

Series G Knife Gate Valve

- ▶ High-quality, full-port design
- ▶ Compact, low profile
- ▶ Leak-proof elastomer packing gland
- ▶ Precision-buffed stainless steel gate
- ▶ Stock delivery sizes 2" - 24"



Materials of Construction

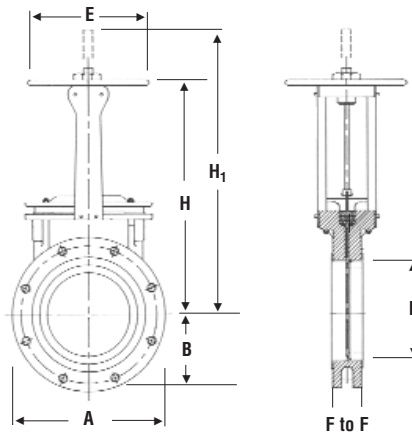
- ▶ Cast iron body, lined with 316 stainless steel
- ▶ 316 metal seat or EPDM resilient seat
- ▶ Manual, pneumatic, hydraulic and electric actuators
- ▶ ANSI class 150

The Red Valve Series G Knife Gate Valve features a cast iron body with stainless steel wetted parts. This efficient valve design affords the user a high-quality valve in which all the wetted parts, including the gate, seat, packing gland and flange face are stainless steel while providing cost savings with cast iron flanges.

The Series G has a double-lead ACME thread that reduces operating torque. A special ring-shaped, multi-layer packing gland is combined with elastomer to ensure a tight seal. The gate corners are machined with chamfered edges so that the corners of the gate do not wear the packing. The chamfered edge and elastomer seal packing gland prevent packing wear. These valves are manufactured to handle a wide variety of fluids in chemical plants, pulp and paper mills, wastewater treatment plants, mining operations, sugar mills and food-processing facilities.

Series G Knife Gate Valves can be fitted with a variety of actuators, including standard handwheel, bevel gear,

pneumatic actuators, hydraulic actuators, electric actuators and chainwheel actuators. Other options include limit switches, solenoid valves and bonnets.

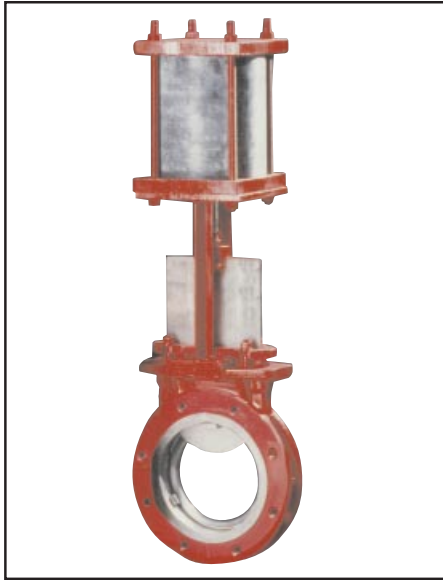


Seat Material	Max Operating Temperature	Rate of Leakage
316 SS	400°F	40 cc/min/in
EPDM	212°F	0 cc/min/in

Valve Size D	Length F to F	Width A	Height B	Height Closed H	Height Open H ₁	Handwheel Diameter E	Working Pressure psi	Valve Weight lbs.
2"	1 7/8"	6 1/2"	3 1/4"	11"	13"	8"	150	23
2 1/2"	1 7/8"	6 1/2"	3 3/4"	12"	14"	8"	150	25
3"	2"	8"	4"	13"	15"	8"	150	29
4"	2"	8"	4 1/2"	14"	17"	8"	150	36
5"	2 1/4"	10"	5"	16"	20"	16"	150	55
6"	2 1/4"	11 1/4"	5 1/8"	19"	25"	11"	150	70
8"	2 3/4"	13 1/2"	6 3/4"	23"	31"	11"	150	95
10"	2 3/4"	16"	8"	27"	37"	14"	150	145
12"	3"	19"	9"	32"	43"	16"	150	220
14"	3"	21"	10 1/2"	35"	48"	16"	150	275
16"	3 1/2"	23 1/2"	11 3/4"	39"	54"	20"	150	355
18"	3 1/2"	25"	12 1/2"	43"	59"	22"	150	495
20"	4 1/2"	27 1/2"	13 3/4"	49"	67"	25"	150	650
24"	4 1/2"	32"	16"	78"	78"	28"	150	1,015

