

STANDARD SPECIFICATION



# GLOBE VALVE

TOP GUIDED, CAGE, MULTI-HOLE TYPE

KCV-100 Series



# KOCON



## **KOCON Control Valves and Instrumentation Systems**

**KOCON**, the leading industrial control valve manufacturer with strong research and development capability of its own, has been meeting requirements of the time. Always making available a wide range of product lines that can satisfy the needs of the coming century, **KOCON** is committed to providing control valves, and the systems thereof, of highest quality and reliability, produced under its quality assurance system complying with ISO 9001 standard.

Here **KOCON** presents its technological catalog, introducing various types of **KOCON** control valves, hoping to be of service as you select valves for your specific applications.

If you have questions on this technological catalog or require additional printed materials, please contact our sales representative nearest you.

Simple structure and compact size characterize our top guided control valves. They are applicable in a wide scope of liquid services as well as steam/gas services. This valve is easily adaptable to bellows, steam-jacketed and long extension bonnets

## Body standard specifications

Series	KCV-100 Series
Body Size	Unbalance plug type 1/2" ~ 4" (15A ~ 100A) Cage balanced type 1-1/2" ~ 12" (40A ~ 300A)
Plug form	P-port single seated, Q-port single seated
Characteristics	EQ%, Modified EQ%, Linear, On-off.
Trim materials Trim treatment	See Table 1 & Fig. 1 for standard combination and operating pressure-temperature.
Body ratings	JIS 10K, 20K, 30K, 40K, 63K / ANSI Class 150, 300, 600, 900, 1500, 2500
Body connections	Flanged (RF, RTJ), Weld ends(SW: under 2", BW : over 2 1/2")
Face to face dimension	See pages 8~9.
Body & Bonnet Material	SCPH2/WCB, SCS13A/CF8, SCS14A/CF8M, SCS16A/CF3M and other alloy Steels.
Bonnet type	Standard type : -17 ~ +230℃ Fin-Extension type : -45 ~ -17℃, +230 ~ 450℃ Long-Extension type : -196 ~ -45℃ Bellow seal type (Molded or Welded), Steam jacketed type Please note the operating pressure-temperature limitation for each material.
Gland packing	TFE, Grafoil, etc. See Fig. 2 for selection.
Gasket	Grooved metal gasket (Spiral wound, stainless steel or other alloy steels)
Painting color	Munsell N-4 is standard. In the case of stainless-steel body, no painting is standard.

## Actuator standard specifications

Specification \ Type	Type
Specification	Diaphragm type (multi-spring type)
Purpose	Modulation or On-off
Air supply (Spring range)	300(80~240)kPaG
Connection	Air connection : Rc 1/4" Rc 3/8"
Direct action	Air to valve close
Reverse action	Air to valve open
Hysteresis	1% of FS with positioner
Linearity	±2% of FS with positioner
Ambient Temp	-10 ~ +70℃
Painting	Body : Munsell N-4, Actuator : Green
Option	E/P · P/P-Positioner, Air-set, Solenoid valve, Limit switch, Speed controller, Lock valve, Lock-up valve, Manual handle, etc.

## Performance

Cv value	See Table 2.
Flow characteristics	See Fig. 3
Rangeability	50:1(Plug size ≤ 1/4" 30:1)
Seat leakage	See Table 1.
Allowable pressure drops	See Page10~11

## Selection of Bonnet

Bonnet \ Body material	SCPH 2 (A216WCB)	SCS13A/SCS14A (A351CF8/8M)
PLAIN type	-5 to +230℃	-17 to +230℃
FIN EXTENSION type (High · Low temperature)	+230 to +450℃	-45 to -17℃ +230 to +450℃
LONG EXTENSION type	-	-196 to -45℃



**Optional special specifications (additional cost is required)**

Special testing for body	Material certificate, Liquid penetrant test, Radiographic test, Flow characteristic test, Low temperature test, Steam test.
Special Cleaning for body	Oil-free, Water-free.
Special specifications for body and actuator	Sand and Dust proof, Salty environment proof, Cold area proof, Tropical area proof, Vacuum service proof, Stainless bolt and nut for exposed parts, Non-standard painting.
Authorization	Local government authorization for high pressure gas.

**Table 1 Body/trim standard material combination and operating temperature and seat leakage**

- ① Trim treatment/material vs Operating pressure-temperature range in Fig. 1.
- ② When ANSI Class V for seat leakage is required, please consult with us.
- ③ In the case of cavitation service, please consult with us.
- ④ In the case of flashing service, we recommend reduced plug.
- ⑤ The seat leakage of Q port as metal-seat is 0.001% of rated Cv.
- ⑥ In the case of stellite seat for plug size less than 1/4" we will make stellite face.

**Table 1-1 Body material**

Body material		A216-WCB/SCPH2	A351-CF8/SCS13A	A351-CF8M/SCS14A
Bonnet material		A216-WCB/SCPH2	A351-CF8/SCS13A	A351-CF8M/SCS14A
Plug material		316SS/410SS HT	316SS	316SS
Seat material		316SS/410SS HT	316SS	316SS
Seat treatment		Stellite seat / Face	Stellite seat / Face	Stellite seat / Face
Seat treatment (Option)		Soft seat (PTFE)	Soft seat (PTFE)	Soft seat (PTFE)
Bonnet Gasket		316SS+Graphite	316SS+Graphite	316SS+Graphite
Gland packing		PTFE / Graphite	PTFE / Graphite	PTFE / Graphite
Seat Leakage	Class	VI / IV	VI / IV	VI / IV
	Rated Cv x	bubble-tight / 0.01%	bubble-tight / 0.01%	bubble-tight / 0.01%

