



A-T Controls, Inc.

Product Overview




































Valves, Valve Automation & Accessories

	1-Piece	2-Piece			
					
<i>Series</i>	SERIES 10	SERIES 20	SERIES 21C	SERIES 22	SERIES 24
<i>General Description & Features</i>	1-piece unibody design, end-loaded ball	2-piece general purpose full port, locking handle	2-piece general purpose carbon steel reduced port, locking handle	2-piece high performance direct mount	2-piece high performance 3000 psi
<i>Automated Pneumatic</i>	Not available	Not available	Not available		
<i>Automated Electric</i>	Not available	Not available	Not available		
<i>Sizes</i>	1/4" – 2"	1/4" – 3"	1/4" – 2"	1/4" – 3"	1/4" – 2"
<i>Port</i>	Reduced	Full	Reduced	Full	See brochure
<i>Direct Mount</i>	No	No	No	Yes	Yes
<i>Pyramidal Stem Packing</i>	No	No	No	Yes	Yes
<i>Body Materials</i>	316SS	316SS	WCB	316SS	316SS
<i>Trim Material</i>	316SS	316SS	316SS	316SS	316SS
<i>Available Seats</i>	RTFE	RTFE	RTFE	RTFE, call for others	Delrin, PEEK
<i>End Connections</i>	Threaded	Threaded	Threaded	Threaded	Threaded
<i>Max Pressure Rating</i>	2000 psi	1000 psi	1000 psi	1000 psi	3000 psi
<i>Options</i>	None	Vented Ball	Vented Ball	Call factory	NACE MR0175, Vented ball, Others call factory
<i>TA-Luft Certified</i>	No	No	No	Yes	No
























TA-Luft Certified

3-Piece					
					Series
SERIES 55	SERIES 8R/83	SERIES F8R/F83	SERIES 88	SERIES F88	General Description & Features
3-piece standard service exposed bolt "swing-out" design, locking handle	3-piece high performance, locking handle	Firesafe 3-piece high performance, locking handle	3-piece high performance, direct mount, locking handle	Firesafe 3-piece high performance, direct mount, locking handle	
					Automated Pneumatic
					Automated Electric
1/4" - 4"	1/4" - 2-1/2"	1/4" - 2-1/2"	1/4" - 4"	1/4" - 4"	Sizes
Full	Full or Regular	Full or Regular	Full	Full	Port
No	No	No	Yes	Yes	Direct Mount
No	Yes	Yes	Yes	Yes	Pyramidal Stem Packing
316SS & WCB	316SS & WCB	316SS & WCB	316SS, WCB & Alloy 20	316SS & WCB	Body Materials
316SS	316SS	316SS	316SS, Monel & Hastelloy C	316SS, Monel & Hastelloy C	Trim Material
RTFE, PTFE, 50/50, 15% CTFE, TFM-1600 and others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK and others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK and others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK and others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK and others	Available Seats
Threaded, Socket Weld, Butt Weld	Threaded, Socket Weld, Butt Weld	Threaded, Socket Weld, Butt Weld	Threaded, Socket Weld, Butt Weld	Threaded, Socket Weld, Butt Weld	End Connections
1000 psi	2000/1500 psi	2000/1500 psi	2000/1500 psi	2000/1500 psi	Max Pressure Rating
Vented Ball, Oxygen Cleaned, Gear Operator, Stem Extension and others	Vented Ball, Oxygen Cleaned, Gear Operator, Stem Extension and others	NACE MR0175, Vented Ball, Gear Operator, Stem Extension and others	Vented Ball, Oxygen Cleaned, Gear Operator, Stem Extension and others	NACE MR0175, Vented Ball, Gear Operator, Stem Extension and others	Options
No	Yes	Yes	Yes	Yes	TA-Luft Certified

