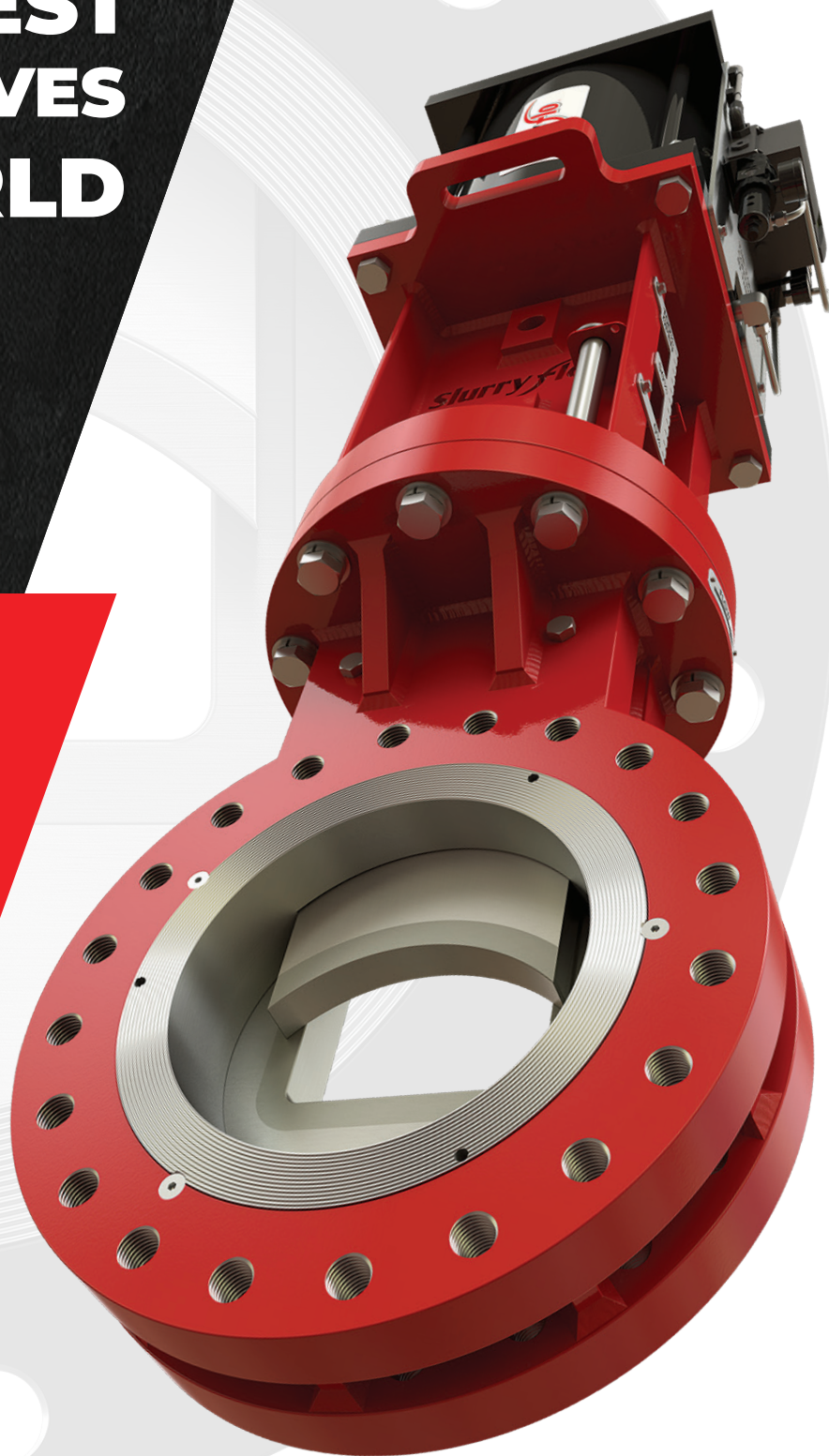


THE TOUGHEST CONTROL VALVES IN THE WORLD

Slurryflo
Control Valves



A SPECIAL ALLOY
FABRICATORS BRAND

THE SLURRYFLO DIFFERENCE

Every SlurryFlo control valve is custom engineered for your specific application requirements. These valves will outlast anything you've ever used.

Custom Engineered

SlurryFlo control valves are custom engineered to optimize flow control and provide a quantum leap in service life.

Field Replaceable Wear Components

Only the trim components are exposed to erosive flow. Once they do eventually wear out, the parts can be field replaced to reset the service life clock.