Fig. 1 Trim treatment/material vs Operating pressure–temperature range

Fig. 1-1 Metal seat

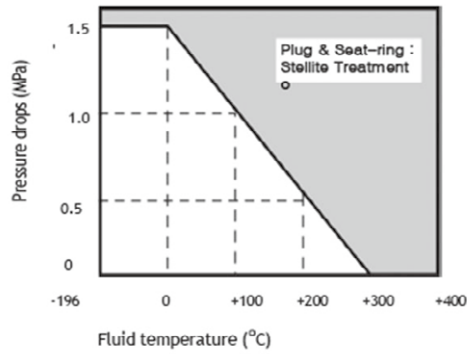


Fig. 1-2 Soft seat (Reinforced TFE)

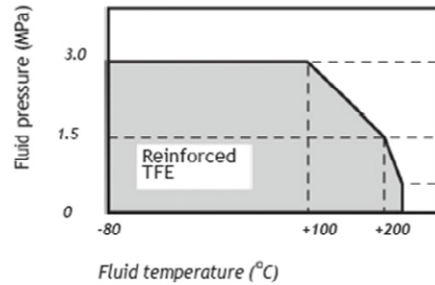


Fig. 1-2 Balance seal operating pressure–temperature range

Fig. 1-2A Reinforced TFE/316SS

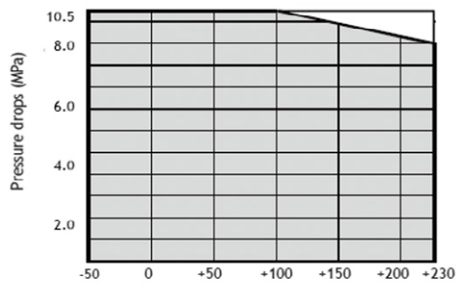


Fig. 1-2B Grafoil

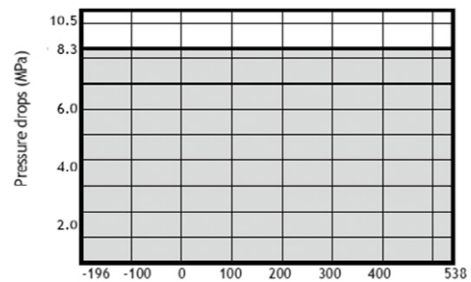


Fig.2 Gland packing operating pressure–temperature range

Fig. 2-1 Reinforced TFE

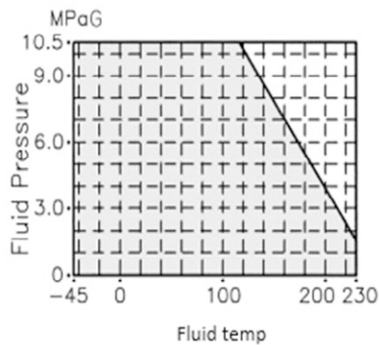


Fig. 2-2 TFE carbon fiber

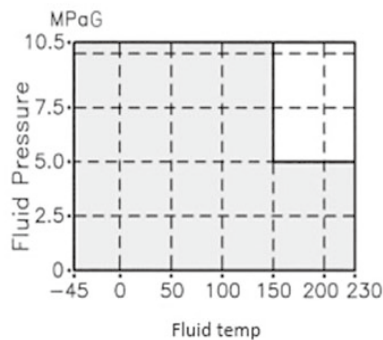


Fig. 2-3 Grafoil

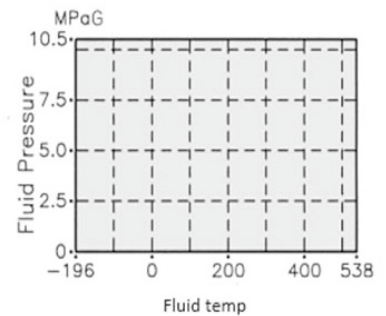
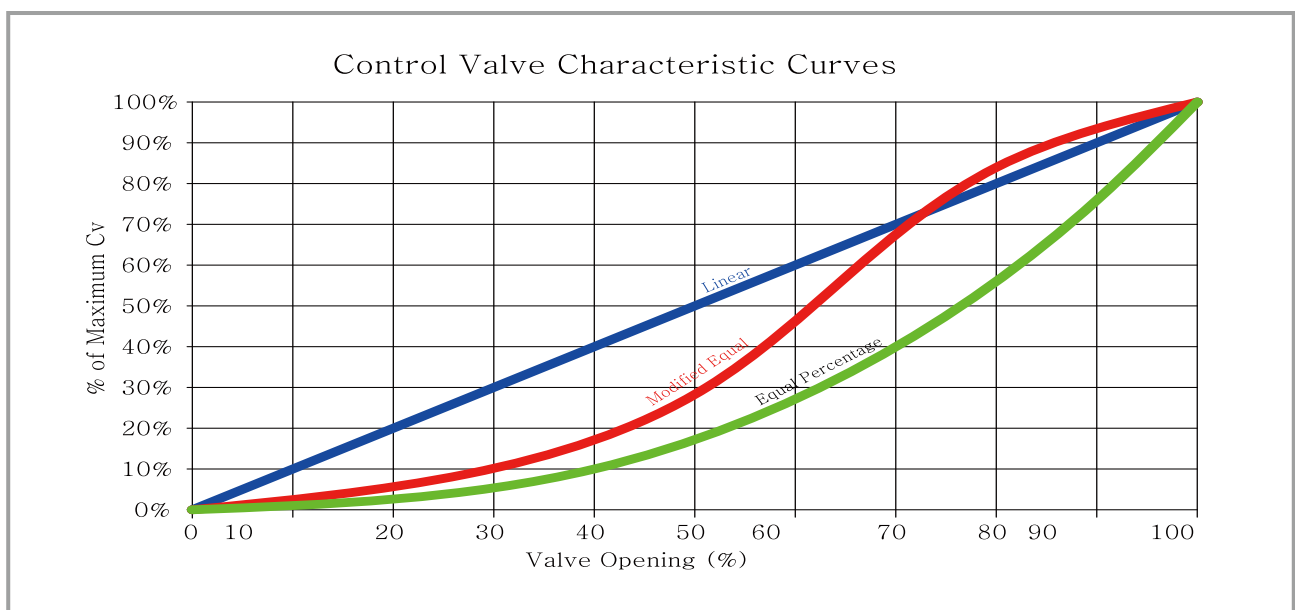


