



ISO 9001 / ISO 14001

AGE[®]

Pneumatic Control Valves



PNEUMATIC ON OFF GLOBE VALVE

Model No. **AGE30** SERIES

Specifications

BODY

Type	2-way globe valve, 3-way globe valve
Size	15A(1/2")~400A(16")
Pressure rating	JIS 10K~63K, ANSI 150#~900#, PN10~25, etc.
End connection	FF, RF, BW, SW
Materials	Ductile iron, Cast steel, Stainless steel, etc.
Bonnet	Plain bonnet: -17°C~230°C Extended bonnet: -45°C~-17°C, 230°C~566°C
Gland type	Self adjusting type
Packing	Concave PTFE packing with back-up ring & spring Asbestos yarn with spring Graphite with stainless steel back up ring

TRIM

Flow characteristics	Quick opening
Material	Plug Hard faced SUS304/316/410, etc. Seat Metal : Hard faced SUS304/316/410, etc. Soft : Filled TFE, etc. Stem SUS304/ 316/ 410, etc.
Seat leakage	Metal seat : ANSI Class IV Soft seat : ANSI Class VI

ACTUATOR

Actuator type	Multi spring cylinder / Diaphragm
Operating type	Direct acting, reverse acting,
Material	Cylinder : AC4C-T6, Die-cast Aluminum / SS41 Piston : AC4C-T6 Piston ring : Nbr lip ring (commercially available) Diaphragm : H-Nbr
Air supply	Cylinder type: 4~7kg/cm ² Diaphragm type: 2~3kg/cm ²
Air connection	Rc1/4", Rc3/8", Rc1/2"
Ambient temperature	-20°C~ 80°C

ACCESSORY

Limit switch, Proximity switch, Solenoid valve, Air set, Speed controller, Lock up valve, Volume booster, Manual handle



PNEUMATIC ON OFF BUTTERFLY VALVE

Model No. AGE30 SERIES

AGE30 series double rack rotary actuator provides the solutions to high frequency operating, higher speed for specific, service, volume and weight and torque rating problem, unique design of parallel scotch yoke insures linear torque curve and linear piston force to prevent any abrasion of piston guide and cylinder wall.

Cast triple guided piston and pin and roller overcome higher torque demand, corrosion resistance and possible mechanical shock caused by considerable dynamic torque especially on butterfly valve service.

Specifications

BODY

Type	Rubber seated, high performance, metal seated type
Size	25A(1") ~ 3200A(128")
Pressure rating	JIS 10K~63K, ANSI 150#~900#, PN10~25, etc.
End connection	Wafer, Lug, Flange, etc.
Materials	Ductile iron, Cast steel, Stainless steel, etc.
Gland type	Non adjusting
Packing	Concave PTFE packing with back-up ring & spring Asbestos yarn with spring Graphite with stainless steel back up ring

TRIM

Flow characteristics	On off
Material	Disc: SCS13, SCS14, etc. Seat: r-TFE, PTFE, SUS304, rubber, etc. Stem: SUS304/ 316/ 410, etc.
Seat leakage	Metal seat: ANSI Class IV Soft seat: ANSI Class VI

ACTUATOR

Actuator type	Multi spring cylinder(rack & pinion gear, scotch yoke)
Operating type	Spring return, double acting
Material	Housing : Aluminum alloy Piston : Die-cast aluminum(101A) Cover : Die-cast aluminum(ADC12)
Air supply	4~7kg/ cm ²
Air connection	Rc1/4", Rc3/8", Rc1/2"
Ambient temperature	-20°C~80°C

ACCESSORY

Limit switch box, Proximity switch box, Solenoid valve, Air set, Speed controller, Lock up valve, Volume booster, Manual handle Quick adjust valve, etc



PNEUMATIC STEP ON OFF BUTTERFLY VALVE

Model No. AGE32 SERIES

AGE32 series pneumatic on off control valves provide mechanical step start or close function on AGE30 series to avoid any possible water hammer in water shut off service with standard butterfly or ball valve body. Self step function protect facilities and provides long service life. The pause time can easily be set and modified on field service.

