

China Topper Control Valve Co., Ltd.



<https://china-control-valves.com/>

Sliding Stem Control Valve

Control Valve(Zhejiang) Co.,Ltd Sliding Stem Control Valve product line based on its three decades of experience in control valve manufacturing and design. The modular design concept that makes all sliding stem valve can be modified by easily change valve, different combinations of trim can meet a variety of common or severe fluid or gas application requirements.

Manufacture Range

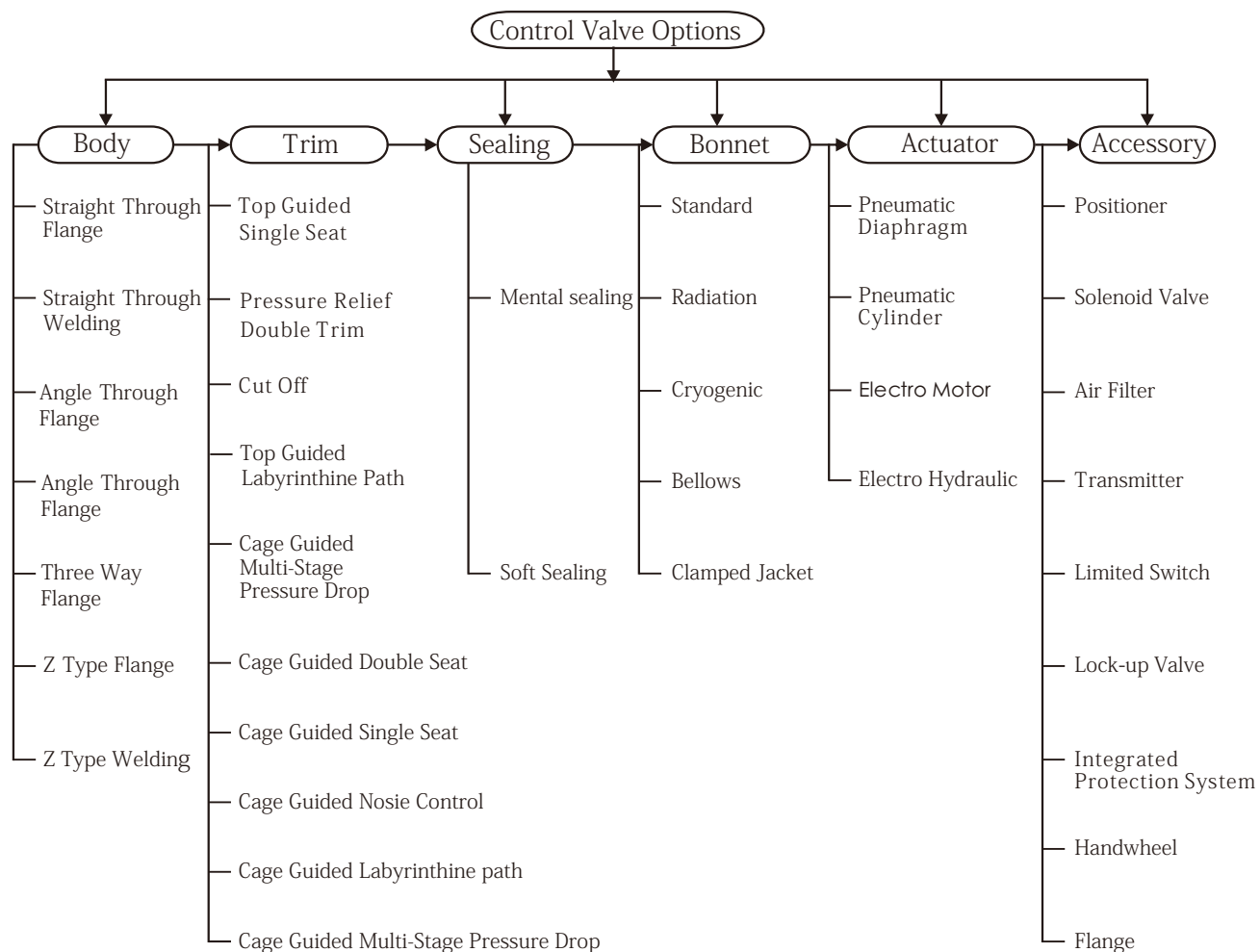
Size: 3/4--16
DN20--DN400
Pressure Rating: ANSI CLASS150--2500
PN1.6--PN42.0
Temperature: -196--570℃

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Sliding Stem Control Valve Trim Option

GYL-20200 Top Guided Single Seat(Quick tear down)
GYL-20300 Pressure Relief Double Trim
GYL-20400 Cut Off
GYL-20800 Top Guided Labyrinthine path
GYL-20900 Cage Guided Multi-Stage Pressure Drop
GYL-40500 Cage Guided Double Seat
GYL-40600 Cage Guided Single Seat
GYL-40700 Cage Guided Noise Control
GYL-40800 Cage Guided Labyrinthine path
GYL-40900 Cage Guided Multi-Stage Pressure Drop

**REMARK:**

- Above Options for reference, Please Select Valve According to your application services or consult our engineer.
- Please see detail data in catalogue, for accessories not listed in the catalogue, like motor actuator, electro hydraulic actuator, please consult our engineer for detail information.
- This document not listed allowable differential pressure or CV value related opening position, please consult our engineer or calculated on Control Valve(Zhejiang) Co.,Ltd Sizing Software.

Valve Body Type

- ◆ According to different pipeline installation, Control Valve (Zhejiang) Co.,Ltd offer bellow Valve

Body Type

Straight through (Size up to DN400)

Angle through (Size up to DN400)

Three way (Size up to DN400)

Z Type (Size up to DN400)

Straight through connection end standard according to

JISB 2002 / IEC60534-3-1-2001

- ◆ Cavity adopt equal section S- way path Minimize flowing resistance

- ◆ Control Valve(Zhejiang) Co.,Ltd offer below connection end

Flange Welding

Flange Standard: JB/T79.1-94~ JB/T79.4-94

HG20618-97 HG20596-97

ANSI B16.5

Welding Standard: GB/T9124-2000

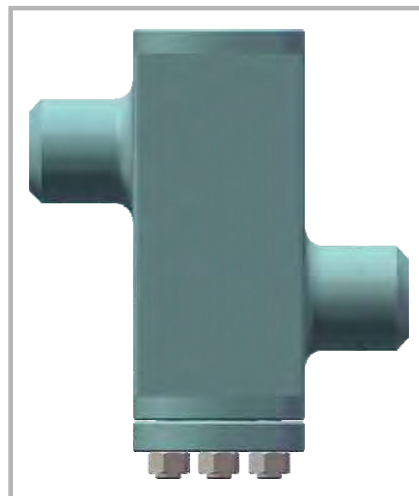
ANSI B16.25

- ◆ Valve body and bonnet bearing strength design standard
ASME B16.34/ISO 5208-2008
- ◆ Flow direction marked on Valve body, Choose different trim to realize flow to open or close requirements.
- ◆ Casting or forged by different material can meet requirement up to
Pressure: Class2500 42.0MPA
Temperature: -196℃~+538℃
- ◆ Most common material:

Parts	Material
Valve Body and bonnet	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M
	ASTM A182 F304/F316/F316L
	5083 II / TA2 MONEL400 Hastelloyc-276

Note: a. Available material haven't been all listed above, Please consult Control Valve(Zhejiang) Co.,Ltd engineer for special material

b. corrosive resistance material according to NACE MR-01-75 design standard.



Valve Packing

- ◆ Control Valve(Zhejiang) Co.,Ltd offer three packing structure for sliding stem control valve
 1. Control Valve(Zhejiang) Co.,Ltd patented Self-Seal packing as standard packing structure(Figure 1)
 - 2.Sulfur free graphite for high temperature resistance application (Figure2)
 3. Bellows sealing for cryogenic or toxic applications(Figure 3)
- ◆ Control Valve(Zhejiang) Co.,Ltd patented seal cavity use ASTM A351 CF8M material, eliminate leakage possibility from corrosive flow media contact.
- ◆ Self-Seal packing Control Valve(Zhejiang) Co.,Ltd patented design, 100,000 times experiments full stroke without leakage or friction increase . Such structure ensure accuracy control and stability.
- ◆ Sulfur free Graphite V-Ring packing composed by different taper compensational Graphite V-ring to ensure high temperature resistance and leakage free.
- ◆ Based on its experience, Control Valve(Zhejiang) Co.,Ltd redesign bellows bonnet for extension application. Decrease the force for bellows compress or stretch, ensure valve stability.
- ◆ Bellows Plug normally use bellows and standard packing for double sealing. Double secure toxic , pollutive or cryogenic flow media leak from bonnet
- ◆ Standard Packing:
Pressure up to: Class2500 42.0MPa
Temperature: -196℃~+250℃
- ◆ Graphite Packing
Pressure up to: Class2500 42.0MPa
Temperature: -196℃~+570℃
- ◆ Bellows Sealing:
Pressure up to: Class300 5.0MPa
Temperature: -196℃~+550℃

◆ Packing Material

Parts	Material
Standard	RTFE/RTFE/PPL
Graphite	Sulfur free Graphite
Bellows	316/INCONEL 718/Hastelloy C-276
	PTFE/F46

Figure 1

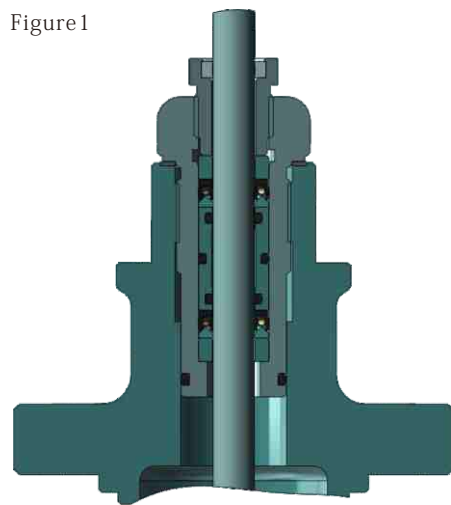


Figure 2

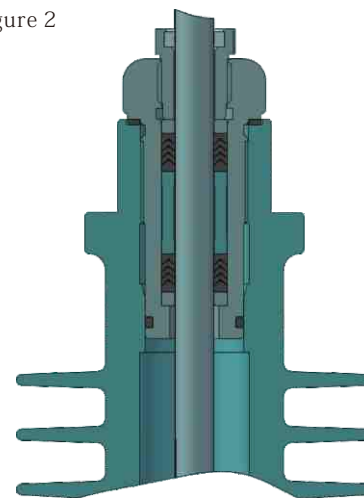
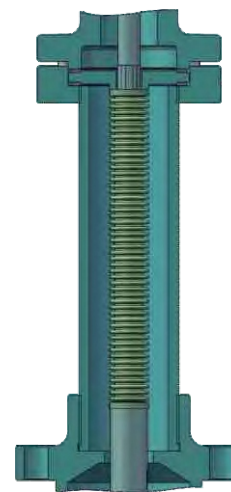
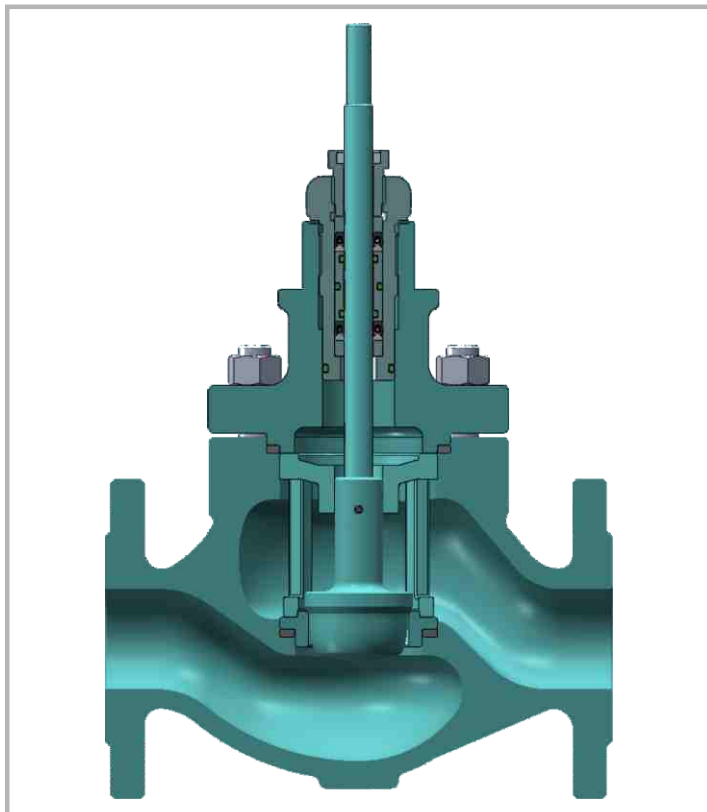


Figure 3



Body Size: 3/4"~12" DN20~DN300

Pressure Rating: ANSI 150~2500# PN1.6~PN42.0Mpa



◆ L-20200 cage style unbalanced single seat globe valve features top guided design, specified for applications with high pressure, heavy duty and stringent shutoff requirements.

