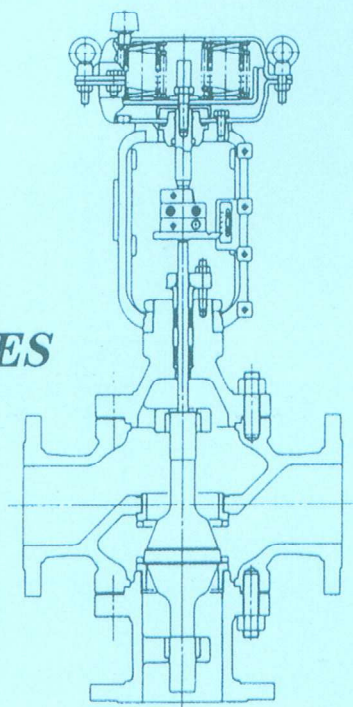


*STANDARD SPECIFICATION*

*THREE-WAY CONTROL VALVE  
GLOBE - VALVE*

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*520F · 530F SERIES*



**KOSO**

# STANDARD SPECIFICATION

# GLOBE-VALVE THREE-WAY CONTROL VALVE 520F·530F SERIES

## GENERAL

This series is three way control valve Suitable to the mixing service or diverting service such as temperature control of heat exchanger. There are two kind of three way valves. One is mixing type mixing two flows into one and diverting type diverting one flow into two. Standard combined actuators are Multi-Spring Diaphragm, Solid state electronic, and pneumatic cylinder type actuators.

## STANDARD SPECIFICATIONS

### Body

Type: Mixing type(530F), Diverting type(520F)

Size:  $\frac{3}{4}$  ~ 8 inches (20 ~ 200mm)

Rating: JIS10K, 20K, 30K  
ANSI Class 125, 150, 300

Connection: Flanged(RF, FF)  
When body material is FC25, FF only available.

Face to Face dimensions: See Page 6~16

Material: FC25, SCPH2, SCS13A, SCS14A  
As to the operating temperature-pressure limitation for each materials, See Page 2~3, Table 1~2.

Bonnet: Standard type..... -5°C to 200°C  
Fin·Fxtension type...  $\begin{cases} -45 \sim -5^\circ\text{C} \text{ under} \\ 200^\circ\text{C} \text{ over} \end{cases}$

Bellows seal(Pressed or Welded type)

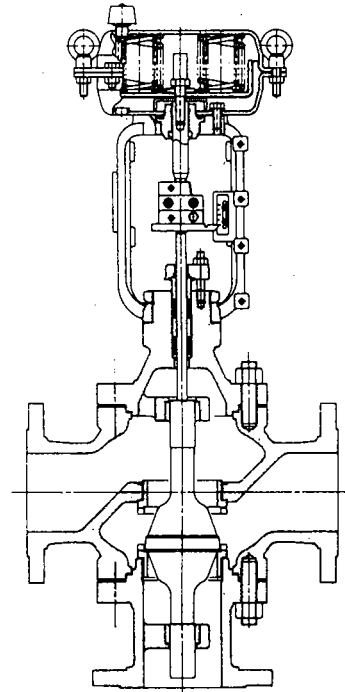
Note: Be careful to the allowable operating Press./Temp. for each materials.  
When operating temperature is over 300 °C, Trouble caused by heat expansion is possible. Use 2 pcs. of two-way Valves (501T, 501G).

Gland Packing: Teflon V-ring, Teflon Asbestos Pillarfoil.

See Page 3, Fig. 2 for selection.

Gasket: Asbestos, Teflon, Grooved Metal.  
Grooved Metal is only for JIS30K, ANSI Class 300 type body.

Painting color: Munsell N-6 (Epoxy resin group) is standard. In case of Stainless Steel body, no painting is standard.



### Trim

Plug form: P port, Q port

Characteristics: Linear, & On-Off

Materials & Treatment: See Page 2~3, Table 1~2, & Fig. 1 for Hardening Treatment and Operating pressure-Temperature.

### Actuator

Standard specification: See Page 2.

### Performance

Rated Cv: See Page 4, Table 4.

Rangeability: 30:1

Seat Leakage: Modulation..... Rated Cv×0.1%  
On-Off..... Rated Cv×0.05%

Maximum shut-off Press: See Page 5, Table 5.

Mounting form: See Page 4, Fig. 4.

Dimensions: See Page 6~17.

Weight: See Page 19, Table 6.

Optional Special Special Specification: See Page 2.

## Actuator Specification

Model	Diaphragm	Pneumatic cylinder	Solid State Electronic		Electric Motor
	5200LA	6300LA	3500LB	3600LA	3400LA
Specification	Multi-Spring Diaphragm	Spring Return	DC Motor Resolution 0.3%	AC Motor Resolution 0.4%	AC Motor
Purpose	Modulation/On-Off	Modulation/On-Off	Modulation		On-off
Air Supply (Spring range) or Power Supply (Input signal)	1.4(0.2~1.0)kgf/cm <sup>2</sup> G 3.0(0.8~2.0)kgf/cm <sup>2</sup> G 3.4(0.8~2.0)kgf/cm <sup>2</sup> G 3.4(1.2~3.0)kgf/cm <sup>2</sup> G	5.0(1.5~3.5)kgf/cm <sup>2</sup> G	AC 100V 50/60 HZ (DC 4~20mA)		AC 100V 50/60 HZ change-over contact
Piping/Wiring Conn.	Rc 1/4	Rc 3/8	2-G1/2		2-G1/2
Action	See Page 4, Table 3.	See Page 4, Table 3.	See Page 4, Table 3.		See Page 4, Table 3.
Hysteresis	Less than 1% FS with Positioner	Less than 1.5% FS with Positioner	Less than 0.5% FS	Less than 0.8% FS	—
Linearity	Less than ±2% FS with Positioner	Less than ±2% FS with Positioner	Less than ±1% FS	Less than ±1% FS	—
Ambient Temperature	-10~+70°C	-20~+60°C	-10~+55°C		-10~+55°C
Painting	Munsell N-6 (Epoxy Resin Group)	Munsell N-6 (Epoxy Resin Group)	S type P4417 (Blue)		S type P4417 (Blue)
Option	E/P·P/P Positioner, Air Set, Solenoid Valve, Speed controller, Lock-up Valve, Limit Switch, Manual handle, etc.		Resolution 0.1% Split range, Space heater, Junction Box, Position transmitter, Manual handle, etc.	Over Load Unit, Space heater, Junction Box, Manual handle, etc.	Potential meter, Micro Switch, Space heater

### Optional special specifications (additional cost is required):

- Special testing
- Sand/Dust proof.
- Special piping & fitting
- Flow characteristics testing, Material certificate,
- Code area proof.
- Vacuum service proof
- Low temperature testing, Steam testing.
- Tropical area proof.
- SUS bolts/nuts for exposed parts.
- Non destructive testing, Radiographic testing.
- No copper alloy.
- Painting extra-standard.
- Oxygen clean.
- Salty environment proof.

**Table 1 Body/Trim materials combinations, Operating Temperature**

Body material JIS/ASTM		FC25	SCPH2/A216-WCB			SCS13A, SCS14A/A351-CF8M		
Plug	material	SUS304	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316
	treatment	—	—	Stellite Seat	Stellite Full	—	Stellite Seat	Stellite Full
Seat ring	material	SUS304	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316	SUS304, SUS316
	treatment	—	—	Stellite Seat	Stellite Full	—	Stellite Seat	Stellite Full
Guide	material	SUS420J2	SUS420J2	SUS420J2	SUS420J2	SUS316	SUS316	SUS316
	treatment	Heat Treatment	Heat Treatment	Heat Treatment	Heat Treatment	Stellite	Stellite	Stellite
Operating temperature °C		0~200	-5~250	-5~300	-5~300	-45~250	-45~300	-45~300

Note 1) Trim material/treatment vs Operating temp. · press. range: See Page 3, Fig. 1.

**Table 2 Body material/operating Pressure Temperature ratings.**

**Table 2-1 JIS**

Temp. °C	10K		20K		30K	
	FC25	SCPH2	SCPH2	SCPH2	SCPH2	SCPH21
-5~120	14.0	14.0	34.0	51.0	51.0	
~220	10.0	12.0	31.0	46.0	46.0	
~300		10.0	29.0	43.0	43.0	

Note 1) When body material is FC25, allowable temperature is up to 200 °C.

**Table 2-2 ANSI**

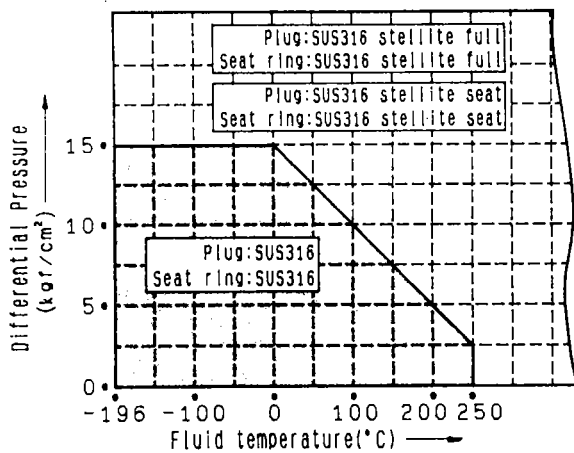
Temp. °C	150#			300#		
	SCPH2 WCB	SCS13A	SCS14A CF8M	SCPH2 WCB	SCS13A	SCS14A CF8M
-45~38	-	19.4	19.4	-	50.6	50.6
-5~38	20.0	19.4	19.4	52.1	50.6	50.6
50	19.6	18.8	18.8	51.1	48.7	49.0
100	18.0	16.0	16.5	47.3	41.7	43.0
150	16.1	14.2	15.1	46.1	37.0	39.3
200	14.3	12.8	14.0	44.7	33.4	36.4
250	12.3	11.9	12.3	42.5	31.1	34.1
300	10.4	10.4	10.4	39.5	29.7	32.2

**Table 2-3 ANSI**

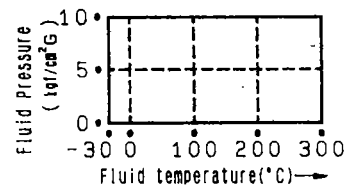
Temp. °C	125#
	FC25
-5~65	14.0
80	13.5
100	12.9
120	12.3
140	11.7
160	11.0
180	10.4
200	9.7

