



# Multi-Hole Cage Guided Control Valves

550G SERIES



## KOSO Control Valves and Instrumentation Systems

As a leader in industrial control valve manufacturing with strong research and development and engineering capabilities, KOSO has been meeting exacting customer requirements for more than thirty years. Offering a wide range of product lines, KOSO is committed to providing high quality reliable control valves, actuation, instrumentation and factory automation systems produced in compliance with ISO 9001 standards.

If you have questions about the technical data contained in this catalog or require additional materials, please contact the KOSO sales representative nearest you.

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### **550G Multi-hole Cage Guided Control Valves**

#### GENERAL

This Series provides control valves that meet low noise and anti-cavitation requirements by incorporating a multi-hole type cages, instead of the standard cage, in the 501G Series cage guided control valves. All the parts except the multi-hole cage are interchangeable with the parts of the 501G Series accordingly. For those severe fluid conditions that cannot be covered by this Series, please select KOSO multi-stage type control valves.

#### STANDARD SPECIFICATIONS

#### BODY

Туре	Pressure balanced plug type				
Body size	1″~18″ (25~450A)				
Plug form	Pressure balanced plug				
Characteristics	Linear				
Trim materials Trim treatment	See Fig. 1 for hardening treatment and operating pressure-temperature.				
Body rating	JIS 10K, 20K, 30K, 40K ANSI Class 150, 300, 600 (Max. Rating Class 2500)				
Body connections	Flanged (RF, RTJ), Weld ends (SW : under 2", BW : over 3")				
Face to Face dimension	See pages 14-25				
Body & Bonnet Material	SCPH2/WCB, SCPH21/WC6, SCPH61/C5, SCPL1/LCB, SCS13A/CF8, SCS14A/CF8M, and other alloy steels. As to the operating pressure-temperature limitation for each material, see Tables and 2.				
Bonnet type	and 2. Standard type $:-5 \sim +230^{\circ}C$ Fin-Extension type $:-45 \sim -5^{\circ}C$ : $-45 \sim under -5^{\circ}C$ or over $+230^{\circ}C$ Long-Extension type $:-196 \sim -45^{\circ}C$ Note : The allowable operating pressure-temperature limitation for each material.				
Packing	Teflon V-ring, Teflon-Asbestos, Grafoil, etc. See Figure 3 for selection.				
Gasket	Spiral wound metal, with Grafoil or Teflon filler. See Figure 4 for selection.				
Painting color	Munsell N-6 (Epoxy resin group) is standard. In the case of stainless steel body, a painting is standard.				

#### ACTUATOR

	Diaphragm type	Solid State E	ectronic type	Pneumatic Cylinder type	
Туре	5200LA	3500LB	3600LA	6300LA	
Specification	Multi-spring type	DC Motor resolution : 0.3%	AC Motor resolution : 0.4%	Double acting type	
Purpose	Modulation	Modu	lation	Modulation	
Air supply or Power supply	Air supply (Spring range) 140 ( 20~100) kPa[gauge] 300 ( 80~200) kPa[gauge] 340 ( 80~200) kPa[gauge] 340 (120~300) kPa[gauge]	gauge] gauge]Power supply : AC100V 50/60 Hz [gauge]Air supply : 400~500 Hz [gauge]Input signal: 4~20 mA DC			
Connection	Air piping : See pages 14-21	Wiring : See page	ges 22-23	Air piping : See pages 24-25	
Direct action	Air to valve shut	Signal increas	e to valve shut	Valve open or shut by air or	
Reverse action	Air to valve open	Signal increase	e to valve open	electric signal.	
Hysteresis	$\leq 1\%$ of FS with positioner	$\leq$ 0.5% of FS	$\leq$ 0.8% of FS	$\leq$ 1.5% of FS with positioner	
Linearity	${\leq}{\pm}$ 2% of FS with positioner	${{\leq}{\pm}1\%}$ of FS	${{\triangleq}{\pm}1\%}$ of FS	${\leq}{\pm}$ 2% of FS with positioner	
Ambient Temp.	$-10 \sim +70^{\circ} C$	$-10 \sim +55^{\circ} C$		$-20 \sim +60^{\circ} C$	
Painting	Munsell : N-6	Metallic blue		Munsell : N-6	
Option	E/P•P/P-Positioner, Air-set, Solenoid valve, Limit switch, Speed controller,	Resolution : 0.1%, Split range, Posi- tion transmitter	Overload unit	E/P•P/P-Positioner, Air-set, Solenoid valve, Limit switch, Speed controller,	
o paon	Lock valve, Lock-up valve, Manual handle, etc	Space heate Manual han	r, Junction box, dle, etc	Lock valve, Lock-up valve, Manual handle, etc	

#### PERFORMANCE

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Rated Cv		See Table 3.	
Flow characteristics		Linear	
Rangeability	$20:1 \sim 50:1$		
Seat Leakage		See Table 1.	Option : ANSI CLASS V
Allowable pressure drops		See Table 4.	

#### **OPTIONAL SPECIAL SPECIFICATIONS (additional cost is required)**

Special testing for Body	Material certificate, Liquid penetrant testing, Radiographic testing, Flow characteristic testing, Low temperature testing, Stem testing.
Special cleaning for Body	Oxygen clean, Oil-free, Water-free.
Special specification for Body and Actuator	Sand and Dust proof, Salty environment proof, Cold area proof, Tropical area proof, Not using copper alloy, Special piping and fitting, Vacuum service proof, SUS bolt and nut for exposed parts, Non-standard painting.
Authorization	Japanese government authorization for high pressure gas.

#### Table 1 BODY/TRIM STANDARD MATERIAL COMBINATION, OPERATING TEMPERATURE AND SEAT LEAKAGE.

① Trim material/treatment vs operating temperature-pressure range : See Fig. 1

2 When ANSI Class V for seat leakage is required, please consult with the factory

	Body material	SCPH2/A216-WCI	B, SCPH21/A217-WC	C6, SCPH61/A217-0	C5, SCPL1/A352-LCB
	Material	SUS410	SUS410	SUS410	INCONEL
Cage	Treatment	Heat treatment	Heat treatment	Heat treatment	Heat treatment
	Material	SUS410	SUS410	SUS410	SFVA F11A/A182-F11
Plug	Treatment	Heat treatment	Heat treatment	Heat treatment	Stellite full surface
	Material	SUS316	SUS410	SUS410	SFVA F11A/A182-F11
Seat ring	Treatment	Reinforced Teflon	Heat treatment	Heat treatment	Stellite seat
Balance seal	Material	Reinforced Teflon	Reinforced Teflon	Grafoil	Grafoil
Back ring	Material	SUS316	SUS316	—	—
	ANSI	Class VI	Class IV	Class IV	Class IV
Seat leakage	Rated $Cv \times$	bubble-tight	0.01%	0.01%	0.01%
Operating	SCPH2 /WCB Body SCPH21/WC6 Body SCPH61/C5 Body	−5 <b>~</b> +200°C	−5 <b>~</b> +230°C	−5 <b>~</b> +425°C	−5 <b>~</b> +538°C
temperature	SCPL1/LCB Body	$-45 \sim +200^{\circ} C$	$-45 \sim +230^{\circ} C$	$-45 \sim +350^{\circ} C$	$-45 \sim +350^{\circ} C$

#### Table 1-1 BODY MATERIAL : CARBON STEEL

#### Table 1-2 BODY MATERIAL : SCS13A/A351-CF8

	Body material		SCS13A/A3	351-CF8	
	Material	SUS316	SUS316	INCONEL	SUS316
Cage	Treatment	—	—	Heat treatment	—
	Material	SUS316	SUS316	SUS630	SUS316
Plug	Treatment	Hard Chrome plated surface	Hard Chrom plated surface + Stellite seat	Heat treatment	Stellite full surface
	Material	SUS316	SUS316	SUS316	SUS316
Seat ring	Treatment	Reinforced Teflon	Stellite seat	Stellite seat	Stellite full surface
Balance seal	Material	Reinforced Teflon	① Reinforced Teflon	Grafoil	Grafoil
Back ring	Material	SUS316	SUS316		
	ANSI	Class VI	Class IV	Class IV	Class IV
Seat leakage	Rated $Cv \times$	bubble-tight	0.01%	0.01%	0.01%
	Operating Temp.	$-75 \sim +200^{\circ} C$	−196 <b>~</b> +230°C	$-45 \sim +300^{\circ} C$	$-196 \sim +538^{\circ} C$

\* (1) When the fluid temperature is below  $-75^{\circ}$ C, the materials for the balance seal and the back ring will be Fluoroloy G and Elgiloy, respectively.

