











A-T Controls, Inc.

Product Overview


















Valves, Valve Automation & Accessories





















		1-Piece	2-Piece			
						
Series		SERIES 10	SERIES 20	SERIES 21C	SERIES 22	SERIES 24
General Description & Features		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
Automated Pneumatic		Not available	Not available	Not available		
Automated Electric		Not available	Not available	Not available		
Sizes		1/4" – 2"	1/4" – 3"	1/4" – 2"	1/4" – 3"	1/4" - 2"
Port		Reduced	Full	Reduced	Full	See brochure
Direct Mount		No	No	No	Yes	Yes
Pyramidal Stem Packing		No	No	No	Yes	Yes
Body Materials		316SS	316SS	WCB	316SS	316SS
Trim Material		316SS	316SS	316SS	316SS	316SS
Available Seats		RTFE	RTFE	RTFE	RTFE, call for others	Delrin, PEEK
End Connections		Threaded	Threaded	Threaded	Threaded	Threaded
Max Pressure Rating		2000 psi	1000 psi	1000 psi	1000 psi	3000 psi
Options		None	Vented Ball	Vented Ball	Call factory	NACE MR0175, Vented ball, Others call factory
TA-Luft Certified		No	No	No	Yes	No





















TA-Luft Certified
















3-Piece					
					Series
SERIES 55	SERIES 8R/83	SERIES F8R/F83	SERIES 88	SERIES F88	
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	General Description & Features
					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

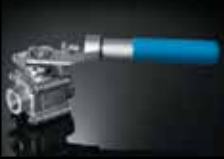


	3-Piece	150# Flanged				150# & 300# Flanged
Series						
	SERIES 77	SERIES 90 & 93	SERIES F90	SERIES F91	SERIES D9	SERIES FD9
General Description & Features	Cavity and non-cavity filled 3 piece, sanitary clamp or tube OD ends	150# flanged 2-piece, full port, with pyramidal stem packing	Firesafe 150# 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
Automated Pneumatic						
Automated Electric						
Sizes	1/2" – 4"	1/2" – 12"	1/2" – 4"	1/2" – 6"	1/2" – 8"	1/2" – 8"
Port	Full	Full	Full	Regular	Full	Full
Direct Mount	Yes	No	No	Yes	Yes	Yes
Pyramidal Stem Packing	Yes	Yes	Yes	Yes	Yes	Yes
Body Materials	316L	316SS, WCB & Alloy 20	316SS & WCB	316SS & WCB	316SS & WCB	316SS & WCB
Trim Material	316L	316SS	316SS	316SS	316SS, Monel & Hastelloy C	316SS, Monel & Hastelloy C
Available Seats	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
End Connections	Sanitary clamp, tube OD	150# Flanged	150# Flanged	150# Flanged	150# Flanged	150# and 300# Flanged
Max Pressure Rating	1000 psi	285 psi	285 psi	285 psi	285 psi	740 psi
Options	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








TA-Luft
Certified

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
						
Series	TB SERIES	V SERIES	VS & VM SERIES	WB SERIES	C8/CR SERIES	FM
General Description & Features	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
Automated Pneumatic				NA		
Automated Electric				NA		Not Available
Sizes	2", 3", 4"	1/2" - 6"	1" - 12"	1/2" - 2"	1/2" - 2"	1/4" - 6"
Port	Full	30°, 60°, others on request	Segmented	Full	Full + Regular	Full
Direct Mount	No	Some	No	No	Yes	Yes
Pyramidal Stem Packing	No	Yes	No	No	Yes	Yes
Body Materials	316SS	316SS & WCB	CF8M, WCB, 317SS, Duplex and more	316SS	316SS	316SS & WCB
Trim Material	316SS	316SS	See spec. sheet	316SS	316SS	316SS
Available Seats	RTFE, PTFE, 50/50, 15% CTFE, others on request	RTFE, PTFE, 50/50, call with application	Soft or Metal	CTFE	PCTFE	RTFE
End Conne- ctions	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
Max Pressure Rating	1000 psi	See spec. sheets	See spec. sheet	2000 PSI	See spec. sheet	See spec. sheet
Options	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		Pneumatic Rack & Pinion Actuators		Electric Actuators	
					
