

# Rovalve

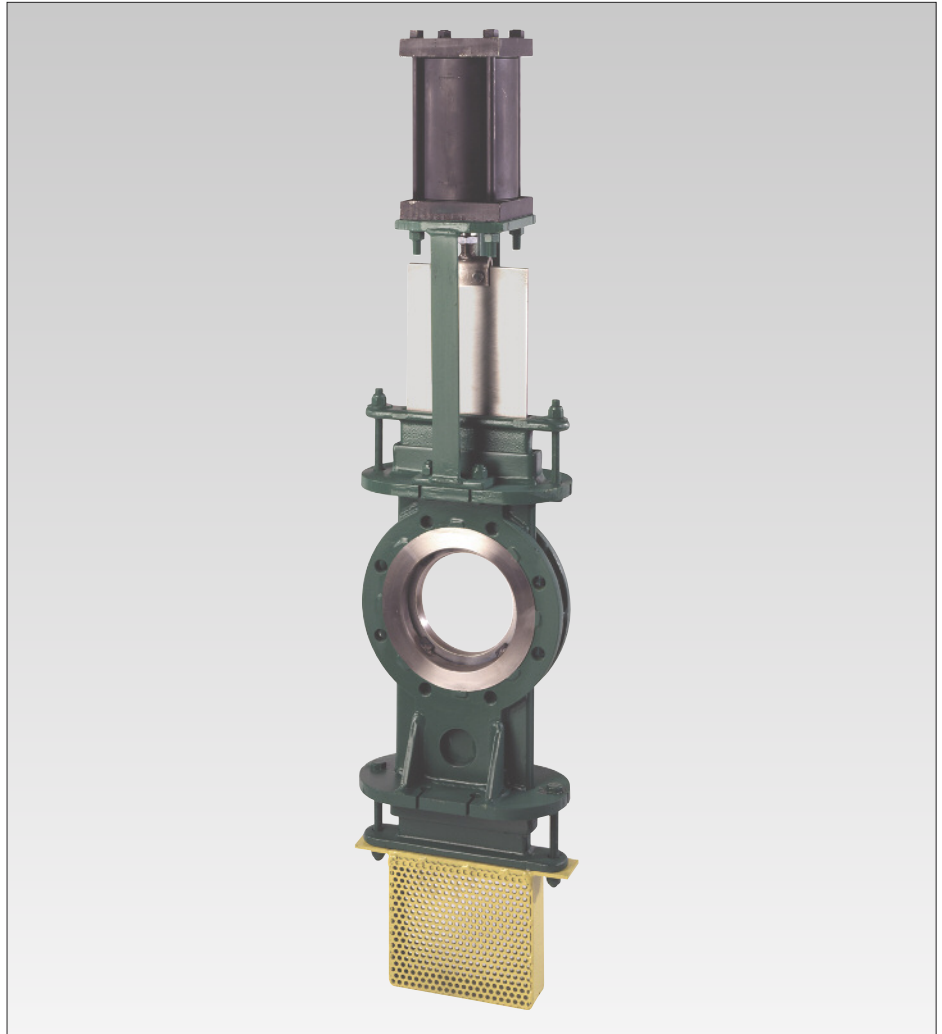
**Slide through, O-port gate design for severe service applications.**

## Features

- Ideal valve for dense slurry and solids applications and wet or dry abrasives.
- Slide through gate design cuts through solids providing consistent operation in the most difficult applications.
- O-port style gate fully protects the seat face in open position, giving you longer service life.
- Will close through a static column of material.
- Fully fabricated from heavy plate and sheet.
- Available in 304, 316 and 317L stainless steel wetted parts or custom designed for your needs using a wide variety of materials including
  - Monel®
  - Titanium
  - 254SMO
  - Hastelloy®
  - Alloy 20
  - 310 SS
- MSS face-to-face standard.
- Other special face-to-face dimensions are available.
- Precision machined seat with multiple gate guides.
- Unidirectional shut-off.
- Full operation, leakage and cycling tests.
- Certified test reports on request.

## Full Range of Operators and Accessories

- Handwheel (standard).
- Bevel gear.
- Lock-Pin for open, closed or both.
- Air/Hydraulic/Spring cylinders.
- Electric motor operators.
- Control accessories.
- Extension stems, floorstands, stem guides.



