



# FIGURE F93 & F77 FABRICATED 304/316 STAINLESS STEEL LINED KNIFE GATE VALVES

## Suggested Specifications

Valves shall be of the bonnetless knife gate valve type, with pressure ratings as required by the customer. Flanges shall be drilled and tapped to ANSI B16.47, Class 150, Series A Flanges, and shall be raised face and machined with serrated-spiral or serrated-concentric grooves with a 125-250 RMS finish. Valve body shall have 304/316 stainless steel body liner, seat (if metal to metal seat), packing box and raised faces (all wetted parts) and carbon steel body flanges, exterior stiffeners, packing gland and yoke.

Valves shall have 304/316 stainless steel gate. Gate shall be of the design and thickness to withstand full design pressure without permanent deflection to the gate.

### **FOR METAL SEATED VALVES:**

Seat and gate shall be machine finished for one way shutoff. Two gate wedges shall be provided to assist seating of the gate against the seat in the lower half of the valve body. On valves 48" diameter and above, the gate will be square bottom design

### **FOR RESILIENT SEATED VALVES:**

Gate shall have a rounded bottom. The seat shall be positioned to seal around the perimeter of the gate for drip tight bi-directional shutoff in either direction and at any pressure up to the design pressure. The resilient seat shall be a molded or extruded elastomer with an internal stainless steel rod for stiffening. Seat retainers shall be provided in the lower half of the valve body to retain the seat and guide the gate during closing. At least two gate guides shall be provided in the upper half of the valve body.

The packing gland will be fabricated from carbon steel. Packing shall be Teflon lubricated synthetic packing. Packing gland bolts and nuts shall be 304 stainless steel.

The valve yoke shall be fabricated carbon steel. The valve stem shall be 304 stainless steel with full ACME threads. The stem nut shall be bronze. The stem nut retainer shall be of the enclosed type and shall be carbon steel. Stems 2" in diameter and above shall be double lead.

Manually actuated valves shall be bevel gear operated.

Valves shall be designed, manufactured and tested to comply with MSS SP-81, Standard Practice for "STAINLESS STEEL, BONNETLESS, FLANGED, WAFER STYLE KNIFE GATE VALVES."

Valves shall be LINED VALVE COMPANY Figure F93 knife gate valve (METAL seat), Figure F77 knife gate valve (RESILIENT seat) or approved equal.

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