Series	SRH	Series	2R, 2K, 2CI SERIES	WE/XE/SE SERIES	E SERIES
General Description & Features	Fail-safe handle for manual valve operation	General Description & Features	Thirteen sizes of pneumatic actuators	Eighteen sizes of electric actuators On-off & modulating	Thirteen sizes of electric actuators On-off & modulating
Sizes	1/4" – 1-1/2"	Models	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
		Variations	Various mounting dimensions	On-off & modulating	On-off & modulating
		Types	Eleven sizes rack & pinion, two sizes scotch yoke	NEMA 4, 4X, Explosion-proof ATEX, CSA Pending, submersible, IP68 10M 72HR	NEMA 4, 4X
		Materials	Hard anodized aluminum body	Die cast aluminum Epoxy coated enclosure	Die cast aluminum Epoxy coated enclosure
		Features	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
		Options	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
2	Valve Series	BW	Buttweld Ends	R	Reduced Port Valve
10	1pc. Reduced Port 2000#	EW	Extended Butt Weld Ends	O	Oval Handle (available on some)
20	2pc. Full Port 2000#	F1	150# Flanged Ends	S	Spring Return Handle (Direct mount Only)
21	2pc. Reduced Port 1000#	F3	300# Flanged Ends		
22	2pc. Direct Mount 1000/800# Full Port	F6	600# Flanged Ends	8	Additional Specials
24	2pc. 3000#	FR	600# RTJ Flanged Ends	X	No Specials
30	3-Way Flanged Full Port	SA	Sanitary Ends	O	Oxygen Cleaned
33	3,4,5-Way Full Port, Multiport	SF	Sanitary w/Cavity Filler	Z	Special End Configuration
38	3-Way Threaded Reduced Port	DF	Tube O.D. w/Cavity Filler	V	Vented Ball
55	3pc. 1000# Full Port	DA	Tube O.D. Ends	F	Fugitive Emissions Bonnet
77	3pc. 1000# Full Port Sanitary	TE	Threaded x Extended Butt Weld	D	Degrease & Bagged
83	3pc. 2000/1500# Full Port	TS	Threaded x Socket Weld		
8R	3pc. 2000/1500# Regular Port	QQ	Tube Socket Weld	9	Control Valve or Special Stem Designation
88	3pc. Direct Mount 2000/1500# Full Port	W1	150# Wafer	3	30° V-Port (v-ball)
R8	3pc. Direct Mount 2000/1500# Reduced Port	W3	300# Wafer	6	60° V-Port (v-ball)
90	2pc. Flanged Full Port (Investment Cast)	W6	600# Wafer	9	90° V-Port (v-ball)
91	Unibody Reduced Port Flange	5	Valve Size	Blank	No Designation = 316 SST Stem
93	2pc. Flanged Full Port (Sand Cast)	0025	1/4"	A	17-4PH Stem
V8	3pc. V Port	0038	3/8"	B	XM-19 (Nitronic 50) Stem
V9	Flanged V Ports	0050	1/2"	C	Duplex 2205 Stem
D9	Direct Mount Flanged	0075	3/4"	D	Inconel 718 Stem
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		
VM	Segment V-Port, Metal	P	Virgin TFE		
WB	Well Head Block and Bleed	U	UHMWE Seats		
		D	Delrin		
3	Body Material	S	50% SS Powder/ 50% TFE Seats		
Blank	No Designation=Stainless Steel Body and Trim	C	15% CS Powder/ 85% TFE Seats		
A	Alloy 20	T	TFM-1600		
C	Carbon Steel Body	L	PFA Lined		
L	Low Carbon 316 Stainless Steel	M	MG1241		
H	Carbon Body /Hastelloy Ball & Stem	Z	Peek		
Q	Carbon Steel Body/Monel Ball & Stem	2	Tungsten Carbide Coated		
R	316 SST Body/Monel Ball & Stem		316SS Seats & Ball		
E	Electropolished Stainless Steel	3	HCR Coated Ball/Stellite Inlay Seat		
Z	Epoxy Coated Carbon Steel	4	Chrome Carbide Coated		
7	CG8M 317 SST		316SS Seats & Ball		
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	5	(cont.) Seat, Lining & Trim Materials	7	Actuator- Electric (Modulating)
F	Firesafe Tested	2	Tungsten Carbide Coated	WEA2	WEM-500
			316SS Seats & Ball	WEB2	WEM-690
2	Valve Series	4	Chrome Carbide Coated	WEC2	WEM-1350
10	1pc. Reduced Port 2000#		316SS Seats & Ball	WED2	WEM-1700
20	2pc. Full Port 2000#	L	PFA Lined	WEE2	WEM-2640
21	2pc. Reduced Port 1000#			WEF2	WEM-4400
22	2pc. Direct Mount 1000/800# Full Port	6	Valve Size	WEG2	WEM-5200
24	2pc. 3000#	025	1/4"	WEH2	WEM-6900
30	3-Way Flanged Full Port	038	3/8"	WEJ2	WEM-10500
33	3,4,5-Way Full Port, Multiport	050	1/2"	WEK2	WEM-17500
