KFD - Series D Flexgate Actuated Knife Gate Valve

- High-quality, full-port valve
- Heavy-duty Stainless Steel gate
- Leak-proof elastomer packing gland
- Pneumatic, electric, hydraulic or manual actuation

Series D Flexgate Actuated Knife Gate Valves are built with cast or fabricated bodies and feature a heavy-duty stainless steel gate. Ductile iron cast bodies provide enhanced performance when external and internal factors require less brittle and malleable material. Removable rubber cartridge seats on each side of the gate provide bi-directional seal with excellent wear resistance. The rubber seats are metal reinforced and are available in a variety of elastomers for abrasion resistance and chemical compatibility. A port at the base of the valve allows for flushing.

The Series D Flexgate Actuated Knife Gate Valve provides bi-directional shutoff. A heavy-duty top works is standard and a simple design eliminates expensive overhauls, unscheduled shut downs and costly replacement parts. The only replacement parts are cartridge seats and packing. Series D Flexgates provide long-term abrasion resistance under high-cycle conditions. The valve self-cleans when it is cycled. It is ideal for automation.

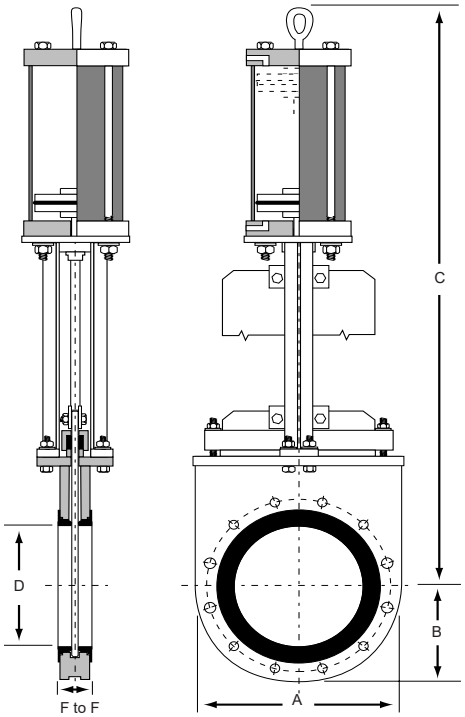
Pneumatic actuators are made of fiber-reinforced thermoset epoxy matrix, which is inert to most corrosive chemicals, hydraulic fluids, water and oil. The actuator operating temperature range is -90° to 225°F (-68° to 107°C) and it withstands maximum working pressures of 250 psi. Inside actuator walls are polished and impregnated with molydisulfide for reduced friction and wear. The piston seal is an O-ring. The piston rod is sealed with a lip seal, protected by a rod wiper ring which prevents dirt from getting through the seal. Series D Flexgate Actuated Knife Gate Valves are available with pneumatic, electric or hydraulic actuators. Accessories include limit switches, solenoids and air regulators.

Materials of Construction

- **Body:** 3-12" ductile cast iron; 14-30" cast iron; 36-42" fabricated steel
- **Gate:** 316 Stainless Steel, 17-4 pH, Hastelloy C-276 Other materials are available, contact Red Valve.
- **Optional Gate Coating:** Polytetrafluoroethylene (PTFE)
- **Elastomers:** Ethylene Propylene Diene Terpolymer (EPDM), Acrylonitrile-Butadiene (NBR), Chloroprene (CR), Styrene Butadiene (SBR), Fluoro Rubber (FKM)
- **Drilled and tapped flanges:** ASME 150, ASME 300, ASME B16.1 125 cast flanges, AWWA C110 125 flanges, EN1092 PN 10, EN1092 PN 16. Other drill patterns available upon request.
- **Optional:** Extended stems and torque tubes, floorstands

Series D Flexgate Actuated

VALVE SIZE D	DIMENSIONS in/mm LENGTH F to F	WIDTH A	HEIGHT B	HEIGHT PNEUMATIC ACTUATED C	GATE THICKNESS	MAX. WORKING PRESSURE psi/kPa GATE MATERIAL 316	17-4 PH
3" 80mm	2.25 57	8.00 203	3.88 99		0.25 6	150 1030	150 1030
4" 100mm	2.25 57	9.25 235	4.75 121		0.25 6	150 1030	150 1030
6" 150mm	1.88 48	11.5 292	5.88 149		0.25 6	150 1030	150 1030
8" 200mm	2.88 73	14.00 356	7.00 178		0.50 13	150 1030	150 1030
10" 250mm	3.13 80	16.75 425	8.38 213		0.50 13	150 1030	150 1030
12" 300mm	3.25 83	20.13 511	10.06 256		0.50 13	100 690	150 1030
14" 350mm	3.25 83	21.50 546	11.00 279	CONSULT	0.56 14	100 690	150 1030
16" 400mm	3.75 95	24.00 610	12.50 218	FACTORY	0.68 17	100 690	150 1030
18" 450mm	3.75 95	25.75 654	13.25 337		0.75 19	100 690	150 1030
20" 500mm	4.63 118	27.50 699	13.75 349		0.88 22	100 690	150 1030
24" 600mm	4.75 121	32.50 826	16.00 406		1.00 25	100 690	150 1030
30" 750mm	5.00 127	38.75 984	19.00 483		1.13 29	75 520	125 860
36" 900mm	5.13 130	46.00 1168	23.00 584		1.25 32	75 520	125 860
42" 1050mm	5.13 130	53.00 1346	26.50 673		1.25 32	50 350	75 520



18" and smaller - installed length is .12" less than minimum F to F.
20" and larger - installed length is .25" less than minimum F to F.
48" and larger - consult factory.

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Series D Flexgate Actuated Knife Gate Valve

Series D Flexgate Actuated

	WORKING PRESSURE psi/kPa						
VALVE SIZE	25 170	50 350	75 520	100 69	125 860	150 1030	PLANT AIR psi/kPa
3-4" 80-100mm	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	60/410 80/550
6" 150mm	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	60/410 80/550
8" 200mm	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-6 RD-6	RD-8 RD-6	60/410 80/550
10" 250mm	RD-6 RD-6	RD-6 RD-6	RD-8 RD-6	RD-8 RD-6	RD-8 RD-8	RD-10 RD-8	60/410 80/550
12" 300mm	RD-6 RD-6	RD-8 RD-6	RD-8 RD-8	RD-8 RD-8	RD-10 RD-8	RD-10 RD-10	60/410 80/550
14" 350mm	RD-6 RD-6	RD-8 RD-6	RD-8 RD-8	RD-10 RD-8	RD-10 RD-10	RD-12 RD-10	60/410 80/550
16" 400mm	RD-6 RD-6	RD-8 RD-8	RD-10 RD-8	RD-10 RD-10	RD-12 RD-10	RD-12 RD-12	60/410 80/550
18" 450mm	RD-8 RD-6	RD-10 RD-8	RD-10 RD-10	RD-12 RD-10	RD-14 RD-12	RD-14 RD-12	60/410 80/550

Electric actuators recommended for valve sizes 20-72".
Consult factory for dimensions.

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