It can handle most common severe services. Cage design to retain to the seat ring cage. reduce the side design direction loading and vibration, minimize friction and prolong life cycle. Flow to open tends the fluids to valve opening direction, good control ability with small flow stream

◆OPTIONS

Trim Heavy loading Quick Tear down
Cage retainer Unbalance top guide

Body: Straight Angle Z type

Bonnet Standard Steam Cryogenic

Temperature Range: -196°C~538°C

Plug sealing Standard

Graphite Bellows

Leakage : CLASS V (Standard, Metal Seat)
CLASS VI (Optional, Soft Seat)

Flow characteristic : Equal% Linear

Pipe Line Connection Flange Welding

Range ability: 50:1

◆Connection

Flange : JB/T 79.1 - 94~JB/T 79.4-94/HG20616-97
ANSI B16.5

Welding: GB/T 9124-2000/ANSI B16.25

◆Leakage standard: ANSI B16.104

◆ Actuator :

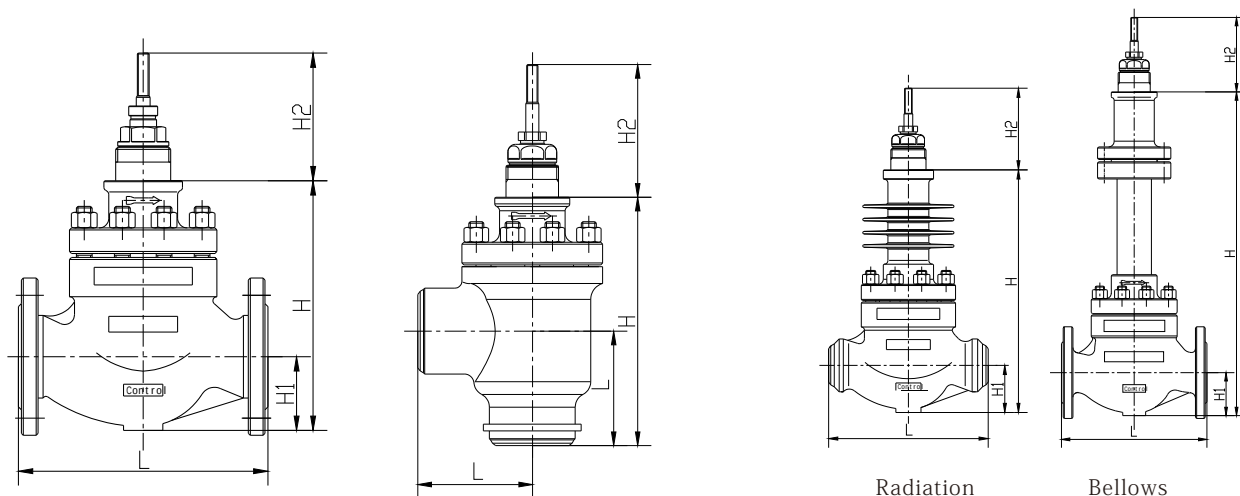
- Pneumatic Diaphragm (30-31P)
- Pneumatic Diaphragm (30-31P)
- Electric Actuator
- Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
	Soft: PTFE/PPL
Plug	ASTM S17400 17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A351 CF8/CF3/CF8M/CF3M

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Top Guided Single Seat Control Valve-GYL20200 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight through body								Angle through body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
20	184	194	206	184	334	445	52	130	95	95	95	228	362	490	---	130
25	184	197	210	184	334	445	52	130	100	100	100	235	370	495	---	130
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950	---	160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020	---	160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050	---	160
250	673	700	770	632	882	1030	245	165	---	---	---	---	---	---	---	---
300	737	775	819	713	963	1080	248	180	---	---	---	---	---	---	---	---

Note: See P34 for over CLASS 900#or PN10.0 specification

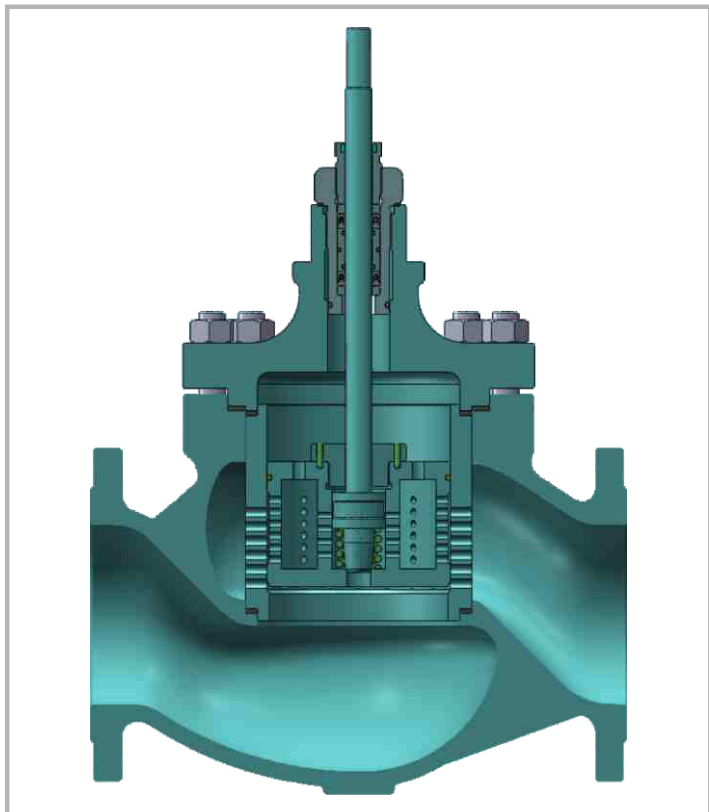
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
20	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
25	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
	25	13	16	16

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
32	32	20	25	16
40	40	32	35	25
50	50	46	55	25
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Body Size:4"~12" DN100~DN300

Pressure Rating:ANSI 150~600# PN1.6~PN6.4Mpa



◆ L-20300 cage compress the seat and used as trim guide, small trim actuated to offer control or pressure relief function in front, and in specific location to drive big trim move to control or fully open. This special design can handle gas and fluids with high pressure drop, remedy the limitation of which cage guided double seat valve leakage and cage guided single seat valve high temperature non-resistance problem.

◆ OPTIONS

Trim : Unbalance Trim Quick Tear down

Double Trim Pressure relief

Body : Straight Angle Z type

Bonnet : Standard Steam Cryogenic

Temperature Range : -196℃~538℃

Plug sealing: Standard

Graphite Bellows

Leakage : CLASS V (Standard, Metal Seat)

CLASS VI (Optional, Soft Seat)

Flow characteristic : Equal% Linear

Pipe Line Connection : Flange Welding

Range ability : 30:1

◆ Connection

Flange : JB/T 79.1-94~JB/T 79.4-94/HG20616-97

ANSI B16.5

Welding : GB/T 9124-2000/ANSI B16.25

◆ Leakage standard ANSI B16.104

◆ Actuator

a. Pneumatic Diaphragm (30-31P)

b. Pneumatic Diaphragm (30-31P)

c. Electric Actuator

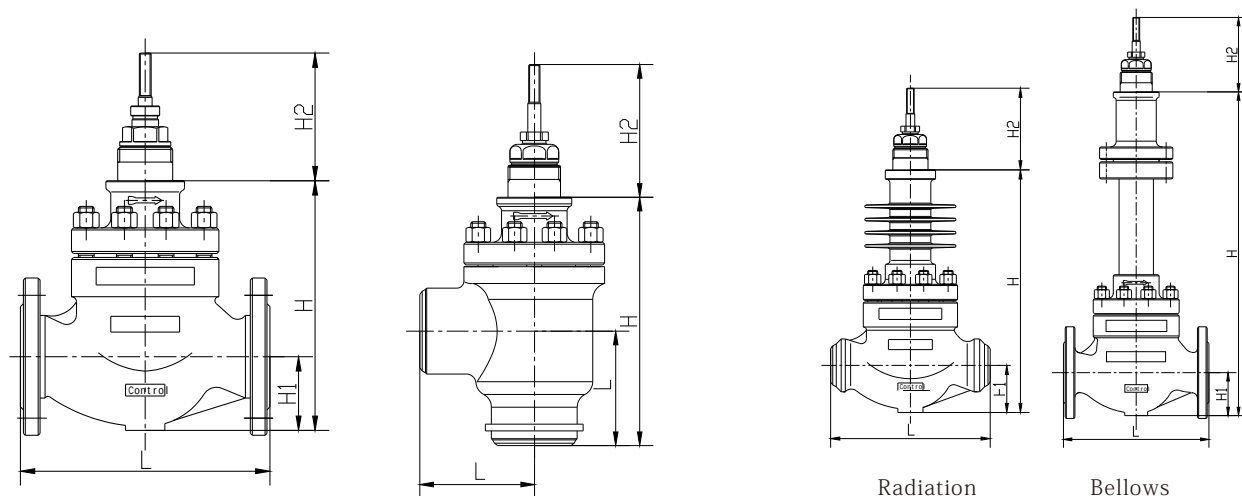
d. Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
	Soft: PTFE/PPL
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A351 CF8/CF3/CF8M/CF3M
Spring	Inconel718

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Pressure Relief Double Trim Control Valve-GYL20300 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	standa rd	Radati on	Bellow s			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	standa rd	Radati on	Bellow s		
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950	---	160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020	---	160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050	---	160
250	673	700	770	632	882	1030	245	165	---	---	---	---	---	---	---	---
300	737	775	819	713	963	1080	248	180	---	---	---	---	---	---	---	---

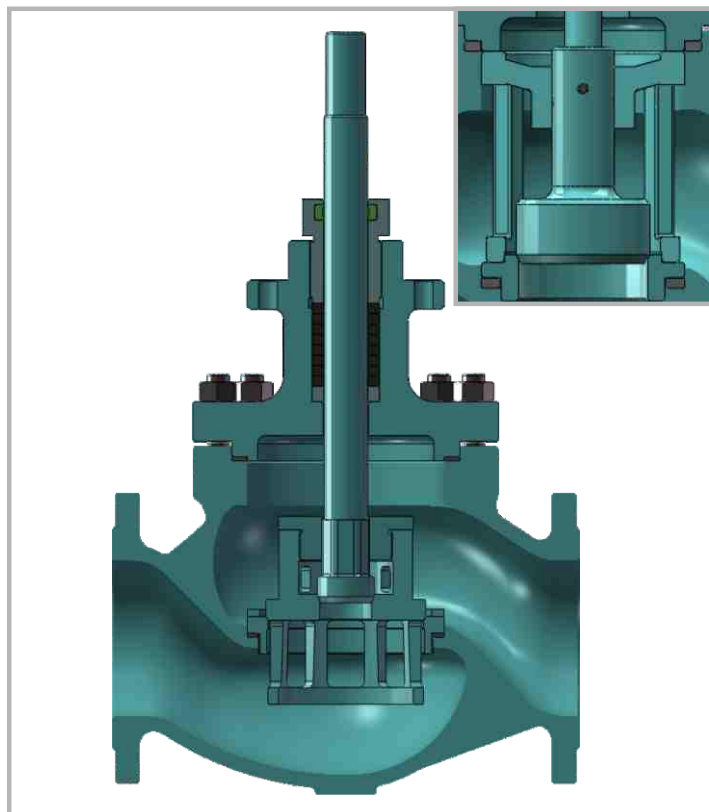
Note: See P34 for over CLASS 900#or PN10.0 specification

Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Body Size: 3/4"~12" DN20~DN300

Pressure Rating : ANSI 150~900# PN1.6~PN16.0Mpa



- ◆ L-20400 Series use for on-off application. Its circular arc surface sealing and centric located pressure relief design can effectively ensure leakage with ASNI Class VI Actuated with different thrust to improve allowable pressure drop range. Bodies can easily modified by change of trim parts with pressure relief double seated trim to provide wide application for services like cryogenic, high temperature, high pressure drop.

◆ OPTIONS

Trim : Unbalance Top Guided Trim Quick Tear down
Pressure relief trim Seat Guided Trim

Body : Straight Angle Z type

Bonnet : Standard Steam Cryogenic

Temperature Range: -196°C~538°C

Plug sealing : Standard

Graphite Bellows

Leakage : CLASS VI (Optional, Soft Seat)

Flow characteristic : Quick opening

Pipe Line Connection: Flange Welding

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A351 CF8/CF3/CF8M/CF3M

◆ Connection

Flange : JB/T 79.1 - 94~JB/T 79.4-94/HG20616-97
ANSI B16.5

Welding GB/T 9124-2000/ANSI B16.25

◆ Leakage standard: ANSI B16.104

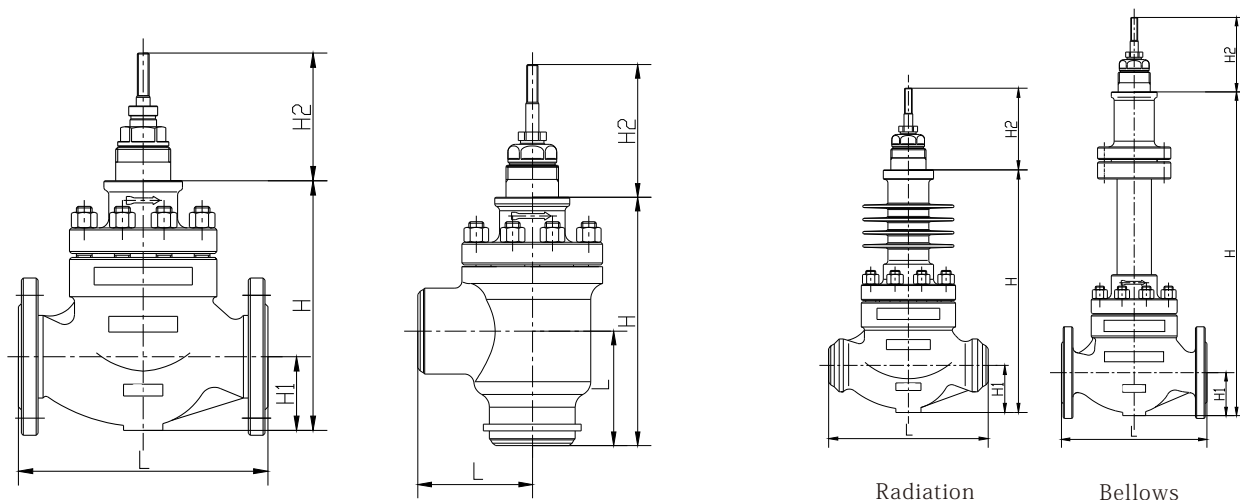
◆ Actuator

- Pneumatic Diaphragm (30-31 P)
- Pneumatic Diaphragm (30-31P)
- Electric Actuator
- Electro-hydraulic

