BECKER
PRESCISION EQUIPMENT

FEP-175/600-CH Series Flexflo® Pilot

FEP-175/600-CH Flexflo® Pilot Provides Ultimate Accuracy For High Performance Applications Such As Power Plant Pressure Control

FEP-175/600-CH Series Flexflo® Pilot

The FEP-175/600-CH Series Pilot is a reversible pressure control pilot (seat & nozzle) that is used in conjunction with Flexflo® Regulators to provide pressure control. The FEP-175/600-CH is typically utilized for high performance pressure control applications such as power plants. The FEP-175/600-CH features superior lockup capabilities over other manufacturer's flexible element pilots. Applications include pressure reduction, monitor regulators, backpressure control, and relief valve. The FEP-175/600-CH features a friction-free design, sensitive sensing diaphragm, high sensitivity and minimal droop. Additionally, note that the FEP-175/600-CH Series Flexflo® Pilot is a submersible design that is ideally-suited for vault applications that fill with water.

Figure 1.0 -
FEP-175-CH Flexflo® Pilot

The FEP-175-CH is the ultimate regulating pilot. The FEP-175-CH is one of the most accurate and responsive regulating pilots available today.

Figure 2.0 -
FEP-600-CH Flexflo® Pilot

The FEP-600-CH is an extremely accurate regulator pilot, which provides very fast response. The FEP-600-CH has become a standard for many gas turbine applications.

Figure 3.0 - Model FEP-600-CH Pilot installed on Flexflo® Regulator

The FEP-600-CH above is installed on a Model 900TE Flexflo® Regulator for downstream pressure control. The FEP-CH and the 900TE Flexflo® Regulator provide an ideal combination for high performance pressure control applications such as power plant.

FEP-175/600-CH Flexflo® Pilot Features

- Superior Droop Characteristics Provide On-Demand Flow Without Downstream Pressure Drop
- Provides Increased Regulator Capacity Due To Design
- FEP-175/600-CH Can Increase Capacity Of Existing Regulators
- Superior Lockup Performance Minimizes Overpressure At Plant Shutdown
- Superior Setpoint Accuracy
- Blanketed Control Spring Not Exposed To Atmosphere
- Dampened Sensing Chamber Eliminates Pulsation
- Control Spring May Be Replaced Without Disturbing Any Diaphragms
- Friction-Free Design Eliminates Sliding O-Rings
- Ideal for Power Plant Fuel Gas Applications
- Pressure Equipment Directive compliant under "SEP" parameters of PED Directive of 1999

Legend
- **Inlet Pressure (Upstream Pressure) P_1**
- **Outlet Pressure P_0**
- **Jacket Pressure P_j**
- **Sensing Pressure (Downstream Pressure) P_2**

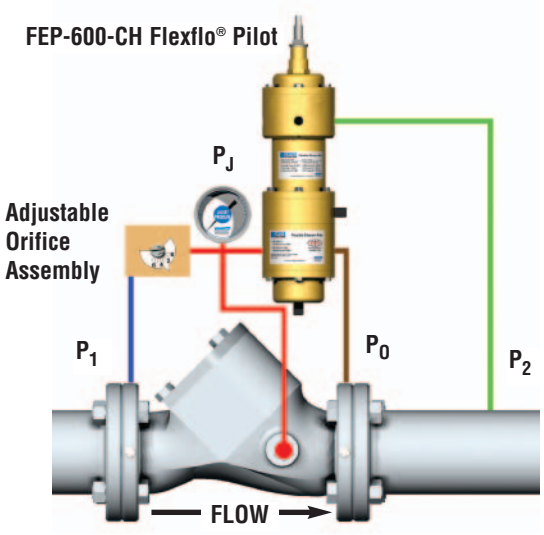

Figure 4.0 -
FEP-600-CH Flexflo® Pilot For Downstream Pressure Control

The FEP-600-CH is shown combined with a Model 900TE Flexflo® Regulator for downstream pressure control. The FEP-600-CH and Model 900TE are ideal for applications that require superior accuracy. The FEP-600-CH provides unparalleled accuracy; minimal droop and excellent lock-off characteristics. The FEP-600-CH allows flexible element regulators such as the Model 900TE Flexflo® to close off flow with essentially no overshoot of pressure. This is of particular importance in dead-end system that are equipped with relief valves.