Specifications

BODY

Type	High performance
Size	50A(2") ~ 3200A(128")
Pressure rating	JIS 10K~63K, ANSI 150#~900#, PN10~25, etc.
End connection	Wafer, Lug, Flange, etc.
Materials	Ductile iron, Cast steel, Stainless steel, etc.
Gland type	Non adjusting
Packing	Concave PTFE packing with back-up ring & spring Asbestos yarn with spring Graphite with stainless steel back up ring

TRIM

Flow characteristics	Step On off
Material	Disc: SCS13, SCS14, etc Seat: r-PTFE, PTFE, SUS304, rubber, etc. Stem: SUS304/ 316/ 410, etc.
Seat leakage	ANSI Class VI

ACTUATOR

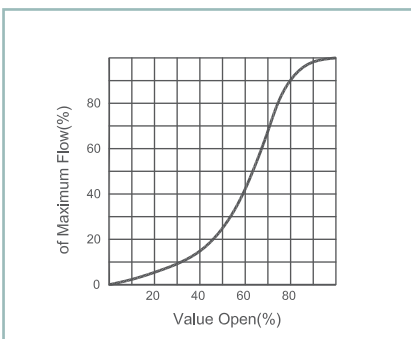
Actuator type	2-Step Double rack & pinion gear, 2-Step single rack swivel
Operating type	Double acting
Air supply	4~7kg/cm ²
Air connection	Rc1/4", Rc3/8", Rc1/2"
Ambient temperature	-20°C ~ 80°C

ACCESSORY

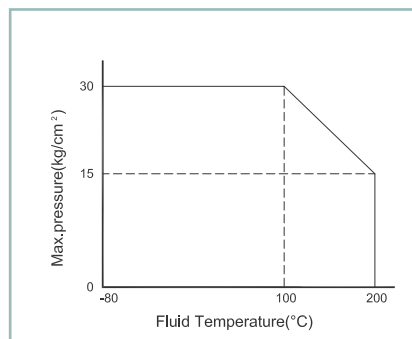
Step control box, Limit switch box, Solenoid valve, Air set, Speed controller, Lubricator, Manual handle, Quick adjust valve etc.



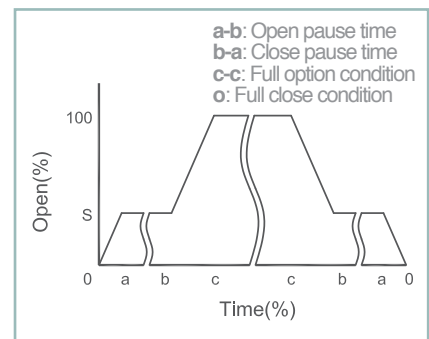
FLOW CHARACTERISTICS



PRESSURE/TEMPERATURE RATING CURVE



PERFORMANCE and OPERATING



SELF STEP ADJUSTMENT TIME TABLE 0~10sec (< order made)

PNEUMATIC CONTROL GLOBE VALVE

Model No. AGE33 SERIES

AGE33 series cylinder actuated globe valve provides high shut off differential pressure rating, excellent tightness, compact and light weight. High thrust such stiffness than comparable diaphragm actuator offer higher positioning accuracy and repeatability. Unique design of actuator allows simple and easy maintenance.

Specifications

BODY

Type	2-way globe valve, 3-way globe valve
Size	15A(1/2") ~ 300A(12")
Pressure rating	JIS 10K~63K, ANSI 150#~900#, PN10~25, etc.
End connection	FF, RF, BW, SW
Materials	Ductile iron, Cast steel, Stainless steel, etc.
Bonnet	Plain bonnet: -17°C~230°C Extended bonnet: -45°C~17°C, 230°C~566°C
Gland type	Self adjusting type
Packing	Concave PTFE packing with back-up ring & spring Asbestos yarn with spring Graphite with stainless steel back up ring

TRIM

Plug type	Single seated, contoured type plug, pressure balanced plug
Flow characteristics	Eq % : metal seat(refer to Fig. 1) : soft seat (refer to Fig. 2) Linear : metal seat, soft seat
Material	Plug: Hard faced SUS304/ 316/ 410, etc. Seat: Metal: Hard faced SUS304/ 316/ 410, etc. Soft: Filled TFE, etc. Stem: SUS304/316/410, etc.
Seat leakage	Metal seat: ANSI Class IV Soft seat: ANSI Class VI
Rangeability	30:1, (50:1, 100:1 are order made)