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Unbalance Cut Off Control Valve-GYL20400 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight through body								Angle Through body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Stand ard	Radia tion	Bellow s			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Stand ard	Radia tion	Bellow s		
20	184	194	206	184	334	445	52	130	95	95	95	228	362	490		130
25	184	197	210	184	334	445	52	130	100	100	100	235	370	495		130
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590		130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610		130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760		130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780		130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815		130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950		160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020		160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050		160
250	673	700	770	632	882	1030	245	165								
300	737	775	819	713	963	1080	248	180								

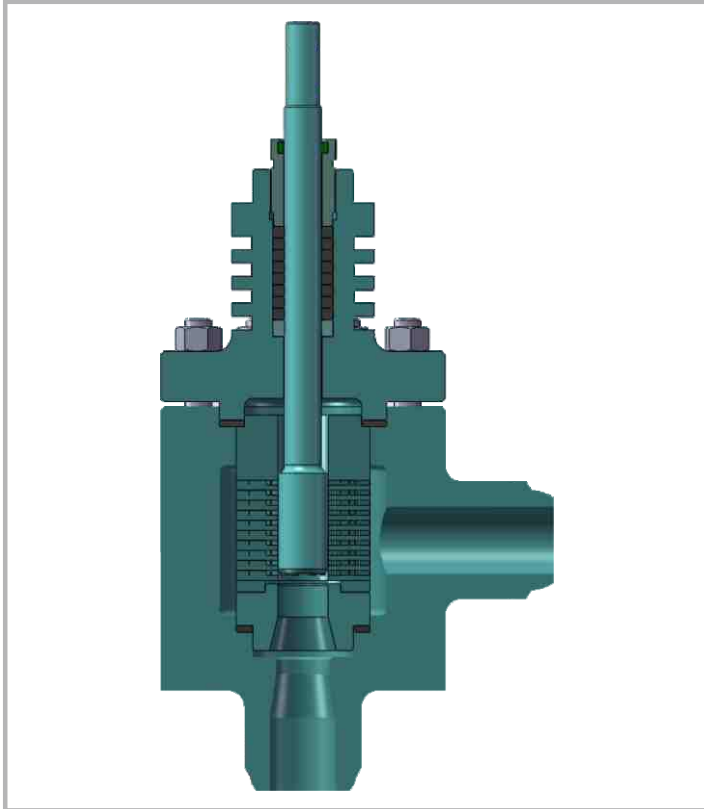
Note: See P34 for over CLASS 900#or PN10.0 specification

Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV	Stroke (mm)
20(3/4)	20	12	16
25(1)	25	16	16
40(1-1/2)	40	45	25
50(2)	50	69	25
65(2-1/2)	65	118	40
80(3)	80	125	40
100(4)	100	232	40
125(5)	125	345	60
150(6)	150	543	60
200(8)	200	857	60
250(10)	250	1260	100
300(12)	300	1560	100

Body Size: 3/4"~12" DN20~DN100

Pressure Rating : ANSI 150~2500# PN1.6~PN42.0Mpa



- ◆ L-20800 feature labyrinthine path cage with unbalance trim design , different stage of labyrinthine according to the fluid parameter that divided the main flow path to many small sinuous path or even many stage to fore flow change direction constantly to gradually reduce flow pressure. It protect valve from cavitation prolong life cycle. Unbalance single seat structure ensure a low leakage. Applicable for cavitation service with small body size
High Closing differential pressure service please choose GYL 40800 balance type .

◆ **OPTIONS**

Trim : Unbalance Trim Quick Tear down

Labyrinthine Cage combination

Body : Straight Angle Z type

Bonnet : Standard Steam Cryogenic

Temperature Range: -196°C~538°C

Plug sealing : Standard

Graphite Bellows

Leakage : CLASS V (Standard, Metal Seat)

CLASS VI (Optional, Soft Seat)

Flow characteristic: Equal% Linear

Pipe Line Connection: Flange Welding

Range ability: 30:1

◆ **Connection**

Flange: JB/T 79.1 -94~JB/T 79.4-94/HG20616-97

ANSI B16.5

Welding: GB/T 9124-2000/ANSI B16.25

◆ **Leakage standard : ANSI B16.104**◆ **Actuator**

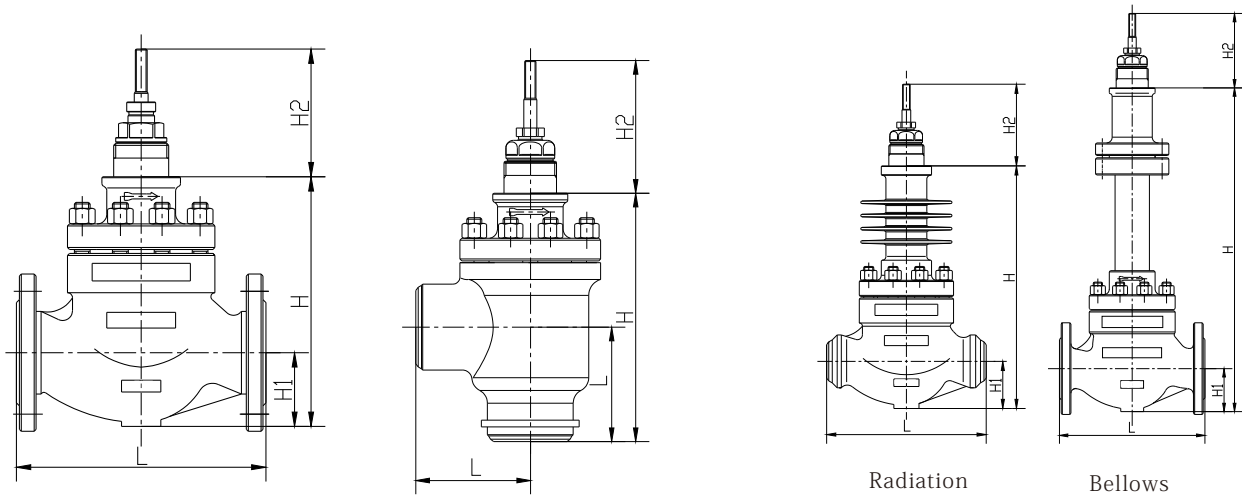
- Pneumatic Diaphragm (30-31P)
- Pneumatic Diaphragm (30 -31P)
- Electric Actuator
- Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A182 F304/F316/F316L ASTM A276 410/420

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Top Guided Labyrinthine path Control Valve-GYL20800 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
20	184	194	206	184	334	445	52	130	95	95	95	228	362	490	---	130
25	184	197	210	184	334	445	52	130	100	100	100	235	370	495	---	130
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130

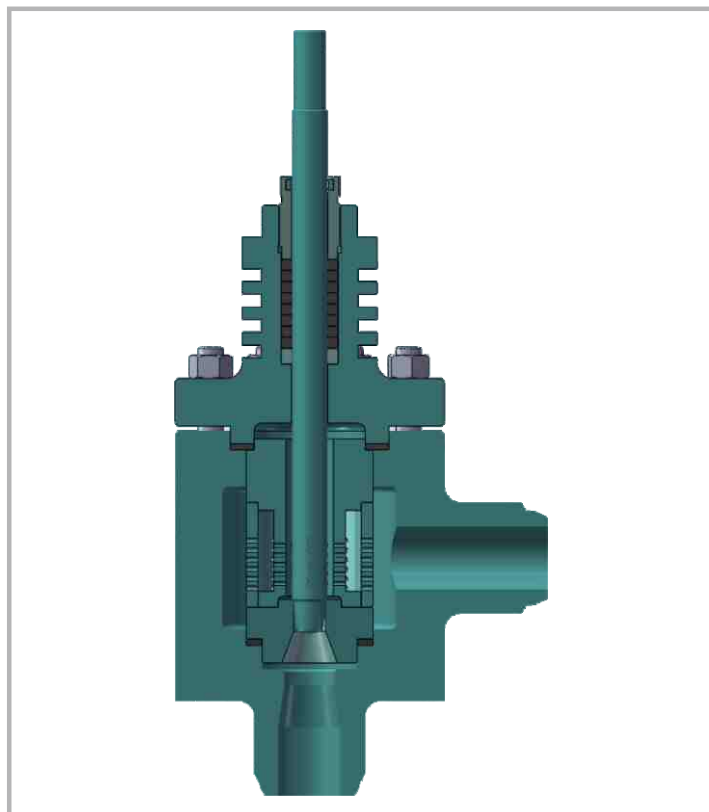
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
20	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
25	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
	25	13	16	16

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
32	32	20	25	16
40	40	32	35	25
50	50	46	55	25
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40

Body Size: 3/4"~4" DN20~DN100

Pressure Rating : ANSI 150~2500# PN1.6~PN42.0Mpa



- ◆ L-20900 unbalance trim combine with multiple pressure drop cage, Flow energy gradually custom by passing through multi-stage cages to reduce pressure. It protect valve from cavitation, prolong life cycle. Unbalance single seat structure ensure a low leakage. Applicable for Cavitation service with small body size. High Closing differential pressure service please choose GYL 40800 balance type .

◆ OPTIONS

Trim : Unbalance Trim Quick Tear down
Multi-hole pressure drop
Body : Straight Angle Z type
Bonnet : Standard Steam Cryogenic
Temperature Range : -196° C~538° C
Plug sealing: Standard
Graphite Bellows
Leakage : CLASS V (Standard, Metal Seat)

Flow characteristic : Equal% Linear
Pipe Line Connection: Flange Welding
Range ability: 50:1

◆ Connection

Flange: JB/T 79.194~JB/T 79.4-94/HG20616-97
ANSI B16.5
Welding: GB/T 9124-2000/ANSI B16.25

◆ Leakage standard: ANSI B16.104

◆ Actuator

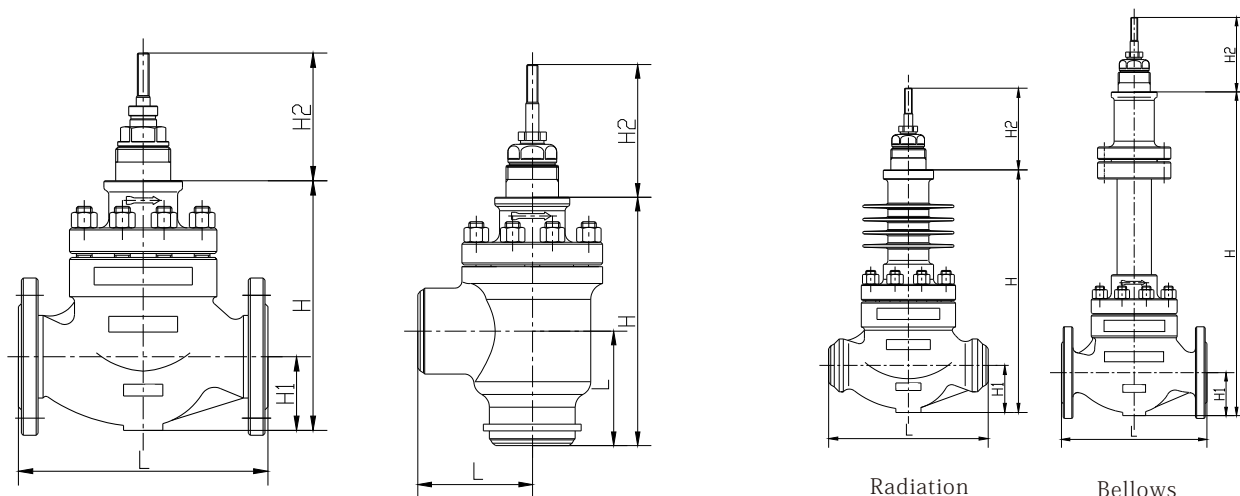
- a. Pneumatic Diaphragm (30-31P)
- b. Pneumatic Diaphragm (30-31P)
- c. Electric Actuator
- d. Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A182 F304/F316/F316L ASTM A276 410/420

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Cage Guided Multi-Stage Pressure Drop Control Valve-GYL20900 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
20	184	194	206	184	334	445	52	130	95	95	95	228	362	490	---	130
25	184	197	210	184	334	445	52	130	100	100	100	235	370	495	---	130
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130

Note: See P34 for over CLASS 900#or PN10.0 specification

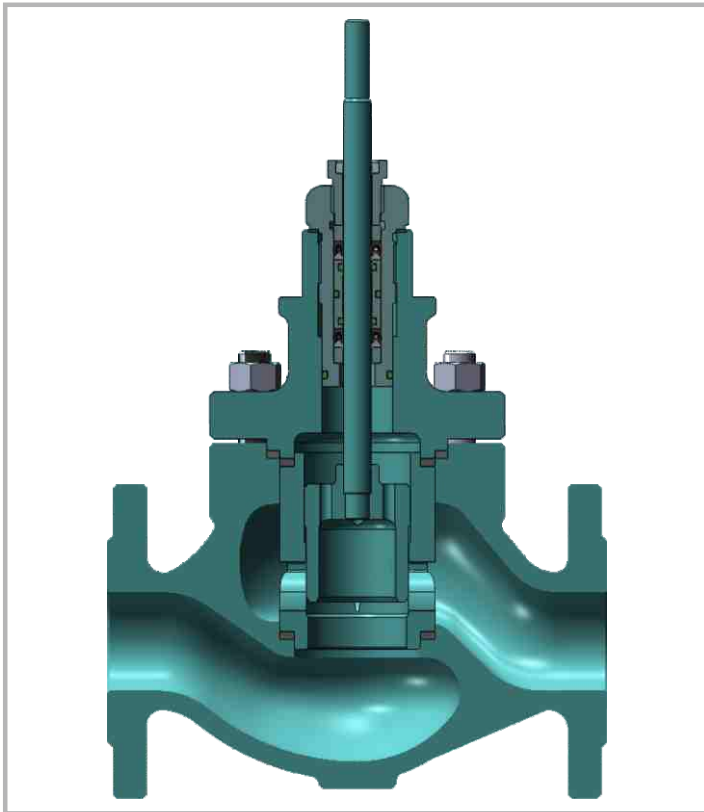
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
20	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
25	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
	25	13	16	16

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
40	32	20	25	25
	40	32	35	25
50	50	46	55	25
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40

Body Size: 1 1 / 2 " ~ 16" DN40~DN400

Pressure Rating ANSI 150~900# PN1.6~PN16.0Mpa



- ◆ L-40500 cage guided pressure balance trim is design for heavy loading application. S-path tunnel compact structure, high capacity and control range. Cage guided plugs furnish stable operation for severe service conditions reduced dynamic forces acting on plug permit choosing a smaller actuator than would be necessary for a single seated valve body.