Figure 5.0 - Model FEP-175-CH Flexflo® Pilot

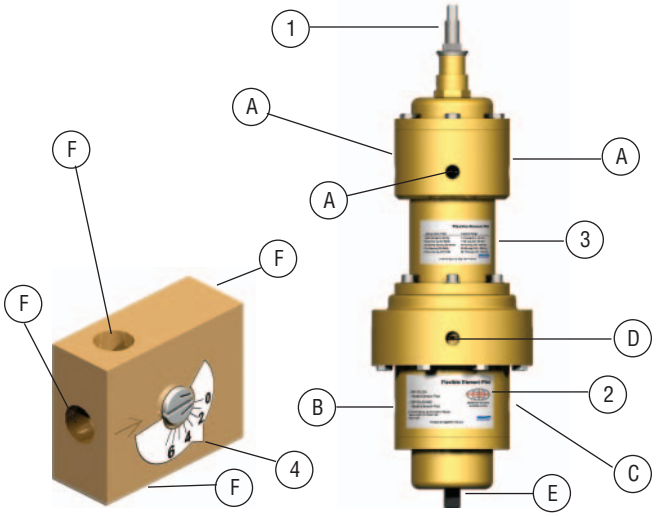

Figure 6.0 - Model FEP-600-CH Flexflo® Pilot

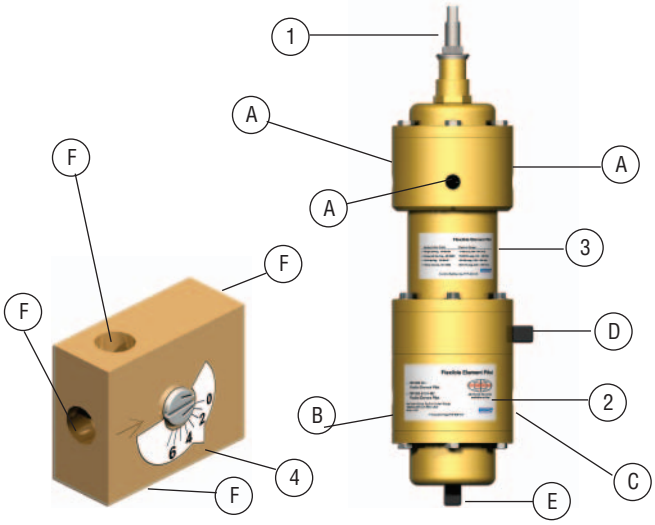

Table 1.0 - Model FEP-175/600-CH Flexflo® Pilot Component Identification

FEP-175/600-CH Components	Component ID
Setpoint Adjustment Screw	1
Product ID Tag	2
Control Spring Tag	3
Adjustable Orifice Assembly	4

Notes:

1. Adjustable Orifice Assembly is available with three different "rotor" sizes: Small,Medium and Large. Standard Issue Adjustable Orifice is "small."
2. Sensing Ports "A" are common
3. Adjustable Orifice Assembly connections to left of rotor adjustment are common

Specifications:

Control Range: FEP-175-CH: 1 - 175 psig (6.9 - 1207 kPa)
FEP-600-CH: 5 - 600 psig (34 - 4139 kPa)

Available Action: Pressure Reducing
Backpressure/Relief

Available Models: FEP-175-CH, FEP-175-CH-NC
FEP-600-CH, FEP-600-CH-NC

Operating Temperature: -20°F to 160°F (-29°C to 71°C)

Control Accuracy: TBD

Maximum ΔP: 600 psid (4137 kPa) (Pinlet - Psetpoint)

Weight: 6.0 Lbs. (2.7 kg) Model FEP-175-CH
6.0 Lbs. (2.7 kg) Model FEP-600-CH

Dimensions: FEP-600-CH - 3.75" (95mm) x 14.625" (371mm)
FEP-175-CH - 5.25" (133mm) x 14.625" (371mm)

Installation: Orientation Vertical Installation Reccommended

Compatible Regulators: Flexflo® Regulator Models 900TE, 83, and 80
Also compatible with other manufacturer's products, contact Becker Regulators for additional information

Table 2.0 - Model FEP-175/600-CH Flexflo® Pilot Port Specifications

FEP-175/600 Port Definitions	Port Size	Max. Operating Pressure		Port ID
		Model FEP-175-CH	Model FEP-600-CH	
Sensing	1/4" FNPT	175 psig (1207 kPa)	600 psig (4137 kPa)	A
Inlet	1/4" FNPT	775 psig (5343 kPa)	1200 psig (8274 kPa)	B
Outlet	1/4" FNPT	600 psig (4137 kPa)	600 psig (4137 kPa)	C
Atmospheric Reference	1/4" FNPT	ATM	ATM	D
Atmospheric Reference	1/4" FNPT	ATM	ATM	E
Adjustable Orifice Connections	1/4" FNPT	1480 psig (10204 kPa)	1480 psig (10204 kPa)	F

Notes:

1. Reference Figure 5.0 and 6.0 for identification of ports.
2. Pressure Differential between Sensing and Inlet must not exeed 600 psid (4137 kPa)
3. FEP-CH may be adapted to accommodate pressure loading for pneumatic remote setpoint adjustment

Improve Performance by Retrofit!

