CONTROL VALVE STANDARD SPECIFICATION

BALL VALVE

YABC-112F1 Series

ISO 9001/KSA9001

http://www.proval.co.kr

PROVAL Co., Ltd.

[C-2]

CONCENTRIC 2-WAY, 3-WAY BALL VALVES

☞ GENERAL

The PROVAL provides 2-Way ball valves with a special inner valve which can be fully opened or closed by simply causing the stem to make a 90° turn.

The off take from a ball valve, when totally opened, has same bore as the pipeline and its fluid resistant is negligible. For this reason, this automatic valve is best suited to on-off service, controlling various types of liquid, gas and slurry.

The PROVAL 3-Way ball valves are available in two types. The diverting type (L) splits flow by switching between two directions of inlets while the converging type (T) mixes two fluids by switching between two outlets. Both of those moves are made with a mere quarter turn of the stem.

☞ FEATURES

• Both directions – The valve is tight in both directions owing to its Symmetrical construction, which often, means double life time.

• Dynamic self-adjusting center-line – Tolerance between body and seat allows the ball to maintain its position.

• Low torque for Easier operation – Easy to manually operated and cost-saving for actuation.

• High capacity – When the valve is fully open, its flow resistance is at the minimum possible, it is equivalent to straight pipe.

• No leakage – The Teflon seat valves, no visible leakage is allowed.

☞ STANDARD SPECIFICATION

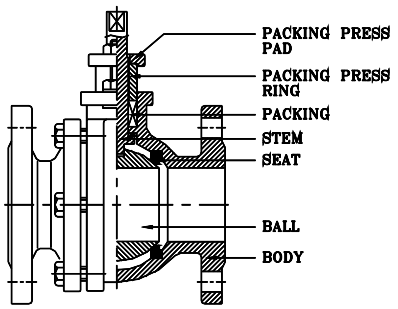
Model No.		2-way	YABC-112F1(Single Acting Type), YABC-312F1 (Double Acting Type)															
		3-way	YABC-112L1, 112T1(Single Acting Type), YABC-312L1, 312T1 (Double Acting Type)															
Valve Type			Cylinder actuator operated 2-way ball valve.															
BODY	Valve Size	(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500
		(inch)	½	¾	1	1¼	1½	2	2½	3	4	5	6	8	10	12	14	16	20
	Pressure Rating		ANSI 150# ~ 2500# / 10K ~ 60K,															
	End Connections		Flanged end: FF, RF, RTJ, M/F(female), T/G(female). ※Welding end: SW, BW.															
	Body Materials		A216-WCB, A351-CF8, CF8M, CF3, CF3M															
	Operating Temperature	Soft seat	-20°C to 180°C															
		Metal seat	-50°C ~ 800°C															
	Guide		Top guide / Top & Bottom guide															
	Gland Packing		V-PTFE, Grapoil															
	Gasket		Asbestos, PTFE, SUS316 + Graphite spiral wound, Other alloy steels.															
	Painting Color		Standard is silver. In the case of stainless, flange is not painted.															
	Trim Materials		See “MATERIAL DATA” page 4															
PERFORMANCE	Valve Action		Normal open / close type															
	Rated Cv Value		See page “FLOW CHARACTERISTICS” page 5															
	Flow Characteristics		See page “FLOW CHARACTERISTICS” page 5															
	Allowable Seat Leakage Ratio	Soft trim	ANSI B16. 104 Class VI															
		Metal trim	ANSI B16. 104 Class III ※Tight shut off – ANSI B16. 104 Class IV															
ACTUATOR	Model		B0S(R) ~ R12S															
	Actuator Type		Pneumatic rotary cylinder															
	Actuator Size		Ø50 ~ Ø400															
	Operating Angle		0° ~ 90°															
	Supply Air Pressure kPa (kgf/cm²G)		Double Action : 400~700 (4.0 ~ 7.0)															
			Spring Return : 500~700 (5.0 ~ 7.0)															
	Ambient Temperature		-10°C ~+70°C (※0°C ~ +100°C)															
	Painting Color		Standard is Blue (Anodizing or Epoxy)															
	Accessory		Solenoid Valve, Air-set, Speed Controller, Lock-up valve, Limit Switch & Box, Booster relay, Proximity Switch, Silencer, Manual handle, etc.															

[Notes] (1) Valve performance is represented under the condition of standard packing (V-PTFE).
(2) ※: Manufactured and attached as according to customer’s order.

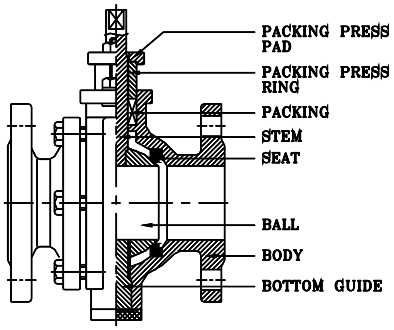
※ Optional special specifications (additional cost is required)	
• Oxygen clean	• Special piping & Fitting
• Cold area proof	• 2-step position
• Fire safe type	• Jacket type

