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# Dyna-Flo Control Valves Product Line

# Focused On Customer Solutions

**Our Commitment;** To be your Trusted Partner to help improve plant safety, minimize downtime, and eliminate production disruptions with our safe and high performance control valves. We design, manufacture, and supply a variety of control valve systems that meet our customers most demanding applications and solve operational challenges.

**Curtiss-Wright engineers control valve systems to help customers achieve safe and reliable operation, while reducing total cost of ownership.**

CUSTOMER CHALLENGE	CURTISS-WRIGHT APPROACH	OPERATIONAL OUTCOME
<b>RELIABILITY</b> 	Providing the right design and application engineering, combined with the ability to offer performance monitoring and predictive maintenance diagnostics.	<b>INCREASED UPTIME</b> 
<b>SAFETY</b> 	Highly skilled and OEM certified technicians are always available to reduce unplanned downtime (risk exposure).	<b>MINIMIZED RISK</b> 
<b>MAINTENANCE</b> 	Reduced planned maintenance scope and unplanned downtime through diagnostics and 24-hour support.	<b>REDUCED COST</b> 

## Contact Us

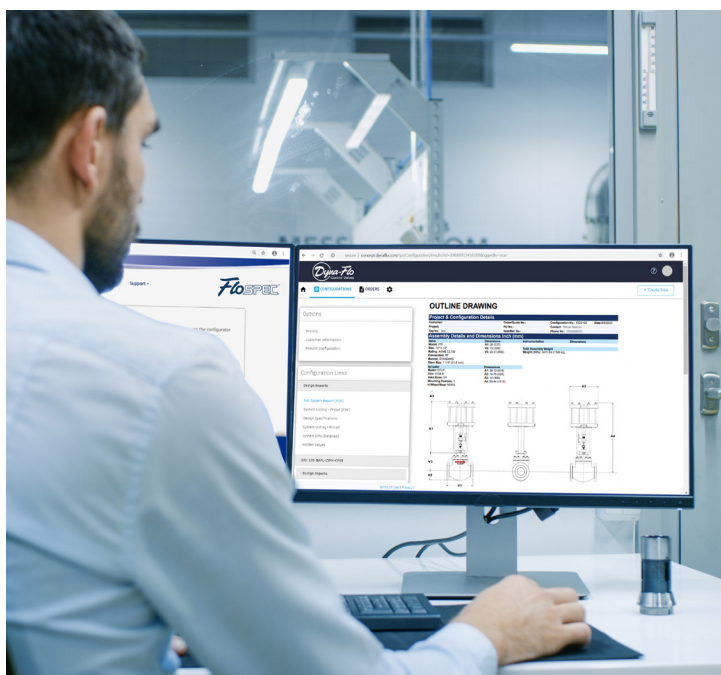
[valves.curtisswright.com/en-us/contact-us](http://valves.curtisswright.com/en-us/contact-us)



## Warranty

All Products have a Warranty Period of twelve months from first installation or eighteen months from delivery, whichever is sooner. All other warranty terms are as per Curtiss-Wright Industrial Standard Terms and Conditions, a copy which is available at [industrial.curtisswright.com/en-gb/about/division-policies/terms-conditions](http://industrial.curtisswright.com/en-gb/about/division-policies/terms-conditions). or contact your local representative.

# Innovative Management Tools



## FloSPEC™

### Product Sizing & Selection

For optimal system performance it is critical to determine the correct product for your application. Our FloSpec™ software helps you select the ideal flow control solution.

FloSpec™ allows you to:

- Size Valves
- Calculate Valve Thrust and Torque
- Develop Dimensional Drawings for Product
- Request special construction options
- Save and share project data between users
- Share product requests with representatives

Visit: [concept.dynaflo.com](http://concept.dynaflo.com)

## Trust our valve team to help you with local support and service.

We are a global company with local presence. Our factory trained sales representatives are readily available to understand and meet or exceed your needs, such as:

- Determining appropriate product configuration
- Identifying products for your application
- Establishing compliance with codes and standards

Curtiss-Wright Valve Authorized Service Providers are stationed worldwide so that your facility can maintain peak performance during operation. Our qualified team of technicians are committed to providing quick service and repair to reduce downtime and costs for essential equipment.

## PRODUCT TRAINING AND SEMINARS

We offer technical training courses learning about valve management and industry scenarios.