Optimum performance is achieved by pairing the FEP-175/600-CH with genuine Becker Flexflo® Regulators. If you already have flexible element regulators in service, the addition of a FEP-175/600-CH can improve performance. Becker FEP-175/600-CH Pilots are compatible with most manufacturer's flexible element regulators. Consult Becker Regulators for more information.

Compatible Regulators*

- Fisher 298
- Fisher 310
- Fisher 399
- Fisher 1098
- Fisher EZH
- Fisher EZR
- Becker Flexflo®
- American Meters Axialflow
- American Meters Radial Flow Valve
- Mooney Flowgrid®
- Mooney FlowMax®
- Tattarini, Fiorentinni, Gorta

* The listed names include trademark(s) of the respective companies.

** Contact Becker Regulators for information on additional compatibilities

How It Works:

FEP-175/600-CH configuration shown is for Pressure Reduction (Downstream Pressure Control) in conjunction with a Becker Model 900TE Flexflo® Regulator. Increasing downstream pressure will cause the FEP-175/600-CH to close the Flexflo® Regulator and restrict flow. Initially, the downstream pressure is above the setpoint of the FEP-175/600-CH. With the Flexflo® jacket pressure equal to the upstream pressure, the Flexflo® Regulator remains fully closed (Fig. 7.1). As downstream pressure falls to a pressure equal to setpoint of the FEP-175/600-CH pilot, the Flexflo® Regulator jacket pressure will begin to decrease. When the Flexflo® jacket loading pressure falls below the upstream pressure, the Flexflo® Regulator will begin to open and flow gas (Fig. 7.2). If the downstream pressure falls to a point nearly equal to the upstream pressure, the Flexflo® Regulator will fully unload the jacket pressure. With the jacket pressure equal to the downstream pressure, the Flexflo® Regulator is fully open (Fig. 7.3). The upstream pressure will be slightly higher than the downstream pressure do the inherent "cracking pressure" associated with the rubber element (tube) of the Flexflo® Regulator.

Legend

- **Inlet Pressure (Upstream Pressure) P_1**
- **Outlet Pressure P_0**
- **Jacket Pressure P_j**
- **Sensing Pressure (Downstream Pressure) P_2**

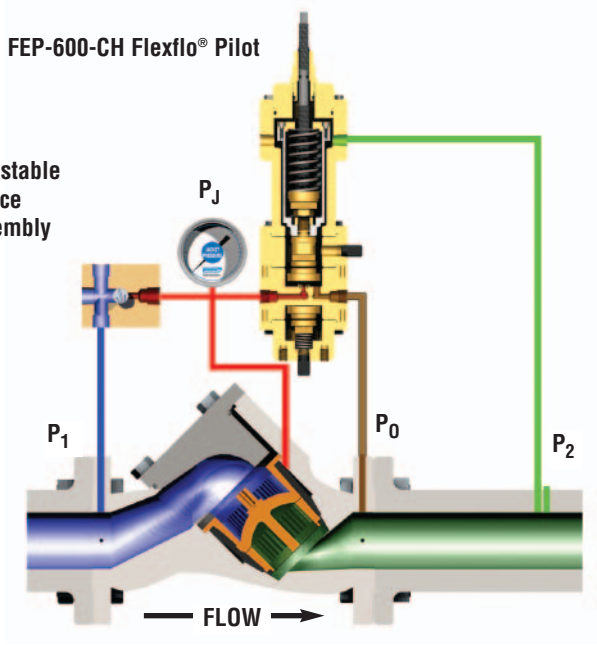

Figure 7.1 Flexflo® Regulator Fully Closed

When the downstream pressure is above the setpoint of the FEP-175/600-CH, the Flexflo® jacket pressure will be equal to the upstream pressure. The Flexflo® Regulator remains fully closed.

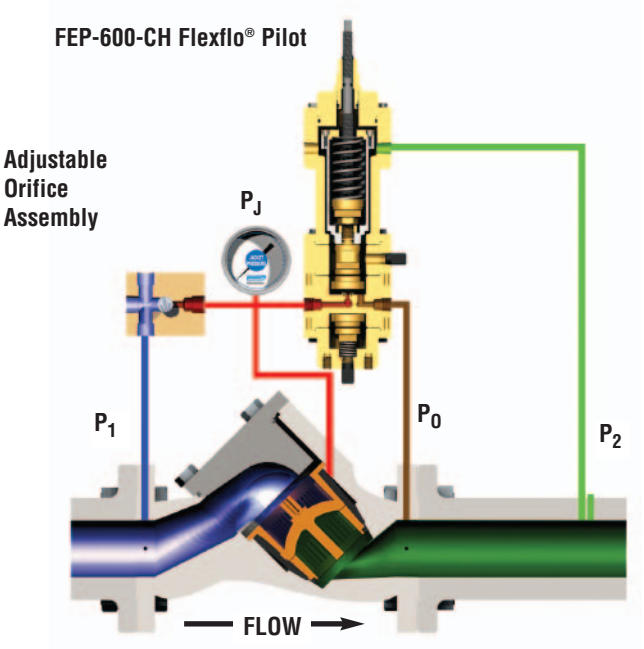

Figure 7.2 Flexflo® Regulator Throttling

When the Flexflo® jacket loading pressure falls below the upstream pressure, the Flexflo® Regulator will begin to open and flow gas. At setpoint equilibrium, the FEP-175/600-CH will load the jacket of the Flexflo® Regulator to maintain a constant desired downstream pressure.