#### Table 1-3 BODY MATERIAL : SCS14A/A351-CF8M

	Body material		SCS14A/A	A351-CF8M	
Cage	Material	SUS316	SUS316	SUS316	SUS316
	Material	SUS316	SUS316	SUS316	SUS316
Plug	Treatment	Hard Chrome plated surface	Hard Chrom plated surface + Stellite seat	Hard Chrom plated surface + Stellite seat	Stellite full surface
	Material	SUS316	SUS316	SUS316	SUS316
Seat ring	Treatment	Reinforced Teflon	Stellite seat	Stellite seat	Stellite full surface
Balance seal	Material	Reinforced Teflon	① Reinforced Teflon	Grafoil	Grafoil
Back ring	Material	SUS316	SUS316	—	—
	ANSI	Class VI	Class IV	Class IV	Class IV
Seat leakage	Rated $Cv \times$	bubble-tight	0.01%	0.01%	0.01%
	Operating Temp.	$-75 \sim +200^{\circ} C$	$-196 \sim +230^{\circ} C$	$-196 \sim +538^{\circ} C$	$-196 \sim +538^{\circ}C$

\* ① When the fluid temperature is below  $-75^{\circ}$ C, the materials for the balance seal and the back ring will be Fluoroloy G and Elgiloy, respectively.

#### Table 2 BODY MATERIAL/OPERATING PRESSURE-TEMPERATURE RATING

Table 2-1 ANSI

UNIT : Mpa

			150	)#			300#				600#							
°C	SCPL1 LCB	SCPH2 WCB	SCPH21 WC6	SCPH61 C5	SCS13A CF8	SCS14A CF8M	SCPL1 LCB	SCPH2 WCB	SCPH21 WC6	SCPH61 C5	SCS13A CF8	SCS14A CF8M	SCPL1 LCB	SCPH2 WCB	SCPH21 WC6	SCPH61 C5	SCS13A CF8	SCS14A CF8M
$-196 \sim 38$	-	-	-	-	1.90	1.90	-	-	-	-	4.95	4.95	-	—	-	-	9.91	9.92
-45~38	1.84	_	—	—	1.90	1.90	4.78	—	—	—	4.95	4.95	9.57	—	—	—	9.91	9.92
-5~38	1.84	1.96	1.99	1.99	1.90	1.90	4.78	5.10	5.16	5.16	4.95	4.95	9.57	10.20	10.32	10.32	9.91	9.92
50	1.81	1.92	1.92	1.92	1.84	1.84	4.72	5.00	5.10	5.16	4.77	4.80	9.46	10.01	10.22	10.32	9.56	9.62
100	1.72	1.76	1.76	1.76	1.56	1.61	4.51	4.63	4.88	5.14	4.08	4.21	9.02	9.27	9.74	10.29	8.17	8.43
150	1.57	1.57	1.57	1.57	1.39	1.47	4.40	4.51	4.63	5.01	3.62	3.85	8.78	9.04	9.26	10.03	7.26	7.69
200	1.40	1.40	1.40	1.40	1.25	1.37	4.26	4.38	4.54	4.88	3.27	3.56	8.54	8.75	9.09	9.75	6.54	7.12
250	1.20	1.20	1.20	1.20	1.16	1.20	4.05	4.16	4.44	4.62	3.04	3.34	8.11	8.33	8.88	9.26	6.10	6.67
300	1.01	1.01	1.01	1.01	1.01	1.01	3.76	3.87	4.23	4.23	2.91	3.15	7.54	7.74	8.48	8.48	5.80	6.32
350	0.84	0.84	0.84	0.84	0.84	0.84	3.59	3.69	4.01	4.01	2.81	3.03	7.18	7.38	8.04	8.04	5.60	6.07
375		0.73	0.73	0.73	0.73	0.73		3.64	3.88	3.88	2.77	2.96		7.28	7.75	7.75	5.54	5.93
400		0.64	0.64	0.64	0.64	0.64		3.44	3.65	3.65	2.74	2.91		6.89	7.31	7.31	5.48	5.81
425		0.55	0.55	0.55	0.55	0.55		2.88	3.50	3.44	2.71	2.87		5.74	7.01	6.91	5.42	5.72
450		0.47	0.47	0.47	0.47	0.47		1.99	3.38	3.08	2.68	2.81		4.00	6.75	6.17	5.37	5.61
475		0.37	0.37	0.37	0.37	0.37		1.35	3.16	2.58	2.65	2.73		2.70	6.32	5.17	5.30	5.46
500		0.28	0.28	0.28	0.28	0.28		0.88	2.77	2.02	2.60	2.67		1.75	5.55	4.04	5.20	5.37
525		0.18	0.18	0.18	0.18	0.18		0.51	2.02	1.53	2.19	2.57		1.03	4.04	3.07	4.77	5.15
538		0.13	0.15	0.15	0.15	0.15		0.34	1.63	1.34	2.18	2.53		0.72	3.26	2.69	4.55	5.06

#### Table 2-2 JIS

UNIT : Mpa

Table 2-2	- JIS				CIVIT	. mpa
	10K	20K	30	)K	JIS	40K
°C	SCPH2	SCPH2	SCPH2	SCPH21	SCPH2	SCPH21
-5~120	1.37	3.33	4.99	4.99	6.66	6.66
~220	1.17	3.03	4.50	4.50	6.07	6.07
~300	0.98	2.84	4.21	4.21	5.58	5.58
~350		2.54	3.82	3.82	5.09	5.09
~400		2.25	3.33	3.72	4.50	4.99
~425		1.96	2.94	3.52	3.92	4.70
~450						4.41
~475						4.11
~490						3.92
~500						3.72
~510						3.52

#### Fig. 1 OPERATING TEMPERATURE AND PRESSURE DROPS FOR TRIM MATERIAL COMBINATIONS

Heat treatment Hard chrome plated



Stellite full surface Stellite seat

Fig. 1-2

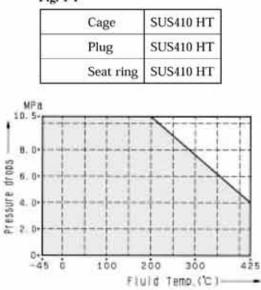
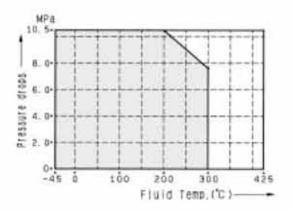


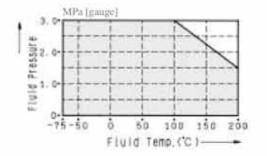
Fig. 1-3

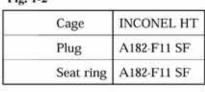
Cage	INCONEL HT
Plug	SUS630 HT
Seat ring	SUS316 SS