ACTUATOR

Actuator type	Multi spring cylinder / Diaphragm
Operating type	Direct acting, reverse acting,
Material	Cylinder: AC4C-T6, Die-cast Aluminum / SS41 Piston: AC4C-T6 Piston ring: Nbr lip ring (commercially available) Diaphragm: H-Nbr
Air supply	Cylinder type: 4~7kg/cm ² Diaphragm type: 2~3kg/cm ²
Air connection	Rc1/4", Rc3/8", Rc1/2"
Ambient temperature	-20°C~80°C

ACCESSORY

Positioner	E/P, P/P, Smart type, etc.
Air set	Filter + regulator, Lubricator, etc.
Manual handle	Top, Side mounted
Etc.	Lock up valve, volume booster, etc.

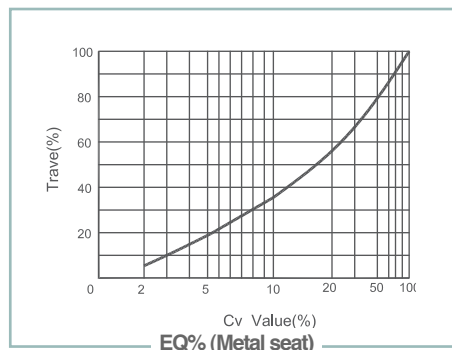
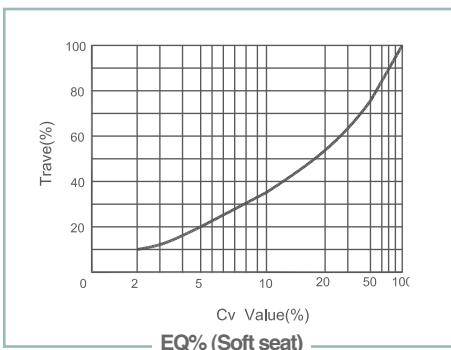


PNEUMATIC CONTROL GLOBE VALVE

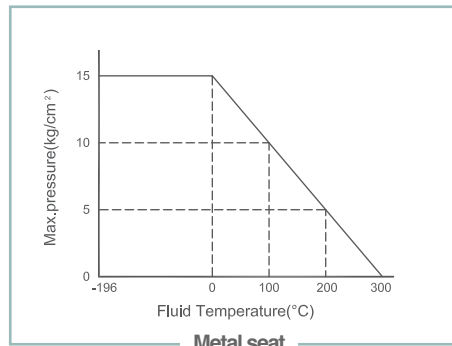
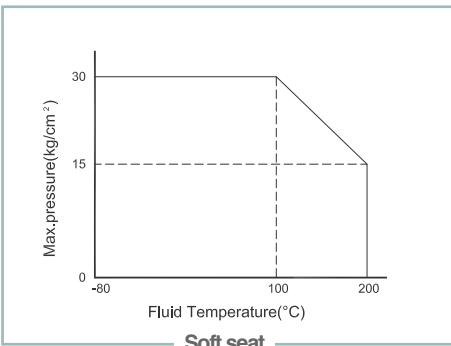
Cv VALUE and STROKE

Cv	2.2	3	4.1	6.8	11	15	23	34	45	53	75	120	210	290	400	620	990																								
Seat dia	8	10	12	15	20	25	32	40	50	65	80	100	125	150	200	250	300																								
Valve size(mm)	15		20			25			32			40			50			65			80			100			125			150			200			250			300		
Stroke(mm)	25												60						100																						
Diff.Pressure (kg/cm ²)	40						24			19			16			10			6																						

