

**MASCOT**



**High End  
Technology**

**Tight  
Shutoff**



**Reliability**

**Expertise you  
can trust**

**DISKFLO Butterfly Valves**





## DISKFLO

### Design Features

- Heavy duty industrial design
- High Cv capacity
- Eccentric cammed disk
- Double offset design
- Low break out torque
- Metal seat – class IV shutoff
- Soft seat – class VI shutoff
- High torque actuator
- Wide range of alloys
- Pressure ratings up to ANSI CL1500

### Quality Assurance

- ISO 9001
- Hydrostatic test to ASME B16.34
- Seat leak test to ASME / FCI 70-2

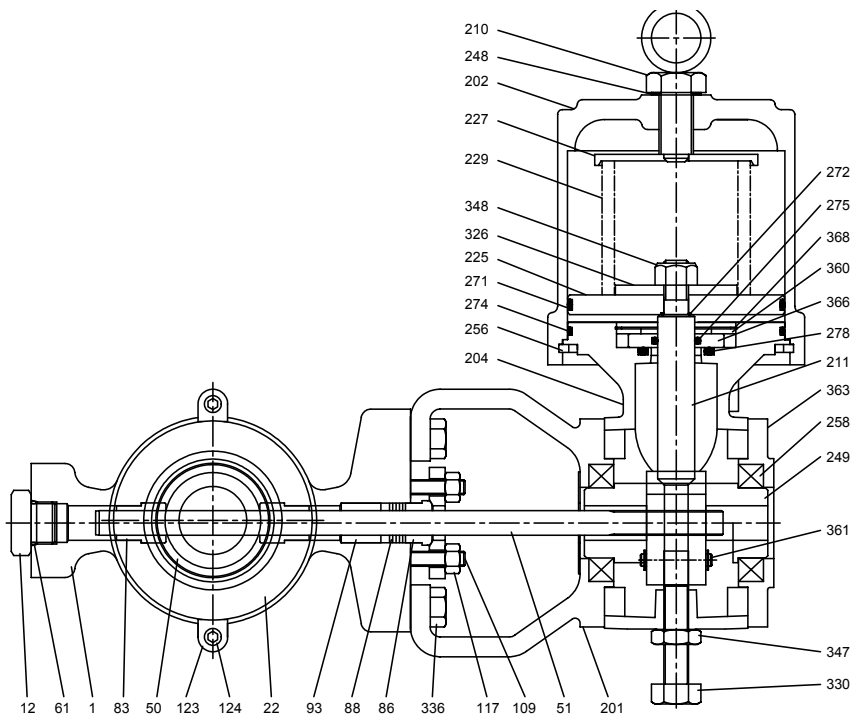
### Ease of Maintenance

- Minimal spare parts requirements
- High degree of interchangeability between valve sizes and pressure ratings
- Actuators are field reversible from fail closed to open and vice versa
- 3 actuator sizes typically cover 95% of all actuator requirements for both fail open and fail closed

### Specification

Body Type:	Wafer, light in weight, provides maximum flow and minimum pressure drop
Size:	2.0" To 48.0"
Pressure Class:	Up to ANSI CL 1500
Body Material:	All castable alloys
End Connections:	Wafer, lugged, flanged
Gland Packing:	PTFE, braided PTFE, grafoil
Seat Ring:	Clamped-in, self aligned,
Disc:	Double eccentric cammed
Shaft:	Splined no lost motion or dead band
Characteristics:	Equal percentage, linear and on-off
Actuator:	Rotary spring cylinder; fully field reversible
Positioner:	High performance analogue and digital

## DISKFLO Components



1	Body	211	Actuator Stem
22	Seat Retainer	225	Piston
50	Disk	227	Spring Button
51	Shaft	229	Spring
61	Adapter O Ring	248	Gasket Adjusting Screw
83	Bearing Stem	249	Lever Arm
86	Follower Packing	256	Retaining Ring Cylinder
88	Packing Set	258	Bearing Lever Arm
93	Packing Spacer	271	Piston O Ring
109	Packing Box Stud	272	Piston Stem O-Ring
117	Packing Box Nut	274	Cylinder O Ring
122	Plug Hex Head	275	Actuator Stem Locknut
123	Clip	360	Sliding Seal Top Clamp
124	Bolt	361	Pivot Pin
201	Yoke	363	Cover Plate
202	Cylinder	366	Sliding Seal Coller
204	Transfer Case	368	Spiral Retaining Ring
210	Adjusting screw		



