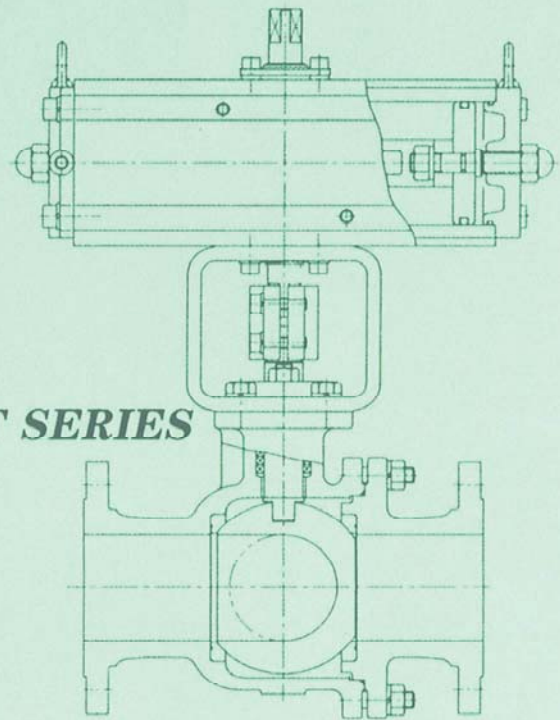


*STANDARD SPECIFICATION*

## *3 WAY TYPE BALL-VALVE*

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*300L, 300T SERIES*

**KOSO**

## STANDARD SPECIFICATION

## BALL-VALVE 3 WAY TYPE 300L, 300T SERIES

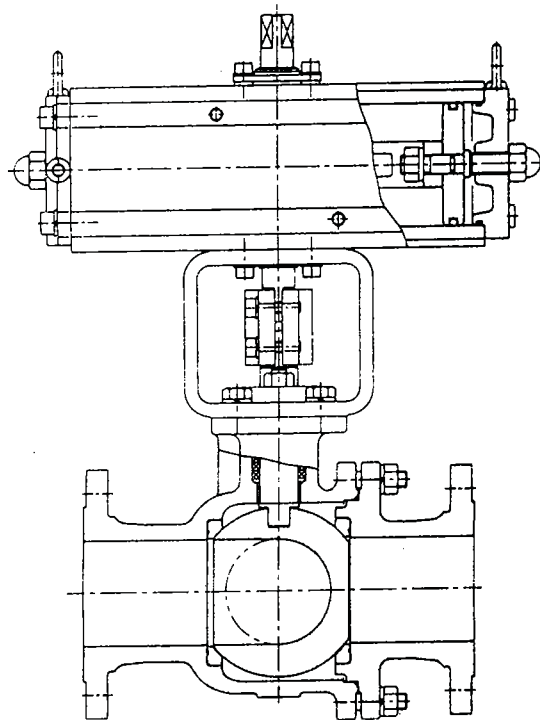
### GENERAL

The Series 300 two-position automatic ball valves are available in two types. The diverging 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.

### STANDARD SPECIFICATIONS

#### BODY

- Type: L port 2 seat (300L series)  
T port 4 seat (300T series)
- Size: Full bore type  
300L ..... 1½" ~ 6" (40 ~ 150mm)  
300T ..... ¾" ~ 6" (20 ~ 150mm)
- Reduced bore type  
300T ..... 4" × 3" ~ 8" × 6"  
(100 × 80 ~ 200 × 150mm)
- Rating: 300L ..... JIS10K, ANSI Class 150  
300T ..... JIS10K, ANSI Class 150
- Connection: Flanged (RF, FF)  
When body material is FC25, FF only.
- Face to Face dimensions: See pages 8~21.
- Material: FC25, SCPH2, SCS13, SCS14 and other Alloy steels.
- Bonnet: Standard type ..... -20°C to +180°C  
If steam jacket type is necessary, please use two of those in the Series 301K.
- Gland Packing: Teflon Asbestos.  
See page 3, Fig. 2 for selection.
- Gasket: NBR O-ring  
Operating Temp ..... -20 ~ +60°C  
Viton O-ring  
Operating Temp. .... -20 ~ +180°C
- Painting color: Munsell N-6 (Epoxy resin group) is standard. For stainless steel body, no painting is standard.



#### Trim

See pages 2~3, Table 1 for selection.

#### Actuator

Standard specification: See page 2.

#### Performance

Seat Leakage: See pages 2~3, Table 1.  
Allowable Pressure Drop: See pages 5~6,  
Table 3.

Dimensions: See pages 8~21.

Weight: See page 7, Table 3.

Optional Special Specification: See page.2.



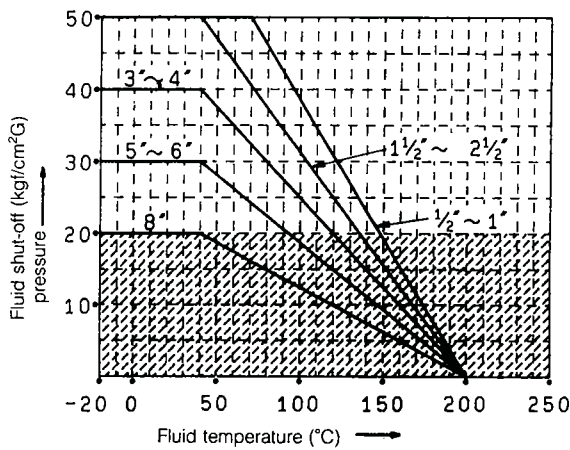
**Table 1-2 300L series: 3"~6" and 300T series: 2½"~6"(8×6")**

Body Rating		ANSI Class 150/JIS10K								ANSI Class 125/JIS10K			
Body material		SCPH2/A216-WCB, SCS13A				SCS14A/A351-CF8M				FC25			
Ball	material	SCS13A		SCS13A		SCS14A		SCS14A		SCS13A		SCS13A	
	treatment	Buffing		Buffing		Buffing		Buffing		Buffing		Buffing	
Stem	material	SUS304		SUS304		SUS316		SUS316		SUS403		SUS403	
Bearing	material	SUS316		SUS316		SUS316		SUS316		SUS316		SUS316	
	treatment	Chrome plated		Chrome plated		Chrome plated		Chrome plated		Chrome plated		Chrome plated	
Seal ring	type	T type		F type		T type		F type		T type		F type	
	material	Pure Teflon		Reinforced Teflon MoS <sub>2</sub> filled		Pure Teflon		Reinforced Teflon MoS <sub>2</sub> filled		Pure Teflon		Reinforced Teflon MoS <sub>2</sub> filled	
Gasket	material	NBR	VITON	NBR	VITON	NBR	VITON	NBR	VITON	NBR	VITON	NBR	VITON
Operating temperature C	SCPH2 Body	-5~+60	-5~+180	-5~+60	-5~+180	-20~+60	-20~+180	-20~+60	-20~+180	0~+60	0~+180	0~+60	0~+180
	SCS13A Body	-20~+60	-20~+180	-20~+60	-20~+180								
Seat leakage		Tight shut-off				Tight shut-off				Tight shut-off			

**Fig.1 Seal Ring Operating Temperature-Pressure Rating**

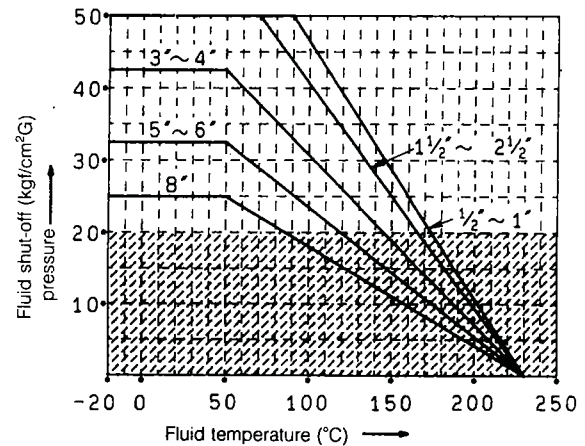
**Fig.1-1 Floating type (Ball size ½"~8")**

T type Seal ring (pure Teflon)



**Fig. 1-2 Floating type (Ball size ½"~8")**

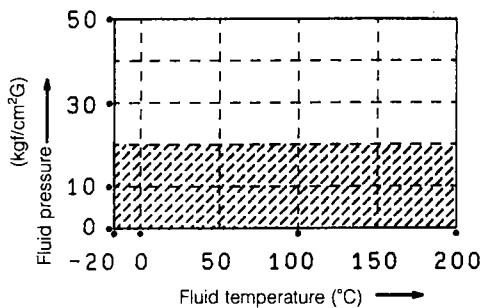
F type Seal ring (Reinforced Teflon/MoS<sub>2</sub> filled)



**Fig.2 Gland Packing Temp./Press. Rating**

Teflon asbestos (P4513+P4513L)

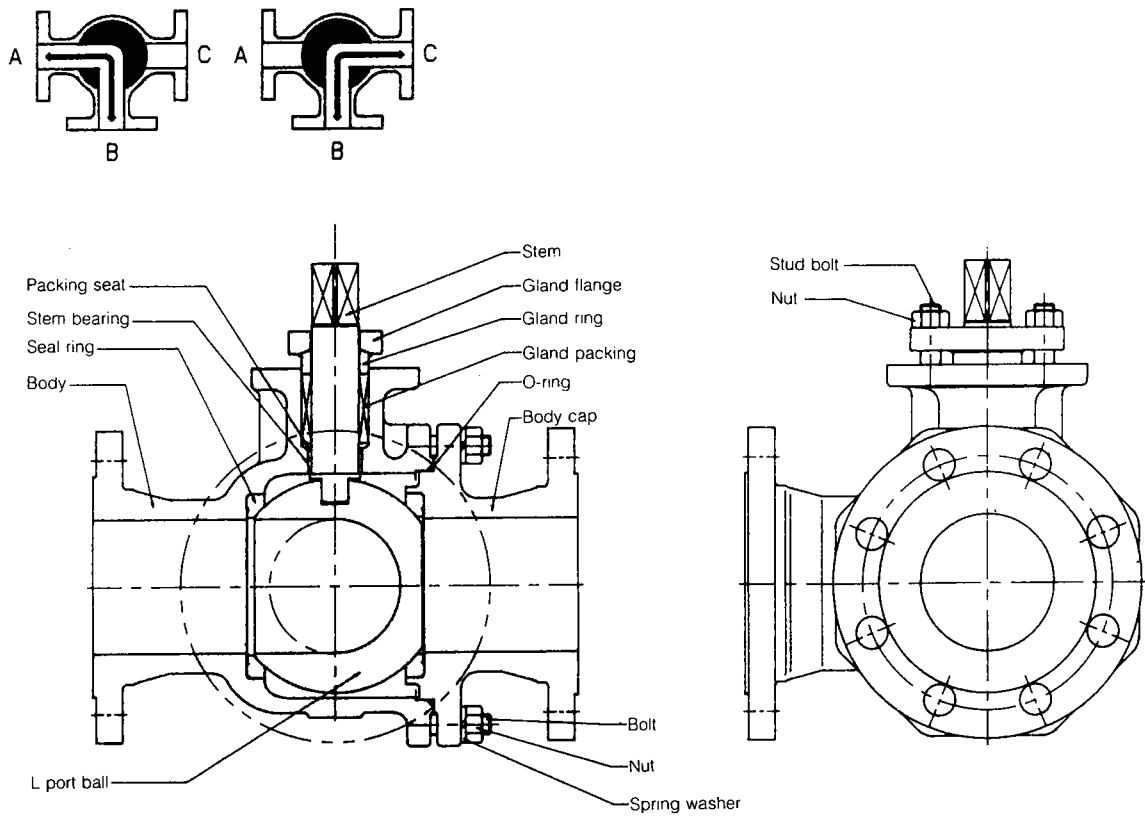
Oxydizing fluid (P4513+P#2S)