	3-Piece	150# Flanged				150# & 300# Flanged
<i>Series</i>						
<i>General Description & Features</i>	SERIES 77	SERIES 90 & 93	SERIES F90	SERIES F91	SERIES D9	SERIES FD9
	Cavity and non-cavity filled 3 piece, sanitary clamp or tube OD ends	150# flanged 2-piece, full port, with pyramidal stem packing	Firesafe 150# flanged 2-piece, full port with pyramidal stem packing	Firesafe Unibody design 150# flanged regular port Direct mount	Direct mount 150# flanged 2-piece, full port with pyramidal stem packing	Firesafe direct mount 150# and 300# flanged 2-piece, full port with pyramidal stem packing
<i>Automated Pneumatic</i>						
<i>Automated Electric</i>						
<i>Sizes</i>	1/2" – 4"	1/2" – 12"	1/2" – 4"	1/2" – 6"	1/2" – 8"	1/2" – 8"
<i>Port</i>	Full	Full	Full	Regular	Full	Full
<i>Direct Mount</i>	Yes	No	No	Yes	Yes	Yes
<i>Pyramidal Stem Packing</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Body Materials</i>	316L	316SS, WCB & Alloy 20	316SS & WCB	316SS & WCB	316SS & WCB	316SS & WCB
<i>Trim Material</i>	316L	316SS	316SS	316SS	316SS, Monel & Hastelloy C	316SS, Monel & Hastelloy C
<i>Available Seats</i>	PTFE, cavity filled, non-cavity filled, RTFE	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK and others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK and others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK and others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK & others	RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK & others
<i>End Connections</i>	Sanitary clamp, tube OD	150# Flanged	150# Flanged	150# Flanged	150# Flanged	150# and 300# Flanged
<i>Max Pressure Rating</i>	1000 psi	285 psi	285 psi	285 psi	285 psi	740 psi
<i>Options</i>	Vented Ball, Oxygen Cleaned and Others	Vented Ball, Oxygen Cleaned, Gear Operator, Stem Extension and others	NACE MR0175, Vented Ball, Gear Operator, Stem Extension and others	NACE MR0175, Vented Ball, Gear Operator, Stem Extension and others	Vented ball, oxygen cleaned, gear operator, stem extension and others	NACE MR0175, Vented ball, gear operator, stem extension and others
	Yes	Yes	Yes	Yes	Yes	Yes



600# Flanged	Multi-Port		High Perf Multi-Port	Metal Seat Flanged	Metal Seat 3-Piece
					
SERIES FD9/F6	SERIES 38	SERIES 30	SERIES 33,43,53	SERIES M	SERIES M
2-piece split body 600# flanged, full port	Threaded general purpose 3-way	150# & 300# Flanged general purpose 3-way	High performance, 3, 4 or 5-way, TH, SW, BW, flanged, sanitary, direct mount	150#, 300#, 600#, Split Body Unidirectional + Bidirectional	NPT & SW 3-Piece Class 600 Bidirectional
					
					
1/2" - 2"	1/4" - 2"	1-1/2" - 12"	1/4" - 4"	150#/300#: 1/2" - 8" 600#: 1/2" - 6"	600#: 1/2" - 2"
Full	Reduced	Full	Full	Full	Full
Yes	No	No	Yes	No	No
Yes	No	No	Yes	No	No
316SS & WCB	316SS	316SS & WCB	316SS	316SS, WCB, 316L, 317, Duplex & more	316SS, WCB, 316L, 317, Duplex & more
316SS	316SS	316SS	316SS	Tungsten Carbide, HCR, Chrome Carbide	Tungsten Carbide, HCR, Chrome Carbide
RTFE, PTFE, 50/50, 15% CTFE, UHMWPE, Delrin, PEEK & others	RTFE	RTFE, PTFE, 50/50, 15% CTFE, others on request	RTFE, PTFE, 50/50, cavity fillers, others on request	Tungsten Carbide 316 with Stellite Chrome Carbide	Tungsten Carbide 316 with Stellite Chrome Carbide
600# Flanged	Threaded	150# + 300# Flanged	TH, SW, BW, sanitary, flanged	150#, 300#, 600# Flanged	TH + SW
1480 psi	1000 psi	See spec. sheets	See spec. sheets	See spec. sheets	See spec. sheets
NACE MR0175, Vented ball, gear operator, stem extension and others	"L" or "T" port	"L" or "T" port	3, 4, 5-way, "L", "T", "LL", "I", "X", "TT" ports, various options	See spec sheets	See spec sheets
Yes	No	No	Yes	No	No

	Tank Bottom	V-Port Control Valves	Segmented Valves	Wellhead Block & Bleed	Cryogenic	FM Approved Assemblies
						