## DISKFLO - Extended Temperature Service

### Design Features

- Heavy duty industrial design
- Extended bonnet
- High Cv capacity
- Eccentric cammed disk
- Double offset design
- High torque actuator

### Quality Assurance

- ISO 9001
- Hydrostatic test to ASME B16.34
- Seat Leak test to ASME / FCI 70-2

### Ease of Maintenance

- Minimal spare parts requirements
- High degree of interchangeability between pressure ratings
- Actuators are field reversible from fail closed to open and vice versa
- 3 actuator sizes typically cover 95% of all actuator requirements for both fail open and fail closed

### Specification

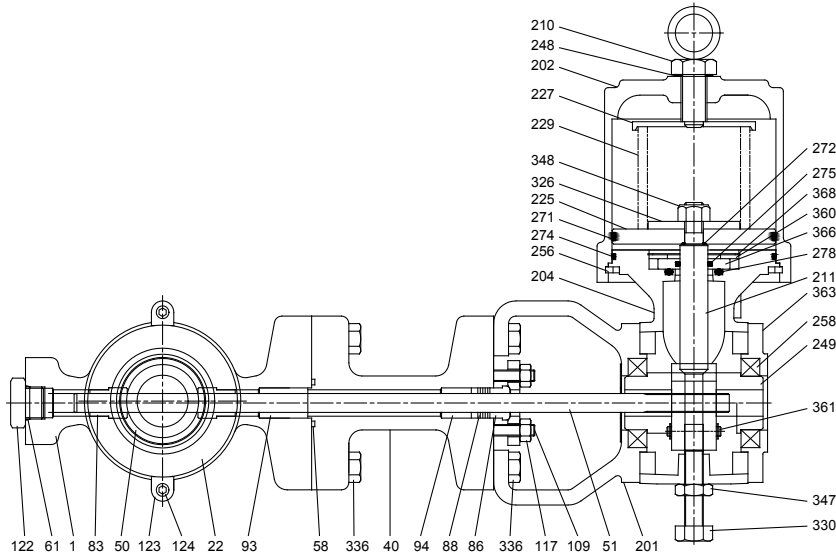
Temperature Range:	-253 to 427°C*
Size:	2.0" to 48.0"
Pressure Class:	ANSI CL150 to ANSI CL600
Body Material:	316SS
Disk Material:	316SS, Alloy 6
Seat Material:	PTFE, Kel F, 316SS
Shut Off Class:	Class IV and Class VI
Characteristics:	Equal Percentage, Linear
Air Pressure:	2.0 To 10.0 Bar
Gland Packing:	PTFE, Braided PTFE, Grafoil
Actuator:	Pneumatic Spring Cylinder / Electric
Positioner:	High Performance Analogue & Digital

\*Consult Mascot Industrial for applications above 427°C.

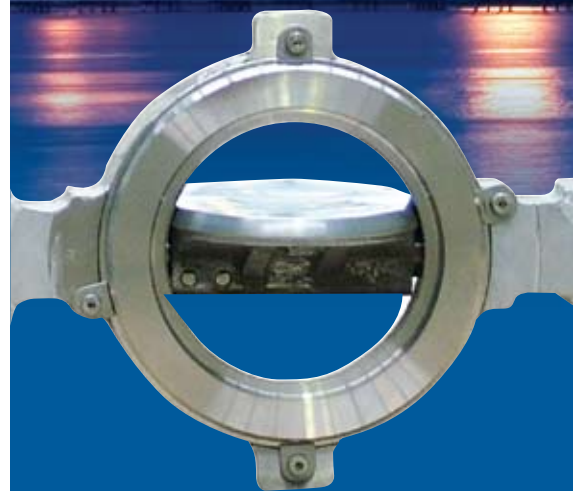


# DISKFLO Components

## Extended Temperature Service



Item No.	Part Name	225	Piston
		227	Spring Button
1	Body	229	Spring
22	Seat Retainer	248	Gasket, Adjusting Screw
40	Extended Bonnet	249	Lever Arm
50	Disk	256	Retaning Ring, Cylinder
51	Shaft	258	Bearing, Lever Arm
58	Bonnet Gasket	271	Piston O-ring
61	Adapter O-ring	272	Piston Stem O-ring
83	Bearing, Stem	274	Cylinder O-ring
86	Follower Packing	275	Actuator Stem O-ring
88	Packing Set	278	Base Slider O-ring
93/94	Packing Spacer	326	Spring Guide
109	Packing Box Stud	330	Stroke Stop Bolt
117	Packing Box Nut	336	Yoke Bolt
122	Plug, Hex. Head	347	Stroke Stop Jam Nut
123	Clip	348	Actuator Stem Locknut
124	Bolt	360	Sliding Seal Top Clamp
201	Yoke	361	Pivot Pin
202	Cylinder	363	Cover Plate
204	Transfer Case	366	Sliding Seal Coller
210	Adjusting Screw	368	Spiral Retaining Ring
211	Actuator Stem		