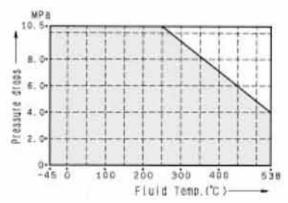




Seat ring	Reinforced Teflon				
Plug	SUS410	SUS316 Hcr			
Cage	SUS410	SUS316			

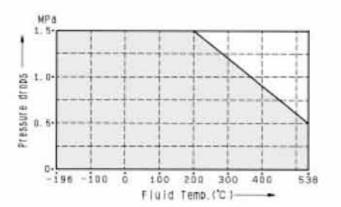








Cage	SUS316	SUS316
Plug	SUS316 SF	SUS316 Hcr+SS
Seat ring	SUS316 SF	SUS316 SS

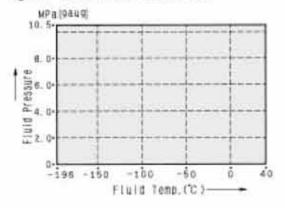


#### Fig. 2 BALANCE SEAL PRESSURE-TEMPERATURE RATINGS

#### MFa(GBUG) 10.5 B, 0 B, 0 B, 0 C, 10 C,



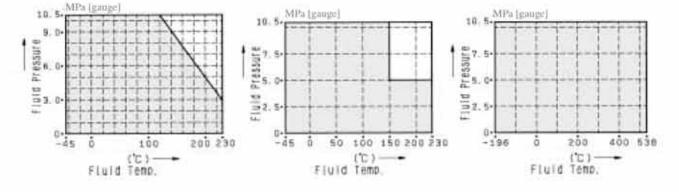


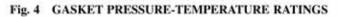


#### Fig. 3 GLAND PACKING PRESSURE-TEMPERATURE RATINGS

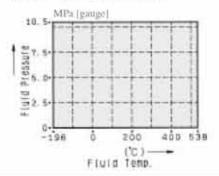
Fig. 3-1 REINFORCED TEFLON V-RING Fig. 3-2 TEFLON ASBESTOS

Fig. 3-3 GRAFOIL

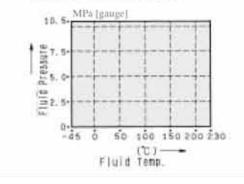


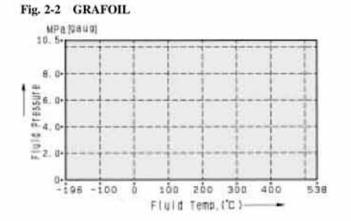


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Fig. 4-1 GRAFOIL/SUS316
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#### Fig. 4-2 TEFLON/SUS316

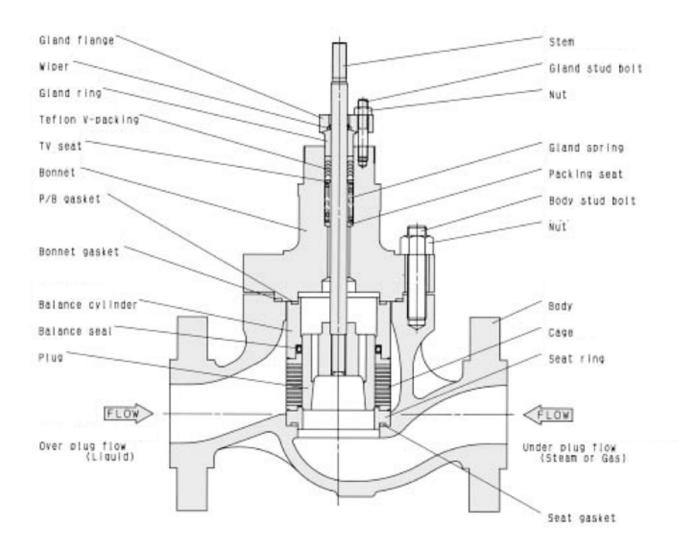




#### Table 3 Cv VALUE AND STROKE

Valve size inch(mm)	0		Rated Cv Stroke mm		Plug size inch(mm)	Rated Cv	Stroke mm
1 (25)	5%	6.3	20	0(000)	6(150)	405	60
1 (25)	1 (25)	14	20	8(200)	8(200)	690	80
11/ (10)	1 (25)	17	20	10(050)	8(200)	700	80
11/2 (40)	1½ (40)	34	25	10(250)	10(250)	910	90
2 (50)	1½ (40)	43	25	10(000)	10(250)	930	90
2 (50)	2 (50)	54	30	12(300)	12(300)	1230	100
0 (00)	2 (50)	69	30	11(050)	12(300)	1270	100
3 (80)	3 (80)	120	40	14(350)	14(350)	1560	130
	3 (80)	130	40		14(350)	1630	130
4(100)	4(100)	200	50	16(400)	16(400)	1890	150
6(150)	4(100)	230	50	10(150)	16(400)	1890	150
	6(150)	390	60	18(450)	18(450)	2220	150

#### Fig. 5 BODY SECTION VIEW



#### Table 4 ALLOWABLE PRESSURE DROPS (UNIT : MPa)

See pages 12~19 Valve size-Actuator size combinations. Direct action (Air to valve shut) Reverse action (Air to valve open)

	Air supply					Bal	ance sea	l : Reinfo	orced Te	eflon/SU	S316		
Actuator	(off balance)	Spring range kPa[gauge]	Seat ring					Plug siz	ze (inch	)			
size	kPa[gauge]	vi afgange]		%	1	1½	2	3	4	6	8	10	12
	140(20)	DA & RA	Metal Seat	0.36									
	140(20)	20~100	Soft Seat	0.36									
218	300(80)	DA & RA	Metal Seat	6.95	6.66								
210	300(80)	80~200	Soft Seat	3.0	3.0								
	340(120)	DA: 80~200	Metal Seat	9.89	9.89								
	340(120)	RA:120~300	Soft Seat	3.0	3.0								
140(20)		DA & RA	Metal Seat	2.05	0.57								
	140(20)	20~100	Soft Seat	2.05	0.57								
270	300(80)	DA & RA	Metal Seat	9.89	9.89	8.82	6.27						
270	300(80)	80~200	Soft Seat	3.0	3.0	3.0	3.0						
	340(120)	DA: 80~200	Metal Seat	9.89	9.89	9.89	9.89						
	340(120)	RA:120~300	Soft Seat	3.0	3.0	3.0	3.0						
	140(20)	DA & RA	Metal Seat	4.99	4.6	1.17	-						
250	140(20)	20~100	Soft Seat	3.0	3.0	1.17	-						
350	300(80)	DA & RA	Metal Seat	9.89	9.89	9.89	9.89						
	300(80)	80~200	Soft Seat	3.0	3.0	3.0	3.0						
	140(00)	DA & RA	Metal Seat			5.39	3.52						
	140(20)	20~100	Soft Seat			3.0	3.0						
450	200(00)	DA & RA	Metal Seat			9.89	9.89	9.89	9.89	7.64	5.0		
	300(80)	80~200	Soft Seat			3.0	3.0	3.0	3.0	3.0	3.0		
650	200(00)	DA & RA	Metal Seat					9.89	9.89	9.89	9.89	9.89	9.62
650	300(80)	80~200	Soft Seat					3.0	3.0	3.0	3.0	3.0	3.0