◆ OPTIONS

Trim: Double Seat structure

Cage Guided Balance Trim

Partial or integrated Cage

Body: Straight Angle Z type

Bonnet: Standard Steam Cryogenic

Temperature Range: -196 C~538 C

Plug sealing: Standard

Graphite Bellows

Leakage: CLASS IV (Standard, Metal Seat)

Flow characteristic: Equal% Linear

Pipe Line Connection: Flange Welding

Range ability: 50:1

◆ Connection

Flange: JB/T 79.1-94~JB/T 79.4-94/HG20616-97

ANSI B16.5

Welding: GB/T 9124-2000/ANSI B16.25

◆ Leakage standard: ANSI B16.104

◆ Actuator

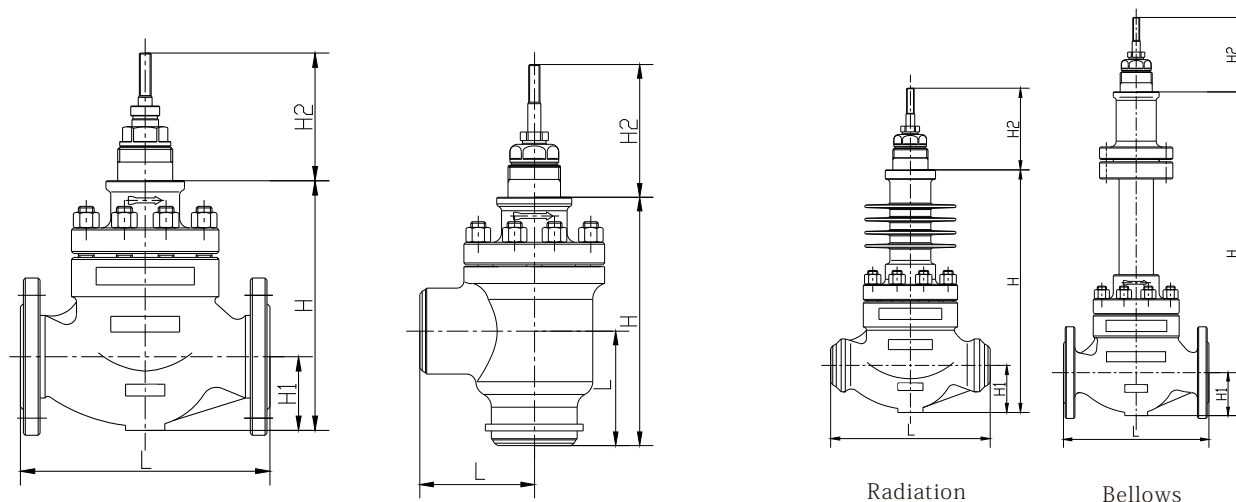
- Pneumatic Diaphragm (30-31P)
- Pneumatic Diaphragm (30-31P)
- Electric Actuator
- Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A351 CF8/CF3/CF8M/CF3M

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Cage Guided Double Seat Control Valve-GYL40500 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950	---	160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020	---	160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050	---	160
250	673	700	770	632	882	1030	245	165	---	---	---	---	---	---	---	---
300	737	775	819	713	963	1080	248	180	---	---	---	---	---	---	---	---

Note: See P34 for over CLASS 900#or PN10.0 specification

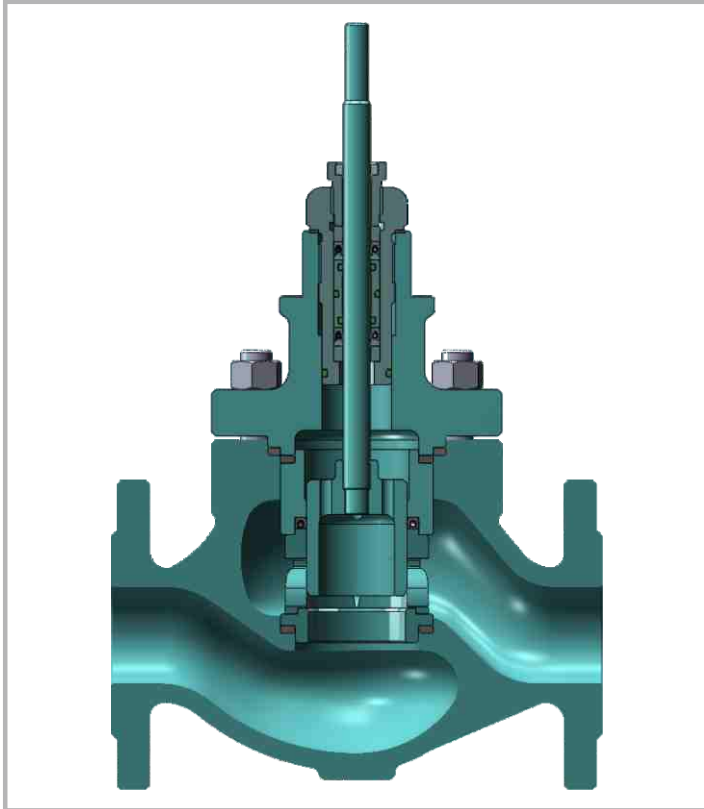
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
40	6	1	---	25
	8	1.5	---	25
	10	2	---	25
	15	4	---	25
	20	8	10	25
	25	13	16	25
	32	20	25	25
	40	32	35	25
50	50	46	55	25

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Body Size: 1 1 / 2 " ~ 16" DN40~DN400

Pressure Rating ANSI 150~600# PN1.6~PN6.4Mpa



- ◆ By replacing up seat to a balance seal ring from double seat valve. The cage guided pressure balance trim is design for heavy loading application. S-path tunnel compact structure, high capacity and control range. Cage guided plugs furnish stable operation for severe service conditions
Reduced dynamic forces acting on plug permit choosing a smaller actuator than would be necessary for a single seated valve body.

◆ OPTIONS

- Trim : Single Seat Structure with Balance Seal Ring
Cage Guided Balance Trim
Partial or integrated Cage
- Body : Straight Angle Z type
- Bonnet : Standard Steam Cryogenic
- Temperature Range: -60°C~250°C
- Plug sealing: Standard
Bellows
- Leakage : CLASS V (Standard, Metal Seat)
CLASS VI (Optional, Soft Seat)
- Flow characteristic : Equal % Linear
- Pipe Line Connection : Flange Welding
- Range ability : 50:1

◆ Connection

- Flange: JB/T 79.1 -94~JB/T 79.4-94/HG20616-97
ANSI B16.5
- Welding: GB/T 9124-2000/ANSI B16.25

◆ Leakage standard: ANSI B16.104

◆ Actuator

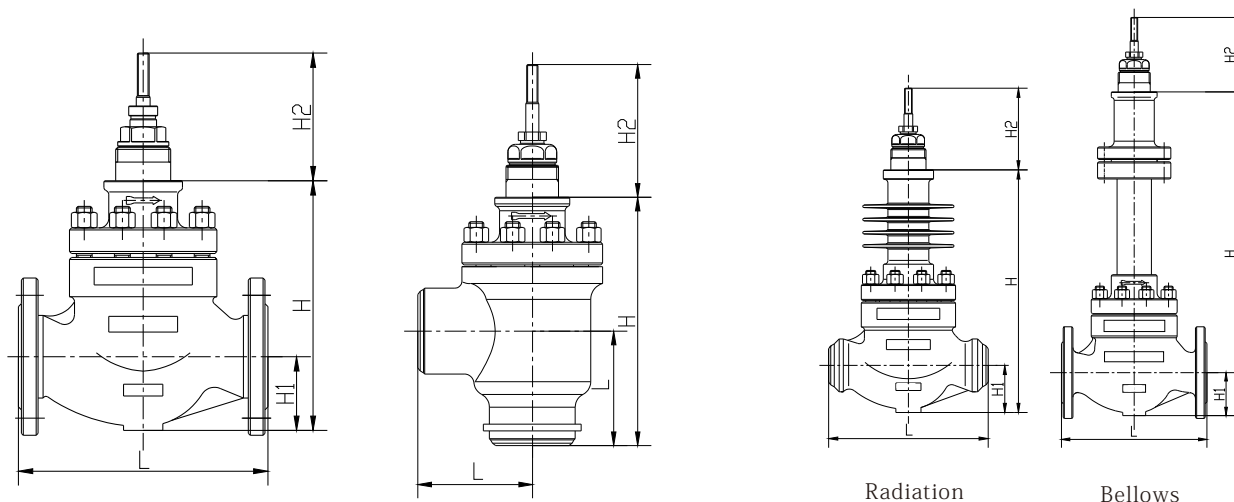
- a. Pneumatic Diaphragm (30-31P)
- b. Pneumatic Diaphragm (30-31P)
- c. Electric Actuator
- d. Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420 Soft: PTFE/PPL
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A351 CF8/CF3/CF8M/CF3M
Balance seal Ring	PTFE/PPL

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Cage Guided Single Seat Control Valve-GYL40600 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straigh Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Stand ard	Radiati on	Bellow s			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Stand ard	Radiati on	Bellow s		
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950	---	160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020	---	160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050	---	160
250	673	700	770	632	882	1030	245	165	---	---	---	---	---	---	---	---
300	737	775	819	713	963	1080	248	180	---	---	---	---	---	---	---	---

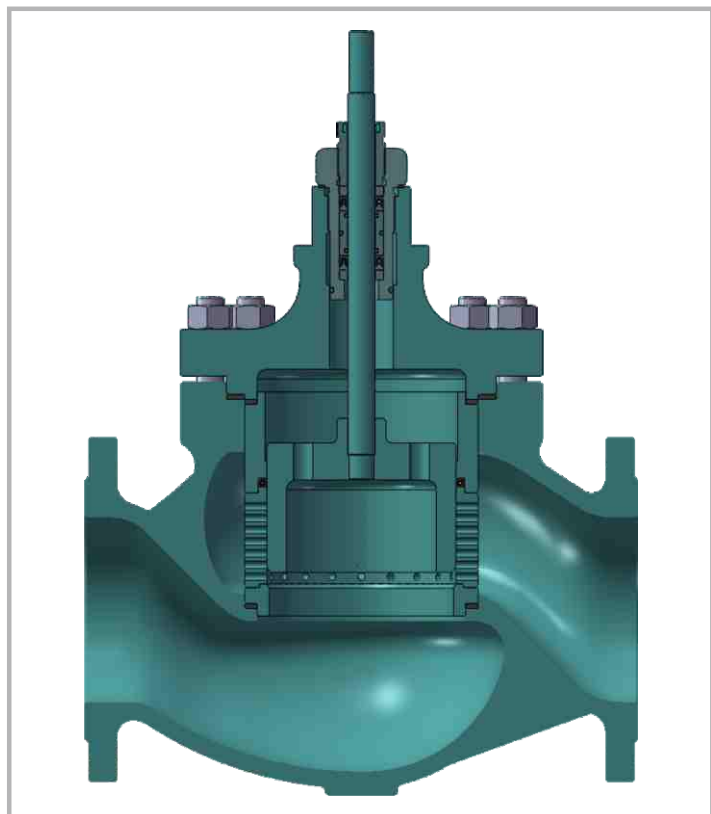
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
40	6	1	---	25
	8	1.5	---	25
	10	2	---	25
	15	4	---	25
	20	8	10	25
	25	13	16	25
	32	20	25	25
	40	32	35	25
50	50	46	55	25

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Body Size: 1 /¹/₂"~12" DN40~DN300

Pressure Rating: ANSI 150~2500# PN1.6~PN42.0Mpa



◆ L-40700 high Performance control valve with good dynamic stability that is suitable for severe service conditions. In this structure, the fluid often flows from the outside of the cage to its inside. Thus the jet impact and flocculating flow are controlled within the cage, the downstream fluids of a stable point are formed, the large scale effect is reduced. Therefore noise is reduced and the frequency spectrum that produces noise is changed. Valve lower the noise by 15~20 db. Through narrow the hole diameter on the cage, the noise can be further reduced. This structure is called single-stage multi-hole type(SS), and the noise can be reduced by about 5 db.

