



## ZH series linear actuator control valve

# ZHM type sleeve type control valve

ZHM single level sleeve type control valve with high stability, easy maintenance and wide application. It can be designed as balance type for eliminate static unbalance, with damping effect, reduce valve vibration, can be applied in occasion with large pressure difference, can apply with multi-spring pneumatic diaphragm actuator or electric actuator, etc.



### ◆ Specification

- Body type: straight through globe type
- Spool type: non-balanced single seat plug type
- Nominal size: DN25~300 NPS 1" ~ 12"
- Nominal pressure: PN16 ~ 100 CLASS 150LB ~ 600LB
- Connection: flange: FF、RF、MF、RTJ
- Welding: SW、BW
- Flange dimension: acc. to IEC 60534
- Bonnet type: Standard type (-5℃~230℃)
- Radiator type: (-45℃~ higher than 230℃ occasion )
- Low temperature extended type(-196℃~ -45℃)
- Bellow seal type
- Packing: V type PTFE packing, flex. graphite packing, etc.
- Gasket: Metal graphite packing
- Actuator: pneumatic: multi-spring diaphragm actuator, piston type actuator.
- electric: 3810L series smart actuator, PSL series actuator.
- Surface painting: Green color, acrylic acid polyurthene ceramic paint.

### ◆ Code

Z	Actuator	H	Structure	Nominal pressure	Body material	Nominal size
Z series control valve	J: pneumatic diaphragm actuator H: pneumatic piston actuator R: electric 3810L actuator D: electric PSL actuator	H direct travel	M: standard sleeve type MF: soft sealing sleeve ML: Single level cage type MT: Two level cage type MG: sleeve type control valve with radiator MV: sleeve type with bellow seal MD: low temperature sleeve type	PN16=16 CL150LB=150 LB JIS10K=10K	C=WCB LC=LCB P=CF8 PL=CF3 R=CF8M RL=CF3M D=special material	DN25= DN252 NPS1" = NPS 1"

Such as: Z type pneumatic diaphragm sleeve type control valve, pressure PN16, valve body WCB, nominal size DN50, type: ZJHM-16C DN50

## ◆ Performance

Flow characteristic		Linear, percentage, quick open	
Allowable range		50: 1	
Rated Cv value		Percentage CV10~1400 , linear CV11~1500	
Allowable leakage		Metal seal: II grade (0.5% rated capacity) soft seal: V grade	
Performance		Pneumatic	Electric
	Allowable tolerance, %	±1.5	±1.0
	Return difference, %	≤1.5	≤1.0
	Dead zone, %	≤0.6	≤1.0
	Difference from beginning to end point, %	±2.5	±2.5
	Rated travel difference, %	≤2.5	≤2.5

Note: specification on the basis of control valve with positioned and PTFE packing.

## ◆ Special specification

Special test	Material penetration flow detection (PT), radiator test (RT), flow characteristic test, low temperature test.
Special treatment	Trim nitrogen treatment, seat hard alloy treatment.
Special rinse	Degreasing and dehydration treatment
Special condition	Special piping or connection, vacuum condition, S.S fastener, special coating.
Special dimension	Customized face to face length or dimension
Test and inspection	Third party test report

## ◆ Actuator

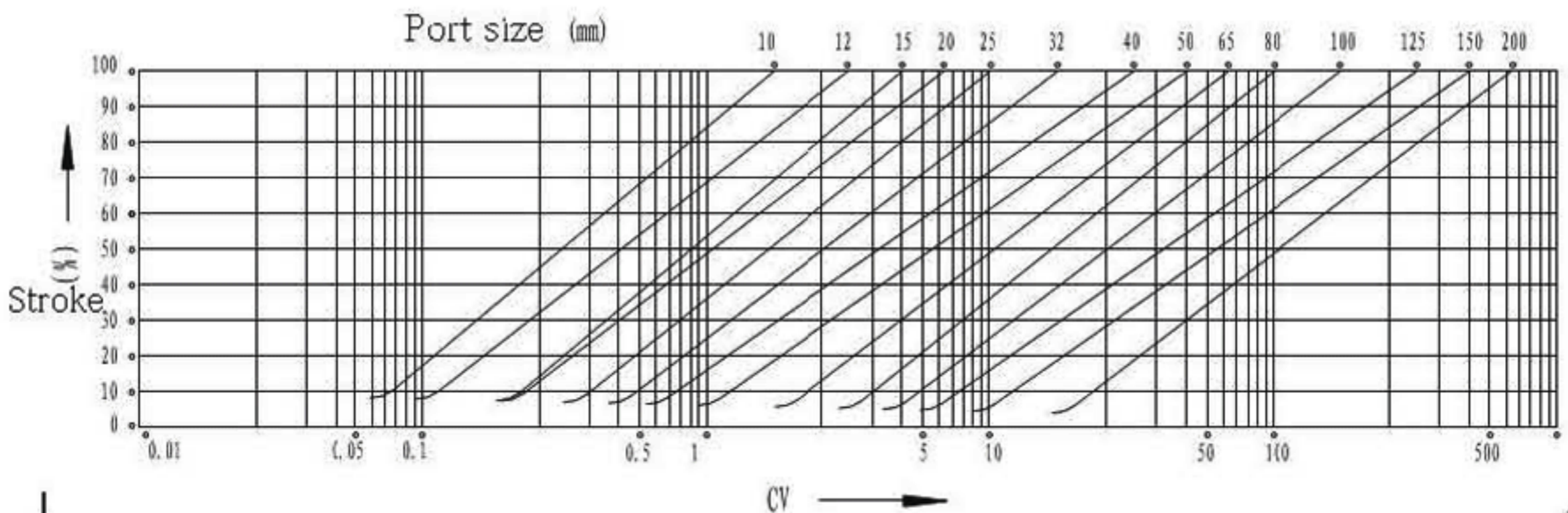
Type	Pneumatic diaphragm actuator	Electric actuator
	Method	ZH23~ZH56
	Multi-spring type	Intelligent integrated type
Usage	Regulating type, ON-OFF type	Regulating
Air supply pressure or Power supply voltage	Air supply pressure (Spring range) 140 (20~100) Kpa G 240 (40~200) Kpa G 280 (80~240) Kpa G	Power: AC 200V±10% 50Hz Or Power: AC 380V±10% 50Hz
Connector	Air pipe connector: RC1/4	Normal type: cable inlet 2-PF(G1/2" ) Explosive proof type: can install protection jacket PF(G3/4" )
Positive action	Pressure increase, stem descend, valve close.	Input signal increase, stem descend, valve close.
Negative action	Pressure increase, stem ascend, valve open.	Input signal increase, stem ascend, valve open.
Input signal	40~20mA.DC (with positioner)	Input/output 4~20mA.DC
Lag	≤1%FS (with positioner)	≤0.8%FS
Linear type	2%FS (with positioner)	≤±1%FS
Environmental temperature	-10°C~+70°C	Standard type: -10°C~+60°C With space heater: -35°C~+60°C Explosive proof: -10°C~+40°C
Surface coating	Green, acrylic acid polyurethane coating	Blue, acrylic acid polyurethane coating
Accessories	E/P, P/P valve positioned, filter regulator, valve converter, solenoid valve, limited switch	Space heater (normal type)