Table 2 Cv value, stroke and reduced plug manufacturing range

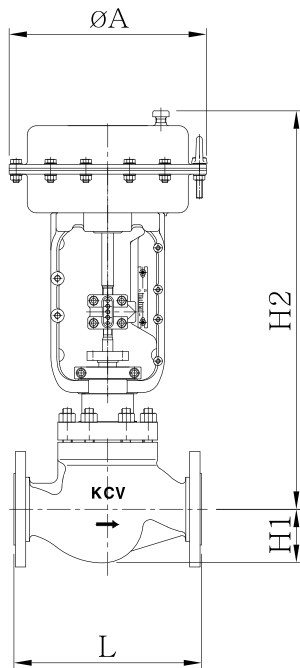
Plug size Inch (mm)	Rated Cv (EQ%)		Stroke (mm)
	Standard	Large rated	
1/8" ( 6 )	0.3	—	20
3/16" ( 7 )	0.6	—	20
1/4" ( 8 )	1	—	20
5/16" ( 9 )	1.8	—	20
3/8" (10)	3	—	20
1/2" (15)	5	—	20
3/4" (20)	9	—	20
1" (25)	15	—	20
1-1/4" (32)	22	—	20
1-1/2" (40)	28	35	20
2" (50)	45	52	20
2-1/2" (65)	75	85	30
3" (80)	105	130	30
4" (100)	180	210	40
5" (125)	280	310	50
6" (150)	410	—	60
8" (200)	650	—	70
10" (250)	950	—	90
12" (300)	1300	—	100

Fig 3. Flow characteristics

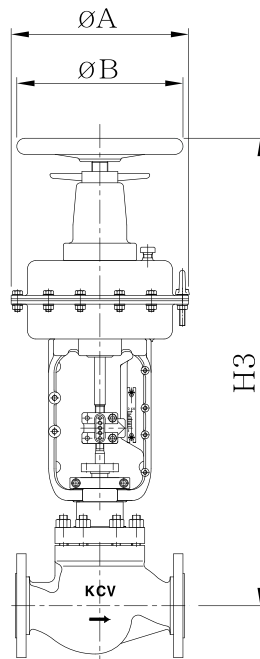


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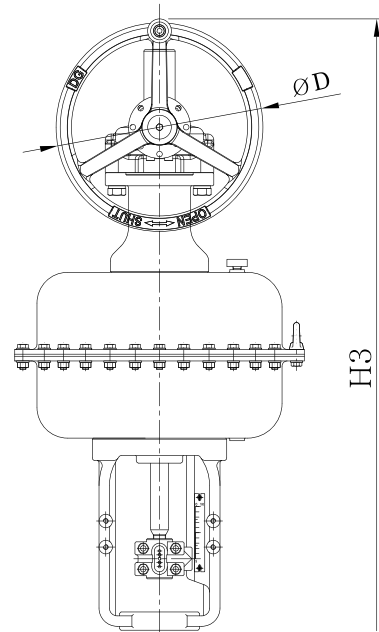
## GLOBE VALVE STANDARD SPECIFICATION



Actuator Size : Ø220~450



Actuator Size : Ø560



### DIMENSIONS

Unit : mm

BODY SIZE	FACE TO FACE			H1	STANDARD BONNET	FIN BONNET	ACTUATOR				
	JIS10K / ANSI 150	JIS20K / ANSI 300	JIS40K / ANSI 600		H2	H2	SIZE		MANUAL HANDLE		
							A	B	STANDARD BONNET	FIN BONNET	D
									H3	H3	
1/2" (15A)	184	194	206	45	431	581	220	220	591	741	200
					493	643	270	267	675	825	250
					527	677	350	350	737	887	300
3/4" (20A)	184	184	206	47	431	581	220	220	591	741	200
					493	643	270	267	675	825	250
					527	677	350	350	737	887	300
1" (25A)	184	197	210	50	431	581	220	220	591	741	200
					512	662	270	267	694	844	250
					527	677	350	350	737	887	300
1-1/2" (40A)	222	235	251	72	453	603	220	220	613	763	200
					515	665	270	267	697	847	250
					549	699	350	350	759	909	300
2" (50A)	254	267	286	80	453	603	220	220	613	763	200
					515	665	270	267	697	847	250
					549	699	350	350	759	909	300
					699	849	450	450	969	1119	390

### DIMENSIONS

Unit : mm

BODY SIZE	FACE TO FACE			H1	STANDARD BONNET	FIN BONNET	ACTUATOR				
	JIS10K / ANSI 150	JIS20K / ANSI 300	JIS40K / ANSI 600		H2	H2	SIZE		MANUAL HANDLE		
							A	B	STANDARD BONNET	FIN BONNET	D
									H3	H3	
2-1/2" (65A)	276	292	311	90	545	695	270	267	727	877	250
					579	729	350	350	789	939	300
					729	879	450	450	999	1149	390
3" (80A)	298	317	337	100	545	695	270	267	727	877	250
					579	729	350	350	789	939	300
					729	879	450	450	999	1149	390
4" (100A)	352	368	394	120	689	789	350	350	849	999	300
					789	939	450	450	1059	1209	390
					932	1082	560	560	1487	1637	400
5" (125A)	403	425	460	130	844	994	450	450	1114	1264	390
					987	1137	560	560	1542	1692	400
6" (150A)	451	473	508	150	854	1004	450	450	1124	1274	390
					997	1147	560	560	1552	1702	400
8" (200A)	543	568	610	190	904	1054	450	450	1174	1324	390
					1047	1197	560	560	1602	1752	400
10" (250A)	673	708	752	220	1102	1252	560	560	1657	1807	400
12" (300A)	737	775	819	245	1264	1414	560	560	1819	1969	400