<i>Series</i>	TB SERIES	V SERIES	VS & VM SERIES	WB SERIES	C8/CR SERIES	FM
<i>General Description & Features</i>	3-piece tank bottom valve	"V" port control valves	Unibody V-Port Segmented	Wellhead Service Block and Bleed valves	3-Piece Extended Bonnet	FM Approved Assemblies for gas safety shutoff applications
<i>Automated Pneumatic</i>				NA		
<i>Automated Electric</i>				NA		Not Available
<i>Sizes</i>	2", 3", 4"	1/2" - 6"	1" - 12"	1/2" - 2"	1/2" - 2"	1/4" - 6"
<i>Port</i>	Full	30°, 60°, others on request	Segmented	Full	Full + Regular	Full
<i>Direct Mount</i>	No	Some	No	No	Yes	Yes
<i>Pyramidal Stem Packing</i>	No	Yes	No	No	Yes	Yes
<i>Body Materials</i>	316SS	316SS & WCB	CF8M, WCB, 317SS, Duplex and more	316SS	316SS	316SS & WCB
<i>Trim Material</i>	316SS	316SS	See spec. sheet	316SS	316SS	316SS
<i>Available Seats</i>	RTFE, PTFE, 50/50, 15% CTFE, others on request	RTFE, PTFE, 50/50, call with application	Soft or Metal	CTFE	PCTFE	RTFE
<i>End Connections</i>	Tank weld pad + TH, SW, BW, Flanged	TH, SW, BW, Flanged, Tube OD + Tri-clamp	150#, 300# + Wafer Pattern	NPT	TH + SW	150#, 300#, NPT, SW + BW
<i>Max Pressure Rating</i>	1000 psi	See spec. sheets	See spec. sheet	2000 PSI	See spec. sheet	See spec. sheet
<i>Options</i>	Vented Ball, Oxygen Cleaned, Gear Operator, others	Various, please call with requirements	See spec. sheet	NACE MR0175	See spec. sheet	See spec. sheet

	Spring Return Handle
	
<i>Series</i>	SRH
<i>General Description & Features</i>	Fail-safe handle for manual valve operation
<i>Sizes</i>	1/4" – 1-1/2"

General Description & Features

Sizes

General Description & Features

Models




Variations


Types






Materials

Features

Options

	Pneumatic Rack & Pinion Actuators	Electric Actuators	
			
<i>Series</i>	2R, 2K, 2CI SERIES	WE/XE/SE SERIES	E SERIES
<i>General Description & Features</i>	Thirteen sizes of pneumatic actuators	Eighteen sizes of electric actuators On-off & modulating	Thirteen sizes of electric actuators On-off & modulating
<i>Models</i>	2R-ISO-5211 2K & 2CI - Butterfly direct mount	WE-350 through WE-91000 XE-690 through XE-25900 SE-690 through SE-25900	ETI-300 through ETI-30000
<i>Variations</i>	Various mounting dimensions	On-off & modulating	On-off & modulating
<i>Types</i>	Eleven sizes rack & pinion, two sizes scotch yoke	NEMA 4, 4X, Explosion-proof ATEX, CSA Pending, submersible, IP68 10M 72HR	NEMA 4, 4X
<i>Materials</i>	Hard anodized aluminum body	Die cast aluminum Epoxy coated enclosure	Die cast aluminum Epoxy coated enclosure
<i>Features</i>	Dual travel stops	AWWA-C540-93, Manual override, Four switches standard, Heater & stat standard, Self-locking gear train	Manual overrides, Four switches standard, Heater & stat standard, Self-locking gear train
<i>Options</i>	High & low temp seals, Extended travel stops, Reduced cycle times available, Marine epoxy coating on end caps, Various accessories	Vibration and shock resistant, Fireproof coated enclosure, Intelligent and integral control unit, Analog & digital modulating control cards & busses	Manual on-off-auto station

	Limit Switches	Solenoids	Positioners	Control Options	Other Accessories
					
<i>Series</i>	APL, EX, EC, ES and others (APL pictured)	TVCS, TVC5, TVC6 and others	PPR, EPR, and SER		
<i>General Description & Features</i>	Various limit switch boxes	NAMUR mount, solenoids or pipe mounted	Pneumatic, electro-pneumatic, digital or "smart"	Speed controls, flow controls, lock-up valves	Filter regulators, dribble controls, others
<i>Models</i>	APL, EX, EC & ES Series	TVCS, TVC5, TVC6 and others	EPR1000, PPR1200, SER1000, 760, PS2, TZIDC	Various	Various
<i>Variations</i>	Materials, switch types	Weatherproof, ex-proof, 3, 4 or 5-way	Pneumatic, electro-pneumatic, digital "smart" HART, BUS	Most any!	Most any!
<i>Types</i>	SPDT, proximity, low voltage, high amp. ASI & others	2-position, 3-position, single or dual coil	Rotary or linear	Most any!	Most any!
<i>Materials</i>	Aluminum, plastic or stainless steel	Aluminum or SS	Aluminum body	Most any!	Most any!
<i>Features</i>	2-way & 3-way position indicators	Direct-mount	Easy to calibrate, repeatable	Most any!	Most any!
<i>Options</i>	Several types of communication options	Various voltages & configurations	Transmitters, limit switches, mounting hardware, call with requirements	Most any!	Most any!