Note: non-standard type should have special action.

## ◆ Parameter

Seat diameter (mm)		25	32	40	50	65	80	100	125	150	200	250	300
Rated Cv	Percentage	10	16	25	40	63	100	160	250	400	630	1000	1400
	Linear	11	17.6	27.5	44	69	110	176	275	440	690	1100	1500
Nominal size	Travel	Option flow coefficient, Cv (★standard ●recommended ○customized)											
DN25	16 mm	★											
DN32	25 mm	○	★										
DN40		○	●	★									
DN50		○	●	●	★								
DN65	40mm		○	○	○	★							
DN80			○	○	○	●	★						
DN100			○	○	○	●	●	★					
DN125	60mm					○	○	○	★				
DN150							○	○	●	★			
DN200								○	○	●	●	★	
DN250	100mm							○	○	●	●	★	
DN300										○	●	●	★
Pneumatic actuator, Diaphragm effective area, Ae (cm <sup>2</sup> )		ZHA/B-23			ZHA/B-34			ZHA/B-45			ZHA/B-56		
		350			560			900			1600		
Action	Spring range	Metal seal allowable pressure difference (MPa)											
Air to open	20-100KPa	3	2.25	2.25	1.95	2.36	2.04	1.67	1.41	1.41	1.14	0.65	0.55
	40-200 KPa	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	1.55	1.4
	80-240 KPa	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	4.08	4.08
Air to close	20-100KPa	1.5	1.13	1.13	0.98	1.18	1.02	0.84	0.71	0.71	0.57	0.65	0.55
	40-200 KPa	4.5	3.38	3.38	2.93	3.54	3.06	2.51	2.12	2.12	1.71	1.8	1.55
	80-240 KPa	6.4	6.4	6.4	6.4	6.4	6.4	5.85	4.94	4.94	4	4.08	3.65
Electric actuator		Metal seal allowable max. pressure difference (MPa)											
Type	Thrust (N)												
3810L-08	800	6.4	6.4										
3810L-20	2000	6.4	6.4	6.4	5.1								
3810L-30	3000	6.4	6.4	6.4	6.4	5.7	4.76						
3810L-50	5000			6.4	6.4	6.4	6.4	6.25					
3810L-65	6500							6.4	6.4	4.23	3.23		
3810L-99	10000									6.4	6.1	3.31	2.07
3810L-160	16000											6	4

## ◆ IEC standard equal percentage flow characteristic diagram



## ◆ Material and working temperature

Table 3: Body, bonnet material working temperature & pressure range (ANSI)

Temp °C	Class150					Class300					Class600				
	SCPL 1 LCB	SCPH 2 WCB	SCPH2 1 WC6	SCS13 A CF8	SCS14 A CF8M	SCPL 1 LCB	SCPH 2 WCB	SCPH2 1 WC6	SCS13 A CF8	SCS14 A CF8M	SCPL 1 LCB	SCPH 2 WCB	SCPH2 1 WC6	SCS13 A CF8	SCS14 A CF8M
-196~38	-	-	-	1.90	1.90	-	-	-	4.95	4.95	-	-	-	9.91	9.92
-45~38	1.84	-	-	1.90	1.90	4.78	-	-	4.95	4.95	9.57	-	-	9.91	9.92
-5~38	1.84	1.96	1.99	1.90	1.90	4.78	5.10	5.16	4.95	4.95	9.57	10.02	10.32	9.91	9.92
50	1.81	1.92	1.92	1.84	1.84	4.72	5.00	5.10	4.77	4.80	9.46	10.01	10.22	9.56	9.62
100	1.72	1.76	1.76	1.56	1.56	4.51	4.63	4.88	4.08	4.21	9.02	9.27	9.74	8.17	8.43
150	1.57	1.57	1.57	1.39	1.39	4.40	4.51	4.63	3.62	3.85	8.78	9.04	9.26	7.26	7.69
200	1.40	1.40	1.40	1.25	1.25	4.26	4.38	4.54	3.27	3.56	8.54	8.75	9.06	6.54	7.12
250	1.20	1.20	1.20	1.16	1.16	4.05	4.16	4.44	3.04	3.34	8.11	8.33	8.88	6.10	6.67
300	1.01	1.01	1.01	1.01	1.01	3.76	3.87	4.23	2.91	3.15	7.54	7.74	8.48	5.80	6.32
350	0.84	0.84	0.84	0.84	0.84	3.59	3.69	4.01	2.81	3.03	7.18	7.38	8.04	5.60	6.07
375		0.73	0.73	0.73	0.73		3.64	3.88	2.77	2.96		7.28	7.75	5.54	5.93
400		0.64	0.64	0.64	0.64		3.44	3.65	2.74	2.91		6.89	7.31	5.48	5.81
425		0.55	0.55	0.55	0.55		2.88	3.50	2.71	2.87		5.74	7.01	5.42	5.72
450		0.47	0.47	0.47	0.47		1.99	3.38	2.68	2.81		4.00	6.75	5.37	5.61
475		0.37	0.37	0.37	0.37		1.35	3.16	2.65	2.73		2.70	6.32	5.30	5.46
500		0.28	0.28	0.28	0.28		0.88	2.77	2.60	2.67		1.75	5.55	5.20	5.37
525		0.18	0.18	0.18	0.18		0.51	2.02	2.19	2.57		1.03	4.04	4.77	5.15
538		0.13	0.15	0.15	0.15		0.34	1.63	2.18	2.53		0.72	3.26	4.55	5.06