## 1. Allowable pressure drops (unit : Mpa) DIAPHRAGM ACTUATOR(Seat Leakage Class IV)

■ KCV-101S, KCV-101Q Unbalance type plug / Gland packing : TFE CARBON FIBER

ACTUATOR SIZE	AIR SUPPLY	SPRING RANGE	SEAT RING	PLUG SIZE(inch)									
				1/8"~3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
220	0.4	0.08~0.36	METAL SEAT	9.89	4.85	2.43	1.37	1	0.51	—	—	—	—
270	0.4	0.14~0.35	METAL SEAT	9.89	9.89	7.77	4.78	3.72	2.25	1.24	0.72	0.44	—
350	0.35	0.12~0.3	METAL SEAT	9.89	9.89	9.89	9.33	7.35	4.57	2.65	1.63	1.08	0.62
450	0.35	0.1~0.3	METAL SEAT	—	—	—	—	—	—	4.59	2.88	1.96	1.13

■ KCV-101S, KCV-101Q Balance type plug / Gland packing : TFE CARBON FIBER

ACTUATOR SIZE	AIR SUPPLY	SPRING RANGE	SEAT RING	PLUG SIZE(inch)			
				1-1/2"	2"	2-1/2"	3"
220	0.4	0.08~0.36	METAL SEAT	2.91	0.34		
270	0.4	0.14~0.35	METAL SEAT	9.89	2.48	2.56	0.86
350	0.35	0.12~0.3	METAL SEAT	9.89	5.33	5.98	2.16
450	0.35	0.1~0.3	METAL SEAT	9.89	9.29	9.89	3.96

■ KCV-101S, KCV-101Q Unbalance type plug / Gland packing : GRAFOIL

ACTUATOR SIZE	AIR SUPPLY	SPRING RANGE	SEAT RING	PLUG SIZE(inch)									
				1/8"~3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
220	0.4	0.08~0.36	METAL SEAT	7.96	3.01	1.4	0.7	0.47	—	—	—	—	—
270	0.4	0.14~0.35	METAL SEAT	9.89	9.89	6.73	4.12	3.19	1.91	1.03	0.58	0.35	
350	0.35	0.12~0.3	METAL SEAT	9.89	9.89	9.89	8.67	6.82	4.23	2.44	1.49	0.98	0.51
450	0.35	0.1~0.3	METAL SEAT	—	—	—	—	—	—	4.09	2.55	1.72	0.93

■ **KCV-101S, KCV-101Q** Balance type plug / Gland packing : GRAFOIL

ACTUATOR SIZE	AIR SUPPLY	SPRING RANGE	SEAT RING	PLUG SIZE(inch)			
				1-1/2"	2"	2-1/2"	3"
270	0.4	0.14~0.35	METAL SEAT	7.3	1.2	0.66	—
350	0.35	0.12~0.3	METAL SEAT	9.89	4.06	4.08	1.43
450	0.35	0.1~0.3	METAL SEAT	9.89	8.01	8.81	3.24

■ **KCV-102C, KCV-103M** Cage balance type / Gland packing : TFE CARBON FIBER

ACTUATOR SIZE	AIR SUPPLY	SPRING RANGE	SEAT RING	PLUG SIZE(inch)					
				4"	5"	6"	8"	10"	12"
450	0.35	0.1~0.23	METAL SEAT	9.89	9.89	8.61	5.37	—	—
560	0.3	0.08~0.24	METAL SEAT	9.89	9.89	9.89	9.89	9.89	5.11

■ **KCV-102C, KCV-103M** Cage balance type / Gland packing : GRAFOIL

ACTUATOR SIZE	AIR SUPPLY	SPRING RANGE	SEAT RING	PLUG SIZE(inch)					
				4"	5"	6"	8"	10"	12"
450	0.35	0.1~0.3	METAL SEAT	8.65	5.71	—	—	—	—
560	0.3	0.08~0.24	METAL SEAT	9.89	9.89	6.63	2.11	—	—

## 2. DIAPHRAGM ACTUATOR Spring range

ACTUATOR SIZE	Spring Range (Mpa)	AIR SUPPLY (MPa)	STROKE (mm)	FORCE (N)
220	0.08-0.36	0.4	20	1,480
270	0.14-0.28	0.4	20	3,155
	0.14-0.35	0.4	30	
350	0.12-0.21	0.3	20	5,390
	0.12-0.26	0.3	30	
	0.12-0.30	0.35	40	
450	0.1-0.23	0.3	50	8,486
	0.1-0.26	0.3	60	
	0.1-0.30	0.35	80	
560	0.08-0.24	0.3	100	11,858



## KCV-101S

### Top Guided Type

#### Product Information

- The **KCV-101S** series is a Top Guided Type trim, small and simple,
- This series can be applied to various conditions with easy operation.
- This series also has a structure that is easy to maintain.
- KCV-101S : Top Guided Type

#### Product Features

- Compact and simple in structure,
- This series can be used for a wide range of applications,
- The delivery date is fast and the price is low,
- This series is suitable for the microflow control with a small plug,
- Quick change type can be used in combination with the same body.

