

# Baumann™ 26000 Corrosion Resistant Control Valve

The Baumann 26000 (figures 1 and 2) is a unique corrosion resistant control valve featuring a flangeless wafer valve body and powerful multi-spring diaphragm actuator. This valve is available with a Fisher® FIELDVUE™ digital valve controller to allow for highly accurate, low flow control of nearly all corrosive media. **(Note: For optimal, non-compromised valve life, fluid must be clear and service non-cavitating.)** A solid corrosion resistant R05200 Tantalum or N10276 Nickel Alloy valve plug and pressure-assisted PTFE seat combine for an extremely wide control range making the 26000 series ideal for pH control applications.

An S31600/S31603 stainless steel flangeless valve body, thru-hole wafer design, allows for installation between plastic pipe line flanges without risk of gasket leakage. Top entry trim provides ease of servicing and a long operating life.

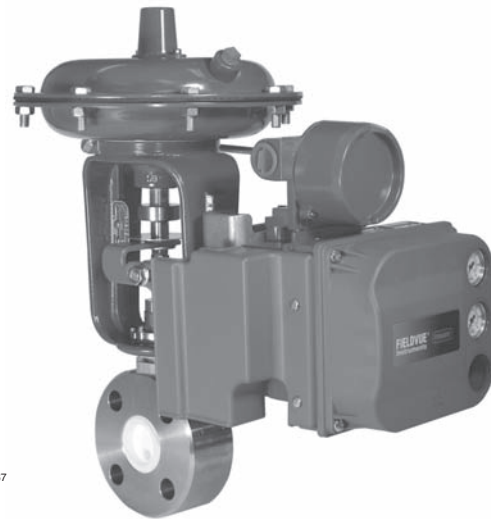
## Features

- Wide control range with high rangeability.
- Solid R05200 Tantalum or N10276 Nickel Alloy valve plug (Other materials on request).
- S31600/S31603 stainless steel valve housing with PTFE body interior.
- Pressure assisted seating, up to Class VI shutoff.
- The combination of primary and secondary valve stem packing ensures process retention.
- Flangeless body construction, unique thru-hole wafer design for installation between CL150 and 300 and PN 10 through 25 RF or FF line flanges.
- PTFE encapsulated line flange gaskets (included) permit valve installation between plastic lined slip-on mating flanges.
- Epoxy powder-coated actuator with stainless steel fasteners for corrosion resistance.



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Figure 1. 26000 Control Valve with Baumann 32 Actuator and Dual Travel Stops

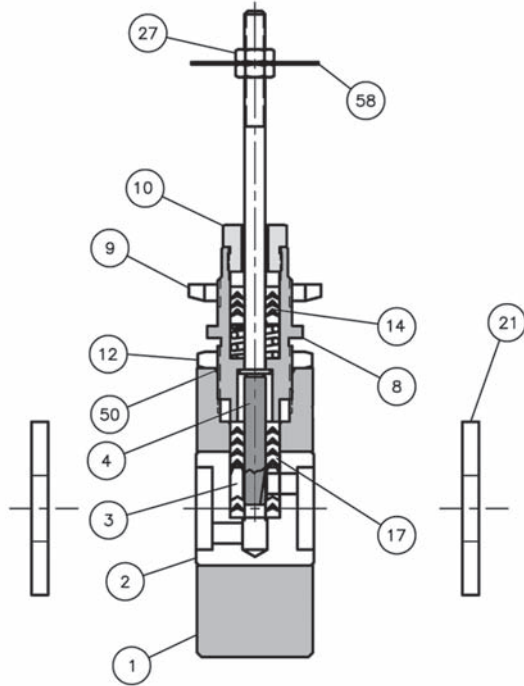


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Figure 2. 26000 Valve with Baumann 32 Actuator, Dual Travel Stops, and FIELDVUE DVC6000 Digital Valve Controller