**Fig. 1 Trim treatment/material vs operating Temperature-pressure limitation**

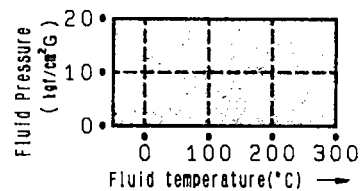
**Fig. 1-1 Metal seat**



**Fig. 1-2 Pressed type Bellows(SUS316)**

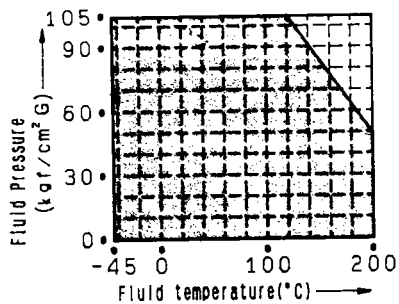


**Fig. 1-3 Welded type Bellows (SUS316)**

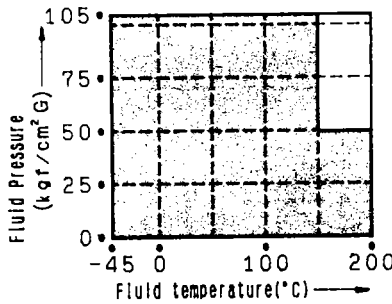


**Fig. 2 Gland packing Temperature-pressure limitation**

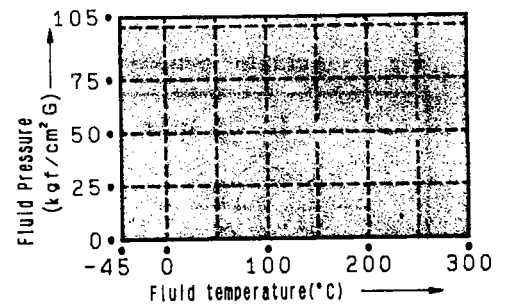
**Fig. 2-1 Reinforced Teflon V-ring**



**Fig. 2-2 Teflon asbestos(P4513+P4513L)  
Oxydizing fluid(P4513+P#2S)**

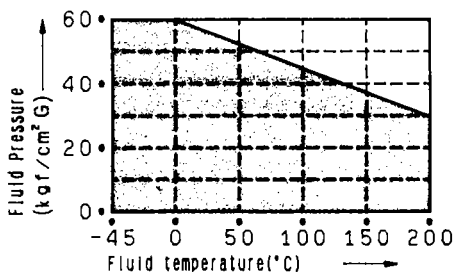


**Fig. 2-3 Pillarfoil(P6616A+P316)**

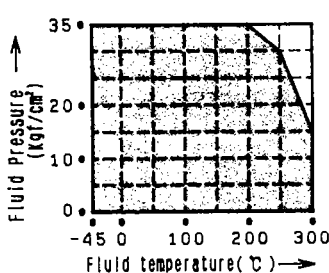


**Fig. 3 Gasket Temperature-pressure limitation**

**Fig. 3-1 Teflon  
(VAL. 7020)**

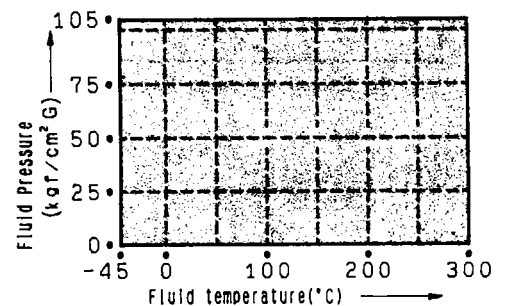


**Fig. 3-2 Asbestos  
(VAL. 1500AC)**



**Fig. 3-3 Grooved Metal  
(T/# 1890-S,T/# 1890SUS)**

※ JIS30K・ANSI Class 300 Body Only



**Table 3 Flow direction**

		Mixing type(530F)		Diverting type(520F)			
		3/4"~8"(20mm~200mm)		3/4"~2 1/2"(20mm~65mm)		3"~8"(80mm~200mm)	
Direct Action actuator	AIR TO SIGNAL TO	A → B		A → B		A → C	
	AIR LESS SIGNAL LESS	C → B		A → C		A → B	
Reverse Action actuator	AIR TO SIGNAL TO	C → B		A → C		A → B	
	AIR LESS SIGNAL LESS	A → B		A → B		A → C	
Valve section View and flow direction							

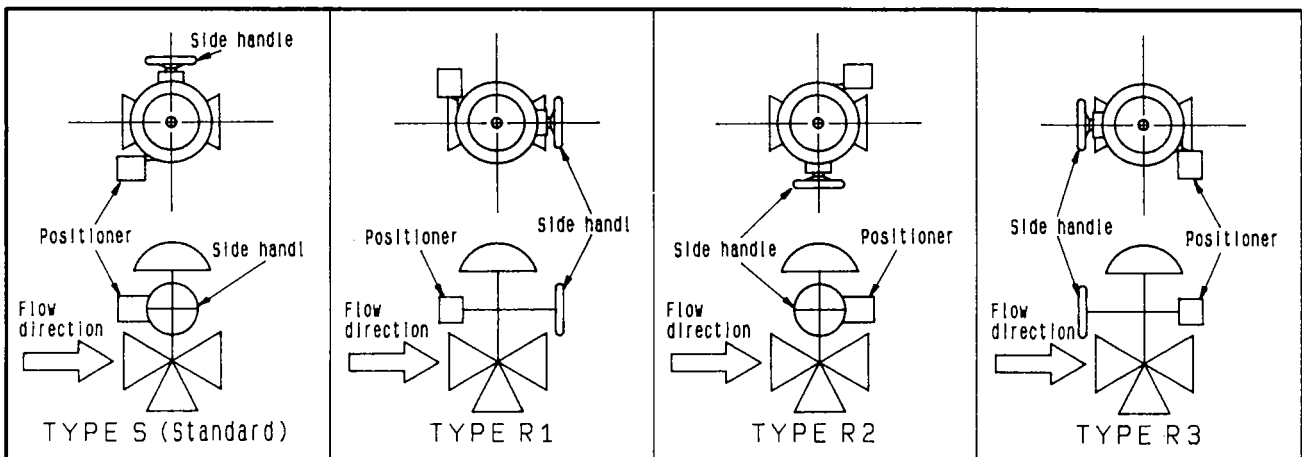
Note: In case of Mixing type, Please keep temperature difference between flow A and B within 150°C.

**Table 4 Cv value and Stroke**

Stroke mm		16 (10)	20 (10)	25 (15)	30 (20)	40 (30)	45	50 (20)	60 (30)		
Plug size	Inch	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
	mm	20	25	40	50	65	80	100	125	150	200
Cv value	P-port-Linear	7	11	24.5	42	64	85	143	200	290	500
	Q-port-On-off	7.5	11	25	46	72	100	170	260	390	660

Note: Full bore only available. Reduced port is out of manufacturing range.

**Fig. 4 Actuator mounting forms(for 5200LA)**



Note: Specify mounting form when mounting form is not TYPE S. Otherwise, TYPE S is automatically applied.

**Table 5 Max. allowable pressure drop. (Unit:kgf/cm<sup>2</sup>G)**

※See Page 6~16 for Valve size-Actuator size combinations.

**Table 5-1 Diaphragm Actuator (5200LA)**

Actuator size	Air Supply (Off Balance) kgf/cm <sup>2</sup> G	Spring range kgf/cm <sup>2</sup> G	Packing : Teflon V-ring Teflon asbestos (P4513+P4513L)										Packing : Pillarfoil (P6616A+P316)													
			Plug size (inch)										Plug size (inch)													
			¾	1	1½	2	2½	3	4	5	6	8	¾	1	1½	2	2½	3	4	5	6	8				
218	1.4(0.2)	0.2~1.0	2.1	0.3	-										-	-	-									
	3.0(0.8)	0.8~2.0	30.0	16.9	8.0										22.8	10.2	4.6									
	3.4(1.2)	DA 0.8~2.0 RA 1.2~3.0	30.0	27.9	13.5										30.0	21.2	10.2									
270	1.4(0.2)	0.2~1.0	7.4	2.8	0.9	0.3	-	-							-	-	-	-	-	-						
	3.0(0.8)	0.8~2.0	30.0	30.0	14.8	9.3	6.6	4.3							30.0	21.1	10.1	6.3	4.3	2.8						
	3.4(1.2)	DA 0.8~2.0 RA 1.2~3.0	30.0	30.0	24.1	15.3	10.9	7.2							30.0	30.0	19.4	12.3	8.7	5.7						
350	1.4(0.2)	0.2~1.0			4.5	2.6	1.7	1.0								-	-	-	-							
	3.0(0.8)	0.8~2.0			29.1	18.6	13.3	8.8								24.4	15.6	11.1	7.3							
450	1.4(0.2)	0.2~1.0			10.0	6.2	4.3	2.0	1.1	0.4	0.3					4.3	2.5	1.6	-	-	-	-				
	3.0(0.8)	0.8~2.0			30.0	30.0	24.3	15.5	9.4	4.7	3.9	2.0				30.0	30.0	21.6	12.1	7.3	3.6	3.0	1.5			

**Table 5-2 Pneumatic Cylinder Actuator (6300LA)**

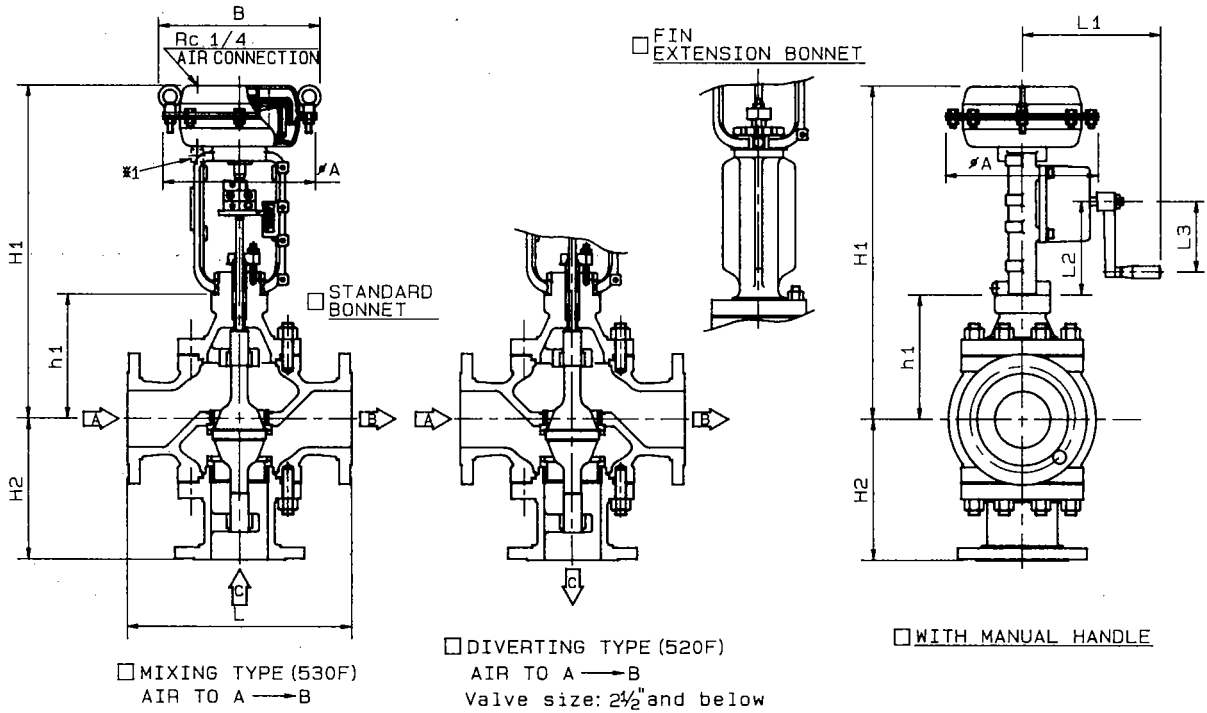
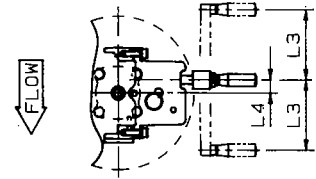
Actuator size	Air supply (Off Balance) kgf/cm <sup>2</sup> G	Spring range kgf/cm <sup>2</sup> G	Packing : Teflon V-ring Teflon asbestos (P4513+P4513L)						Packing : Pillarfoil (P6616A+P316)																
			Plug size (inch)						Plug size (inch)																
			2½	3	4	5	6	8	2½	3	4	5	6	8											
450	5.0(1.5)	1.5~3.5	30.0	30.0	24.6	12.6	10.5	5.6							30.0	30.0	22.5	11.5	9.6	5.1					