#### Valve Specifications

Type	Globe Valve							
Model	<b>KCV-101S</b> Series							
Plug form	Unbalanced, Balanced							
Plug Characteristic	EQ%, Large rated CV, Linear, On-off							
Trim Type	P-port single, Optional special trim							
Valve Size	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
(mm)	15	20	25	40	50	65	80	100
Body ratings	JIS 10K ~ 40K, ANSI Class 150# ~ 600#, PN10 ~ 40							
End Connection	RF, FF, SW, BW, RTJ, etc							
Body Material	A216-WCB, A216-WC6, A216-WC9, A351-CF8, A351-CF8M, A351-CF3M and other alloy Steels.							
Trim Material	316SS, 316LSS Stellite seat, Stellite face							
Seat Type	Metal, Soft							
Bonnet type	Standard type (-17 ~ +230℃), Extension type (-45 ~ -17℃, +230 ~ 450℃)							
	Long-Extension type (-196 ~ -45℃), Bellow seal type, Steam jacketed type							
Packing	TFE, Grafoil, etc.							
Gasket	Spiral Wound Metal gasket							
Painting color	Maker standard							



## KCV-101Q

### Quick Change Type

#### Product Information

- The **KCV-101Q** series is a Top Guided Type trim, small and simple,
- This series can be applied to various driving conditions with easy operation,
- This series also has a structure that is easy to maintain,
- KCV-101Q : Quick change type

#### Product Features

- Compact and simple in structure,
- This series can be used for a wide range of applications,
- The delivery date is fast and the price is low,
- This series is suitable for the microflow control with a small plug,
- Quick change type easy to maintenance,

#### Valve Specifications

Type	Globe Valve							
Model	<b>KCV-101Q</b> Series							
Plug form	Unbalanced, Balanced							
Plug Characteristic	EQ%, Large rated CV, Linear, On-off							
Trim Type	P-port single, Quick Change, Optional special trim							
Valve Size	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
(mm)	15	20	25	40	50	65	80	100
Body ratings	JIS 10K ~ 40K, ANSI Class 150# ~ 600#, PN10 ~ 40							
End Connection	RF, FF, SW, BW, RTJ, etc							
Body Material	A216-WCB, A216-WC6, A216-WC9, A351-CF8, A351-CF8M, A351-CF3M and other alloy Steels.							
Trim Material	316SS, 316LSS Stellite seat, Stellite face							
Seat Type	Metal, Soft							
Bonnet type	Standard type (-17 ~ +230℃), Extension type (-45 ~ -17℃, +230 ~ 450℃)							
	Long-Extension type (-196 ~ -45℃), Bellow seal type, Steam jacketed type							
Packing	TFE, Grafoil, etc.							
Gasket	Spiral Wound Metal gasket							
Painting color	Maker standard							



## KCV-102C

### Cage Type

#### Product Information

- The **KCV-102C** series is a Cage guided type with a high capacity.
- This series is a control valve suitable for Heavy Duty service with a high-performance and high capacity.
- For Severe fluid service, select Multi-hole cage type Control Valve.
- KCV-102C : Cage Type

#### Product Features

- This series has a large CV value and is suitable for a variety of Heavy duty services.
- The CV value can be adjusted according to the flow characteristics.
- Cage enables stable operation even in situations of noise, vibration, and cavitation.
- Simple to maintain and durable.
- Perform well in high-pressure environments.

#### Valve Specifications

Type	Globe Valve												
Model	<b>KCV-102C</b> Series												
Plug form	Balanced												
Plug Characteristic	EQ%, Mod EQ%, Linear, On-off												
Trim Type	Cage, Optional special trim												
Valve Size	1-1/2"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	
(mm)	40	50	80	100	125	150	200	250	300	350	400	450	
Body ratings	JIS 10K ~ 40K, ANSI Class 150# ~ 600#, PN10 ~ 40												
End Connection	RF, FF, SW, BW, RTJ, etc												
Body Material	A216-WCB, A216-WC6, A216-WC9, A351-CF8, A351-CF8M, A351-CF3M and other alloy Steels.												
Trim Material	410SS Heat treatment, 316SS, 316LSS Stellite seat, Stellite face												
Seat Type	Metal, Soft												
Bonnet type	Standard type (-17 ~ +230°C), Extension type (-45 ~ -17°C, +230 ~ 450°C)												
	Long-Extension type (-196 ~ -45°C), Bellow seal type, Steam jacketed type												
Packing	TFE, Grafoil, etc.												
Gasket	Spiral Wound Metal gasket												
Painting color	Maker standard												





## KCV-103M

### Multi-Hole Cage Type

#### Product Information

- The **KCV-103M** series is a Multi-Hole Cage Type with high capacity
- This series is a control valve suitable for Heavy Duty service with a high-performance and stable structure.
- For Severe fluid service, select a Multi-hole cage type control valve
- KCV-103M : Multi-Hole Type

#### Product Features

- This series has a large CV value and suitable for Heavy duty services
- The CV value can be adjusted according to the flow characteristics
- Multi-hole cage allows stable operation even in noise, vibration, and cavitation condition
- Simple to maintenance and durable
- Perform well in high-pressure environments

#### Valve Specifications

Type	Globe Valve											
Model	<b>KCV-103M</b> Series											
Plug form	Balanced											
Plug Characteristic	EQ%, Mod EQ%, Linear, On-off											
Trim Type	Multi-Hole Cage, Low-noise Cage, Optional special trim											
Valve Size	1-1/2"	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"
(mm)	40	50	80	100	125	150	200	250	300	350	400	450
Body ratings	JIS 10K ~ 40K, ANSI Class 150# ~ 600#, PN10 ~ 40											
End Connection	RF, FF, SW, BW, RTJ, etc											
Body Material	A216-WCB, A216-WC6, A216-WC9, A351-CF8, A351-CF8M, A351-CF3M and other alloy Steels.											
Trim Material	410SS Heat treatment, 316SS, 316LSS Stellite seat, Stellite face											
Seat Type	Metal, Soft											
Bonnet type	Standard type (-17 ~ +230°C), Extension type (-45 ~ -17°C, +230 ~ 450°C)											
	Long-Extension type (-196 ~ -45°C), Bellow seal type, Steam jacketed type											
Packing	TFE, Grafoil, etc.											
Gasket	Spiral Wound Metal gasket											
Painting color	Maker standard											