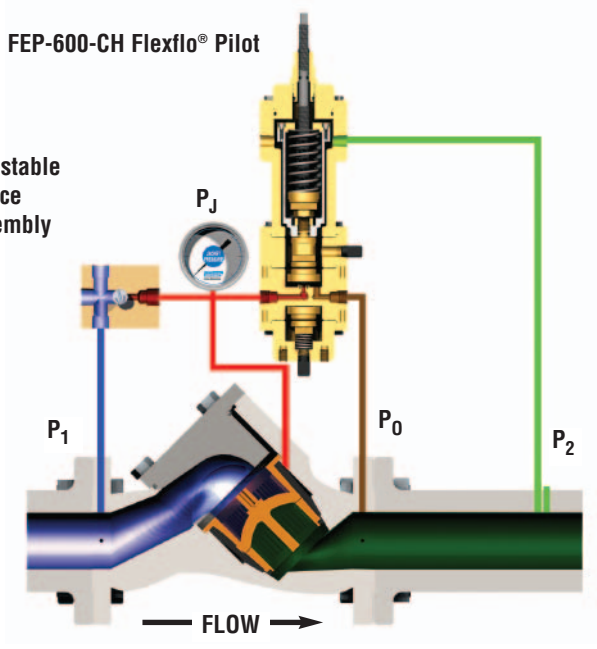

Figure 7.3 Flexflo® Regulator Fully Open

When the downstream pressure falls to a point nearly equal to the upstream pressure, the Flexflo® Regulator will fully unload the jacket pressure. With the jacket pressure equal to the downstream pressure, the Flexflo® Regulator is fully open. The upstream pressure will be slightly higher than the downstream pressure do the inherent "cracking pressure" associated with the rubber element (tube) of the Flexflo® Regulator.