◆ OPTIONS

Trim : Cage Guided Balance Trim
Multi-hole pressure drop
Double Seat or Single Seat with Seal Ring
Body: Straight Angle Z type
Bonnet : Standard Steam Cryogenic
Temperature Range: -196°C~538°C
Plug sealing: Standard

Graphite Bellows

Leakage : CLASS V (Standard, Metal Seat)
CLASS VI (Optional, Soft Seat)

Flow characteristic: Equal % Linear
Pipe Line Connection : Flange Welding
Range ability : 30:1

◆ Connection

Flange : JB/T 79.1 -94~JB/T 79.4-94/HG20616-97
ANSI B16.5
Welding: GB/T 9124-2000/ANSI B16.25

◆ Leakage standard: ANSI B16.104

◆ Actuator

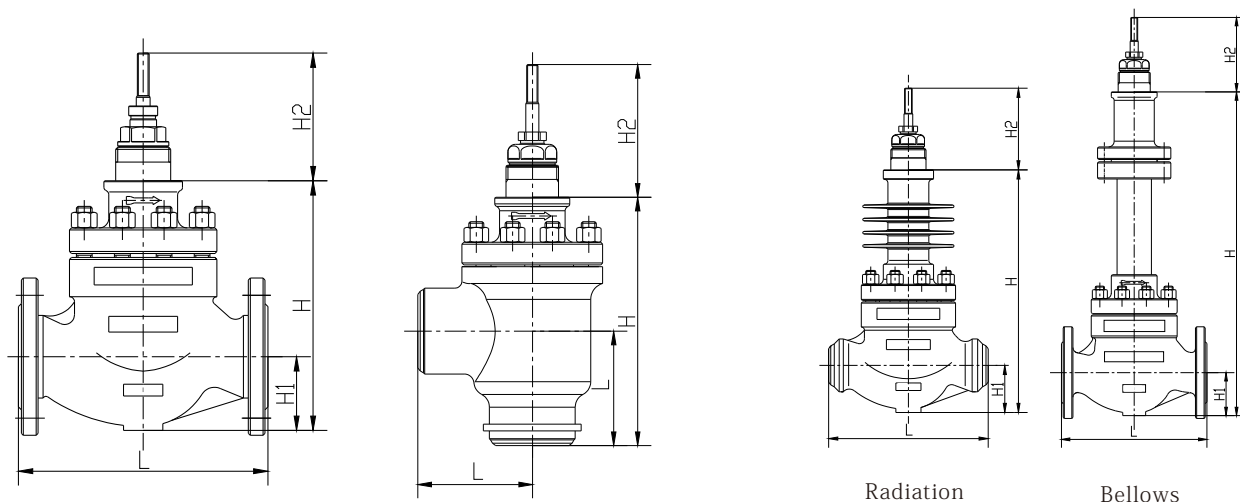
- Pneumatic Diaphragm (30-31P)
- Pneumatic Diaphragm (30-31P)
- Electric Actuator
- Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A182 F304/F316/F316L ASTM A276 410/420
Balance Seal Ring	PTFE/PPL

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Cage Guided Nosie Control Control Valve-GYL40700 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950	---	160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020	---	160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050	---	160
250	673	700	770	632	882	1030	245	165	---	---	---	---	---	---	---	---
300	737	775	819	713	963	1080	248	180	---	---	---	---	---	---	---	---

Note: See P34 for over CLASS 900#or PN10.0 specification

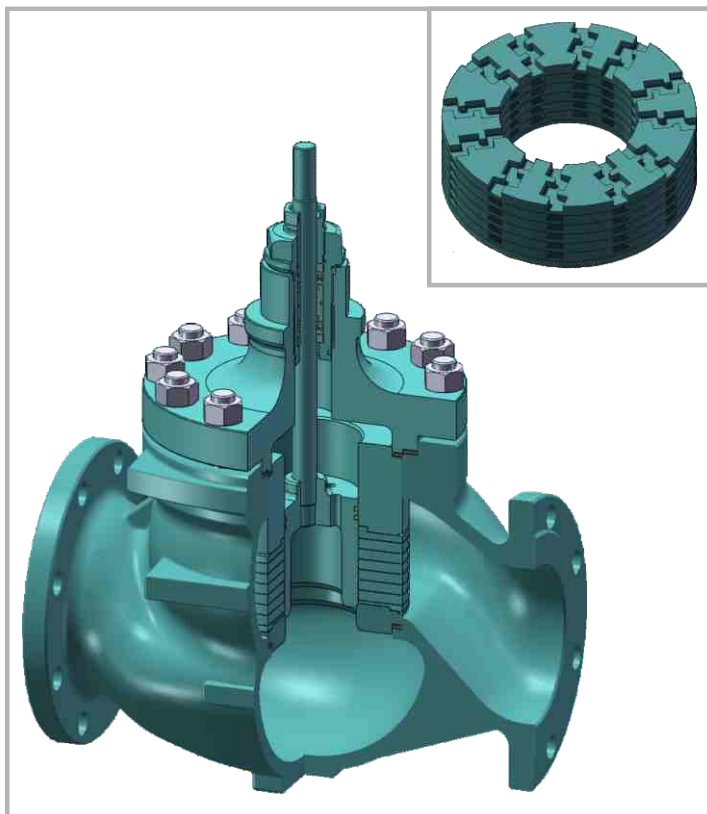
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
40	6	1	---	25
	8	1.5	---	25
	10	2	---	25
	15	4	---	25
	20	8	10	25
	25	13	16	25
	32	20	25	25
	40	32	35	25
50	50	46	55	25

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Body Size: 1 1 / 2 " ~ 12" DN40~DN300

Pressure Rating: ANSI 150~2500# PN1.6~PN42.0Mpa



◆ L40800 Series is by changing L-20800 trim to Cage guide type. Create balance force to provide larger size available. Applicable to serve services.

The balanced trim can select with:

1. Cage single-seat type
(High leakage class, small working temperature range)
2. Cage double-seat type
(low leakage class, big working temperature range)

◆ OPTIONS

Trim: Cage Guided Balance Trim

Labyrinthine Path Cage

Double or single seat with balance ring

Body: Straight Angle Z type

Bonnet: Standard Steam Cryogenic

Temperature Range: -196°C~538°C

Plug sealing: Standard

Graphite Bellows

Leakage: CLASS IV (Metal Seat without seal ring)

CLASS V (Metal Seat with seal ring)

Flow characteristic: Equal% Linear

Pipe Line Connection: Flange Welding

Range ability: 30:1

◆ Connection

Flange: JB/T 79.1-94~JB/T 79.4-94/HG20616-97

ANSI B16.5

Welding: GB/T 9124-2000/ANSI B16.25

◆ Leakage standard ANSI B16.104

◆ Actuator

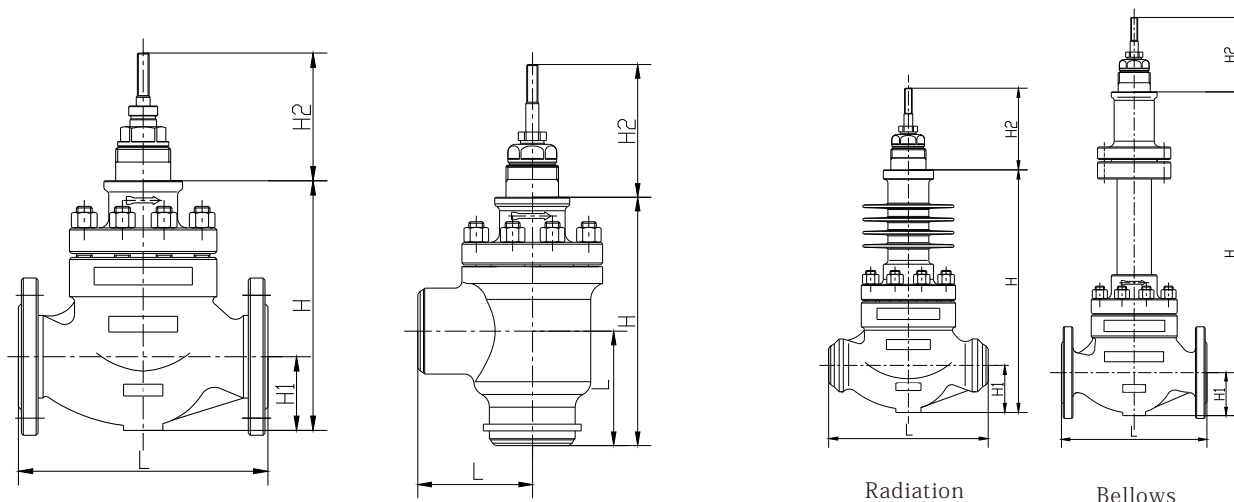
- a. Pneumatic Diaphragm (30-31P)
- b. Pneumatic Diaphragm (30-31P)
- c. Electric Actuator
- d. Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A182 F304/F316/F316L ASTM A276 410/420
Balance Seal Ring	PTFE/PPL

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Case Guided Labyrinthine path Control Valve-GYL40800 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950	---	160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020	---	160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050	---	160
250	673	700	770	632	882	1030	245	165	---	---	---	---	---	---	---	---
300	737	775	819	713	963	1080	248	180	---	---	---	---	---	---	---	---

Note: See P34 for over CLASS 900#or PN10.0 specification

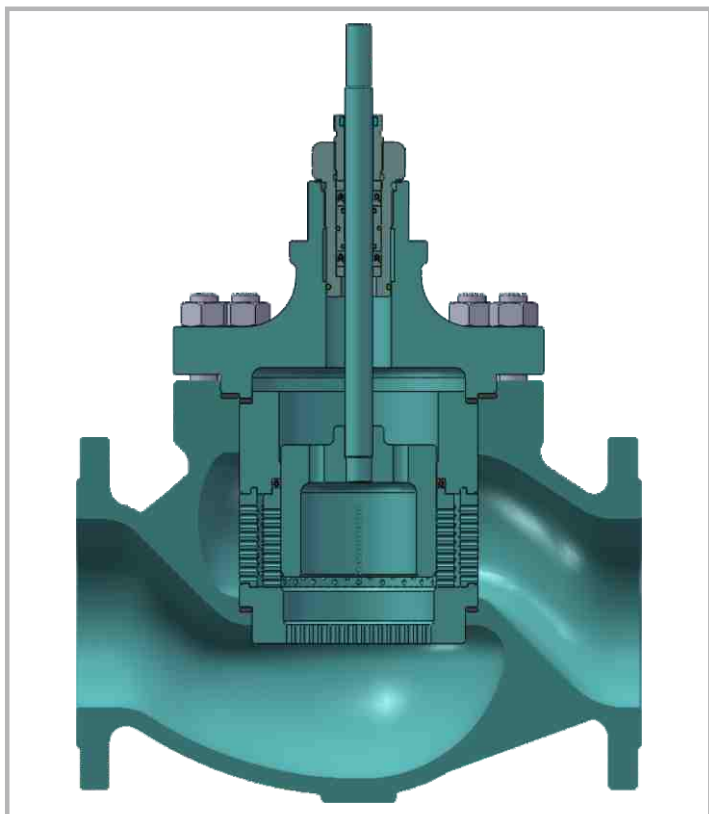
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
40	6	1	---	25
	8	1.5	---	25
	10	2	---	25
	15	4	---	25
	20	8	10	25
	25	13	16	25
	32	20	25	25
	40	32	35	25
50	50	46	55	25

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Body Size : 1½"~12" DN40~DN300

Pressure Rating : ANSI 150~2500# PN1.6~PN42.0Mpa



- ◆ L40900 series is by changing L-20900 trim to Cage guided type Create balance force to provide larger body size available. Applicable to serve services.