## KCV-201B, 202L, 203T Series

### Product Information

- The **KCV-201B, 202L, 203T** series are used to tight shut off in pipelines
- A floating ball valve is a two-seated ball with a seal structure that floats the ball.
- The trunnion ball valve allows smooth operation at high pressure line.
- KCV-201B : 2-Way, KCV-202L : 3-Way L-Type, KCV-203T : 3-Way T-Type

### Product Features

- Simple in structure, easy to maintain and durable
- You can open or close fluid flow with a 90-degree rotation
- Suitable for simple fluid flow control
- Quick to respond and highly airtight
- This series has low pressure drops
- Suitable for controlling a variety of fluids

### Valve Specifications

Type	Ball Valve																			
Model	KCV-201B, 202L, 203T Series																			
Ball form	2-Way, 3-Way (L-type, T-type)																			
Characteristic	On-off (Full bore)																			
Valve Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	550	600
Body ratings	JIS 10K ~ 40K, ANSI Class 150# ~ 600#, PN10 ~ 40																			
End Connection	RF, SW, BW, RTJ, etc																			
Body Material	A216-WCB, A216-WC6, A216-WC9, A351-CF8, A351-CF8M, A351-CF3M and other alloy Steels,																			
Trim Material	304SS, 316SS, Buffing, Stellite																			
Seat Type	P.TFE, R.TFE, PEEK, METAL																			
Bonnet type	Standard type (-17 ~ +230℃)																			
	Long-Extension type (-196 ~ -45℃), jacketed type																			
Packing	TFE, Grafoil, etc.																			
Gasket	Teflon																			
Painting color	Maker standard																			



## KCV-301H, 302R Series

### Product Information

- The **KCV-301H, 302R** series are butterfly valves, depending on the type or condition of fluid.
- Various seat materials can be applied.
- This series has simple construction, light weight, excellent sealing performance and long service life.
- This series are double offset butterfly valve and high-performance butterfly valve.
- Triple offset is also available as an option.
- KCV-301H : High Performance Type,  
KCV-302R : Rubber Type

### Product Features

- Excellent in corrosion resistance, wear resistance
- light in weight with a compact design
- Due to their high heat resistance and pressure resistance, This series can be applied to various applications such as high-temperature steam, high-pressure gas, and high viscosity fluid.
- This series is economical with a small actuator mounted due to their low body torque
- Possible for control and on-off purposes in controlling the fluid.

### Valve Specifications

Type	Butterfly Valve															
Model	<b>KCV-301H, 302R Series</b>															
Disc form	High Performance, Rubber															
Characteristic	Control, On-off															
Valve Size	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	up to 48
(mm)	50	65	80	100	125	150	200	250	300	350	400	450	500	550	600	up to 1200
Body ratings	JIS 10K ~ 40K, ANSI Class 150# ~ 600#, PN10 ~ 40															
End Connection	WF, LUG, RF, FF, etc															
Body Material	FCD, A216-WCB, A351-CF8, A351-CF8M, A351-CF3M and other alloy Steels.															
Disc Material	304SS(A351-CF8), 316SS(A351-CF8M), Hcr treatment, Stellite treatment.															
Seat Type	EPDM, P.TFE, R.TFE, PEEK, METAL															
Bonnet type	Standard type (-17 ~ +400℃), Long-Extension type (-196 ~ -45℃)															
Packing	RESIN, TFE, Grafoil, etc.															
Gasket	Teflon															
Painting color	Maker standard															

## KCV-401C,402E Series



### Product Information

- The **KCV-401C, 402E** series can be possible in control and on-off in V-Notch format.
- The characteristics of the valve plate's partial spherical surface and V-shaped cut.
- This series is widely used in paper and other industries.
- This series is used various application, especially powders, slurry, and fiber material services.
- KCV-401C : Concentric Type  
KCV-402E : Eccentric Type

### Product Features

- Simple in structure and inexpensive
- Precise flow control and maintenance are easy.
- This series implements excellent sealing performance by installing a soft seat.
- It is suitable for processes that require wide control rangeability.

### Valve Specifications

Type	Segmental Ball Valve											
Model	<b>KCV-401C,402E</b> Series											
Disc form	Concontric, Eccentric type											
Characteristic	Approximate Linear, Equal%											
Valve Size	1"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	
(mm)	25	40	50	65	90	100	125	150	200	250	300	
Body ratings	JIS 10K ~ 40K, ANSI Class 150# ~ 600#											
End Connection	RF, WF, RTJ, etc											
Body Material	A216-WCB, A351-CF8, A351-CF8M, A351-CF3M and other alloy Steels.											
Disc Material	316SS, Hcr treatment, Stellite treatment											
Seat Type	P.TFE, R.TFE, PEEK, METAL											
Bonnet type	Standard type (-17 ~ +400℃ )											
	Long-Extension type (-196~-45℃), jacketed type											
Packing	TFE, Grafoil, etc.											
Gasket	Teflon											
Painting color	Maker standard											



## KCV-501D Series

### Product Information

- The **KCV-501D** series rotates the disc (blade) with a damper type butterfly valve and controls fluid.
- Its application range is wide due to its simple structure and low cost.
- KCV-501D : Damper Type

### Product Features

- Compact design with excellent control characteristics.
- This series can be used as a control or ON-OFF valve.
- This series is manufactured in consideration of characteristics such as heat resistance and corrosion resistance, and maintenance is easy and convenient.
- Safe and efficient flow control is possible in industrial environments dealing with high-temperature gases
- Light weight and simple to install.
- Various productions can be made according to order specifications besides the production scope.

