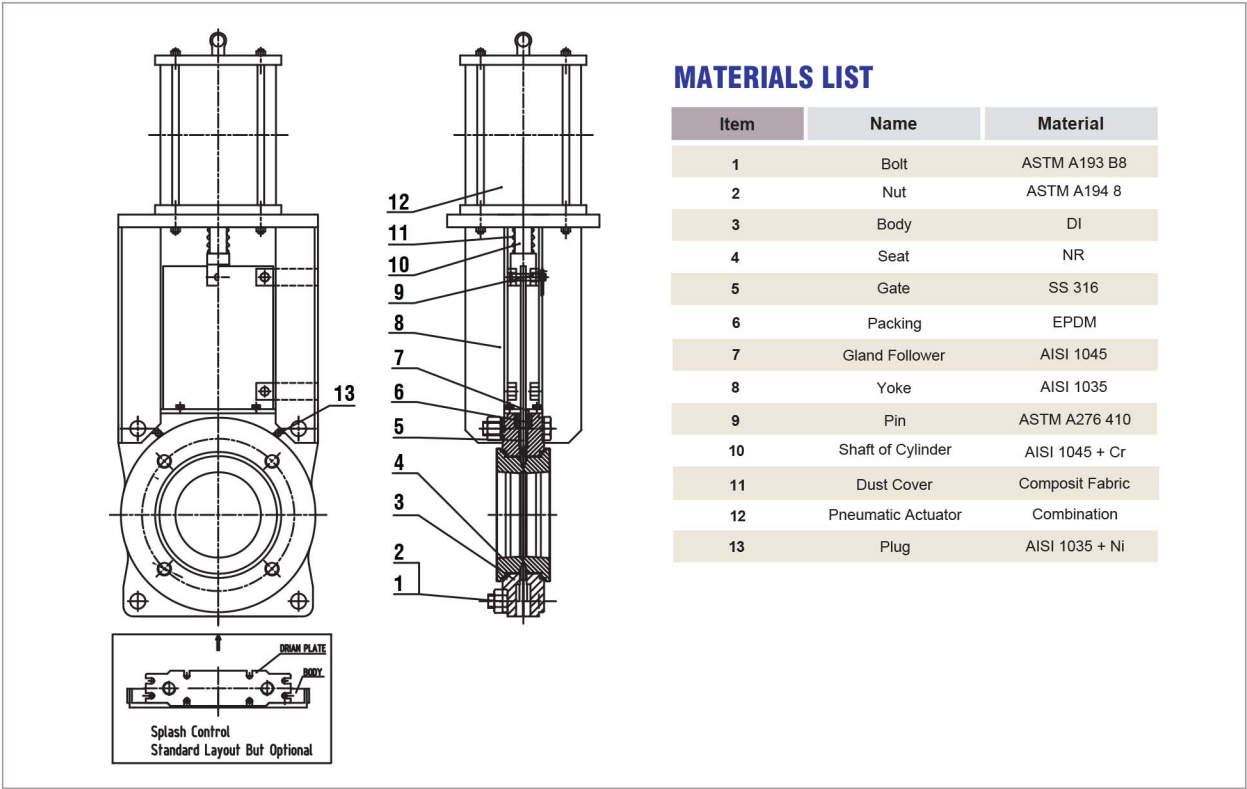
Rubber-Lined Knife Gate Valves (Closed Body Design)

Description / Features:

TFV KCS Series are designed for heavy-duty service - with elastomer sleeves, particularly for abrasive slurries services in different kind of industries such as mining, cement, chemical, and others. Our design provides:

- 1. An absolutely zero downstream leakage (bubble-tight shut-off).
- 2. Bi-directional flow and shut-off (double-seated design).
- 3. No turbulence and minimal pressure drop across valve.
- 4. No solids accumulation preventing closure of the valve because there is no cavity in the seat.
- 5. No metal parts in contact with the fluid.
- 6. No packing leakage and maintenance due to the valve has no gate or stem packing.
- 7. Dynamic self-adjusting secondary seal.
- 8. Lubrication system.

Figure 1. Parts List (standard).



Technical Information subject to change without notice.

Valve Operation:

1. During opening, the elastomer sleeves seal against each other due to their internal profile and compression load caused by fluid. This provides a flow without obstructions protecting at the same time the metal parts from the fluid.

In this position, the valve can be field modified to an air cylinder or gear operator without welding - due to an adaptable frame (yoke) design with a top-removal stem nut.