38	3-Way Threaded Reduced Port	075	3/4"	WEL2	WEM-25900
55	3pc. 1000# Full Port	100	1"		
77	3pc. 1000# Full Port Sanitary	125	1-1/4"	7	Actuator - Pneumatic Stainless (DA)
83	3pc. 2000/1500# Full Port	150	1-1/2"	SS1D	SS45DA Double Acting
8R	3pc. 2000/1500# Regular Port	200	2"	SS2D	SS60DA Double Acting
88	3pc. Direct Mount 2000/1500# Full Port	250	2-1/2"	SS3D	SS85DA Double Acting
R8	3pc. Direct Mount 2000/1500# Reduced Port	300	3"	SS4D	SS105DA Double Acting
90	2pc. Flanged Full Port (Investment Cast)	400	4"	SS5D	SS125DA Double Acting
91	Unibody Reduced Port Flange	600	6"	SS6D	SS140DA Double Acting
93	2pc. Flanged Full Port (Sand Cast)	800	8"	SS7D	SS160DA Double Acting
V8	3pc. V Port	AAA	10"		
V9	Flanged V Ports	BBB	12"	7	Actuator - Pneumatic Stainless (SR)
D9	Direct Mount Flanged			SS1S	SS45SR Spring Return
LB	2pc. Fully Lined Ball Valve	7	Actuator-Pneumatic (DA)	SS2S	SS60SR Spring Return
LD	Fully Lined Diaphragm Valve	TRYD	TR10 Double Acting	SS3S	SS85SR Spring Return
T5	Tank Bottom 3 pc.	TR1D	TR20 Double Acting	SS4S	SS105SR Spring Return
		2R2D	2R40 Double Acting	SS5S	SS125SR Spring Return
3	Body Material	2R3D	2R80 Double Acting	SS6S	SS140SR Spring Return
Blank	No Designation=Stainless Steel Body and Trim	2R4D	2R130 Double Acting	SS7S	SS160SR Spring Return
A	Alloy 20	2R5D	2R200 Double Acting		
C	Carbon Steel Body	2R6D	2R300 Double Acting	8	Accessories/Options
L	Low Carbon 316 Stainless Steel	2R7D	2R500 Double Acting	X	No Specials
H	Carbon Body /Hastelloy Ball & Stem	2R8D	2R850 Double Acting	A	NEMA 4 Solenoid 120VAC
Q	Carbon Steel Body/Monel Ball & Stem	2R9D	2R1200 Double Acting	B	NEMA 7 Solenoid 120VAC
R	316 SST Body/Monel Ball & Stem	2R0D	2R1750 Double Acting	P	Pneumatic Positioner
E	Electropolished Stainless Steel	2RAD	2R2500 Double Acting	E	Electro-Pneumatic Positioner
Z	Epoxy Coated Carbon Steel	2RBD	2R3500 Double Acting	R	24VDC Electric Actuator
		7	Actuator-Pneumatic (SR)	S	220VAC Electric Actuator
4	End Connection	TR1S	TR20 Spring Return	T	Other Voltage Electric Actuator
T	Threaded Ends	2R2S	2R40 Spring Return	W	12VDC Electric Actuator
S	Socket Weld Ends	2R3S	2R80 Spring Return	Y	24VAC Electric Actuator
B	Buttweld Ends	2R4S	2R130 Spring Return		*No voltage specified on electric assemblies denotes 120VAC
E	Extended Butt Weld Ends	2R5S	2R200 Spring Return	Q	Nema 4 SSSolenoid 120VAC
F	150# Flanged Ends	2R6S	2R300 Spring Return	M	Nema 7 SS Limit Switch 120VAC
3	300# Flanged Ends	2R7S	2R500 Spring Return		
6	600# Flanged Ends	2R8S	2R850 Spring Return	9	Accessories
R	600# RTJ Flanged Ends	2R9S	2R1200 Spring Return	X	No Specials
C	Sanitary Ends *Sanitary refers to clamp style ends	2R0S	2R1750 Spring Return	A	NEMA 4 Limit Switch
D	Tube O.D.Ends	2RAS	2R2500 Spring Return	B	NEMA 7 Limit Switch
M	Threaded x Socket Weld	2RBS	2R3500 Spring Return	Z	180 degree Operation
Q	Tube Socket Weld	7	Actuator-Electric (On-Off)	Q	Nema 4 SS Limit Switch
5	Seat, Lining & Trim Materials	WEX1	WE-350		
I	Valve Series Standard	WEA1	WE-500		
X	Reinforced TFE Seats	WEB1	WE-690		
P	Virgin TFE	WEC1	WE-1350		
U	UHMWE Seats	WED1	WE-1700		
D	Delrin	WEE1	WE-2640		
S	50% SS Powder/ 50% TFE Seats	WEF1	WE-4400		
C	15% CS Powder/ 85% TFE Seats	WEG1	WE-5200		
T	TFM-1600	WEH1	WE-6900		
M	MG1241	WEJ1	WE-10500		
Z	Peek	WEK1	WE-17500		
F	TFE Cavity Filler	WEL1	WE-25900		

HOW TO ORDER AUTOMATED VALVES

1 - 2 - 3 - 4 - 5 - 6 / 7 - 8 - 9
 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
 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.)

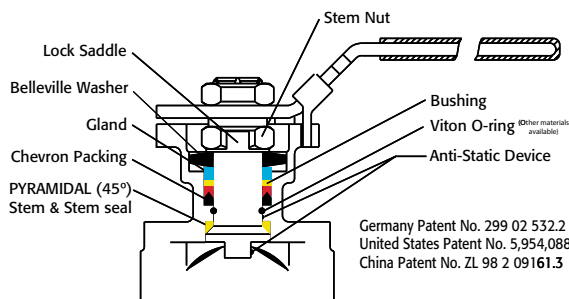
"V" Port Control Ball

"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



AT
A-T Controls, Inc.

9955 International Blvd.
Cincinnati, Ohio 45246
P: 513 - 247 - 5465
F: 513 - 247 - 5462
sales@atcontrols.com
www.atcontrols.com

05212012PO