☞ STRUCTURE

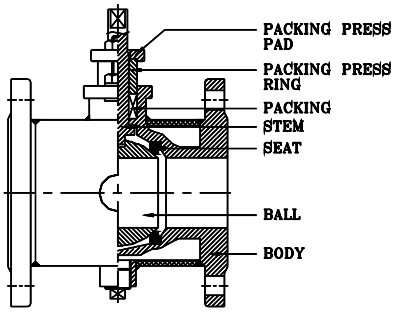
1. 2-Way Ball Valve Body Section View



Straight through Floating Type

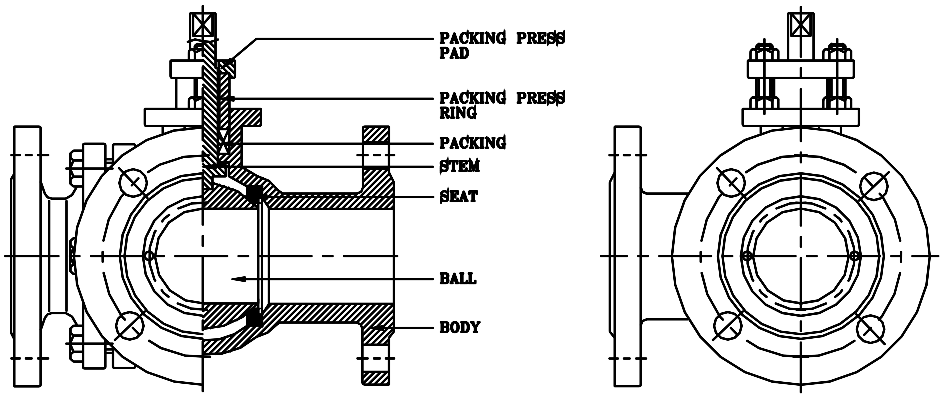


Straight through Trunnion Type

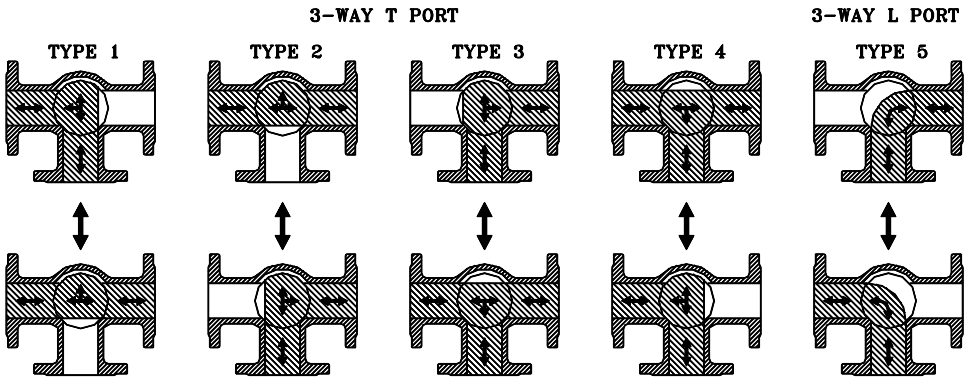


Steam Jacket Type

2. 3-Way Ball Valve Body Section View



3. 3-Way Ball Valve Operation Form



☞ MATERIAL DATA

1. Combining the ball valve Body and trim material.

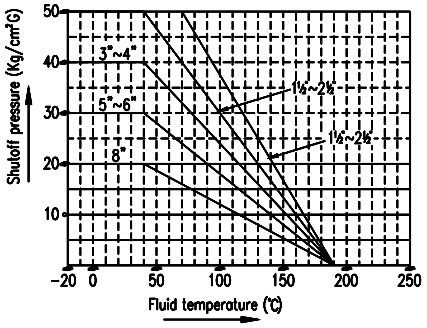
1-1 Soft seat ring type

Parts Name		Materials			
Body, Bonnet		A216-WCB	A351-CF3M	A351-CF8M	A351-CF3, CF8
Trim	Ball	A351-CF8 (SUS304) + Buffing, A351-CF8 (SUS304) + H.cr plated A351-CF8M (SUS316) + Buffing, A351-CF8M (SUS316) + H.cr plated			A351-CF3M(SUS316L) + H.cr plated
	Seat Ring	PTFE , RTFE (Reinforced Teflon) , RTFE (Carbon fiber filled Teflon)			
	Stem	SUS304, SUS316			SUS316L
Packing & Lantern Ring		SUS304, SUS316			SUS316L
Gland		SUS304			
Stud Bolt & Nut		SNB7/S45(H)	SUS304		

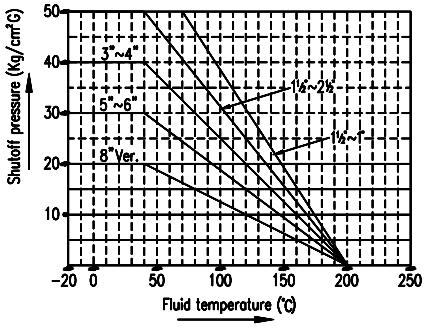
1-2 Metal seat ring type

Parts Name		Materials			
Body, Bonnet		A216-WCB	A351-CF3M	A351-CF8M	A351-CF3, CF8
Trim	Ball	A351-CF8(SUS304)+Hard ion N & Chrome plated, A351-CF8 (SUS304)+Stellite face A351-CF8M (SUS316)+Hard ion N & Chrome plated, A351-CF8M (SUS304)+Stellite face			A351-CF3M (SUS316L) + Hard ion. N&Chrome plated or + Stellite face
	Seat Ring	SUS316 + Stellite face			SUS316L+Stellite face
	Stem	SUS316 + Hard Chrome plated			SUS316L+Hard Chrome plated
Packing & Lantern Ring		SUS304, SUS316			SUS316L
Gland		SUS304			
Stud Bolt & Nut		SUS304			

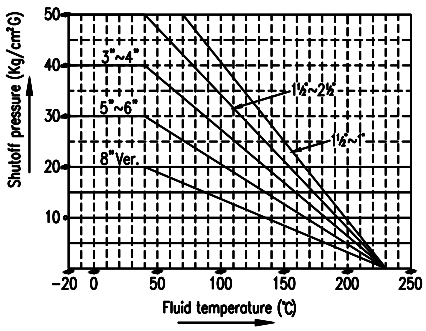
1-3 Seat ring operating Temperature – Pressure Rating



• PTFE



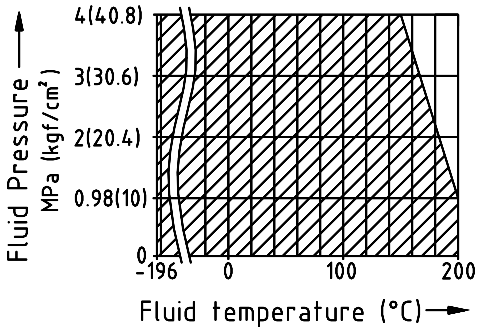
• RTFE (Reinforced Teflon)



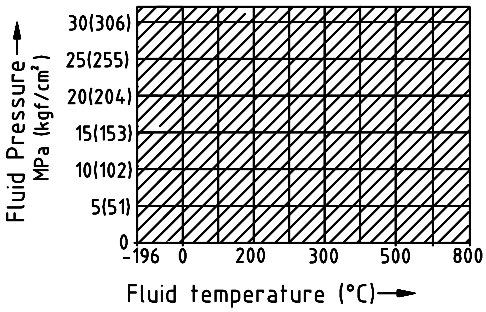
• RTFE (Carbon fiber filled Teflon)

1-4 Gland packing operation pressure temperature ratings.

• V-PTFE



• Graphite molding (Grapoil)

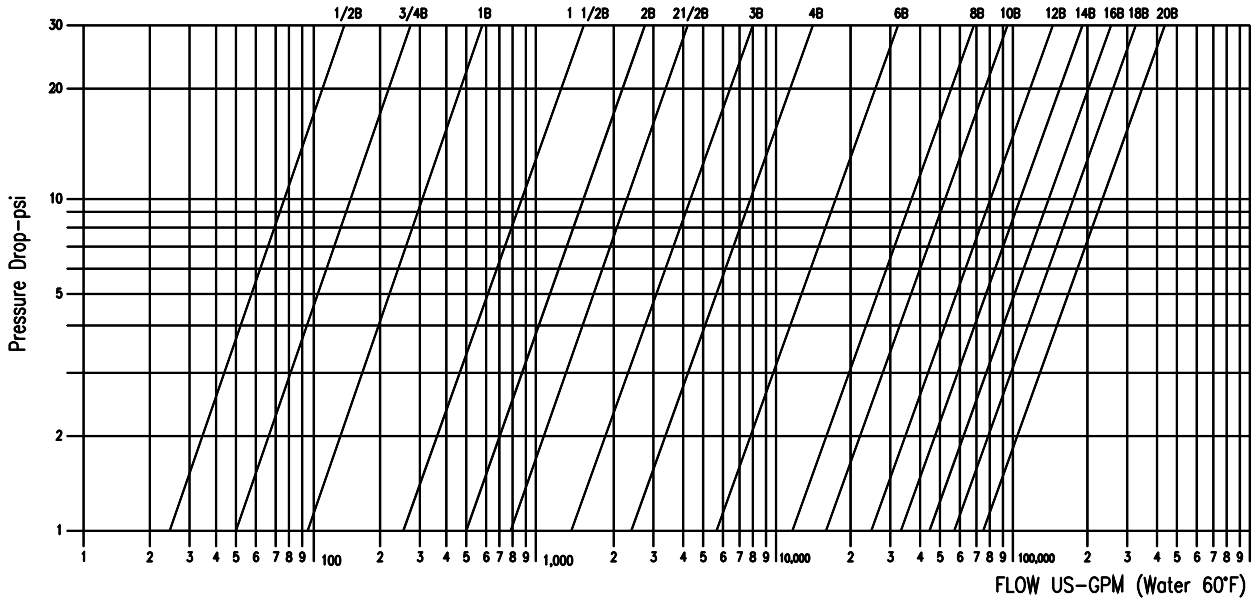


☞ FLOW CHARACTERISTICS

1. Rated Cv Valve

Full bore ball valves							
Size (inch)	Cv	Size (inch)	Cv	Size (inch)	Cv	Size (inch)	Cv
15 (½)	26	50 (2)	480	150 (6)	5400	400 (16)	43000
20 (¾)	50	65 (2½)	750	200 (8)	10000	450 (18)	57000
25 (1)	94	80 (3)	1300	250 (10)	16000	500 (20)	73000
32 (1¼)	185	100 (4)	2300	300 (12)	24000		
40 (1½)	260	125 (5)	4200	350 (14)	31400		

2. Pressure drop vs. Flow for full bore ball valves.



☞ APPLICATION OF ACTUATOR

1. 2-way ball, Soft (PTFE, RTFE) seat, Metal seat type vs. Rotary cylinder actuator
   : B1S(R) / R5S(R) ~ R12S

Shaded zone represents standard application.