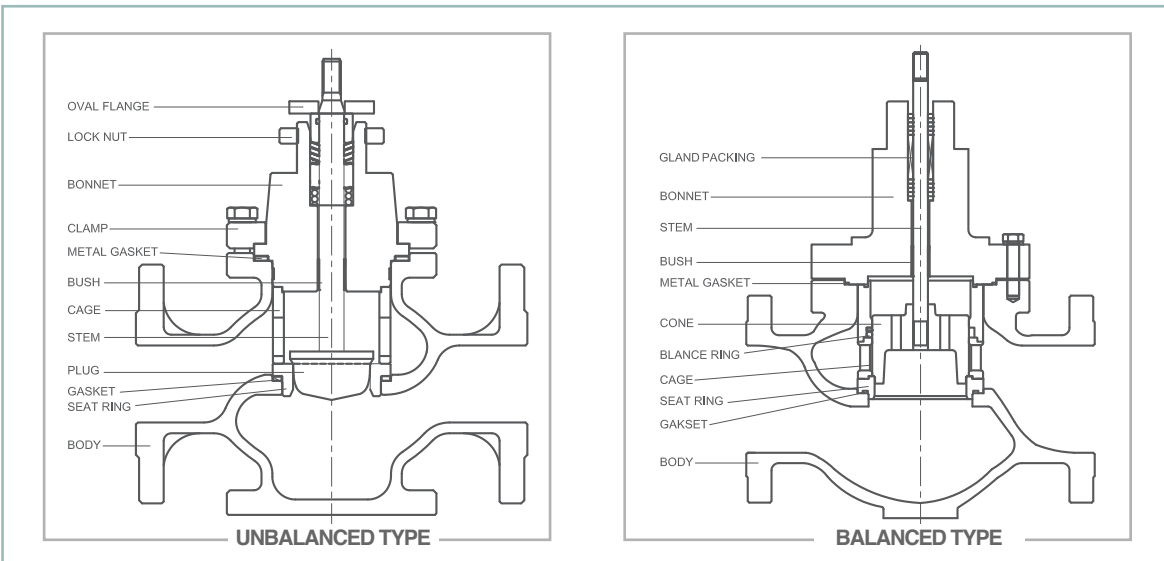
FLOW CHARACTERISTICS



OPERATING TEMPERATURE and PRESSURE DROP



BODY CONSTRUCTION



PNEUMATIC CONTROL BUTTERFLY VALVE

Model No. AGE33 SERIES

AGE33 series double rack rotary actuator provides the solutions to high frequency operating, higher speed for specific service, volume and weight and torque rating problem, unique design of parallel scotch yoke insures linear torque curve and linear piston force to prevent any abrasion of piston guide and cylinder wall. Cast triple guided piston and pin & roller overcome higher torque demand, corrosion resistance and possible mechanical shock caused by considerable dynamic torque especially on butterfly valve service.

- Compact and light weight valve body offers low cost and space.
- Parallel scotch yoke design provides even torque characteristics.
- Double rack design of actuator provides higher torque and travel speed.

Specifications

BODY

Type	Rubber seated, high performance, metal seated type
Size	25A(1") ~ 3200A(128")
Pressure rating	JIS 10K~63K, ANSI 150#~900#, PN10~25, etc.
End connection	Wafer, Lug, Flange, etc.
Materials	Ductile iron, Cast steel, Stainless steel, etc.
Gland type	Non adjusting
Packing	Concave PTFE packing with back-up ring & spring Asbestos yarn with spring Graphite with stainless steel back up ring

TRIM

Flow characteristics	Standard butterfly, Let down trim
Material	Disc: SCS13, SCS14, etc Seat: r-TFE, PTFE, SUS304, rubber, etc. Stem: SUS304/ 316/ 410, etc.
Seat leakage	Metal seat: ANSI Class IV Soft seat: ANSI Class VI

ACTUATOR

Actuator type	Double rack & pinion gear, scotch yoke
Operating type	Spring return, double acting
Material	Housing : Aluminum alloy Piston : Die-cast aluminum(101A) Cover : Die-cast aluminum(ADC12)
Air supply	4~7kg/cm ²
Air connection	Rc1/4", Rc3/8", Rc1/2"
Ambient temperature	-20 °C~ 80 °C

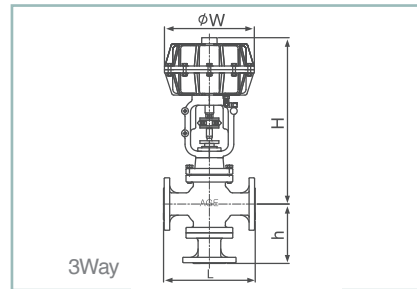
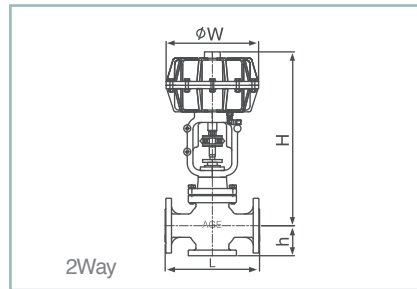
ACCESSORY

Positioner	E/P, P/P, Smart type, etc.
Air set	Filter + regulator, lubricator, etc.
Manual handle	Side mounted
Etc.	Lock up valve, volume booster, etc.



