



DYNA-FLO PRODUCTS & SERVICING



Focused on Solutions

Dyna-Flo is your Trusted Partner to help improve plant safety, minimize downtime, and eliminate production disruptions with our safe and high performance control valves. Dyna-Flo designs and manufactures a variety of control valve systems that meet our customers most demanding applications and solve operational challenges.

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

CUSTOMER CHALLENGE

DYNA-FLO APPROACH

OPERATIONAL OUTCOME

RELIABILITY



Providing the right design and application engineering, combined with the ability to offer performance monitoring and predictive maintenance diagnostics.

INCREASED UPTIME



SAFETY



Highly skilled and OEM certified technicians are always available to reduce unplanned downtime (risk exposure).

MINIMIZED RISK



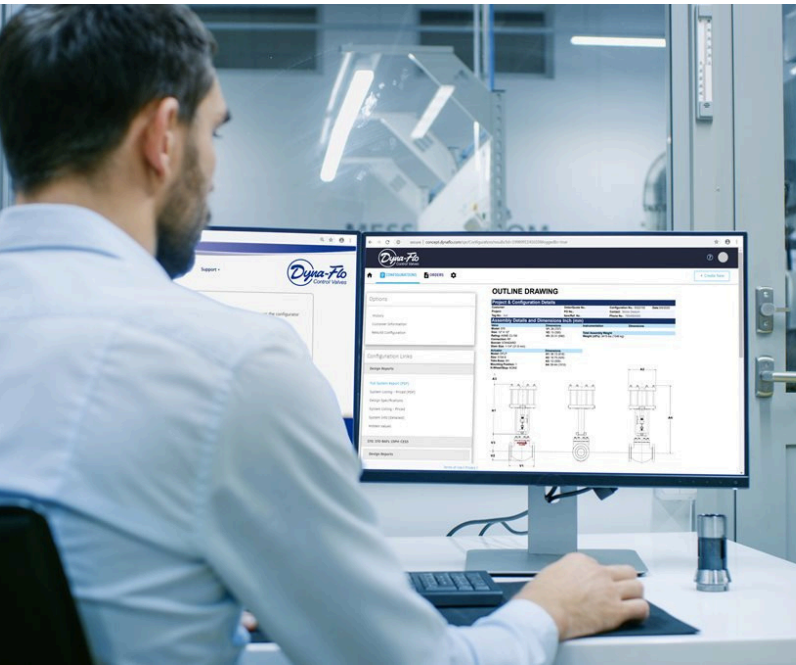
MAINTENANCE



Reduced planned maintenance scope and unplanned downtime through diagnostics, and 24-hour on-call service.

REDUCED COST





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 sales representatives

www.concept.dynaflo.com

Trust Our Team to Help You.

Providing a spectrum of support, including product training, on-site assistance, and repair services.

Local Support and Service

Our trained sales representatives are readily available across Western Canada 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





360 Series Sliding Stem Control Valves

Standard Pressure Range

Available Models:	360 • 361 • 362 • 363
Body Size Range:	1/2" to 8" Nominal Pipe Size (15mm to 400mm Diameter Nominal)
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
Body Styles:	Globe • Angle
End Connections:	RF • RTJ • BWE • SWE • FNPT
Plug Types:	Balanced • Unbalanced
Characteristics:	Equal Percentage • Linear • Quick Opening
Body Materials:	Refer to Page 11 for material options
Options:	Cage or top guided Metal seating standard, soft seating available Anti-cavitation, low-noise, Dyna-form, Dyna-flute trim Live-loaded packing available Cryogenic design available NACE construction available

390 Series Sliding Stem Control Valves

High Pressure Range

Available Models:	390 • 391 • 392
Body Size Range:	1" to 8x6" Nominal Pipe Size (25mm to 200x150mm Diameter Nominal)
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
Body Styles:	Globe • Angle
End Connections:	RF • RTJ • BWE • SWE
Plug Types:	Balanced • Unbalanced
Characteristics:	Equal Percentage • Linear • Quick Opening
Body Materials:	Refer to Page 11 for material options
Options:	Cage or top guided Metal seating standard Anti-cavitation, low-noise, Dyna-form and reduced port trim Live-loaded packing available Cryogenic design available NACE construction available