### Application:

- Acetylene
- Butane
- Ethylene
- Liquid Natural Gas (LNG)
- Liquid Oxygen
- Liquid Propane Gas
- Gas Production
- Gas Receiving Terminal
- Gas Transmission
- Gas Transport



## DISKFLO Cryogenic Service

### Design Features

- Heavy duty industrial design
- Cryogenic extension bonnet
- High Cv capacity
- Eccentric cammed disk
- Double offset design
- High torque actuator

### Quality Assurance

- ISO 9001
- Hydrostatic test to ASME B16.34
- Seat leak test to ASME / FCI 70-2

### Ease of Maintenance

- Minimal spare parts requirements
- High degree of interchangeability between pressure ratings
- Actuators are field reversible from fail closed to open and vice versa
- 3 Actuator Sizes typically cover 95% of all actuator requirements for both fail open and fail closed

### Application

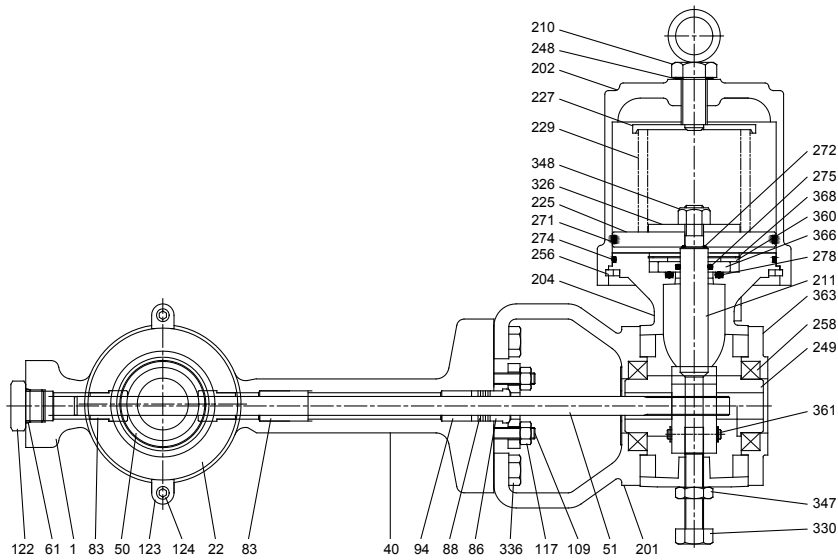
- Gas Production
- Gas Receiving Terminal
- Gas Transmission
- Gas Transport
- Acetylene
- Butane
- Ethylene
- Liquid Natural Gas (LNG)
- Liquid Oxygen
- Liquid Propane Gas

### Specification

Temperature Range:	-253 Deg C to 100 Deg C
Size:	2.0" to 48"
Pressure Class:	ANSI CL150 to ANSI CL600
Body Material:	316SS
Disk Material:	316SS, Alloy 6
Seat Material:	PTFE, Kel F, 316SS
Shut Off Class:	Class IV and Class VI
Characteristics:	Equal Percentage, Linear
Air Pressure:	2.0 To 10.0 Bar
Gland Packing:	PTFE, Braided PTFE, Grafoil
Gaskets:	PTFE, Grafoil
Actuator:	Pneumatic Spring Cylinder / Electric
Positioner:	High Performance Analogue & Digital

# DISKFLO Components

## Cryogenic Service Wafer Body



Item No.	Part Name	225	Piston
		227	Spring Button
1	Body	229	Spring
22	Seat Retainer	248	Gasket, Adjusting Screw
40	Extended Bonnet	249	Lever Arm
50	Disk	256	Retaning Ring, Cylinder
51	Shaft	258	Bearing, Lever Arm
61	Adapter O-ring	271	Piston O-ring
83	Bearing, Stem	272	Piston Stem O-ring
86	Follower Packing	274	Cylinder O-ring
88	Packing Set	275	Actuator Stem O-ring
94	Packing Spacer	278	Base Slider O-ring
109	Packing Box Stud	326	Spring Guide
117	Packing Box Nut	330	Stroke Stop Bolt
122	Plug, Hex. Head	347	Stroke Stop Jam Nut
123	Clip	348	Actuator Stem Locknut
124	Bolt	360	Sliding Seal Top Clamp
201	Yoke	361	Pivot Pin
202	Cylinder	363	Cover Plate
204	Transfer Case	366	Sliding Seal Coller
210	Adjusting Screw	368	Spiral Retaining Ring
211	Actuator Stem		