### SOME AVAILABLE CLASSES

- Basic valve technician training
- Valve and actuator sizing
- Material selection
- FloSpec™ software training
- Maintenance and repair
- Performance and application scenarios

**CONTACT YOUR SALES REP FOR MORE INFORMATION**



# Sliding Stem Valves

## Product Series 360, 390, 320



### Dyna-Flo 360 Product Series

Standard Pressure Range Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	360 • 361 • 362 • 363	
Body Size Range:	1/2" to 8" NPS	15mm to 400mm DN
Temperature Range:	-325°F to +1000°F	-198°C to +538°C
Pressure Range:	ASME B16.34 Class 150 to 600	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II to VI	
End Connections:	RF • RTJ • BWE • SWE • FNPT	
Characteristics:	Equal Percentage • Linear • Quick Opening • Anti-Cavitation • Low-Noise	
Available Options:	Cage or Top-Guided • Metal Seats Standard / Soft Seats Available • Dyna-Form & Dyna-Flute Trim • Live-loaded Packing Options • Cryogenic Designs • NACE Construction	



### Dyna-Flo 390 Product Series

High Pressure Range Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	390 • 391 • 392	
Body Size Range:	1" to 8x6" NPS	25mm to 200x150mm DN
Temperature Range:	-325°F to +1000°F	-198°C to +538°C
Pressure Range:	ASME B16.34 Class 900 to 1500	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II to V	
End Connections:	RF • RTJ • BWE • SWE	
Characteristics:	Equal Percentage • Linear • Quick Opening • Anti-Cavitation • Low-Noise	
Available Options:	Cage or Top-Guided • Metal Seats Standard • Dyna-Form & Reduced Port Trim • Live-loaded Packing Options • Cryogenic Designs • NACE Construction	



### Dyna-Flo 320 Product Series

Axial Flow Anti-Cavitation Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	320	
Body Size Range:	2" to 8" NPS	50mm to 200mm DN
Temperature Range:	-50°F to +600°F	-46°C to +316°C
Pressure Range:	ASME B16.34 Class 300 to 1500	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class V	
End Connections:	RF • RTJ • BWE • SWE • FNPT	
Characteristics:	Linear	
Available Options:	Cage Guided • Metal Seats Standard • Live-loaded Packing Options • NACE Construction	

# Sliding Stem Valves

## Product Series 350, 370, 380



### Dyna-Flo 350 Product Series

Expanded Outlet - Reduced Port Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	350 • 351	
Body Size Range:	8x6" to 12x8" NPS	200x150mm to 300x200mm DN
Temperature Range:	-50°F to +1000°F	-46°C to +538°C
Pressure Range:	ASME B16.34 Class 150 to 900	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II to VI	
End Connections:	RF • RTJ • BWE	
Characteristics:	Equal Percentage • Linear • Quick Opening • Anti-Cavitation • Low-Noise	
Available Options:	Cage-Guided • Metal Seats Standard / Soft Seats Available • Live-loaded Packing Options • NACE Construction	



### Dyna-Flo 370 Product Series

Limited-Size Standard Pressure Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	370 • 371	
Body Size Range:	12" NPS	300mm DN
Flange Size Range:	12" • 14" • 16" NPS	300mm • 350mm • 400mm DN
Temperature Range:	-100°F to +1000°F	-73°C to +538°C
Pressure Range:	ASME B16.34 Class 150 to 600	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class IV to V	
End Connections:	RF • RTJ	
Characteristics:	Equal Percentage • Linear • Quick Opening • Anti-Cavitation • Low-Noise	
Available Options:	Cage-Guided • Metal Seats Standard • Live-loaded Packing Options • NACE Construction	



### Dyna-Flo 380 Product Series

Limited-Size High Pressure Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	380 • 381	
Body Size Range:	3" • 4x3" • 8" NPS	80mm • 100x80mm • 200mm DN
Temperature Range:	-50°F to +1000°F	-46°C to +538°C
Pressure Range:	ASME B16.34 Class 900 to 2500	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II to VI	
End Connections:	RF • RTJ • BWE	
Characteristics:	Equal Percentage • Linear • Quick Opening • Anti-Cavitation • Low-Noise	
Available Options:	Cage-Guided • Metal Seats Standard / Soft Seats Available • Live-loaded Packing Options • NACE Construction	