**Fig. 3 Body Assembly Section View**

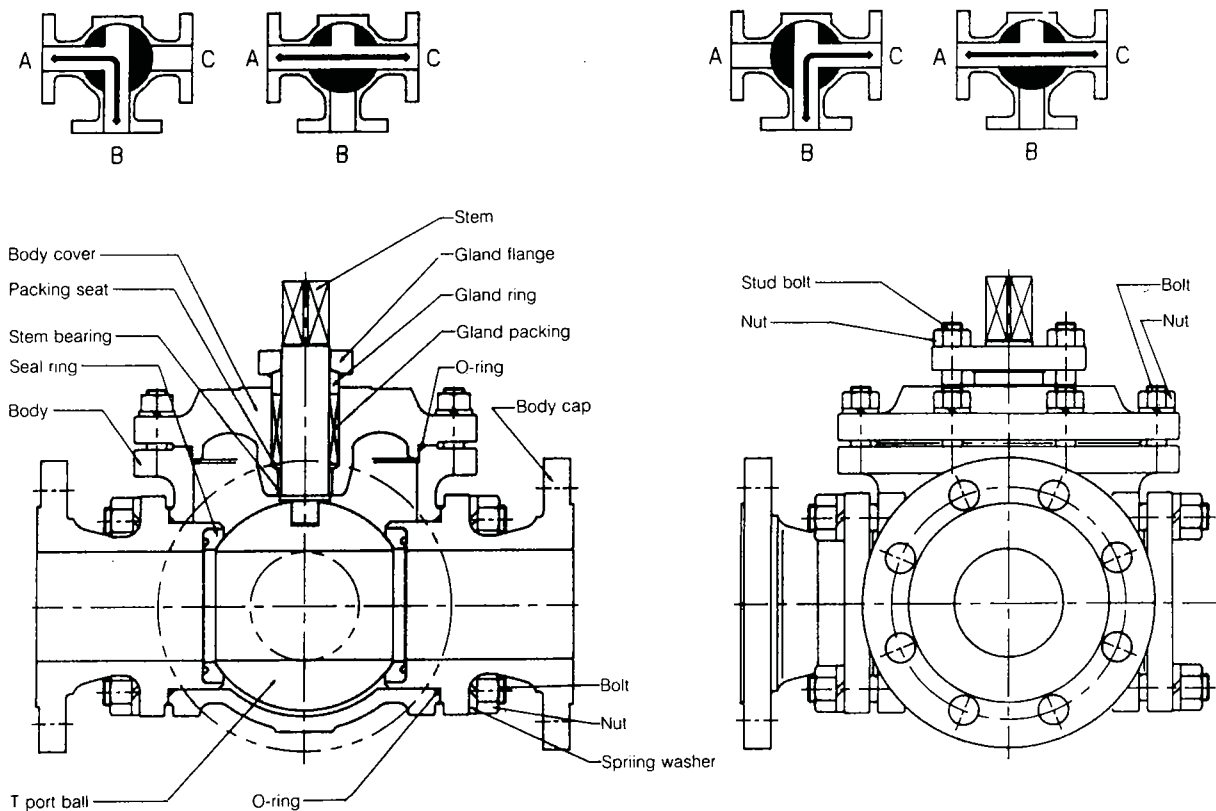
**Fig. 3-1 300 series (L port 2 seat)**

**Ball size: 1½" ~ 6" (40 ~ 150mm)**



**Fig. 3-2 300T series (T port 4 seat)**

**Ball size: ¾" ~ 6" (20 ~ 150mm)**



**Table 2 Maximum Allowable Shutoff Pressure (Unit: kgf/cm<sup>2</sup>G)**

**Table 2-1 300L series (L port 2 seat)**

**Table 2-1A Double acting Pneumatic Cylinder actuator/Seal ring: T type, F type**

Actuator series size		Air supply kgf/cm <sup>2</sup> G	Ball size						
			1½" (40mm)	2" (50mm)	2½" (65mm)	3" (80mm)	4" (100mm)	5" (125mm)	6" (150mm)
6600RA (2 piston)	60	4	20.0	20.0					
		5	20.0						
	90	4		20.0	20.0	20.0	11.0		
		5		20.0	20.0	20.0	15.3		
	130	4				20.0	20.0	18.0	10.8
		5				20.0	20.0	20.0	13.7
6500RA (2 piston)	170	4						20.0	20.0
		5						20.0	20.0

**Table 2-1B Spring return Pneumatic Cylinder actuator/Seal ring: T type, F type**

Actuator series size		Air supply kgf/cm <sup>2</sup> G	Ball size						
			1½" (40mm)	2" (50mm)	2½" (65mm)	3" (80mm)	4" (100mm)	5" (125mm)	6" (150mm)
6600RA (2 piston)	90	4	20.0	20.0	4.1				
		5		20.0	11.2				
	130	4			20.0	20.0	12.7	1.9	
		5			20.0	20.0	16.2	5.4	
6500RA (2 piston)	200	4					20.0	20.0	14.8
		5					20.0	20.0	18.7
	280	4							20.0
		5							20.0

**Table 2-1C Electric motor actuator/Seal ring: T type, F type**

Actuator series-size Code (kgf-m)	Ball size						
	1½" (40mm)	2" (50mm)	2½" (65mm)	3" (80mm)	4" (100mm)	5" (125mm)	6" (150mm)
3 4 A 2 R A • 3 4 A B R A ( 0 5 )	20.0	20.0					
3 4 B 1 R A ( 1 0 )		20.0	20.0	8.1			
3 4 B 2 R A ( 2 0 )			20.0	20.0	12.8		
3 4 C 1 R A ( 3 0 )				20.0	19.9	9.2	
3 4 C 2 R A ( 5 0 )					20.0	16.6	9.8
3 4 C 3 R A ( 6 0 )						20.0	11.8
3 4 D 1 R A ( 1 0 0 )						20.0	20.0

**Table 2-2 300T series (T port 4 seat)**

**Table 2-2A Double acting Pneumatic Cylinder actuator/Seal ring: T type, F type**

Actuator series size		Air supply kgf/cm <sup>2</sup> G	Ball size								
			¾" (20mm)	1" (25mm)	1½" (40mm)	2" (50mm)	2½" (65mm)	3" (80mm)	4" (100mm)	5" (125mm)	6" (150mm)
6600RA (1 piston)	60S	4	20.0	—							
		5	20.0	5.0							
6600RA (2 piston)	60	4		20.0	2.8						
		5		20.0	7.6						
	90	4			20.0	20.0	8.8	—			
		5			20.0	20.0	15.6	2.8			
	130	4					20.0	20.0	12.2	2.8	
		5					20.0	20.0	17.6	5.4	
6500RA (2 piston)	170	4						20.0	20.0	11.4	
		5						20.0	20.0	16.2	
	200	4									18.0
		5									18.0

**Table 2-2B Spring return Pneumatic Cylinder actuator/Seal ring: T type, F type**

Actuator series size		Air supply kgf/cm <sup>2</sup> G	Ball size								
			¾" (20mm)	1" (25mm)	1½" (40mm)	2" (50mm)	2½" (65mm)	3" (80mm)	4" (100mm)	5" (125mm)	6" (150mm)
6600RA (2 piston)	60	4	2.4								
		5	15.4								
	90	4		20.0	7.2	—					
		5		20.0	14.5	1.3					
	130	4			20.0	20.0	10.9	—			
		5			10.0 2	20.0	17.1	4.2			
6500A (2 piston)	200	4				20.0	20.0	20.0	6.1		
		5				20.0	20.0	20.0	9.7		
	280	4							20.0	16.0	
		5							20.0	18.0	

**Table 2-2C Electric motor actuator/Seal ring: T type, F type**

Actuator series-size code (kgf-m)	Ball size									
	¾" (20mm)	1" (25mm)	1½" (40mm)	2" (50mm)	2½" (65mm)	3" (80mm)	4" (100mm)	5" (125mm)	6" (150mm)	
34A1RA · 34AARA ( 02)	2.6									
34A2RA · 34ABRA ( 05)	20.0	20.0								
34B1RA ( 10)			20.0	4.6						
34B2RA ( 20)				20.0	11.0					
34C1RA ( 30)					20.0	8.5				
34C2RA ( 50)						20.0	10.0	1.7		
34C3RA ( 60)							14.0	3.6		
34D1RA (100)							20.0	11.4	5.0	



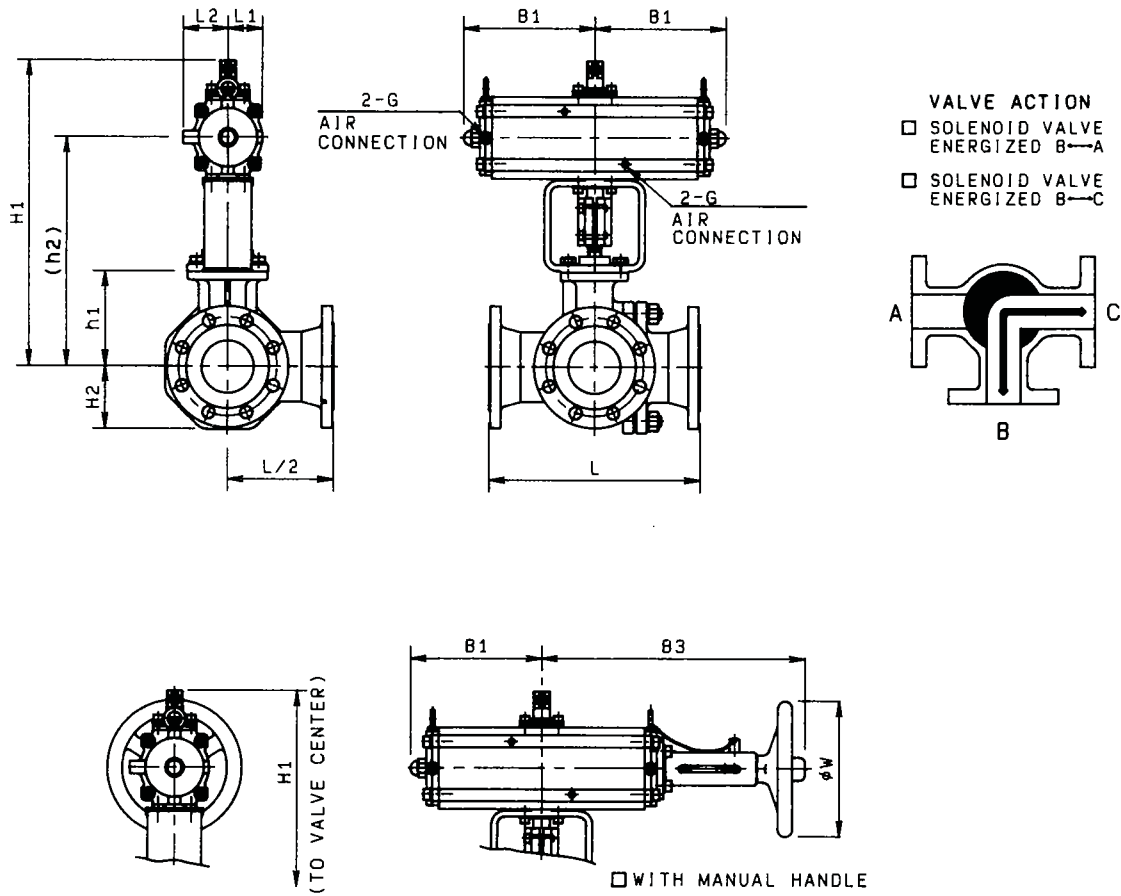
**Fig. 4 Net Weight of Standard Valve and Actuator Combined. (Unit: kg)**

Only Standard types are represented. Weights of accessories, a handwheel and the like are not included.

