

## KNIFE GATE VALVE OPTIONS AND ACCESSORIES

### BACK SEAT STOPS



Primarily for unidirectional knife gate valves, back seat stops can be added in applications where there is low pressure differential (less than 35 PSI) across the valve or where reverse pressure could unseat the valve. Back seat stops help maintain shut off by holding

the blade close to the seat and prevent blade deflection in severe reverse flow.

### SQUARE DRIVE NUTS



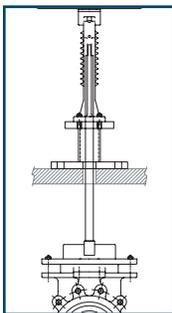
In applications such as buried service or where access to valve operation needs to be limited, square drive nuts can be added in place of hand-wheels. Optional t-handles for rising stems or non-rising stems (see non-rising stem adapters) can be supplied upon request.

### V-PORTS



Most FNW knife gate valves can be supplied with v-ports for reduced plugging in throttling (metering) services. Shown here is the cast insert for the figure 2000B high performance knife gate valve. Other models can be fitted with v-ports to application specifications.

### STEM EXTENSIONS, PEDESTALS, and GUIDES



For remote mounted knife gate valve operators, FNW can supply stem extensions, floor mount pedestals, and stem guides. Stem extensions can be made in kit form for easy installation and can include stem guides and universal joints, depending on application requirements. Pedestals can be fabricated to specific mounting patterns

for floor and direct actuator mounting.

### RATCHETS



Where knife gate valves are closely mounted to tanks and other structures, large hand-wheels may not be appropriate. Ratchets can be adapted to knife gate valves to allow operation at

the unobstructed side. Use of ratchets are limited by valve size and torque requirements. Contact FNW regarding specific applications. The figure 2000BTIV (tank isolation valve) comes standard with ratchet operator.

### QUICK-OPENING LEVERS



For quick manual operation of knife gate valves, quick-opening levers are available. They are also used in areas where physical obstructions around the valve prohibit the use of other operators such as hand-wheels. Similar to ratchet operators, quick-opening

levers are limited by valve size and thrust requirements. Contact FNW regarding specific applications.

### NON-RISING STEM ADAPTERS



Another option for buried service or space limited applications are non-rising stem adapters. In this configuration, the stem is driven through a blade mounted nut. Non-rising stem adapters can be topped with a square drive nut, handwheel, or multi-turn actuator.

### DEFLECTION CONES



In abrasive services, deflection cones can be mounted between the upstream valve flange and the adjoining piping. Though reducing the port area slightly, they can increase the life of the seat and gate and are less expensive to replace than the entire valve. Deflection cones are available in Ni-Hard and HDPE materials.



## ADDITIONAL OPTIONS FOR KNIFE GATE VALVES INCLUDE:

### Purge Ports

Often, knife gate valve applications have suspended matter that can build up in the chest and pocket cavities. Severe build up can interfere with the normal operation of the valve. Purge ports can keep this build up from happening by flushing the valve with liquid, gas, or in some cases, steam. Purge ports are typically placed on the sides of the valve chest and bottom of the valve.

### Gate Scraper

To enhance protection of the valve packing and maintain packing seal, a Teflon® or metal gate scraper can be installed in the base of the packing well. The gate scraper can clear abrasive and sticky material from the blade as the valve opens, minimizing wear to the packing.

### Hardened Seats and/or Blade

In high abrasion applications, the valve seat and blade take the most abuse. For these services, FNW can supply hardened blades and/or metal seats to prolong the service life of these parts.

### Seats, Seals, and Packing

Different applications require different materials. FNW can supply custom materials for seats, seals, and packing depending on chemical compatibility, temperature, and acidity (pH).

### Medium & High Vibration Service

Post factory treatment is available for medium and high vibration service. Modification includes the used of thread lockers, nylon lock nuts, or tack welds where applicable.

**Contact FNW regarding your specific knife gate valve needs.**

Also see the actuation section of this catalog for additional information on gear-operators, pneumatic cylinders, hydraulic cylinders, and electric actuators.

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