Figure 8.0 - Becker Model FEP-600-CH Flexflo® Pilot Exploded View

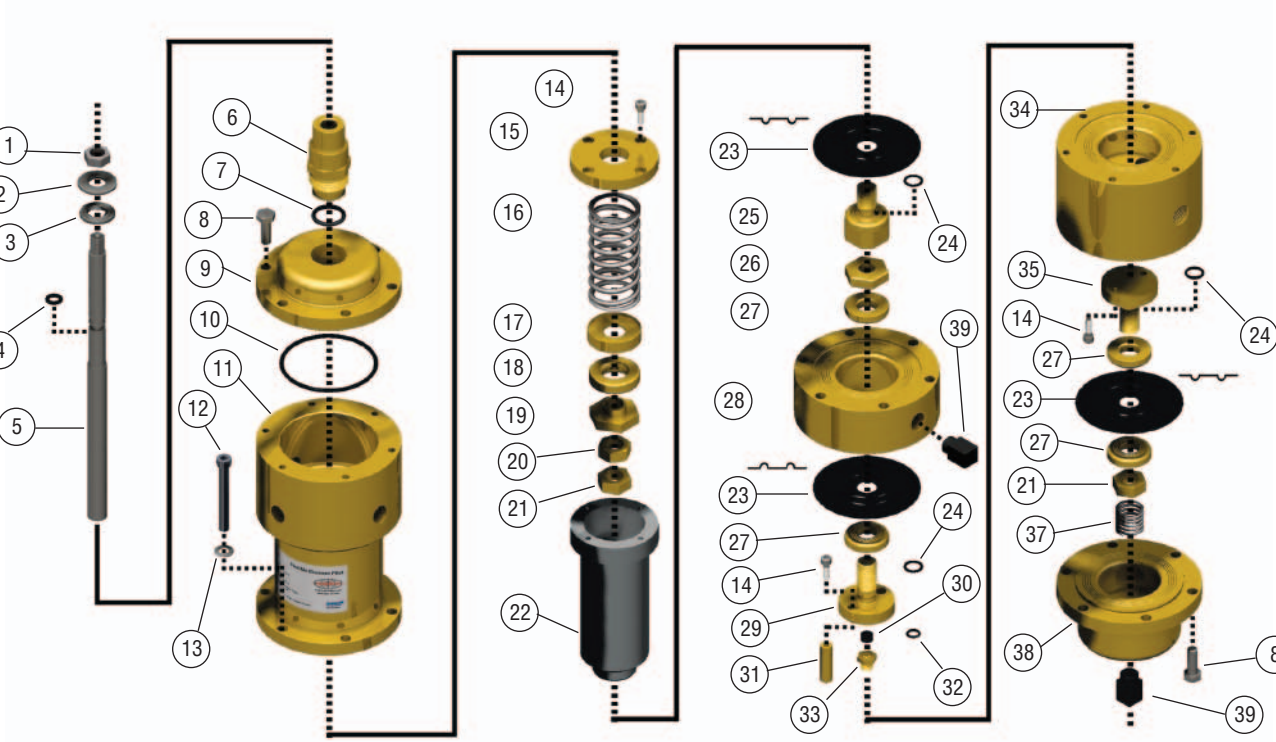

Table 3.0 - Becker Model FEP-600-CH Flexflo® Pilot Parts Indentification

Item	Description	Material	Qty	Part Number
1	7/16-20 Jam Nut	316 SS	1	98-2500
2	7/16" Flat Washer	316 SS	1	98-3181
3	7/16" Thread Seal[1]	316 SS/Buna-N	1	30-7017
4	O-Ring (108)[1]	Buna-N	1	95-2672
5	Adjusting Screw	316 SS	1	30-7022
6	Seal Neck[2]	AL204	1	30-7009
7	O-Ring (115)[1]	Buna-N	1	95-2670
8	1/4-20 x 3/4 HHCS	316 SS	12	98-3137
9	Cartridge Cap*[2]	AL2024	1	30-7008
10	O-Ring (141)[1]	Buna-N	1	95-2671
11	Spring Cartridge[2]	AL2024	1	30-7002
12	1/4-20 x 2 SHCS	AL2024	6	98-3230
13	1/4 FG Washer	Nylon	6	98-3227
14	8-32 x 1/2 SHCS	Alloy Steel	8	98-3269
15	Tube Cap	AL2024	1	30-7007
16	Control Spring	Alloy Steel	1	Table 4.0
17	Bearing Case	AL2024	1	30-7006
18	Thrust Bearing	Steel	1	25-1062
19	Bearing Nut	316 SS	1	30-7001
20	LH 1/2-20 Jam Nut	316 SS	1	98-3212

Item	Description	Material	Qty	Part Number
21	1/2 x 20 Hex Jam Nut	316 SS	2	98-3056
22	Inner Tube	Plated Steel	1	30-7003
23	Conv. Diaphragm[1]	Nylon/Buna-N	3	25-1027
24	O-Ring (012)[1]	Buna-N	3	95-2615
25	Bottom Piston	AL2024	1	25-1177
26	1/2-20 Special Nut	Al2024	1	25-1065
27	Washer	AL2024	4	25-1016
28	Bottom Spacer	AL2024	1	25-1176
29	Piston[1]	AL2024	1	25-1018
30	Seat[1]	Buna-N	1	25-1031
31	Pilot Post	316 SS	2	25-1023
32	O-Ring (010)[1]	Buna-N	1	95-2609
33	3/32 or 7/8 Nozzle[3]	316 SS	1	
34	SP Body[2]	AL2024	1	25-1039
35	Piston w/o Seat	AL2024	1	25-1019
36	1/2 x 20 Hex Jam Nut	316 SS	2	98-3056
37	Bottom Spring	Music Wire	1	25-1217
38	Pressure Cartridge[2]	AL2024	1	25-1022
39	1/4 NPT Vent Elbow	ABS Plastic	2	1/1/2572

Notes:

1. Indicates parts are included in Repair Kit
2. Indicates parts are available in 316SS material for "Stainless Steel Option"
3. Nozzle used depends on capacity requirements. 1/8 inch nozzle is standard for Flexflo® Regulators up to 6" bore. 3/32 inch nozzle is standard for Flexflo® Regulators larger than 6" bore.