Actuator model-size Body type Body Rating		Pneumatic Cylinder actuator														Electric motor actuator			
		Double acting							Spring return							34AARA	34B1RA	34C1RA	34D1RA
		6600RA				6500RA			6600RA				6500RA			34ABRA	34B2RA	34C2RA	34D2RA
		60S	60	90	130	170	200	280	60S	60	90	130	200	280	360	34A1RA 34A2RA	34C3RA		
300L Full bore JIS 10K ANSI Class 150	1½ ( 40)		18							27					21				
	2 ( 50)		23	27						32					27	32			
	2½ ( 65)			34						39	57					39			
	3 ( 80)			46	61						69					51	79		
	4 (100)			65	70						88	183				69	98		
	5 (125)				101	159					119	214					139	219	
	6 (150)				133	191						246	360			161	250		
300T Full bore JIS 10K ANSI Class 150	¾ ( 20)	12							16						16				
	1 ( 25)	19	20							28					23				
	1½ ( 40)		28	32						37	55					37			
	2 ( 50)			42						47	65					47			
	2½ ( 65)			57	62						80	175				62	90		
	3 ( 80)			71	76						94	189				76	104		
	4 (100)				100	158						213					128	218	
	5 (125)				140	198						253					168	258	
300T Reduced bore JIS 10K ANSI Class 150	4×3 (100×80)			72	77	135	185				95	190	305			77	105	195	
	5×4 (125×100)				102	160	210					215	330				130	220	
	6×5 (150×125)				147	205	255					260	375				175	265	
	8×6 (200×150)				187	245	295					300	415				215	305	



# BALL VALVE Double acting cylinder



## DIMENSIONS

UNIT: mm

VALVE SIZE CODE NO.	FACE TO FACE L <input type="checkbox"/> JIS 10kFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	h1	h2	H1	H2	ACTUATOR							
						Cylinder size	B1	L1	L2	G	<input type="checkbox"/> WITH MANUAL HANDLE		CODE No.
											B3	W	
93 <input type="checkbox"/> 1½ (40A)	230	85	245	335	—	<input type="checkbox"/> 60	155	38	55	RC1/8	305	140	6606RA
02 <input type="checkbox"/> 2" (50A)	230	91	250	340	—	<input type="checkbox"/> 60	155	38	55	RC1/8	305	140	6606RA
			270	380	—	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
94 <input type="checkbox"/> 2½ (65A)	270	120	305	415	—	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
03 <input type="checkbox"/> 3" (80A)	290	130	315	425	—	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
			355	505	—	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
04 <input type="checkbox"/> 4" (100A)	350	160	375	485	112	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
			410	560		<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
05 <input type="checkbox"/> 5" (125A)	380	185	450	600	140	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
06 <input type="checkbox"/> 6" (150A)	440	200	465	615	160	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA

\* Flange is according to the standard which is described on specification sheet

NOTE :

DRAWING No.

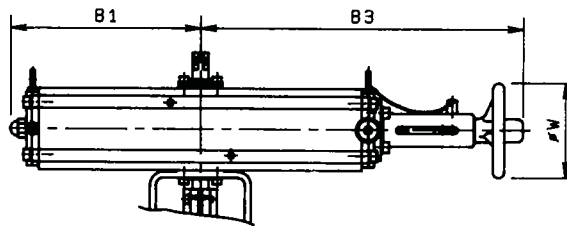
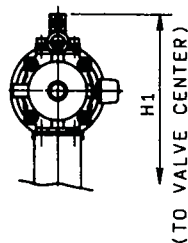
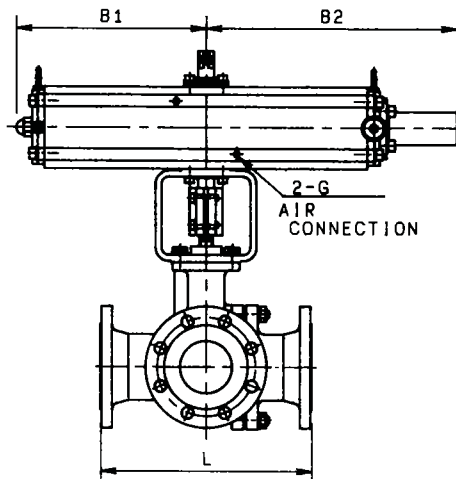
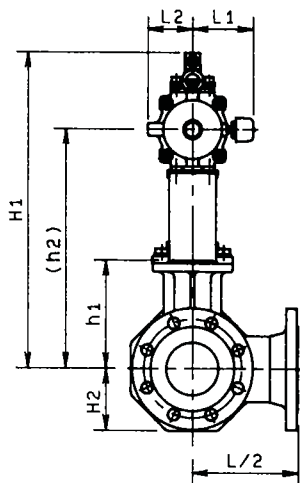
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REV

A

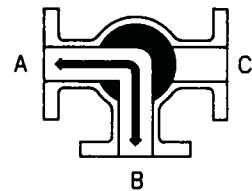
**KOSO**

# BALL VALVE Spring return cylinder

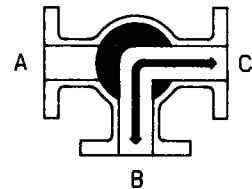


WITH MANUAL HANDLE

**VALVE ACTION**  
 IN CASE DA ACTION ACTUATOR  
 AIR TO B → A  
 AIR LESS B → C



IN CASE RA ACTION ACTUATOR  
 AIR TO B → C  
 AIR LESS B → A



## DIMENSIONS

UNIT: mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10kFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	h1	h2	H1	H2	ACTUATOR								
						Cylinder size	B1	B2	L1	L2	G	<input type="checkbox"/> WITH MANUAL HANDLE B3 W		CODE No.
93 <input type="checkbox"/> 1½ (40A)	230	85	265	375	—	<input type="checkbox"/> 60	220	275	80	55	RC1/8	360	140	6606RA
02 <input type="checkbox"/> 2" (50A)	230	91	270	380	—	<input type="checkbox"/> 60	220	275	80	55	RC1/8	360	140	6606RA
94 <input type="checkbox"/> 2½ (65A)	270	120	305	415	—	<input type="checkbox"/> 90	290	375	95	70	RC1/8	470	140	6609RA
			345	495	—	<input type="checkbox"/> 130	395	500	115	100	RC1/4	655	300	6613RA
03 <input type="checkbox"/> 3" (80A)	290	130	355	505	—	<input type="checkbox"/> 130	395	500	115	100	RC1/4	655	300	6613RA
04 <input type="checkbox"/> 4" (100A)	350	160	410	560	112	<input type="checkbox"/> 130	395	500	115	100	RC1/4	655	300	6613RA
05 <input type="checkbox"/> 5" (125A)	380	185	450	600	140	<input type="checkbox"/> 130	395	500	115	100	RC1/4	655	300	6613RA

\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

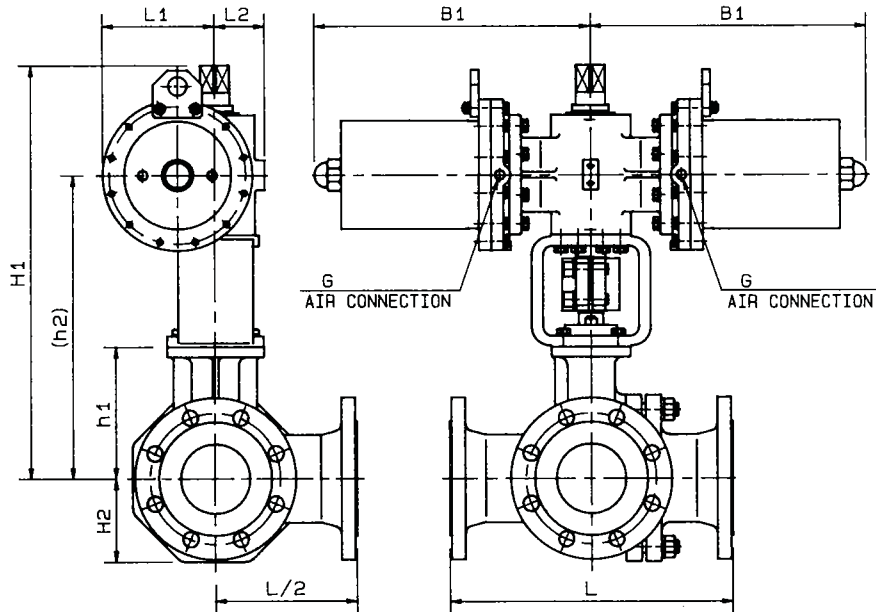
E-300L-6600RA-D-N  
R-S

REV

A

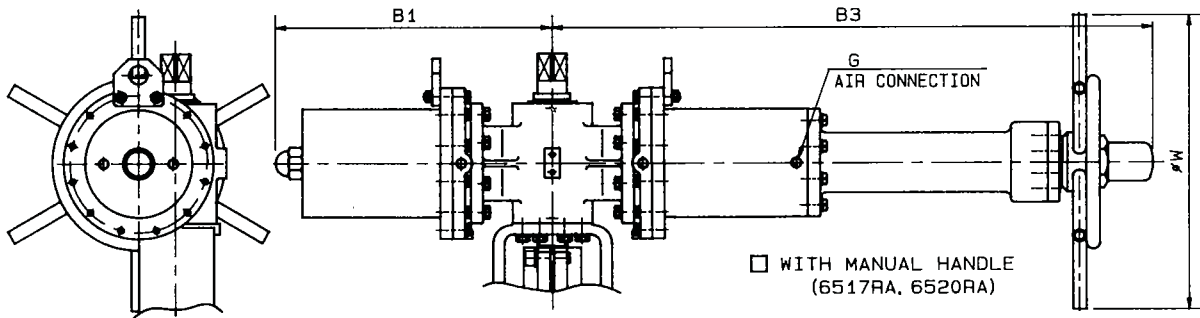
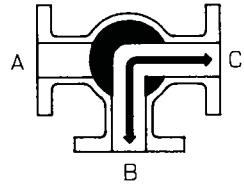
**KOSO**

# BALL VALVE Double acting cylinder



## VALVE ACTION

- SOLENOID VALVE ENERGIZED B → A
- SOLENOID VALVE ENERGIZED B → C



## DIMENSIONS

UNIT: mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10KFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10KRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	h1	h2	H1	H2	ACTUATOR								CODE No.
						cylinder size	B1	L1	L2	G	<input type="checkbox"/> WITH MANUAL HANDLE			
											B3	HL	W	
05 <input type="checkbox"/> 5" (125A)	380	185	490	695	140	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA
06 <input type="checkbox"/> 6" (150A)	440	200	505	710	160	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA

\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

E-300L-6500RA-W-<sup>N</sup>/<sub>S</sub>

REV

C

**KOSO**

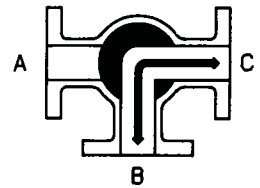
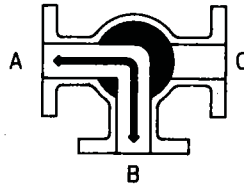
# BALL VALVE Spring return cylinder

## VALVE ACTION

IN CASE OF DA ACTION ACTUATOR       IN CASE OF RA ACTION ACTUATOR

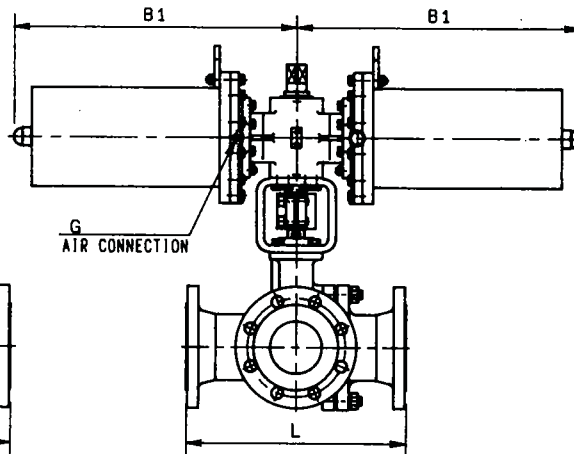
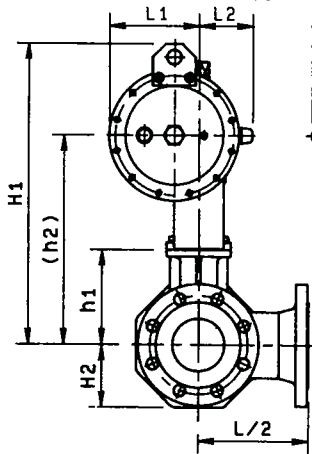
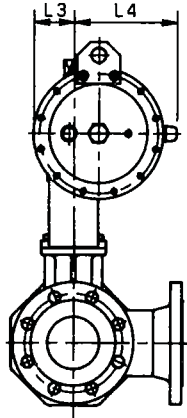
AIR TO B → A  
AIR LESS B ← C

AIR TO B ← C  
AIR LESS B → A



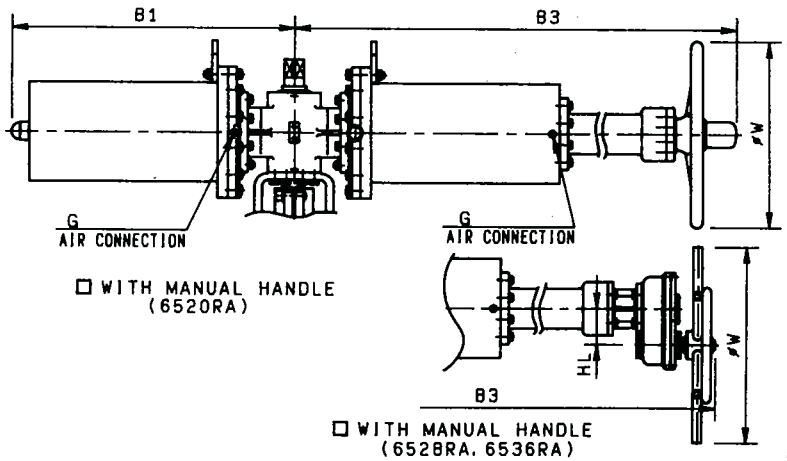
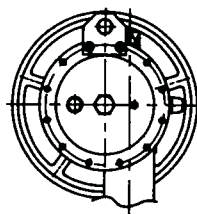
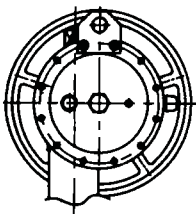
DIRECT ACTION

REVERSE ACTION



DIRECT ACTION

REVERSE ACTION



## DIMENSIONS

UNIT: mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10kFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	ACTUATOR															
		h1	h2	H1	H2	cylinder size	B1	L1	L2	L3	L4	G	<input type="checkbox"/> WITH MANUAL HANDLE			CODE No.	
													B3	HL	W		
04 <input type="checkbox"/> 4" (100A)	350	160	455	690	112	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	1330	—	400	6520RA	
05 <input type="checkbox"/> 5" (125A)	380	185	490	725	140	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	1330	—	400	6520RA	
			515	790		<input type="checkbox"/> 280	865	275	165	125	315	RC1/2	1615	108	590	6528RA	
06 <input type="checkbox"/> 6" (150A)	440	200	495	730	160	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	1330	—	400	6520RA	
			530	805		<input type="checkbox"/> 280	865	275	165	125	315	RC1/2	1615	108	590	6528RA	

\* Flange is according to the standard which is described on specification sheet.

NOTE:

DRAWING No.

E-300L-6500RA-D-N  
R-S

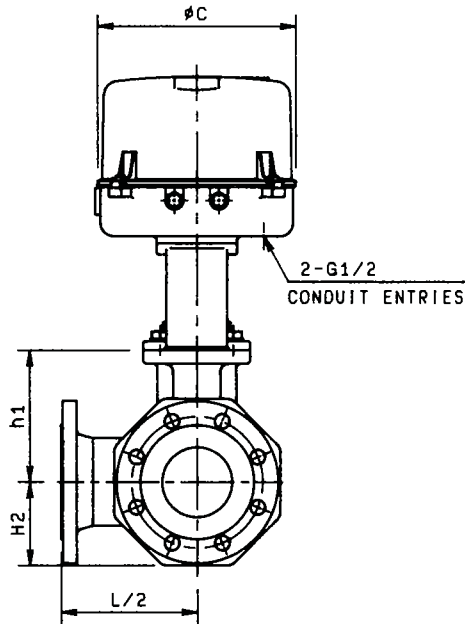
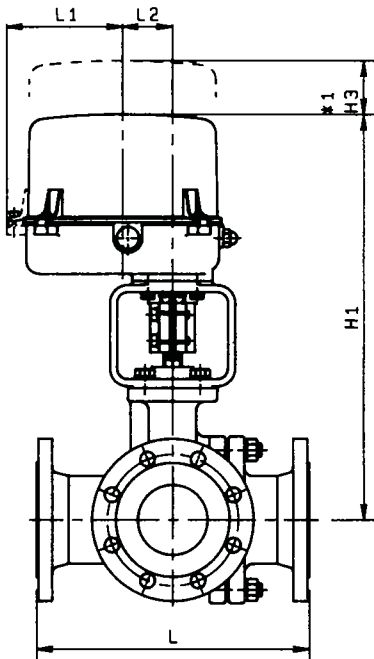
REV

A

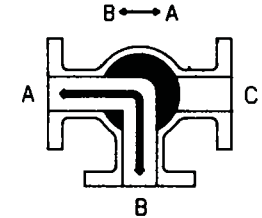
**KOSO**

# BALL VALVE

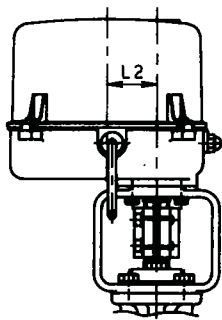
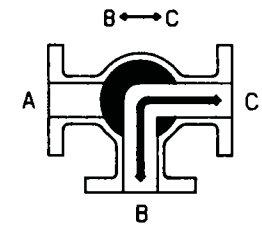
\*1 : SPACE FOR COVER REMOVAL



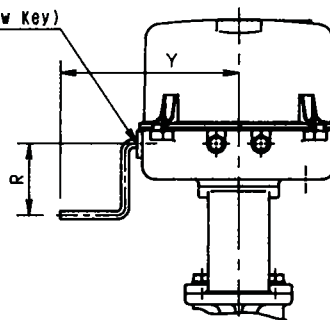
CLOCKWISE ACTION



COUNTER. CLOCKWISE ACTION



Q (Hexagon Socket Screw Key)  
f (Depth)



WITH MANUAL HANDLE

## DIMENSIONS

UNIT: mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10kFF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	h1	h2	H1	H3	L1	L2	φC	ACTUATOR				SIZE CODE No.
									<input type="checkbox"/> WITH MANUAL HANDLE				
									R	Y	Q-f		
93 <input type="checkbox"/> 1½ (40A)	230	85	—	385	120	130	56	225	80	200	6-12	<input type="checkbox"/> 34A2RA <input type="checkbox"/> 34ABRA	
02 <input type="checkbox"/> 2" (50A)	230	91	—	395	120	130	56	225	80	200	6-12	<input type="checkbox"/> 34A2RA <input type="checkbox"/> 34ABRA	
				435	155	145	68	255	160	225	8-15	<input type="checkbox"/> 34B1RA <input type="checkbox"/> 34B2RA	
94 <input type="checkbox"/> 2½ (65A)	270	120	—	465	155	145	68	255	160	225	8-15	<input type="checkbox"/> 34B1RA <input type="checkbox"/> 34B2RA	
03 <input type="checkbox"/> 3" (80A)	290	130	—	475	155	145	68	255	160	225	8-15	<input type="checkbox"/> 34B1RA <input type="checkbox"/> 34B2RA	
04 <input type="checkbox"/> 4" (100A)	350	160	112	553	155	145	68	255	160	225	8-15	<input type="checkbox"/> 34B2RA	

\* Flange is according to the standard which is described on specification sheet.

NOTE:

DRAWING No.

E-300L-34<sup>A</sup>/<sub>B</sub>•RA-B-<sup>N</sup>/<sub>S</sub>

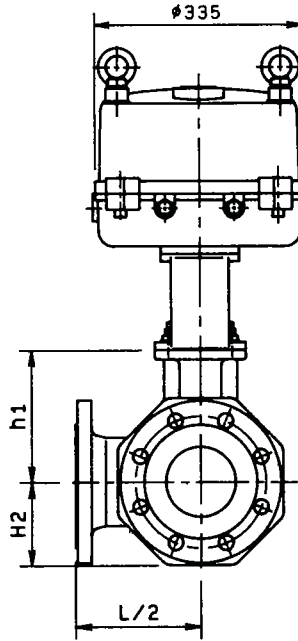
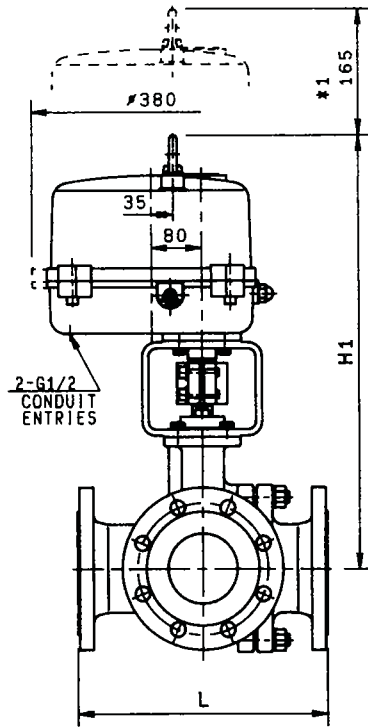
REV