Rating	10K, 150#		20K, 300#		30K, 600#	
Seat Ring / Size (inch)	Soft	Metal	Soft	Metal	Soft	Metal
½	B0S	B1S	B1S	B1S	B1S	B1S
	B1SR	B1SR	B1SR	B1SR	B2SR	B2SR
¾	B0S	B1S	B1S	B1S	B1S	B2S
	B1SR	B1SR	B1SR	B2SR	B2SR	B3SR
1	B0S	B2S	B1S	B2S	B2S	B3S
	B1SR	B2SR	B1SR	B2SR	B3SR	B4SR
1¼	B1S	B2S	B1S	B2S	B3S	B4S
	B1SR	B2SR	B2SR	B3SR	B4SR	B6SR
1½	B1S	B3S	B2S	B3S	B4S	B6S
	B2SR	B3SR	B2SR	B3SR	B4SR	B6SR
2	B2S	B3S	B2S	B3S	B4S	B6S
	B2SR	B4SR	B3SR	B4SR	B6SR	R6SR
2½	B2S	B4S	B3S	B4S	B6S	R6S
	B3SR	B6SR	B3SR	B4SR	B6SR	R6SR
3	B3S	B6S	B4S	B6S	R6S	R7S
	B3SR	RB6SR	B4SR	B6SR	R6SR	R7SR
4	B3S	B6S	B4S	R6S	R7S	R8S
	B4SR	R6SR	B6SR	R6SR	R7SR	R8SR
5	B4S	R6S	B6S	R6S	R7S	R8S
	B6SR	R7SR	R6SR	R7SR	R8SR	R10SR
6	B6S	R7S	R6S	R7S	R8S	R9S
	R6SR	R8SR	R6SR	R8SR	R10SR	R10SR
8	R6S		R7S			
	R7SR		R7SR			
10	R7S		R8S			
	R7SR		R8SR			
12	R8S		R9S			
	R8SR		-			
14	R9S		R10S			
	R10SR		-			
16	R10S		R10S			
	R10SR		-			
18	R11S		R11S			
	-		-			
20	R12S		R12S			
	-		-			

[NOTE] 1. for Steam jacket type ball valve → Use the upper size actuator (ex: B0S → B1S, B0SR → B1SR)
2. for Fire soft type
3. Contact us for special order

☞ APPLICATION OF ACTUATOR

1. 3-way ball, Soft (PTFE, RTFE) seat, Metal seat type vs. Rotary cylinder actuator
   : B1S(R) / R5S(R) ~ R12S

Shaded zone represents standard application.

Rating	JIS 10K, ANSI150#		JIS 20K, ANSI 300#	
Port type / Valve Size (inch)	"L" Port	"T" Port	"L" Port	"T" Port
½	B1S	B1S	B1S	B1S
	B1SR	B1SR	B1SR	B2SR
¾	B1S	B1S	B1S	B1S
	B1SR	B1SR	B1SR	B2SR
1	B1S	B1S	B2S	B2S
	B2SR	B2SR	B2SR	B2SR
1¼	B2S	B2S	B2S	B2S
	B2SR	B2SR	B2SR	B3SR
1½	B2S	B2S	B3S	B3S
	B2SR	B3SR	B3SR	B4SR
2	B3S	B3S	B3S	B3S
	B3SR	B4SR	B3SR	B4SR
2½	B3S	B4S	B4S	B4S
	B4SR	B4SR	B4SR	B6SR
3	B4S	B4S	B4S	B6S
	B4SR	B6SR	B4SR	R6SR
4	B4S	B6S	B6S	B6S
	B6SR	R6SR	B6SR	R6SR
5	B6S	R6S	R6S	R6S
	R6SR	R6SR	R6SR	R7SR
6	R6S	R7S	R7S	R7S
	R7SR	R7SR	R7SR	R7SR
8	R7S	R7S	R8S	R8S
	R8SR	R8SR	R8SR	R8SR

[NOTE] 1. for Steam jacket type ball valve
2. for Fire soft type
3. Contact us for Special order

→ Use the upper size actuator (ex: B0S → B1S, B0SR → B1SR)

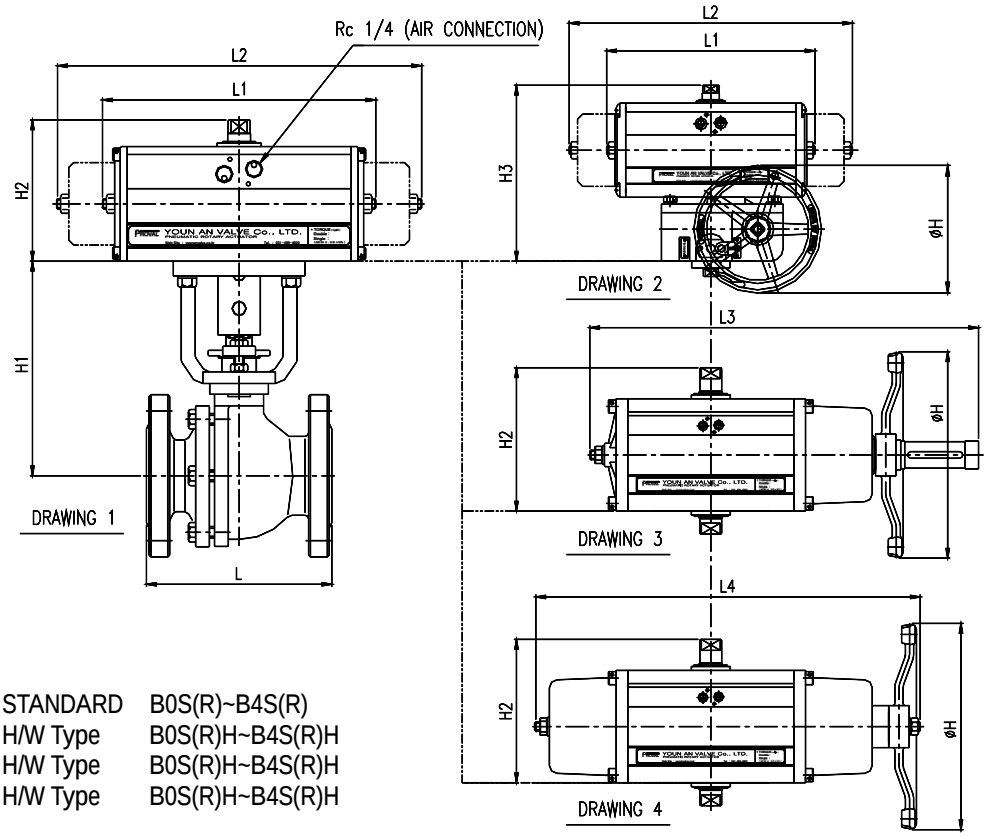
☞ WEIGHT

SIZE	15A			20A			25A			32A			40A			50A			65A			80A			100A			150A			200A			250A		
Actuator Model / Rating	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#	JIS 10K, ANSI 150#	JIS 20K, ANSI 300#	JIS 30K, ANSI 600#
B0S	14	20	30	18	26	40	24	42	48																											
B1S										32	46	60	40	56	72	60	80	104																	
B2S							56									84	104	124	102	124	142															
B3S									88										114	134	144	128	152	176												
B4S												136													140	164	190									
B6S															170													164	194	248						
R6S																		260													186	240	280			
R7S																					340													240		
R8S																								420												
R9S																											780									
R10S																														1000						
R11S																																	1600			
R12S																																				2400

DIMENSION DRAWING

ACTUATOR : B0S(R)(H) ~ B6S(R)(H)

BODY : JIS 10K, ANSI 150# SOFT SEAT 2-WAY BALL



NOTE.