## General Applications

- For severe service and specialty applications
- Pulp and paper
- Recycle paper
- Chemical
- Petrochemical
- Power
- Mining
- Wastewater

## Options

- Hardface seat
- Purge ports
- Hardened gate
- V-Port or diamond port for throttling Gate guard\*

## Technical Data

Size range: 2" to 24" 150 psi CWP at ambient temperature  
Above 24" designed to suit application

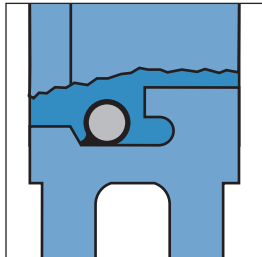
\* Valve is pictured with optional gate guard, recommended on automated valves.

# Rovalve Figure F215 Slide Gate Valve

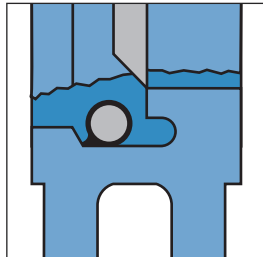
2" to 24"

## Why a Slide Gate Valve?

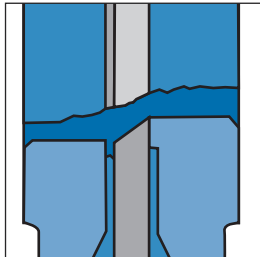
The Rovalve Figure F215 Slide Gate Valve features a slide through gate design that cuts through solids to give you consistent shut-off in the most difficult applications. Unlike a conventional knife gate valve, the Figure F215 does not have to push its way through the media; it simply displaces it, making the valve ideal for dense slurry and solids applications. The Figure F215 also features a fully protected seat face, giving you longer service life.



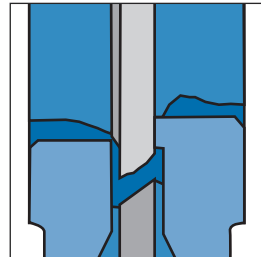
With a conventional knife gate valve, solids may build up in front of the exposed seat....



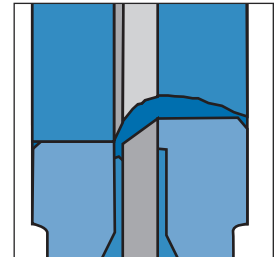
This can cause problems; the seat is subject to wear and the gate may not fully close.



Using a slide gate valve, a similar buildup may occur, but the seat is protected and....



....instead of having to push its way through, the gate moves into the lower body, taking the solids with it....



....when the gate goes to the open position, the solids are drawn back out and sent downstream.

## Recycle with the Rovalve Figure F215-(SF)

The Rovalve Figure F215 can be modified to survive the rigors of recycle applications. It is well suited for use on cyclones, junk traps, repulpers (isolation and dump valves) and others. Specify the F215-(SF) Secondary Fiber Slide Gate Valve and you will get a heavy duty slide through gate design that can cut through solids like wires, staples, and heavy stock. The F215-(SF) features a fully protected seat, a hardened gate, port, seat and guides along with purge ports, giving you a long service life. Available in any size, with ANSI or DIN drilling to match specific applications.

Standard:

- Heavy-duty construction.
- Slide through design.
- Protected seat in open position.
- ANSI flange drilling.

Specify the F215-(SF) and you will get:

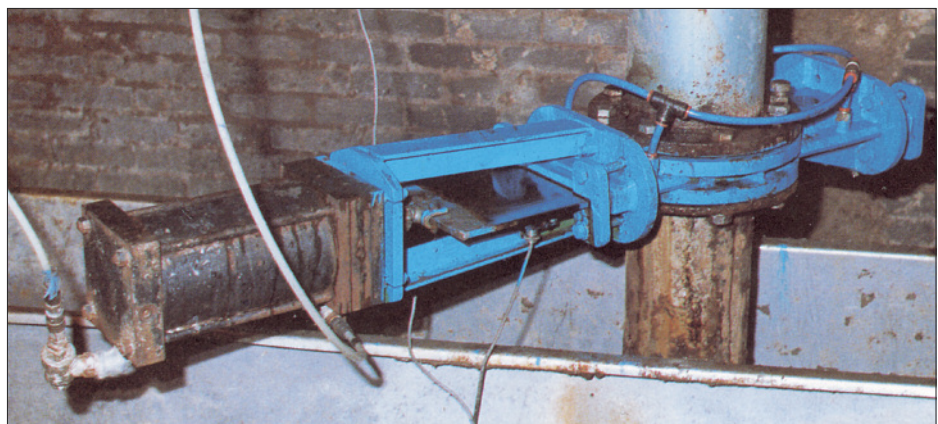
- Purge ports.
- Hardened gate.
- Hard seat face.
- Hard inlet.
- Hard gate guides.

Optional:

- Ni-Hard deflector cone.
- Gate guards (upper and lower).
- DIN flange drilling.