#### Table 4-1 DIAPHRAGM ACTUATOR (5200LA)/PACKING : REINFORCED TEFLON V-RING, TEFLON-TFE

#### Table 4-2 DIAPHRAGM ACTUATOR (5200LA)/PACKING : GRAFOIL

	Air supply						Ba	lance sea	al : GRA	FOIL						
Actuator	(off balance)	Spring range	Seat ring	g Plug size (inch)												
size	kPa[gauge]	kPa[gauge]	0	⅔	1	1½	2	3	4	6	8	10	12			
	140(20)	DA & RA	Metal Seat	—												
	140(20)	20~100	Soft Seat	-												
270	300(80)	DA & RA	Metal Seat	8.33												
210	300(80)	80~200	Soft Seat	3.0												
	340(120)	DA: 80~200	Metal Seat	8.33												
	340(120)	RA:120~300	Soft Seat	3.0												
	140(20)	DA & RA	Metal Seat	—												
350	140(20)	20~100	Soft Seat	-												
350	300(80)	DA & RA	Metal Seat	8.33	8.33	8.33	8.33									
	300(80)	80~200	Soft Seat	3.0	3.0	3.0	3.0									
	140(20)	DA & RA	Metal Seat			—	—									
450	140(20)	20~100	Soft Seat			-	-									
450	300(80)	DA & RA	Metal Seat			8.33	8.33	8.33	7.85							
	300(80)	80~200	Soft Seat			3.0	3.0	3.0	3.0							
650	300(80)	DA & RA	Metal Seat					8.33	8.33	8.33	8.33	5.15				
000	300(00)	80~200	Soft Seat					3.0	3.0	3.0	3.0	3.0	-			

	Air supple		Balance seal : Reinforced Teflon/SUS316													
Actuator	(off balance)	Seat ring				Plug s	ize (inch	)								
size	kPa[gauge]	ocuering	4	6	8	10	12	14	16	18						
	400	Metal Seat	9.89	9.89	9.89											
200	400	Soft Seat	3.0	3.0	3.0											
200	500	Metal Seat	9.89	9.89	9.89											
	500	Soft Seat	3.0	3.0	3.0											
	400	Metal Seat	9.89	9.89	9.89	9.89	9.89									
300	400	Soft Seat	3.0	3.0	3.0	3.0	3.0									
300	500	Metal Seat	9.89	9.89	9.89	9.89	9.89									
		Soft Seat	3.0	3.0	3.0	3.0	3.0									
	400	Metal Seat		9.89	9.89	9.89	9.89	9.89	9.89	9.89						
450	400	Soft Seat		3.0	3.0	3.0	3.0	3.0	3.0	3.0						
450	500	Metal Seat		9.89	9.89	9.89	9.89	9.89	9.89	9.89						
	500	Soft Seat		3.0	3.0	3.0	3.0	3.0	3.0	3.0						
	400	Metal Seat				9.89	9.89	9.89	9.89	9.89						
600	400	Soft Seat				3.0	3.0	3.0	3.0	3.0						
000	500	Metal Seat				9.89	9.89	9.89	9.89	9.89						
	500	Soft Seat				3.0	3.0	3.0	3.0	3.0						

Table 4-3 DOUBLE ACTING CYLINDER ACTUATOR/PACKING : REINFORCED TEFLON V-RING, TEFLON-ASBESTOS

#### Table 4-4 DOUBLE ACTING CYLINDER ACTUATOR/PACKING : GRAFOIL

	Air supple					Balance s	seal : GRA	FOIL		
Actuator	(off balance)	Seat ring				Plug	size (inc	h)		
size	kPa[gauge]	ocurring	4	6	8	10	12	14	16	18
	400	Metal Seat	8.33							
300	400	Soft Seat	3.0							
300	500	Metal Seat	8.33							
	500	Soft Seat	3.0							
	400	Metal Seat		8.33	8.33	8.33	8.33	8.33	8.33	8.33
450		Soft Seat		3.0	3.0	3.0	3.0	3.0	3.0	3.0
450	500	Metal Seat		8.33	8.33	8.33	8.33	8.33	8.33	8.33
	500	Soft Seat		3.0	3.0	3.0	3.0	3.0	3.0	3.0
	400	Metal Seat				8.33	8.33	8.33	8.33	8.33
	400	Soft Seat				3.0	3.0	3.0	3.0	3.0
600	500	Metal Seat				8.33	8.33	8.33	8.33	8.33
	500	Soft Seat				3.0	3.0	3.0	3.0	3.0

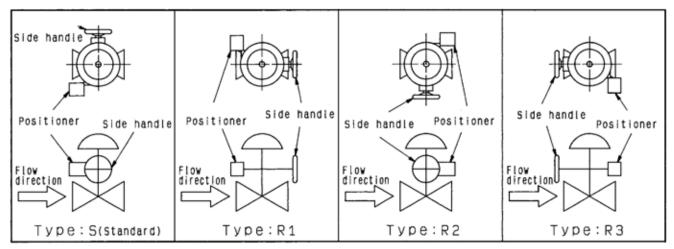
		Balance seal : Reinforced Teflon/SUS316														
Actuator	Seat ring		Plug size (inch)													
size	ocut mig	%	1	$1\frac{1}{2}$	2	3	4	6	8	10	12					
35A2LB	Metal Seat	9.01	8.63	5.39	3.23											
36A2LA	Soft Seat	3.0	3.0	3.0	3.0											
35B1LB	Metal Seat	9.89	9.89	9.89	8.33											
36B1LA	Soft Seat	3.0	3.0	3.0	3.0											
35B2LB	Metal Seat				9.89	9.89	7.25	3.0								
36B2LA	Soft Seat				3.0	3.0	3.0	3.0								
35C1LB	Metal Seat					9.89	9.89	5.78								
36C1LA	Soft Seat					3.0	3.0	3.0								
35C2LB	Metal Seat						9.89	9.89	7.74	5.59	3.62					
36C2LA	Soft Seat						3.0	3.0	3.0	3.0	3.0					

Table 4-5 SOLID STATE ELECTRONIC ACTUATOR (3500LB, 3600LA)/PACKING : REINFORCED TEFLON V-RING, TEFLON-ASBESTOS

Table 4-6 SOLID STATE ELECTRONIC ACTUATOR (3500LB, 3600LA)/PACKING : GRAFOIL

		Balance seal : GRAFOIL														
Actuator	Seat ring		Plug size (inch)													
size		5∕8	1	1½	2	3	4	6	8	10	12					
35B1LB	Metal Seat	8.33	8.33	0.66												
36B1LA	Soft Seat	3.0	3.0	0.66												
35B2LB	Metal Seat			8.33	8.33	1.07										
36B2LA	Soft Seat			3.0	3.0	1.07										
35C1LB	Metal Seat				9.89	7.25	2.45									
36C1LA	Soft Seat				3.0	3.0	2.45									
35C2LB	Metal Seat						8.33	0.79	—	—	-					
36C2LA	Soft Seat						3.0	0.79	—	—	—					