Table 4: Body, bonnet material working temperature and pressure range (GB)

Temperatu re °C	PN16					PN25					PN40					PN100				
	LC B	WC B	WC 6	CF 8	CF8 M	LC B	WC B	WC 6	CF 8	CF8 M	LC B	WC B	WC 6	CF 8	CF8 M	LC B	WC B	WC 6	CF 8	CF8 M
-29~38	1.5	1.6	1.6	1.5	1.5	2.4	2.5	2.5	2.4	2.4	3.9	4.1	4.1	4.0	3.9	9.0	9.6	9.6	9.3	9.3
93	1.4	1.4	1.4	1.4	1.3	2.2	2.3	2.3	2.1	2.0	3.8	3.7	4.0	3.3	3.4	8.4	8.5	9.6	7.7	8.0
149	1.3	1.3	1.3	1.3	1.2	2.1	2.1	2.1	1.9	1.9	3.7	3.6	3.8	3.0	3.1	8.3	8.3	9.3	7.0	7.2
204	1.1	1.1	1.1	1.1	1.1	1.9	1.9	1.9	1.7	1.7	3.5	3.4	3.7	2.8	2.8	8.0	8.2	8.9	6.4	6.6
260	0.8	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.5	1.6	3.3	3.2	3.5	2.6	2.6	7.5	7.7	8.5	6.0	6.1
315	0.7	0.8	0.8	0.8	0.8	1.4	1.4	1.5	1.3	1.3	3.0	2.8	3.1	2.3	2.4	6.9	7.1	7.8	5.6	5.8
343	0.6	0.7	0.7	0.7	0.7	1.3	1.3	1.4	1.2	1.2	2.9	2.7	3.0	2.3	2.3	6.7	7.0	7.5	5.5	5.7
371	0.5	0.6	0.6	0.6	0.6	1.2	1.2	1.3	1.1	1.1	2.8	2.7	2.9	2.2	2.2	6.6	7.0	7.3	5.5	5.6
399	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.2	1.0	1.0	2.5	2.6	2.7	2.1	2.2	6.0	6.5	6.9	5.3	5.5
427	0.5	0.5	0.5	0.5	0.5	0.9	1.0	1.1	0.9	0.9	2.1	2.1	2.6	2.0	2.1	5.0	5.3	6.5	5.1	5.5
454	0.4	0.4	0.3	0.4	0.4	0.7	0.7	1.0	0.8	0.8	1.5	1.4	2.4	2.0	2.0	3.4	3.4	6.2	5.0	5.4
482		0.3	0.3	0.3	0.3		0.5	0.7	0.7	0.7		0.9	2.1	1.9	1.9		2.2	5.8	5.0	5.3
510		0.2	0.2	0.2	0.2		0.3	0.5	0.6	0.6		0.5	1.5	1.8	1.8		1.3	4.1	4.9	4.9
538		0.1	0.1	0.1	0.1		0.1	0.3	0.4	0.4		0.3	1.0	1.5	1.6		0.6	2.7	4.1	4.5
565			0.1	0.1	0.1			0.2	0.3	0.4			0.7	1.4	1.6			1.8	3.9	4.5
593			0.1	0.1	0.1			0.1	0.3	0.4			0.4	1.2	1.4			1.2	3.3	3.9

Note: 1. Temperature or pressure value in the middle range, can calculate the max. value by interpolation method.