# Sliding Stem Valves

## Models DF2000, DF100, DF234, DF270, DF2410



### Dyna-Flo Model DF2000 Product Series

Rugged Oilfield Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	DF2000	
Body Size Range:	1" & 2" NPS	25mm & 50mm DN
Temperature Range:	-50°F to +450°F	-46°C to +232°C
Pressure Range:	ASME B16.34 Class 150 to 2500	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class IV to V	
End Connections:	RF • RTJ • FNPT	
Characteristics:	Equal Percentage	
Available Options:	Top-Guided • Threaded Bonnet • Metal Seats Standard • Live-loaded Packing Options • NACE Construction Standard	



### Dyna-Flo Integral Sliding Stem Valves and Actuators

Compact Rugged Sliding Stem Control Valves

Product Description (Refer to Page 9 for Product Details)		
Available Models:	DF100 • DF234 • DF270 • DF2410	
Body Size Range:	1" & 2" NPS	25mm & 50mm DN
Port Size Range:	1/4" to 1-1/4"	6.4mm to 38.1mm
Temperature Range:	-50°F to +400°F	-46°C to +204°C
Pressure Range:	ASME B16.34 Class 150 to 1500	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class IV	
End Connections:	RF • RTJ • FNPT	
Characteristics:	Equal Percentage • Quick Opening	
Available Options:	Live-loaded Packing Standard • NACE Construction Standard	

# Rotary Valves

## Product Series 570, 570S, 580



### Dyna-Flo 570 Product Series

Segmented-Ball Rotary Control Valves

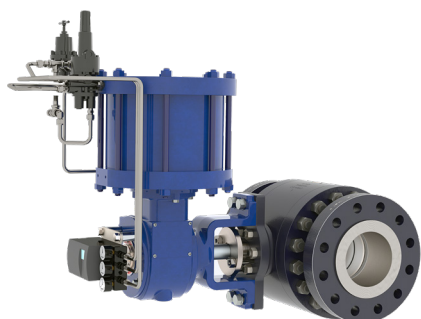
Product Description (Refer to Page 10 for Product Details)		
Available Models:	570 • 571 • 573	
Body Size Range:	1" to 24" NPS	25mm to 600mm DN
Temperature Range:	-100°F to +800°F	-73°C to +427°C
Pressure Range:	ASME B16.34 Class 150 to 600	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II to VI	
Body Styles:	Flanged (RF Connection Only) • Wafer (RF Connection)	
Characteristics:	Modified Equal Percent	
Available Options:	Splined, Square & Keyed Shafts • Live-loaded Packing Options • NACE Construction Standard	



### Dyna-Flo 570S (Slurry) Product Series

Erosive Wear-Resistant Segmented-Ball Rotary Control Valves

Product Description (Refer to Page 10 for Product Details)		
Available Models:	571S • 573S	
Body Size Range:	3" to 8" NPS	80mm to 200mm DN
Temperature Range:	-50°F to +800°F	-46°C to +538°C
Pressure Range:	ASME B16.34 Class 150 or 300	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class I	
Body Styles:	Flanged (RF Connection Only)	
Characteristics:	Modified Equal Percent (Reverse Flow)	
Available Options:	Splined, Square & Keyed Shafts • Live-loaded Packing Options • NACE Construction Standard • High Chrome Iron & Ceramic Trim	



### Dyna-Flo 580 Product Series

Full-Bore Rotary Control Valves

Product Description (Refer to Page 10 for Product Details)		
Available Models:	580	
Body Size Range:	6" to 24" NPS	150mm to 600mm DN
Temperature Range:	-50°F to +400°F	-46°C to +204°C
Pressure Range:	ASME B16.34 Class 150 to 600	
Shutoff Range:	ANSI/FCI 70.2 Class IV & VI	
Body Styles:	Flanged (RF & RTJ Connections)	
Characteristics:	Modified Equal Percent	
Available Options:	Splined & Keyed Shafts • Live-loaded Packing Options • NACE Construction Standard • Single and Dual Seal Options	

