

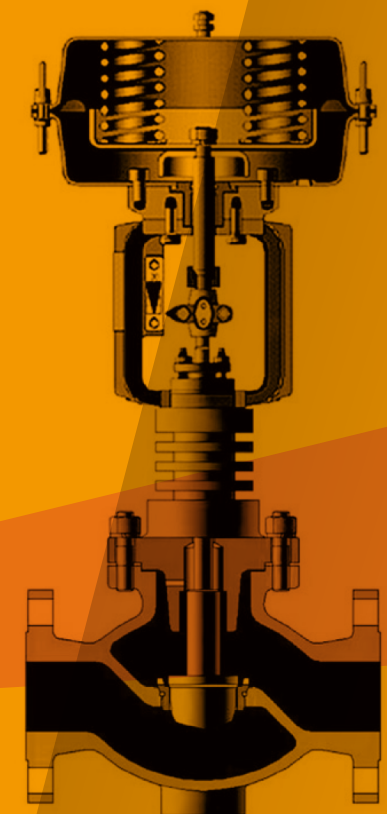


CONTROL VALVE

LK-500 Series Single-Seat Valve | LK-600 Series Cage Control Valve

LK-700 Series Three Way Control Valve | LK-800 Series Low Temperature Control Valve

LK-900 Series Angle Sleeved Control Valve



LINK CONTROLS INC.

 7940 Garvey Ave Ste.202, Rosemead CA91770

 +1 323-714-4631

 www.linkflowcontrol.com

 sales@linkflowcontrol.com

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Basic parameters

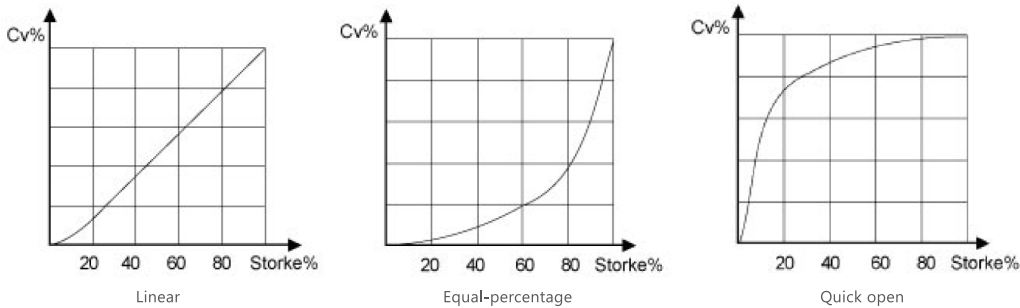
■ Technical specification

- **Body:** direct,angle.three ways
 - **Nominal dimension:** 1/2"~24"
 - **Pressure rating:**
CLASS 150~CLASS 4500
 - **Seal Level:**
Body seal level: ANSI b16.34,IV, V,VI
Seat seal level: ANSI b16.34,IV, V,VI
- **Rangeability**---50:1
 - **Drive mode:** Handwheel,Pneumatic,Electric,EHB
 - **Connection:**
Flanged(RF/GF/FF/RTJ),Weld(BW/SW),Screw(BSP/NPT)
 - **Special versions available:**
1-for oxygen
2-with a heating jacket

■ Material

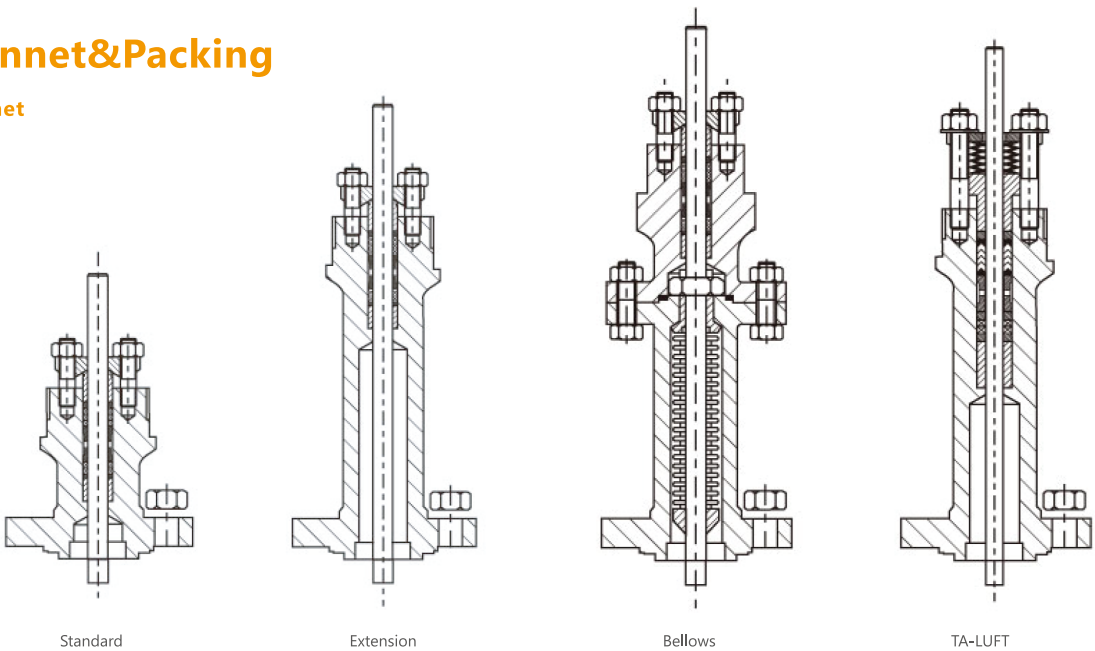
Body & Bonnet:	A-216 Gr.WCB, A-216 Gr.WCC,A-217 Gr.WC6, A-217 Gr.WC9,A-351 Gr.CF8M,A-351 Gr.CF3M, A-351 Gr.CF3, A-351 Gr.CF8,A-352 Gr.LCB, SS+PFA
Trim & Seat:	316SS,316SS+STL,316SS+HF,410SS,420SS,420SS+QT, 430SS+QT,440SS+QT, SS+PFA
Remark:	1-Material of stem 316SS.410SS 2-Body&Bonnet:A-182 Gr.F11, A-182 Gr.F22,A-182 Gr.F316
Non-routine material:	Brinze,Hastelloy C-276,Monel,Ti,Duplexss,Inconel,Alloy6

■ Characteristic



■ Bonnet&Packing

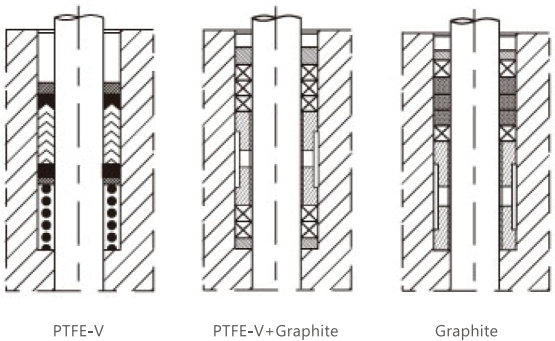
• Bonnet



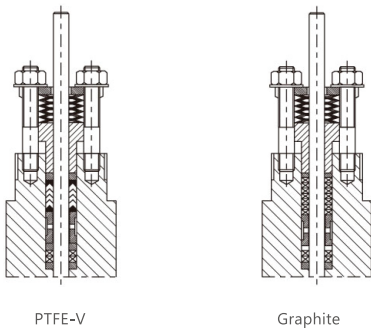
• Bonnet type&Temperture& Packing

Packing type	PN	Temperture(°C)		
		Bonnet type		
		Standard	Extension	Bellows
PTFE-V	To 110*	-46°C--+200°C	-198°C--+300°C	-100°C--+200°C
PTFE+Graphite				
PTFE-V/TA-Luft				
Graphite	To 420*	To +300°C	To+537°C (+650°C)**	To +440°C
Graphite/TA-Luft	To 160*		To +440°C	