A

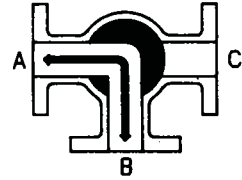
**KOSO**

# BALL VALVE

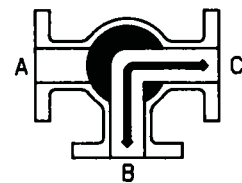
\*1 SPACE FOR COVER REMOVAL



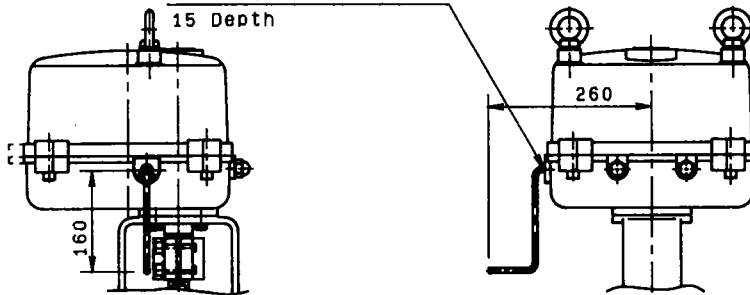
CLOCKWISE ACTION  
B ← A



COUNTER CLOCKWISE ACTION  
B → C



B Hexagon Socket screw Key  
15 Depth



WITH MANUAL HANDLE

## DIMENSIONS

UNIT: mm

CODE No.	VALVE SIZE	FACE TO FACE L			h1	H2	H1	ACTUATOR SIZE CODE No.
		<input type="checkbox"/> JIS 10KFF <input type="checkbox"/> JIS 10KRF	<input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF					
03	<input type="checkbox"/> 3" (80A)	290			130	—	535	<input type="checkbox"/> 34C1RA
04	<input type="checkbox"/> 4" (100A)	350			160	112	590	<input type="checkbox"/> 34C1RA <input type="checkbox"/> 34C2RA
05	<input type="checkbox"/> 5" (125A)	380			185	140	630	<input type="checkbox"/> 34C1RA <input type="checkbox"/> 34C2RA <input type="checkbox"/> 34C3RA
06	<input type="checkbox"/> 6" (150A)	440			200	160	645	<input type="checkbox"/> 34C2RA <input type="checkbox"/> 34C3RA

\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

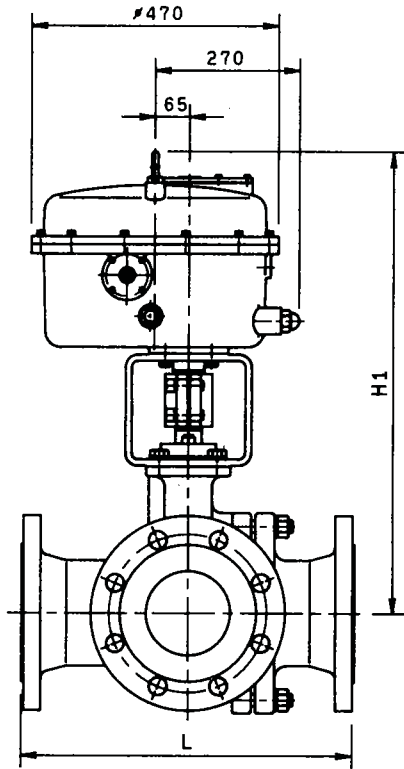
E-300L-34C●RA-B-N  
S

REV

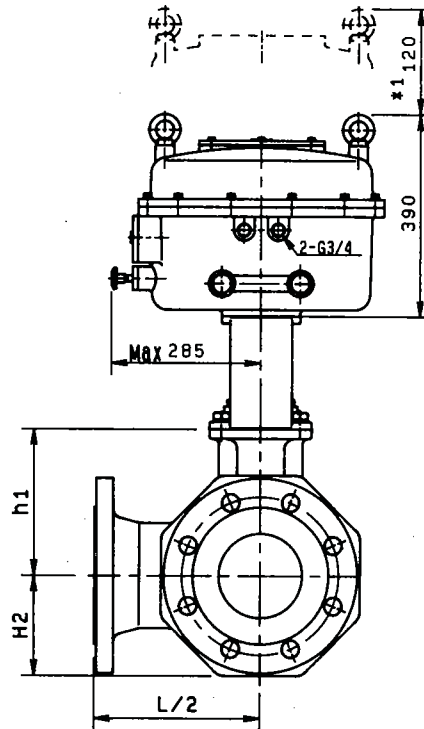
A

**KOSO**

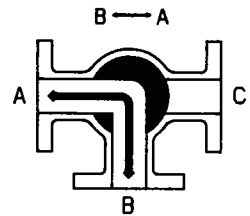
# BALL VALVE



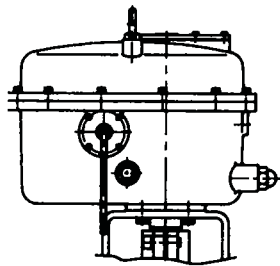
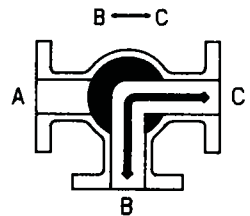
\*1 SPACE FOR COVER REMOVAL



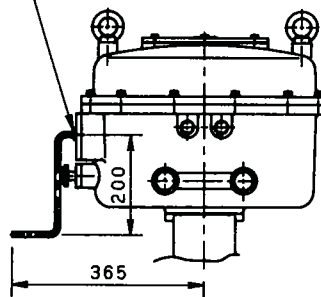
CLOCKWISE ACTION



COUNTER CLOCKWISE ACTION



10 Hexagon  
Socket Screw Key  
18 Depth



WITH MANUAL HANDLE

DIMENSIONS

UNIT: mm

CODE NO.	VALVE SIZE	FACE TO FACE L			h1	H2	H1	ACTUATOR SIZE CODE No.
		<input type="checkbox"/> JIS 10kFF	<input type="checkbox"/> JIS 10kRF	<input type="checkbox"/> ANSI 125#RF				
05	<input type="checkbox"/> 5" (125A)		380		185	140	775	<input type="checkbox"/> 34D1RA
06	<input type="checkbox"/> 6" (150A)		440		200	160	785	<input type="checkbox"/> 34D1RA

\* Flange is according to the standard which is described on specification sheet.

NOTE:

DRAWING No.

E-300L-34D●RA-B-N  
S

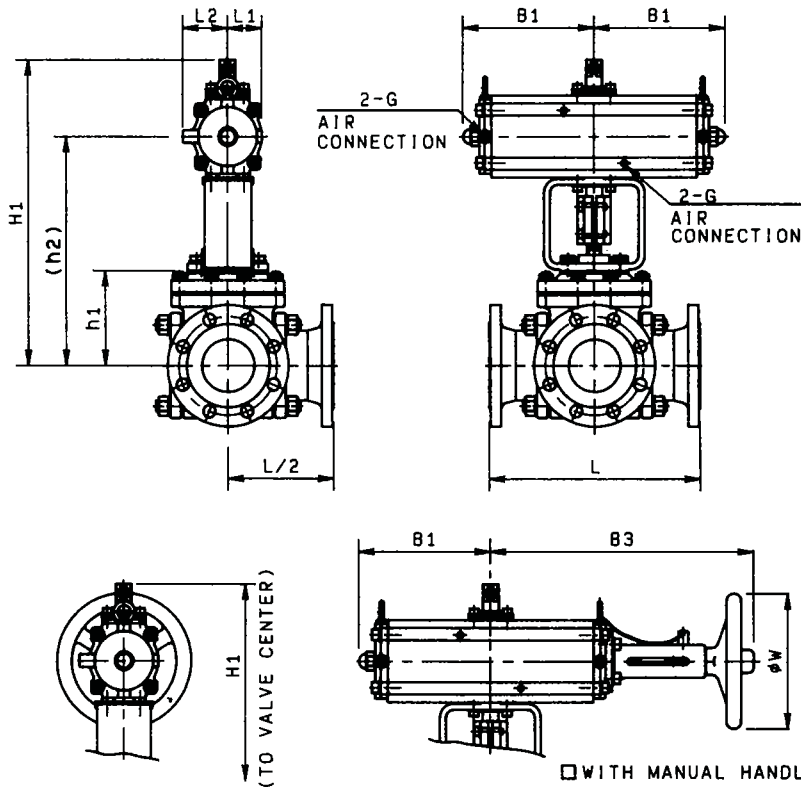
REV

A

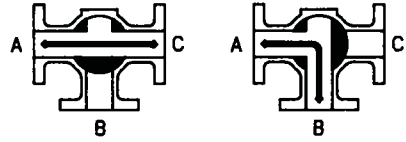
**KOSO**



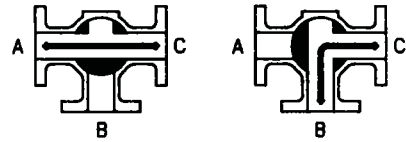
# BALL VALVE Double acting cylinder



- VALVE ACTION
- CASE 1 A : SOLENOID VALVE ENERGIZED A → C
  - CASE 1 B : SOLENOID VALVE ENERGIZED A ← B



- CASE 2 A : SOLENOID VALVE ENERGIZED A → C
- CASE 2 B : SOLENOID VALVE ENERGIZED B → C



DIMENSIONS

UNIT : mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10kFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	h1	h2	H1	ACTUATOR							CODE No.
					Cylinder size	B1	L1	L2	G	<input type="checkbox"/> WITH MANUAL HANDLE B3 W		
91 <input type="checkbox"/> ¾ (20A)	180	75	225	315	<input type="checkbox"/> 60	155	38	55	RC1/8	305	140	6606RA
01 <input type="checkbox"/> 1" (25A)	210	79	240	330	<input type="checkbox"/> 60	155	38	55	RC1/8	305	140	6606RA
93 <input type="checkbox"/> 1½ (40A)	250	93	255	345	<input type="checkbox"/> 60	155	38	55	RC1/8	305	140	6606RA
			275	385	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
02 <input type="checkbox"/> 2" (50A)	260	118	305	415	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
94 <input type="checkbox"/> 2½ (65A)	320	128	315	425	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
			355	505	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
03 <input type="checkbox"/> 3" (80A)	350	155	370	480	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
			405	555	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
04 <input type="checkbox"/> 4" (100A)	370	170	420	570	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
05 <input type="checkbox"/> 5" (125A)	510	204	470	620	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA

REDUCED BORE TYPE

R4 <input type="checkbox"/> 4" X 3" (100Ax80A)	350	155	370	480	<input type="checkbox"/> 90	200	53	70	RC1/8	395	140	6609RA
			405	555	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
R5 <input type="checkbox"/> 5" X 4" (125Ax100A)	370	170	420	570	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA
R6 <input type="checkbox"/> 6" X 5" (150Ax125A)	510	204	470	620	<input type="checkbox"/> 130	270	70	100	RC1/4	530	300	6613RA

\* Flange is according to the standard which is described on specification sheet.

NOTE:

DRAWING No.

