

**KNIFE GATE VALVES
STAINLESS STEEL
KGV98 - DN50-DN600**



CHALLENGER
VALVES AND ACTUATORS

Instruction & Maintenance Manual



Thank you for purchasing our KGV98 Stainless Steel Knife Gate Valve. Before installing or operating, please carefully read this manual. The contents in this manual is subject to change due to quality improvement without individual notice.

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KNIFE GATE VALVES STAINLESS STEEL KGV98 - DN50-DN600



DESCRIPTION

The KGV98 is a one piece, 316 Stainless Steel Knife Gate Valve, with the following features:

- Smooth full flow bore design matching standard weight pipe
- Solid one piece CF8M body
- Uni -directional valve
- Non clogging , full port design, featuring metal to metal seat
- Flanged and fully lugged drilled and tapped AS2129 table "D"
- Standard valve is hand wheel operated
- Rising stem

Options for actuation include:

- Pneumatic Cylinder
- Key Cap
- Electric
- Chain Wheel
- Extensions and Deflection Cones for Slurry

INSTALLATION INSTRUCTIONS

All valves are supplied with drilled and tapped holes and can be installed with studs and cap screws.

Pipe flanges should be properly aligned, DO NOT attempt to make up for misaligned pipe flanges by using the valve to twist the pipe into position.

All valves with narrow face to face dimensions which require one or more drilled and tapped blind holes can be damaged if improper bolting is used. Cap screws which are too long can collapse the valve body and force it into the gate, thus springing the gate out of line.

It is recommended that studs be used on all blind tapped holes. If cap screws are used, be sure they DO NOT enter beyond the depth of the tapped blind hole. Valves will normally be supplied with the gate open 5mm-20mm.

Knife Gates are recommended to be installed vertically to ensure correct gate alignment, helping to preventing leaks through the packing gland.

The KGV98 is Uni-Directional, ensure the flow arrow on the casting of the body is pointing downstream.

MAINTENANCE INSTRUCTIONS

It is recommended that a regular schedule inspection be made at least every 90 days. The following points should be examined:

- Ensure bronze bush is properly greased. If possible open and close valve to ensure it is functioning properly
- Gland packing for leaks. Tighten uniformly, DO NOT over stress the bolting!
- Replace if necessary

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REPACKING INSTRUCTIONS

Equipment required:- Wrenches

- Packing – 4-5 rows of required packing
- Knife
- 75mm x 8mm flat bar approx. 600mm long Hammer

4.1 Disassembly

- Close valve
- Disconnect clevis
- Remove yoke assembly
- Remove old packing

4.2 Installing New Packing

- Cut packing as follows 50 mm – 300 mm NB valves = stuffing box length + 5 mm
- Install the packing in both sides of the gate , one row at a time. Feed the ends into the stuffing box.
Use the flat bar and hammer to tamp packing into position – working from centre outwards
- Reassemble packing gland and yoke assembly

IMPORTANT!! DO NOT TAKE UP GLAND FOLLOWER BOLTS MORE THAN IT IS NECESSARY!!

4.3 Packing Size

Valve Size	Fig 98 Metal Seat		Fig 99 Resilient Seat	
	Packing Size	Packing Thickness	Packing Size	Packing Thickness
50mm	170mm x 4PC X 4 Rows	7/16" (11mm)	85mm x 4PC x 2 Rows	3/8" (10mm)
65mm	200mm x 4PC x 4 Rows	7/16" (11mm)	100mm x 8PC x 4 Rows	3/8" (10mm)
80mm	215mm x 4PC x 4 Rows	7/16" (11mm)	115mm x 8PC x 4 Rows	3/8" (10mm)
100mm	300mm x 4PC x 4 Rows	7/16" (11mm)	150mm x 8PC x 4 Rows	3/8" (10mm)
125mm	340mm x 4PC x 4 Rows	3/8" (10mm)	170mm x 8PC x 4 Rows	3/8" (10mm)
150mm	395mm x 4PC x 4 Rows	7/16" (11mm)	195mm x 8 PC x 4 Rows	3/8" (10mm)
200mm	490mm x 4PC x 4 Rows	7/16" (11mm)	250mm x 8PC x 4 Rows	3/8" (10mm)
225mm	560mm x 4PC x 4 Rows	3/8" (10mm)	270mm x 8PC x 4 Rows	3/8" (10mm)
250mm	600mm x 4PC x 4 Rows	7/16" (11mm)	305mm x 8PC x 4 Rows	3/8" (10mm)
300mm	700mm x 4PC x 4 Rows	7/16" (11mm)	360mm x 8PC x 4 Rows	3/8" (10mm)
350mm	790mm x 4PC x 4 Rows	7/16" (11mm)	410mm x 8PC x 4 Rows	3/8" (10mm)
375mm	850mm x 4PC x 4 Rows	1/2" (13mm)	430mm x 8PC x 4 Rows	1/2" (13mm)
400mm	900mm x 4PC x 4 Rows	1/2" (13mm)	465mm x 8 PC x 4 Rows	1/2" (13mm)
450mm	1010mm x 4PC x 4 Rows	1/2" (13mm)	510mm x 8PC x 4 Rows	1/2" (13mm)
500mm	1110mm x 4PC x 4 Rows	1/2" (13mm)	575mm x 8 PC x 4 Rows	1/2" (13mm)
600mm	130mm x 4PC x 4 Rows	1/2" (13mm)	665mm x 8 PC x 4 Rows	1/2" (13mm)
750mm	-	-	810mm x 8PC x 4 Rows	9/16" (14mm)
900mm	2000mm X 4PC x 4 Rows	9/16" (14mm)	935mm x 8PC x 4 Rows	9/16" (14mm)