Heavy Duty Actuators	180° Pneumatic Actuators	Stainless Steel Pneumatic Actuators	Declutchable Gear Operators	Gear Operators	
					
THD	180-AL SERIES	SS SERIES	DGO and KGO	Q Series	<i>Series</i>
Pneumatic and hydraulic scotch yoke design, Symmetrical and Canted yoke	180° rack & pinion pneumatic actuators	Stainless steel Rack & Pinion design	"Sandwich" mount, gear overrides	Manual gear operators for quarter-turn valves	<i>General Description & Features</i>
THD torques to 1,600,000 in. lbs.	Five models 740 –6200 in. lbs.	Double Acting and Spring Return	Six models	Eight standard sizes, Larger sizes available to 410,000 in/lbs.	<i>Models</i>
Double Acting, Spring Return	180° Dribble and batch control	Double Acting, Spring Return	ISO-5211 and Keystone pattern stock, others on request	ISO-5211 mounting in inventory, others on request	<i>Variations</i>
Pneumatic and hydraulic	Pneumatic	Pneumatic	Declutchable	Quarter-turn	<i>Types</i>
Ductile iron center body	Hard anodized aluminum	316SS	Ductile iron	Cast iron	<i>Materials</i>
Torque stabilizer bar, travel stops, female drive	Sturdy rack & pinion design	Corrosion resistant	Easy declutch mechanism, low profile	Travel stops	<i>Features</i>
Manual overrides, various controls, low temp., high temp., accumulator tanks, others	Dribble control 3-position control	Various control accessories	Dump valves, NAMUR adaptor plates	Top-mounted limit switches, others	<i>Options</i>

Manual Ball Valve Part Number Matrix

1	Firesafe Designation	4	End Connection	7	Special Designations
F	Firesafe Tested	TH	Threaded Ends	X	No Specials
		SW	Socket Weld Ends	G	Gear Operator
		BW	Buttweld Ends	R	Reduced Port Valve
2	Valve Series	EW	Extended Butt Weld Ends	O	Oval Handle (available on some)
10	1pc. Reduced Port 2000#	F1	150# Flanged Ends	S	Spring Return Handle (Direct mount Only)
20	2pc. Full Port 2000#	F3	300# Flanged Ends		
21	2pc. Reduced Port 1000#	F6	600# Flanged Ends	8	Additional Specials
22	2pc. Direct Mount 1000/800# Full Port	FR	600# RTJ Flanged Ends	X	No Specials
24	2pc. 3000#	SA	Sanitary Ends	O	Oxygen Cleaned
30	3-Way Flanged Full Port	SF	Sanitary w/Cavity Filler	Z	Special End Configuration
33	3,4,5-Way Full Port, Multiport	DF	Tube O.D. w/Cavity Filler	V	Vented Ball
38	3-Way Threaded Reduced Port	DA	Tube O.D. Ends	F	Fugitive Emissions Bonnet
55	3pc. 1000# Full Port	TE	Threaded x Extended Butt Weld	D	Degrease & Bagged
77	3pc. 1000# Full Port Sanitary	TS	Threaded x Socket Weld		
83	3pc. 2000/1500# Full Port	QQ	Tube Socket Weld	9	Control Valve or Special Stem Designation
8R	3pc. 2000/1500# Regular Port	W1	150# Wafer	3	30° V-Port (v-ball)
88	3pc. Direct Mount 2000/1500# Full Port	W3	300# Wafer	6	60° V-Port (v-ball)
R8	3pc. Direct Mount 2000/1500# Reduced Port	W6	600# Wafer	9	90° V-Port (v-ball)
90	2pc. Flanged Full Port (Investment Cast)			Blank	No Designation = 316 SST Stem
91	Unibody Reduced Port Flange	5	Valve Size	A	17-4PH Stem
93	2pc. Flanged Full Port (Sand Cast)	0025	1/4"	B	XM-19 (Nitronic 50) Stem
V8	3pc. V Port	0038	3/8"	C	Duplex 2205 Stem
V9	Flanged V Ports	0050	1/2"	D	Inconel 718 Stem
D9	Direct Mount Flanged	0075	3/4"		
LB	2pc. Fully Lined Ball Valve	0100	1"		
LD	Fully Lined Diaphragm Valve	0125	1-1/4"		
T5	Tank Bottom 3 piece	0150	1-1/2"		
MU	Metal Seat Unidirectional Shutoff, Floating Ball	0200	2"		
MB	Metal Seat Bidirectional Shutoff, Floating Ball	0250	2-1/2"		
MX	Metal Seat 3pc Bidirectional, Floating Ball	0300	3"		
JS	Soft Seat, Floating	0400	4"		
C8	Cryogenic 3 Piece Full Port	0600	6"		
CR	Cryogenic 3 Piece Regular Port	0800	8"		
TS	Trunnion Soft Seat	1000	10"		
MT	Trunnion Metal Seat	1200	12"		
M3	3-way Metal Seat			6	Seat, Lining & Trim Materials
VS	Segment, V-Port, Soft	X	Reinforced TFE Seats	P	Virgin TFE
VM	Segment V-Port, Metal	P	Virgin TFE	U	UHMWE Seats
WB	Well Head Block and Bleed	U	UHMWE Seats	D	Delrin
		S	50% SS Powder/ 50% TFE Seats	S	50% SS Powder/ 50% TFE Seats
		C	15% CS Powder/ 85% TFE Seats	C	15% CS Powder/ 85% TFE Seats
		T	TFM-1600	T	TFM-1600
		L	PFA Lined	L	PFA Lined
		M	MG1241	M	MG1241
		Z	Peek	Z	Peek
		2	Tungsten Carbide Coated	2	Tungsten Carbide Coated
		3	316SS Seats & Ball	3	HCR Coated Ball/Stellite Inlay Seat
		4	Chrome Carbide Coated	4	Chrome Carbide Coated
			316SS Seats & Ball		316SS Seats & Ball
3	Body Material				
Blank	No Designation=Stainless Steel Body and Trim				
A	Alloy 20				
C	Carbon Steel Body				
L	Low Carbon 316 Stainless Steel				
H	Carbon Body /Hastelloy Ball & Stem				
Q	Carbon Steel Body/Monel Ball & Stem				
R	316 SST Body/Monel Ball & Stem				
E	Electropolished Stainless Steel				
Z	Epoxy Coated Carbon Steel				
7	CG8M 317 SST				
D	CD3MN Duplex SS				
5	LCB				
8	LCC				
6	WC6				
9	WC9				