The balanced trim can select with:

- 1.Cage single-seat type
(High leakage class, small temperature range)
- 2.Cage double-seat type
(low leakage class, big temperature range)

◆ OPTIONS

Trim: Top Guided unbalance trim

Cage retainer

Pressure relief double trim

Body: Straight Angle Z type

Bonnet: Standard Steam Cryogenic

Temperature Range: -196° C~538° C

Plug sealing: Standard

Graphite Bellows

Leakage : CLASS IV (Metal Seat without seal ring)

CLASS V (Metal Seat with seal ring)

Flow characteristic : Equal% Linear

Pipe Line Connection: Flange Welding

Range ability: 50:1

◆ Connection

Flange: JB/T 79.1-94~JB/T 79.4-94/HG20616-97

ANSI B16.5

Welding: GB/T 9124-2000/ANSI B16.25

◆ Leakage standard: ANSI B16.104

◆ Actuator

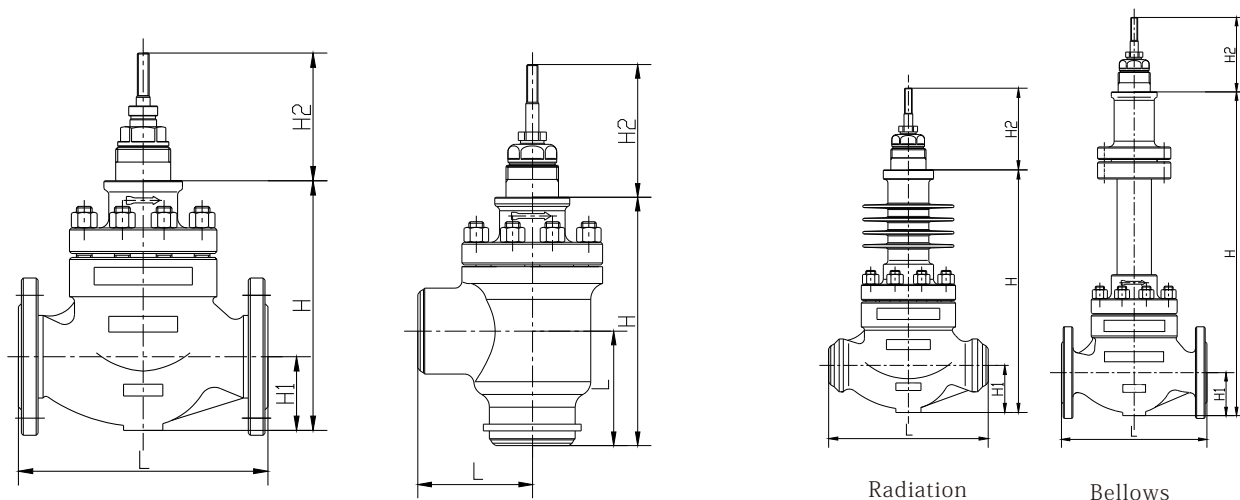
- a. Pneumatic Diaphragm (30-31P)
- b. Pneumatic Diaphragm (30-31P)
- c. Electric Actuator
- d. Electro-hydraulic

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L
Cage	ASTM A182 F304/F316/F316L ASTM A276 410/420
Balance Seal Ring	PTFE/PPL

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

Cage Guided Multi-Stage Pressure Control Valve-GYL40900 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Straight Through Body								Angle Through Body							
	L			H			H1	H2	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
40	222	235	251	238	407	550	68	130	111	111	111	280	415	590	---	130
50	254	267	286	262	432	565	83	130	130	130	130	305	440	610	---	130
65	276	292	311	307	507	710	93	130	140	140	140	360	485	760	---	130
80	298	317	337	319	519	720	98	130	155	155	155	380	510	780	---	130
100	352	368	394	351	551	750	117	130	175	175	175	415	540	815	---	130
125	403	425	460	403	660	880	133	160	200	200	200	470	685	950	---	160
150	451	473	508	444	704	930	150	160	240	240	240	535	700	1020	---	160
200	543	568	610	517	777	980	186	160	298	298	298	630	800	1050	---	160
250	673	700	770	632	882	1030	245	165	---	---	---	---	---	---	---	---
300	737	775	819	713	963	1080	248	180	---	---	---	---	---	---	---	---

Note: See P34 for over CLASS 900#or PN10.0 specification

Rated CV Value and Stroke

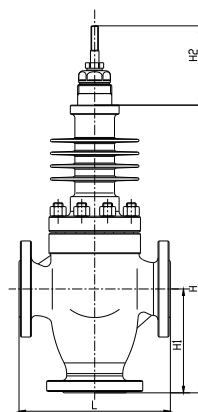
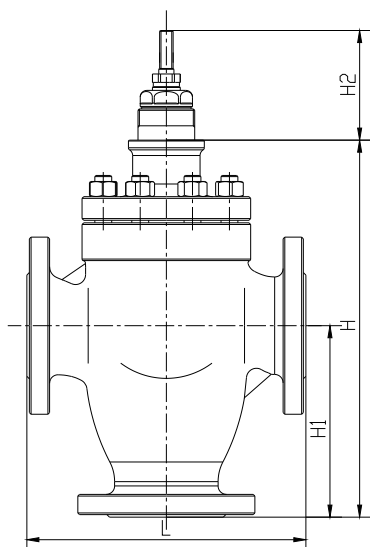
Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
40	6	1	---	25
	8	1.5	---	25
	10	2	---	25
	15	4	---	25
	20	8	10	25
	25	13	16	25
	32	20	25	25
	40	32	35	25
50	50	46	55	25

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

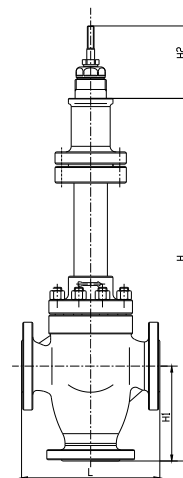
Three Way Control Valve

Control Valve-GYL43500 Series

Control Valve(Zhejiang) Co.,Ltd



Radiation



Bellows

Specification

Size (DN)	Straight Through Body							
	L			H			H1	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	Standard	Radiation	Bellows		
20	184	194	206	248	298	410	117	130
25	184	197	210	263	314	425	132	130
40	222	235	251	318	486	630	148	130
50	254	267	286	338	507	640	160	130
65	279	292	311	398	598	800	185	130
80	298	317	337	450	650	850	198	130
100	352	368	394	495	695	895	260	130
125	403	425	460	580	840	1060	310	160
150	451	473	508	590	850	1080	295	160
200	543	568	610	735	995	1195	405	160
250	673	700	770	875	1125	1375	520	165
300	737	775	819	1050	1300	1420	570	180

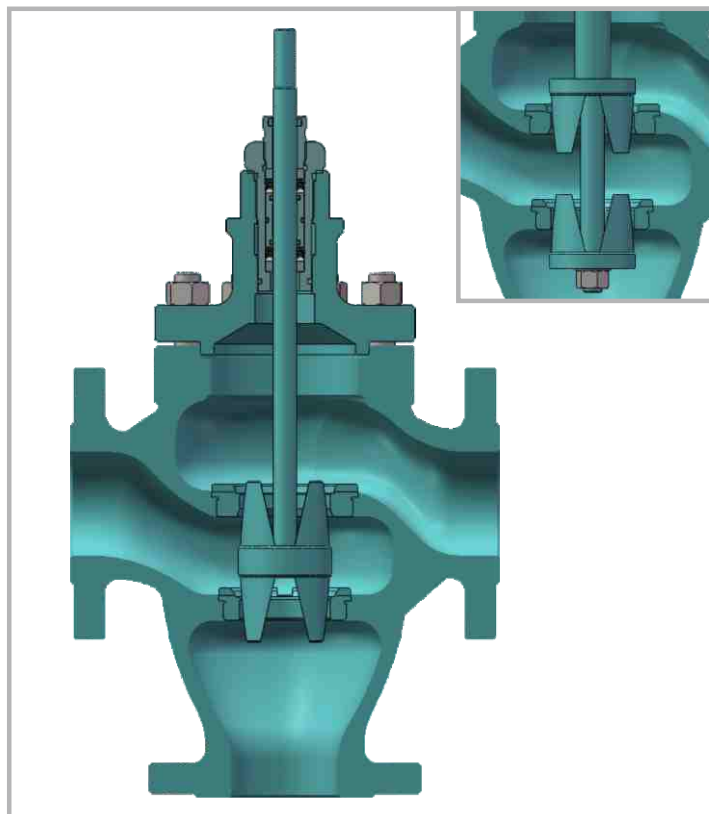
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
20	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
25	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
	25	13	16	16

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
32	32	20	25	16
40	40	32	35	25
50	50	46	55	25
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Body Size: 3/4"~12" DN20~DN300

Pressure Rating : ANSI 150~600# PN1.6~PN6.4Mpa



- ◆ L-23100 H/F provide general converging(flow-mixing) / diverging(flow-splitting) service. Optional with both unbalance double seat trim and balanced trim. Can also choose specific trim for noise and cavitation service.

◆ OPTIONS

Trim : Double Seat

Seat Guided trim

Body : Straight Angle Z type

Bonnet: Standard Steam Cryogenic

Temperature Range : -196 ° C~538 ° C

Plug sealing: Standard

Graphite Bellows

Leakage : CLASS IV (Metal Seat without seal ring)

Flow characteristic : Equal% Linear

Pipe Line Connection : Flange Welding

Range ability : 50 :1

Parts	Material
Body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
Bonnet	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Trim	ASTM A182 F304/F316/F316L ASTM A276 410/420
Seat	Metal: ASTM A182 F304/F316/F316L ASTM A276 410/420
Plug	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

◆ Connection

Flange: JB/T 79.1-94~JB/T 79.4-94/HG20616-97
ANSI B16.5

Welding: GB/T 9124-2000/ANSI B16.25

◆ Leakage standard: ANSI B16.104

◆ Actuator

- Pneumatic Diaphragm (30-31P)
- Pneumatic Diaphragm (30-31P)
- Electric Actuator
- Electro-hydraulic

Body Size: 3/4"~12" DN20~DN300

Pressure Rating : ANSI 150~900# PN1.6~PN16.0Mpa



- ◆ L-20230 feature port guided unbalance structure, outstanding dynamic stability and sealing performance. Plug sealing use Bellows and standard packing dual secure to protect valve for low temperature fluid influence. So plug work in absolute sealing condition with motion effective. Valve body and other parts use austenitic stainless steel or Al-Mg alloy low temperature resistance material, High strength for long use. Ease of maintenance with changeable trim.)

◆ OPTIONS

Trim: Quick Tear down trim

Seat Guided trim

Body : Straight Angle Z type

Temperature Range : -196°C~300°C

Plug sealing: Standard

Bellows

Leakage : CLASS V (Standard, Metal Seat)

CLASS VI (Below Dn100, Soft Seat)

Flow characteristic : Equal % Linear

Pipe Line Connection : Flange Welding

Range ability: 50:1

Parts	Material
Body	ASTM A351 CF8/CF8M ASTM A182 F304/F316 5083 II Aluminum alloy / 5052 Aluminum alloy
Bonnet	ASTM A351 CF8/CF8M ASTM A182 F304/F316
Trim	ASTM A182 F304/F316/F316L
Seat	ASTM A182 F304/F316/F316L
Plug	17-4PH ASTM A276 F316/F316L
Cage	ASTM A351 CF8/CF8M
Bellows	316

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for special Alloy not listed above

◆ Connection

Flange : JB/T 79.1-94~JB/T 79.4-94/HG20616-97

ANSI B16.5

Welding: GB/T 9124-2000/ANSI B16.25

◆ Actuator

a. Pneumatic Diaphragm (30-31P)

b. Pneumatic Diaphragm (30-31P)

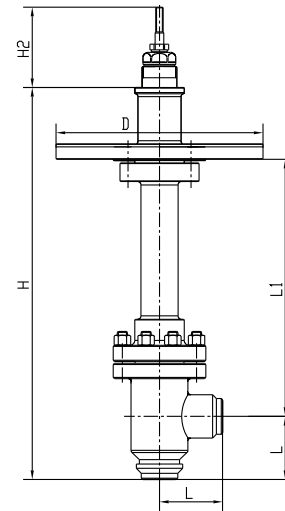
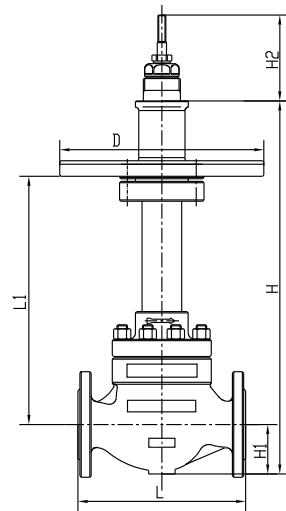
c. Electric Actuator

d. Electro-hydraulic

Cryogenic Valve

Control Valve-GYL20230 Series

Control Valve(Zhejiang) Co.,Ltd



Specification

Size (DN)	Cryogenic Straight Through								Cryogenic Angle Through							
	L			H			D	H2	L			H			D	H2
	ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	L1=500	L1=600	L1=700			ANSI 150 PN 16 JIS 10K	ANSI 300 PN 40 JIS 30K	ANSI 600 PN 64 JIS 40K	L1=500	L1=600	L1=700		
20	184	194	206	648	748	848	290	130	76	76	76	672	772	872	290	130
25	184	197	210	648	748	848	290	130	76	76	76	672	772	872	290	130
40	222	235	251	686	786	886	335	130	83	83	83	699	799	899	290	130
50	254	267	286	691	791	891	370	130	102	102	102	718	818	918	335	130
65	276	292	311	747	847	947	410	130	146	146	146	797	897	997	410	130
80	298	317	337	751	851	951	440	130	159	159	159	815	915	1015	440	130
100	352	368	394	763	863	963	490	130	178	178	178	834	934	1034	440	130
125	403	425	460	806	906	1006	560	160	216	216	216	894	994	1094	560	160
150	451	473	508	829	929	1029	630	160	254	254	254	932	1032	1132	560	160
200	543	568	610	851	951	1051	760	160	---	---	---	---	---	---	---	---

Note: See P34 for over CLASS 900#or PN10.0 specification

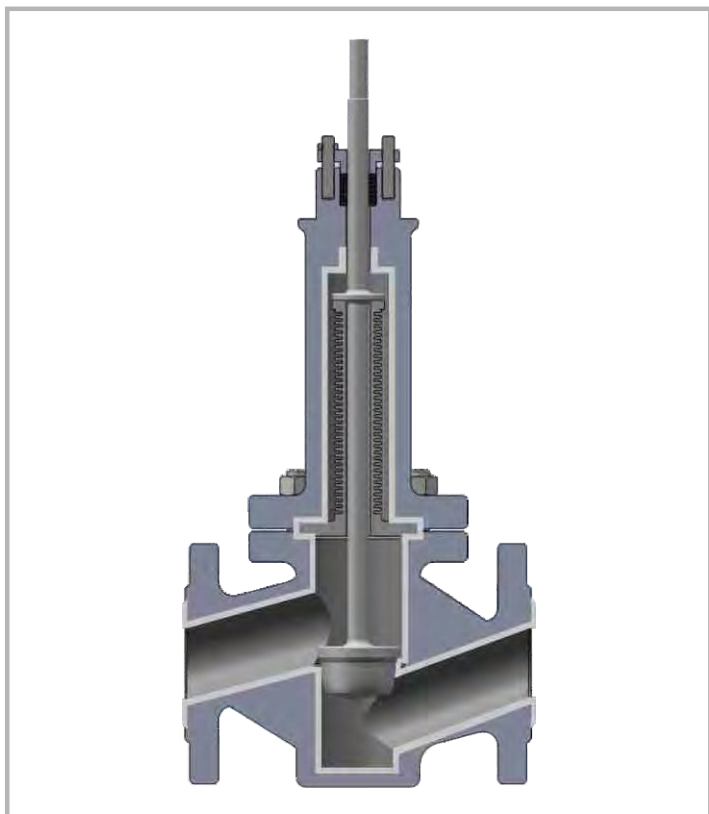
Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
20	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
25	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
	25	13	16	16

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
32	32	20	25	16
40	40	32	35	25
50	50	46	55	25
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60

Body Size: 4"~12" DN100~DN300

Pressure Rating : ANSI 150# PN1.6Mpa



- ◆ L-21241C Series Globe valve body and trim fully lined with fluorine, effectively protect metal material from corrosive fluids. Valve plug sealed by RTFE bellows and "V" type PTFE combined packing, eliminate external leakage. Unbalanced fully fluorine lined globe valve specific for the application..