### Valve Specifications

Type	Damper Valve													
Model	<b>KCV- 501D</b> Series													
Disc form	Damper													
Disc Characteristic	Control, On-off													
Valve Size	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	up to 60
(mm)	80	100	125	150	200	250	300	350	400	450	500	550	600	up to 1500
Body ratings	JIS 2K, 5K, 10K, ANSI Class 150#, PN10													
End Connection	RF, FF, etc													
Body Material	SS275(SS400), SUS304, SUS316 other alloy Steels.													
Disc Material	SS275(SS400), SUS304, SUS316 other alloy Steels.													
Seat Type	SS275(SS400), SUS304, SUS316													
Bonnet type	Inner bearing type (−5 ~ 200℃), Outer bearing type (−5 ~ 700℃)													
Packing	TFE, Grafoil, etc.													
Gasket	NON													
Painting color	Maker standard													





## KALD, KALC Series

### Product Information

- KOCON Linear Actuator is Pneumatic diaphragm actuator that has Multi spring structure, light weight, high performance and large output power
- KALD : Diaphragm Type  
KALC : Cylinder Type

### Product Features

- An actuator with a multi structure, light weight, small volume, high performance, and large output power.
- Double cylinder type provides high output power and long stroke.
- Low hysteresis and light weight.
- This series is easy to maintenance.

### Actuator Specifications

Type	Multi-spring Diaphragm Actuator				
Model	KALD-00 Series				
	KALD-22	KALD-27	KALD-35	KALD-45	KALD-56
Size	220	270	350	450	560
Output force ( N )	4,480	3,155	5,390	8,486	11,858
Stroke (mm)	20	30	40	80	100
Output type	Linear stem motion type				
Air Supply	0.4 MPa				
Spring Range	0.08 ~ 0.3 Mpa				
Action	Direct acting (DA), Reverse acting (RA)				
Option	Manual handwheel, Yoke material				
Accessories	E/P Positioner, P/P Positioner, Air set, Booster relay, Air valve, Limit switch				
	Solenoid valve, Lock valve, Speed controller, Position transmitter, etc.				
Painting color	Maker standard				

Type	Double Cylinder Actuator		
Model	KALC-00 Series		
	KALC-20	KALC-30	KALC-45
Size	200	300	450
Output force ( N )	11,700	26,300	59,600
Stroke (mm)	150	210	410
Output type	Linear stem motion type		
Air Supply	0.4MPa		
Action	Direct acting (DA), Reverse acting (RA)		
Option	Manual handwheel, Yoke material		
Accessories	E/P Positioner, P/P Positioner, Air set, Booster relay, Air valve, Limit switch		
	Solenoid valve, Lock valve, Speed controller, Position transmitter, etc.		
Painting color	Maker standard		

### KAR Series



#### Product Information

- The KOCON Rotary Actuator is used for rotary valve such as ball and butterfly valve.
- This series consists of Double Acting and Spring Return Type.
- KAR : Rotary Cylinder Type

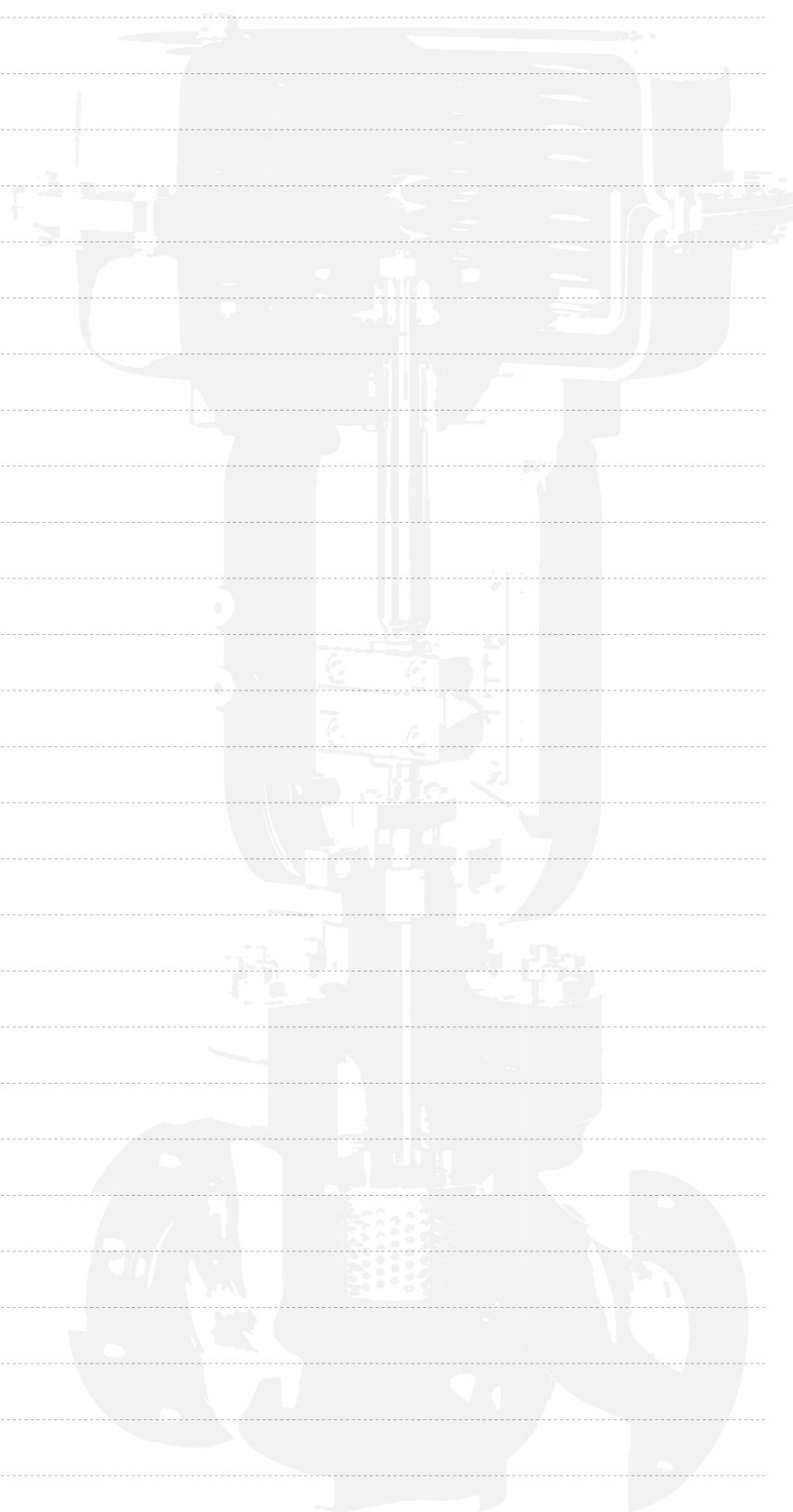
#### Product Features

- Safe and reliable behavior.
- Various torque outputs are possible.
- Apply NAMUR and ISO flange standard.
- This series provides a completely customized solution with pneumatic Accessories.