HOW TO ORDER MANUAL VALVES

1 - **2** - **3** - **4** - **5** - **678** - **9**
 ↓ ↓ ↓ ↓ ↓ ↓ ↓
F - **88** - **C** - **TH** - **0150** - **XXX** -

Automated Ball Valve Part Number Matrix

1	Firesafe Designation
F	Firesafe Tested
2	Valve Series
10	1pc. Reduced Port 2000#
20	2pc. Full Port 2000#
21	2pc. Reduced Port 1000#
22	2pc. Direct Mount 1000/800# Full Port
24	2pc. 3000#
30	3-Way Flanged Full Port
33	3,4,5-Way Full Port, Multiport
38	3-Way Threaded Reduced Port
55	3pc. 1000# Full Port
77	3pc. 1000# Full Port Sanitary
83	3pc. 2000/1500# Full Port
8R	3pc. 2000/1500# Regular Port
88	3pc. Direct Mount 2000/1500# Full Port
R8	3pc. Direct Mount 2000/1500# Reduced Port
90	2pc. Flanged Full Port (Investment Cast)
91	Unibody Reduced Port Flange
93	2pc. Flanged Full Port (Sand Cast)
V8	3pc. V Port
V9	Flanged V Ports
D9	Direct Mount Flanged
LB	2pc. Fully Lined Ball Valve
LD	Fully Lined Diaphragm Valve
T5	Tank Bottom 3 pc.
3	Body Material
Blank	No Designation=Stainless Steel Body and Trim
A	Alloy 20
C	Carbon Steel Body
L	Low Carbon 316 Stainless Steel
H	Carbon Body /Hastelloy Ball & Stem
Q	Carbon Steel Body/Monel Ball & Stem
R	316 SST Body/Monel Ball & Stem
E	Electropolished Stainless Steel
Z	Epoxy Coated Carbon Steel
4	End Connection
T	Threaded Ends
S	Socket Weld Ends
B	Buttweld Ends
E	Extended Butt Weld Ends
F	150# Flanged Ends
3	300# Flanged Ends
6	600# Flanged Ends
R	600# RTJ Flanged Ends
C	Sanitary Ends *Sanitary refers to clamp style ends
D	Tube O.D.Ends
M	Threaded x Socket Weld
Q	Tube Socket Weld
5	Seat, Lining & Trim Materials
1	Valve Series Standard
X	Reinforced TFE Seats
P	Virgin TFE
U	UHMWE Seats
D	Delrin
S	50% SS Powder/ 50% TFE Seats
C	15% CS Powder/ 85% TFE Seats
T	TFM-1600
M	MG1241
Z	Peek
F	TFE Cavity Filler