* DRAWING 1 : STANDARD B0S(R)~B4S(R)
* DRAWING 2 : H/W Type B0S(R)H~B4S(R)H
* DRAWING 3 : H/W Type B0S(R)H~B4S(R)H
* DRAWING 4 : H/W Type B0S(R)H~B4S(R)H

DIMENSIONS [Unit: mm]

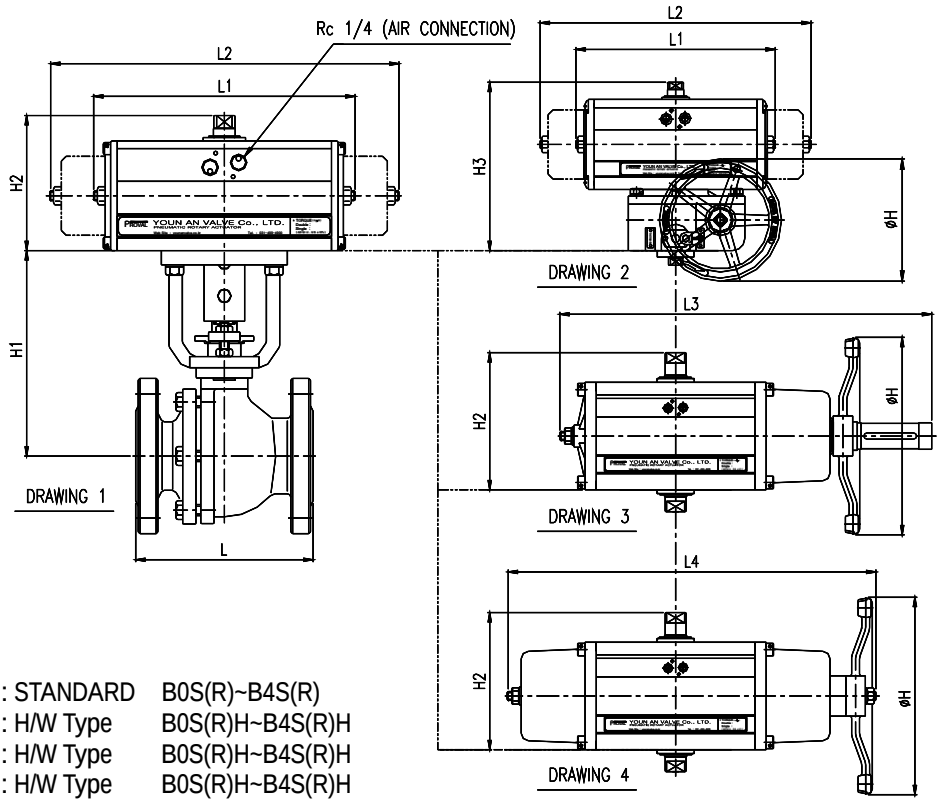
Valve Size		L	ACTUATOR				H1	H2		H3		ØH	
mm	Inch	JIS 10K ANSI 150#	Double Action		Single Action								
			Model No.	L1 / L3	Model No.	L2 / L4		D	S	D	S	D	S
15	½	108	B0S	170 / -	B1SR	340 / 385	165	79	111	155	186	200	200
20	¾	117	B0S	170 / -	B1SR	340 / 385	170	79	111	155	186	200	200
25	1	127	B0S	170 / -	B1SR	340 / 385	180	79	111	155	186	200	200
32	1¼	141	B1S	215 / 355	B1SR	340 / 385	185	111	111	186	186	200	200
40	1½	165	B1S	215 / 355	B2SR	405 / 510	190	111	131	186	206	200	200
50	2	178	B1S	215 / 355	B2SR	405 / 510	195	111	131	186	206	200	200
65	2½	190	B2S	250 / 475	B3SR	560 / 640	220	131	184	206	335	200	315
80	3	203	B2S	250 / 475	B3SR	560 / 640	255	131	184	206	335	200	315
100	4	229	B3S	310 / 600	B4SR	610 / 725	300	184	184	335	335	315	315
125	5	356	B4S	400 / 700	B6SR	700 / 955	315	184	256	335	440	315	315
150	6	394	B6S	470 / 830	R6SR	850 / -	330	256	-	440	-	315	430

MODEL	YAB - 1F, YAB - 1FSR YABC – 312F1, YABC – 112F1	SIZE	15A ~ 150A
PROVAL PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : B0S(R)(H) ~ B6S(R)(H)

BODY : JIS 20K, ANSI 1000# SOFT SEAT 2-WAY BALL



NOTE.

* DRAWING 1 : STANDARD B0S(R)~B4S(R)
* DRAWING 2 : H/W Type B0S(R)H~B4S(R)H
* DRAWING 3 : H/W Type B0S(R)H~B4S(R)H
* DRAWING 4 : H/W Type B0S(R)H~B4S(R)H

DIMENSIONS [Unit: mm]

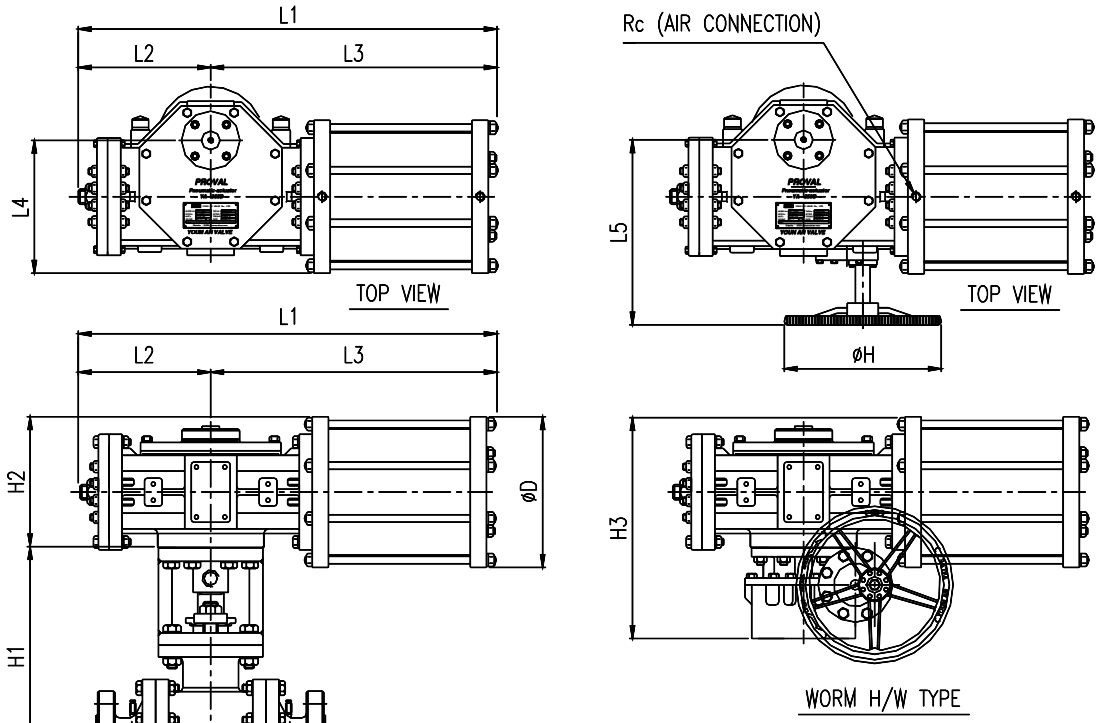
Valve Size		L	ACTUATOR				H1	H2		H3		ØH	
mm	Inch	JIS 20K ANSI 300#	Double Action		Single Action								
			Model No.	L1 / L3	Model No.	L2 / L4		D	S	D	S	D	S
15	½	140	B1S	215 / 355	B1SR	270 / 385	165	111	111	186	186	200	200
20	¾	152	B1S	215 / 355	B1SR	340 / 385	170	111	111	186	186	200	200
25	1	165	B1S	215 / 355	B1SR	340 / 385	180	111	111	186	186	200	200
32	1¼	178	B1S	215 / 355	B2SR	405 / 510	185	111	131	186	206	200	200
40	1½	190	B2S	250 / 475	B2SR	405 / 510	190	131	131	206	206	200	200
50	2	216	B2S	250 / 475	B3SR	470 / 640	195	131	184	206	335	200	315
65	2½	241	B3S	310 / 600	B3SR	470 / 640	220	184	184	335	335	315	315
80	3	283	B4S	400 / 700	B4SR	610 / 725	255	184	184	335	335	315	315
100	4	305	B4S	400 / 700	B6SR	700 / 955	300	184	256	335	440	315	315
125	5	381	B6S	470/ 830	R6SR	850 / -	315	256	-	440	-	315	430