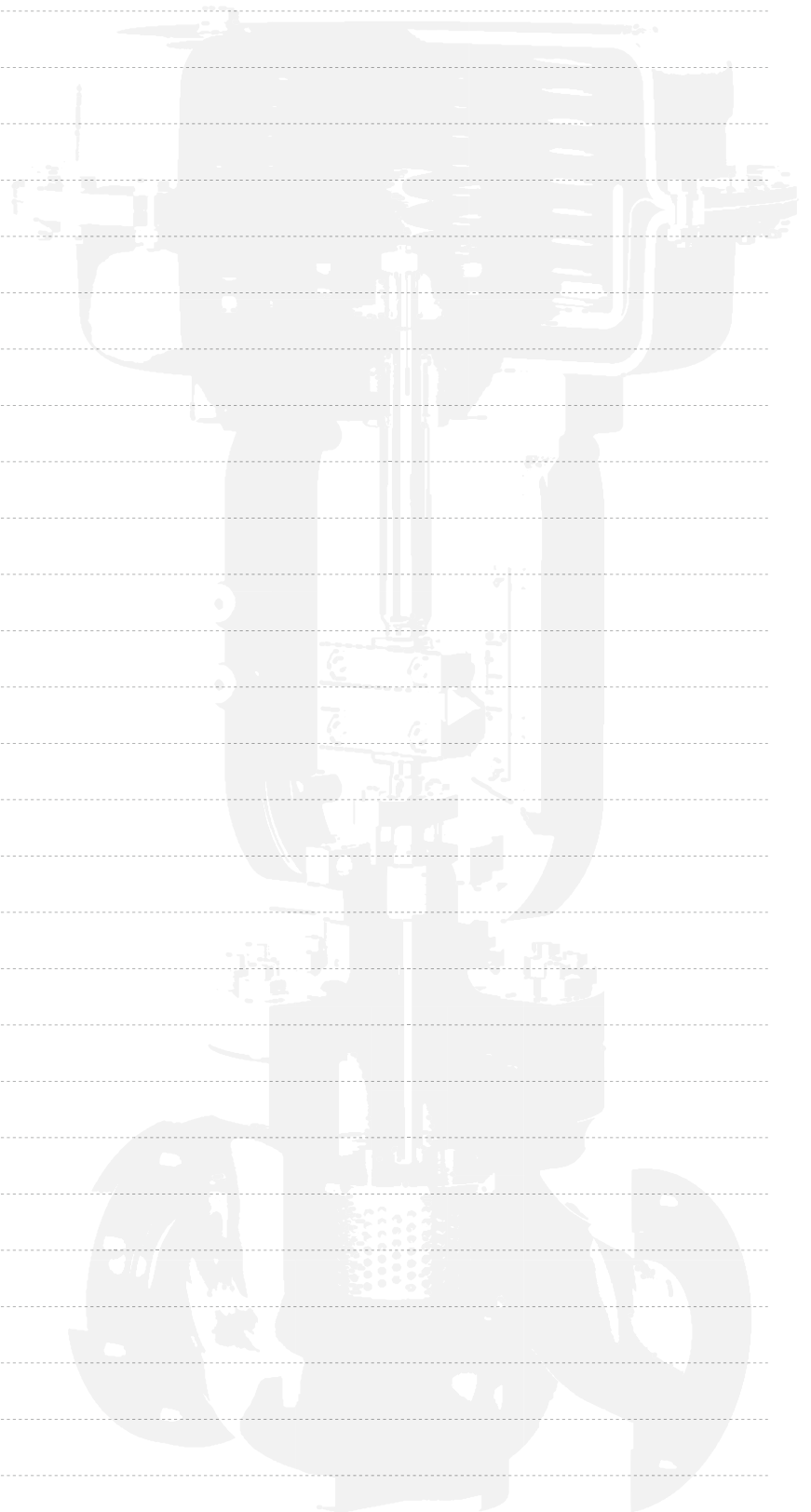
#### Actuator Specifications

Type	Rotary Cylinder Actuator (Double acting, Single acting type)					
Model	<b>KAR-00 Series</b> * Please refer to general specification for details.					
	KAR-080S	KAR-063S	KAR-066S	KAR-035D	KAR-050D	KAR-063D
Air supply(Bar)	4	4	4	4	4	4
No. of Spring	6	6	6	—	—	—
Output force(Nm)	7.5	13.8	19.1	6.0	13.3	23.9
Angle (deg)	60 or 90					
Output type	Rotary stem motion type / Rack & Pinion, Scotch sock(Heavy-duty)					
Spring Range	0.25Mpa ~ 0.8Mpa(0.25bar ~ 8bar)					
No. of Spring	Single acting(5~12), Double Acting(N/A)					
Action	Direct acting(DA), Reverse acting(RA)					
Option	Manual handwheel, Yoke material					
Accessories	E/P Positioner, P/P Positioner, Air set, Booster relay, Air valve, Limit switch					
	Solenoid valve, Lock valve, Speed controller, Position transmitter, etc.					
Painting color	Maker standard					

# KOCON



# KOCON





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