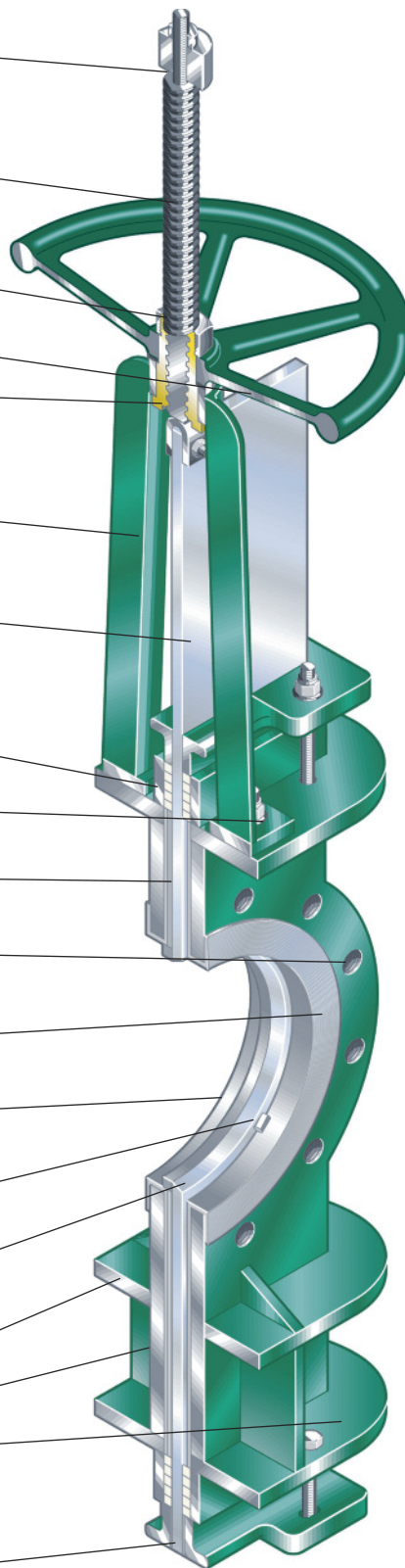
## Specification, Rovalve Figure F215-(SF)

Bonnetless slide gate valve, 150 psi design for 150 psi CWP, MSS-SP81 face-to-face dimension with flanges drilled and tapped to ANSI B16.5/150 or DIN PN10 with machined raised gasket faces. Valve body shall be fully fabricated from heavy gauge stainless steel with steel plate body and port flanges. Inlet port and seat face to be hard surfaced with hard gate guides and four (4) purge ports. Seating shall be in one direction. Gate to be hardened stainless steel finish ground, with a round orifice hole in gate, in line with seat I.D. To deter atmospheric leakage, the valve body features an adjustable packing assembly at each end consisting of multiple layers of braided asbestos free Teflon® impregnated synthetic or equal packing around gate evenly compressed by a one-piece packing gland. Valve is equipped with a heavy-duty double acting cylinder actuator assembled to a self-supporting yoke. The clevis shall be fabricated from three pieces, with the top piece drilled and tapped to accept a threaded-welded connector rod. Grade 8 gate bolts used unless stainless steel bolting is required. Specify Rovalve Figure F215-(SF) as manufactured by Tyco Flow Control.



**Features**

- Umbrella stop-stud assembly allows gate adjustment, assures proper flow
- Heavy cross-section stem, single-lead Acme threads for ease of operation
- Self-locking retaining nut
- Cast iron handwheel
- Acid-resistant bronze stem nut for smooth operation
- Heavy-duty steel T-Bar yoke provides greater strength
- Precision ground stainless steel gate for tight shut-off
- Multiple rows of AFPL or other packing at both ends
- Locknuts used on all bolting
- Smooth flowing fabricated steel body
- Flanges drilled and tapped to ANSI B16.5/150
- Machined gasket faces
- Gate protects seat when valve is in full open position, ideal for heavy stock and cutting through static columns
- Full gate guides to assure proper seating
- Metal-to-metal seat (O-ring or hard surfaced available)
- Steel plate body and port flanges, heavy-duty construction throughout for strength
- Heavy reinforced cast ductile iron packing gland at both ends



Round port design is depicted, optional diamond port or V-Port available for throttling

# Rovalve Figure F215 Slide Gate Valve

2" to 24"