5	(cont.) Seat, Lining & Trim Materials
2	Tungsten Carbide Coated
	316SS Seats & Ball
4	Chrome Carbide Coated
	316SS Seats & Ball
L	PFA Lined
6	Valve Size
025	1/4"
038	3/8"
050	1/2"
075	3/4"
100	1"
125	1-1/4"
150	1-1/2"
200	2"
250	2-1/2"
300	3"
400	4"
600	6"
800	8"
AAA	10"
BBB	12"
7	Actuator-Pneumatic (DA)
TRYD	TR10 Double Acting
TR1D	TR20 Double Acting
2R2D	2R40 Double Acting
2R3D	2R80 Double Acting
2R4D	2R130 Double Acting
2R5D	2R200 Double Acting
2R6D	2R300 Double Acting
2R7D	2R500 Double Acting
2R8D	2R850 Double Acting
2R9D	2R1200 Double Acting
2R0D	2R1750 Double Acting
2RAD	2R2500 Double Acting
2RBD	2R3500 Double Acting
7	Actuator-Pneumatic (SR)
TR1S	TR20 Spring Return
2R2S	2R40 Spring Return
2R3S	2R80 Spring Return
2R4S	2R130 Spring Return
2R5S	2R200 Spring Return
2R6S	2R300 Spring Return
2R7S	2R500 Spring Return
2R8S	2R850 Spring Return
2R9S	2R1200 Spring Return
2R0S	2R1750 Spring Return
2RAS	2R2500 Spring Return
2RBS	2R3500 Spring Return
7	Actuator-Electric (On-Off)
WEA1	WE-350
WEA1	WE-500
WEB1	WE-690
WEC1	WE-1350
WED1	WE-1700
WEE1	WE-2640
WEF1	WE-4400
WEG1	WE-5200
WEH1	WE-6900
WEJ1	WE-10500
WEK1	WE-17500
WEL1	WE-25900

7	Actuator- Electric (Modulating)
WEA2	WEM-500
WEB2	WEM-690
WEC2	WEM-1350
WED2	WEM-1700
WEE2	WEM-2640
WEF2	WEM-4400
WEG2	WEM-5200
WEH2	WEM-6900
WEJ2	WEM-10500
WEK2	WEM-17500
WEL2	WEM-25900

7	Actuator - Pneumatic Stainless (DA)
SS1D	SS45DA Double Acting
SS2D	SS60DA Double Acting
SS3D	SS85DA Double Acting
SS4D	SS105DA Double Acting
SS5D	SS125DA Double Acting
SS6D	SS140DA Double Acting
SS7D	SS160DA Double Acting

7	Actuator - Pneumatic Stainless (SR)
SS1S	SS45SR Spring Return
SS2S	SS60SR Spring Return
SS3S	SS85SR Spring Return
SS4S	SS105SR Spring Return
SS5S	SS125SR Spring Return
SS6S	SS140SR Spring Return
SS7S	SS160SR Spring Return

8	Accessories/Options
X	No Specials
A	NEMA 4 Solenoid 120VAC
B	NEMA 7 Solenoid 120VAC
P	Pneumatic Positioner
E	Electro-Pneumatic Positioner
R	24VDC Electric Actuator
S	220VAC Electric Actuator
T	Other Voltage Electric Actuator
W	12VDC Electric Actuator
Y	24VAC Electric Actuator
	*No voltage specified on electric assemblies denotes 120VAC
Q	Nema 4 SSSolenoid 120VAC
M	Nema 7 SS Limit Switch 120VAC

9	Accessories
X	No Specials
A	NEMA 4 Limit Switch
B	NEMA 7 Limit Switch
Z	180 degree Operation
Q	Nema 4 SS Limit Switch

HOW TO ORDER AUTOMATED VALVES

1 - 2 - 3 - 4 - 5 - 6 / 7 - 8 - 9
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F - 88 - C - T - X - 100 / 2R2D - X - X

Additional Ball Valve Options and Variations

Spring Loaded Locking Handle

Adding a spring loaded component to this handle allows for secure positioning of the valve even in vertical orientations

Oval Handle

The oval shaped handle allows for operation without the chance of dislodging a standard design handle that clothing or other equipment may catch in passing by a valve.

Spring Return Fail-Safe Handle

This handle is designed for use in critical services where the open or closed position must be maintained by manual positioning. Manual release of the handle will result in spring-to-close or spring-to-open as the application requires.

Side Vented Ball Option

Vents pressure to the upstream side. Equalizes pressure in the valve caused by thermal expansion of liquid. Maintains seat seal and prevents blowout of the seats. (Stem slot is vented as standard.)