Table 4.0 - Becker Model FEP-175/600-CH Flexflo® Pilot Control Spring Ranges

FEP-CH Model Number	Control Spring Range	Control Spring Color	Control Spring Part Number	Setpoint Change/Revolution of Setpoint Screw	Max. Remote Setpoint Range (Discrete RSM)[4]	Max. Remote Setpoint Range (Analog RSM)[5]	Repair Kit Part Number
Model[3] FEP-175-CH[1] (30-0030)	1-10 psig 7-69 kPa	Gold	25-8236	0.57 psig 3.9 kPa	3.1 psig 21 kPa	9 psig 62.1 kPa	30-9025
	7-30 psig 48-207 kPa	Beige	25-8238	2.0 psig 13.7 kPa	11 psig 75.8 kPa	23 psig 159 kPA	30-9025
Model[3] FEP-175-NC (30-0031)	15-50 psig 103-345 kPa	Burgandy	25-8239	3.0 psig 21 kPa	16.5 psig 114 kPa	35 psig 241 kPa	30-9025
	20-85 psig 138-586 kPa	Pink	25-8240	6.4 psig 44 kPa	35.2 psig 243 kPa	65 psig 448 kPa	30-9025
	50-175 psig 345-1207 kPa	Yellow	25-1306	23 psig 157 kPa	125 psig 862 kPa	125 psig 862 kPa	30-9025
Model FEP-600-CH (30-0023)	5-40 psig 34-276 kPa	Gold	25-8326	2.1 psig 14.6 kPa	11.5 psig 79 kPa	35 psig 241 kPa	30-9024
	25-125 psig 172-862 kPa	Beige	25-8238	7.4 psig 51 kPa	41 psig 283 kPa	115 psig 793 kPa	30-9024
Model FEP-600-CH-NC (30-0024)	50-175 psig 345-1207 kPa	Burgandy	25-8239	11.3psig 78 kPa	62 psig 427 kPa	125 psig 862 kPa	30-9024
	135-300 psig 931-2068 kPa	Pink	25-8240	24 psig 164 kPa	132 psig 910 kPa	165 psig 1138 kPa	30-9024
	275-600 psig 1896-4137 kPa	Yellow	25-1306	85 psig 586 kPa	425 psig 2930 kPa	425 psig 2930 kPa	30-9024

Notes

1. FEP-CH model number indicates normally-open logic utilized for applications such as downstream pressure control.
2. FEP-CH-NC model number indicates normally-closed logic utilized for applications such as relief valves and backpressure regulation.
3. These units should only be used for applications that require high gain. Consult Becker prior to specifying these models.
4. Maximum Remote Setpoint Range is based upon Model SM-1140 Remote Setpoint Module with maximum motor range of 5.8 revolutions. See Becker RSM brochure for additional details.
5. Maximum Remote Setpoint Range reported applicable to units with discrete (pulse) input signal. Remote Setpoint Modules with analog (4-20 mA) signal have a Maximum Remote Setpoint Range equal to full Control Range of the FEP-CH Flexflo Pilot

Figure 9.1 - Model FEP-175-CH (Pressure Reducing)

Figure 9.2 - Model FEP-175-CH-NC (Backpressure/Relief)

Figure 9.3 - Model FEP-600-CH (Pressure Reducing)

Figure 9.4 - Model FEP-600-CH-NC (Backpressure/Relief)

Maximum Performance and Versatility of the Model FEP-30 Flexflo® Pilot may be Achieved when Combined with these Flexflo® Regulators and Accessories

Model 900TE Flexflo® Regulator
Top-Entry Design

The Model 900TE Flexflo® Regulator is a self-contained, rigid, heavy-duty, pilot-operated pressure regulator that may be used in both gas and liquid applications. The 900TE design features a simple, top-entry design for easy in-line maintenance. The 900TE features a cast steel body with integral flanged end connections. Multiple trim configurations are available from 1.5 in. (40 mm) bore to 6 in. (150 mm) bore.

Size Range:	1.5 in.(40mm) to 6 in. (150mm)	**Body Materials:**	Cast Carbon Steel
Pressure Ratings:	ANSI 150-600	**Core Material:**	316SS
Shutoff Class:	Bubble Tight[1]	**Operating Temperatures:**	-20°F to +212°F (-29°C to 100°C)[2]
End Connections:	RFFE (Standard) Weld End (Standard)	**Trim Materials:**	Nitrile or Hydrin (Standard) Other elastomers available upon request

Model 83 Flexflo® Regulator
Compact Design

The Model 83 Flexflo® Regulator is a self-contained, pilot-operated pressure regulator that may be used in both gas and liquid applications. The Model 83 design features a compact, flangeless body design that is constructed entirely of stainless steel. Unique construction of the Model 83 provides for a slim profile designed to mount between standard ANSI flanges. Multiple trim configurations are available from 1in. (25 mm) bore to 6 in. (150 mm) bore.

Size Range:	1 in.(25mm) to 6 in. (150mm)	**Body Materials:**	Stainless Steel
Pressure Ratings:	ANSI 150-600	**Core Material:**	316SS
Shutoff Class:	Bubble Tight[1]	**Operating Temperatures:**	-40°F to +212°F (-40°C to 100°C)[2]
End Connections:	Flangeless (1.5 in. thru 6 in. sizes) Screwed Ends (1 in. Size)	**Trim Materials:**	Nitrile or Hydrin (Standard) Other elastomers available upon request

Model 80 Flexflo® Regulator
High Capacity Design

The Model 80 Flexflo® Regulator is a self-contained, pilot-operated pressure regulator that may be used in both gas and liquid applications. The Model 80 design features larger bore sizes for high capacity applications. Additionally, note that the Model 80 design is perfectly suited for severe service applications that will destroy other regulators. Construction of the Model 80 provides for a rugged design to mount between standard ANSI flanges. Multiple trim configurations are available from 4 in. (100 mm) bore to 12 in. (300 mm) bore.

