BI-DIRECTIONAL KNIFE GATE VALVES
Acceptable Brands: ITT Fabri-Valve

Tightness

• Knife Gate valves must be bi-directional, bubble tight to the valve’s full cold working pressure rating (CWP).

Knife Gate Body

• The valve body must be a single solid casting. Lined valves and two piece valves are not acceptable.
• Valve flanges must be drilled to ANSI Class 150.
• Minimum body rating must be 150 CWP.

Gate

• Front, back and sides of gate must be finished ground.
• Gate edges must be rounded or radiused.

Seat

• The valve must be perimeter seated. Valve designs utilizing two separate seats, one on each side of the gate are not acceptable.
• The trapezoidal shaped perimeter seat must be mechanically retained in a trapezoidal groove in the body to eliminate seat roll-over and seal pull out.
• A relief must be behind the perimeter seat to reduce seal compression set.
• Seat must be equal to or wider than the gate thickness.

Packing

• Packing must be multiple layers braided packing.
• 6” (DN 150) and larger valves must have energized cored packing and packing supports.

Valve Internal Diameter (ID)

• The port ID of 2-12” valve must be the same as the nominal inside diameter of Schedule 40 pipe.
• The port ID of 14” and larger valves must not be less than 95% of the nominal inside diameter of Schedule 40 pipe.

Stem

• The valve must have a ¼” pitch. ½” lead.

Testing

• All valves must be body shell tested, seat tested and cycle tested prior to shipment.
• Body must be hydro-tested at 1.5 times the rated CWP (cold working pressure). Leakage is not acceptable.
• The seat must be hydro-tested at 15 psi (1 bar) and the rated CWP. Leakage past the seat is not acceptable.
• The valve must be cycled prior to shipment to ensure proper functioning of all moving parts.

Travel Stop

• The valve must include a travel stop to prevent over-tightening of the valve.

Lock-Out Device

• Handwheel actuated valves must include a provision for a locking device.