Fig. 6 ACTUATOR MOUNTING FORMS FOR 5200LA

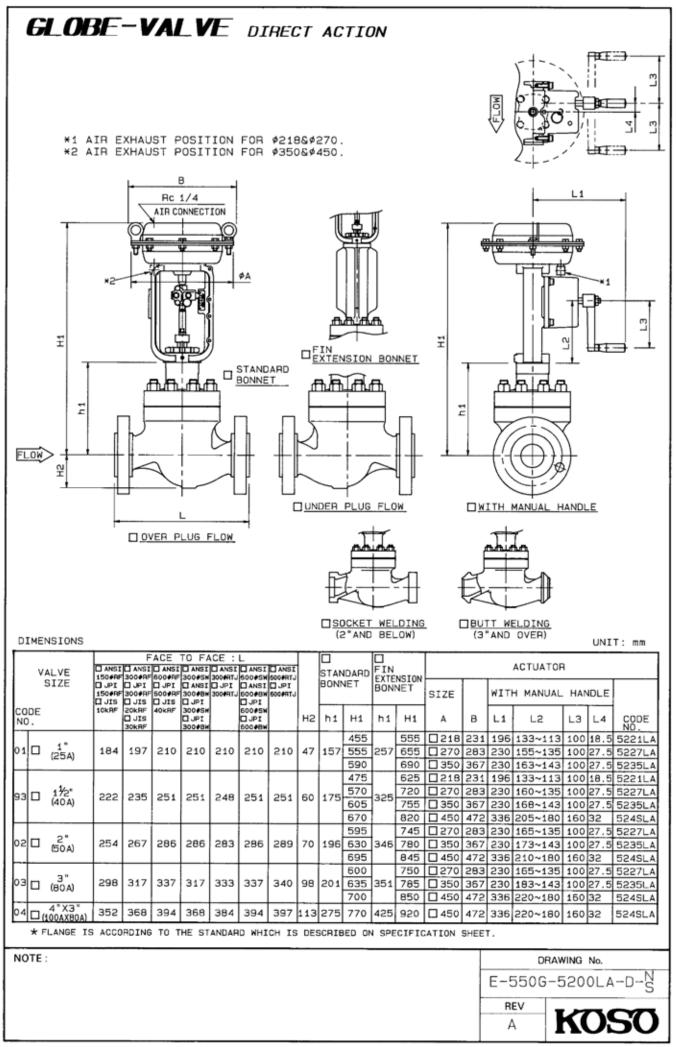


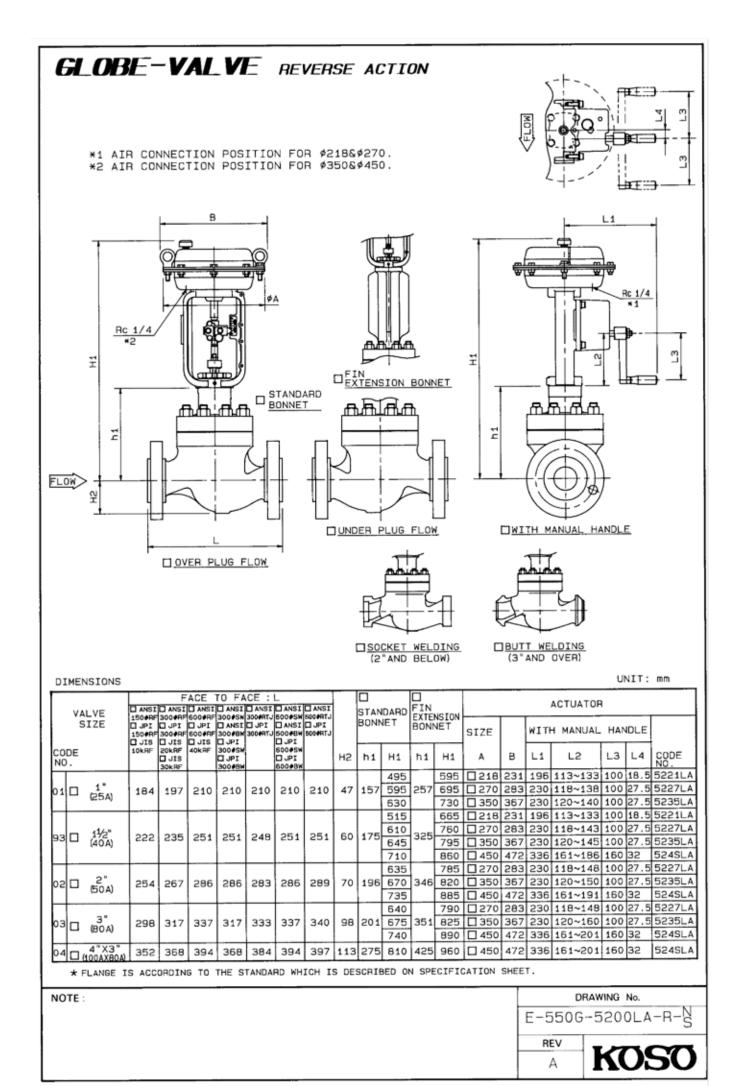
Note : Type S is automatically applied, unless otherwise specified.

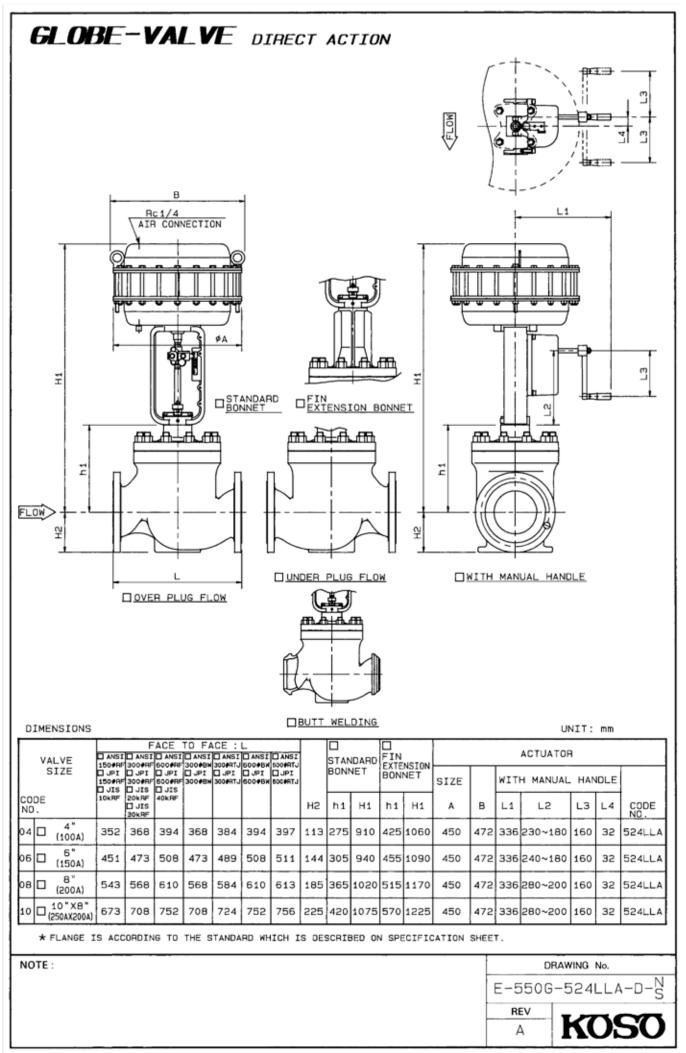
### Table 5 NET WEIGHT OF STANDARD VALVE AND ACTUATOR COMBINED (UNIT : kg)