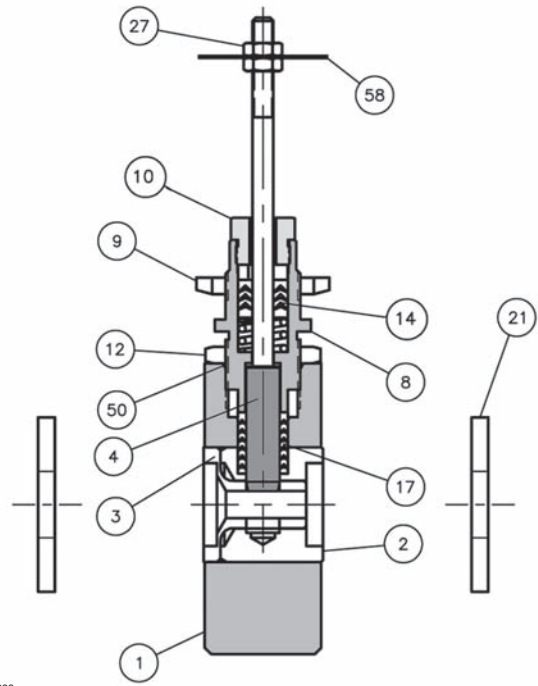
- FIELDVUE digital valve controller available for remote calibration and diagnostics in facilities utilizing the PlantWeb™ architecture.





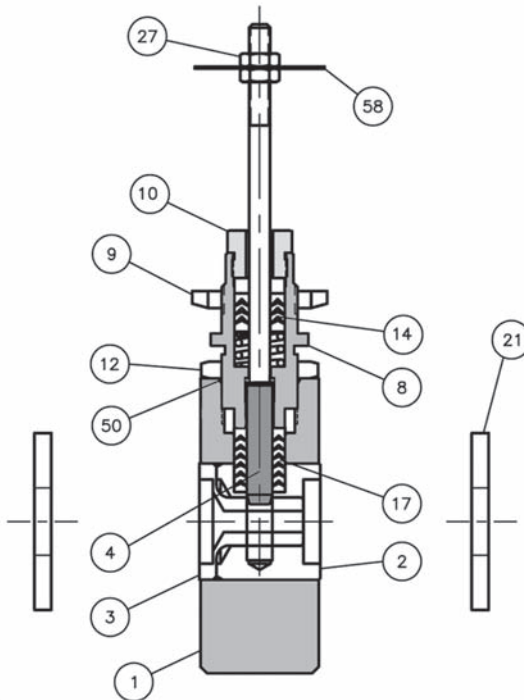
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Figure 3. Valve Body for Cv Ratings of 0.001 to 1.0 (Class VI Seat Leakage)



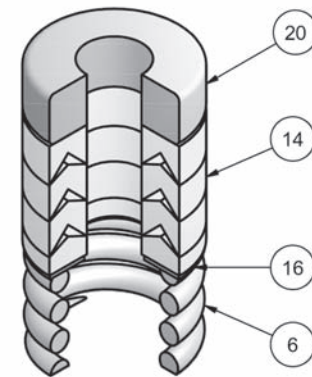
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Figure 5. Valve Body for Cv Rating of 4.2 (Class IV Seat Leakage)



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Figure 4. Valve Body for Cv Rating of 2.5 (Class IV Seat Leakage)



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Figure 6. Secondary Packing: Spring-Loaded PTFE V-Ring Packing Kit

Table 1. Secondary Packing: Standard Spring-Loaded PTFE V-Ring Packing Kit

Key Number	Description	Material
6	Spring	ASTM A313 S30200
14	Packing Set	PTFE/carbon-filled PTFE
16	Washer	ASTM A240 S31600
20	Spacer	J-2000 (filled-Polytetrafluoroethylene)

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Table 2. Materials of Construction