◆ OPTIONS

Trim : Double Seat
 Seat Guided trim
 Body : Straight Angle Z type
 Bonnet : Standard Steam Cryogenic
 Temperature Range: -196°C~538°C
 Plug sealing: Bellows
 Leakage : CLASS VI (Soft Seat)
 Flow characteristic: Equal% Linear
 Pipe Line Connection: Flange Welding
 Range ability : 50:1

Parts	Material
Body Bonnet	ASTM A216 WCB
Trim	ASTM A182 F304
Seat	PTFE/PPL
Plug杆	17-4PH ASTM A276 F304
Bellows	PTFE/PPL

◆ Connection

Flange : JB/T 79.1- 94~JB/T 79.4-94/HG20616-97
 ANSI B16.5
 Welding: GB/T 9124-2000/ANSI B16.25

◆ Actuator

- Pneumatic Diaphragm (30-31P)
- Pneumatic Diaphragm (30-31P)
- Electric Actuator
- Electro-hydraulic

Fluorine lined Globe valve

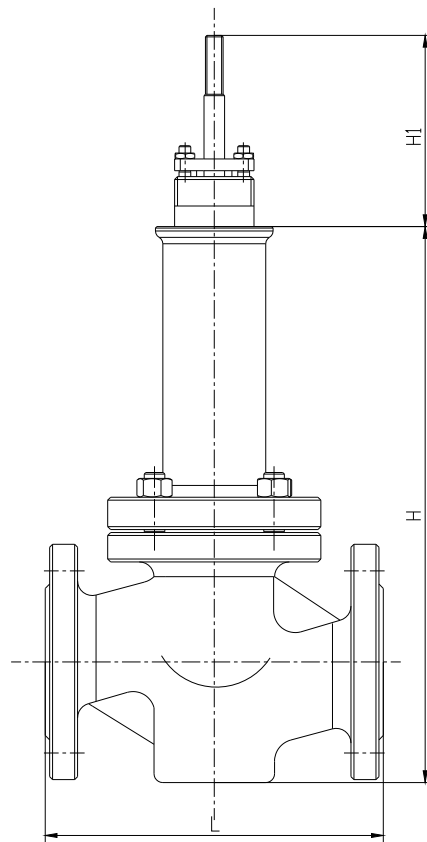
Control Valve-GYL21241C Series

Control Valve(Zhejiang) Co.,Ltd

Specification

Size (DN)	L	H	H1
20	180	275	130
25	185	325	130
40	220	350	130
50	250	405	130
65	275	435	130
80	300	460	130
100	350	530	130
125	410	570	160
150	480	610	160
200	600	700	160

Note: Consult Control Valve(Zhejiang) Co.,Ltd Engineer for size over DN200



Rated CV Value and Stroke

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
20	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
25	6	1	---	16
	8	1.5	---	16
	10	2	---	16
	15	4	---	16
	20	8	10	16
	25	13	16	16

Valve size (mm)	Plug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
32	32	20	25	16
40	40	32	35	25
50	50	46	55	25
65	65	75	85	40
80	80	110	135	40
100	100	185	210	40
125	125	298	345	60
150	150	385	466	60
200	200	650	735	60
250	250	960	1000	100
300	300	1300	1500	100

Valve Size: 3/4"~12" DN20~DN300
Output Force:1286 ~ 73250N



- ◆ L-400 is the most popular type of pneumatic diaphragm actuator in use for globe valves. Air supply pressure pushes up/down diaphragm and extends actuator stem. It's simple dependable and economical

Pallet Diameter (mm)	Stroke (mm)	Fail to close	Fail to open
200	16	L452	L462
200	25	L453	L463
255	40	L454	L464
335	60	L455	L465
410	100	L456	L466

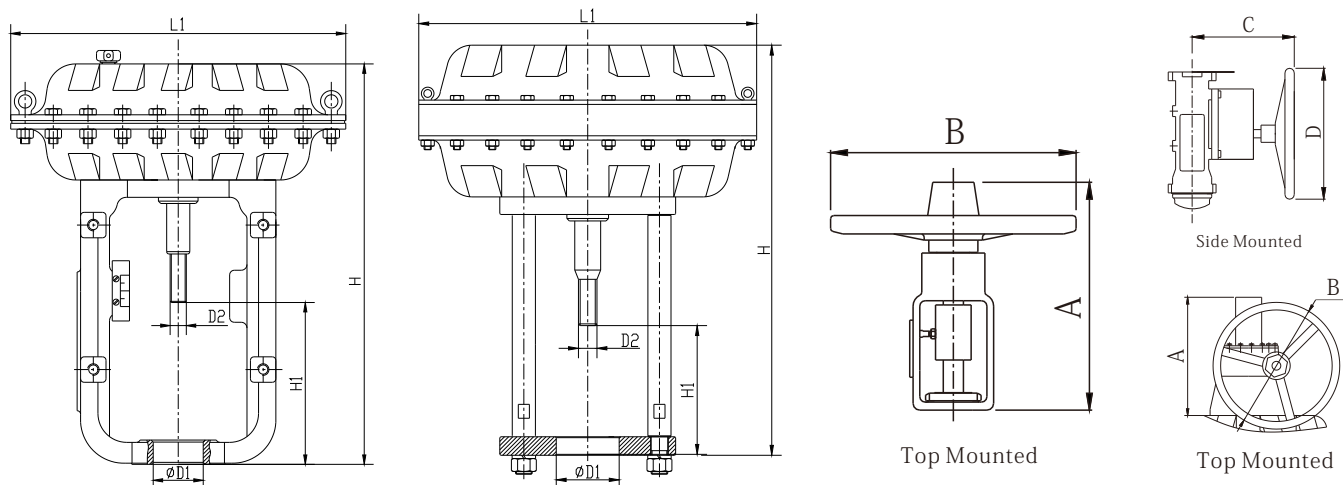


- ◆ L600 Series single/double acting piston furnish maxim thrust output and fast stroke speeds. Force are given by both direction or spring return to provide air to open or air to close operation

Pallet Diameter (mm)	Stroke (mm)	Single Action		Double Action
		FTC	FTO	
210	25	L653	L663	L693
270	40	L654	L664	L693
365	60	L655	L665	L693
460	100	L656	L666	L693

Multi-Spring Pneumatic Actuator Control Valve-GYL-L400/600 Series

Control Valve(Zhejiang) Co.,Ltd



L400 Specification

◇ = Min Air Supply Pressure ◆ = Spring Range

Actuator	L1	H	D1	D2	H1		Output Force N (Min.)	
					FTC	FTO	◇240KPa	◇320KPa
							◆40--200KPa	◆80--240KPa
L402	285	349	56	M14×1.5	140	155	1286	2512
L403	285	370	56	M14×1.5	140	160	1286	2512
L404	360	435	68	M20×1.5	143	175	1963	3925
L405	470	588	80	M24×1.5	168	230	3419	6839
L406	580	667	90	M33×2.0	181	280	5024	10048

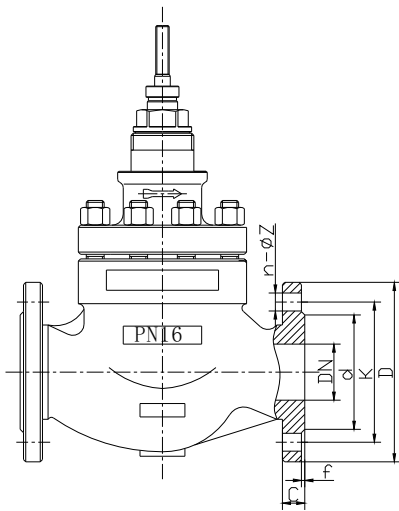
L600 Specification

Actuator	L1	H	D1	D2	H1		Single Action output force N		Double Action output force N
					FTC	FTO	Spring range: 120--360KPa		Air supply : 500KPa
							Spring Restore force	Air supply force	
L603	285	409	56	M14×1.5	140	160	4020	6030	16700
L604	360	509	68	M20×1.5	143	175	6500	9770	27100
L605	470	698	80	M24×1.5	168	230	10700	16100	44860
L606	580	908	90	M33×2.0	181	280	17700	38000	73250

Instruction: 1. Spring Restore fore is under fully compressed condition
2. Air supply force is under 500Kpa air pressure

Handwheel Specification

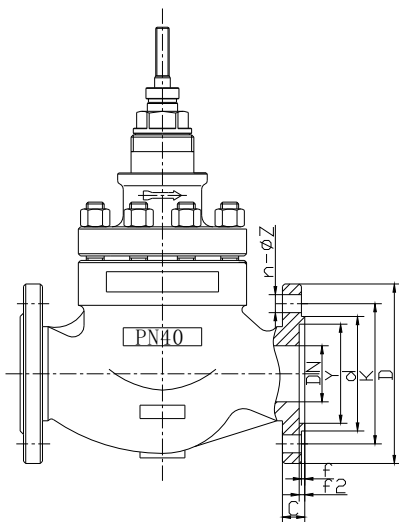
Top Mounted Handwheel				Side Mounted handwheel			
Type	Associated Actuator	A	B	Type	Associated Actuator	C	D
D3#	L402/ L602	250	300	P3#	L402/ L602	225	200
	L403/ L603	250	300		L403/ L603	225	200
D4#	L404/ L604	310	400	P4#	L404/ L604	230	300
D5#	L405/ L605	380	400	P5#	L405/ L605	265	400
D6#	L406/ L606	414	400	---	---	---	---



PN16 Valve Body End Flange Connection

(DN)	NPS	D	K	d	C	f	n-Φz
20	3/4	105	75	55	16	2	4-Φ14
25	1	115	85	65	18	2	4-Φ14
40	1 1/2	145	110	85	20	3	4-Φ18
50	2	160	125	100	22	3	4-Φ18
65	2 1/2	180	145	120	24	3	4-Φ18
80	3	195	160	135	24	3	8-Φ18
100	4	215	180	155	26	3	8-Φ18
125	5	245	210	185	28	3	8-Φ18
150	6	280	240	210	28	3	8-Φ23
200	8	335	295	265	30	3	12-Φ23
250	10	405	355	320	32	3	12-Φ25
300	12	460	410	375	32	4	12-Φ25

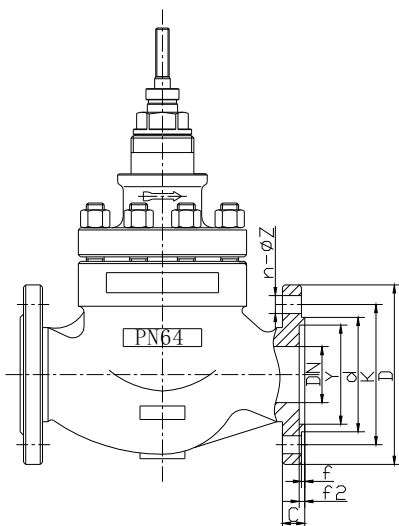
REMARK : PN16 ACCORDING TO JB/T79.1-94 PN1.6Mpa



PN40 Valve Body End Flange Connection

(DN)	NPS	D	K	d	C	f2	f	Y	n-Φz
20	3/4	105	75	55	16	4	2	51	4-Φ14
25	1	115	85	65	16	4	2	58	4-Φ14
40	1 1/2	145	110	85	18	4	3	76	4-Φ18
50	2	160	125	100	20	4	3	88	4-Φ18
65	2 1/2	180	145	120	22	4	3	110	8-Φ18
80	3	195	160	135	24	4	3	121	8-Φ18
100	4	230	190	160	26	4.5	3	150	8-Φ23
125	5	270	220	188	28	4.5	3	176	8-Φ25
150	6	300	250	218	30	4.5	3	204	8-Φ25
200	8	375	320	282	38	4.5	3	260	12-Φ30
250	10	445	385	345	42	4.5	3	313	12-Φ34
300	12	510	450	408	46	4.5	4	364	16-Φ34

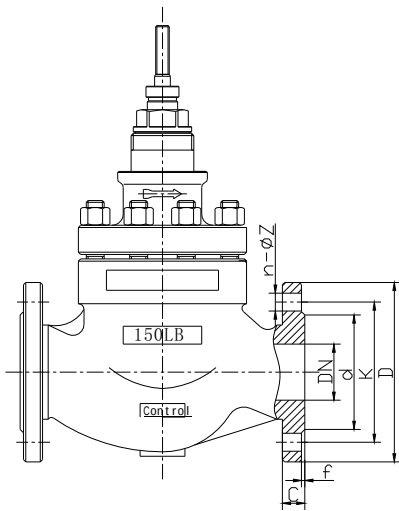
REMARK : PN40 ACCORDING TO JB/T79.2-94 PN4.0Mpa