Reduced Piping Wear

SlurryFlo control valves constrain high velocity flow to the center of the piping, greatly reducing wear to the pipe walls.

State-of-the-art 3D and CFD software

Special Alloy Fabricators engineers use state-of-the-art design and flow-modeling software to build and test control valves in a virtual world.

Extreme Abrasion Resistance

Our engineers carefully select advanced materials based on laboratory testing and field experience to manufacture highly abrasion resistant control valves.

Zero Damage to the Valve Body

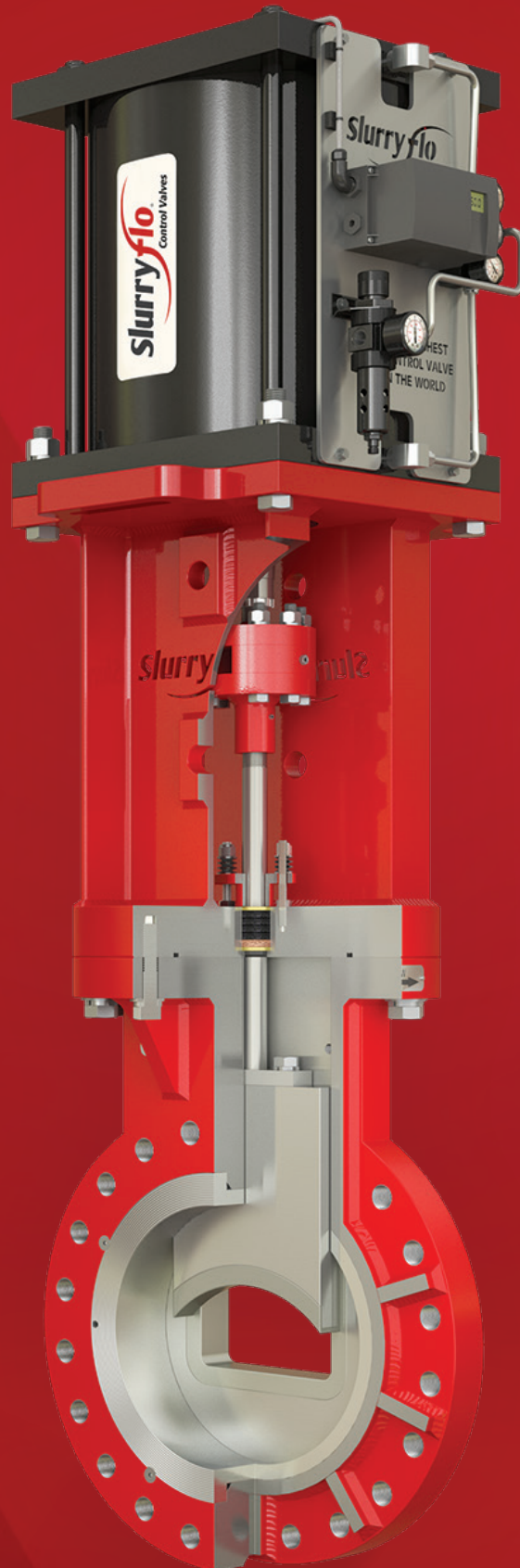
SlurryFlo control valves incorporate a patented trim design that centers abrasive flow, protecting the valve body from erosion.