DIMENSION

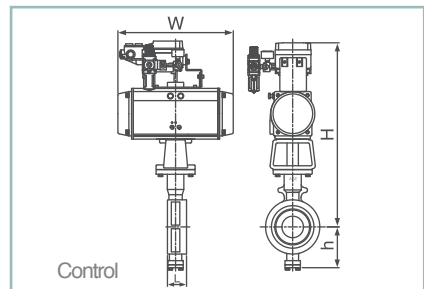
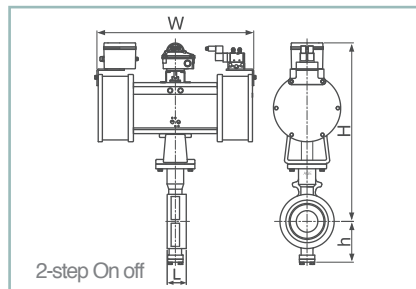
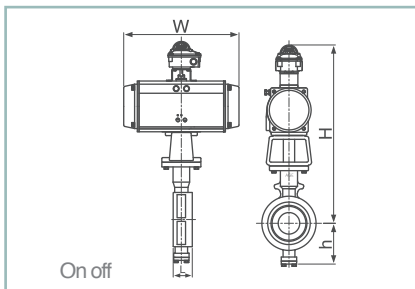
GLOBE VALVE



(Unit: mm)

mm	inch	2-Way globe valve						3-Way globe valve					
		L		h	H	W	kg	L		h	H	W	kg
		10k	20k					10k	20k				
15	½"	180(156)	190(160)	70	476	262	24	180	190	145	478	262	28
20	¾"	180(160)	190(194)				24	180	190	145	478	262	28
25	1"	184(160)	197(197)	70	476	262	25	184	197	145	478	262	29
32	1¼"	222	235	88	496	262	35	222	235	171	496	262	40
40	1½"	222	235	88	496	262	35	222	235	171	496	262	40
50	2"	254	267	88	496	262	48	254	267	175	496	262	54
65	2½"	276	292	100	577	320	57	276	292	198	577	320	65
80	3"	298	317	111	608	320	64	298	317	219	608	320	74
100	4"	352	368	123	718	420	105	352	368	242	744	420	122
125	5"	403	425	156	739	420	135	403	425	280	739	420	158
150	6"	451	473	161	746	420	150	451	473	327	770	420	178
200	8"	543	568	175	853	480	225	543	568	370	853	480	259
250	10"	673	708	214	912	480	330	673	708	450	912	480	372
300	12"	737	775	257	924	480	500	737	775	500	924	480	552

HP BUTTERFLY VALVE



(Unit: mm)

mm	inch	FCD	SCPH2	On off				2-step On off				Control			
		L	h	H	W	kg	h	H	W	kg	h	H	W	kg	
50	2"	44	44	71	445	184	7.8	71	446	304	10	71	480	204	10
65	2½"	44	44	82	457	204	9.7	82	459	304	20	82	491	262	20
80	3"	46	46	84	475	262	11.4	84	473	410	20	84	517	268	20
100	4"	52	52	96	532	268	13.6	96	499	416	20	96	580	301	20
125	5"	62	56	144	586	301	22.5	144	586	449	30	144	629	390	30
150	6"	62	56	164	599	301	32.4	164	599	449	40	164	642	390	40
200	8"	84	64	201	691	390	52.4	201	691	495	60	201	742	458	60
250	10"	91	68	240	766	458	61.3	240	766	495	80	240	825	525	80
300	12"	101	78	275	856	525	92.6	275	856	540	110	275	907	532	110
350	14"	114	78	300	924	532	132	300	924	540	160	300	984	602	160
400	16"	114	102	310	954	602	168	310	957	575	210	310	1017	722	210
450	18"	114	114	361	1003	602	195	361	1013	720	230	361	1066	722	230
500	20"	127	127	392	1050	722	262	392	1050	810	320	392	1076	722	320
550	22"	154	154	415	1059	722	356	415	1059	810	410	415	1085	722	410
600	24"	154	154	445			420	445	1112	950	470	445	1300	800	470

Dimensions and design are subject to change without notice. Request certified drawings for use in preparing piping layouts.