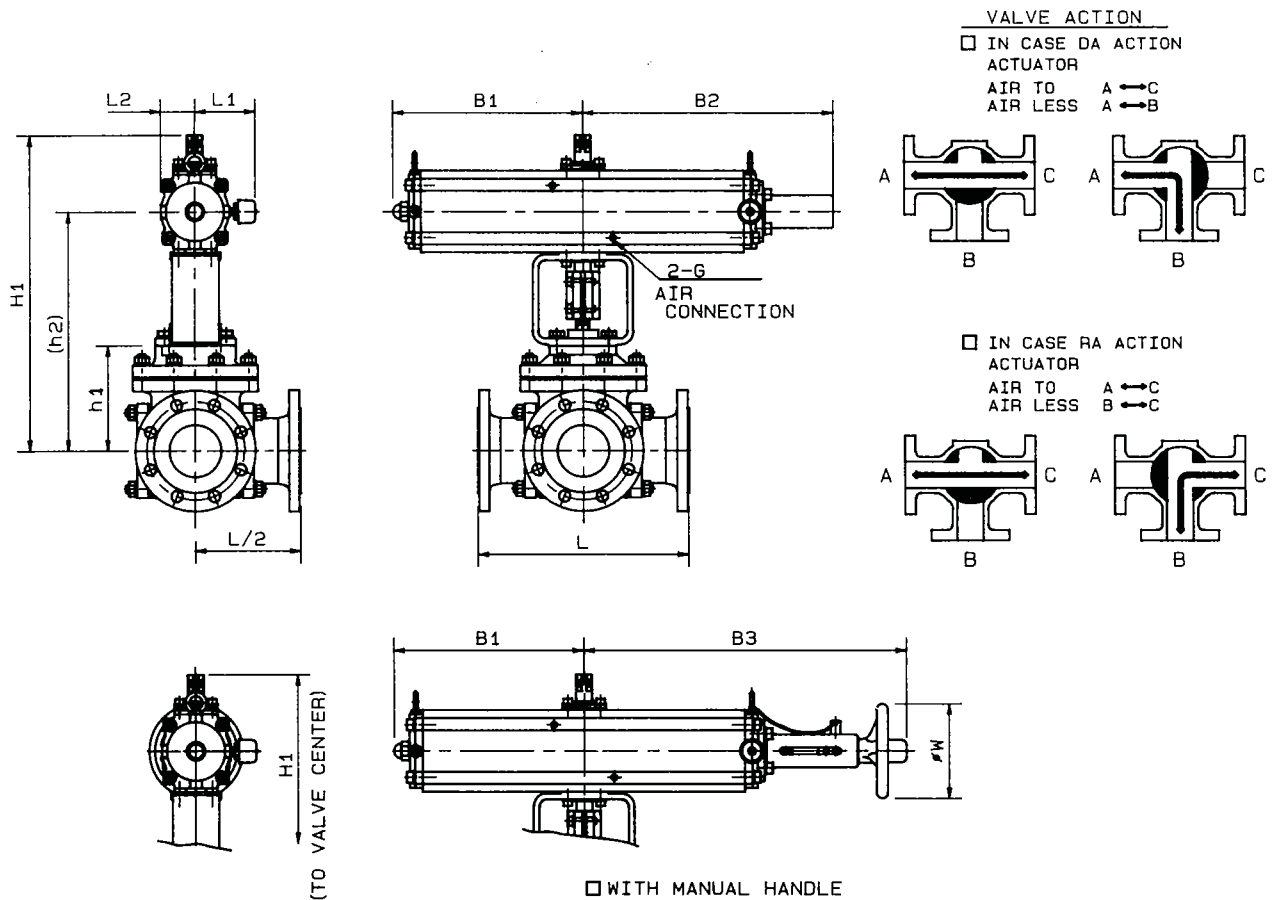
E-300T-6600RA-W-N  
S

REV

A

**KOSO**

# BALL VALVE Spring return cylinder



## DIMENSIONS

UNIT: mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10KFF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	h1	h2	H2	ACTUATOR								CODE No.
					Cylinder size	B1	B2	L1	L2	G	<input type="checkbox"/> WITH MANUAL HANDLE B3 W		
91 <input type="checkbox"/> ¾" (20A)	180	75	225	315	<input type="checkbox"/> 60	220	275	80	38	RC1/8	360	140	6606RA
01 <input type="checkbox"/> 1" (25A)	210	79	260	370	<input type="checkbox"/> 90	290	375	95	55	RC1/8	470	140	6609RA
93 <input type="checkbox"/> 1½" (40A)	250	93	275	385	<input type="checkbox"/> 90	290	375	95	55	RC1/8	470	140	6609RA
			315	465	<input type="checkbox"/> 130	395	500	115	75	RC1/4	655	300	6613RA
02 <input type="checkbox"/> 2" (50A)	260	118	305	415	<input type="checkbox"/> 90	290	375	95	55	RC1/8	470	140	6609RA
			345	495	<input type="checkbox"/> 130	395	500	115	75	RC1/4	655	300	6613RA
94 <input type="checkbox"/> 2½" (65A)	320	128	355	505	<input type="checkbox"/> 130	395	500	115	75	RC1/4	655	300	6613RA
03 <input type="checkbox"/> 3" (80A)	350	155	405	555	<input type="checkbox"/> 130	395	500	115	75	RC1/4	655	300	6613RA

## REDUCED BORE TYPE

R4 <input type="checkbox"/> 4" X 3" (100A X 80A)	350	155	405	555	<input type="checkbox"/> 130	395	500	115	100	RC1/4	655	300	6613RA
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\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

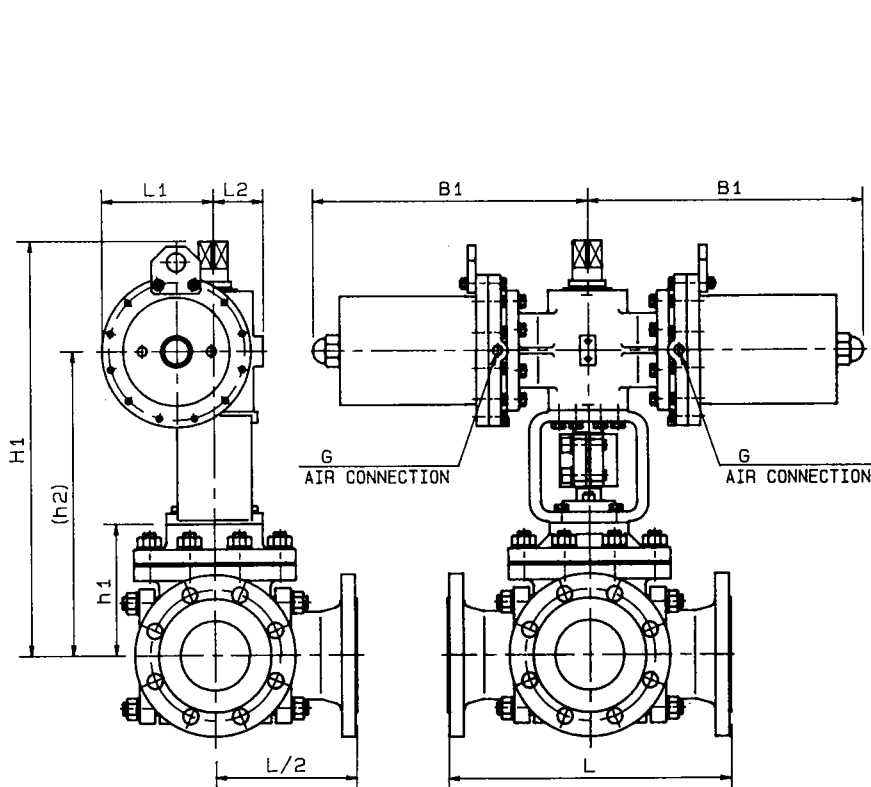
E-300T-6600RA-D-N  
R S

REV

C

**KOSO**

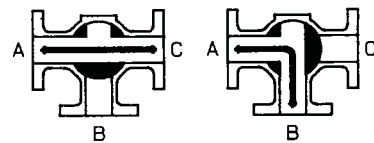
# BALL VALVE Double acting cylinder



VALVE ACTION

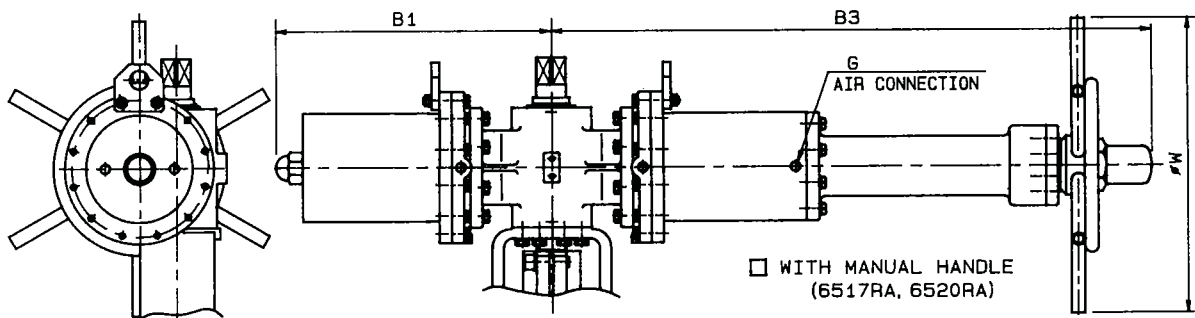
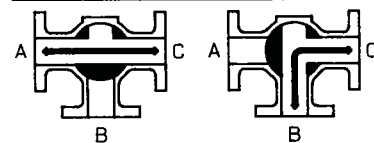
CASE 1 A : SOLENOID VALVE  
ENERGIZED A → C

CASE 1 B : SOLENOID VALVE  
ENERGIZED A → B



CASE 2 A : SOLENOID VALVE  
ENERGIZED A → C

CASE 2 B : SOLENOID VALVE  
ENERGIZED B → C



## DIMENSIONS

UNIT: mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10KFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10KRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	h1	h2	H1	ACTUATOR							CODE No.	
					cylinder size	B1	L1	L2	G	B3	HL		W
04 <input type="checkbox"/> 4" (100A)	370	170	475	680	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA
05 <input type="checkbox"/> 5" (125A)	510	204	510	715	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA
06 <input type="checkbox"/> 6" (150A)	510	231	535	740	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA
			560	780	<input type="checkbox"/> 200	555	230	100	RC1/2	1210	—	590	6520RA

## REDUCED BORE TYPE

R5 <input type="checkbox"/> 5" X 4" (125AX100A)	370	170	475	680	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA
R6 <input type="checkbox"/> 6" X 5" (150AX125A)	510	204	510	715	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA
R8 <input type="checkbox"/> 8" X 6" (200AX150A)	580	231	535	740	<input type="checkbox"/> 170	440	205	90	RC3/8	1015	—	400	6517RA
			560	780	<input type="checkbox"/> 200	555	230	100	RC1/2	1210	—	590	6520RA