## DISKFLO Cryogenic Service

### Design Features

- Heavy duty industrial design
- Cryogenic extension bonnet
- High Cv capacity
- Eccentric cammed disk
- Double offset design
- High torque actuator

### Quality Assurance

- ISO 9001
- Hydrostatic test to ASME B16.34
- Seat leak test to ASME / FCI 70-2

### Ease of Maintenance

- Minimal spare parts requirements
- High degree of interchangeability between pressure ratings
- Actuators are field reversible from fail closed to open and vice versa
- 3 Actuator Sizes typically cover 95% of all actuator requirements for both fail open and fail closed

### Application

- Gas Production
- Gas Receiving Terminal
- Gas Transmission
- Gas Transport
- Acetylene
- Butane
- Ethylene
- Liquid Natural Gas (LNG)
- Liquid Oxygen
- Liquid Propane Gas

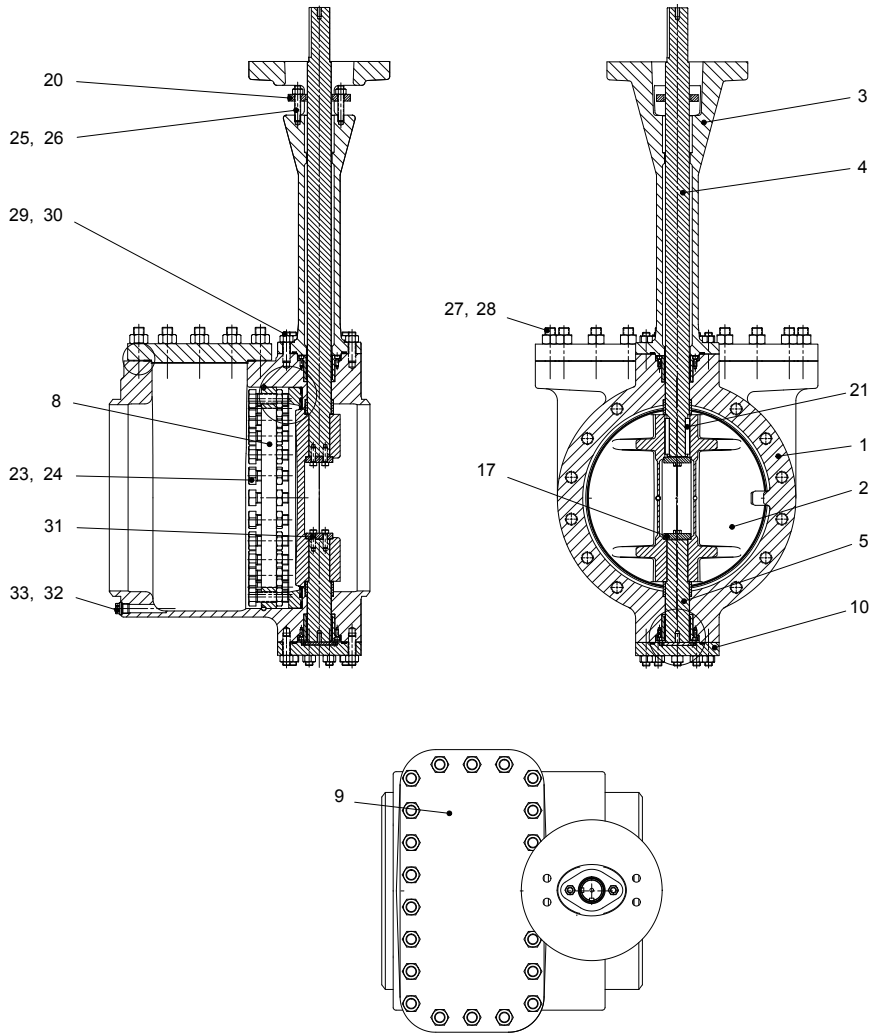
### Specification

Temperature Range:	-253 Deg C to 100 Deg C
Size:	8.0" to 48"
Pressure Class:	ANSI CL150 to ANSI CL600
Body Material:	316SS
Disk Material:	316SS, Alloy 6
Seat Material:	PTFE, Kel F, 316SS
Shut Off Class:	Class IV and Class VI
Characteristics:	Equal Percentage, Linear
Air Pressure:	2.0 To 10.0 Bar
Gland Packing:	PTFE, Braided PTFE, Grafoil
Gaskets:	PTFE, Grafoil
Actuator:	Pneumatic Spring Cylinder / Electric
Positioner:	High Performance Analogue & Digital