2. Pressure in the table is all manometer pressure.

Table 6: Metal seal material working temperature, pressure range and treatment

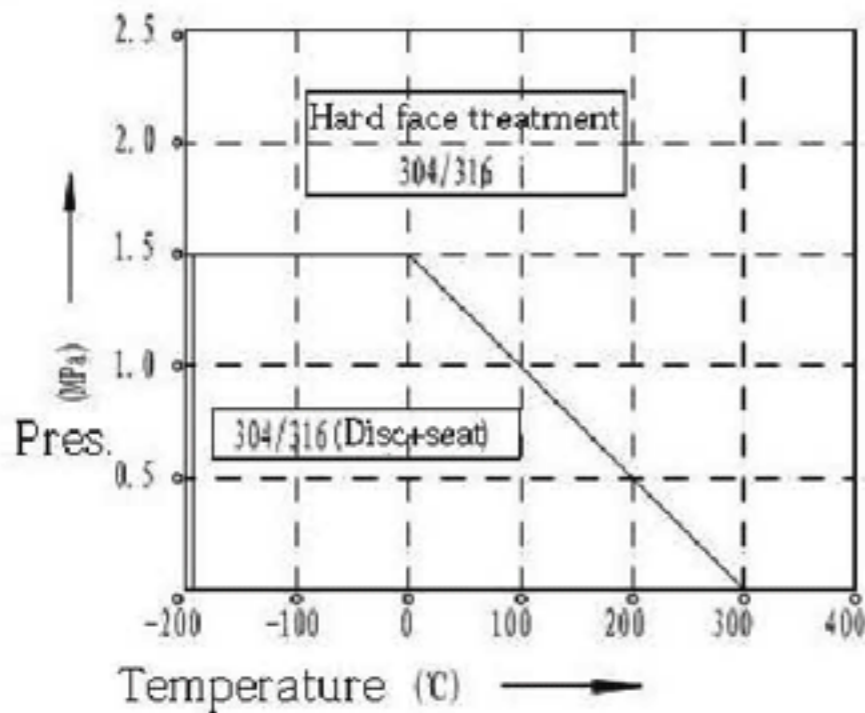


Table 7: Soft seal material working temperature, pressure range and treatment

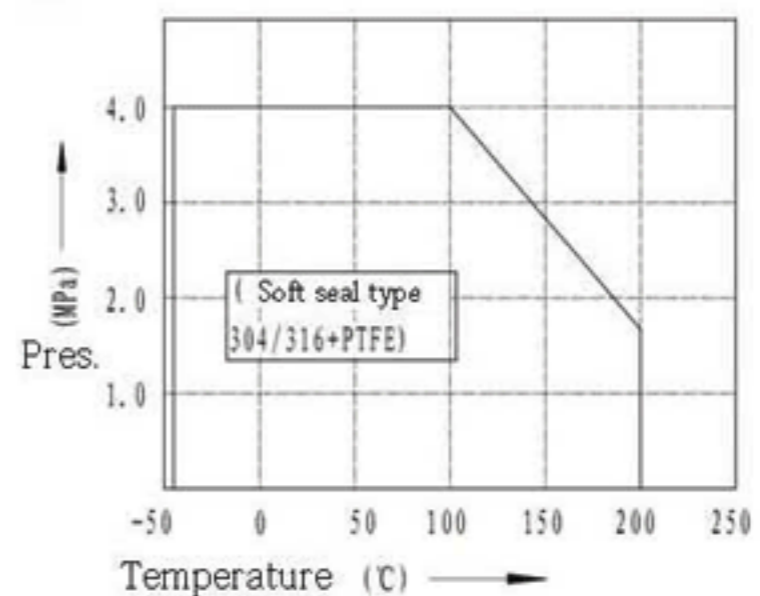


Table 8: RPTFE packing temperature and pressure range

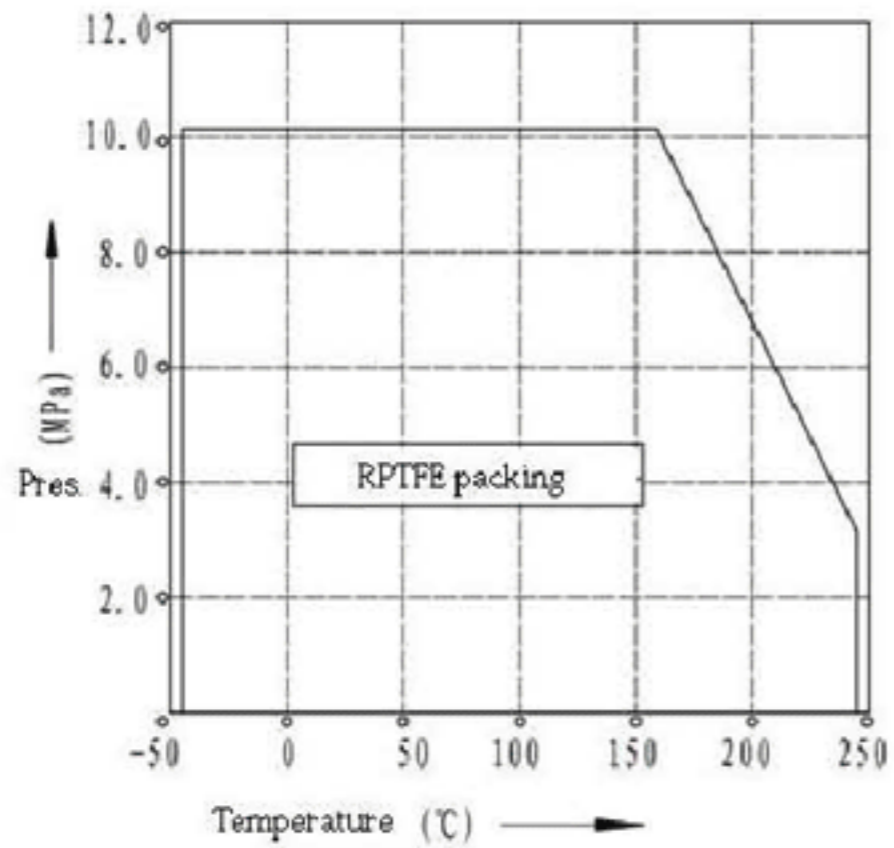


Table 9: Flex. Graphite packing temperature and pressure range.