Size Range:	4 in.(100mm) to 12 in. (300mm)	**Body Materials:**	Carbon Steel
Pressure Ratings:	ANSI 150-600	**Core Material:**	Carbon Steel
Shutoff Class:	Bubble Tight[1]	**Operating Temperatures:**	-40°F to +212°F (-40°C to 100°C)[2]
End Connections:	RFFE	**Trim Materials:**	Nitrile or Hydrin (Standard) Other elastomers available upon request

[1] Shutoff Class published for new Flexflo Regulators. Possibility for leakage does exist after length of service based upon severity of flow conditions.

[2] Operating Temperatures further limited by Flexflo® Tube selection. See specific Flexflo® Regulator brochure for specific information.

Becker Model FT-35 Filter

The Becker Model FT-35 (T-Type Filter) filters supply gas for use upstream of Flexflo® Pilots and other Flexflo® instrumentation. The FT-35 body is manufactured from Zinc-Plated Steel for rugged durability. The FT-35 is a compact filter device ideal for use with Flexflo® instrumentation when dehydration is not necessary. The FT-35 cartridge filter element is made up of high density polyethylene providing a large surface area and filtration to 35 microns. The element can be readily replaced by depressurizing; removing the bottom closure; replacing the filter and reassembling (hand tight) while still in the line. Becker Model FT-35 Filters are PED Compliant (Restrictions apply).

Available Input Signals

Analog Input (Current): 4-20mA (24 VDC or 120 VAC Auxiliary Power Supply Required)

Descrete Input (Pulse): ± 24 VDC, 120 VAC

Electrical Connections: 1/2" FNPT

Mounting: Includes all necessary mounting for specific Becker Flexflo Pilot. Contact Becker Regulators for Adaption to other manufacturer's

Manual Override: RSM equipped with declutchable override for manual operation

FD-1500 Filter-Dryer

The Becker Model FD-1500 Filter Dryer filters and dehydrates supply gas for use upstream of Flexflo® Pilots and other Flexflo® instrumentation. Designed for use with all pneumatic instrumentation, the FD-1500 Filter Dryer provides superior filtration and dehydration with 110 square inches of 10 micron filtering media and 2.0 pounds of silica gel.The FD-1500 incorporates an easy-to-replace "spin on" cartridge made up of a high quality, high capacity nylon and fiberglass filter element reinforced with stainless steel mesh. All Becker's FD-1500's are fully hydrotested to 2.5 times the working pressure to ensure the integrity of the pressure vessel. Becker Model FD-1500 Filter-Dryers are PED Compliant (Restrictions apply).

MAOP: 1500 psig (10, 340 kPa)

Max Temp. 200°F (93°C)

Filtration: 35µ nominal

Inlet/Outlet Port: 1/4" FNPT

Drain: 1/4" FNPT with plug

Dimensions: 4.88 in. (124 mm) length x 1.75 in. (44 mm) diameter

Mounting: Unit is supported by tubing/pipe fitting due to low weight and compact size

Weight: 2.0 lbs (0.91kg)

FD-1500 Filter-Dryer

The Becker Model FD-1500 Filter Dryer filters and dehydrates supply gas for use upstream of Flexflo® Pilots and other Flexflo® instrumentation. Designed for use with all pneumatic instrumentation, the FD-1500 Filter Dryer provides superior filtration and dehydration with 110 square inches of 10 micron filtering media and 2.0 pounds of silica gel. The FD-1500 incorporates an easy-to-replace "spin on" cartridge made up of a high quality, high capacity nylon and fiberglass filter element reinforced with stainless steel mesh. All Becker's FD-1500's are fully hydrotested to 2.5 times the working pressure to ensure the integrity of the pressure vessel. Becker Model FD-1500 Filter-Dryers are PED Compliant (Restrictions apply).

MAOP: 1500 psig (10, 340 kPa)* all units Hydrotested to 2250 psig (15,510 kPa)

Max Temp. 200°F (93°C)

Filtration: 10µ nominal (110in² filtration media)

Dehydration: 2 lbs. (0.9kg) silica gel water absorption

Inlet/Outlet: 1/4" FNPT

Drain: 1/4" FNPT with needle valve and hex plug

Dimensions: 20 in. (508 mm) length x 4.5 in. (4mm) diameter

Mounting: Panel Mount or 2" Pipe Mount

Weight: 29 lbs (13 kg)

Pilot Pre-Heater

For Flexflo® applications where freezing may be a problem, the Pilot Pre-Heater is an ideal solution. The Pilot Pre-Heater provides continuous, flameless heat to Flexflo® Pilots and Flexflo® instrumentation without external power sources, except at heater startup. The catalytic technology operates at a temperature of 600°F to 800° F (316°C to 427°C), ensuring a safe, reliable source of heat. Pilot Pre-Heaters are available for new applications or for easy retrofit to applications where freeze-up may be a problem. Startup voltages are available in both ±12 VDC and 110 VAC and are available with both CGA and FM approval ratings. Unit includes all necessary regulation and components for easy installation.