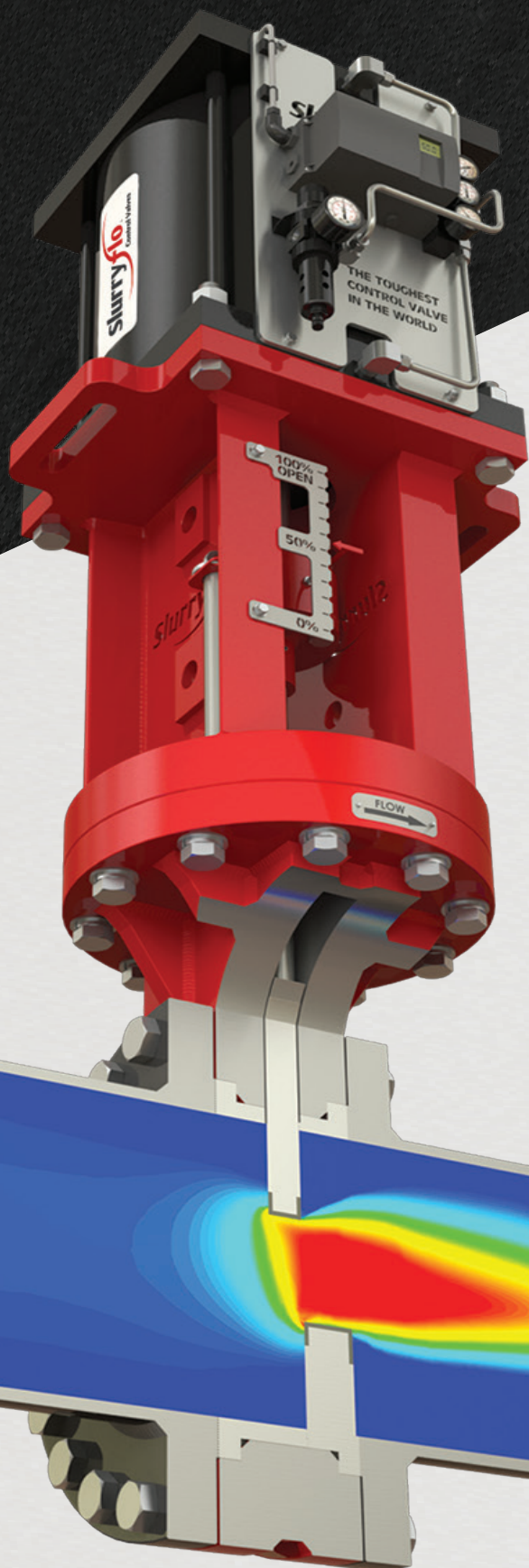
Smooth Bore

The valve bore matches the pipe I.D. exactly and is flush to minimize turbulence.

Severe Service

From hard rock mining to high pressure gas service, SlurryFlo control valves are designed for the world's most severe service applications.





CENTERED FLOW

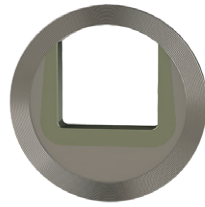
Modulating the flow of abrasive fluid is challenging. When slurry passes through a control valve, the restricted opening causes the fluid to accelerate. This high-velocity media is then directed into the valve's body and downstream pipe wall. The continuous erosion can result in frequent valve replacements, damaged piping and downtime.

In comparison to traditional 'line of site' control valves (such as ball, butterfly and pinch valves), which direct high velocity slurry towards the valve's body and pipe wall, SlurryFlo control valves incorporate a patented trim design that acts as variable orifice, centering the abrasive flow. This protects the pressure containing valve body and the integrity of the downstream piping.

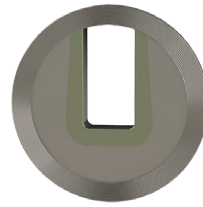
CUSTOM TRIM DESIGNS

There are no 'off-the-shelf' SlurryFlo control valves; each one is manufactured with a unique seat plate design. Based on application requirements and our proprietary sizing calculations, the seat plate is waterjet cut and CNC machined to our engineers' exact specifications.

Special Alloy Fabricators' design philosophy is to achieve an 'equilinear' valve characteristic; however any custom flow characteristic can be achieved. There are literally infinite trim geometry possibilities. If flow conditions change over time, our team can retrofit the existing valve with a new/revised seat plate. An alternate Cv and/or flow characteristic can be achieved without changing any other parts.



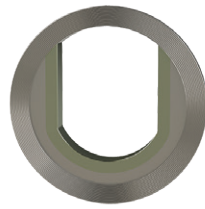
C1



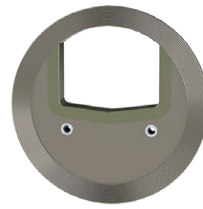
C1
(reduced)



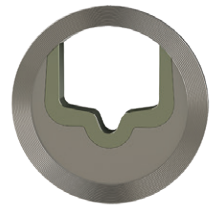
C2



B1

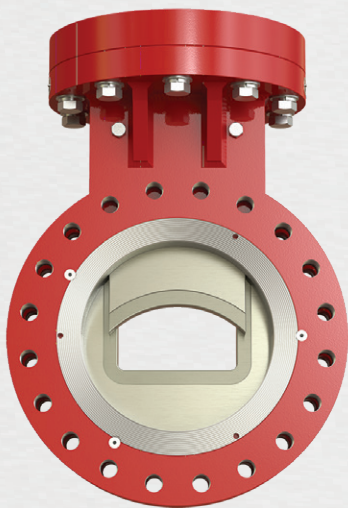


Special
(Example 1)