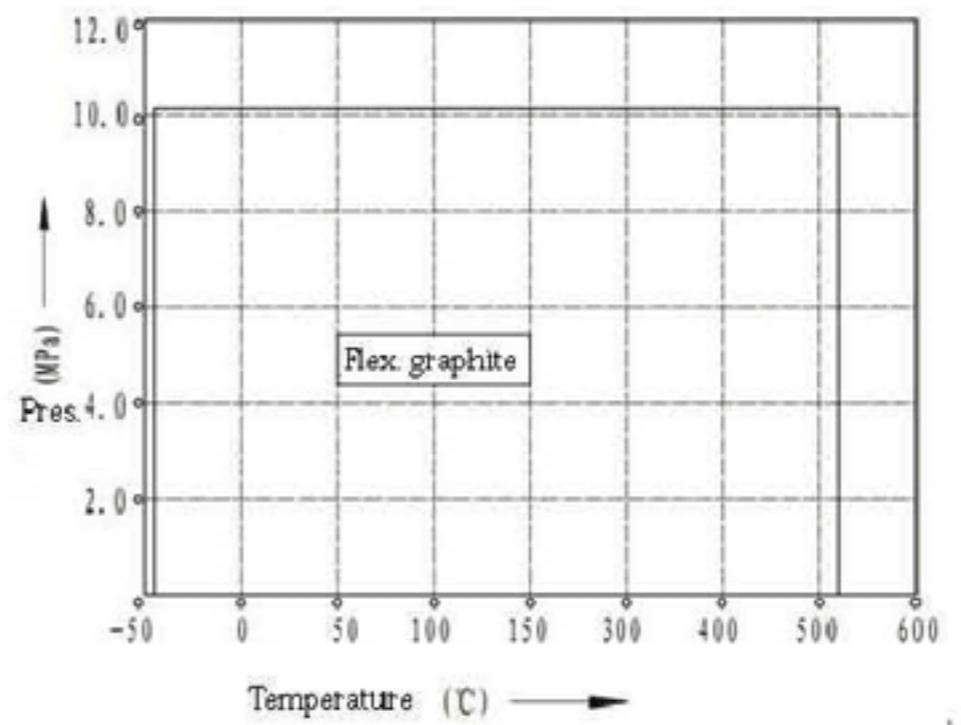


Table 10: Sawtooth gasket SUS316L, alloy steel temperature and pressure range

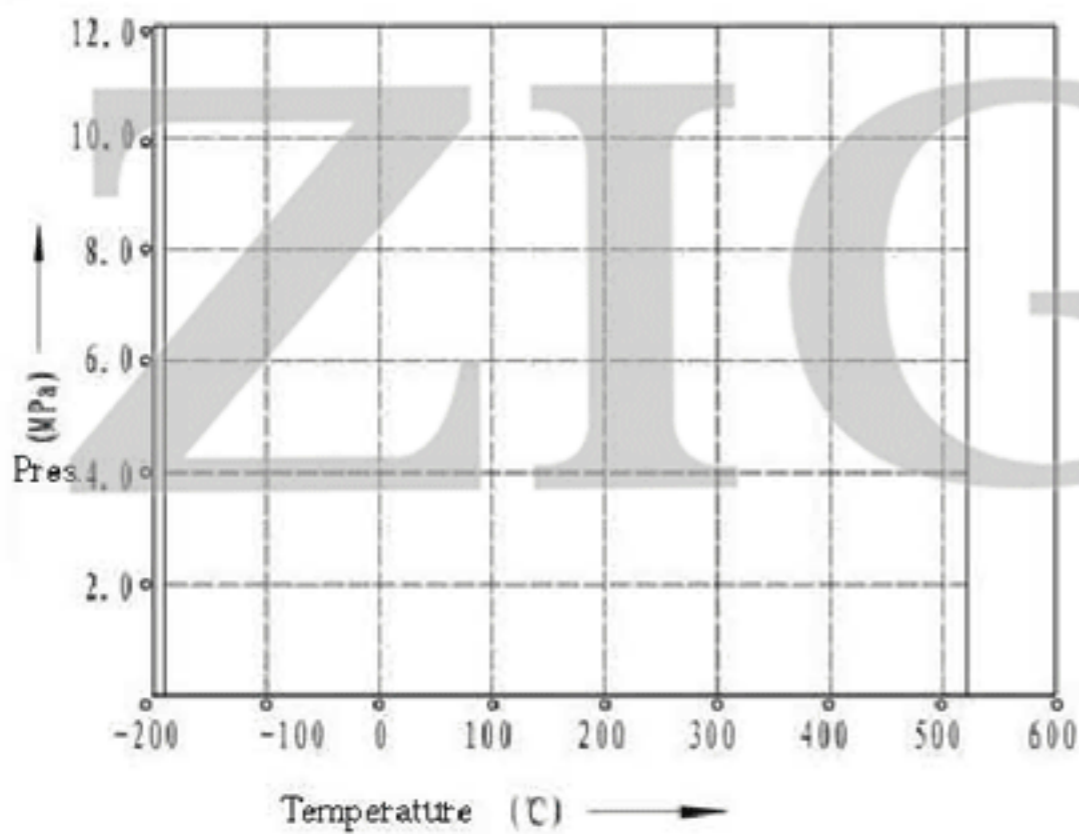


Table 11: Spiral gasket SUS316+ flex. graphite packing temperature and pressure range