Key No.	Description	Material
1	Valve Body	ASTM A479 S31600/S31603, Annealed
2	Liner	PTFE (Polytetrafluoroethylene)
3	Spacer (Cv = 0.001 – 1.0 ONLY)	PTFE (Polytetrafluoroethylene)
	Insert (Cv = 2.5 and 4.2 ONLY)	PTFE (Polytetrafluoroethylene)
4	Valve Plug	ASTM B365 R05200 cold worked or ASTM B574 N10276, 35 HRC Max
	Stop Washer	ASTM B574 N06022, 35 HRC Max
	Stem	ASTM B574 N10276, 35 HRC Max
8	Bonnet	ASTM A479 S31600/S31603, Annealed
9	Yoke Drive Nut	S30400 Stainless Steel
10	Packing Follower	ASTM A276 S31600 Condition A
12	Hex Clamp Nut	ASTM A582 S30300 Condition A
14	Secondary Packing Kit, Spring Loaded PTFE V-Ring Packing Kit	Refer to figure 6 and table 1
17	Primary Packing, V-Ring	PTFE (Polytetrafluoroethylene)
21	Line Flange Adapter Gaskets <sup>(1)</sup>	PTFE (Polytetrafluoroethylene), Steel Core
27	Locknut	18-8 Stainless Steel
50	Bonnet Seal	PTFE (Polytetrafluoroethylene)
58	Travel Indicator	ASTM A240 S30400

1. It is highly recommended that the included PTFE encapsulated line flange adaptor gaskets be utilized.

Table 3. Technical Specifications

<b>VALVE BODY RATNG</b>		103 bar CWP (150 psi CWP)
<b>CONNECTIONS</b>		Wafer (Flangeless) design for installation between NPS 1 CL150, CL300 or Metric DN 25 PN10, PN16 or PN25 RF or FF line Flanges
<b>SEAT PLUG SEALING</b>		PTFE Soft Seat -28.9 to 177°C (-20 to 350°F)
<b>BONNET</b>		-28.9 to 177°C (-20 to 350°F)
<b>PACKING<sup>(1)</sup></b>	<b>Spring Loaded PTFE V-Ring</b>	-28.9 to 177°C (-20 to 350°F)
<b>SEAT LEAKAGE</b>		Class VI (Rated Cv = 0.001 – 1.0), Class IV (Rated Cv = 2.5 and 4.2)
<b>CHARACTERISTIC</b>		Modified Equal Percentage
<b>MAXIMUM SHUTOFF PRESSURE</b>		10.3 bar (150 psi)
<b>WEIGHT</b>		3.3 kg (7.3 lbs)

1. Temperature limits apply to packing materials only and not to the valve body assembly.

Table 4. Actuator Specifications

<b>TYPE</b>	Dual Stop 32 Multi-Spring Diaphragm (Single Acting) <sup>(1)</sup>
<b>NOMINAL SIZE</b>	210 cm <sup>2</sup> (32 in <sup>2</sup> )
<b>AIR FAILURE</b>	Open or Closed
<b>BENCH SPRING RANGE</b>	0.2 – 1.0 bar (3 – 13 psi), Fail Open / 0.3 – 1.0 bar (5 – 15 psi), Fail Closed
<b>DUAL TRAVEL STOPS (Adjustable)</b>	Open-Closed Plug Position (Standard)
<b>TRAVEL</b>	12.7 mm (0.5 inch)
<b>AMBIENT TEMPERATURE RANGE</b>	-30 to 70°C (-20 to 160°F)
<b>MAXIMUM AIR PRESSURE</b>	2.5 barg (35 psig)
<b>DIAPHRAGM MATERIAL</b>	NBR (Nitrile), TPES (Polyester Thermoplastic)
<b>SPRING CASES</b>	Steel, Powder Epoxy-Coated with stainless steel fasteners
<b>YOKE</b>	Ductile Iron, Powder Epoxy-Coated
<b>WEIGHT</b>	4.5 kg (10 lbs)

1. A dual stop size 32 actuator must be used to properly set valve 0% to 100% flow opening.

Table 5. Allowable Pressure Drops (bar)