MODEL	YAB - 1F, YAB - 1FSR YABC – 312F1, YABC – 112F1	SIZE	15A ~ 125A
PROVAL PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : R6S(H) ~ R12S(H)

BODY : JIS 10K, ANSI 600# SOFT SEAT 2-WAY BALL



DIMENSIONS [Unit: mm]

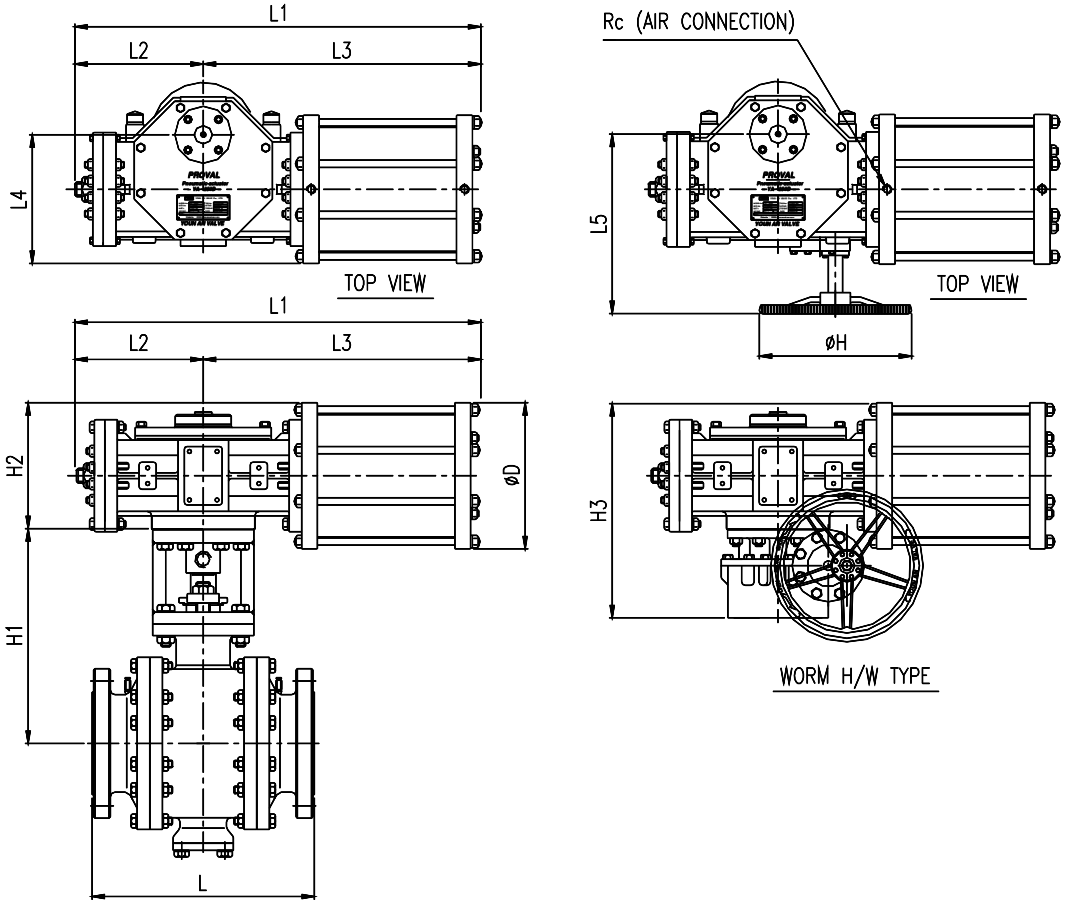
Valve Size		L	ACTUATOR			L2	L3	L4	L5	H1	H2	H3	ØH	Rc
mm	inch	JIS 10K ANSI 150#	Model No.	L1	ØD									
150	6	394	R6S	750	□270	235	515	240	623	350	240	490	430	3/8
200	8	457	R6S	750	□270	235	515	240	623	380	240	490	430	3/8
250	10	533	R7S	940	270	291	649	255	638	450	255	505	430	3/8
300	12	610	R8S	940	325	291	649	283	638	510	283	533	430	3/8
350	14	686	R9S	940	390	291	649	315	638	580	315	565	430	1/2
400	16	762	R10S	940	420	291	649	330	638	660	330	580	430	1/2
450	18	864	R11S	1150	420	379	786	360	668	750	360	610	430	1/2
500	20	915	R12S	1150	490	379	786	395	668	870	395	645	430	1/2

MODEL	YAB - 1F, YABC – 312F1, YABC-112F1	SIZE	150A ~ 500A
PROVAL PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : R6S(H) ~ R12S(H)

BODY : JIS 20K, ANSI 300# SOFT SEAT 2-WAY BALL



DIMENSIONS [Unit: mm]