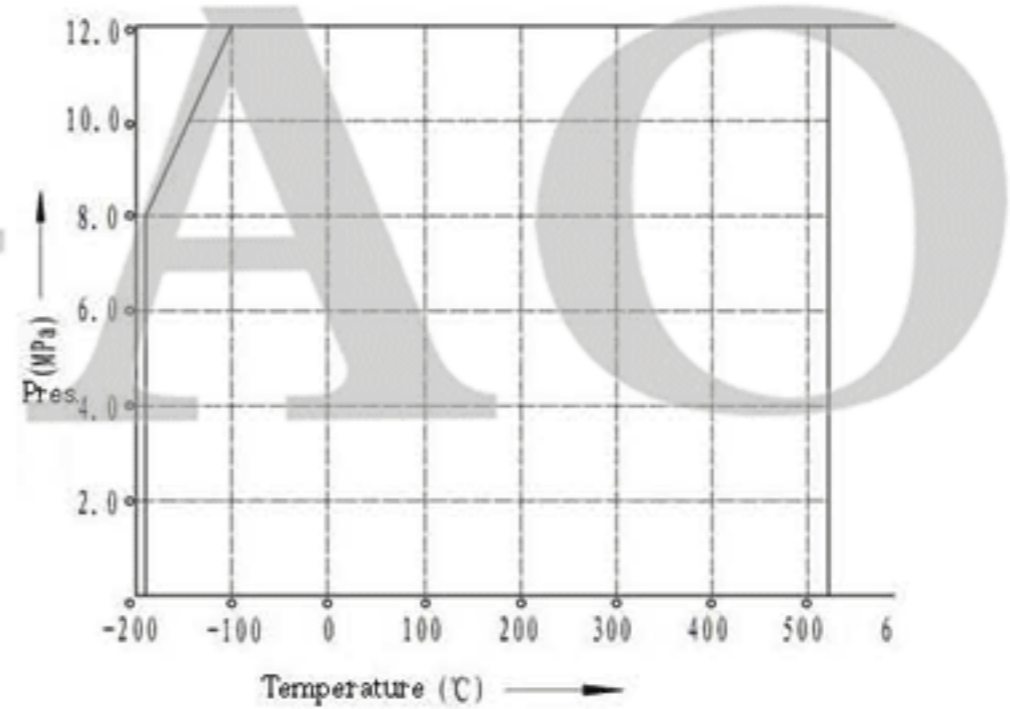


Table 12: Bellow seal working temperature and pressure range

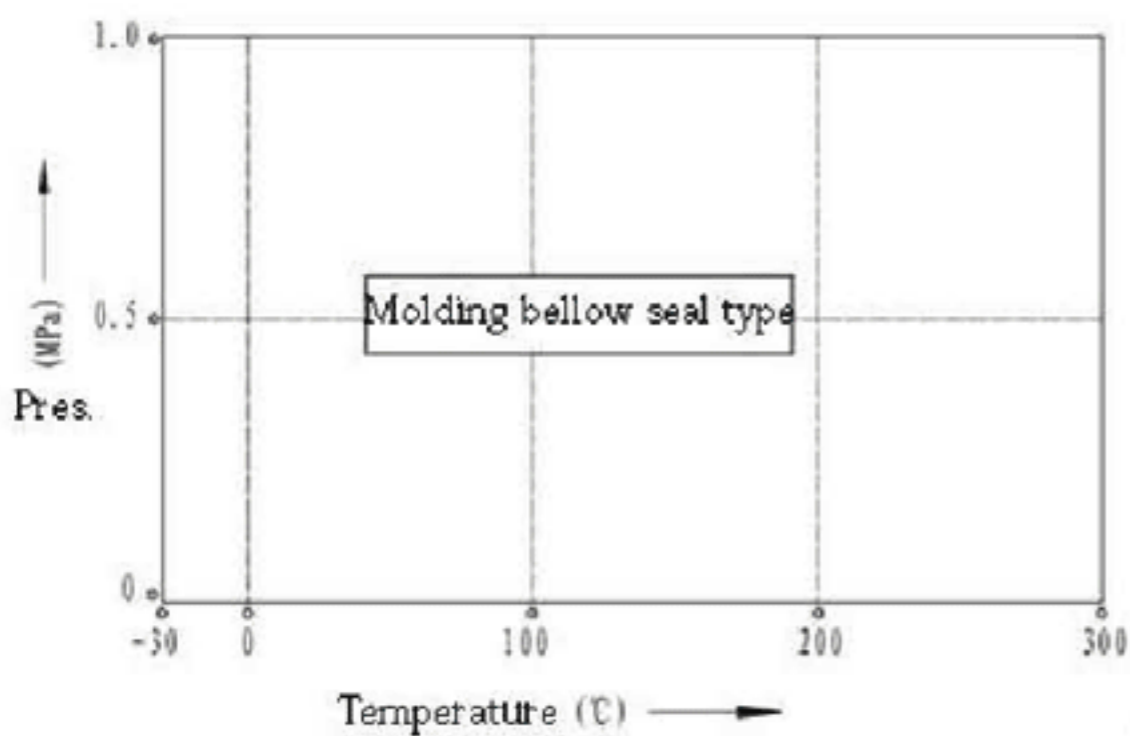
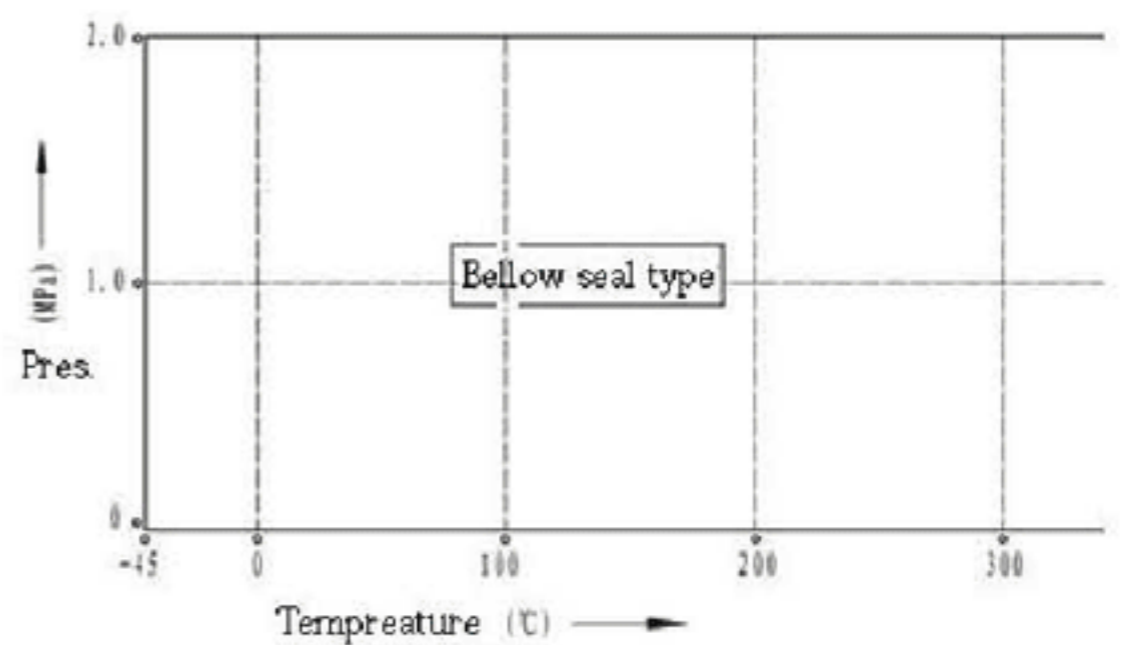