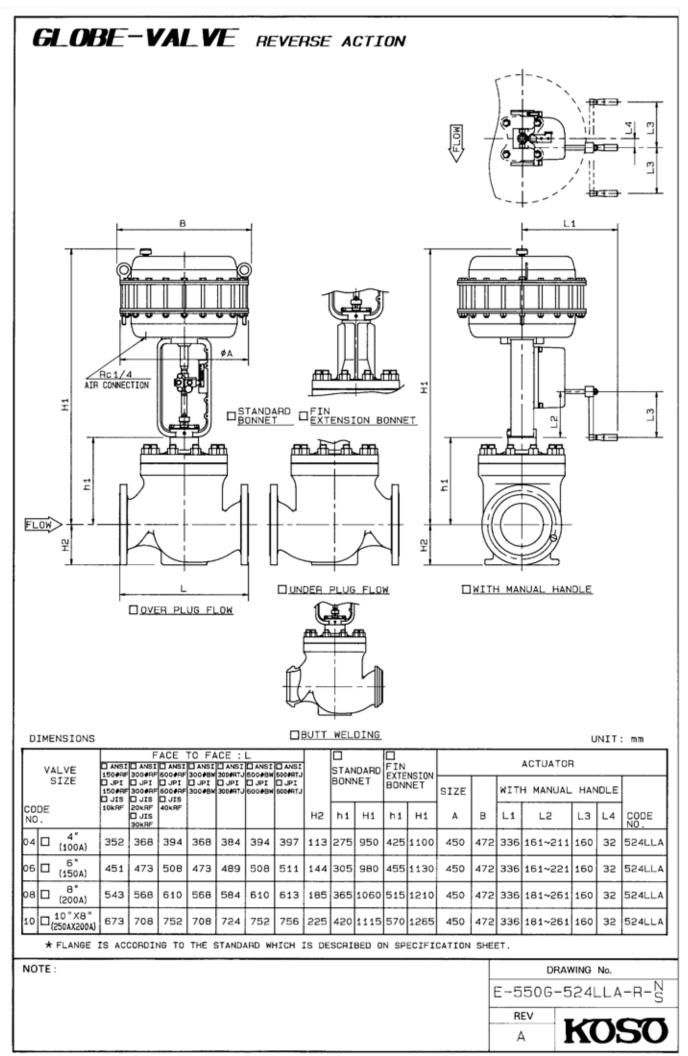
Valve size						gm acti				D	ouble a	acting (				onic Actuat	
		rating lass			:	5200LA				ac	tuator	size 6300LA			35A2LB	oric Actua 35B1LB 35B2LB 36B1LA 36B2LA 22 23 24 34 39 44 49 54 64 89 64 79 124 144 174 224 144 174 224	35C1LB 35C2LB
inch(mm)	ANSI	JIS	218	270	350			650S	650L	150	200	300	450	600	36A2LA		36C1LA 36C2LA
	150	10K	18	24	40										16	22	
1 (25)	300	20, 30K	19	25	41										17	23	
	600	40K	20	26	42										18	24	
	150	10K	29	36	52										28	34	
1½(40)	300	20, 30K	34	41	57										33	39	
	600	40K	39	46	62										38	44	
	150	10K		41	57	92									33	39	
2 (50)	300	20, 30K		46	62	97									38	44	
	600	40K		51	67	102									43	49	
	150	10K		56	72	107									48	54	90
3 (80)	300	20, 30K		66	82	117									58	64	100
	600	40K		91	107	142									83	89	125
	150	10K				115	137	242								64	100
4 (100)	300	20, 30K				130	152	257								79	115
4 (100)	600	40K				175	197	302								124	160
	150	10K					200	322		160	185	220				144	180
6 (150)	300	20, 30K					230	352		190	215	250				174	210
	600	40K					280	402		250	275	310				224	260
	150	10K					280	402			285	320	426				260
8 (200)	300	20, 30K					330	452			295	330	436				310
	600	40K					450	572			405	440	546				430
	150	10K					470		603			460	566				428
10 (250)	300	20, 30K					550		683			540	646				508
	600	40K					790		923			780	886				748
	150	10K							773			630	736	838			598
12 (300)	300	20, 30K							853			710	816	918			678
	600	40K							1143			1000	1106	1208			968
	150	10K							1045				1070	1190			
14 (350)	300	20, 30K							1205				1230	1350			
	600	40K							1705				1730	1850			
	150	10K											1530	1650			
16 (400)	300	20, 30K											1930	2050			
	600	40K											2730	2850			
	150	10K											2230	2350			
18 (450)	300	20, 30K											2930	3050			
	600	40K											4230	4350			

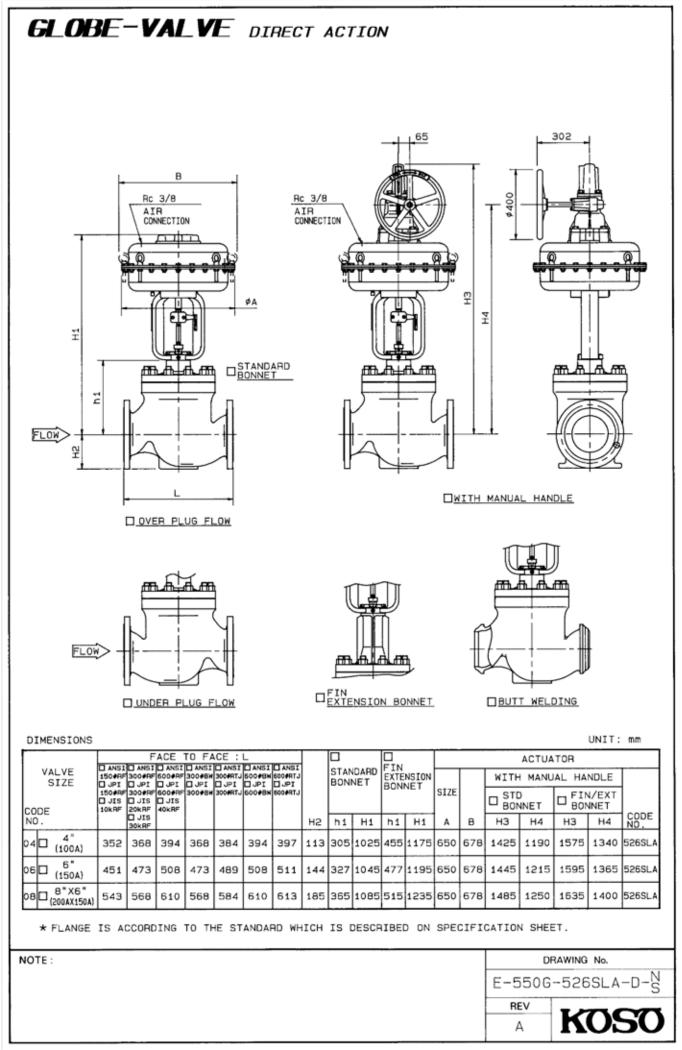
Only standard types are represented. Weights of accessories, a handwheel and the like are not included.