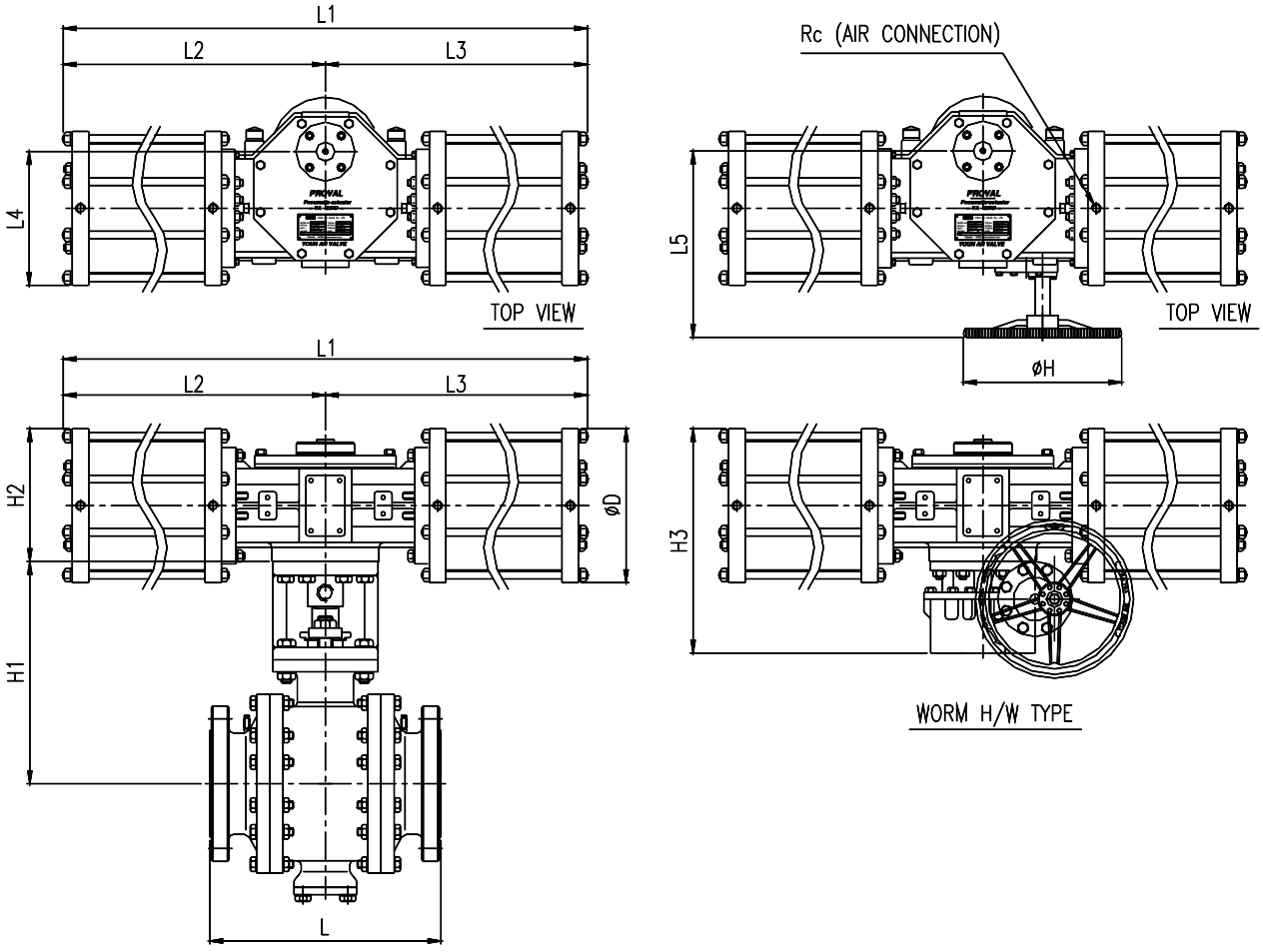
Valve Size		L	ACTUATOR			L2	L3	L4	L5	H1	H2	H3	ØH	Rc
mm	inch	JIS 20K ANSI 300#	Model No.	L1	ØD									
125	5	381	R6S	750	□270	235	515	240	623	350	240	490	430	3/8
150	6	403	R6S	750	□270	235	515	240	623	380	240	490	430	3/8
200	8	502	R7S	940	270	291	649	255	638	450	255	505	430	3/8
250	10	568	R8S	940	325	291	649	283	638	510	283	533	430	3/8
300	12	648	R9S	940	390	291	649	315	638	580	315	565	430	1/2
350	14	762	R10S	940	420	291	649	330	638	660	330	580	430	1/2
400	16	838	R10S	940	420	291	649	330	638	750	330	580	430	1/2
450	18	914	R11S	1165	420	379	786	360	668	870	360	610	430	1/2
500	20	990	R12S	1165	490	379	786	395	668	350	395	645	430	1/2

MODEL	YAB - 1F, YABC – 312F1, YABC-112F1	SIZE	125A ~ 500A
PROVAL PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : R6SR(H) ~ R12SR(H)

BODY : JIS 10K, ANSI 150# SOFT SEAT 2-WAY BALL



DIMENSIONS [Unit: mm]

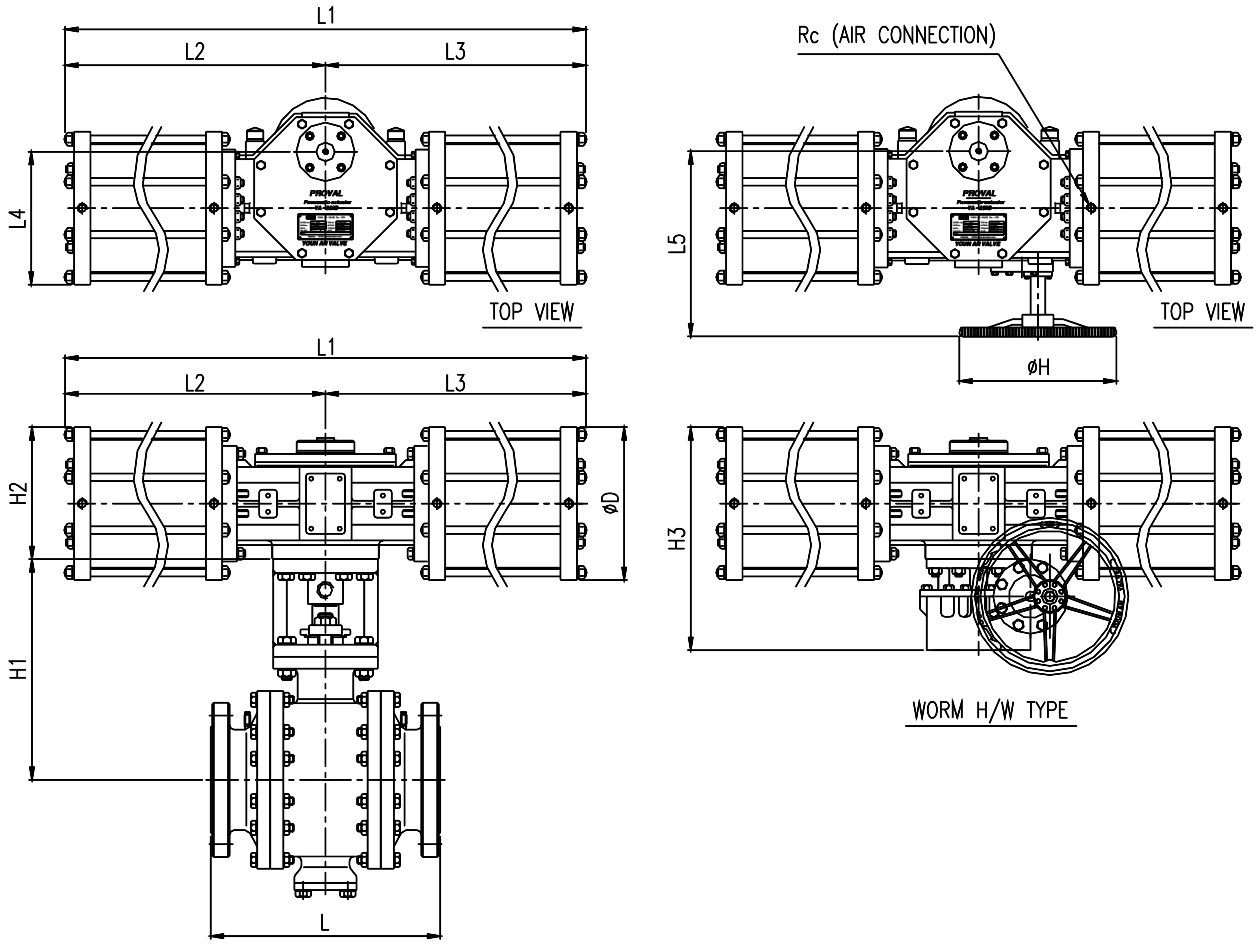
Valve Size		L	ACTUATOR			L2	L3	L4	L5	H1	H2	H3	ØH	Rc
mm	inch	JIS 10K ANSI 150#	Model No.	L1	ØD									
125	5	356	B6SR	700	-	-	-	-	-	350	256	440	315	3/8
150	6	394	R6SR	1450	270	725	725	240	623	380	240	490	430	3/8
200	8	457	R7SR	1950	270	820	820	255	638	450	255	505	430	3/8
250	10	533	R7SR	1950	270	820	820	255	638	510	255	505	430	3/8
300	12	610	R8SR	1950	325	820	820	283	638	580	283	533	430	1/2