**Table 5-3 Solid state Electronic Actuator (3500LB, 3600LA) & Electric Motor Actuator (3400LA)**

Actuator size code	Packing : Teflon V-ring Teflon asbestos (P4513+P4513L)										Packing : Pillarfoil (P6616A+P316)															
	Plug size (inch)										Plug size (inch)															
	¾	1	1½	2	2½	3	4	5	6	8	¾	1	1½	2	2½	3	4	5	6	8						
35A1LB·36A1LA·34A1LA	11.1	4.6	1.8	0.9	0.5	0.1																				
35A2LB·36A2LA·34A2LA	30.0	22.4	10.8	6.7	4.7	3.0									24.7	11.1	5.1	3.0	2.0	1.2						
35B1LB·36B1LA·34B1LA	30.0	30.0	18.2	11.5	8.2	5.3	3.1	1.5	1.2					30.0	26.0	12.6	7.9	5.5	3.5	2.0	0.9	0.7				
35B2LB·36B2LA·34B2LA	30.0	30.0	30.0	21.2	15.2	10.1	6.0	3.0	2.4					30.0	30.0	27.5	17.5	12.5	8.3	4.9	2.4	2.0				
35C1LB·36C1LA·34C1LA						12.9	7.8	3.9	3.2										9.4	5.7	2.8	2.3				
35C2LB·36C2LA·34C2LA							12.9	6.6	5.4	2.9										10.8	5.4	4.5	2.3			

# 3 WAY TYPE GLOBE-VALVE

\*1 FOR 218 AND 270, AIR EXHAUST POSITION IS AT QUARTER CLOCKWISE TURNED POSITION.



**DIMENSIONS**

UNIT: mm

VALVE SIZE	FACE TO FACE : L						STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR						
	JIS10kFF ANSI125#FF JPI125#FF		JIS10kRF JIS20kRF ANSI150#RF JPI150#RF		JIS30kRF ANSI300#RF JPI300#RF		h1	H1	h1	H1	SIZE		WITH MANUAL HANDLE				CODE NO.
	L	H2	L	H2	L	H2					A	B	L1	L2	L3	L4	
91 <input type="checkbox"/> 3/4" (20A)	160	145	160	145	180	145	121	420	184	485	<input type="checkbox"/> 218	231	196	129~113	100	18.5	5221LA
											<input type="checkbox"/> 270	283	230	151~135	100	27.5	5227LA
01 <input type="checkbox"/> 1" (25A)	200	135	200	135	200	135	129	430	207	505	<input type="checkbox"/> 218	231	196	129~113	100	18.5	5221LA
											<input type="checkbox"/> 270	283	230	151~135	100	27.5	5227LA
93 <input type="checkbox"/> 1 1/2" (40A)	235	170	235	170	235	170	135	530	221	520	<input type="checkbox"/> 218	231	196	133~113	100	18.5	5221LA
											<input type="checkbox"/> 270	283	230	155~135	100	27.5	5227LA
											<input type="checkbox"/> 350	367	230	163~143	100	27.5	5235LA
											<input type="checkbox"/> 450	472	336	200~180	160	32	524SLA
02 <input type="checkbox"/> 2" (50A)	265	185	265	185	265	185	161	560	246	<input type="checkbox"/> 270	283	230	160~135	100	27.5	5227LA	
										<input type="checkbox"/> 350	367	230	168~143	100	27.5	5235LA	
										<input type="checkbox"/> 450	472	336	205~180	160	32	524SLA	
94 <input type="checkbox"/> 2 1/2" (65A)	290	205	290	205	290	205	181	580	276	<input type="checkbox"/> 270	283	230	165~135	100	27.5	5227LA	
										<input type="checkbox"/> 350	367	230	173~143	100	27.5	5235LA	
										<input type="checkbox"/> 450	472	336	210~180	160	32	524SLA	
03 <input type="checkbox"/> 3" (80A)	320	200	320	200	320	200	176	575	271	<input type="checkbox"/> 270	283	230	165~135	100	27.5	5227LA	
										<input type="checkbox"/> 350	367	230	173~143	100	27.5	5235LA	
										<input type="checkbox"/> 450	472	336	210~180	160	32	524SLA	
04 <input type="checkbox"/> 4" (100A)	370	245	370	245	370	245	236	735	342	840	<input type="checkbox"/> 450	472	336	220~180	160	32	524SLA

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

NOTE :

DRAWING No.

E- 520F -5200LA-D-N  
530F

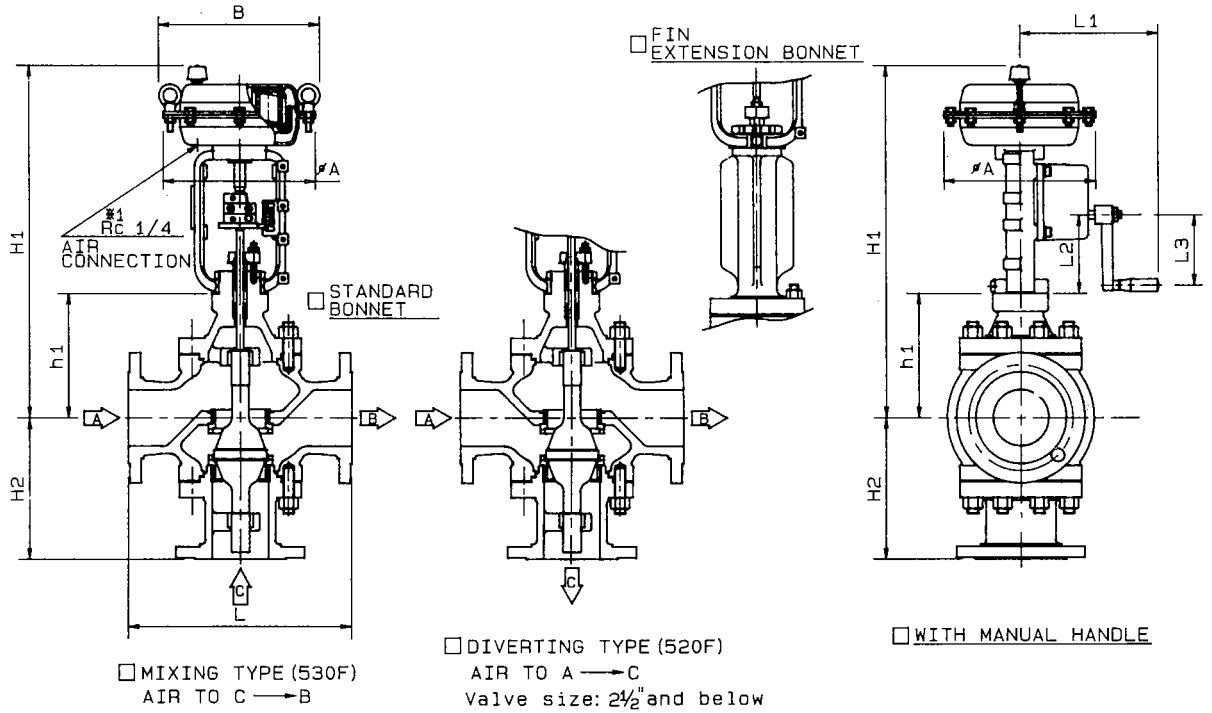
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**KOSO**

# 3 WAY TYPE GLOBE-VALVE

\*1 FOR 218 AND 270, AIR CONNECTION POSITION IS AT QUARTER CLOCKWISE TURNED POSITION



DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR							CODE NO.
	JIS10KFF		JIS10KRF		JIS30KRF		h1	H1	h1	H1	SIZE		WITH MANUAL HANDLE					
	ANSI125#FF	JIS125#FF	JIS20KRF	ANSI150#RF	JPI125#FF	JPI150#RF					ANSI300#RF	JPI300#RF	A	B	L1	L2	L3	
91 <input type="checkbox"/> 3/4" (20A)	160	145	160	145	180	145	121	460	184	525	<input type="checkbox"/> 218	231	196	113~129	100	18.5	5221LA	
								560		620	<input type="checkbox"/> 270	283	230	118~134	100	27.5	5227LA	
01 <input type="checkbox"/> 1" (25A)	200	135	200	135	200	135	129	470	207	645	<input type="checkbox"/> 218	231	196	113~129	100	18.5	5221LA	
								565		645	<input type="checkbox"/> 270	283	230	118~134	100	27.5	5227LA	
93 <input type="checkbox"/> 1 1/2" (40A)	235	170	235	170	235	170	135	475		560	<input type="checkbox"/> 218	231	196	113~133	100	18.5	5221LA	
								570	221	660	<input type="checkbox"/> 270	283	230	118~138	100	27.5	5227LA	
								605		695	<input type="checkbox"/> 350	367	230	120~140	100	27.5	5235LA	
							152	690	224	760	<input type="checkbox"/> 450	472	336	161~181	160	32	524SLA	
02 <input type="checkbox"/> 2" (50A)	265	185	265	185	265	185	161	600	246	685	<input type="checkbox"/> 270	283	230	118~143	100	27.5	5227LA	
								635		720	<input type="checkbox"/> 350	367	230	120~145	100	27.5	5235LA	
								700	249	785	<input type="checkbox"/> 450	472	336	161~186	160	32	524SLA	
94 <input type="checkbox"/> 2 1/2" (65A)	290	205	290	205	290	205	181	620		715	<input type="checkbox"/> 270	283	230	118~148	100	27.5	5227LA	
								655	276	750	<input type="checkbox"/> 350	367	230	120~150	100	27.5	5235LA	
								720		815	<input type="checkbox"/> 450	472	336	161~191	160	32	524SLA	
03 <input type="checkbox"/> 3" (80A)	320	200	320	200	320	200	176	615		710	<input type="checkbox"/> 270	283	230	118~148	100	27.5	5227LA	
								650	271	745	<input type="checkbox"/> 350	367	230	120~150	100	27.5	5235LA	
								715		810	<input type="checkbox"/> 450	472	336	161~191	160	32	524SLA	
04 <input type="checkbox"/> 4" (100A)	370	245	370	245	370	245	236	775	342	880	<input type="checkbox"/> 450	472	336	161~201	160	32	524SLA	

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

NOTE:

DRAWING No.