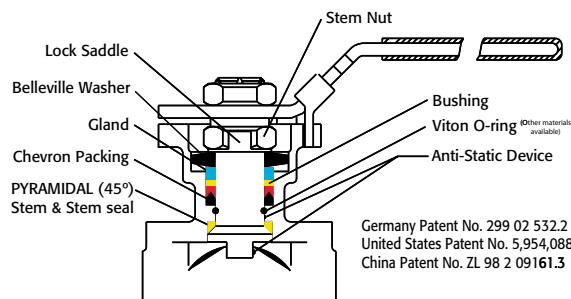
"V" Port Control Ball

"V" ported balls give better flow control properties to a traditionally round ported ball valve. They are available with a 15, 30, 60 or 90 degree "V" port. The 15 and 30 degree ports allow for finer control at lower flow rates. The 60 and 90 degree ports allow more precise control for higher Cv applications. Custom openings are also available per application. Also available in segment V-Ball.

Featuring

Pyramidal Stem Packing System

The best performing stem packing system on the market



Ball Valve Seat Materials

We offer a variety of seat materials to cover numerous flow and service applications. Below is a brief description of the seat materials. Some are stock and others are available upon special request.

RTFE

Reinforced teflon to 450°F.

Glass fiber reinforced PTFE is our standard seat material. Has chemical resistance of PTFE with the improved wear and abrasion resistance. Versatile temperature characteristics.

CTFE

15% Carbon Steel Powder/85% PTFE to 480°F.

15% carbon/graphite powder and 85%PTFE. Good for low pressure steam applications and abrasive and slurry services.

TFM-1600

To 500°F.

Second generation TFE. Offers better creep resistance. Lower coefficient of friction provides lower torque values and resists deformation. Ideal for applications requiring higher purity such as semi-conductor. Resists "popcorning" in monomer service.

PTFE

"Virgin" teflon to 400°F.

Good chemical resistance and lower torque values. Used for many general applications. Good for low cycle life applications

UHMWPE

Ultra high molecular weight polyethylene to 180°F.

UHMWPE has good abrasion resistance, good for abrasive and slurry services. Torques are significantly higher than RTFE. Good for tobacco and nuclear services.

50/50

50% SS Powder/50% PTFE to 550°F.

50% stainless steel powder and 50% PTFE give this seat material good sealing and temperature resistant properties. Good for steam and abrasive applications. Better cold flow properties than RTFE.

PEEK

Polyetherketone to 550°F.

Good chemical resistance with higher temperature tolerance.

MG1241

Graphite, Glass Fiber, TFE to 480°F.

Good for high cycle applications and abrasive service.

316SS*/Stellite

Metal Seat Good to 660°F.

Unidirectional or Bidirectional shut-off.

316SS*/Tungsten Carbide

Metal Seat good to 930°F.

Unidirectional or Bidirectional shut-off.

*Other base material available.

Triac WE / XE Series Part Number Reference

ATEX Approved
CSA Pending

Model

WE	Weather Proof
XE	Explosion Proof Design (II 2 G EEx d IIB T4)
FE	Fire Proof Unit (1050°F for 50 Min)
SE	Submersible unit (IP68, 10 meters for 72 Hours)

Control

Blank	(2) Position Control (Open / Close)
M	Standard Modulating Control Card
F	TMC3 Modulating Card Special inputs (ie. 0 to 135 Ohm Input)
D	THC1 Modulating Card Ultra precise: Provides 450 points of resolution

Actuator

-350	350 In-Lbs	-33000	33000 In-Lbs
-500	500 In-Lbs	-50000	50000 In-Lbs
-690	690 In-Lbs	-66500	66500 In-Lbs
-1350	1350 In-Lbs	-75000	75000 In-Lbs
-1700	1700 In-Lbs	-83000	83000 In-Lbs
-2640	2640 In-Lbs	-91500	91500 In-Lbs
-4400	4400 In-Lbs		
-5200	5200 In-Lbs		
-6900	6900 In-Lbs		
-10500	10500 In-Lbs		
-17500	17500 In-Lbs		
-25900	25900 In-Lbs		

Motor

X	115VAC/1PH	Place holder only - Omit when at end of part number
A	24V AC/DC	(N/A 4400 - 25900)
B	N/A	
C	24VDC	(N/A 4400 - 25900)
D	24VAC/1PH	(N/A 4400 - 25900)
E	220VAC/1PH	
F	220VAC/3PH	(N/A 500, 690)
H	380/440VAC/3PH	(N/A 500, 690)
J	460/480VAC3PH	(N/A 500, 690)