# Rotary Valves

## Product Series 590, DF400



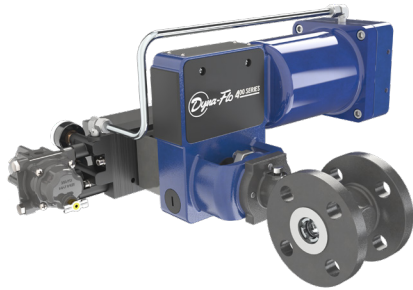
### Dyna-Flo 590 Product Series

Large-Bore Rotary Control Valves

Product Description (Refer to Page 10 for Product Details)		
Available Models:	590	
Body Size Range:	4" to 16" NPS	100mm to 400mm DN
Temperature Range:	-50°F to +400°F	-46°C to +204°C
Pressure Range:	ASME B16.34 Class 600 & 900	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II & VI	
Body Styles:	Wafer (RF & RTJ Connection)	
Characteristics:	Modified Equal Percentage	
Available Options:	Splined & Keyed Shafts • Live-loaded Packing Standard • NACE Construction Standard • Full ANSI Shutoff	

### Dyna-Flo DF400 Product Series

High-Capacity Eccentric Rotary Plug Control Valves



Product Description (Refer to Page 10 for Product Details)		
Available Models:	DF400	
Body Size Range:	1" to 6" NPS	25mm to 150mm DN
Temperature Range:	-200°F to +750°F	-93°C to +399°C
Pressure Range:	ASME B16.34 Class 150 & 600	
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class IV & VI	
Body Styles:	Flanged (RF Connection Only) • Wafer (RF Connection)	
Characteristics:	Linear	
Available Options:	Blowout Proof Shafts • Low-Emission Packing Standard • NACE Construction Available • Reduced Port Trim • High-Temperature & Severe Service Coatings	

# Actuators & Instruments

## Models DFC, DFO, DFN, DFR, DFLP, DFRP, Pro-50



### Pneumatic Spring and Diaphragm Actuators

Operating Temperature Range: -40°F to +180°F (-40°C to +82°C)

Linear Spring and Diaphragm - Models DFC • DFO • DFN		
Model DFC & DFO	0-18 • 0-33 • 3-15 • 6-30	0-1.24 • 0-2.28 • 0.21-1.03 • 0.41-2.07 BARG
Input Signals:	PSIG	
Model DFN Input Signals:	35 PSIG	2.41 BARG
Travel Range:	3/8" to 4"	9.5mm to 102mm
Stem Connection Sizes:	3/8" • 1/2" • 3/4"	9.5mm • 12.7mm • 19.1mm
Rotary Spring and Diaphragm - Model DFR		
Model DFR Input Signals:	0-18 • 0-33 • 3-27 PSIG	0-1.24 • 0-2.28 • 0.21-1.86 BARG
Stem Connection Sizes:	1/2" to 2"	12.7mm to 50.8mm



### Pneumatic Piston Actuators

Operating Temperature Range: -40°F to +180°F (-40°C to +82°C)

Linear Piston - Model DFLP		
Operating Pressures:	20 to 110 PSIG	1.38 to 7.6 BARG
Travel Range:	3/4" to 8-1/8"	19.1mm to 206mm
Stem Connection Sizes:	3/4" • 1" • 1-1/4"	19.1mm • 25.4mm • 31.8mm
Rotary Piston - Model DFRP		
Input Signals:	20 to 110 PSIG	1.38 to 7.6 BARG
Stem Connection Sizes:	1/2" to 2-1/2"	12.7mm to 63.5mm

### Instrumentation



Digital Valve Positioner - SIEMENS PS2		
Output Range:	0 to 100 PSIG	0 to 6.9 BARG
Product Features:	HART Ready • Zero Bleed in Steady State	
Pressure Regulator - DYNA-FLO PRO-50		
Outlet Pressures:	0-35 • 0-60 • 0-125 PSIG	0-2.4 • 0-4.1 • 0-8.6 BARG
Max. Inlet Pressure:	250 PSI	17 BAR
Temperature Range:	-200°F to +750°F	-93°C to +399°C
Local Pneumatic Pressure Controller - DYNA-FLO 4000 Product Series		
Pressure Range:	30 to 5,000 PSIG	2.1 to 345 BARG
Temperature Range:	-40°F to +160°F	-40°C to +71°C
Product Features:	Low-Bleed and NACE Options Available	
Displacer Type Pneumatic Liquid Level Controller - DYNA-FLO 5000		
Sensor Temperature Range:	-40°F to +400°F	-40°C to +204°C
Pressure Rating:	ASME B16.34 Class 1500	
End Connections:	RF • RTJ • MNPT	
Pilot Options:	Pneumatic • Electric SPDT or DPDT	

