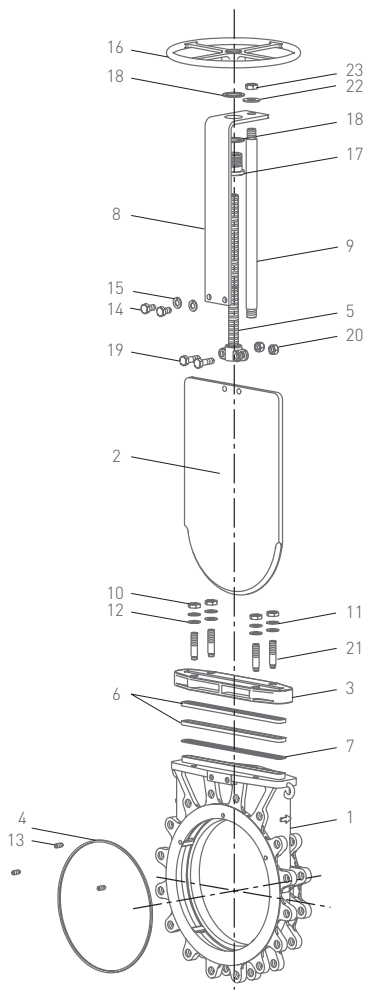


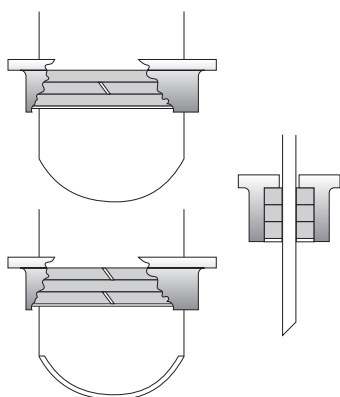
**KEYSTONE KNIFE GATE VALVES**

FIGURE 952

Gland packing replacement instructions for DN 250 - 600 (NPS 10 - 24)  
Figure 952 knife gate valves



**Note:** DN 250 - 600 (NPS 10 - 24) valve illustrated.



**PACKING REPLACEMENT**

For optimum performance, the packing material should be replaced whenever the valve has been disassembled for routine maintenance. This is a very simple procedure which can be done leaving the valve in the pipeline.

Correct packing is essential for leak-free operation. Use Emerson's preformed and pre-cut packing replacement kits for best results. Kits are available in the following types:

- K-LON** - Standard packing material.
- D-LON** - Food grade packing.
- G-LON** - High cyclic packing.
- H-LON** - Abrasive service packing.

Ensure packing material selected is suitable for the service.

**DISASSEMBLY PROCEDURE**

1. Ensure the pipeline is not pressurized and any hazardous medium is drained away.
2. Close valve.
3. Remove gland box nuts (10) and washers (11, 12). A 32 mm (1¼") AF spanner suits all valve sizes.
4. Remove clevis bolts (19) and nuts (20).
5. Remove pillar nut (23) and washer (22).
6. Remove upright mounting bolts (14) and washers (15) at valve body (1).
7. Remove handwheel (16) upright (8) and spindle (5) as an assembly.
8. Remove gland box (3) from gate (2) leaving the gate in the valve body.
9. Remove scraper (7) (Not fitted on polyurethane trim valves) and packing segments (6) from gland box, noting number of layers.
10. Clean gland box (3).

**NOTE**

Although not essential, valve gate can also be removed for inspection at this stage.

For optimum leak-free service, gate faces and edges must be smooth, and free of galling or burring. Repair or replace if excessively worn or damaged. When re-fitting gate, ensure bevelled edge of knife gate is upstream and away from seating face.

# KEYSTONE KNIFE GATE VALVES

## FIGURE 952

### PACKING PROCEDURE

#### NOTE

Care should be taken to stagger the mitred joints in each layer of packing to the opposite side of the gland box, e.g.;

- 1st packing layer joint to the front of the valve
- 2nd packing layer joint to the rear of the valve
- 3rd packing layer joint to the front of the valve.

11. Press first layer of gland packing (6) into gland box (3) cavity by hand, then repeat the process with the second layer ensuring the joints of the two layers are on opposing sides of the cavity
12. Fit the RTFE scraper blade (7) (Not fitted on polyurethane trim valves) in bottom of gland box.

### ASSEMBLY PROCEDURE

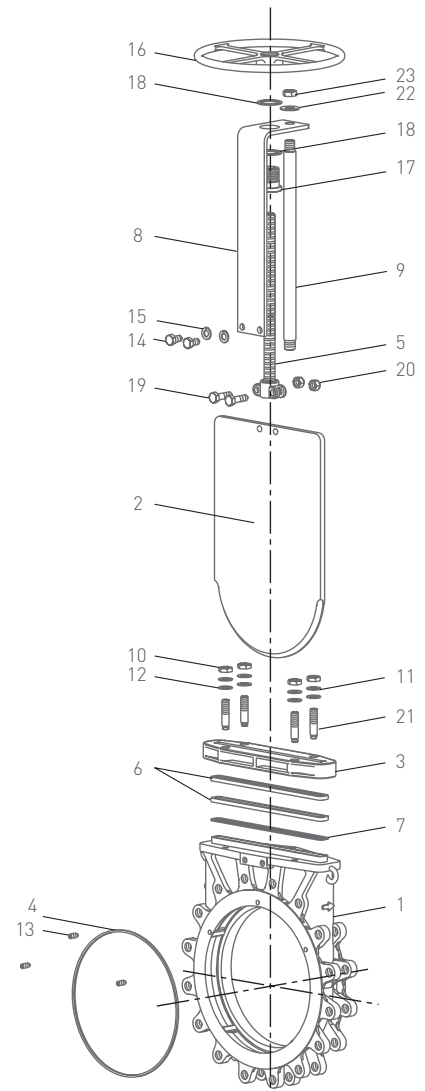
1. Using masking tape, hold packing in place temporarily by passing tape through gland box slot around packing onto edge of gland box (one piece per side minimum recommended).
2. Coat gland box studs (21) with nickel based anti-seize compound.
3. Place the gland box (3) over gate (2), sliding the gland box down to make contact with the body and remove temporary holding tape.
4. Tighten gland box nuts equally (10) ensuring nylon washer (12) is positioned between metal washer (11) and gland box (3).
5. Replace handwheel (16), upright (8) and spindle (5) assembly.
6. Replace pillar bolts (14) and washers (15) at valve body (1).
7. Replace pillar nut (23) and washer (22) ensuring thread is coated with nickel based anti-seize compound.
8. Lower the spindle clevis (5) onto the gate (2) and replace clevis mounting bolts (19) and nuts (20).
9. Check the alignment of spindle, upright and pillar and tighten fasteners (14, and 23).
10. Assembly is complete, actuate to check all is functioning as desired and gate reseats itself into the wedges at bottom of the valve body.

#### NOTE

1. At commissioning or plant start-up, open and close valve to check it is operating correctly - gland nuts (8) may require adjustment. Please ensure to tighten equally.
2. To minimize risk to personnel, Emerson recommend the use of purpose built guards and shrouds. Refer to the Emerson data sheet or consult factory for details.

#### CAUTION

*Do NOT over tighten gland packing as it will cause excessive resistance to gate movement.*



**Note:** DN 250 - 600 (NPS 10 - 24) valve illustrated.

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