Options

X	No options	Place holder only - Omit when at end of part number
B	Semi-integral Control Unit	(N/A 500, 690)
C	Intelligent Digital Control Unit	(N/A 500, 690)
D	Local / Remote Control Switches	(Only 500, 690)
E	Electronic Speed Control Module - 115 VAC only	
F	2 Wire Control & Speed Control - 115 VAC only	
G	End of travel time delay (same in both directions)	
R	2 Wire Control, Relay - 115 VAC control voltage	
S	2 Wire Control, Relay - 24 VAC control voltage	
T	2 Wire Control, Relay - 24 VDC control voltage	

Miscellaneous Options **Note: Add all miscellaneous options to end of part number**

Blank	No options	
T	4-20mA Transmitter	
N	1000 Ohm Potentiometer	
O	5000 Ohm Potentiometer	
P	10K Ohm Potentiometer	
X	120° Operation	(N/A 17500 or 25900)
Y	180° Operation	(N/A 17500 or 25900)
Z	270° Operation	(N/A 17500 or 25900)
L	Position Indicator Lamps (Power, Open, Close, Fault)	(N/A 500, 690)
S	(2) additional limit switches (6 total)	(N/A 500, 690)
R	(2) additional torque switches (4 total)	(N/A 500, 690)
XX	Special cycle time	
	Floor Drive Mounting Configuration - Please See Acutrol Floor Drive Catalog	

Example:

WEM-1350

(Weather Proof Housing, Modulating Control, model size 1350, 115VAC / 1PH)

WEM-1350XXT

(Weather Proof Housing, Modulating Control, model size 1350, 115VAC / 1PH, 4-20mA Transmitter)

How to Order Triac Pneumatic Actuators



TRIAc Model Number Matrix for Pneumatic Actuators

Enclosures & Control

- 2 - Triac Rack & Pinion Actuator with double travel stops
- T - Triac Rack & Pinion Actuator with single travel stop (discontinued from 40 ~ 3500)

Mounting Options

- R - ISO / DIN mounting configuration
- CI - Direct mount to Centerline BFV
- K - Direct mount to Keystone / ABZ / Ultraflow BFV
- N - Direct mount to Nibco BFV
- Note: Others available, call for details

Size

- 10
- 20
- 40
- 80
- 130
- 200
- 300
- 500
- 850
- 1200
- 1750
- 2500
- 3500

- DA - Double acting configuration
- DAR - Double acting (reverse acting) configuration
- SR - Spring return fail clockwise configuration
- SO - Spring return fail counter-clockwise configuration

- Blank - Standard Buna seals
- V - Viton seals
- LT - Low temperature Buna seals

- Blank - 5 springs per side (SR & SO only)
- O - Number of spring per side (1, 2, 3, 4, 6)
(SR & SO only)

- E - Extra long travel stops

Example: **2R80SRE**

(Model 80 Rack & Pinion Actuator with Travel Stop in both directions, Spring Return fail clockwise, with Extra long travel stops)

Specials and Applied Solutions

While you have come to know A-T Controls for superior service in automated valves and day-to-day automation and controls, we specialize in offering solutions to your more unique and difficult applications. Listed below are some of the specials and solutions oriented products and services we offer.

Special End Connections

Virtually any Control Accessories

Filter Regulators

Speed Controls

Solenoids

Pneumatic Positioners

Electro-pneumatic Positioners

Dribble and "Batch" Controls

Complete Mounting and Assembly

Lockup Valves

Declutchable Gear Operators

Dump Valves

Flow Controls

Mounting Kits

Various Metallurgy

Special Coatings and Treatments

Special Tubing and Fittings

Alloy Trim



Floor Mounted Damper Drives



Limit Switches
Mounted on Manual Valves



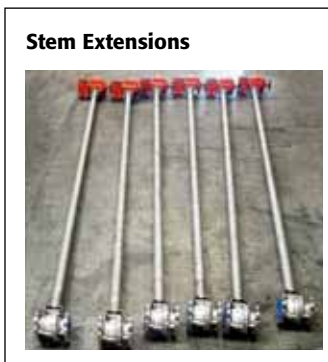
180 Actuators



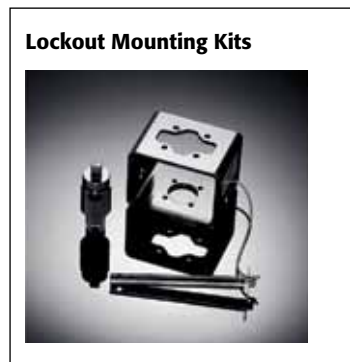
Dual Valve Assemblies



Fusible Link Assemblies



Stem Extensions



Lockout Mounting Kits

Special Seats
Balls & Seal Designs / Various handle & operator options



Steam Jackets

Product Overview

Valves, Valve Automation & Accessories




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<http://www.a-tcontrols.com>

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