E- 520F -5200LA-R-N  
530F

REV

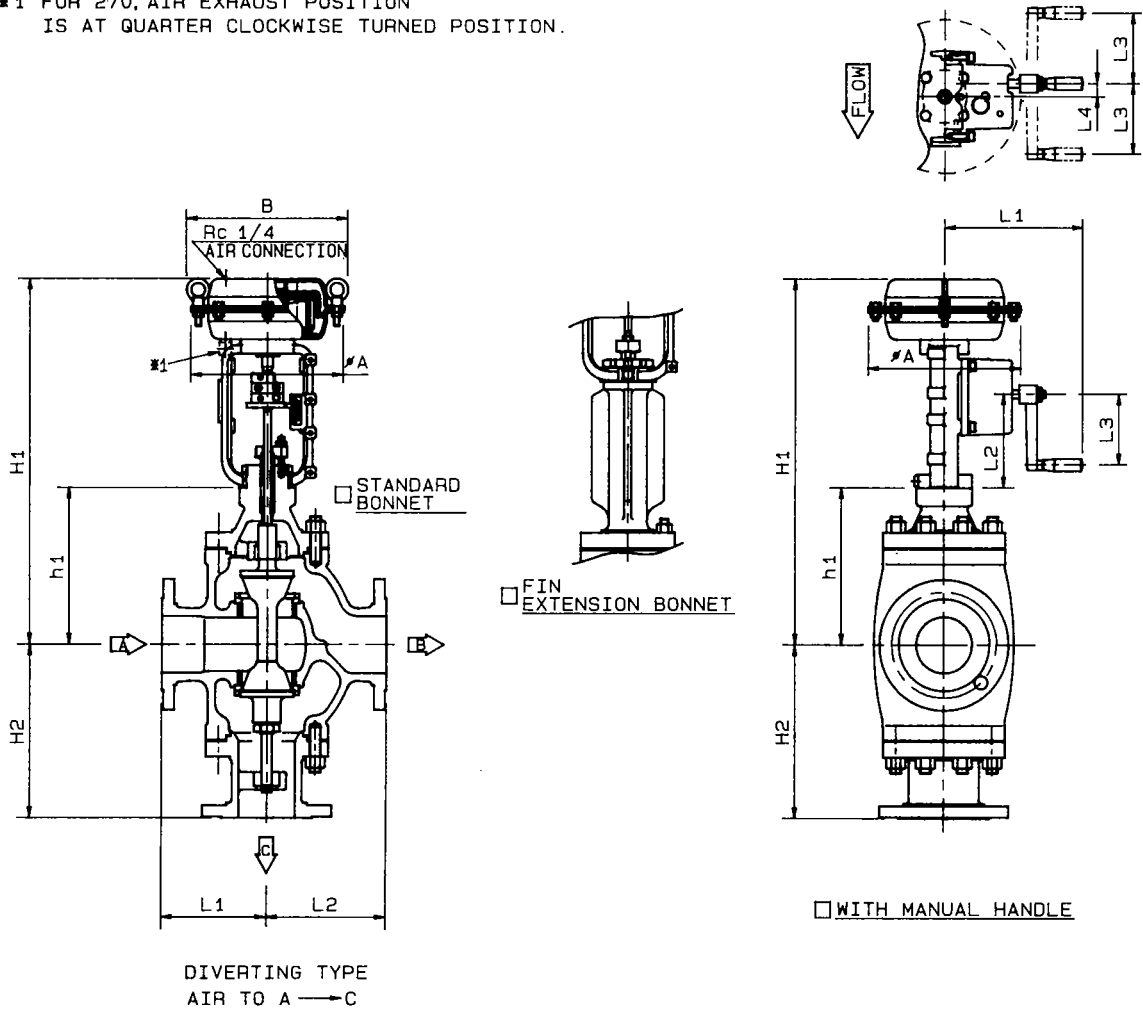
C

**KOSO**



# 3 WAY TYPE GLOBE-VALVE

※1 FOR 270, AIR EXHAUST POSITION IS AT QUARTER CLOCKWISE TURNED POSITION.



DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						H2	STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR						CODE NO.
	JIS10kFF		JIS10kRF		JIS30kRF			h1	H1	h1	H1	SIZE		WITH MANUAL HANDLE				
	ANSI125#FF	JIS20kRF	ANSI300#RF	ANSI150#RF	JPI300#RF	A						B	L1	L2	L3	L4		
03 <input type="checkbox"/> 3" (80A)	150	170	150	170	150	170	246	222	620	715	<input type="checkbox"/> 270	283	230	165~135	100	27.5	5227LA	
									655	317	<input type="checkbox"/> 350	367	230	173~143	100	27.5	5235LA	
									720		<input type="checkbox"/> 450	472	336	210~180	160	32	524SLA	
04 <input type="checkbox"/> 4" (100A)	170	200	170	200	170	200	275	266	765	372	<input type="checkbox"/> 450	472	336	220~180	160	32	524SLA	

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

NOTE :

DRAWING No.

E-520F-5200LA-D-N  
S

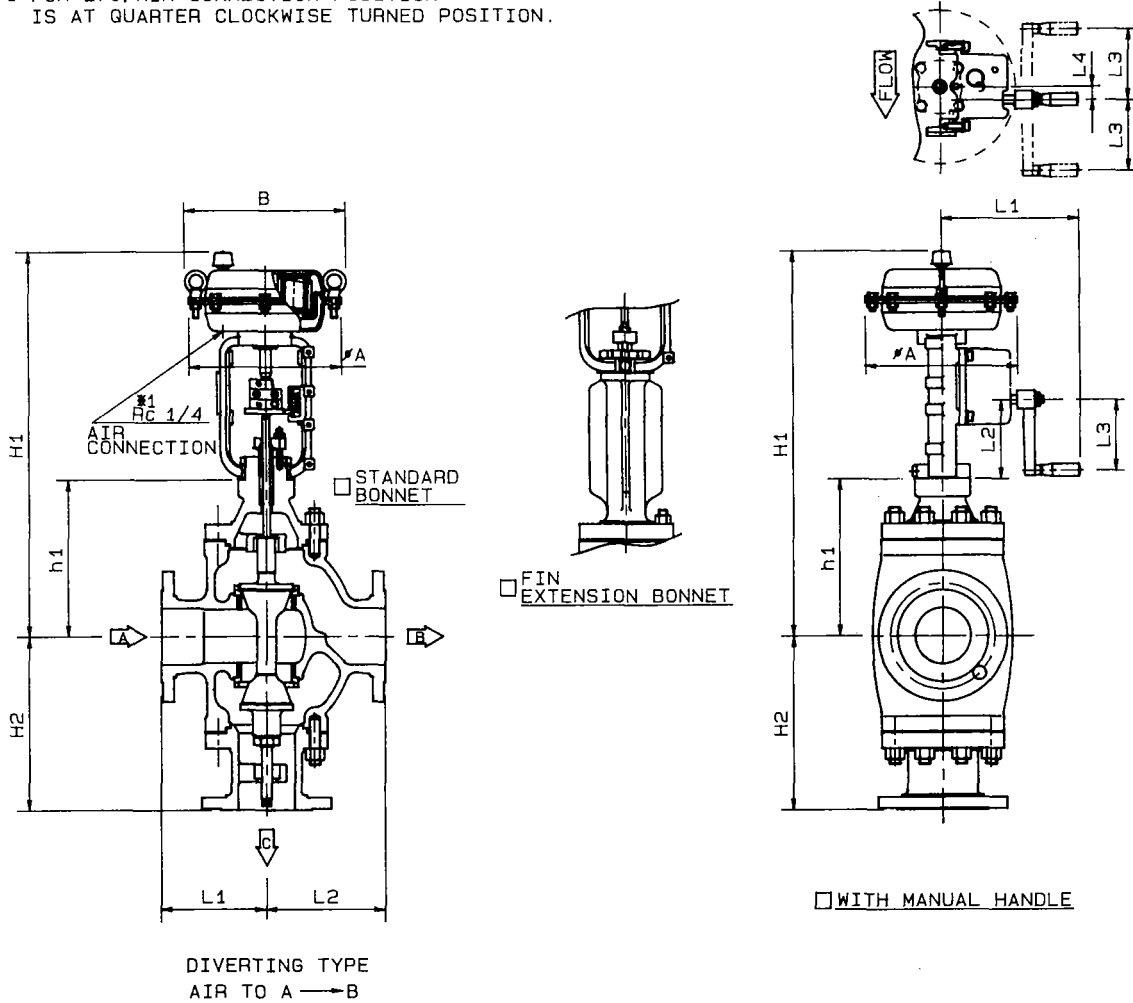
REV

C

**KOSO**

# 3 WAY TYPE GLOBE-VALVE

\*1 FOR 270; AIR CONNECTION POSITION IS AT QUARTER CLOCKWISE TURNED POSITION.



DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						H2	STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR						CODE NO.
	□ JIS10kFF		□ JIS10kRF		□ JIS30kRF			h1	H1	h1	H1	SIZE		WITH MANUAL HANDLE				
	□ ANSI125#FF	□ JIS20kRF	□ ANSI300#RF	□ JPI125#FF	□ ANSI150#RF	□ JPI300#RF						A	B	L1	L2	L3	L4	
CODE NO.	L1	L2	L1	L2	L1	L2	h1	H1	h1	H1	A	B	L1	L2	L3	L4	CODE NO.	
03	□ 3" (80A)	150	170	150	170	150	170	246	222	660	755	□ 270	283	230	118~148	100	27.5	5227LA
										695	317	□ 350	367	230	120~150	100	27.5	5235LA
										760		□ 450	472	336	161~191	160	32	524SLA
04	□ 4" (100A)	170	200	170	200	170	200	275	266	805	372	□ 450	472	336	161~201	160	32	524SLA

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

NOTE:

DRAWING No.