• Packing



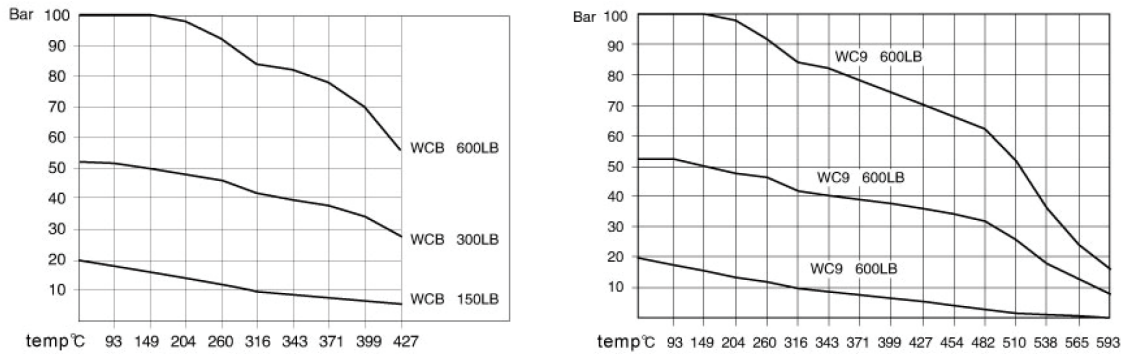
• Packing type of TA-Luft



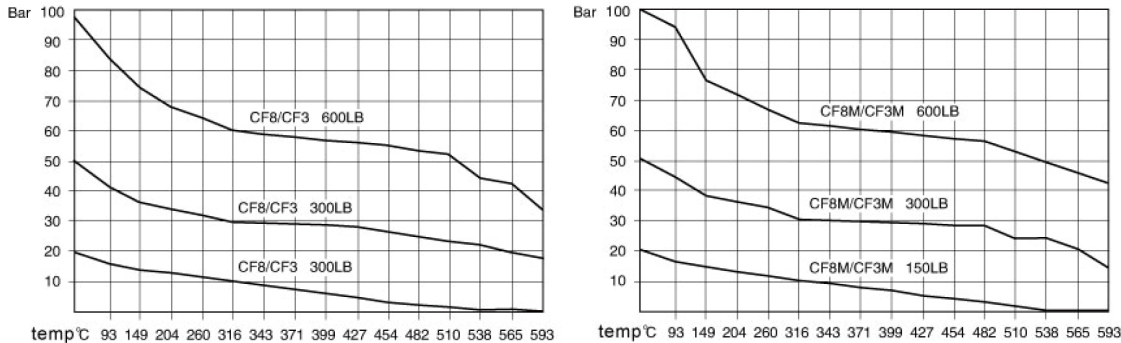
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Body material, operating pressure and temperatures

Carbon steel



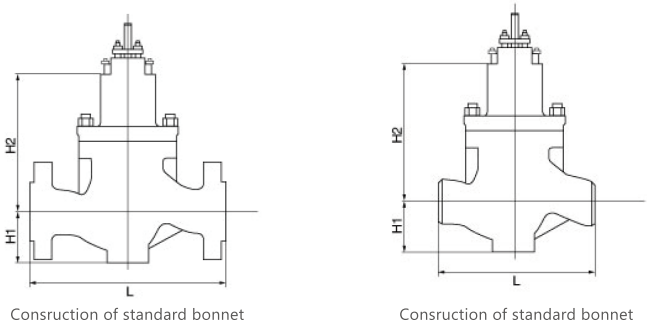
Stainless steel



Temp °C	ANSI Class 900						ANSI Class 1500						ANSI Class 2500					
	SCPL1	SCPH2	SCPH21	SCPH32	SCS13A	SCS14A	SCPL1	SCPH2	SCPH21	SCPH32	SCS13A	SCS14A	SCPL1	SCPH2	SCPH21	SCPH32	SCS13A	SCS14A
	LCB	A105 WCB	F11 WC6	F22 WC9	F304 CF8	F316 CF8M	LCB	A105 WCB	F11 WC6	F22 WC9	F304 CF8	F316 CF8M	LCB	A105 WCB	F11 WC6	F22 WC9	F304 CF8	F316 CF8M
-196~38	—	—	—	—	14.88	14.88	—	—	—	—	24.79	24.79	—	—	—	—	41.33	41.34
-45~38	14.35	—	—	—	14.88	14.88	23.92	—	—	—	24.79	24.79	39.87	—	—	—	41.33	41.34
-5~38	14.35	15.31	15.50	15.50	14.88	14.88	23.92	25.51	25.84	25.84	24.79	24.79	39.87	42.52	43.07	43.07	41.33	41.34
50	14.18	15.01	15.33	15.35	14.34	14.43	23.64	25.02	25.55	25.58	23.90	24.04	39.40	41.70	42.59	42.64	39.84	40.07
100	13.52	13.90	14.62	14.70	12.25	12.65	22.53	23.16	24.36	24.50	20.42	21.09	37.56	38.62	40.46	40.58	34.01	35.14
150	13.18	13.56	13.90	13.98	10.89	11.54	21.96	22.60	23.18	23.30	18.16	19.24	36.60	37.66	38.61	38.84	30.26	32.07
200	12.79	13.14	13.63	13.45	9.82	10.69	21.32	21.89	22.73	22.40	16.37	17.83	35.53	36.50	37.88	37.35	27.28	29.71
250	12.17	12.51	13.33	13.26	9.15	10.02	20.28	20.84	22.22	22.10	15.26	16.68	33.80	34.75	37.03	36.83	25.43	27.80
300	11.30	11.61	12.72	12.72	8.71	9.49	18.84	19.36	21.20	21.20	14.52	15.80	31.40	32.26	35.31	35.33	24.20	26.34
350	10.78	11.08	12.06	12.06	8.42	9.12	17.96	18.46	21.11	20.11	14.02	15.20	29.95	30.78	33.51	33.51	23.36	25.36
375		10.94	11.63	11.63	8.32	8.91		18.22	19.38	19.38	13.86	14.84		30.37	32.32	32.32	23.12	24.74
400		10.34	10.98	10.98	8.23	8.72		17.24	18.28	18.28	13.72	14.55		28.73	30.47	30.47	22.87	24.25
425		8.62	10.53	10.53	8.14	8.59		14.37	17.54	17.54	13.57	14.32		23.94	29.23	29.23	22.63	23.87
450		6.01	10.13	10.13	8.06	8.42		10.02	16.89	16.89	13.46	14.03		16.68	28.16	28.16	22.37	23.38
475		4.06	9.50	9.50	7.79	8.20		6.76	15.82	15.82	13.27	13.67		11.28	26.36	26.36	22.13	22.79
500			8.33	8.33	7.81	8.05			13.89	13.89	13.02	13.40			23.15	23.15	21.71	22.34
525			6.08	6.58	7.15	7.73			10.12	10.96	11.94	12.89			16.88	18.26	19.88	21.47
550			3.83	4.91	6.54	7.49			6.38	8.17	10.91	12.48			10.63	13.63	18.17	20.79
575			2.55	3.51	6.02	7.22			4.24	5.85	10.04	12.04			7.08	9.74	16.72	20.07
600			1.75	2.99	5.01	6.43			2.94	3.82	8.35	10.71			4.90	6.36	13.92	17.85
625					3.92	5.48					6.54	9.12					10.89	25.20
650					3.16	4.23					5.26	7.06					8.75	11.76
675					2.33	3.78					3.88	6.31					6.45	10.53