# Sliding Stem Control Valve Product Details

Product Specifications		Sliding Stem Control Valves							Integral Actuator & Sliding Stem Control Valves			
Valve Product Series		320	350	360	370	390	380	DF2000	DF100	DF234	DF270	DF2410
Valve Body Size Range		2 to 8"	8 to 12"	½ to 8"	12 to 16"	1 to 6"	3 & 8"	1 to 2"	1"	1 & 2"	1 & 2"	2"
Pressure Rating Class ASME B16.34		300 to 1500	150 to 900	150 to 600	150 to 600	900 to 1500	900 to 2500	150 to 2500	150 to 900	150 to 1500	150 to 1500	150 to 1500
Body Style	Globe	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Angle			✓		✓		✓				
	Wafer											
	T Body								✓			
End Connections	FNPT <sup>(1)</sup>	✓		✓				✓	✓	✓	✓	✓
	RF <sup>(2)</sup>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RTJ <sup>(3)</sup>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	BWE <sup>(4)</sup>	✓	✓	✓	✓	✓	✓					
	SWE <sup>(5)</sup>	✓		✓		✓		✓				
Trim Options	Low-Noise		✓	✓	✓	✓	✓					
	Anti-Cavitation	✓	✓	✓	✓	✓	✓					
Shutoff Class	II		✓	✓		✓	✓					
	III		✓	✓		✓	✓					
	IV		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	V	✓	✓	✓	✓	✓	✓	✓				
	VI			✓								
Plug Style	Balanced	✓	✓	✓	✓	✓	✓					
	Unbalanced	✓		✓		✓	✓	✓	✓	✓	✓	✓
Standard Body Material Options	LCC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	WCC	✓	✓	✓	✓	✓	✓					
	CF8M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

**Body Material Note:** All ASME B16.34 pressure boundary materials are available as body material options.

Actuators	320	350	360	370	390	380	DF2000
Model DFC	✓	✓	✓		✓	✓	✓
Model DFO	✓	✓	✓		✓	✓	✓
Model DFLP	✓	✓	✓	✓	✓	✓	✓

Notes:	
(1) FNPT = Female Internal Thread	(2) RF = Raised-Face
(3) RTJ = Ring Type Joint	(4) BWE = Butt Weld End
(5) SWE = Socket Weld End	

# Rotary Control Valve Product Details

Product Specifications		Rotary Ball Control Valves				Rotary Plug Valves
Valve Product Series		570	570S	580	590	DF400
Valve Body Size Range		1 to 24"	3 to 8"	6 to 24"	4 to 16"	1 to 6"
Pressure Rating Class ASME B16.34		150 to 600	150 or 300	150 to 600	600 to 900	150 to 600
Body Style	Flanged	✓	✓	✓		✓
	Wafer	✓			✓	✓
End Connections	RF <sup>(2)</sup>	✓	✓	✓	✓	✓
	RTJ <sup>(3)</sup>			✓	✓	✓
Trim Options	Dual Seal			✓	✓	
	Ceramic		✓			
Shutoff Class	I		✓			
	II	✓			✓	
	III					
	IV	✓		✓		✓
	V					
	VI	✓		✓	✓	✓
Ball Style	Segmented	✓	✓			
	Full-Ball			✓	✓	
Standard Body Material Options	LCC	✓			✓	
	WCC	✓	✓		✓	✓
	CF8M				✓	
	CF3M					✓
	CG8M	✓				
	LF2-CL1			✓		

**Body Material Note:**

All ASME B16.34 pressure boundary materials are available as body material options.

Actuators	570	570S	580	590	DF400
Model DFR	✓	✓			
Model DFRP	✓		✓	✓	
DF400					✓

**Notes:**

(1) FNPT = Female Internal Thread

(2) RF = Raised-Face

(3) RTJ = Ring Type Joint

(4) BWE = Butt Weld End

(5) SWE = Socket Weld End



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**Offices Worldwide:** For a listing of our global sales network, visit: [valves.curtisswright.com/en-us/global-supplier-network](http://valves.curtisswright.com/en-us/global-supplier-network)

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