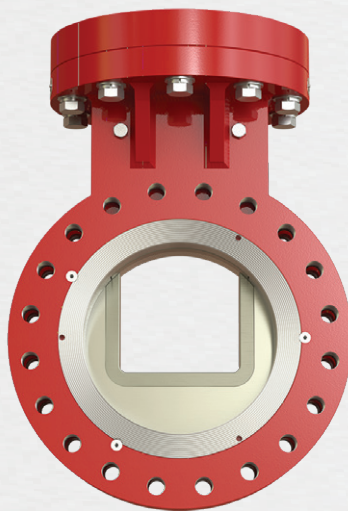
Special
(Example 2)

MODULATING



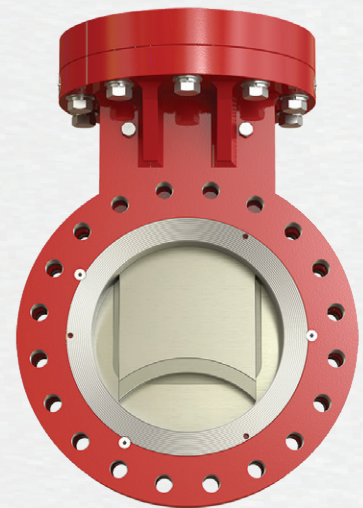
The custom seat plate works in concert with the valve's gate resulting in a centered orifice with variable control.

100% OPEN



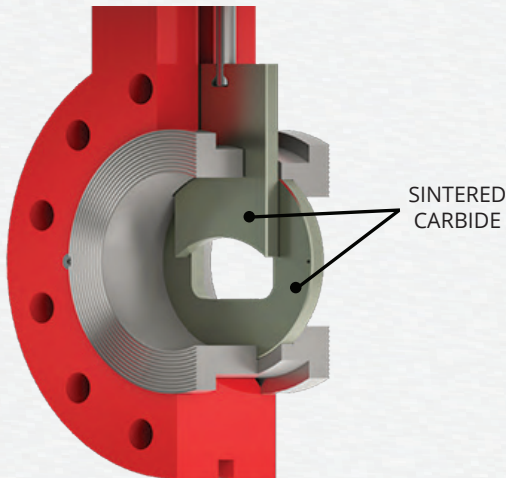
If increased flow is temporarily required, the gate can be retracted beyond its normal throttling positions. The concave gate profile always matches valve's bore.

CLOSED



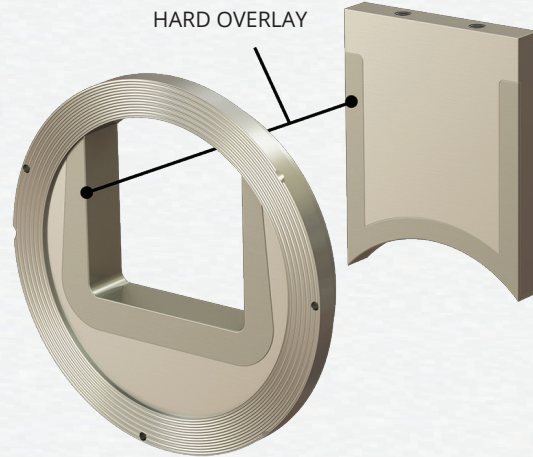
These valves are designed for modulating, however the gate may be closed if required. The metal-to-metal seating surface provides a Class IV shutoff, blocking 99.99% of the valve's rated Cv.

WEAR COMPONENTS



3 TO 10 INCH VALVES

Our small diameter control valves incorporate a unique wear technology. The gate and seat plate are made entirely of sintered tungsten carbide. The end result is a valve with trim components that approach the hardness and wear resistance of diamond.