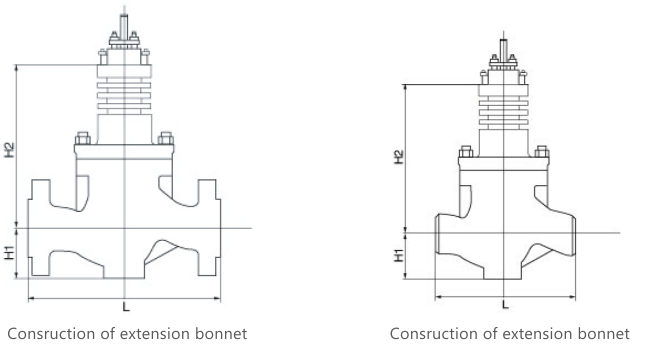
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Cunstruction lengths, Dimensions&Connection dimensions



SIZE	L(mm)			H1 (mm)	H2 (mm)
	150LB	300LB	600LB		
1"	184	197	210	65	162
1 1/2"	222	235	251	81.5	165.5
2"	254	267	286	90	169
2 1/2"	276	292	311	108	259
3"	298	318	337	108	259
4"	352	368	394	138	263
6"	451	473	508	182	312
8"	543	568	610	212	346
10"	673	708	752	268	393
12"	737	775	819	330	445

*Other sizes on request



SIZE	L(mm)			H1 (mm)	H(mm)			
	150LB	300LB	600LB		0~250°C	251~350°C	351~450°C	451~550°C
1"	184	197	210	65	194	240	354	496
1 1/2"	222	235	251	81.5	197.5	243.5	357.5	499.5
2"	254	267	286	90	201	251	365	507
2 1/2"	276	292	311	108	291	343	477	609
3"	298	318	337	108	291	343	477	609
4"	352	368	394	138	295	351	475	607
6"	451	473	508	182	344	418	562	724
8"	543	568	610	212	381	432	576	738

*Other sizes on request

LK-500 Series Single-Seat Control Valve

■ Characteristics

The design of top-guided flow, in comparison with the cage control valve, reduces the friction and disturbance of the media to avoid the failure of the mechanical guidance caused by the accumulation of the unpurified media to ensure the stable performance as well as to decrease the noise and the friction.

Easy to change parts inside the control valve. The single-seat construction with a balanced plug allows massive flow of the unpurified media with a high differential pressure that requires less output of the actuator.

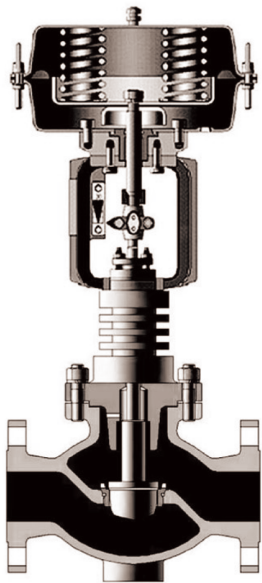
Control Valve Series LK-500 offers a choice of different materials to meet the working conditions. The partly or complete build-up welding of the seat and the body with Stellite Alloy ensures the capability of corrosion resistance and abrasion resistance.

The self alignment requires no gasket between stem and plug, plug and seat or body and seat.

The complete seal of the body and seat ensured by the screwed connection does not destroy the self-alignment as no gasket is required and as a result, requires less maintenance. The Tapper-junction of stem and plug avoids the concentration of the work on the pin, which may break the connection of stem and plug.

To ensure the seal of up to Grade VI, the screw connection of the body and seat offers a choice of different metallic and non-metallic materials.

Also available with choice of design of built-in low-noise cage and or with design of cavitation resistance.

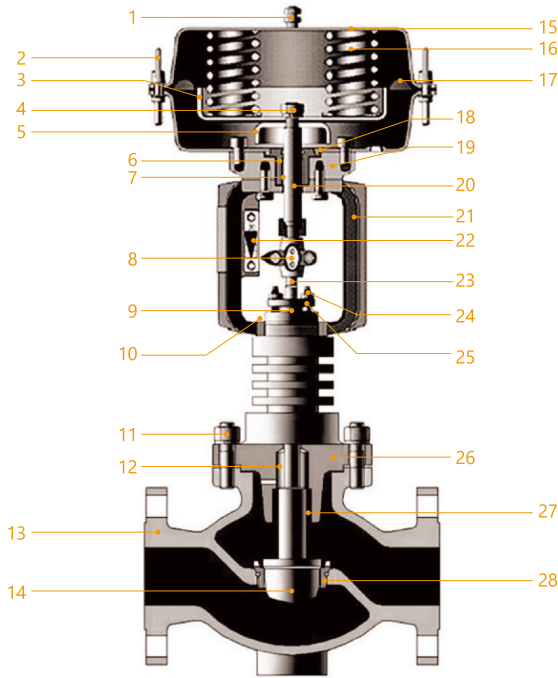


■ Note

Control Valve LK-500 is a linear single-seat valve designed with simple construction and top-guided flow. With its low cost and liability, it's widely applied in such media as water, steam, gas and etc. so to meet the requirements of different standards. Exquisitely designed for free flow and the low loss of pressure, the Control Valve LK-500T is ideal for non-critical application.

Control Valve LK-500, specially designed with a balanced plug and linear single seat, is widely applied for massive flow and high differential pressure. Designed with simple construction for free flow, Control Valve LK-500H is a choice of low cost due to its stability and less non-balance that requires less output of actuator.

■ Parts

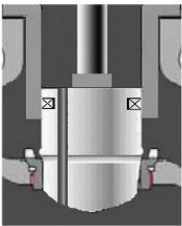


1	VENT CAP	15	DIAPHEAGM CASE
2	CONVEYABLE NUT	16	SPRING
3	SPRING GUIDE	17	DIAPHRAGM
4	STOPPER FIXER	18	SEALANT
5	STOPER	19	YOKE PLATE
6	ROD GUIDE	20	ROD
7	ROD GUIDE BUSH	21	YOKE
8	ROD CONNECTOR	22	SCALE
9	PACKING GLAND	23	STEM
10	YOKE NUT	24	GLAND BULT
11	BONNET NUT	25	GLAND FLANGE
12	PACKING	26	BONNET
13	BODY	27	PLUG GUIDE BHSH
14	PLUG	28	SEAT RING

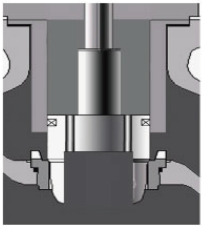
■ Technical specifications

- **Packing**
GRAFOIL: -198~+538°C PTFE: -40~+232°C
Construction: single / double / triplex
Packing of bonnet:
1/2~1 1/2", Gland Screw, less parts, easy for installation, convenient for maintenance.
2-8", Gland Flange, even work on packing, better seal.
- **Bonnet:**
standard: -28~+250°C
- **Connection of ends:**
ANSI CLASS 150/300 FF,RF,RJ(DIN,JB)
ANSI CLASS 150/300 BW,SW(DIN,JB)
- **Size:** 1/2" ~ 12"(15mm ~ 300mm)
- **Pressure rating:** ANSI CLASS 150/ANSI CLASS 300
- **Seat leakage:** ANSI/FCI70-2-1991 IV, V, VI
- **Rangeability**---50:1