2. At closing, the gate creates a gap between the sleeves and pushes out any material or fluid that could jam the valve.

3. When the valve is finally closed, the sleeves seal against the gate face with assistance of the sleeve profile.

4. In both cases - when valve is open or closed, the sleeve assembly provides a positive sealing action.

Dimensions:

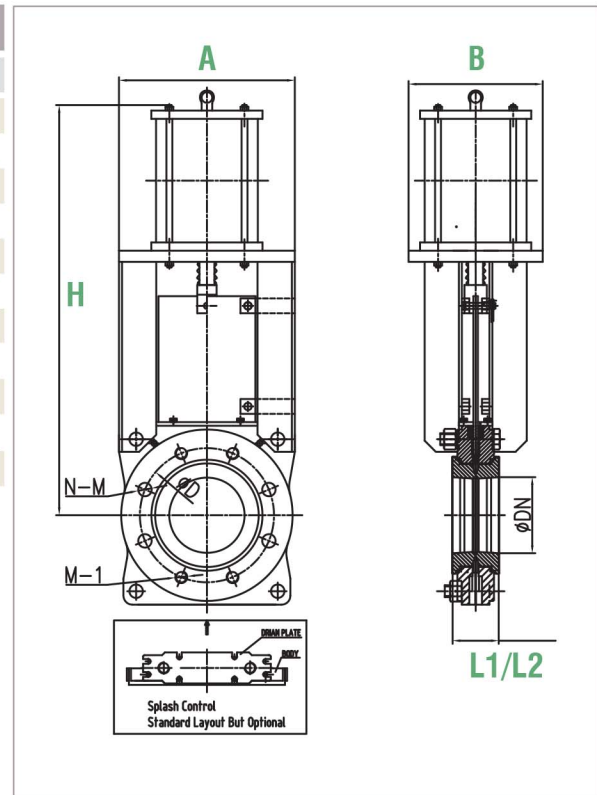
Table 1. Basic dimensions.

Valve Size		Distances (mm)				
Inch	DN	A	B	H	L1	L2
2"	50	190.5	133.4	540.8	57.5	54
3"	80	200	143	596	62	57
4"	100	236	140	761	62	57.5
6"	150	284	180	895	70	65
8"	200	345	220	1062	83	77
10"	250	420	280	1291	84	78
12"	300	483	335	1155.70	89	83
14"	350	572.8	374.7	1369.1	88.9	82.6
16"	400	621.5	374.7	1500.4	101.6	95.3
18"	450	668.5	431.8	1728.5	103.1	95.5
20"	500	712.7	479.6	1878.8	130.3	120.9
24"	600	889	479.6	2216.2	131.8	120.9

Notes:

L1 = minimum dimension required for installation.

L2 = Installed face to face.



KCS Series - Knife Gate Valve

How to Order:

KCS

Features /
Service

Body
Material

Gate
Material

Sleeve
Material

Ends / Types
Connection

Pressure
Rating

Connection
Size

Operation
Item

Description	Code
KCS Design :	Resilient Seated Knife Gate Valve (Abrasive Services Closed Body)
Features / Service :	Standard
Body Material :	6 : Ductile Iron
Gate Material :	3 : A351 CF8M (316SS) 5 : A351 CF3M (316LSS) 8 : Alloy 20
Sleeve Material :	N: Natural Rubber (Standard) E : EPDM B : NBR (BUNA N)

Description	Code
Ends / Type Connection :	W: Wafer (Standard)
Class / Pressure Rating :	0 : Standard Rating: NPS 2 to 16 rated to 150 psi CWP NPS 18 to 24 rated to 90 psi CWP
Connection Size:	02 - 2" 12 - 12" 03 - 3" 14 - 14" 04 - 4" 16 - 16" 06 - 6" 18 - 18" 08 - 8" 20 - 20" 10 - 10" 24 - 24"
Operation :	H: Manual Handwheel G : Gear Operator B : Bare Shaft E : Electric Actuator P : Pneumatic Actuator SA : Simple Action DA : Double Action W : Handwheel HY: Hydraulic Actuator

NOTES:

1. EPDM Secondary Seal as standard.

Resilient Seated Knife Gate Valve, Closed Design, Body Material A216 WCB,
Gate A351 CF8M, Sleeve Natural Rubber, Flat Face Flanged, Class ANSI 150#, Size 20"Ø, Gear Operator.

KCS-23NF020G

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