PORT DIA. (mm)	PLUG TRAVEL (mm)	ACT TYPE	AIR-TO-OPEN ACTION				AIR-TO-CLOSE ACTION					
			BENCH RANGE (barg)	0.2-1.0 barg SIGNAL TO ACTUATOR		WITH POSITIONER 1.38 barg AIR SUPPLY		BENCH RANGE (barg)	0.2-1.0 barg SIGNAL TO ACTUATOR		WITH POSITIONER 1.38 barg AIR SUPPLY	
				Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.		Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.
7.9	12.7	32	0.3-1.0	---	10	---	10	0.2-0.9	---	10	---	10
9.5	12.7	32	0.3-1.0	10	---	10	---	0.2-0.9	10	---	10	---
12.7	12.7	32	0.3-1.0	10	---	10	---	0.2-0.9	10	---	10	---

Table 6. Allowable Pressure Drops (psi)

PORT DIA. (in)	PLUG TRAVEL (in)	ACT TYPE	AIR-TO-OPEN ACTION				AIR-TO-CLOSE ACTION					
			BENCH RANGE (psig)	3-15 psig SIGNAL TO ACTUATOR		WITH POSITIONER 20 psig AIR SUPPLY		BENCH RANGE (psig)	3-15 psig SIGNAL TO ACTUATOR		WITH POSITIONER 20 psig AIR SUPPLY	
				Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.		Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.
0.0312	0.50	32	5-15	---	150	---	150	3-13	---	150	---	150
0.375	0.50	32	5-15	150	---	150	---	3-13	150	---	150	---
0.500	0.50	32	5-15	150	---	150	---	3-13	150	---	150	---

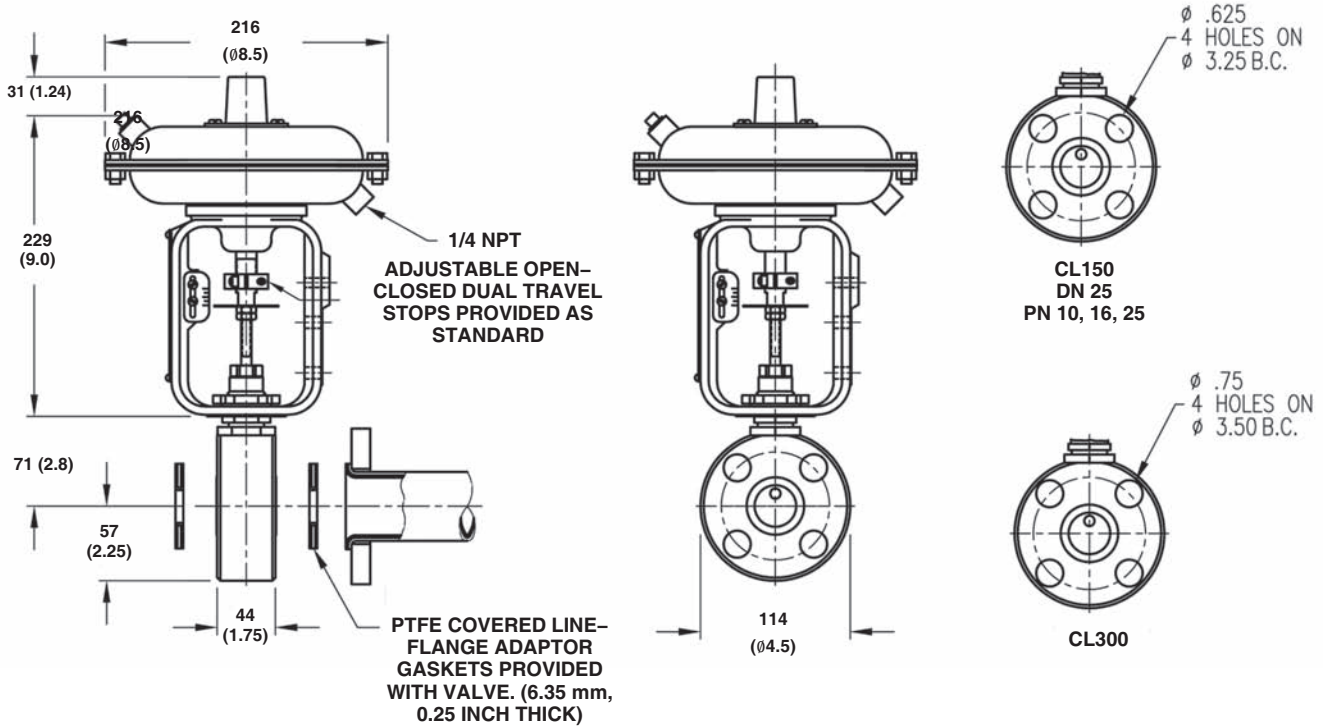
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Table 7. Coefficients