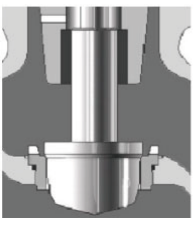
● Construction of trim



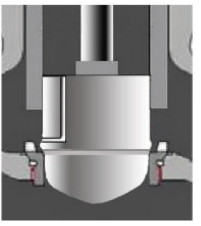
Balanced plug one



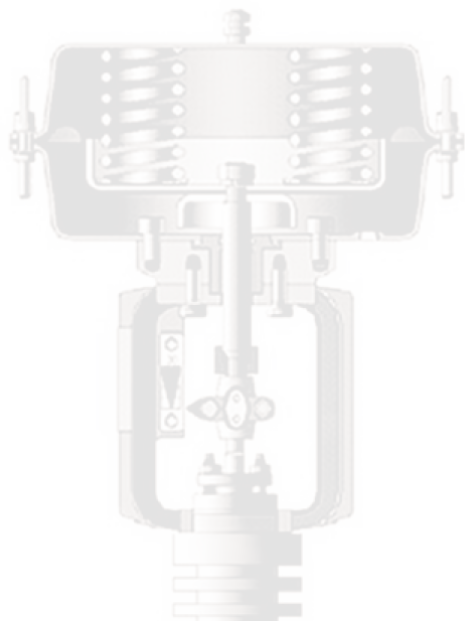
Balanced plug two



Nonbalanced plug one



Nonbalanced plug two



LK-600 Series Cage Control Valve

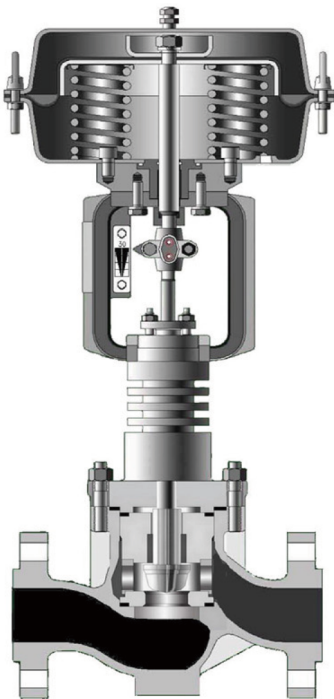
■ Linear Cage Control Valve LK-600 Series

Designed with various constructions of cage and plug, Control Valve Series LK-600 meet the requests of different working conditions and various kinds of media, te)mperature and pressure.

Available in designs of “Flow-to-open” and “Flow-to-close”
Available in designs of balanced plug and unbalanced plug
Available in design of balanced plug for massive flow and high differential pressure.

To help control the cost and improve the stability, Control Valve Series LK-600 are suitable for unpurified media as the balanced plug improves the performance in larger range of application that requires less output of the actuator.

Control Valve Series LK-600 is an ideal choice of massive flow control process in critical conditions of high noise, high differential pressure with cavitation resistance.



• Trim & Flow coefficients Cv

S-T series

SIZE	TRIM SIZE(in)/Cv VALUE												
	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
	2.9	4.7	8.2	12.8	21	30	50	79	117	175	303	443	758
1/2"													
3/4"													
1"													
1 1/2"													
2"													
2 1/2"													
3"													
4"													
6"													
8"													
STROKE													

*Other sizes on request

S-H series

SIZE	TRIM SIZE(in)/Cv VALUE										
	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
	21	30	50	79	117	175	303	443	758	1050	1220
2"											
2 1/2"											
3"											
4"											
6"											
8"											
10"											
12"											
STROKE	20mm			30mm			60mm			75mm	

*Other sizes on request

• Features and Characteristics

- Cage structure:
- Large range of flow to improve the stability of the plug in high pressure and massive drop of pressure
 - Reduced vibration and friction to prolong the life of the control valve
 - The cage tightens up the seat while providing the flow direction. The flow character is determined by the shape of the plug

The Tapper-junction of stem and plug avoids the concentration of the work on the pin, which may break the connection of stem and plug so to effectively prolong the life of the valve

The linear contact of the plug and the seat ensures the self alignment with a perfect seal up to Grade V. Available with choices of different materials for corrosion resistance and abrasion resistance

- Partly or complete Stellite Alloy plug and seat
- Quenching seat and tempering seat
- Hardening cage surface
- Easy to change inside parts upon the request of working conditions.

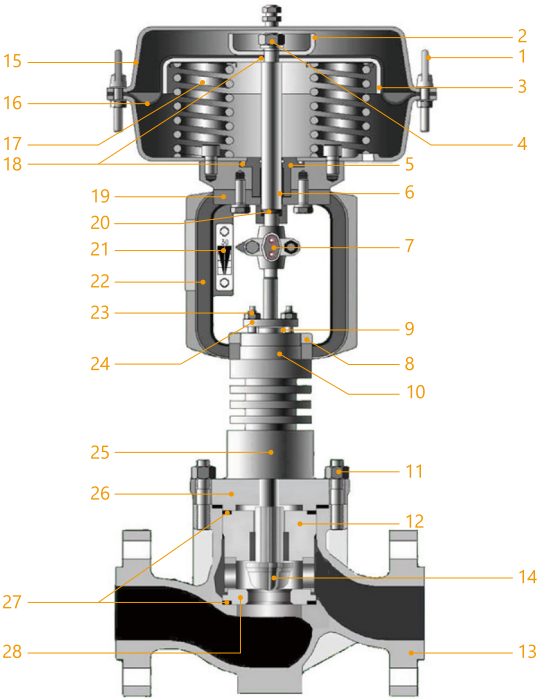
Metallic seat materials available with seal up to Grade V
Non-metallic seat materials available with seal up to Grade VI

Flow-to-Open design to improve the adjustability of small flow.

Available choices of packing seal to ensure the least leakage from Grade I to Grade III.

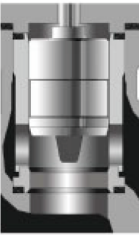
Sorted in accordance of different working conditions for the convenience of the customers.

Parts



1	CONVEYABLE NUT	15	DIAPHEAGM CASE
2	STOPER	16	DIAPHRAGM
3	SPRING GUIDE	17	SPRING
4	STOPPER FIXER	18	SEALANT
5	ROD GUIDE	19	YOKE PLATE
6	ROD GUIDE BUSH	20	ROD
7	ROD CONNECTOR	21	SCALE
8	YOKE NUT	22	YOKE
9	PACKING GLAND	23	GLAND BULT
10	PACKING	24	GLAND FLANGE
11	BONNET NUT	25	STEM
12	CAGE	26	BONNET
13	BODY	27	GASKET
14	PLUG	28	SEAT RING

Medium: Flow to open & close



Linear



Equal-percentage



Reverse parabola

Control Valve LK-600A Series

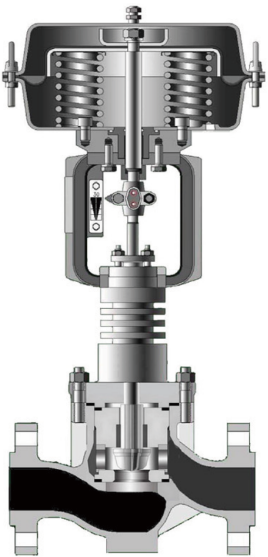
Note

LK-600A Top-guided Cage Control Valve is specially designed with top-guided construction of which the cage is to tight up the seat. The cage has no ability to cut down the flow, the flow area is controlled by the opening between the seat and the plug.