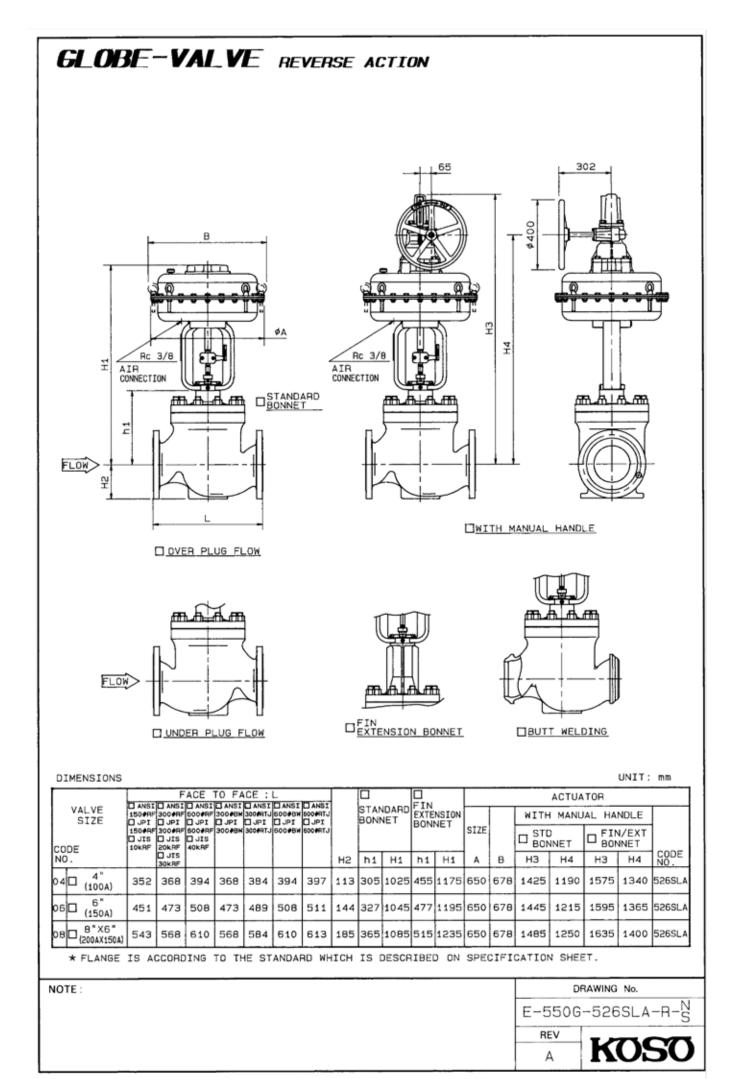


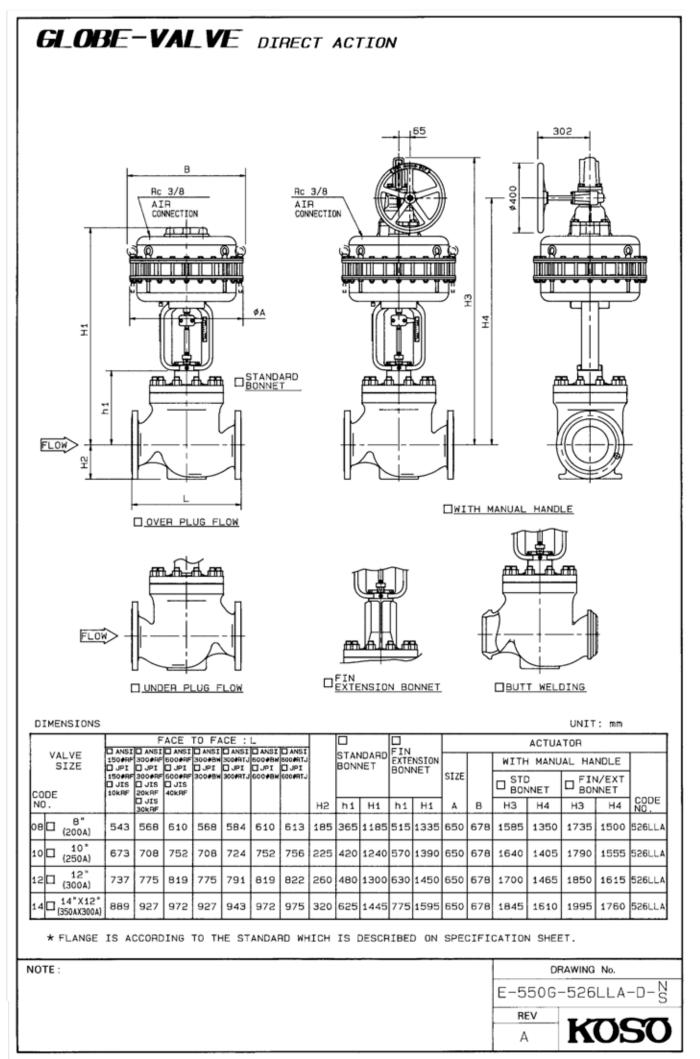


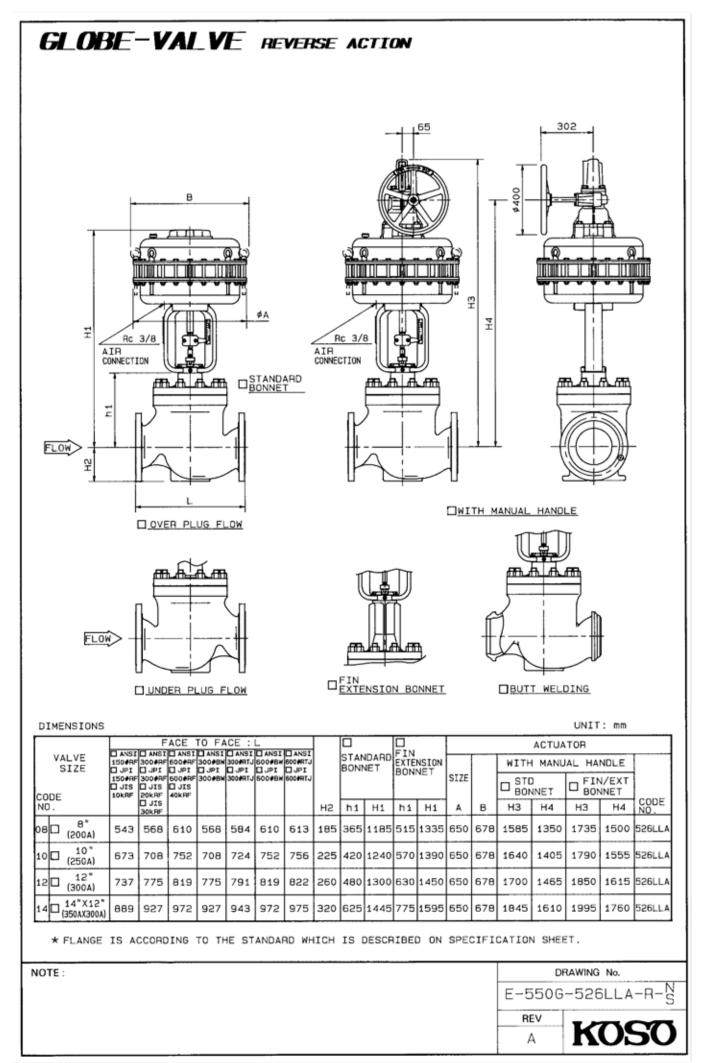


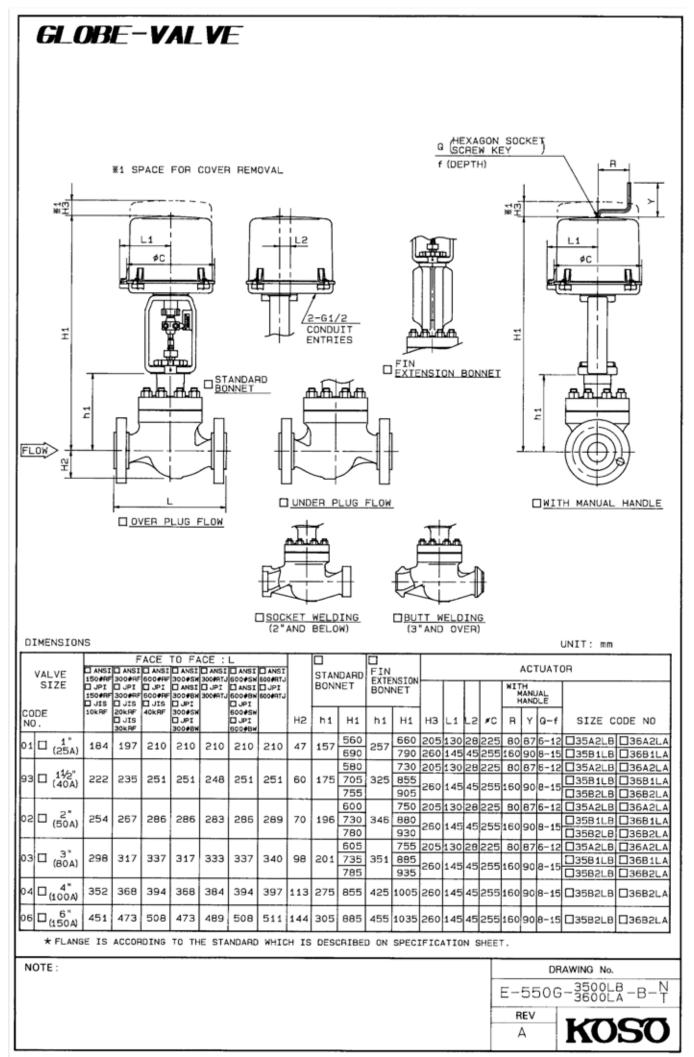