# DISKFLO Components

## Cryogenic Service



Item No.	Part Name	21	KEY
		23	HEX JAM NUT
1	BODY	24	BOLT HEX HEAD
2	DISK	25	HEX NUT
3	BONET CRYOGENIC FLANGE	26	STUD BOLT
4	SHAFT	27	HEX NUT
5	POST	28	STUD BOLT
8	RETAINING RING	29	HEX NUT
9	INSPECTION COVER	30	STUD BOLT
10	BOTTOM COVER	31	BOLT HEX HEAD
17	WASHER PLATE	32	HEXAGON HEAD SCREW PLUG
20	GLAND FLANGE	33	GASKET



## DISKFLO – High Pressure Service (CL900 – CL2500)

### Design Features

- Heavy duty industrial design
- High Cv capacity
- Eccentric cammed disk
- Double offset design
- Low break out torque
- Metal seat – class IV shutoff
- Soft seat – class VI shutoff
- High torque actuator
- Wide range of alloys
- Pressure ratings ANSI CL900 to ANSI CL2500

### Quality Assurance

- ISO 9001
- Hydrostatic test to ASME B16.34
- Seat leak test to ASME / FCI 70-2

### Ease of Maintenance

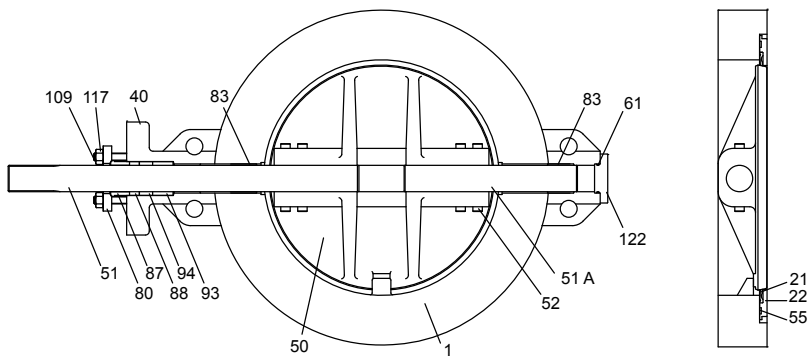
- Minimal spare parts requirements
- High degree of interchangeability between valve sizes and pressure ratings
- Actuators are field reversible from fail closed to open and vice versa
- 3 actuator sizes typically cover 95% of all actuator requirements for both fail open and fail closed

### Specification

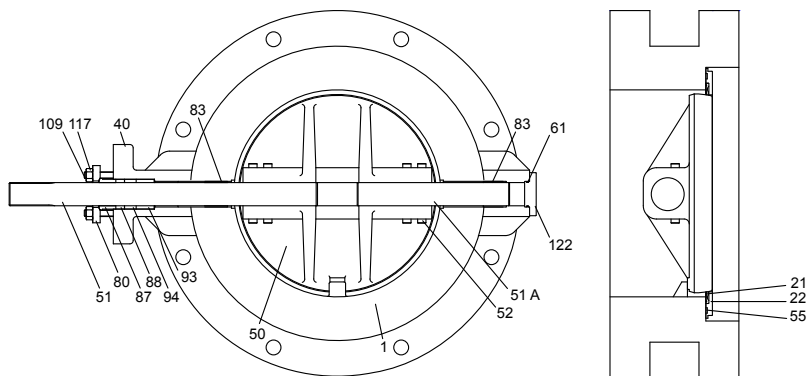
Size:	2.0" To 48.0"
Pressure Class:	ANSI CL900 to ANSI CL2500
Body Material:	All castable alloys
End Connections:	Wafer, lugged, flanged
Gland Packing:	PTFE, braided PTFE, grafoil
Seat Ring:	Clamped-in, self aligned,
Disc:	Double eccentric cammed
Shaft:	Splined no lost motion or dead band
Characteristics:	Equal percentage, linear and on-off
Actuator:	Rotary spring cylinder; fully field reversible
Positioner:	High performance analogue and digital