Designed with “Flow-to open” with choice of balanced and unbalanced plug to meet the requirements of massive flow and high differential pressure.

To help control the cost and improve the stability, Control Valve Series LK-600A are suitable for unpurified media as the balanced plug improves the performance in larger range of application that requires less output of the actuator.

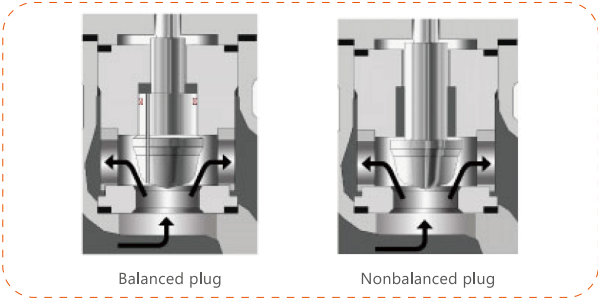
An ideal choice of massive flow control process in critical conditions of high noise, high differential pressure with cavitation resistance.



Technical specifications

- Size: 1"-12"(25mm ~ 300mm)
- Pressure rating:
ANSI CLASS 150/300/600/900/1500/2500
- Seat leakage: ANSI/FCI70-2-1991 IV, V,VI
- Rangeability---50:1
- Maximum closure pressure is 600psi(42bar)

Medium:Flow to open



LK-600A Series trim&CvVALUE

SIZE	TRIM SIZE(mm)/Cv VALUE														
	10	15	20	25	32	40	50	65	80	100	125	150	200	250	300
	2.9	4.7	8.2	12.8	21	30	50	79	117	175	303	443	758	1050	1220
1"															
1 1/2"															
2"															
2 1/2"															
3"															
4"															
6"															
8"															
10"															
12"															
STROKE	20mm						30mm				60mm			75mm	

Control Valve LK-600B Series

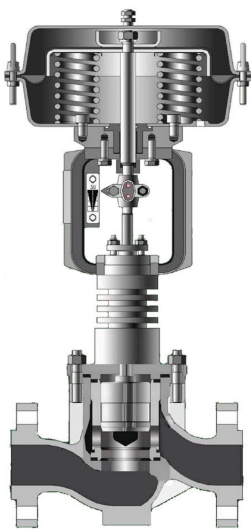
Note

LK-600B Cage Control Valve.Designed with C-PORT cage to tight up the seat. Guided by the plug, the flow is controlled by the size of the hole for different CV value. The flow character is determined by the shape of the hole.

Meet the requirements of massive flow and high differential pressure with choice of balanced and unbalanced plug.

Offering the best combination of a full-range miniflow, LK-600B Cage Control Valve improves the stable performance of the plug in high pressure or in a dramatic decrease of pressure as well as the adjustability of the plug when approaching the seat. Furthermore, the life of the valve is prolonged as the cage guiding the flow reduces the vibration and friction of the plug. To meet the standards, LK-600B Control Valve is ideally designed for low noise and cavitation resistance in flow control process in various kinds of critical conditions.

An ideal choice of massive flow control process in critical conditions of high noise, high differential pressure with cavitation resistance.



Technical specifications

- **Size:** 1"-12"(25mm ~ 300mm)
- **Pressure rating:** ANSI CLASS 150/300/600/900/1500/2500
- **Seat leakage:** ANSI/FCI70-2-1991 IV. V, VI
- **Rangeability**---50:1

- **LK-600B Series trim & Cv VALUE**
Equal-percentage

TRIM SIZE Cv VALUE									
1"	1.5"	2"	2.5"	3"	4"	6"	8"	10"	12"
9.5	14	24/35	37/56	58/88	70/104/137	147/220/295	285/380/447	867	1665

SIZE (mm)	STROKE (mm)	TRIM SIZE & Cv VALUE									
		1"	1.5"	2"	2.5"	3"	4"	6"	8"	10"	
25	20										
32											
40											
50											
65	40										
80											
100											
150											
200	50										
250											
300											

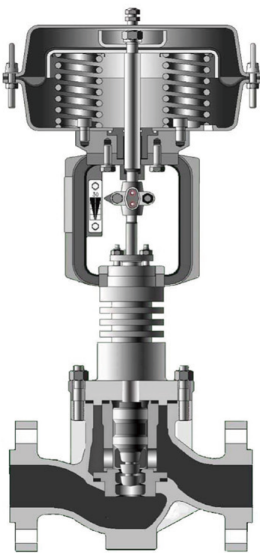
Control Valve LK-600D Series

Note

Cascade Cage Control Valve for Mini Flows.Exquisitely designed with a cascade cage that decreases the pressure of the flow progressively, Cascade Cage Control Valve for mini flows prevents vibration and cavitation from happening by allowing the flow as adjusted after its pressure is cut down by the cascade cage before it reaches the seal area of the body and the plug. The general pressure is released to several smaller differential pressure that does not exceed the critical pressure differential ratio of which the lowest value of the loss of pressure is not lower than Pressure of vena contract (Pvc).

Specially designed with unbalanced plug, Cascade Cage Control Valve for Mini Flows is suitable for cavitation and vibration in condition of high differential pressure. With its high stability and adjustability in performance, it is ideal for flow control of high temperature and pressure of gas.

Offering the best combination of a fullIO-range mini-flow, Cascade Cage Control Valve for Mini Flows improves the stable performance of the plug in high pressure or in a dramatic decrease of pressure as well as the adjustability of the plug when approaching the seat. Furthermore, the life of the valve is prolonged as the cage guiding the flow reduces the vibration and friction of the plug. To meet the requests of different standards, Cascade Cage Control Valve for Mini Flows is ideally designed for low noise and cavitation in massive flow control process in various kinds of critical conditions.



Technical specifications

- **Size:**
1"-6"(25mm ~ 150mm)
 - **Pressure rating:**
ANSI CLASS 150/300/600/900/1500
- **Seat leakage:**
ANSI/FCI70-2-1991 IV. V.VI
 - **Rangeability**---50:1

- **LK-600D Series trim & Cv VALUE**

SIZE	TRIM SIZE(mm)/Cv VALUE						
	0.75"	0.9"	1"	1.5"	2"	3"	4"
25	2.5	3	3.6				
32				5.5			
40				5.5			
50				6			
65					11.5		
80					12.2		
100					12.5	23.2	
150						23.5	32
STROKE(mm)	25			40		50	

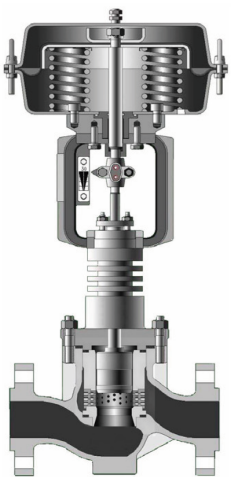
Control Valve LK-600E Series

Note

LK-600E Cavitation Resistant Cage Control Valve is specially designed with a Cavitation resistant CAVRION that ensures the stable adjustability of the control valve.

Cavitation is prevented as the bumping of the bubbles of the flowing media in the center of the cage avoids the destruction of the plug and the cage.