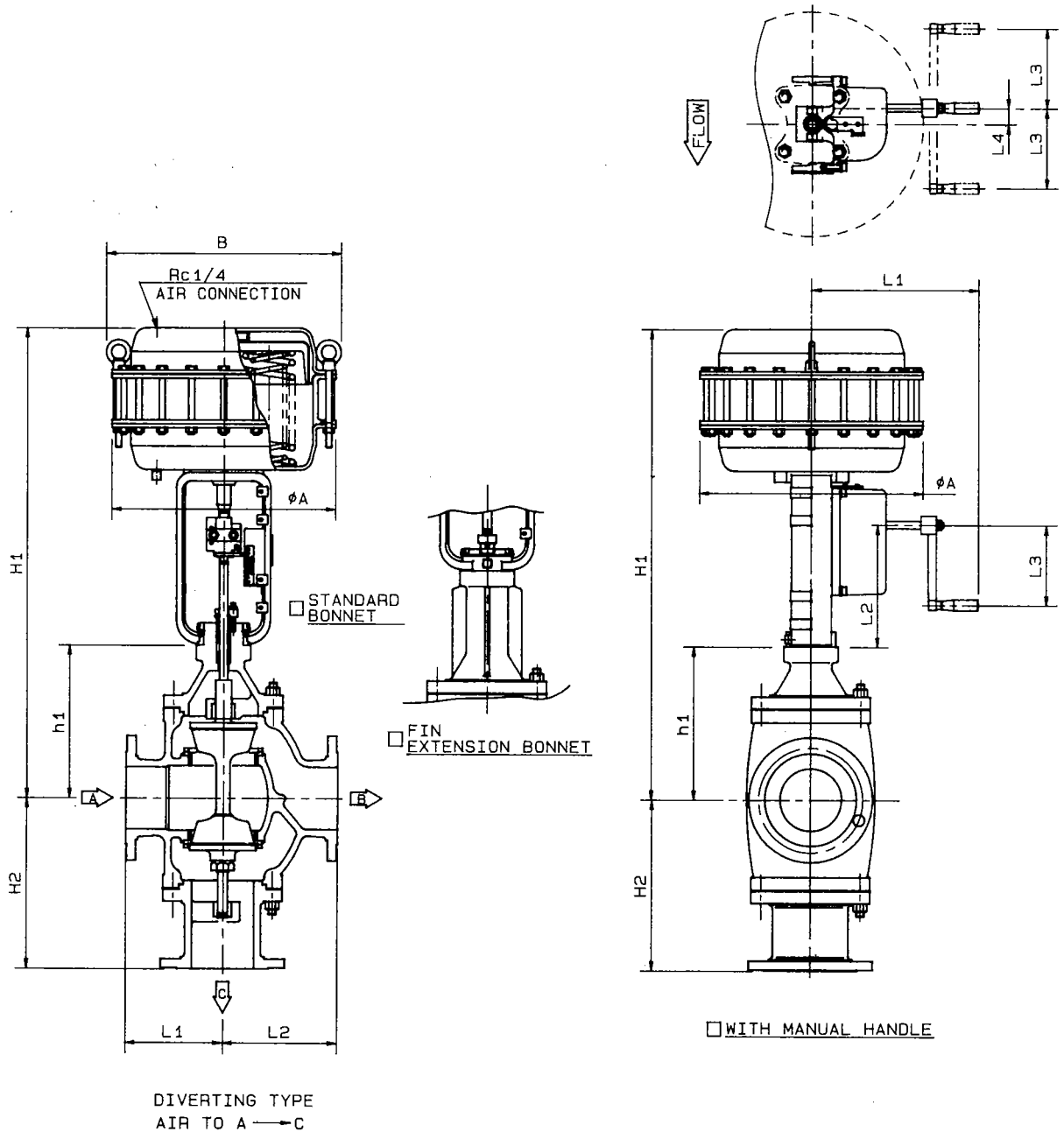
E-520F-5200LA-R-N  
S

REV

C

**KOSO**

# 3 WAY TYPE GLOBE-VALVE



DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						H2	<input type="checkbox"/> STANDARD BONNET <input type="checkbox"/> FIN EXTENSION BONNET				ACTUATOR						
	<input type="checkbox"/> JIS10kFF <input type="checkbox"/> ANSI125#FF <input type="checkbox"/> JPI125#FF		<input type="checkbox"/> JIS10kRF <input type="checkbox"/> JIS20kRF <input type="checkbox"/> ANSI150#RF <input type="checkbox"/> JPI150#RF		<input type="checkbox"/> JIS30kRF <input type="checkbox"/> ANSI300#RF <input type="checkbox"/> JPI300#RF			h1		H1		SIZE		WITH MANUAL HANDLE				CODE NO.
	L1	L2	L1	L2	L1	L2		A	B	L1	L2	L3	L4					
05 <input type="checkbox"/> 5" (125A)	195	230	195	230	195	230	341	306	945	424	1060	450	472	336	225~180	160	32	524LLA
06 <input type="checkbox"/> 6" (150A)	220	255	220	255	220	255	400	366	1005	491	1130	450	472	336	230~180	160	32	524LLA
08 <input type="checkbox"/> 8" (200A)	260	310	260	310			480	437	1095	612	1270	450	472	336	260~200	160	32	524LLA

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

NOTE :

DRAWING No.

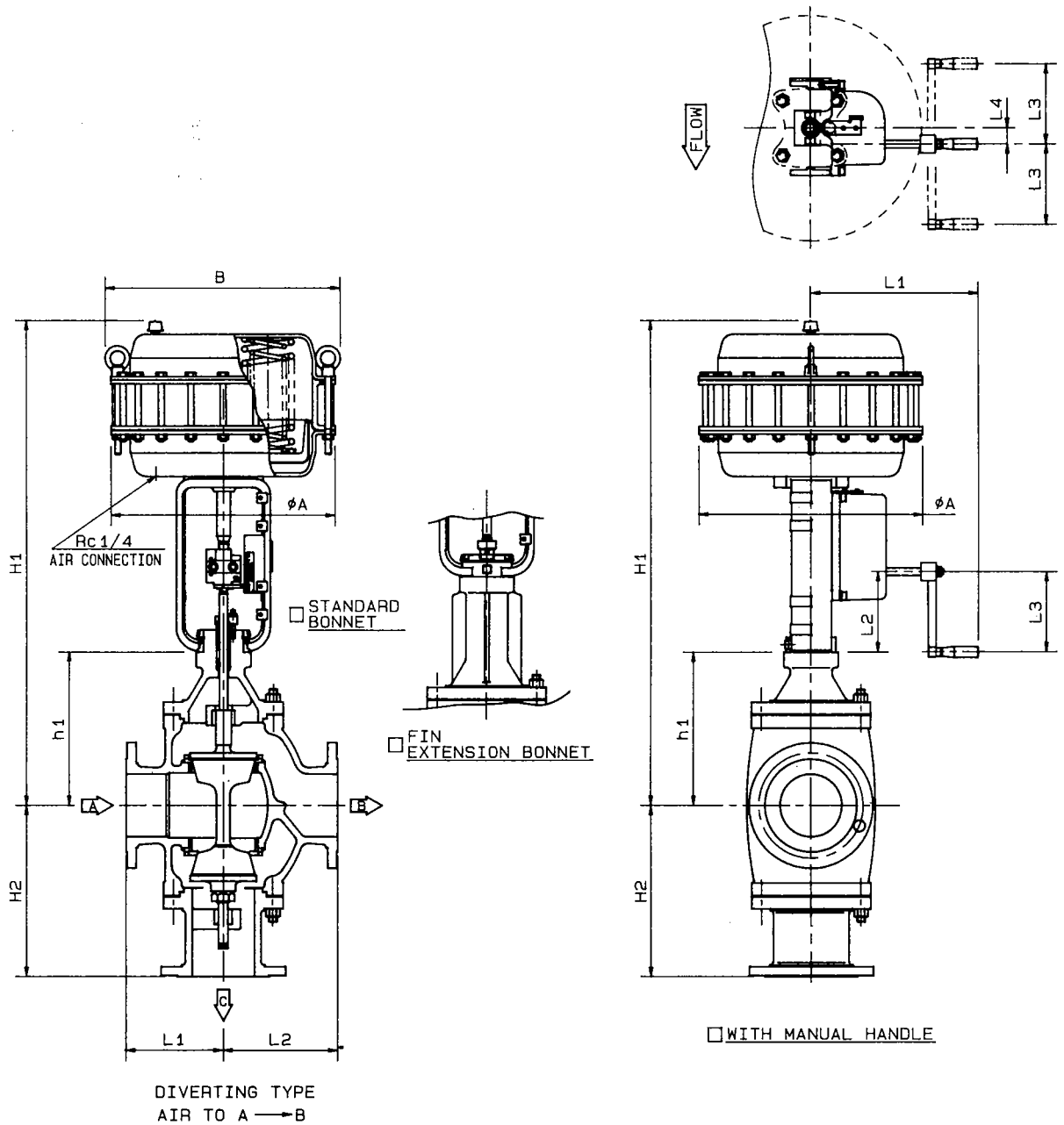
E-520F-524LLA-D-N

REV

B

**KOSO**

# 3 WAY TYPE GLOBE-VALVE



DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						H2	BONNET				ACTUATOR						
	JIS10KFF		JIS10KRF		JIS30KRF			STANDARD BONNET		FIN EXTENSION BONNET		SIZE		WITH MANUAL HANDLE				CODE NO.
	L1	L2	L1	L2	L1	L2		h1	H1	h1	H1	A	B	L1	L2	L3	L4	
05 <input type="checkbox"/> 5" (125A)	195	230	195	230	195	230	341	306	985	424	1100	450	472	336	161~206	160	32	524LLA
06 <input type="checkbox"/> 6" (150A)	220	255	220	255	220	255	400	366	1045	491	1170	450	472	336	161~211	160	32	524LLA
08 <input type="checkbox"/> 8" (200A)	260	310	260	310	/	/	480	437	1135	612	1310	450	472	336	181~241	160	32	524LLA

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

NOTE :

DRAWING No.