320 AxFlo Sliding Stem Control Valves

Axial Flow Anti-Cavitation Trim

Body Size Range:	2 to 8" Nominal Pipe Size (50mm to 200mm Diameter Nominal)
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
Body Styles:	Globe
End Connections:	RF • RTJ • BWE • SWE • FNPT
Plug Types:	Balanced • Unbalanced
Characteristics:	Linear
Body Materials:	Refer to Page 11 for material options

Options: Cage guided
Metal seating standard
Live-loaded packing available
NACE options available



350 Series Sliding Stem Control Valves

Expanded Outlet - Reduced Port

Available Models:	350 • 351
Body Size Range:	8x6" to 12x8" Nominal Pipe Size (200x150mm to 300x200mm Diameter Nominal)
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
Body Styles:	Globe
End Connections:	RF • RTJ • BWE
Plug Types:	Balanced
Characteristics:	Equal Percentage • Linear • Quick Opening
Body Materials:	Refer to Page 11 for material options
Options:	Cage guided Metal seating standard, soft seating available Anti-cavitation, low-noise trim available Live-loaded packing available NACE options available



370 Series Sliding Stem Control Valves

Large Size Standard Pressure Range

Available Models:	370 • 371
Body Size Range:	12" Nominal Pipe Size (300mm Diameter Nominal)
Flange Size Range:	12" • 14" • 16" Nominal Pipe Size (300mm • 350mm • 400mm Diameter Nominal)
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 and V
Body Styles:	Globe
End Connections:	RF • RTJ
Plug Types:	Balanced
Characteristics:	Equal Percentage • Linear • Quick Opening
Body Materials:	Refer to Page 11 for material options

- Cage guided
Metal seating standard
- Options:** Anti-cavitation and low-noise trim available
Live-loaded packing available
NACE construction available

380 Series Sliding Stem Control Valves

Limited Size High Pressure Range

Available Models:	380 • 381
Body Size Range:	3" • 4x3" • 8" Nominal Pipe Size (80mm • 100x80mm • 200mm Diameter Nominal)
Temperature Range:	-100°F to +800°F (-73°C to +427°C)
Pressure Range:	ASME B16.34 Class 1500 to 2500
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II to V
Body Styles:	Globe
End Connections:	RF • RTJ • BWE
Plug Types:	Balanced
Characteristics:	Equal Percentage • Linear • Quick Opening
Body Materials:	Refer to Page 11 for material options
Options:	Cage guided Metal seating standard Anti-cavitation and low-noise trim available Live-loaded packing available NACE construction available



DF2000 Sliding Stem Control Valves

Rugged Oilfield Applications

Body Size Range:	1 & 2" Nominal Pipe Size (25mm & 50mm Diameter Nominal)
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
Body Styles:	Globe • Angle
End Connections:	RF • RTJ • FNPT
Plug Types:	Unbalanced
Characteristics:	Equal Percentage
Body Materials:	Refer to Page 11 for material options

Options: Top guided
Threaded bonnet and seat ring
Metal seating standard
Live-loaded packing available
NACE construction standard



Integral Sliding Stem Valve and Actuator

Available Models:	DF100 • DF234 • DF270 • DF2410
Body Size Range:	1" & 2" Nominal Pipe Size (25mm & 50mm Diameter Nominal)
Port Size Range:	1/4" to 1-1/4" (6.4mm to 38.1mm)
Temperature Range:	-50°F to +300°F (-46°C to +150°C)
Pressure Range:	ASME B16.34 Class 150 to 1500
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class IV
Body Styles:	Globe • "T" Style (DF100 Only)
End Connections:	RF • RTJ • FNPT
Plug Types:	Unbalanced
Characteristics:	Equal Percentage • Quick Opening
Body Materials:	Refer to Page 11 for material options
Options:	Standard live-loaded packing Standard NACE construction



570 Series Rotary Control Valves

Segmented Ball Flow Control

Available Models:	570 • 571 • 573
Body Size Range:	1" to 16" Nominal Pipe Size (25mm to 400mm Diameter Nominal)
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 • Wafer
End Connections:	RF
Characteristics:	Linear
Body Materials:	Refer to Page 11 for material options

Options: Live-loaded packing available
NACE construction standard
Splined, square and keyed shafts available

590 Rotary Control Valves

Large Bore Flow Control

Body Size Range:	4" to 16" Nominal Pipe Size (100mm to 400mm Diameter Nominal)
Temperature Range:	-50°F to +400°F (-46°C to +204°C)
Pressure Range:	ASME B16.34 Class 600 to 900
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class II and VI
Body Styles:	Wafer
End Connections:	RF • RTJ
Ball Types:	Straight-Through
Characteristics:	Modified Equal Percentage
Body Materials:	Refer to Page 11 for material options