Offering the best combination of a fullO-range mini-flow, LK-600E Cavitation Resistant Cage Control Valve improves the stable performance of the plug in high pressure or in a dramatic decrease of pressure as well as the adjustability of the plug when approaching the seat. Furthermore, the life of the valve is prolonged as the cage guiding the flow reduces the vibration and friction of the plug. To meet the requirements of different standards, LK-600E Cavitation Resistant Cage Control Valve is ideally designed for low noise and cavitation in flow control process in various kinds of critical conditions.



Technical specifications

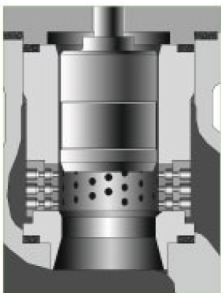
- **Size:** 2"-12"(50mm ~300mm)
- **Pressure rating:** ANSI CLASS 150/300/600/900/1500
- **Seat leakage:** ANSI/FCI70-2-1991 IV. V.VI
- **Rangeability**---50:1

LK-600E Series trim & Cv VALUE

SIZE(mm)	TRIM SIZE & Cv VALUE															
	2"			2.5"			3"			4"				6"		
50	22	23	33													
65				35	42	50										
80							65	80	90							
100										90	110	130	150			
150														135	170	210 240
STROKE(mm)	25,30			30,50			50				60,75					

SIZE(mm)	STROKE(mm)	TRIM SIZE & Cv VALUE											
		8"				10"				12"			
200	75	200	260	315	360								
250	75					300	390	485	570				
	100					420	540	660	760				
300	75									330	440	540	640
	100									490	640	780	920
	125									640	830	1000	1150

Medium:Flow to open & close



Tirm

Control Valve LK-600F Series

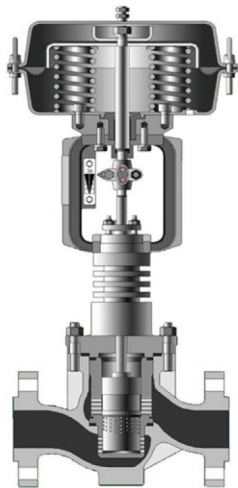
Note

LK-600F Cavitation Resistant low-noise Cage Control Valve is specially designed with CATROL to prevent cavitation and vaporization from happening in critical conditions that vibration, cavitation and vaporization may occur.

The energy of the flowing media rushing into the seat, plug and the cage is released by bumping which avoids the destruction of the plug and the cage. The cavitation is prevented as both vibration and noise are considerably reduced when the speed of the flow is slowed down by the decreasing pressure.

Offering the best combination of a full-range mini-flow, K-600F Cavitation Resistant low-noise Cage Control Valve improves the stable performance of the plug in high pressure or in a dramatic decrease of pressure as well as the adjustability of the plug when approaching the seat. Furthermore, the life of the valve is prolonged as the cage guiding the flow reduces the vibration and friction of the plug.

To meet the requirements of different standards, K-600F Cavitation Resistant Low-noise Cage Control Valve is ideally designed for low noise and cavitation in flow control process in various kinds of critical conditions.



Technical specifications

- **Size:** 1/2"-12"(50mm ~300mm)
- **Pressure rating:** ANSI CLASS 150/300/600/900/1500
- **Seat leakage:** ANSI/FCI70-2-1991 IV. V.VI
- **Rangeability**---50:1

LK-600F Series trim & Cv VALUE

Equal-percentage

SIZE (mm)	STROKE (mm)	TRIM SIZE & Cv VALUE															
		0.5	0.75	1	1.2	1.5	2	2.5	3	4	5	6	8	10	12		
15,20	20	2.6															
25		2.6	4.5	6.5													
32			4.5	6.5	9.3												
40				6.5	9.3												
50					17.5	21	28										
65	40					21	28	44									
80							28	44	50								
100								44	50	60							
125	60									145	190						
150											190	235					
200												235	290				
250												235	560	650			
300													560	650	970		

Control Valve LK-600G Series

Note

LK-600G Pre-guided Cage Control Valve for High Differential Pressure is specially designed with PILOTROL construction of twin plug combined with an unbalanced smaller plug and a balanced main plug to ensure the least leakage as a smaller output of the actuator is needed. It is suitable for all application in both high pressure differential and high pressure.

Scientifically designed to ensure the work of the twin plug, LK-600G Pre-guided Cage Control Valve for High Differential Pressure offers the best combination of a full-range control with the improved stable performance of the plug in high pressure or in a dramatic decrease of pressure as well as the adjustability of the plug when approaching the seat. Furthermore, the life of the valve is prolonged as the cage guiding the flow reduces the vibration and friction of the plug.

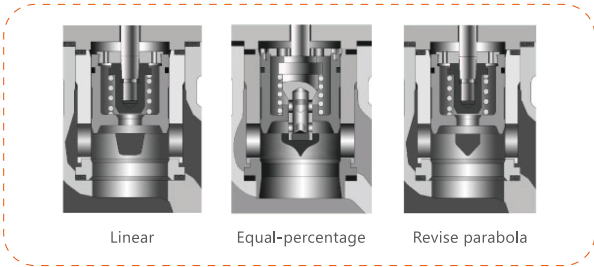
To meet the requirements of different standards, LK-600G Pre-guided Cage Control Valve for High Differential Pressure is ideally designed for low noise and cavitation resistance in flow control process in various kinds of critical conditions.



Technical specifications

- **Size:** 4"-12"(100mm ~ 300mm)
- **Pressure rating:** ANSI CLASS 150/300/600/900/1500/2500
- **Seat leakage:** ANSI/FCI70-2-1991 V, VI
- **Rangeability**---25:1 (Guide trim50:1 ; Main trim50:1)

• Medium:Flow to open & close



LK-600G Series trim & Cv VALUE

SIZE(mm)	STROKE (mm)	TRIM SIZE & Cv VALUE											
		4"				6"				8"			
100	40	200	260	315	360								
150	50					300	390	485	570				
200	75									320	410	480	550

SIZE(mm)	STROKE (mm)	TRIM SIZE & Cv VALUE							
		8"				10"			
250	75	410	530	650	750				
	100	650	820	980	1100				
300	75					420	550	670	790
	100					700	880	1050	1200

Control Valve LK-600H Series

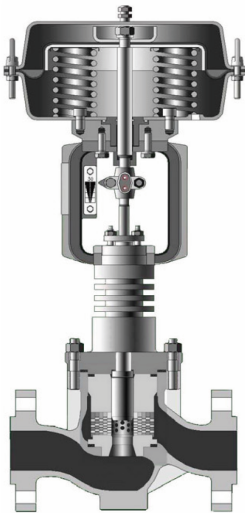
Note

LK-600H Control Valve with Labyrinth Cage.Specially designed with construction of Labyrinth cage of multiple layers and masses holes. The number of layers is determined by the calculation of the input pressure and pressure differential.

The overall noise is controlled by the Labyrinth cage that cuts down the speed of the flowing media. By changing the direction of the flow, the speed and the pressure of the flow is reduced progressively.

Guiding the flow by the Labyrinth cage, LK-600H Control Valve with Labyrinth Cage offers the best combination of a full-range control with the improved stable performance of the plug in high pressure or in a dramatic decrease of pressure as well as the adjustability of the plug when approaching the seat. Furthermore, the life of the valve is prolonged as the cage guiding the flow reduces the vibration and friction of the plug.