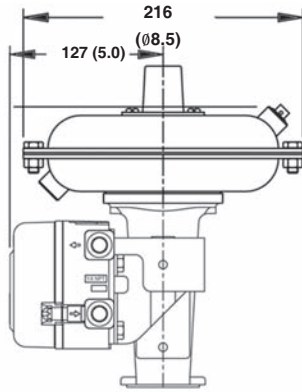
Valve Size	Port Dia.	Plug Tvl	CV AT VALVE OPENING – Percent of Plug Travel											F <sub>d</sub>	F <sub>L</sub>	X <sub>T</sub>	K <sub>C</sub>
			5	10	20	30	40	50	60	70	80	90	100				
1	0.312	0.5	0.00002	0.00005	0.00013	0.00024	0.00036	0.00048	0.0006	0.0007	0.0008	0.0009	0.001	0.7	0.98	0.81	0.94
			0.00004	0.00015	0.0004	0.0007	0.0009	0.0012	0.0018	0.0025	0.0033	0.0041	0.005				
			0.00007	0.00015	0.0004	0.0008	0.0013	0.002	0.003	0.005	0.007	0.009	0.01				
			0.0001	0.0002	0.0006	0.0008	0.0017	0.0031	0.0048	0.007	0.01	0.013	0.02				
			0.0003	0.0005	0.001	0.002	0.004	0.008	0.012	0.017	0.023	0.033	0.05				
			0.008	0.016	0.034	0.045	0.053	0.061	0.069	0.075	0.081	0.09	0.1				
			0.02	0.03	0.04	0.06	0.08	0.1	0.12	0.14	0.16	0.18	0.2				
			0.03	0.04	0.08	0.12	0.16	0.2	0.24	0.28	0.32	0.36	0.4				
			0.06	0.08	0.16	0.25	0.32	0.41	0.48	0.56	0.64	0.72	0.8				
			0.07	0.11	0.2	0.31	0.41	0.52	0.63	0.71	0.82	0.91	1				
0.375	0.5	0.5	0.02	0.042	0.113	0.271	0.541	0.85	1.18	1.72	2.08	2.32	2.5	0.46	0.86	0.68	0.73
0.5	0.5	0.5	0.04	0.07	0.19	0.46	0.905	1.45	2	2.91	3.52	4	4.2	0.8	0.53	0.51	



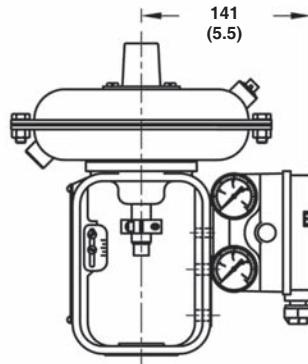
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mm  
(inch)

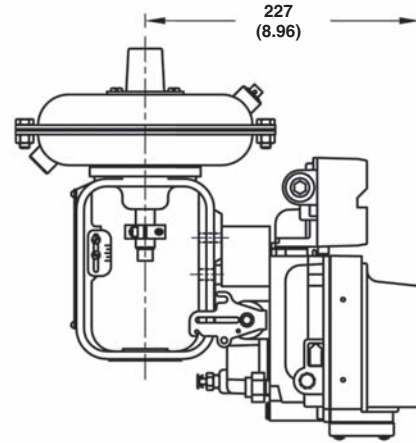
Figure 7. Dimensions NPS 1 26000 Valve with Baumann 32 Actuator and Dual Travel Stops