Options: Splined and keyed shafts available
Live-loaded packing standard
Standard NACE construction
Full ANSI shutoff available



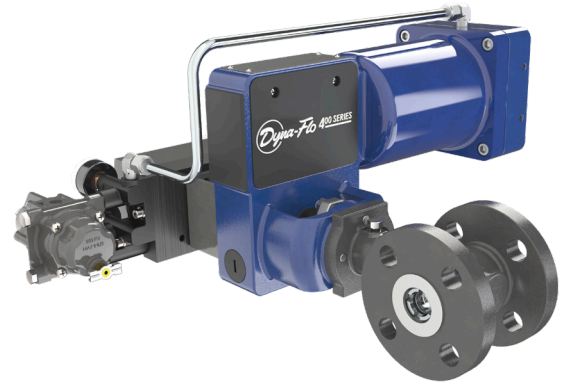
DF400 Eccentric Rotary Plug Control Valves

Small, Light and Powerful High Capacity Flow Control

Body Size Range:	1" to 6" Nominal Pipe Size (25mm to 150mm Diameter Nominal)
Temperature Range:	-320°F to +750°F (-196°C to +399°C)
Pressure Range:	ASME B16.34 Class 150 to 600
Shutoff Range:	ANSI/FCI 70.2 and IEC 60534-4 Class IV and VI
Body Styles:	Flanged • Wafer
End Connections:	RF
Characteristics:	Linear
Body Materials:	Refer to Page 11 for material options
Actuator Options:	Exclusive Integral Actuator

Low-emission packing standard
Blowout proof shafts

Options: Reduced port trim options available
NACE construction available
High temperature and severe service coatings available



Instrumentation • Positioners / Regulators / Controllers

SIEMENS PS2 Digital Valve Positioner

Output Range: 0 to 100 PSIG (0 to 6.9 BARG)

Features: HART ready / Zero bleed in steady state

Dyna-Flo PRO-50 Pressure Regulator

Outlet Pressures: 0-35 • 0-60 • 0-125 PSIG (0-2.4 • 0-4.1 • 0-8.6 BARG)

Inlet Pressures: 250 PSI (17 BAR)

Temperature Range: -40°F to +300°F (-40°C to +150°C)

Dyna-Flo 4000 Series Local Pneumatic Pressure Controller

Pressure Range: 30 to 5,000 PSIG (2.1 to 345 BARG)

Temperature Range: -40°F to +160°F (-40°C to +71°C)

Features: Low-bleed and NACE options available

Dyna-Flo 5000 Series Displacer Type Pneumatic Liquid Level Controller

Sensor Temperature Range: -40°F to +400°F

Range: (-40°C to +204°C)

Pressure Rating: ASME B16.34 Class 1500

End Connections: RF • RTJ • MNPT

Pilot Options: Pneumatic • Electric SPDT or DPDT

Actuators • Pneumatic Spring and Diaphragm

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

Linear Spring and Diaphragm - Models DFC • DFO • DFN

DFC Input Signals: 0-18 • 0-33 PSIG (0-1.24 • 0-2.28 BARG)

DFO Input Signals: 3-15 • 6-30 PSIG (0.21-1.03 • 0.41-2.07 BARG)

DFN Input Signals: 35 PSIG (2.41 BARG)

Travel Range: 3/8" to 4" (9.5mm to 102mm)

Stem Connections: 3/8" • 1/2" • 3/4" (9.5mm • 12.7mm • 19.1mm)

Rotary Spring and Diaphragm - Models DFR

Input Signals: 0-18 • 0-33 • 3-27 PSIG (0-1.24 • 0-2.28 • 0.21-1.86 BARG)

Stem Connections: 1/2" to 2" (12.7mm to 50.8mm)



Actuators • Pneumatic Piston

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

Linear Piston - Models DFLP

Operating Pressures: 20 PSIG to 150 PSIG (1.38 BARG to 10.3 BARG)

Travel Range: 3/4" to 8-1/8" (19.1mm to 206mm)

Stem Connections: 3/4" • 1" • 1-1/4" (19.1mm • 25.4mm • 31.8mm)

Rotary Piston - Models DFRP

Operating Pressures: 20 PSIG to 150 PSIG (1.38 BARG to 10.3 BARG)

Stem Connections: 1/2" to 2-1/2" (12.7mm to 63.5mm)