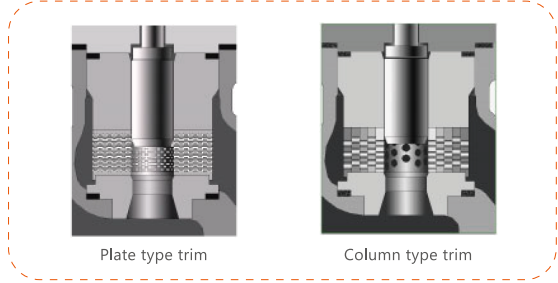
To meet the requirements of different standards, LK-600H Control Valve with Labyrinth Cage is ideally designed for low noise and cavitation resistance in flow control process in various kinds of critical conditions.



Technical specifications

- **Size:** 1/2"-12"(15mm ~ 300mm)
- **Pressure rating:** ANSI CLASS 150/300/600/900/1500/2500
- **Seat leakage:** ANSI/FCI70-2-1991 IV, V, VI
- **Rangeability**---50:1

• Medium:Flow to open & close



LK-600H Series trim & Cv VALUE

SIZE(mm)	TRIM SIZE & Cv VALUE																								
	1"		1.5"		2"		2.5"		3"		4"		6"				8"								
15	2.6																								
20	2.6																								
25	2.6	4.5	6.5																						
32		4.5	6.5	9.3	12.5																				
40		4.5	6.5	9.3	12.5																				
50				17.5	21	38	45	50																	
65									50	59	64														
80												88	100												
100														140	165	185	200								
150																		265	315	350	375				
200																						430	520	585	630
STROKE(mm)													40,50		60,75				75						

[illegible]

LK-700 Series Three Way Control Valve

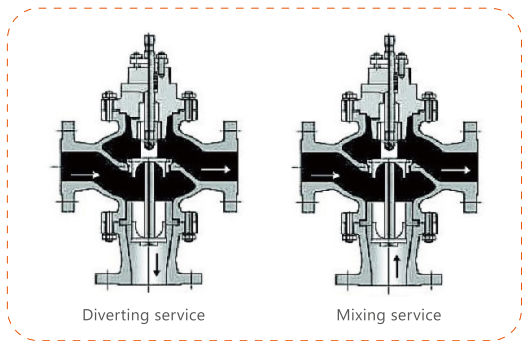
Note

Are designed to control the intensity of flow of liquids and gases.
LK-700 may be utilized for splitting the stream into two outlet ports(diverting service) or for mixing to fluids streams to outlet port(mixing service).

Technical specifications

- **Size:** 3/4"-12"
- **Pressure rating:** ANSI CLASS150/300/600/900
- **Seat leakage:** ANSI/FCI70-2-1991 IV,V,VI
- **Rangeability**---30:1

Structure



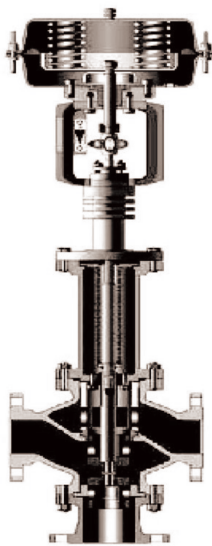
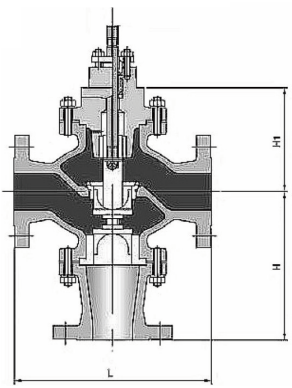
LK-700 Series trim & Cv VALUE

SIZE(mm)	20	25	40	50	65	80
Cv VALUE	8.2	13	30	50	80	117

SIZE(mm)	100	125	150	200	250	300
Cv VALUE	175.5	304	445	706	1053	1521

Body dimensions of butt welding ends

SIZE	L(mm)				H	H1
	150LB	300LB	600LB	900LB		
20	184	194	206	273	130	103
25	184	197	210	273	130	103
40	222	235	251	311	150	108
50	254	267	286	340	195	141
65	276	292	311	410	210	150
80	298	318	337	387	260	158
100	352	368	394	464	300	171
125	403	425	457	514	350	226
150	451	473	508	600	420	237
200	543	568	610	781	504	282
250	673	708	752	864	550	339
300	767	775	819	1016	650	400



LK-800 Series Low Tempreture Control Valve

Note

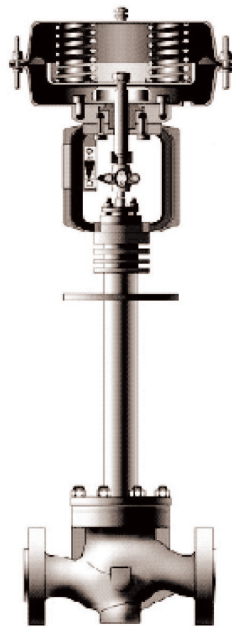
Control Valve Series LK-800, specially designed for the circumstances that require a tight shut-down in low temperature, is ideally suitable for media of low temperature such as liquid oxygen and liquid nitrogen with multifunction and reliability with low cost.

Technical specifications

- **Size:** 1/2 " ~ 12"(15mm ~ 300mm)
- **Pressure rating:** ANSI CLASS150/300/600/900
- **Body material:** F316L.ASTM A351 CF8M
- **Bonnet type:** •Low temp(-50°C ~ -96°C)
•Extension(-96°C ~ -256°C)
- **Seat leakage:** ANSI b16.34,IV, V,VI
- **Rangeability**---50:1

Flow Character:Quick open/Equal-percentage/Linear

SIZE	TRIM SIZE(in)/Cv VALUE														
	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
	2.9	4.7	8.2	12.8	21	30	50	79	117	175	303	443	758	1050	1220
1/2"															
3/4"															
1"															
1 1/2"															
2"															
2 1/2"															
3"															
4"															
6"															
8"															
10"															
12"															
STROKE	20mm						30mm				60mm			75mm	



LK-900 Series

Angle Sleeved Control Valve

Note

LK-900 Angle Sleeved Control Valve for High Pressure. Designed with an advantageous construction of a balanced plug and a multiple sleeve, LK-900 Angle Sleeved Valve for High Pressure ensures the stable performance in all conditions.

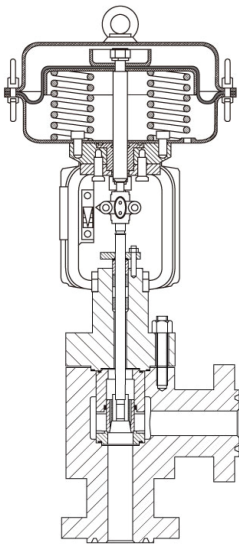
With a stable performance and compact structure, the parts are easy to be changed so to help save maintenance costs.

- Features:
- Low cost as the Balanced Plug Design requires less output of actuator
 - Multiple choices of the materials of the balance ring to meet the requirements of different temperature and media
 - Installed on the sleeve, the balance ring is easy to be changed so to help prolong the life of the valve to the largest extend
 - Designed with high pressure seal to avoid the leakage
 - Designed with two independent seal protection
 - The wind-proof seal protection helps prolong the life of the packing seal that ensures the free movement of the stem by reducing the friction.