Table 13: Welded bellow sealed working temperature and pressure range.



## ◆ Material and Internal structure

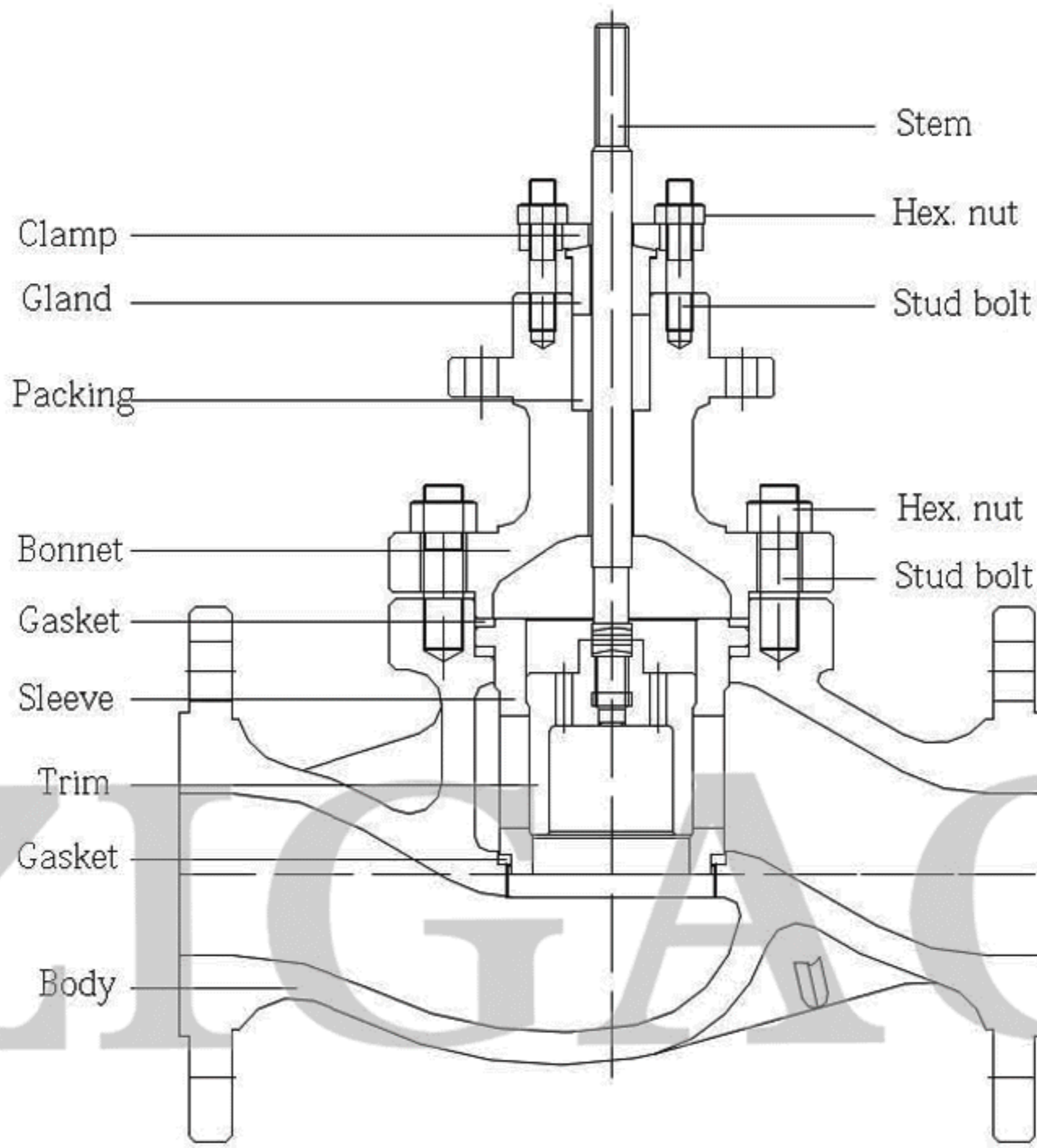


Table 1: Body WCB

1	Body	WCB	LCB	WC9
2	Spool	304	304	304
3	Gasket	316+ graphite /PTFE		
4	Bushing	304	304	304
5	Bonnet	WCB	LCB	WC9
6	Packing	PTFE/ flex. graphite		
7	Packing bushing	304	304	304
8	Gland	WCB	WCB	WCB
9	Stem	304	304	304
10	Stud	45	40MnB	25Cr2Mo1VA
12	Nut	35	35	25Cr2Mo1VA