MODEL	YAB- 1FSR, YABC – 112F1	SIZE	125A ~ 300A
PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : R6SR(H) ~ R8SR(H)

BODY : JIS 20K, ANSI 300# SOFT SEAT 2-WAY BALL



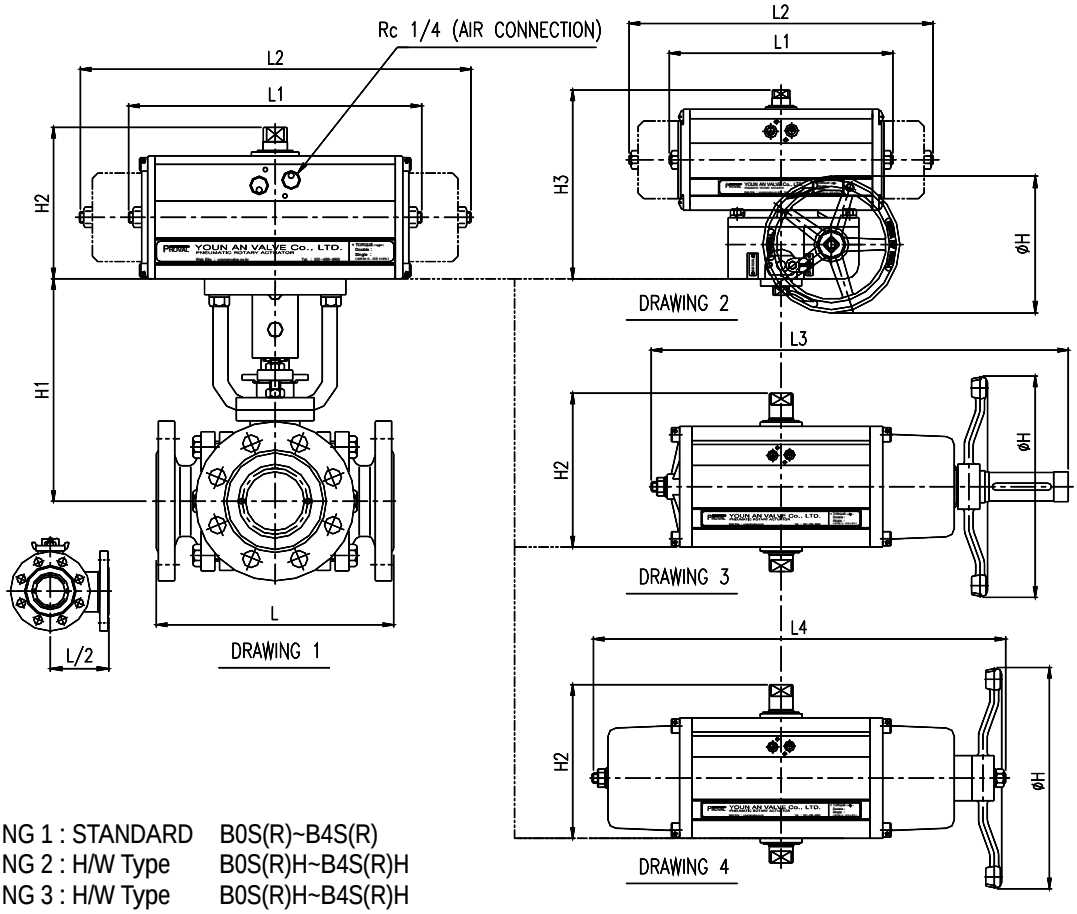
DIMENSIONS [Unit: mm]

Valve Size		L	ACTUATOR			L2	L3	L4	L5	H1	H2	H3	ØH	Rc
mm	inch	JIS 20K ANSI 300#	Model No.	L1	ØD									
100	4	305	B6SR	700	-	-	-	-	-	300	256	440	315	3/8
125	5	381	R6SR	1450	270	725	725	240	623	350	240	490	430	3/8
150	6	403	R6SR	1450	270	725	725	240	623	380	240	490	430	3/8
200	8	502	R7SR	1950	270	820	820	255	638	450	255	505	430	3/8
250	10	568	R8SR	1950	325	820	820	183	638	510	183	533	430	3/8

MODEL	YAB - 1FSR, YABC – 112F1	SIZE	100A ~ 250A
PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : B0S(R)(H) ~ B6S(R)(H)
BODY : JIS 10K, ANSI 150# SOFT SEAT 3-WAY BALL



NOTE.
* DRAWING 1 : STANDARD B0S(R)~B4S(R)
* DRAWING 2 : H/W Type B0S(R)H~B4S(R)H
* DRAWING 3 : H/W Type B0S(R)H~B4S(R)H
* DRAWING 4 : H/W Type B0S(R)H~B4S(R)H

DIMENSIONS [Unit: mm]

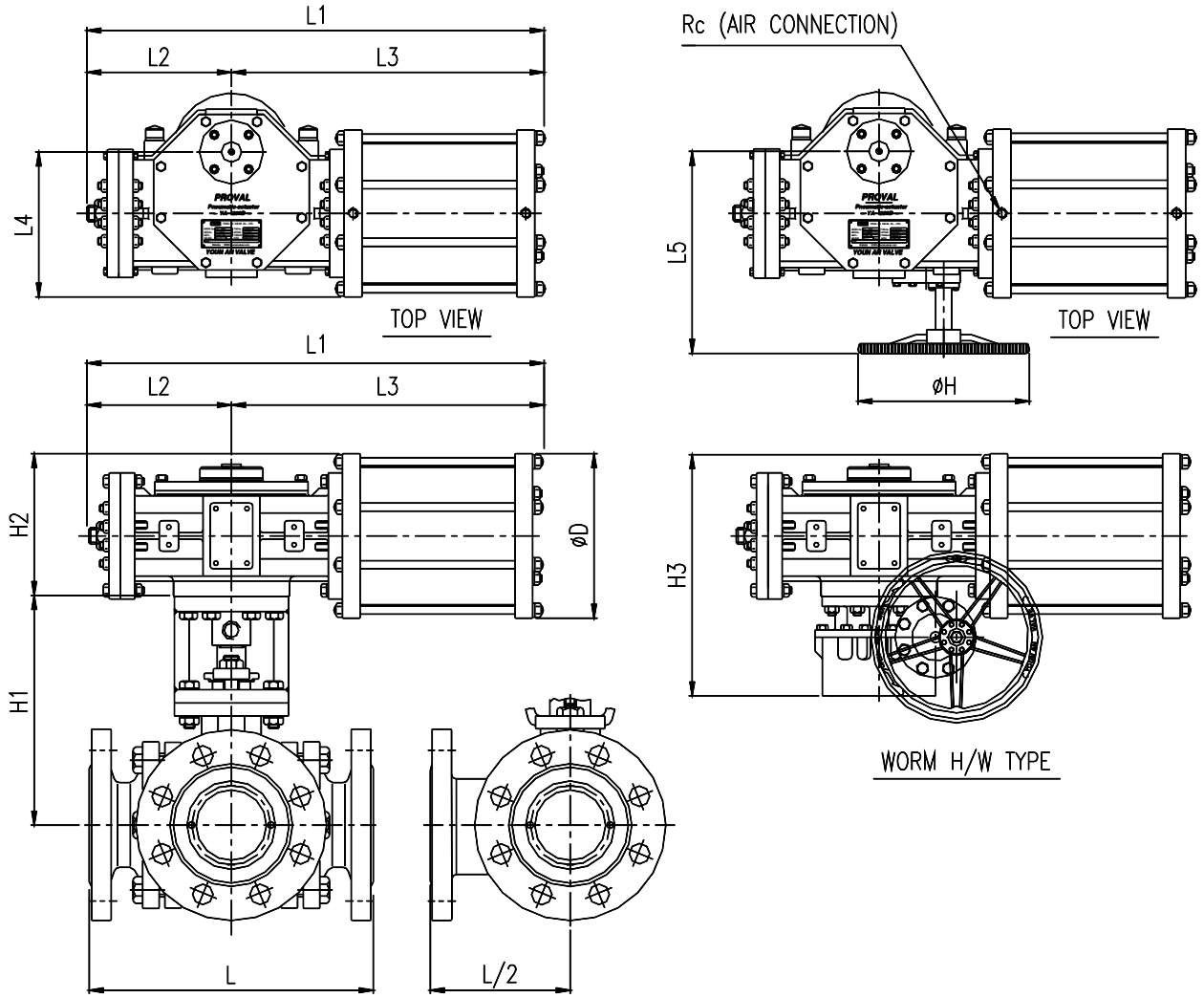
Valve Size		L	ACTUATOR				L3	L4	H1	H2		H3		ØH	
mm	Inch	JIS 10K ANSI 150#	Double Action		Spring Return										
			Model No.	L1	Model No.	L2				D	S	D	S	D	S
20	3/4	190	B1S	215	B2SR	405	355	385	230	111	131	186	206	200	200
25	1	200	B1S	215	B2SR	405	355	385	230	111	131	186	206	200	200
32	1¼	220	B2S	250	B2SR	405	475	510	240	131	131	206	206	200	200
40	1½	240	B2S	250	B2SR	405	475	510	255	131	131	206	206	200	200
50	2	260	B3S	310	B3SR	470	600	640	265	184	184	335	335	315	315
65	2½	320	B3S	310	B4SR	610	600	640	340	184	184	335	335	315	315
80	3	360	B4S	400	B4SR	610	700	725	360	184	184	335	335	315	315
100	4	430	B4S	400	B6SR	700	700	955	390	184	256	335	440	315	315
125	5	504	B6S	470	R6SR	850	830	-	420	256	-	440	-	315	430