LK-900 Series trim & Cv VALUE

SIZE(mm)	TRIM SIZE & Cv VALUE																
	2"			2.5"			3"			4"				6"			
50	12	23	33														
65				35	42	50											
80							65	80	80								
100										90	110	130	150				
150														135	170	210	
STROKE(mm)	25,30			30,50			50							60,75			

SIZE (mm)	STROKE (mm)	TRIM SIZE & Cv VALUE											
		8"				10"				12"			
100	75	200	260	315	360								
250	75					300	390	485	570				
	100					420	540	660	760				
300	75									330	440	540	640
	100									490	640	780	920
	125									640	830	1000	1150



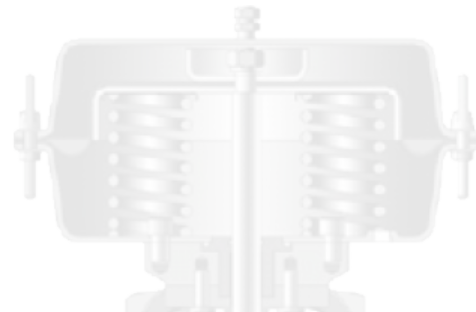
Technical specifications

- **Size:** 2"-12"(50mm ~ 300mm)
- **Pressure rating:** ANSI CLASS 150/300/600/900/1500/2500
- **Seat leakage:** ANSI/FCI70-2-1991 IV, V, VI
- **Rangeability**---50:1

Actuator

- **Type of actuators:**
Pneumatic actuators----LDA series pneumatic actuators without handwheel,or LDA-HWseries.
with handwheel on top.
 - **Spring range:**
3 springs: 20...100 kPa; 40...120 kPa
6 springs: 40...200 kPa; 80...240 kPa; 120...280 kPa
12 springs: 180...380 kPa
- **Accessory(selectable):**
 - Handwheel on top
 - Pneumatic positioner
 - Electropneumatic positioner
 - Air filter
 - Solenoid valve
 - Valve positioner
 - Limit switch

Model	Area(m²)	Stroke(mm)	Q'ty of Spring	Spring Range(Psig)	Actuator Force(lbf)	Actuator Force(kgf)	Spring No
LDA-1R	38.8	20	4	0.2~1.0kgf/cm²G	101.47	46.02	1A20
				0.8~2.0kgf/cm²G	405.90	184.08	1B20
				0.3~1.1kgf/cm²G	152.21	69.03	1D20
				0.4~1.2kgf/cm²G	203.74	92.04	1E20
LDA-2R	54.3	20	4	0.2~1.0kgf/cm²G	119.95	54.4	2A20
				0.8~2.0kgf/cm²G	479.81	217.6	2B20
		25	4	0.2~1.0kgf/cm²G	119.95	54.4	2A25
				0.8~2.0kgf/cm²G	479.81	217.6	2B25
				0.3~1.1kgf/cm²G	179.93	81.6	2D25
				0.4~1.2kgf/cm²G	239.90	108.8	2E25
			30	0.2~1.0kgf/cm²G	119.95	54.4	2A30
				0.8~2.0kgf/cm²G	479.81	217.6	2B30
				0.3~1.1kgf/cm²G	179.93	81.6	2D30
				0.4~1.2kgf/cm²G	239.90	108.8	2E30
LDA-3R	89.1	25	6	0.2~1.0kgf/cm²G	196.02	88.9	3A25
				0.8~2.0kgf/cm²G	783.66	355.4	3B25
		30	6	0.2~1.0kgf/cm²G	190.07	86.2	3A30
				0.8~2.0kgf/cm²G	760.28	344.8	3B30
				0.3~1.1kgf/cm²G	293.93	133.3	3D30
				0.4~1.2kgf/cm²G	391.83	177.7	3E30
		40	6	0.2~1.0kgf/cm²G	196.02	88.9	3A40
				0.8~2.0kgf/cm²G	783.66	355.4	3B40
		50	6	0.2~1.0kgf/cm²G	196.02	88.9	3A50
				0.8~2.0kgf/cm²G	783.66	355.4	3B50
				0.3~1.1kgf/cm²G	293.93	133.3	3D50
				0.4~1.2kgf/cm²G	391.83	177.7	3E50
LDA-4R	155.0	50	6	0.2~1.0kgf/cm²G	368.01	166.9	4A50
			12	0.8~2.0kgf/cm²G	1472.50	667.8	4B50
			6	0.3~1.1kgf/cm²G	552.13	250.4	4D50
		75	12	0.4~1.2kgf/cm²G	736.25	333.9	4E50
				0.2~1.0kgf/cm²G	368.01	166.9	4A75
				0.8~2.0kgf/cm²G	1472.50	667.8	4B75
				0.3~1.1kgf/cm²G	552.13	250.4	4D75
				0.4~1.2kgf/cm²G	736.25	333.9	4E75
		100	12	0.2~1.0kgf/cm²G	368.01	166.9	4A100
				0.8~2.0kgf/cm²G	1472.50	667.8	4B100
				0.3~1.1kgf/cm²G	552.13	250.4	4D100
				0.4~1.2kgf/cm²G	736.25	333.9	4E100



Model	Area(m ²)	Stroke(mm)	Q'ty of Spring	Spring Range(Psig)	Spring ate(lbf/m)	Setting Pressure(Psig/c)	Actuator Force(lbf)	Actuator Force(kgf)	Spring No.
LDA-1D	38.8	20	4	4.3-15.6	522	40	946	429	1A20
						46	1178	534	
						54	1488	675	
			4	11.4-27	775	40	504	228	1B20
						46	736	334	
						54	1046	475	
LDA-2D	54.3	20	4	4.3-11.4	458	40	1562	704	2A20
						46	1877	851	
						54	2311	1048	
			4	11.4-27	1097	40	705	320	2B20
						46	1031	468	
						54	1465	664	
		25	4	4.3-12.8	458	40	1476	669	2A25
						46	1801	817	
						54	2235	1014	
			4	11.4-31.3	1097	40	472	214	2B25
						46	797	362	
						54	1231	559	
		30	4	4.3-11.4	458	40	1552	704	2A30
						46	1877	851	
						54	2311	1048	
			4	11.4-35.6	1097	40	239	108	2B30
						46	564	256	
						54	988	453	
LDA-3D	89.1	25	6	4.3-10.7	574.5	40	2611	1185	3A25
						46	3146	1427	
						54	3859	1750	
			6	11.4-21.3	907	40	1667	756	3B25
						46	2201	999	
						54	2914	1322	
		30	6	4.3-11.4	574.5	40	2549	1156	3A30
						46	3084	1399	
						54	3797	1722	
			6	11.4-24	907	40	1426	647	3B30
						46	1961	889	
						54	2674	1213	
		40	6	4.3-14.2	574.5	40	2299	1043	3A40
						46	2834	1286	
						54	3547	1509	
			6	11.4-27	907	40	1159	526	3B40
						46	1693	768	
						54	2046	1092	
LDA-4D	155.0	40	6	4.3-11.4	665	40	4433	2011	4A40
						46	5363	2433	
						54	6603	2995	
			6	11.4-21.3	998	40	2899	1315	4B40
						46	3829	1737	
						54	5060	2299	
		50	12	4.3-12.8	665	40	4216	1912	4A50
						46	5146	2334	
						54	6186	2897	
			12	11.4-24	998	40	2480	1125	4B50
						46	3410	1547	
						54	4650	2109	
		60	12	4.3-14.2	665	40	3999	1814	4A60
						46	4929	2236	
						54	6169	2798	
			12	11.4-24	998	40	2015	914	4B60
						46	2945	1336	
						54	4185	1898	
		75	12	4.3-14.2	520	40	3999	1814	4A75
						46	4929	2236	
						54	6160	2798	
			12	11.4-27	769	40	2015	914	4B75
						46	2945	1336	
						54	4185	1898	