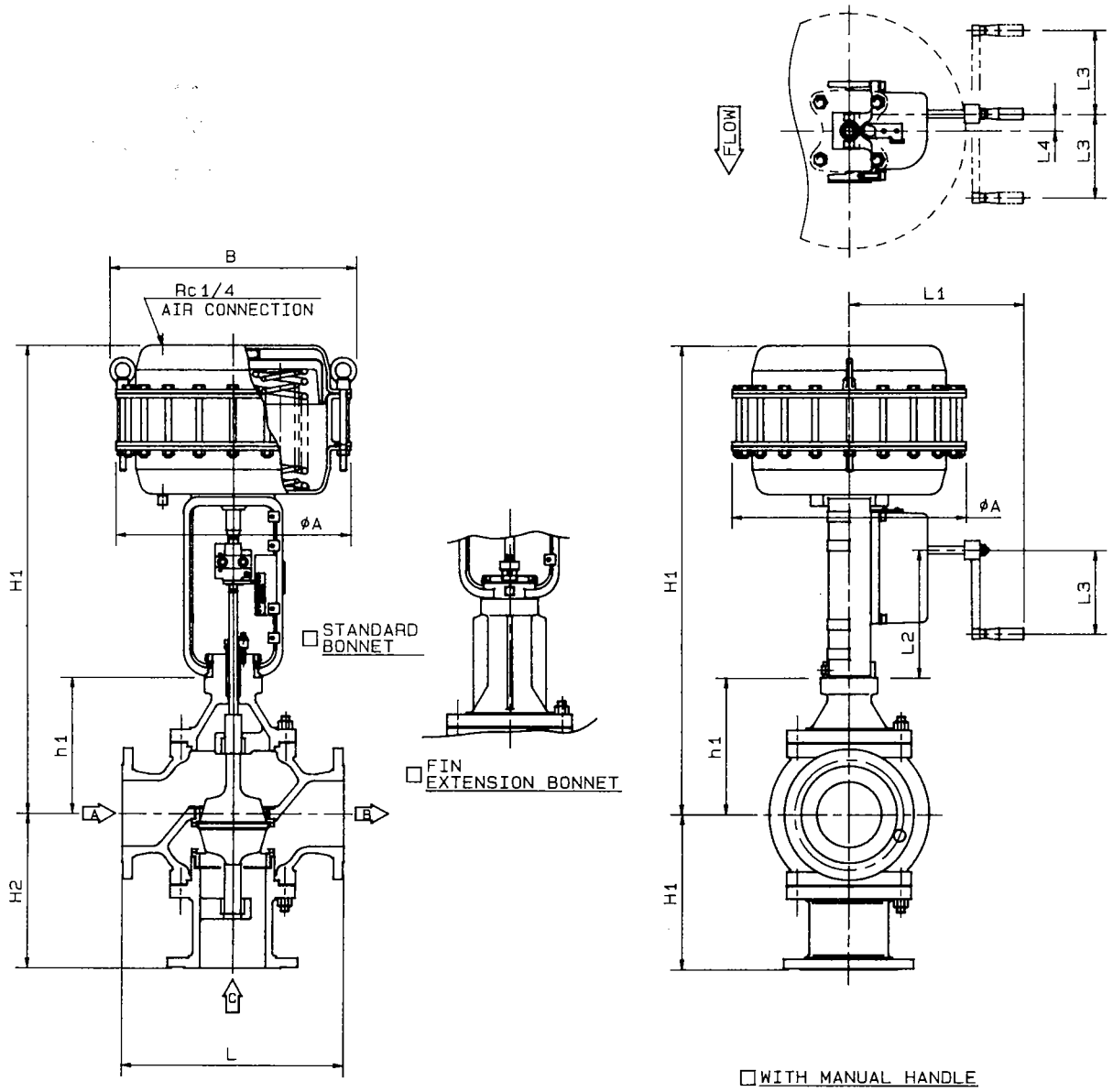
E-520F-524LLA-R-N

REV

C

**KOSO**

# 3 WAY TYPE GLOBE-VALVE



DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR						
	□ JIS10KFF □ ANSI125#FF □ JPI125#FF		□ JIS10KRF □ JIS20KRF □ ANSI150#RF □ JPI150#RF		□ JIS30KRF □ ANSI300#RF □ JPI300#RF		h1	H1	h1	H1	SIZE	WITH MANUAL HANDLE				CODE NO.	
	L	H2	L	H2	L	H2						A	B	L1	L2		L3
05 □ 5" (125A)	425	296	425	296	425	296	261	900	379	1015	450	472	336	225~180	160	32	524LLA
06 □ 6" (150A)	475	330	475	330	475	330	296	935	421	1060	450	472	336	230~180	160	32	524LLA
08 □ 8" (200A)	570	400	570	400			357	1015	532	1190	450	472	336	260~200	160	32	524LLA

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

NOTE :

DRAWING No.

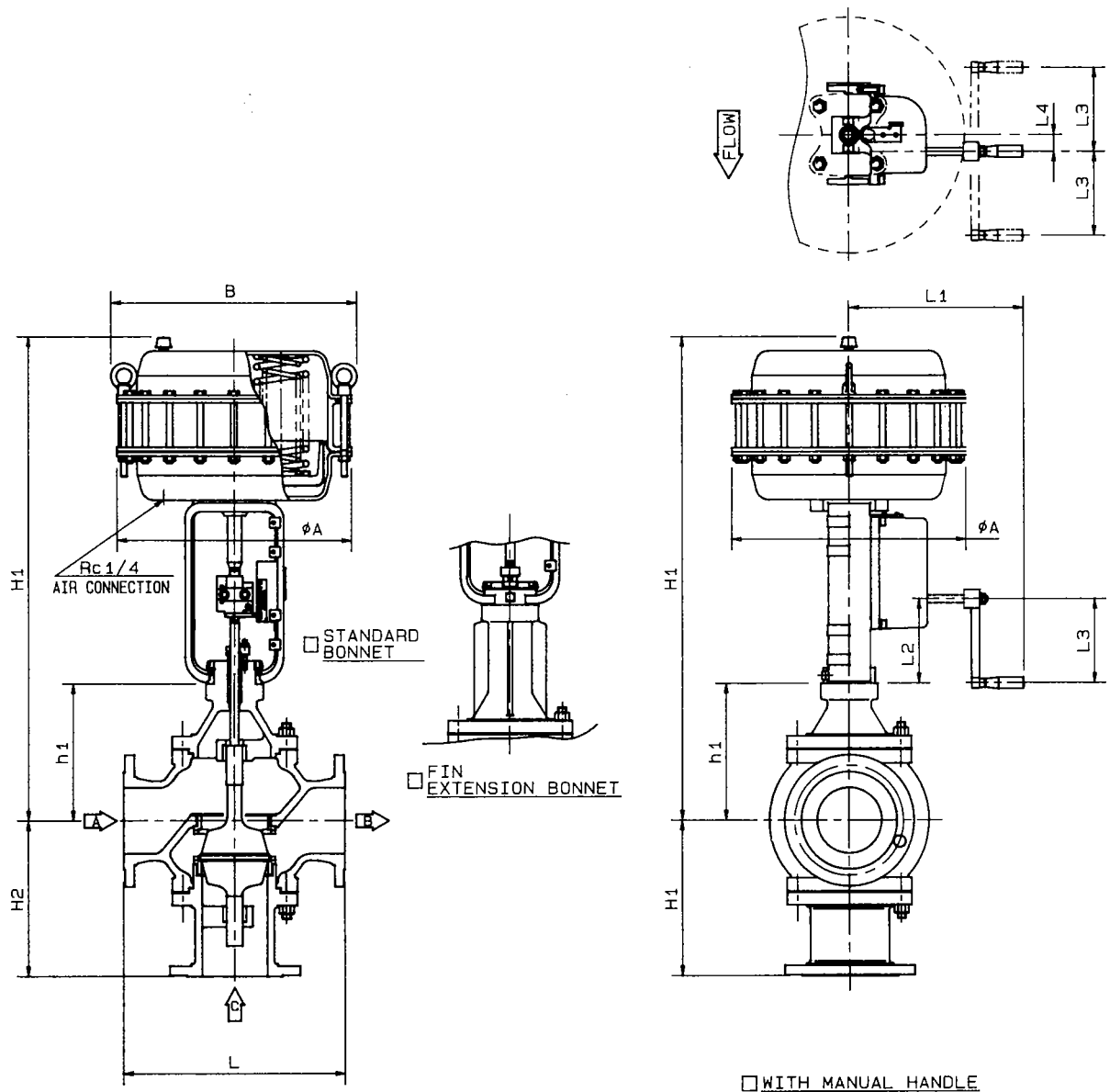
E-530F-524LLA-D-N

REV

B

**KOSO**

# 3 WAY TYPE GLOBE-VALVE



MIXING TYPE  
AIR TO C → B

DIMENSIONS

UNIT: mm

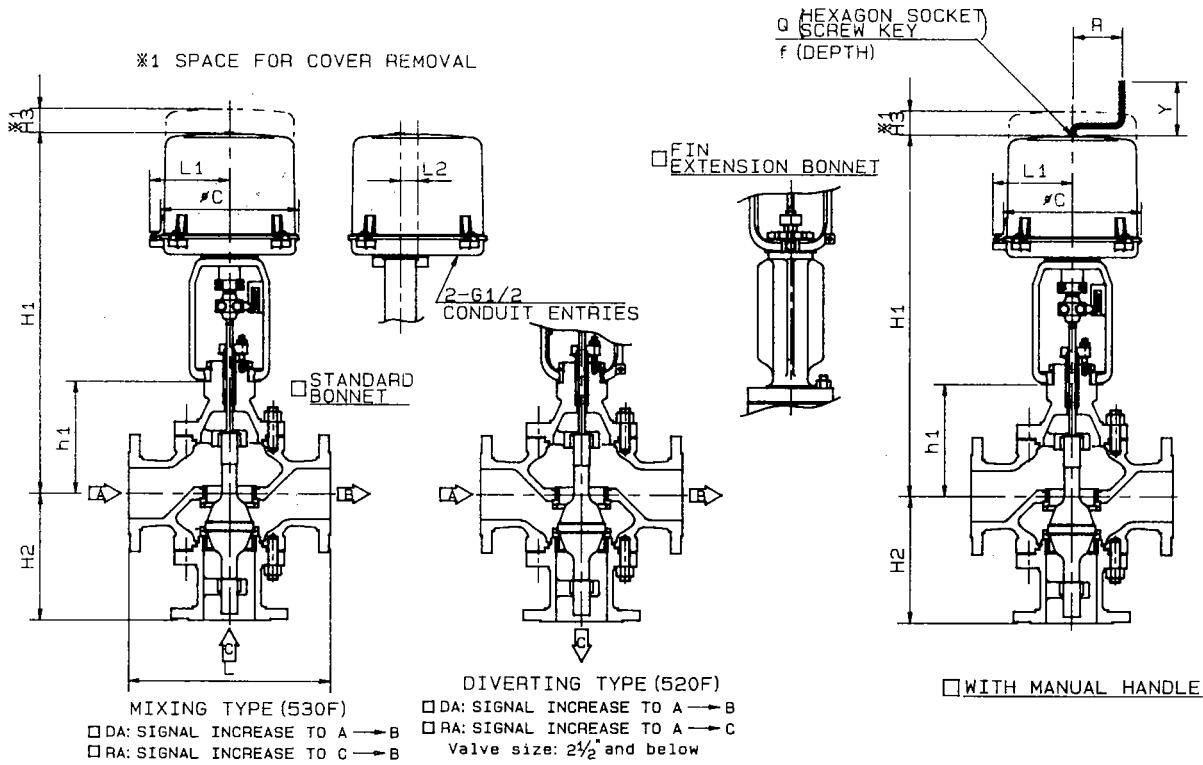
VALVE SIZE	FACE TO FACE : L						STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR						
	JIS10KFF		JIS10KRF		JIS30KRF		h1	H1	h1	H1	SIZE	WITH MANUAL HANDLE				CODE NO.	
	ANSI125#FF	JPI125#FF	JIS20KRF	ANSI150#RF	JPI150#RF	ANSI300#RF						JPI300#RF	A	B	L1		L2
05 5" (125A)	425	296	425	296	425	296	261	940	379	1055	450	472	336	161~206	160	32	524LLA
06 6" (150A)	475	330	475	330	475	330	296	975	421	1100	450	472	336	161~211	160	32	524LLA
08 8" (200A)	570	400	570	400			357	1055	532	1230	450	472	336	181~241	160	32	524LLA

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

NOTE :

DRAWING No.  
E-530F-524LLA-R-N  
REV  
C

# 3 WAY TYPE GLOBE-VALVE



## DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR																			
	JIS10KFF		JIS10KRF		JIS30KRF		h1	H1	h1	H1	H3	L1	L2	C	WITH MANUAL HANDLE			SIZE CODE NO.												
CODE NO.	L	H2	L	H2	L	H2									R	Y	Q-f	35A1LB	36A1LA	34A1LA	35A2LB	36A2LA	34A2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA	
91	3/4" (20A)	160	145	160	145	180	145	121	525	184	585	205	130	28	225	80	87	6-12	35A1LB	36A1LA	34A1LA	35A2LB	36A2LA	34A2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
01	1" (25A)	200	135	200	135	200	135	129	530	207	610	205	130	28	225	80	87	6-12	35A1LB	36A1LA	34A1LA	35A2LB	36A2LA	34A2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
93	1 1/2" (40A)	235	170	235	170	235	170	135	540	221	625	205	130	28	225	80	87	6-12	35A1LB	36A1LA	34A1LA	35A2LB	36A2LA	34A2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
02	2" (50A)	265	185	265	185	265	185	161	565	246	650	205	130	28	225	80	87	6-12	35A1LB	36A1LA	34A1LA	35A2LB	36A2LA	34A2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
94	2 1/2" (65A)	290	205	290	205	290	205	181	585	276	680	205	130	28	225	80	87	6-12	35A1LB	36A1LA	34A1LA	35A2LB	36A2LA	34A2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
03	3" (80A)	320	200	320	200	320	200	176	580	271	675	205	130	28	225	80	87	6-12	35A1LB	36A1LA	34A1LA	35A2LB	36A2LA	34A2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
04	4" (100A)	370	245	370	245	370	245	236	820	342	925	260	145	45	255	160	90	8-15	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
05	5" (125A)	425	296	425	296	425	296	261	845	379	960	260	145	45	255	160	90	8-15	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA
06	6" (150A)	475	330	475	330	475	330	296	880	421	1005	260	145	45	255	160	90	8-15	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA	35B1LB	36B1LA	34B1LA	35B2LB	36B2LA	34B2LA

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

NOTE :

DRAWING No.