\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

E-300T-6500RA-W-<sup>N</sup>/<sub>S</sub>

REV

C

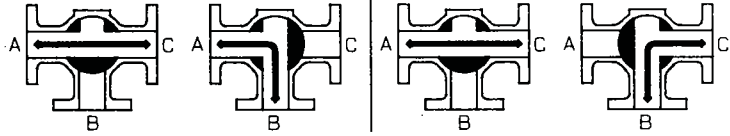
**KOSO**

# BALL VALVE Spring return cylinder

## VALVE ACTION

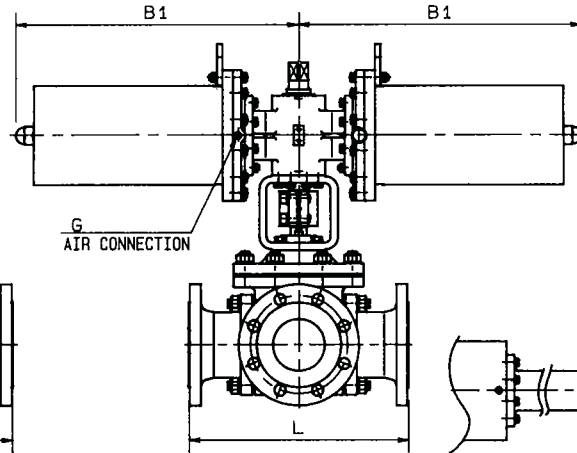
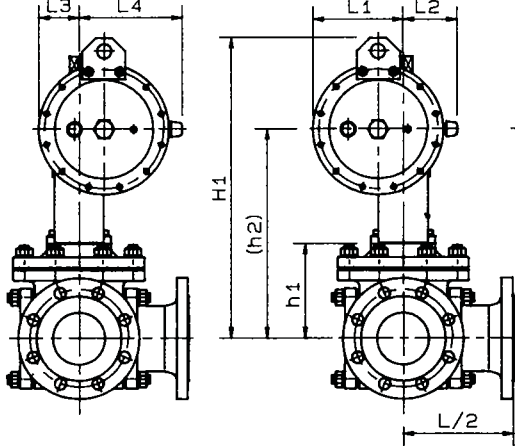
IN CASE OF DA ACTION ACTUATOR  
AIR TO A → C  
AIR LESS A → B

IN CASE OF RA ACTION ACTUATOR  
AIR TO A → C  
AIR LESS B → C



DIRECT ACTION

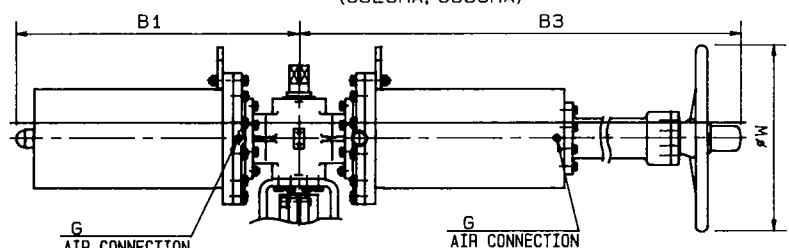
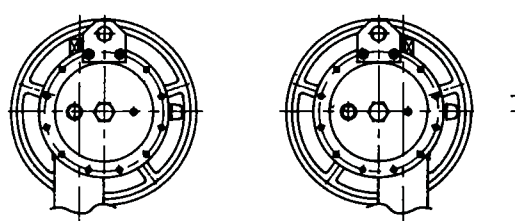
REVERSE ACTION



WITH MANUAL HANDLE (6528RA, 6536RA)

DIRECT ACTION

REVERSE ACTION



WITH MANUAL HANDLE (6520RA)

## DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE L <input type="checkbox"/> JIS 10kFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	ACTUATOR											CODE No.			
		h1	h2	H1	cylinder size	B1	L1	L2	L3	L4	G	<input type="checkbox"/> WITH MANUAL HANDLE		B3	HL	W
03 <input type="checkbox"/> 3" (80A)	350	155	450	685	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
04 <input type="checkbox"/> 4" (100A)	370	170	465	700	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
05 <input type="checkbox"/> 5" (125A)	510	204	510	745	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
			535	810	<input type="checkbox"/> 280	865	275	165	125	315	RC1/2	<input type="checkbox"/>	1615	108	590	6528RA
06 <input type="checkbox"/> 6" (150A)	510	231	525	760	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
			560	835	<input type="checkbox"/> 280	865	275	165	125	315	RC1/2	<input type="checkbox"/>	1615	108	590	6528RA

## REDUCED BORE TYPE

R4 <input type="checkbox"/> 4" X 3" (100AX 80A)	350	155	450	685	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
R5 <input type="checkbox"/> 5" X 4" (125AX100A)	370	170	465	700	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
R6 <input type="checkbox"/> 6" X 5" (150AX125A)	510	204	510	745	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
			535	810	<input type="checkbox"/> 280	865	275	165	125	315	RC1/2	<input type="checkbox"/>	1615	108	590	6528RA
R8 <input type="checkbox"/> 8" X 6" (200AX150A)	580	231	525	760	<input type="checkbox"/> 200	770	215	135	95	255	RC3/8	<input type="checkbox"/>	1330	—	400	6520RA
			560	835	<input type="checkbox"/> 280	865	275	165	125	315	RC1/2	<input type="checkbox"/>	1615	108	590	6528RA

\* Flange is according to the standard which is described on specification sheet.

NOTE:

DRAWING No.

E-300T-6500RA-D-N  
R-S

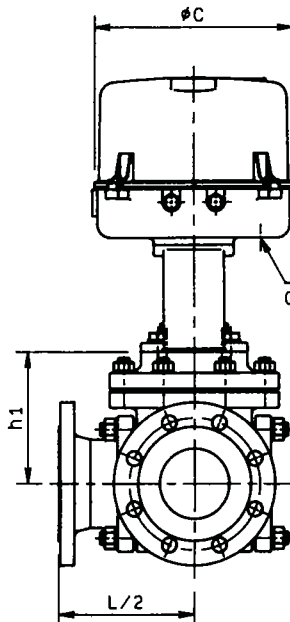
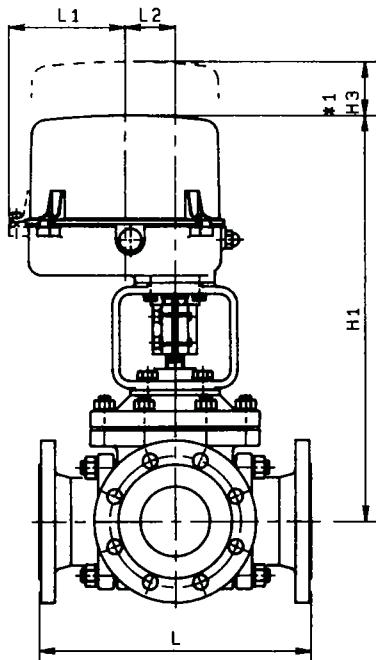
REV

C

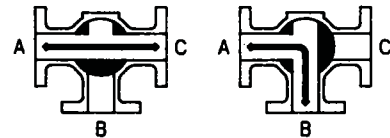
**KOSO**

# BALL VALVE

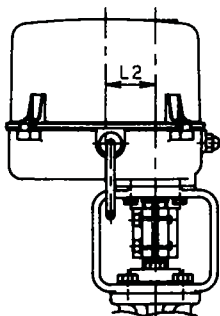
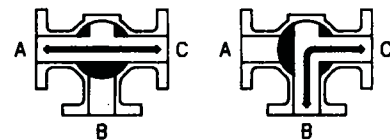
\*1 : SPACE FOR COVER REMOVAL



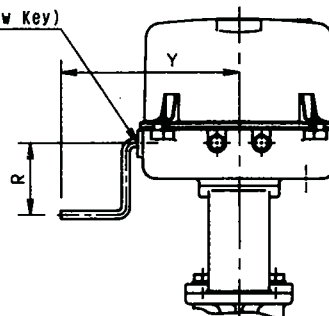
CASE 1 : CLOCKWISE ACTION A → C  
COUNTER CLOCKWISE ACTION A → B



CASE 2 : CLOCKWISE ACTION B → C  
COUNTER CLOCKWISE ACTION A → C



Q (Hexagon Socket Screw Key)  
f (Depth)



WITH MANUAL HANDLE

## DIMENSIONS

UNIT: mm

VALVE SIZE CODE No.	FACE TO FACE L <input type="checkbox"/> JIS 10kFF <input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> JIS 10kRF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF	ACTUATOR										SIZE CODE No.	
		h1	H1	H3	L1	L2	#C	<input type="checkbox"/> WITH MANUAL HANDLE					
								R	Y	Q-f			
91 <input type="checkbox"/> 3/4 (20A)	180	75	365	120	130	56	225	80	200	6-12	<input type="checkbox"/> 34A1RA <input type="checkbox"/> 34AARA <input type="checkbox"/> 34A2RA <input type="checkbox"/> 34ABRA		
01 <input type="checkbox"/> 1" (25A)	210	79	380	120	130	56	225	80	200	6-12	<input type="checkbox"/> 34A2RA <input type="checkbox"/> 34ABRA		
93 <input type="checkbox"/> 1 1/2 (40A)	250	91	435	155	145	68	255	160	225	8-15	<input type="checkbox"/> 34B1RA		
02 <input type="checkbox"/> 2" (50A)	260	118	465	155	145	68	255	160	225	8-15	<input type="checkbox"/> 34B1RA <input type="checkbox"/> 34B2RA		
94 <input type="checkbox"/> 2 1/2 (65A)	320	128	475	155	145	68	255	160	225	8-15	<input type="checkbox"/> 34B2RA		

\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

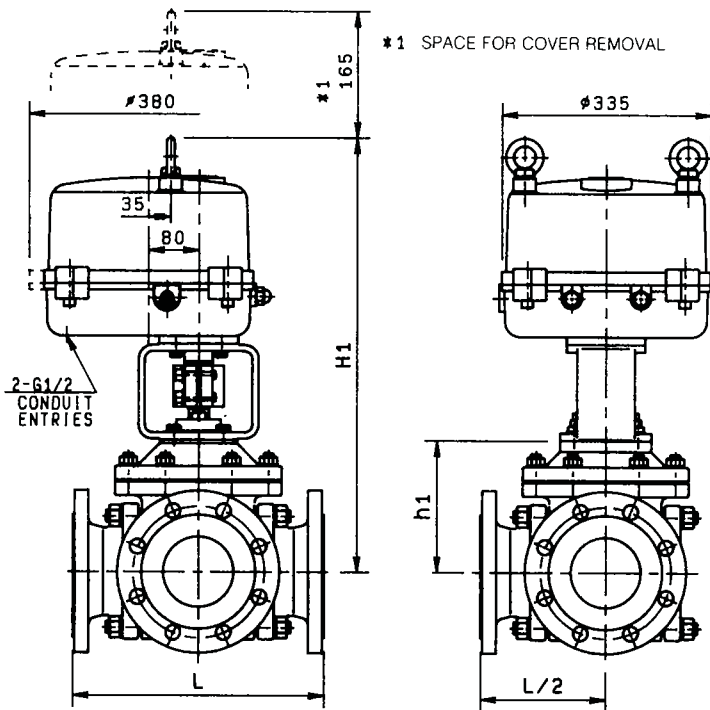
E-300T-34<sup>A</sup><sub>B</sub>•RA-B-<sup>N</sup><sub>S</sub>

REV

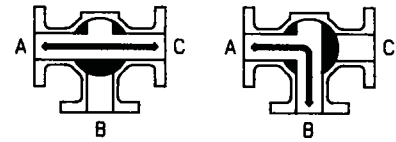
A

**KOSO**

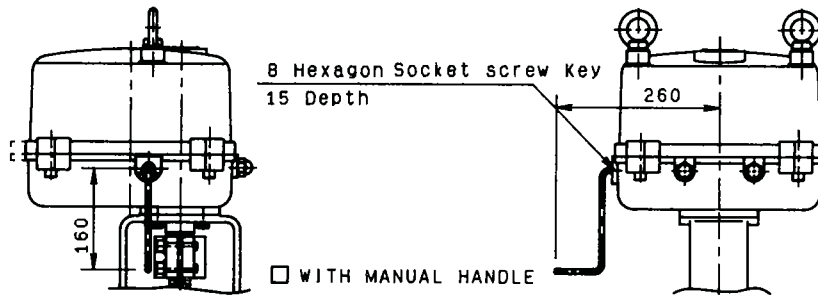
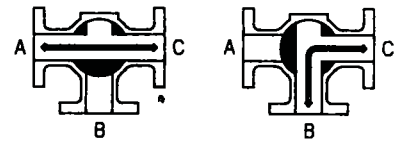
# BALL VALVE



