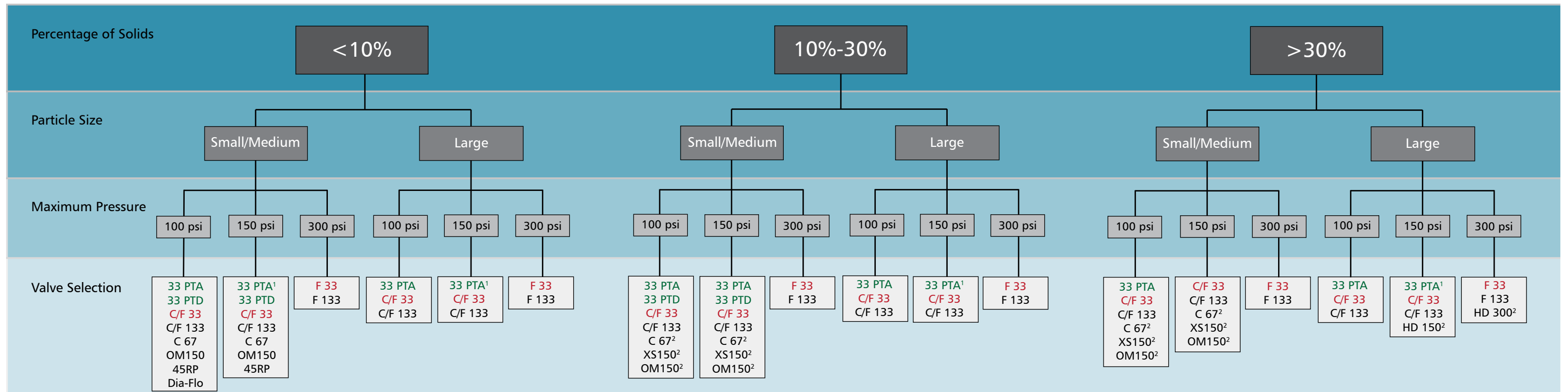


Slurry Knife Gate Valve Decision Guide



Note: The max pressures listed are also dependent upon the size of the valve.

Key

Discharging Only

Non Discharging Only

Discharging or Non Discharging

¹With upgraded gate

²May require special options. Contact your sales representative for details.

Particle Size	Small	Medium	Large*
microns	<149	149-3353	3353-4760
inches	<0.006	0.006-0.132	0.132-0.185
mesh size	>100	100-6	6-4

*Consult factory for larger particle sizes

Valve Sizes

Valve	Inch	DN
C/F33/133	2-72	50-1800
C45RP	2-24	50-600
C67	2-36	50-900
Dia-Flo	0.5-12	15-300
HD150/300	6-36	150-900
33 PTA	3-60	75-1500
33 PTD	3-24	75-600
XS150	2-24	50-600
XS150-ULV	2-24	50-600

Why Discharging Valves?

- Self cleaning
- Long lasting
- Low cost
- Safety precautions must be considered

Why Non Discharging Valves?

- Environmental
- Safety from high temperatures and pressure

Other Considerations

The above chart provides a basic guide to valve selection. Modifications can be made to valves to accommodate specific application conditions.

The following questions should be considered to more accurately select any options or modifications to a valve so it performs as designed in the conditions present on site. Please contact your local sales representative for details on options and modifications to valves.

What is the temperature of the media?

Temperature is especially important when selecting the correct sleeve or seat material for use in valves. Some elastomers are optimized for use in elevated temperatures while others are best suited for use at ambient temperatures.

Is the media corrosive?

Corrosivity needs to be considered for not only selecting the correct sleeve or seat material, but also when selecting a compatible material of construction for the metal body, housing, or gate of the valve. The corrosive nature of the media should also be of concern when choosing between discharging and non-discharging valve styles.

Is there potential for crystallization or scaling to occur?

Valve style, seat and gate design, special coatings and actuator control schemes can all be modified to accommodate the build up of scale or crystallized media within the valve. Special coatings are available to reduce the adhesion of crystallized material to the gate.

Are hydrocarbons present in the media?