Series G Pneumatic/Electric

- ▶ High-quality, full-port valve
- ▶ Compact, low-profile design
- ▶ Leak-proof elastomer packing gland
- ▶ Stock delivery pneumatic actuated 2"-12"
- ▶ Pneumatic or electric actuation for automatic control



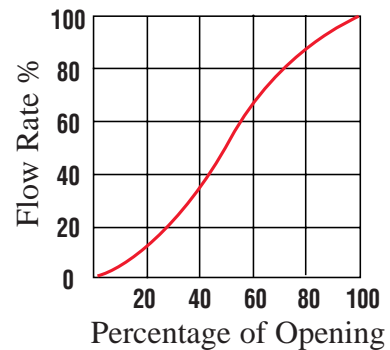
Materials of Construction

- ▶ Cast iron body lined with 316 stainless steel
- ▶ 316 metal or EPDM resilient seat
- ▶ Pneumatic or electric actuator
- ▶ ANSI class 150

Red Valve manufactures a complete line of pneumatically and electrically actuated Series G Knife Gate Valves. The RD Actuator is constructed of a lightweight, self-lubricating Black Amalgon cylinder, aluminum cylinder heads and stainless steel piston rod. Black Amalgon is resistant to chemical and corrosive attack and is more dent resistant than aluminum or brass. Pneumatic positioners can be used to either close or open the valve upon increase of signal pressure. Optional electropneumatic positioners accept a standard ISA 4-20 mA signal. Listed below is an actuator sizing chart based on 60 psi plant air. Air to open/fail closed and air to close/fail open actuators are available up to 12 inches.

Electrically actuated knife gate valves are actuated by AUMA electric operators as a standard. These operators can be supplied with either 220-volt or 440-volt three-phase service and have a NEMA 4 rating. Standard features include Class F insulation, a double-lead ACME stem thread, bronze drive nut, declutchable handwheel override, opening and closing torque and stroke limit switches, three pushbutton station with selector switch and position indicator. Other electric operators, ratings and services are available. A modulation version is available that accepts the standard ISA 4-20mA input signal. When ordering electrically actuated knife gates, please specify electrical service and pressure drop across the valve.

FLOW CHARACTERISTICS FULL-PORT SERIES G



Series G Pneumatic and Electric Actuator Sizing Chart Based on 60 psi Actuator Air Pressure

Line Press.	0-25 psi		26-50 psi		51-75 psi		76-100 psi		100-150 psi		
	Size	Pneumatic	Electric	Pneumatic	Electric	Pneumatic	Electric	Pneumatic	Electric	Pneumatic	Electric
2"		RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1
3"		RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1
4"		RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1	RD-4	SA07.1
6"		RD-4	SA07.1	RD-4	SA07.1	RD-6	SA07.1	RD-6	SA07.1	RD-6	SA07.5
8"		RD-6	SA07.5	RD-6	SA07.5	RD-6	SA07.5	RD-6	SA07.5	RD-8	SA07.5
10"		RD-8	SA07.5	RD-8	SA07.5	RD-8	SA07.5	RD-8	SA07.5	RD-8	SA07.1
12"		RD-8	SA07.5	RD-8	SA07.5	RD-8	SA10.1	RD-8	SA10.1	RD-10	SA10.1
14"		RD-8	SA10.1	RD-8	SA10.1	RD-10	SA10.1	RD-10	SA10.1	RD-12	SA14.1
16"		RD-10	SA10.1	RD-10	SA10.1	RD-12	SA14.1	RD-12	SA14.1	RD-12	SA14.1
18"		RD-10	SA14.1	RD-10	SA14.1	RD-12	SA14.1	RD-12	SA14.1	RD-14	SA14.1
20"		RD-12	SA14.1	RD-12	SA14.1	RD-14	SA14.5	RD-14	SA14.5	RD-16	SA14.5
24"		RD-14	SA14.5	RD-14	SA14.5	RD-16	SA14.5	RD-16	SA14.5	RD-20	SA16.1