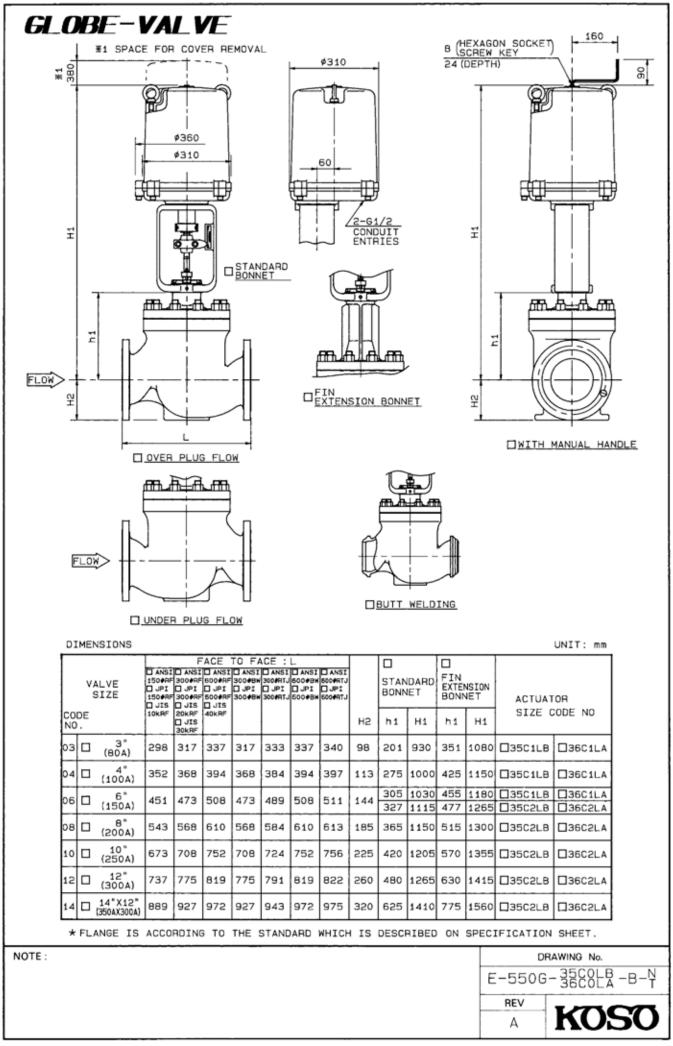


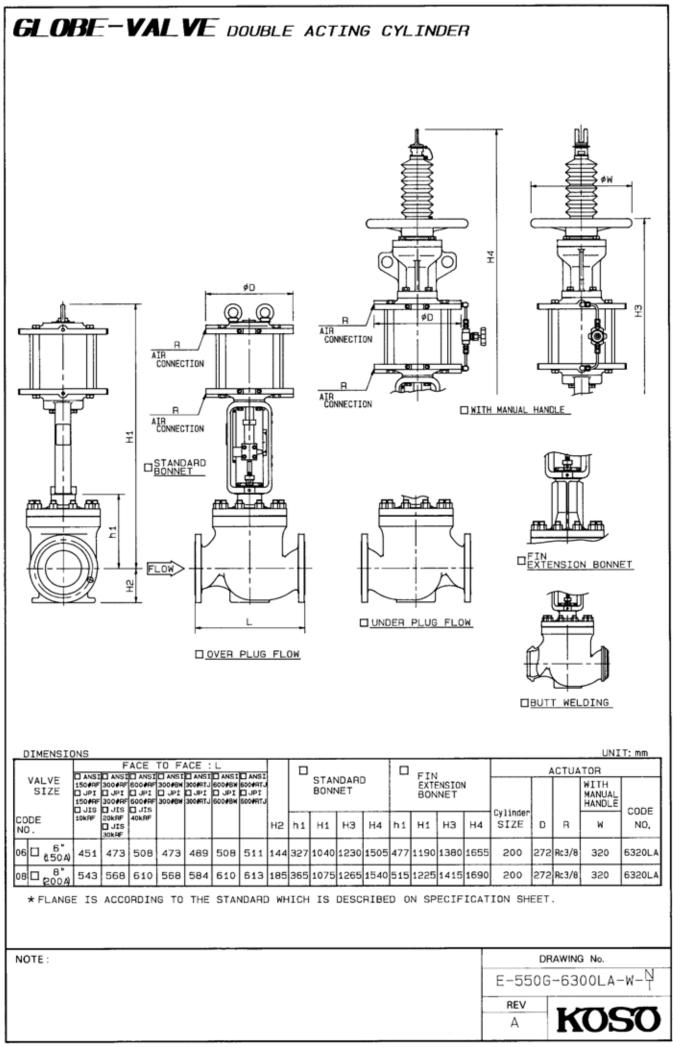


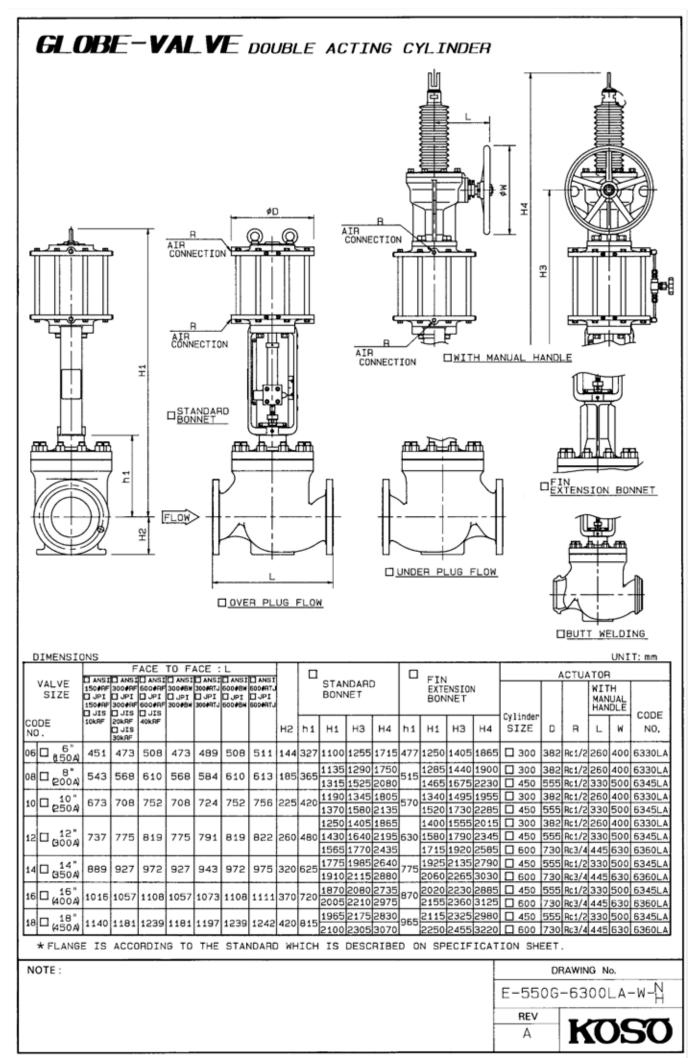






















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