## Code of Material

Item	A	B	C	D	F	H	K
Seat	304	316	304	316	304	317L	317L
Wetted body parts	304	316	304	316	Carbon steel	317L	317L
Gate	304	316	304	316	304	317L	317L
Stem	304	304	304	304	304	304	304
Flange faces	304	316	304	316	Carbon steel	317L	317L
Flanges/Gussets	Carbon steel	Carbon steel	304	316	Carbon steel	Carbon steel	317L
Packing gland	Cast ductile*	Cast ductile*	304	316	Cast ductile*	Cast ductile*	317L
Packing	AFPL	AFPL	AFPL	AFPL	AFPL	AFPL	AFPL
Bolting	Plated steel	Plated steel	304	304	Plated steel	Plated steel	304
Yoke	Carbon steel	Carbon steel	304	304	Carbon steel	Carbon steel	304
Handwheel	Cast ductile	Cast ductile	Cast ductile	Cast ductile	Cast ductile	Cast ductile	Cast ductile

AFPL is an asbestos free Teflon® impregnated synthetic packing suitable for services up to 500°F and a pH of 3-11, other packings are available.

\* Alternate material is fabricated carbon steel.

## C<sub>v</sub> Values

Size	"Flow, round port"	Area of Opening	"Flow, diamond port"	Area of Opening
2	288	3.1	-	-
3	649	7.1	104	2.1
4	1154	12.6	230	4.7
6	2596	28.3	628	12.8
8	4618	50.3	1237	24.5
10	6605	78.5	2413	46.3
12	9561	113	3333	61.9
14	12686	145.9	4378	81.3
16	14878	188.7	5860	108.8
18	18391	240.5	7388	137.2
20	21424	298.6	8970	166.5
24	30852	433.7	13184	244.8

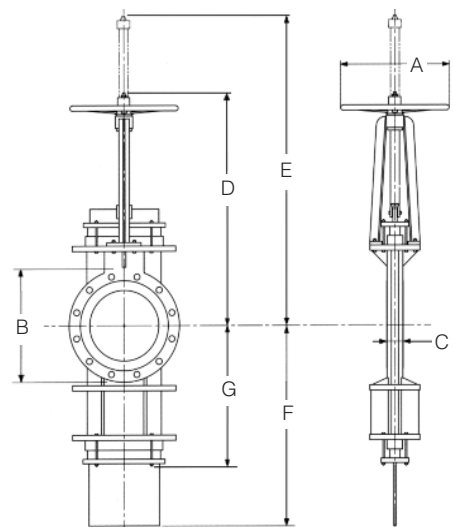
Area is in Square Inches; flow is in GPM of Water at 1 psi Pressure Drop.

## Dimensions and Weights

Size	A	B	C	D	E	F	G	Weight
2	8	6	1.88	15.63	18	11.5	8.25	77
3	12	7.5	2	17.75	21	11.5	8.25	77
4	12	9	2	19.38	23.63	14.13	9.88	90
6	12	11	2.25	24.38	30.75	19.5	13.13	119
8	12	13.5	2.75	28.38	36.75	24.5	16.13	162
10	16	16	2.75	32.88	43.38	30.25	19.75	238
12	16	19	3	36.88	49.38	35.63	23.13	325
14	20	21	3	38.38	52.13	38.63	24.88	442
16	20	23.5	3.5	41.75	57.5	44.13	28.38	558
18	20	25	3.5	45	62.75	49.13	31.38	632
20	20	27.5	4.5	54.5	67.25	54.5	34.75	901
24	30	32	4.5	56.25	80	67.25	43.5	1139

## Specifications

Bonnetless slide gate valve, 150 psi design for 150 psi CWP, valve body shall be fully fabricated from heavy gauge stainless steel with steel plate body and port flanges. Valve to have MSS-SP81 face-to-face dimension with flanges drilled and tapped to ANSI B16.5/150 and machined raised gasket face. Seating shall be provided by a machined metal seat for tight shut-off in one direction with gate guides and seating wedges adequate to withstand full reverse pressure without damage with gate in fully closed position. The gate to be stainless steel finish ground or machined with a round orifice hole in gate, in line with seat I.D. when valve is in full open position. When valve is closed, said orifice will move to the lower body chest, at no time is the gate orifice exposed outside of valve body. To prevent atmospheric leakage, the valve body features an adjustable packing assembly at each end consisting of multiple layers of braided asbestos free Teflon® impregnated synthetic or equal packing around gate evenly compressed by a one-piece packing gland. Valve is equipped with a manual handwheel operator assembly featuring a cast ductile iron handwheel, a heavy duty foot mounted yoke with an acid resistant bronze stem nut and a 304 stainless steel rising stem. All nonferrous exterior surfaces shall be painted to Tyco Flow Control standard. Specify Rovalve Figure F215 as manufactured by Tyco Flow Control.



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