MODEL	YAB - 1FW, YAB - 1FWSR YABC - 312T1 / 312L1,YABC - 112T1 / 112L1	SIZE	25A ~ 125A
PROVAL PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : R6S(H) ~ R12S(H)

BODY : JIS 20K, ANSI 300# SOFT SEAT 2-WAY BALL



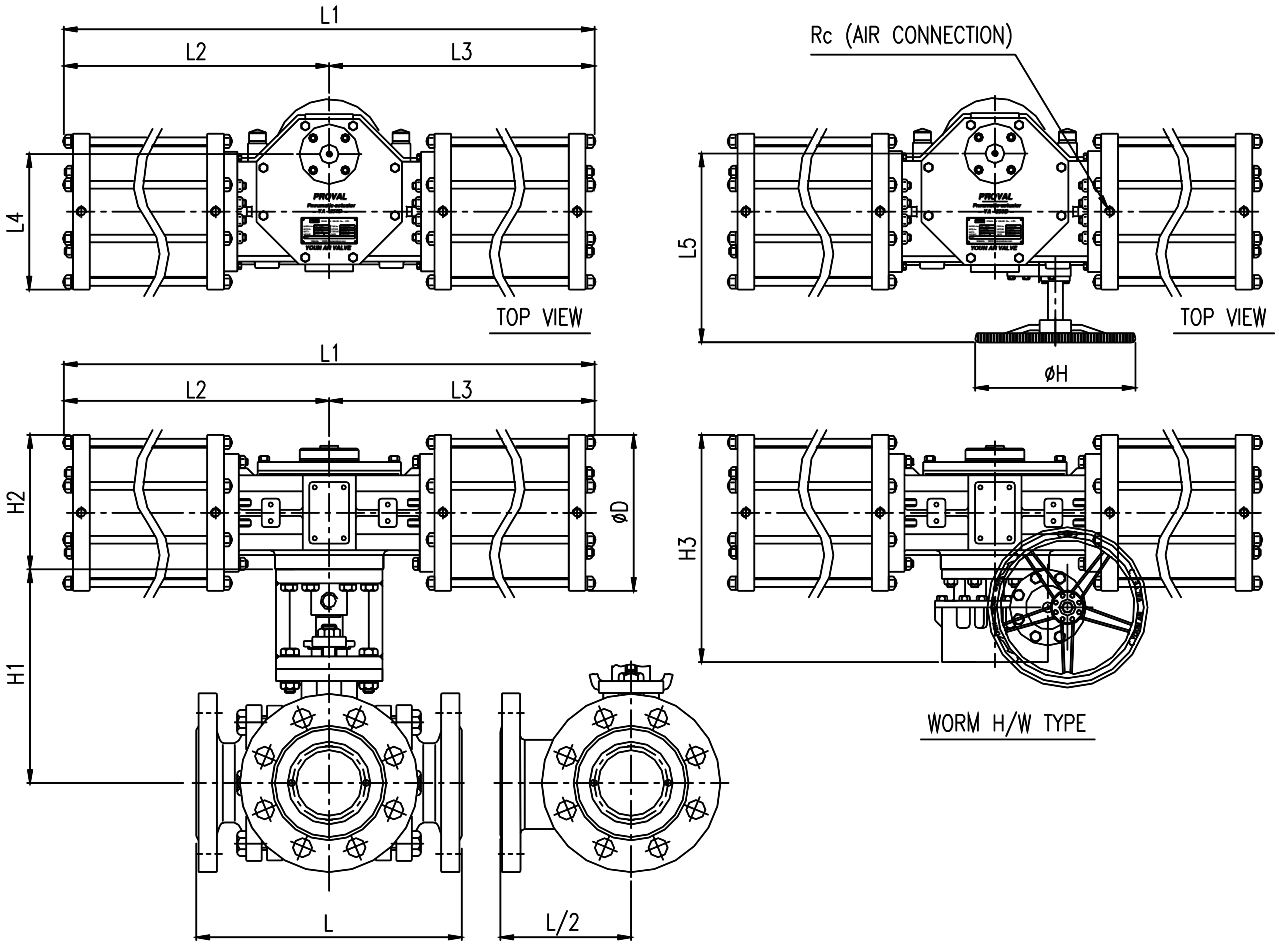
DIMENSIONS [Unit: mm]

Valve Size		L	ACTUATOR			L2	L3	L4	L5	H1	H2	H3	ØH	Rc
mm	inch	JIS 20K ANSI 300#	Model No.	L1	ØD									
125	5	520	R6S	750	270	235	515	240	623	820	240	490	430	3/8
150	6	560	R6S	750	270	235	515	240	623	890	240	490	430	3/8
200	8	660	R7S	940	270	291	649	255	638	930	255	505	430	3/8

MODEL	YAB - 1FW, YABC - 312T1 / 312L1	SIZE	125A ~ 200A
PROVAL PROVAL Co., Ltd.			

DIMENSION DRAWING

ACTUATOR : R6SR(H) ~ R12SR(H)
BODY : JIS 10K, ANSI 150# SOFT SEAT 2-WAY BALL



DIMENSIONS [Unit: mm]

Valve Size		L	ACTUATOR			L2	L3	L4	L5	H1	H2	H3	ØH	Rc
mm	inch	JIS 10K ANSI 150#	Model No.	L1	ØD									
100	4	430	R6SR	1450	270	725	725	240	623	770	240	490	430	3/8
125	5	520	R6SR	1450	270	725	725	240	623	820	240	490	430	3/8
150	6	560	R7SR	1640	270	820	820	255	638	890	255	505	430	3/8
200	8	660	R8SR	1640	325	820	820	283	638	1050	283	533	430	3/8

MODEL	YAB - 1FWSR, YABC - 112T1 / 112L1	SIZE	100A ~ 200A
PROVAL PROVAL Co., Ltd.			