CASE 1 : CLOCKWISE ACTION  
 COUNTER CLOCKWISE ACTION



CASE 2 : CLOCKWISE ACTION  
 COUNTER CLOCKWISE ACTION



## DIMENSIONS

UNIT: mm

CODE No.	VALVE SIZE	FACE TO FACE L		h1	H1	ACTUATOR SIZE CODE No.
		<input type="checkbox"/> JIS 10kFF <input type="checkbox"/> JIS 10kRF	<input type="checkbox"/> ANSI 125#FF <input type="checkbox"/> ANSI 150#RF <input type="checkbox"/> JPI 150#RF			
94	<input type="checkbox"/> 2 1/2" (65A)	320		128	535	<input type="checkbox"/> 34C1RA
03	<input type="checkbox"/> 3" (80A)	350		155	595	<input type="checkbox"/> 34C1RA <input type="checkbox"/> 34C2RA
04	<input type="checkbox"/> 4" (100A)	370		170	600	<input type="checkbox"/> 34C2RA <input type="checkbox"/> 34C3RA
05	<input type="checkbox"/> 5" (125A)	510		204	650	<input type="checkbox"/> 34C2RA <input type="checkbox"/> 34C3RA

## REDUCED BORE TYPE

R4	<input type="checkbox"/> 4" X 3" (100AX 80A)	350	155	595	<input type="checkbox"/> 34C1RA <input type="checkbox"/> 34C2RA
R5	<input type="checkbox"/> 5" X 4" (125AX100A)	370	170	600	<input type="checkbox"/> 34C2RA <input type="checkbox"/> 34C3RA
R6	<input type="checkbox"/> 6" X 5" (150AX125A)	510	204	650	<input type="checkbox"/> 34C2RA <input type="checkbox"/> 34C3RA

\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

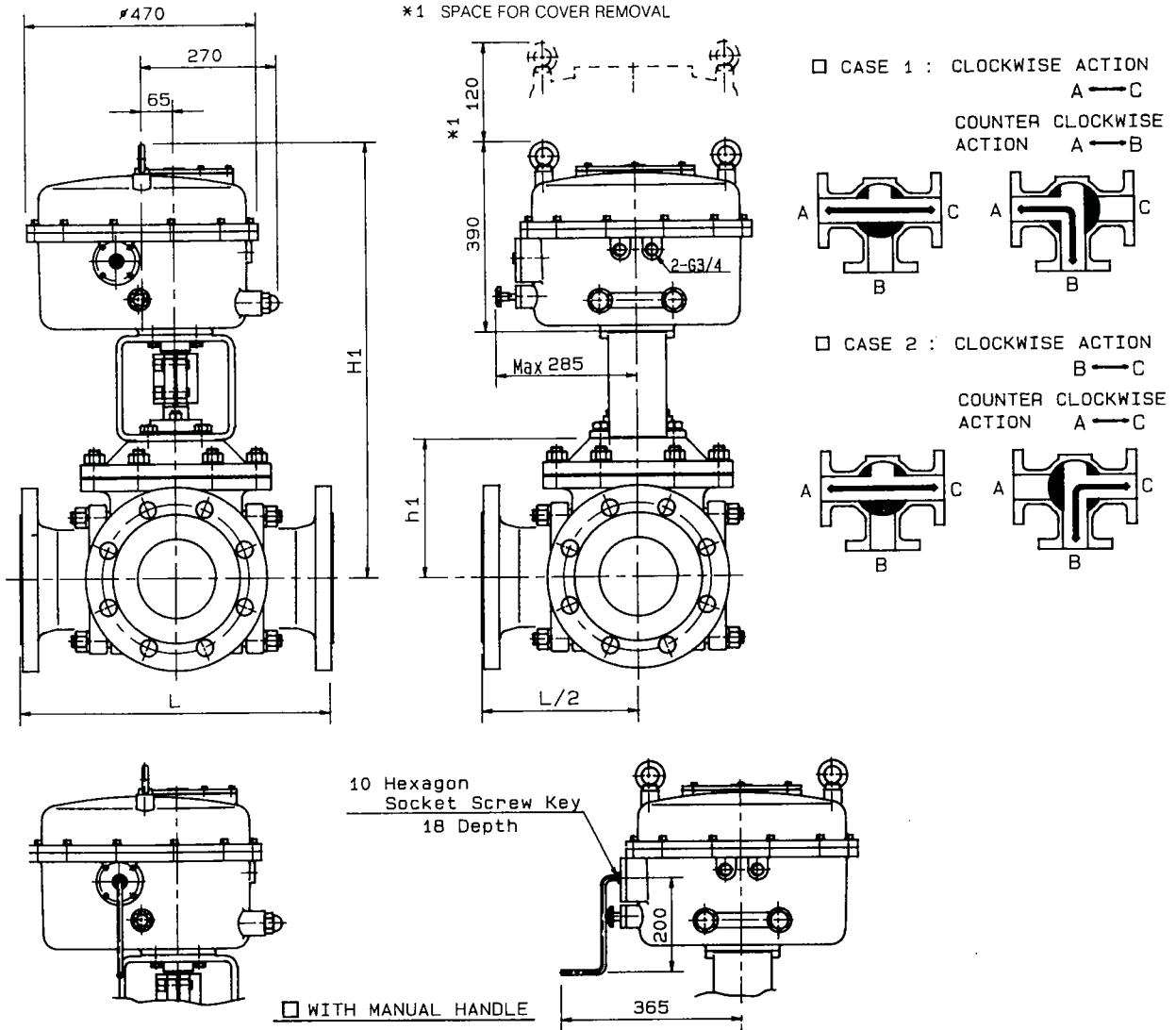
E-300T-34C●RA-B-N  
S

REV

A

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# BALL VALVE



## DIMENSIONS

UNIT: mm

CODE No.	VALVE SIZE	FACE TO FACE L			h1	H1	ACTUATOR SIZE CODE No.
		□ JIS 10KFF	□ ANSI 125#FF	□ JIS 10KRF			
04	□ 4" (100A)	370			177	775	□ 34D1RA
05	□ 5" (125A)	510			198	785	□ 34D1RA
06	□ 6" (150A)	510			227	815	□ 34D1RA

## REDUCED BORE TYPE

R5	□ 5" X 4" (125AX100A)	370	177	775	□ 34D1RA
R6	□ 6" X 5" (150AX125A)	510	198	785	□ 34D1RA
R8	□ 8" X 6" (200AX150A)	580	227	815	□ 34D1RA

\* Flange is according to the standard which is described on specification sheet.

NOTE :

DRAWING No.

E-300T-34D●RA-B-N  
S

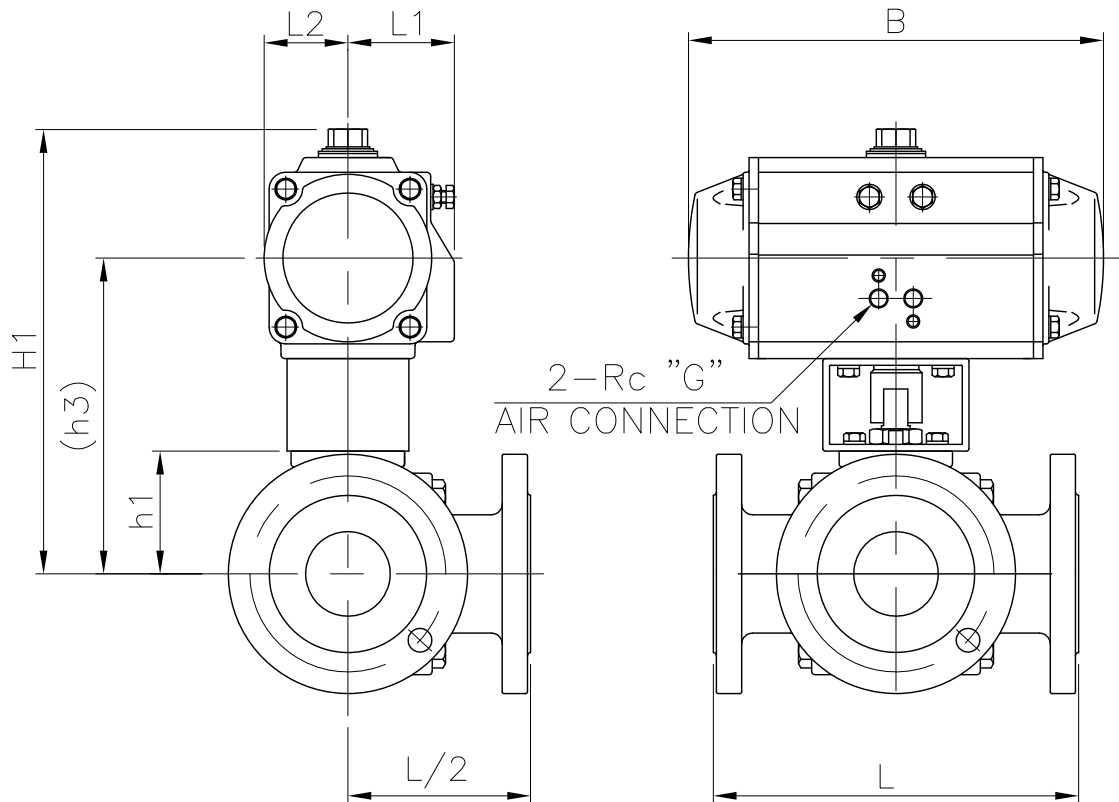
REV

C

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# BALL VALVE



## DIMENSIONS

UNIT : mm

VALVE SIZE CODE No.	FACE TO FACE L	ACTUATOR									
		Cylinder Size	B	L1	L2	G	CODE No.				
90 □ 1/2" (15A)	148.2	154.4	39	115	165	□ AT050	145	42	29	1/8	63B0RB
				120	185	□ AT100	160	47	36	1/8	63B1RB
91 □ 3/4" (20A)	154.2	164.1	43	115	170	□ AT050	145	42	29	1/8	63B0RB
				125	185	□ AT100	160	47	36	1/8	63B1RB
				135	205	□ AT200	215	52	43	1/8	63B2RB
01 □ 1" (25A)	168.4	181	52	125	180	□ AT050	145	42	29	1/8	63B0RB
				135	195	□ AT100	160	47	36	1/8	63B1RB
				140	210	□ AT200	215	52	43	1/8	63B2RB
				145	220	□ AT250	250	57	50	1/8	63BARB
93 □ 1 1/2" (40A)	240	240	66	150	210	□ AT100	160	47	36	1/8	63B1RB
				160	230	□ AT200	215	52	43	1/8	63B2RB
				165	240	□ AT250	250	57	50	1/8	63BARB
				170	255	□ AT300	270	67	56	1/4	63B3RB

\*FLANGE IS ACCORDING TO THE STANDARD WHICH IS DESCRIBED ON SPECIFICATION SHEET.

NOTE:

DRAWING No.

E-330T-6300RB-D,S-N

REV.

A

**KOSO**

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