PN64 Valve Body End Flange Connection

(DN)	NPS	D	K	d	C	f2	f	Y	n-Φz
20	3/4	125	90	68	20	4	2	51	4-Φ18
25	1	135	100	78	22	4	2	58	4-Φ18
40	1 1/2	165	125	95	24	4	3	76	4-Φ23
50	2	175	135	105	26	4	3	88	4-Φ23
65	2 1/2	200	160	130	28	4	3	110	8-Φ23
80	3	210	170	140	30	4	3	121	8-Φ23
100	4	250	200	168	32	4.5	3	150	8-Φ25
125	5	295	240	202	36	4.5	3	176	8-Φ30
150	6	340	280	240	38	4.5	3	204	8-Φ34
200	8	405	345	300	44	4.5	3	260	12-Φ34
250	10	470	400	352	48	4.5	3	313	12-Φ41
300	12	530	460	412	54	4.5	4	364	16-Φ41

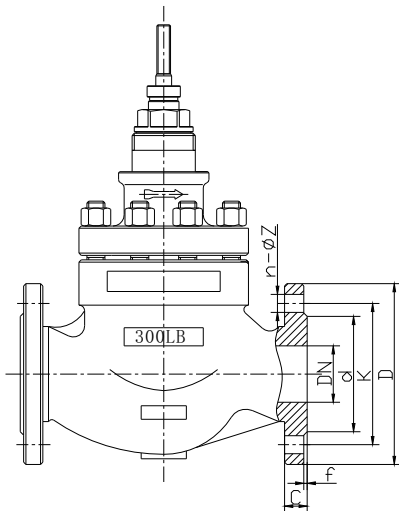
REMARK : PN64 ACCORDING TO JB/T79.2-94 Pn6.4Mpa



150LB Valve Body End Flange Connection

(DN)	NPS	D	K	d	C	f	n-Φz
20	3/4	100	70	43	13	1.6	4-Φ16
25	1	110	79.5	51	14.5	1.6	4-Φ16
40	1 1/2	130	98.5	73	17.5	1.6	4-Φ16
50	2	150	120.5	92	19.5	1.6	4-Φ18
65	2 1/2	180	139.5	105	22.5	1.6	4-Φ18
80	3	190	152.5	127	24	1.6	4-Φ18
100	4	230	190.5	157.5	24	1.6	8-Φ18
125	5	255	216	186	24	1.6	8-Φ22
150	6	280	241.5	216	25.5	1.6	8-Φ22
200	8	345	298.5	270	29	1.6	8-Φ22
250	10	405	362	324	30.5	1.6	12-Φ26
300	12	485	432	381	32	1.6	12-Φ26

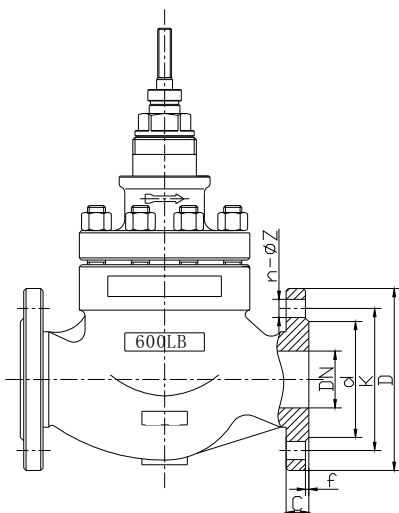
REMARK : 150LB ACCORDING TO HG20618-94 150LB(ANSI B16.5)



300LB Valve Body End Flange Connection

(DN)	NPS	D	K	d	C	f	n-Φz
20	3/4	120	82.5	43	16	1.6	4-Φ18
25	1	125	89	51	17.5	1.6	4-Φ18
40	1 1/2	155	114.5	73	21	1.6	4-Φ22
50	2	165	127	92	22	1.6	8-Φ18
65	2 1/2	190	149	105	22.5	1.6	8-Φ22
80	3	210	168.5	127	29	1.6	8-Φ22
100	4	255	200	157.5	32	1.6	8-Φ22
125	5	280	235	186	35	1.6	8-Φ22
150	6	320	270	216	37	1.6	12-Φ22
200	8	380	330	270	41.5	1.6	12-Φ26
250	10	445	387.5	324	48	1.6	16-Φ30
300	12	520	451	381	51	1.6	16-Φ33

REMARK : 300LB ACCORDING TO HG20618-94 300LB(ANSI B16.5)



600LB Valve Body End Flange Connection

(DN)	NPS	D	K	d	C	f	n-Φz
20	3/4	120	82.5	43	16	6.4	4-Φ18
25	1	125	89	51	17.5	6.4	4-Φ18
40	1 1/2	155	114.5	73	21	6.4	4-Φ22
50	2	165	127	92	22.5	6.4	8-Φ18
65	2 1/2	190	149	105	25.5	6.4	8-Φ22
80	3	210	168.5	127	29	6.4	8-Φ22
100	4	275	216	157.5	38.5	6.4	8-Φ26
125	5	330	267	186	44.5	6.4	8-Φ29.5
150	6	355	292	216	48	6.4	12-Φ30
200	8	420	349	270	55.5	6.4	12-Φ33
250	10	510	432	324	63.5	6.4	16-Φ36
300	12	560	489	381	67	6.4	20-Φ36

REMARK : 600LB ACCORDING TO HG20618-94 600LB(ANSI B16.5)

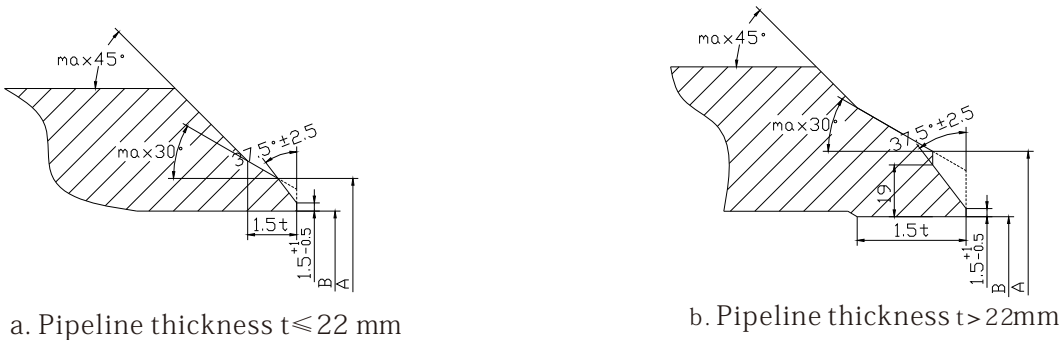
Welding End Size

Size DN	50	65	80	100	150	200	250	300	350	400	≥500
A	62	75	91	117	172	223	278	329	360	413	---
A Tolerance	+2.5 -1				+4 -7						---
B Tolerance	±0.8				±1.5						±1.5

A — Welding End outer Nominal diameter B — Pipeline inner Nominal diameter t —Tunnel Thickness

Note welding slope machning compliance to GB/T 1224 requirements if customer have no special requirements

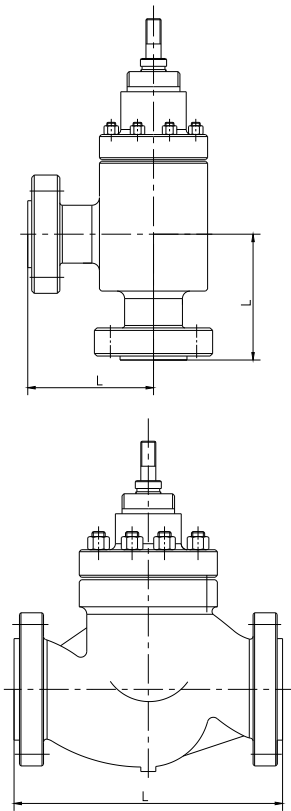
Welding End Slope



High Pressure Valve Body Spec.

Size (DN)	Straight Through Body			Angle Through Body		
	L			L		
	ANSI 900	ANSI 1500	ANSI 2500	ANSI 900	ANSI 1500	ANSI 2500
40	333	333	358	190	190	190
50	375	375	437	230	230	230
65	410	410	442	270	270	340
80	440	460	498	300	300	420
100	510	530	566	400	400	535
150	715	770	820	510	510	520
200	854	911	1279	675	675	835

Note: Consult Control Valve(Zhejiang) Co.,ltd Engineer for special size not listed above



Sliding Stem Control Valve and Actuator Model

GYL - - DN . LB.

	Body Type
2	Top Guided Unbalance
4	Gage Guided Balance

	Flow Path
1	Straight Through
2	Angle
3	Three way

	GYL Series Trim
1	Screw type Seat
2	Cage pressure in Seat
3	Pressure Relief
4	Cut off Type
5	Cage Double Seat
6	Cage Single Seat
7	Multi-hole Cage
8	Labyrinth Cage
9	Multistage Cage

	Connection End
1	Flange
2	Wafer
3	Welding
4	Screw type

	Bonnet
1	Standard
2	Radiation
3	Cryogenic
4	Bellows
5	Jacked

	Characteristic
D	Equal percentage
Z	Liner
X	Quick Opening

	Suffix Instruction
R	Soft Sealing
X	Rubber Lining
S	Seat Guided
C	PTFE Lining
H	Three Way Mixing
F	Three Way Splitting

L -

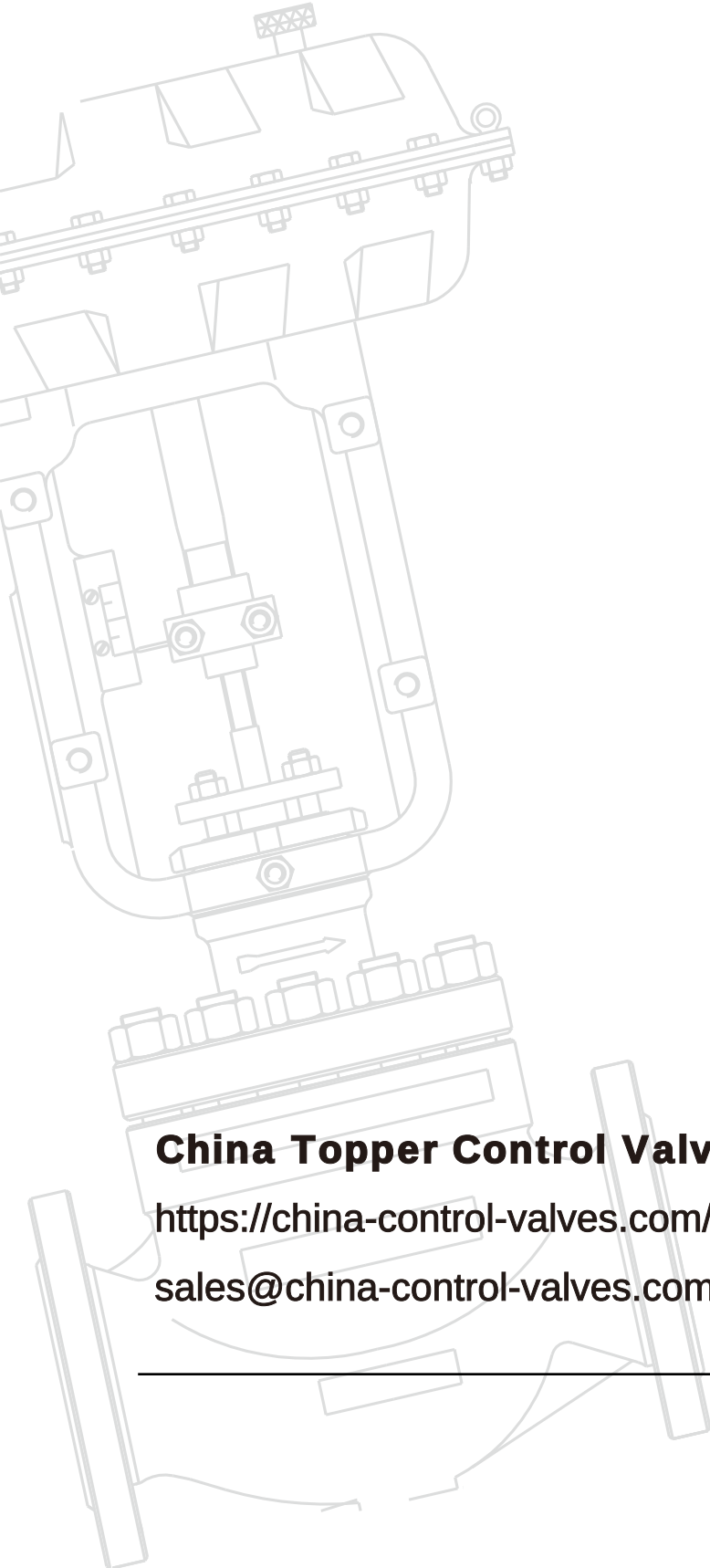
	Actuator Type
L4	Diaphragm
L6	Cylinder

	Action
5	Single Action FC
6	Single Action FO
7	Double Action with Emergency shutoff
8	Double Action with Emergency open
9	Double Action

	Cylinder Size	Diaphragm Size
2	200	2#
3	200	3#
4	280	4#
5	360	5#
6	460	6#

	Handwheel
P	Side
D	Top

	Spring Range
C	80-240Kpa
N	120-360Kpa



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