Hydrocarbons cause certain elastomer seats and sleeves to swell which could lead to poor valve performance. Seats and sleeves can be constructed of an elastomer material that is specifically designed for use in applications where hydrocarbons are present in the media.

What are the actuation requirements for the valve?

Pneumatic cylinders and hydraulic cylinders need to be properly sized to actuate the valve with the given pressure. Hydraulic power units can be provided to actuate valves in remote locations.

What type of pipe and flanges will be utilized on the piping adjacent to the valve?

Consideration needs to be given to assure that the pipe/valve connection is optimal and does not interfere with the valve design. Also, in cases where the pipe is supporting the full weight of the valve, additional supports may be required to assure that the integrity of the pipeline is not compromised (particularly with fiberglass reinforced piping).

Is the pipeline horizontal or vertical and what is the orientation of the valve in the pipeline?

If the valve is installed with the stem of the valve in a non-vertical position, then self supporting yokes can be designed to provide the required support for any type of actuation. Also, depending on the valve design, a hardfaced gate support strip may be recommended to protect packing and/or seats from being damaged.

How often will the valve cycle?

Certain valve and seat designs are more suited for high cycle applications. Others are optimized for infrequent cycling for use in applications such as equipment isolation.

ITT Engineered Valves has over 60 years of product and application experience to help you choose the best valve for your application.

Slurry Valves from ITT



33 PTA

- Designed for heavy duty slurry application
- Enhanced manufacturing and process controls ensure highest quality and consistence performance
- Wide body sleeves are molded with an integral, fully encapsulated stiffener ring to maximize life
- Proprietary elastomeric compound designed for maximum abrasion resistance
- No lubrication required



33 PTD

- Designed specifically for demanding light to medium slurry applications
- Enhanced sleeve structure and contour differentiates our sleeves, providing longer life
- UHMW gate support liners reduces wear on gate and seat through full stroke
- Self cleaning gates ensure consistent operation
- Proprietary elastomeric compound to maximize seat life
- Engineered to minimize gate deflection at maximum working pressure
- No lubrication required



OM150

- Economical solution for abrasive and corrosive applications
- No discharge of process media to the environment
- Design utilizes the same superior sealing techniques as the XS150
- Features a robust perimeter seal that provides bi-directional, bubbletight shutoff
- Mechanically bonded urethane liners protect the body from abrasion and corrosion



Dia-Flo® Diaphragm Valves

- Diaphragm valves are the workhorses and foundation of ITT's valve product offerings
- Engineered for tough work environments in the chemical processing, water treatment, pollution control, food and beverage, mining, pharmaceutical, pulp and paper and power generation industries
- Dependable, cost effective and versatile and is installed across the world in virtually every type of process plant



HD150/HD300

- Designed for high pressure slurries
- ANSI rated for 150 and 300 pound pressure classes
- ANSI full face flanges
- Chrome carbide faced seats
- Live loaded packing
- Two gate scrappers provide superior sealing and increased packing life



F39

- Ported slide gates
- Designed for on/off and throttling difficult abrasives and/or tough slurries
- Diamond port configured for throttling
- Multiple port configurations available



C/F 33/133

- Unsurpassed performance in scaling applications
- Optional patented multi-stage gate actuation system providing proprietary scale breaking feature
- Ported slide gate designed for difficult slurry applications
- Self cleaning gates
- Provides bi-directional shut off from zero to full rated pressure
- Specially designed body liners
- Constant contact seats minimize seat stress
- Pressure contained body (C/F 133)
- Self gasketing seats are compatible with raised or flat faced flanges



XS150

- Robust perimeter seal that provides bi-directional bubble tight shut off
- ANSI Class 150 lb pressure temperature rating
- Unrestricted true flow port design
- Injectable packing feature allows for easy packing adjustments when valve is under pressure or incline
- Variety of body seat materials available for demanding applications



C67

- Bi-Directional Knife-Gate Valve
- Full port valve providing a bubble tight shutoff in both directions, from zero to the full rated pressure
- Used in water recovery systems
- Unique patented elastomer perimeter seat
- The seat operates in a mode which insures positive shut off while controlling the effects of compression set to prolong the seat life
- Available in sizes 2"-36" in stainless steel or ductile iron