# DISKFLO Components

## Wafer End Connection



## Flanged End Connection



1	BODY	80	GLAND FLANGE
21	SOFT SEAT	83	BEARING
22	SEAT RETAINER	87	FOLLOWER PACKING
40	BONNET	88	PACKING SET, STD. VEE
50	DISK	93	PACKING SPACER
51	SHAFT EXT.	94	PACKING SPACER
51 A	POST	109	PACKING BOX STUD
52	PIN	117	PACKING BOX NUT
55	GASKET, SEAT RING	122	END PLATE
61	O-RING		

### High Pressure Butterfly Valves

Face to face dimension

	Wafer/Lugged Bodies		Flanged Bodies	
	CL900 / CL1500	CL2500	CL900 / CL1500	CL2500
4"	2.88"	3.25"	9.81"	12.19"
6"	3.25"	3.88"	12.19"	15.62"
8"	3.62"	4.62"	13.62"	17.25"
10"	4.62"	5.50"	15.62"	21.19"
12"	5.25"	6.38"	17.62"	23.88"
14"	5.88"	7.00"	18.62"	
16"	6.38"	7.81"	20.25"	





## GFLO

### High Performance Single Seated Globe Control Valve

Body type: . . . . . 2way, 3way, angle & jacketed  
 Size: . . . . . 0.5" to 30.0"  
 Pressure Class: . . . Up to ANSI CL 4500  
 Body Material: . . . All castable alloys  
 End Connections: . . Flanged, screwed, butt and socket welded  
 Bonnet: . . . . . Standard, extended, cryogenic & bellow sealed  
 Guiding: . . . . . Heavy duty double top stem  
 Gland Packing: . . . PTFE, braided PTFE, grafoil, low fugitive emission  
 Gaskets: . . . . . PTFE, spiral grafoil  
 Seat Ring: . . . . . Clamped-in, self aligned  
 Plug: . . . . . Solid one piece construction with large stem diameter  
 Characteristics: . . . Equal percentage, linear and on-off  
 Special Trims: . . . CAVFLO, MEGAFLO, GFLO VC  
 Actuator: . . . . . Linear spring cylinder, fully field reversible  
 Shut off class: . . . . With metal seat - ANSI IV or V and replaceable soft seat - ANSI VI



## VFLO

### High Performance V-Ball Control Valve

Body type: . . . . . One-Piece VFLO Ball, straight-through  
 Size: . . . . . 0.5" to 18.0"  
 Pressure Class: . . . Up to ANSI CL 900  
 Body Material: . . . All castable alloys  
 End Connections: . . Flangeless, flanged (integral and separable flange)  
 Gland Packing: . . . PTFE, braided PTFE, grafoil  
 Seat Ring: . . . . . Clamped-in, self aligned, bi-directional  
 Ball: . . . . . Segmented V-notch ball, reduces clogging, shearing action fibrous fluids  
 Shaft: . . . . . Splined-No lost motion or dead band  
 Characteristics: . . . Equal percentage, linear and on-off  
 Rangeability: . . . . 300:1  
 Actuator: . . . . . Rotary spring cylinder, fully field reversible  
 Shut off class: . . . . With metal seat - ANSI IV and replaceable soft seat - ANSI VI



## DISKFLO

### High Performance Wafer style Butterfly Control Valve

Body type: . . . . . Wafer, light in weight, provides large flow and minimum pressure drop  
 Size: . . . . . 2.0" to 42.0"  
 Pressure Class: . . . Up to ANSI CL 1500  
 Body Material: . . . All castable alloys  
 End Connections: . . Wafer, lugged, flanged  
 Gland Packing: . . . PTFE, braided PTFE, grafoil  
 Seat Ring: . . . . . Clamped-in, self aligned  
 Disc: . . . . . Double eccentric cammed  
 Shaft: . . . . . Splined no lost motion or dead band  
 Characteristics: . . . Equal percentage, linear and on-off  
 Actuator: . . . . . Rotary spring cylinder, fully field reversible  
 Shut off class: . . . . With metal seat - ANSI IV and replaceable soft seat - ANSI VI



## SEVERE SERVICE

### Cavitation, Noise Abatement, Velocity Control Trim

Applications:

- Anti-cavitation trims
- Noise attenuation trims
- Multistage "velocity control" anti-cavitation
- Trims for liquid applications
- Multistage "velocity control" noise attenuating trims
- Choke applications

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