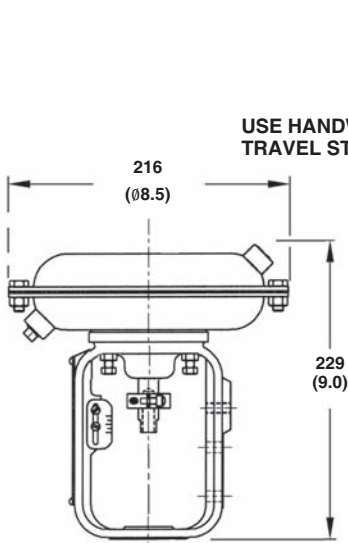
**OPTIONAL FIELDVUE  
DVC2000 DIGITAL VALVE  
CONTROLLER**



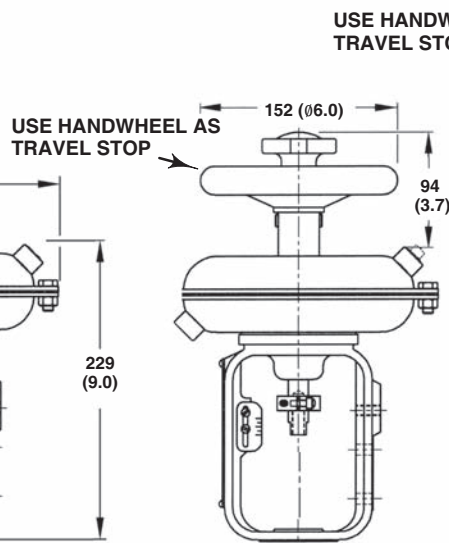
**OPTIONAL FISHER 3660/3661  
POSITIONER**



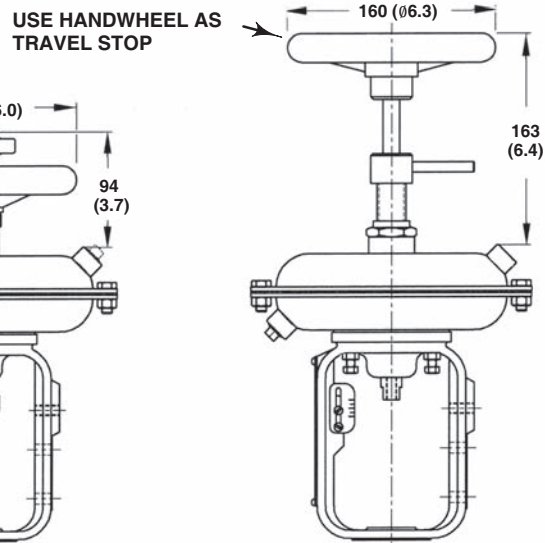
**OPTIONAL FIELDVUE DIGITAL  
VALVE CONTROLLER**



**DUAL STOPS FOR AIR-  
TO-CLOSE / FAIL  
OPEN ACTUATION**



**TOP-MOUNTED  
HANDWHEEL FOR  
AIR-TO-OPEN / FAIL  
CLOSED ACTUATION**



**TOP-MOUNTED  
HANDWHEEL FOR AIR-  
TO-CLOSE / FAIL OPEN  
ACTUATION**

E1291

mm  
(inch)

Figure 8. Dimensional Drawings

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*Table 8. Model Numbering System*

<b>32</b>		
<b>ACTUATOR</b>	<b>RATED C<sub>V</sub></b>	<b>MODEL NUMBER</b>
32	0.001	26001
	0.005	26005
	0.01	26010
	0.02	26020
	0.05	26050
	0.10	26100
	0.20	26200
	0.40	26400
	0.80	26800
	1.0	26000
	2.5	26000-2.5
	4.2	26000-4.2

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