12 TO 60 INCH VALVES

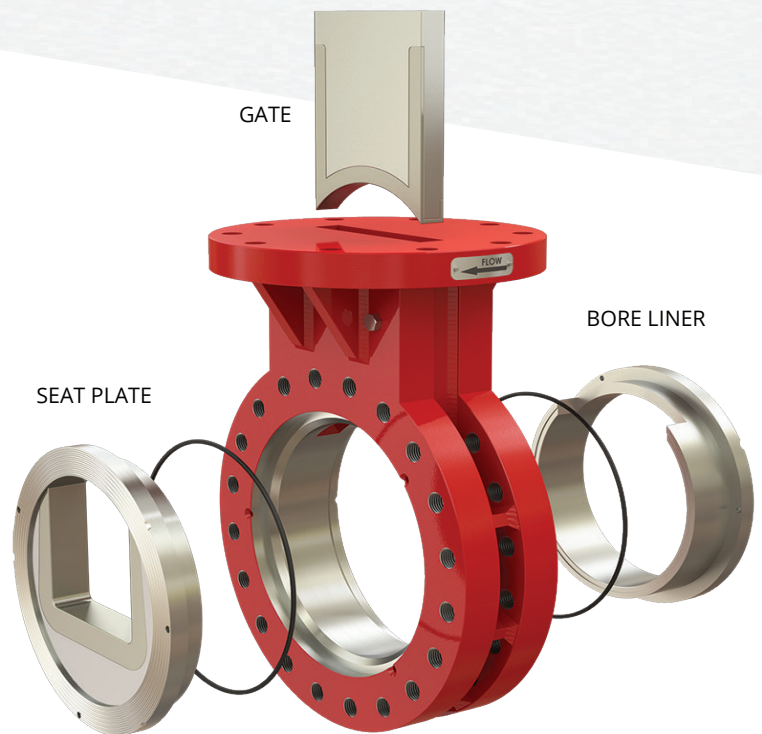
The gate and seat plate are available in dozens of standard and exotic metallurgies. These trim components are then coated with a state-of-the-art hard overlay, such as tungsten carbide (applied via PTAW process). This provides a corrosion resistant trim that endures abrasion incredibly well.

REPLACEABLE TRIM

Due to our patented design, only the trim components are exposed to erosive flow. Once they do eventually wear out, the parts can be field replaced to reset the service life clock.

EACH TRIM REPLACEMENT
ESSENTIALLY PROVIDES A NEW
VALVE AT A FRACTION OF THE COST.

Similarly, if flow conditions ever change, a new seat plate can be specified to provide an increase or decrease in flow. There is no need to replace the entire valve assembly (often the case with other valve designs).



PRESSURE CLASS

From low pressure gravity fed applications to systems with >1,000 PSI, Special Alloy Fabricators manufactures valves up to ANSI 600. SAF follows ASME B16.34 pressure and temperature standards; the maximum design pressure for our control valve is 1,480 Psi (10,204 kPa).

VALVE BODY & TRIM MATERIALS

As metallurgy is highly dependent on application specifications, our valves are available in dozens of standard and exotic materials.

MANUFACTURING HIGHLIGHTS

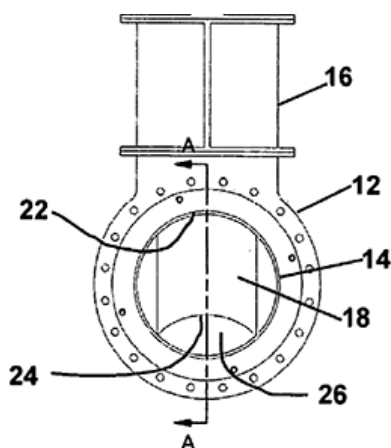
- ✓ 22,000 sq/ft facility
- ✓ In house engineering team
- ✓ CAD and flow modeling software
- ✓ State-of-the-art machining equipment (mills, lathes, drills, etc)
- ✓ Multi-axis Dynamic XD waterjet cutting machine with 3D capability
- ✓ Four high capacity overhead cranes
- ✓ Highly experienced with exotic alloys and specialized weld procedures
- ✓ Close proximity to international shipping ports
- ✓ CSA-B51 quality program

PATENTED DESIGN

SlurryFlo's unique variable orifice control valve technology is patented.

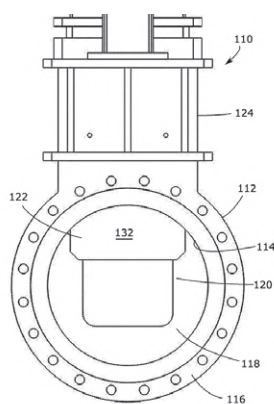
CONCAVE GATE DESIGN

(CA 2 489 079 & US 7,431,264 B2)



FLAT GATE DESIGN

(US 11,035,476 B2)



**SPECIAL
ALLOY
FABRICATORS**

SlurryFlo Control Valves are
Engineered and Manufactured in
Canada by Special Alloy Fabricators.

☎ 780-468-6945
💻 specialalloyfab.com



MADE IN CANADA