Product Reference Chart

Product Specifications Valve Series		Linear Sliding Stem Valves							Rotary Ball Valves		Rotary Plug	Integral Actuator & Linear Sliding Stem Valves			
Valve Body Size Range		320	350	360	370	390	380	DF2000	570	590	Valves DF400	DF100	DF234	DF270	DF2410
		2 to 8"	8 to 12"	1/2 to 8"	12 to 16"	1 to 6"	3 & 8"	1 to 2"	1 to 16"	4 to 16"	1 to 6"	1"	1 & 2"	1 & 2"	2"
Pressure Rating Class ASME B16.34		300 to 1500	150 to 600	150 to 600	150 to 600	900 to 1500	1500 to 2500	150 to 2500	150 to 600	600 to 900	150 to 600	150 to 900	150 to 1500	150 to 1500	150 to 1500
Body Style	Globe	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	Angle			✓											
	Wafer								✓	✓	✓				
	T Body											✓			
End Connections	FNPT(1)	✓		✓				✓				✓	✓	✓	✓
	RF(2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RTJ(3)	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓
	BWE(4)	✓	✓	✓	✓	✓	✓	✓							
	SWE(5)	✓		✓		✓		✓							
Trim Options	Low-Noise		✓	✓	✓	✓	✓	✓							
	Anti-Cavitation	✓	✓	✓	✓	✓	✓	✓							
Shutoff Class	II		✓	✓		✓	✓		✓	✓					
	III		✓	✓		✓	✓								
	IV		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	V	✓	✓	✓	✓		✓	✓							
	VI			✓					✓	✓	✓				
Plug Style	Balanced	✓	✓	✓	✓	✓	✓								
	Unbalanced	✓		✓		✓	✓	✓				✓	✓	✓	✓
Standard Body Material Options	LCC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	WCC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
	CF8M	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓		
	CF3M										✓				
	CG8M								✓						

Body Material Note:

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

Actuators	320	350	360	370	390	380	DF2000	570	590	DF400	NOTES:
Model DFC	✓	✓	✓		✓	✓	✓				(1) FNPT = Female Internal Thread
Model DFO	✓	✓	✓		✓	✓	✓				(2) RF = Raised-Face
Model DFLP	✓	✓	✓	✓	✓	✓	✓				(3) RTJ = Ring Type Joint
Model DFR								✓	✓		(4) BWE = Butt Weld End
Model DFRP								✓	✓		(5) SWE = Socket Weld End

VALVE SERVICING

Kings Energy valve services are fully adapted to our clients, as we perform our valve maintenance in-house or on-location. Our highly trained and professional teams ensure quick and effective services in the repair, maintenance, and testing of industrial valves. We also have a fully mobile valve servicing unit that can come to your facility.



Our efficient, on-time repair services are backed by some of the most stringent quality certifications in the industry. From installation to maintenance and repair, we offer a full range of services designed to maximize the life of your valves and control systems.



Control Valve Repair Services Include:

- Valve disassembly and inspection
- Repair or replacement of worn or damaged parts
- Valve reassembly and testing
- On-site installation and commissioning
- Trim changes
- Positioner upgrades
- Actuation product selection, repair and upgrades
- Valve diagnostics

All valve repairs are also tracked by our online valve database (VEEBase), a service that provides a complete history of repairs and servicing for each valve.

As a Dyna-Flo Authorized Service Provider, Kings Energy Services is able to help you maintain peak performance during operation. Our qualified team of technicians is committed to providing quick service and repair to reduce downtime and costs for essential equipment.

CERTIFICATIONS



Approved facilities that :

- can recondition/repair/alter pressure equipment to jurisdictional and code requirements
- can ensure all work is in accordance with product design code requirements
- can provide custom solutions to your most pressing challenges
- has API Q1 and ISO 9001 certification
- has API 6D monogram license

CAPABILITIES

- 3D and 2D modeling and drafting services; including P and ID drawings
- Design / engineer of mechanical systems and pressure containing components to relevant codes
- Complete stress analysis of mechanical components including FEA
- All applicable code books for design acceptance to ASME, API, CSA, NB, MSS, NACE ect.
- Sizing of flow line equipment with use of fluid dynamics
- Complete electrical and mechanical testing and assembly lab for critical components
- Capability of handling complete projects from conceptual design to prototyping and full production runs
- Supplying machined goods for antiquated valves and pressure equipment
- Specialty and custom fabrication along with manufacturing from the ground up



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