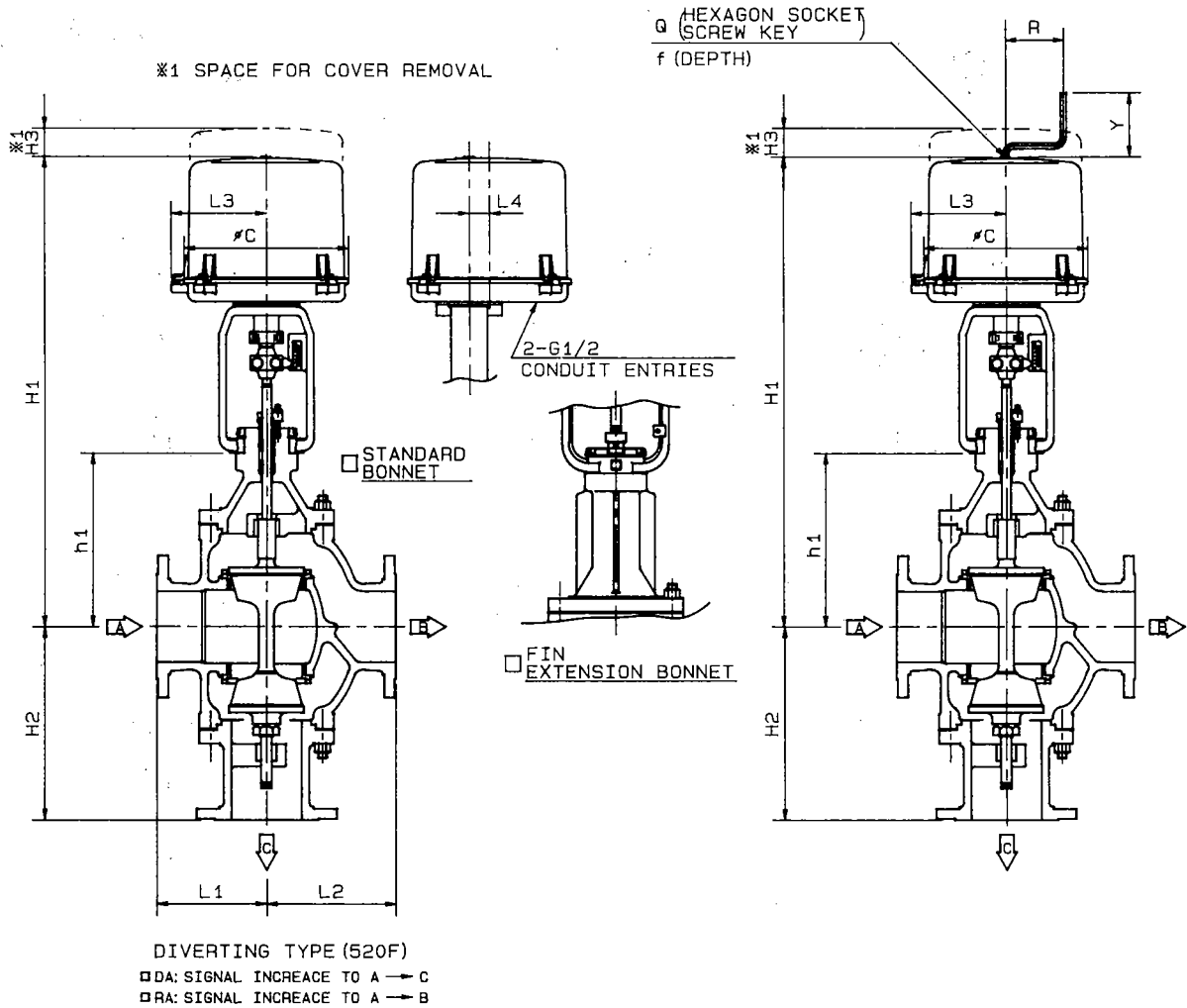
E-520F-3500LB-N  
530F-3600LA-B-T  
3400LA

REV

B

**KOSO**

# 3 WAY TYPE GLOBE-VALVE



DIMENSIONS

UNIT: mm

VALVE SIZE	FACE TO FACE : L						H2	STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR													
	<input type="checkbox"/> JIS10KFF <input type="checkbox"/> ANSI125#FF <input type="checkbox"/> JPI125#FF		<input type="checkbox"/> JIS10KRF <input type="checkbox"/> JIS20KRF <input type="checkbox"/> ANSI150#RF <input type="checkbox"/> JPI150#RF		<input type="checkbox"/> JIS30KRF <input type="checkbox"/> ANSI300#RF <input type="checkbox"/> JPI300#RF			h1	H1	h1	H1	WITH MANUAL HANDLE				SIZE CODE NO.									
CODE NO.	L1	L2	L1	L2	L1	L2	H2	h1	H1	h1	H1	H3	L3	L4	φC	R	Y	Q-f							
03 <input type="checkbox"/> 3" (80A)	150	170	150	170	150	170	246	222	625	317	720	205	130	28	225	80	87	6-12	<input type="checkbox"/> 35A1LB	<input type="checkbox"/> 36A1LA	<input type="checkbox"/> 34A1LA	<input type="checkbox"/> 35A2LB	<input type="checkbox"/> 36A2LA	<input type="checkbox"/> 34A2LA	
								755	850		<input type="checkbox"/> 35B1LB								<input type="checkbox"/> 36B1LA	<input type="checkbox"/> 34B1LA	<input type="checkbox"/> 35B2LB	<input type="checkbox"/> 36B2LA	<input type="checkbox"/> 34B2LA		
04 <input type="checkbox"/> 4" (100A)	170	200	170	200	170	200	275	266	850	372	952	260	145	45	255	160	90	8-15	<input type="checkbox"/> 35B1LB	<input type="checkbox"/> 36B1LA	<input type="checkbox"/> 34B1LA	<input type="checkbox"/> 35B2LB	<input type="checkbox"/> 36B2LA	<input type="checkbox"/> 34B2LA	
											<input type="checkbox"/> 35B1LB								<input type="checkbox"/> 36B1LA	<input type="checkbox"/> 34B1LA	<input type="checkbox"/> 35B2LB	<input type="checkbox"/> 36B2LA	<input type="checkbox"/> 34B2LA		
05 <input type="checkbox"/> 5" (125A)	195	230	195	230	195	230	341	306	890	424	1005	260	145	45	255	160	90	8-15	<input type="checkbox"/> 35B1LB	<input type="checkbox"/> 36B1LA	<input type="checkbox"/> 34B1LA	<input type="checkbox"/> 35B2LB	<input type="checkbox"/> 36B2LA	<input type="checkbox"/> 34B2LA	
											<input type="checkbox"/> 35B1LB								<input type="checkbox"/> 36B1LA	<input type="checkbox"/> 34B1LA	<input type="checkbox"/> 35B2LB	<input type="checkbox"/> 36B2LA	<input type="checkbox"/> 34B2LA		
06 <input type="checkbox"/> 6" (150A)	220	255	220	255	220	255	400	366	950	491	1075	260	145	45	255	160	90	8-15	<input type="checkbox"/> 35B1LB	<input type="checkbox"/> 36B1LA	<input type="checkbox"/> 34B1LA	<input type="checkbox"/> 35B2LB	<input type="checkbox"/> 36B2LA	<input type="checkbox"/> 34B2LA	
											<input type="checkbox"/> 35B1LB								<input type="checkbox"/> 36B1LA	<input type="checkbox"/> 34B1LA	<input type="checkbox"/> 35B2LB	<input type="checkbox"/> 36B2LA	<input type="checkbox"/> 34B2LA		

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

NOTE:

DRAWING No.