Fuel Gas: Natural Gas or LP Gas

MAOP: Heated Gas Stream - 2500 psig (17,237 kPa)
Supply Gas Regulator - 50 psig (345 kPa)

Inlet/Outlet: 1/4" FNPT

Starting Voltage ±12 VDC or 120 VAC

Case Material: 316 Stainless Steel

Available Ratings: CGA Class 1, Div. 2, Group D (Explostion Proof)
FM Class 1, Div. 2, Group D Explosion Proof

Case Dimensions: 12 in. x 12. in x 6 in. (305)mm x 305mm x 152mm)

Weight: 110.0 lbs (5.0 kg)

Table 5.0 - Selection Guidelines for Becker Flexflo ® Regulator Products & Accessories

	Model FEP-30	Model 829-S1	Model FEP-200	Model FEP-600	Model FEP-175-CH	Model FEP-600-CH	Model FEP-1000-CH	Model FEP-1300-CH	Model 826	Notes
Applications										
Downstream Pressure Control	•	•	•	•	•	•	•	•	•	
Monitor Regulator (Overpressure)	•	•	•	•	•	•	•	•	•	
Backpressure Control	•	•	•	•	•	•	•	•	•	
Relief Valve	•	•	•	•	•	•	•	•	•	
Power Plant Pressure Control	•	•	•	•	•	•	•	•	•	1
Flow Control	•	•	•	•	•	•	•	•	•	2
Setpoint Range										
Maximum Pilot Setpoint	30 psig	600 psig	200 psig	600 psig	175 psig	600 psig	1000 psig	1300 psig	1480 psig	
Minimum Pilot Setpoint	40 in. WC	3 psig	5 psig	30 psig	1 psig	3 psig	135 psig	800 psig	7 psig	
Compatible Flexflo Regulators										
Model 80 Regulator	•	•	•	•	•	•	•	•	•	
Model 83 Regulator	•	•	•	•	•	•	•	•	•	
Model 900TE Regulator	•	•	•	•	•	•	•	•	•	
Compatible Accessories										
RSM Remote Setpoint Module	•	•	•	•	•	•	•	•	•	3
FT-35 Filter	•	•	•	•	•	•	•	•	•	
FD-1500 Filter Dryer	•	•	•	•	•	•	•	•	•	
Pilot Pre-Heater										4
I/P Transducer										5
VRP-SB-CH Pilot										6

Notes:

1. For Power Plant Pressure Control, Model FEP-CH provides optimum performance.
2. Flow Control with Model 826 DMV requires I/P Transducer and electronic interface with flow computer.
3. RSM Remote Setpoint Modules available with either 24 VDC discrete pulse input or 4-20 mA analog input.
4. Pilot Preheater recommended for applications where gas temperature may drop near freezing temperatures caused by pressure drop across regulator. Power Gas Preheaters applicable for natural gas only.
5. Model 826 DMV requires additional component to function. I/P Transducer may be utilized to allow electronic interface to Flexflo® for remote pressure control or flow control.
6. Model 826 DMV requires additional component to function. Model VRP-SB-CH may be utilized to allow pressure control with ZERO droop and near ZERO lockup.

Figure 11.0 - Becker Model FEP-600-CH Flexflo® Pilot For Power Plant Fuel Gas Regulation

The Becker Model FEP-600-CH is commonly utilized for pressure control of power plant fuel gas feeds. The FEP-600-CH is typically paired with a 2" or 3" bore Model 900TE Flexflo® to function as a "startup regulator." The "startup regulator" works in conjunction with parallel control valve runs (not shown) to ensure accuracy of control through full range of flow volumes. Note Installation of FD-1500 Filter Dryer and optional Sensing & Jacket Pressure Gages.

Figure 11.0 - Becker Model FEP-600-CH Flexflo® Pilot For Power Plant Fuel Gas Regulation

The Becker Model FEP-600-CH provides unparalleled stability of control when paired with the 900TE Flexflo® Regulator for power plant "startup" applications. Becker Flexflo® 900TE's and FEP's are able to withstand serious vibration and pulsation that would damage other manufacturer's product. Note FEP-600-CH is equipped with Sensing Gage and Jacket Pressure Gage to monitor stability and easily tune the regulator. This FEP is also equipped with test valves to facilitate verification of pilot and regulator lockup.

***CAUTION: This information is intended as a guideline for application of Becker Regulator products. Becker Regulators strongly recommends consulting Becker Regulators Engineering prior to application of any product.**

Dresser Becker Precision Equipment **Dresser, Inc.**

1550 Greenleaf Avenue
Elk Grove Village, IL 60007

Phone: 847.437.5940 Fax: 847.437.2549
Toll Free: 800.323.8844 Email: becker@dresser.com
www.bpe950.com