3500LB  
E-520F-3600LA-B-N  
3400LA

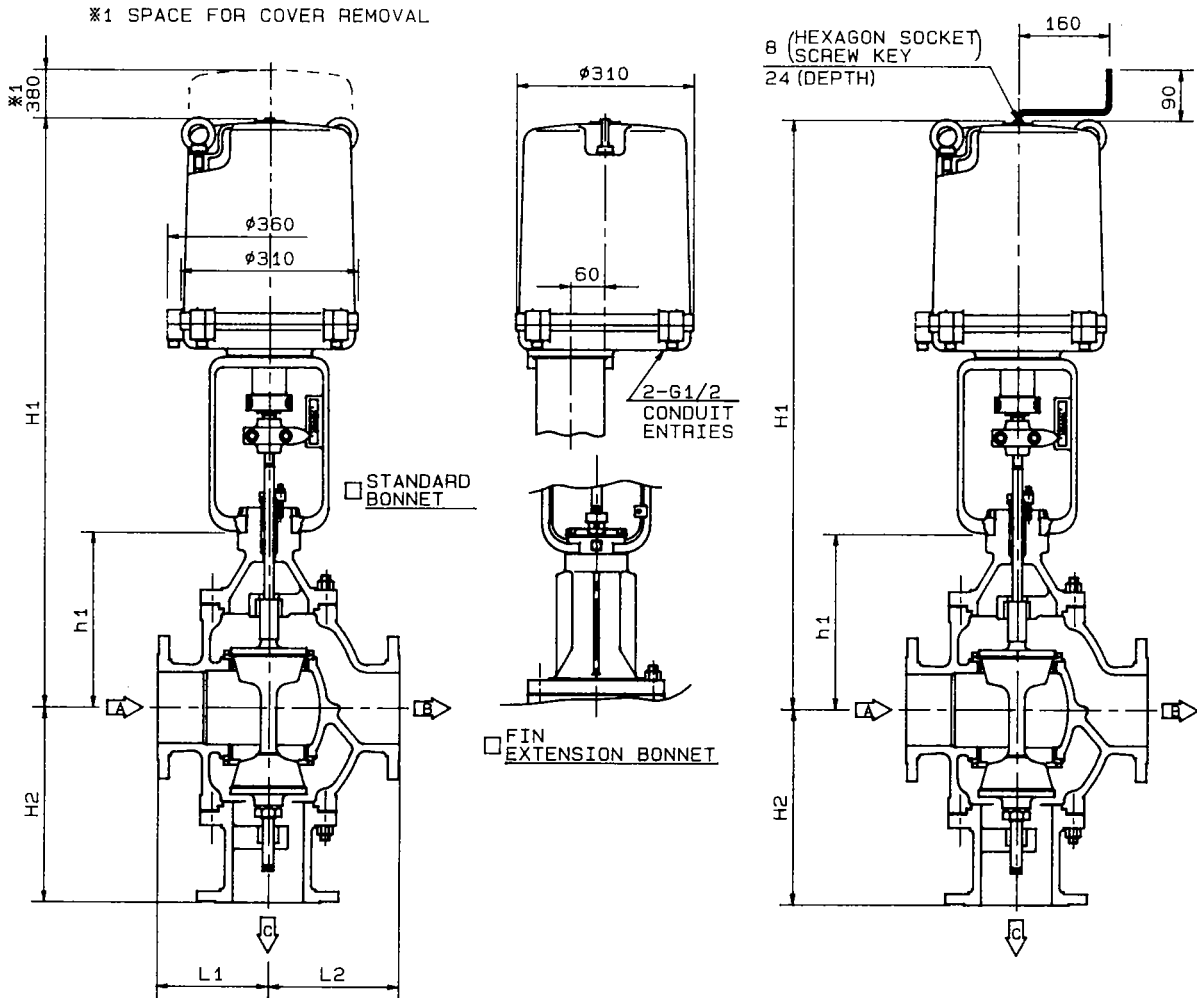
REV

A

**KOSO**



# 3 WAY TYPE GLOBE-VALVE



DIVERTING TYPE (520F)  
 DA: SIGNAL INCREASE TO A → C  
 RA: SIGNAL INCREASE TO A → B

DIMENSIONS

UNIT: mm

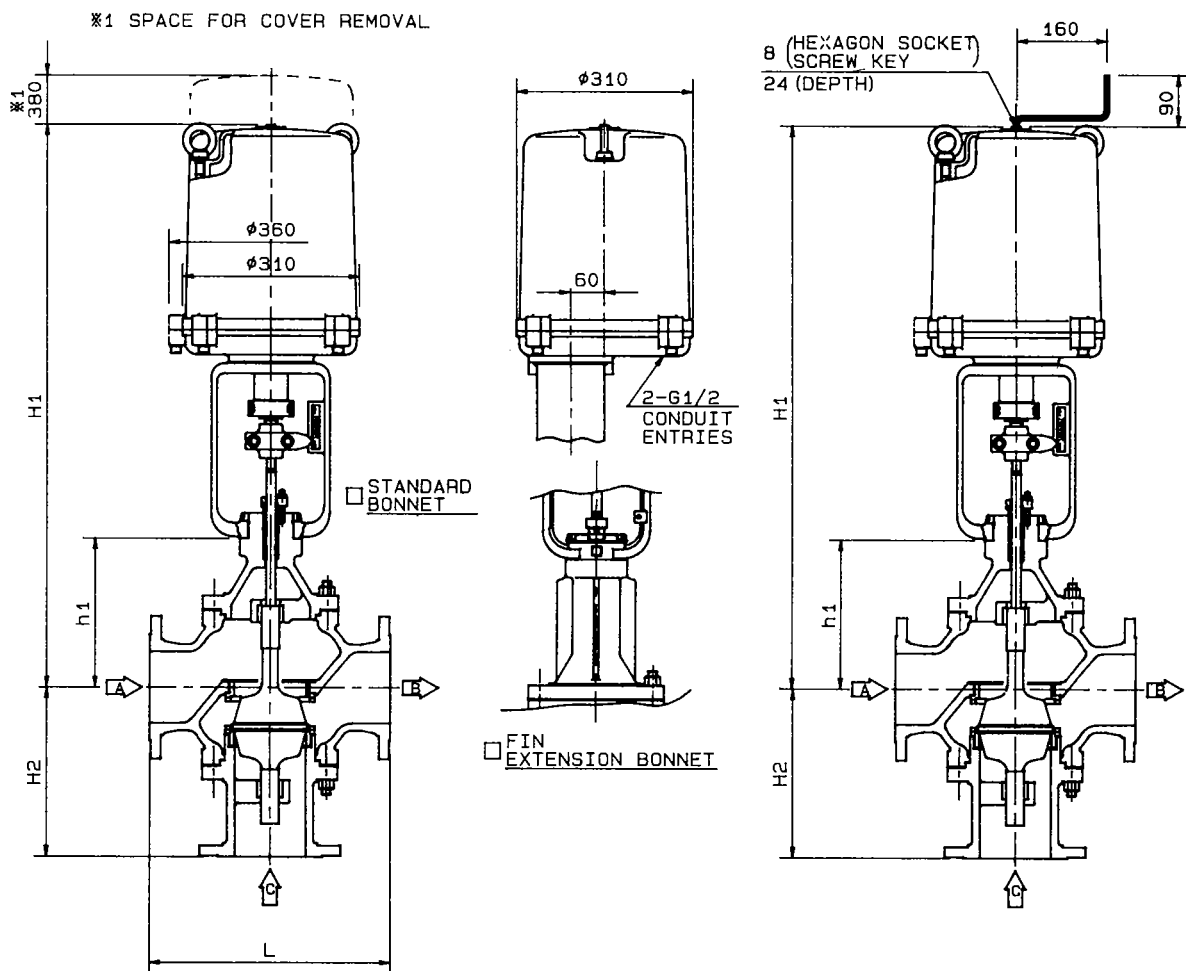
VALVE SIZE	FACE TO FACE : L						<input type="checkbox"/> STANDARD BONNET		<input type="checkbox"/> FIN EXTENSION BONNET		ACTUATOR SIZE CODE NO.			
	<input type="checkbox"/> JIS10kFF		<input type="checkbox"/> JIS10kRF		<input type="checkbox"/> JIS30kRF		H2	h1	H1	h1				H1
	L1	L2	L1	L2	L1	L2								
03 <input type="checkbox"/> 3" (80A)	150	170	150	170	150	170	246	222	950	317	1045	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
04 <input type="checkbox"/> 4" (100A)	170	200	170	200	170	200	275	266	995	372	1100	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
								290	1075	385	1170	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA
05 <input type="checkbox"/> 5" (125A)	195	230	195	230	195	230	341	306	1035	424	1150	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
								330	1115	454	1240	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA
06 <input type="checkbox"/> 6" (150A)	220	255	220	255	220	255	400	366	1095	491	1220	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
								390	1175	519	1305	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA
08 <input type="checkbox"/> 8" (200A)	260	310	260	310			480	437	1225	612	1400	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA

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

NOTE:

DRAWING No.	
35COLB E-520F-36COLA-B-N 34COLA	
REV	
B	<b>KOSO</b>

# 3 WAY TYPE GLOBE-VALVE



MIXING TYPE (530F)  
 DA: SIGNAL INCREASE TO A → B  
 RA: SIGNAL INCREASE TO C → B

**DIMENSIONS**

UNIT: mm

VALVE SIZE	FACE TO FACE : L						STANDARD BONNET		FIN EXTENSION BONNET		ACTUATOR SIZE CODE NO.		
	<input type="checkbox"/> JIS10KFF <input type="checkbox"/> ANSI125#FF <input type="checkbox"/> JPI125#FF		<input type="checkbox"/> JIS10KRF <input type="checkbox"/> JIS20KRF <input type="checkbox"/> ANSI150#RF <input type="checkbox"/> JPI150#RF		<input type="checkbox"/> JIS30KRF <input type="checkbox"/> ANSI300#RF <input type="checkbox"/> JPI300#RF		h1	H1	h1	H1			
CODE NO.	L1	H2	L1	H2	L1	H2	h1	H1	h1	H1			
03 <input type="checkbox"/> 3" (80A)	320	200	320	200	320	200	176	905	271	1000	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
04 <input type="checkbox"/> 4" (100A)	370	245	370	245	370	245	236	965	342	1070	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
							260	1045	355	1140	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA
05 <input type="checkbox"/> 5" (125A)	425	296	425	296	425	296	261	990	379	1105	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
							285	1070	409	1195	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA
06 <input type="checkbox"/> 6" (150A)	475	330	475	330	475	330	296	1025	421	1150	<input type="checkbox"/> 35C1LB	<input type="checkbox"/> 36C1LA	<input type="checkbox"/> 34C1LA
							320	1105	449	1235	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA
08 <input type="checkbox"/> 8" (200A)	570	400	570	400			357	1145	532	1320	<input type="checkbox"/> 35C2LB	<input type="checkbox"/> 36C2LA	<input type="checkbox"/> 34C2LA

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

NOTE:

DRAWING No.

E-530F-35COLB-N  
36COLA-B-T  
34COLA

REV

B

**KOSO**

**Table 6 Net weight for Valve with St'd combined actuator. (Unit:kg)**

Following weight are for Valve complete assy with actuator but without Manual handwheel & Accessories.

Valve size Inch (mm)	Actuator type & size		Diaphragm Actuator 5200LA					Pneumatic Cylinder Actuator 6300LA	Solid State Electronic & Electric Motor Actuator		
	Body rating		218	270	350	450S	450L	150	35A1LB·35A2LB	35B1LB·35B2LB	35C1LB·35C2LB
	ANSI	JIS							36A1LA·36A2LA	36B1LA·36B2LA	36C1LA·36C2LA
¼ (20)	Class 150	10K, 20K	26	31	53				25	31	
	Class 300	30K	29	34	56				27	34	
1 (25)	Class 150	10K, 20K	32	37	59				30	37	
	Class 300	30K	35	40	62				33	40	
1½ (40)	Class 150	10K, 20K	39	44	66	94			37	44	
	Class 300	30K	48	53	75	103			45	53	
2 (50)	Class 150	10K, 20K	50	55	77	105			48	55	
	Class 300	30K	57	62	84	112			55	62	
2½ (65)	Class 150	10K, 20K		72	94	122			65	72	
	Class 300	30K		85	107	135			78	85	
3 (80)	Class 150	10K, 20K		80	102	130			73	80	115
	Class 300	30K		95	117	145			88	95	130
4 (100)	Class 150	10K, 20K				170		350		120	150
	Class 300	30K				185		370		135	170
5 (125)	Class 150	10K, 20K					217	380		145	180
	Class 300	30K					237	420		165	200
6 (150)	Class 150	10K, 20K					267	430		195	230
	Class 300	30K					327	490		250	290
8 (200)	Class 150	10K, 20K					387	550			350
	Class 300	30K					497	650			450

# **KOSO** 日本工装株式会社

## NIHON KOSO CO., LTD.

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