Table 2 Body: S.S

1	Body	CF8	CF8M	CF3M
2	Spool	304	316	316L
3	Gasket	316+ graphite /PTFE		
4	Bushing	304	316	316L
5	Bonnet	CF8	CF8M	CF3M
6	Packing	PTFE/ flex. graphite		
7	Packing bushing	304	316	316L
8	Gland	CF8	CF8M	CF3M
9	Stem	304	316	316L
10	Stud	304	316	316L
12	Nut	304	316	316L

### Note:

1. Above structure, seat is metal sealing, PTFE soft sealing is VI grade as option. Also can provide stillate hard sealing. As per actual working temperature, we may choose proper bolt & nut accordingly.
2. PTFE V type stem packing is with graphite, the working temperature can be higher than 232°C (450 F)
3. The common body material is WCB and S.S, can apply with other high corrosion resistance alloy material.

◆ Valve structure in variety occasion

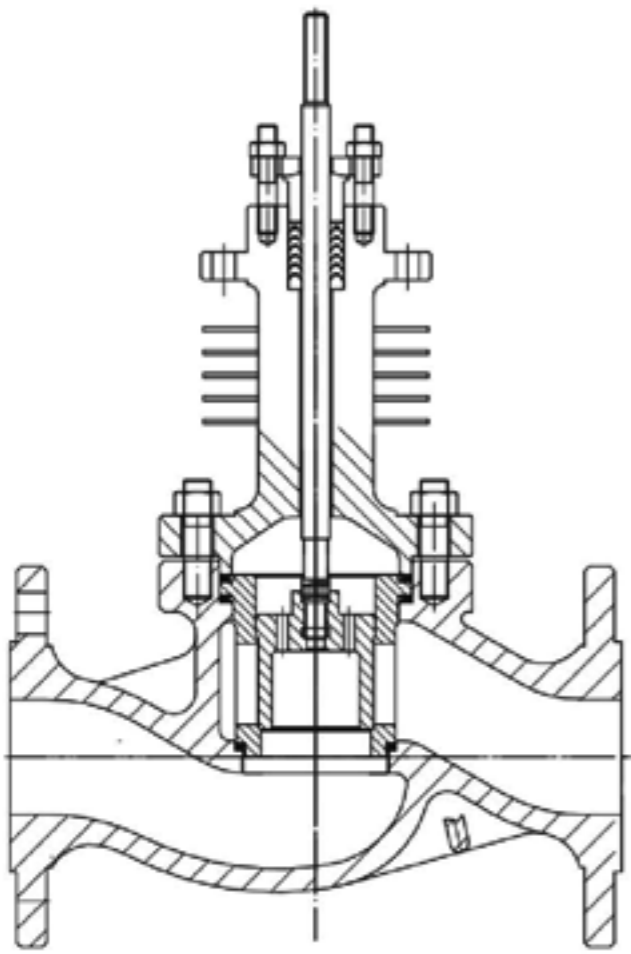


Table 1: MG type radiator sleeve control valve, applicable for temperature  $-45^{\circ}\text{C}$ ~higher than  $230^{\circ}\text{C}$  occasion.

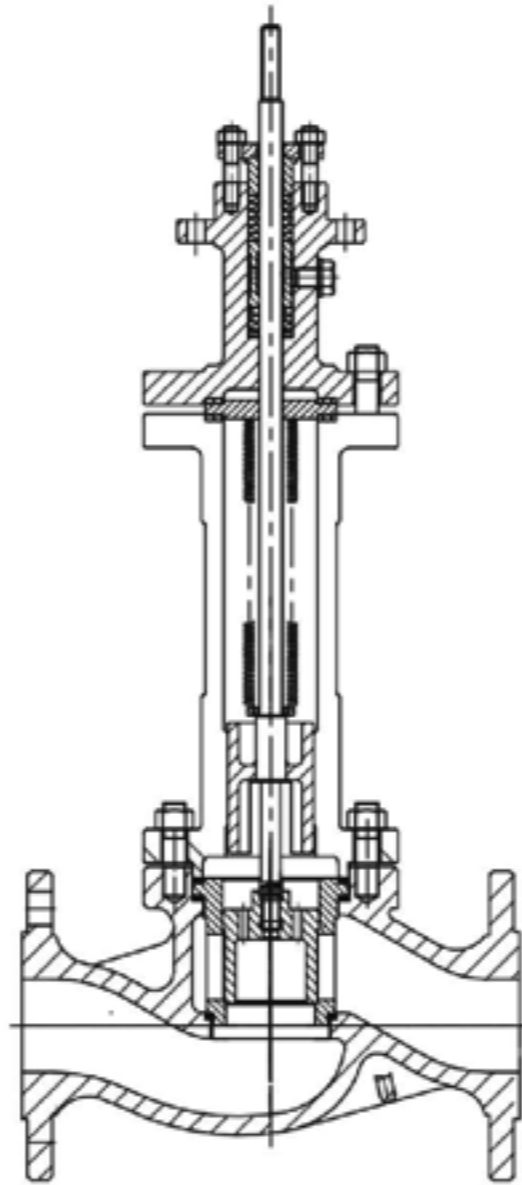


Table 2: MV type bellow sealed sleeve control valve. Applicable for multistage bellow seal, well protected medium against loss.

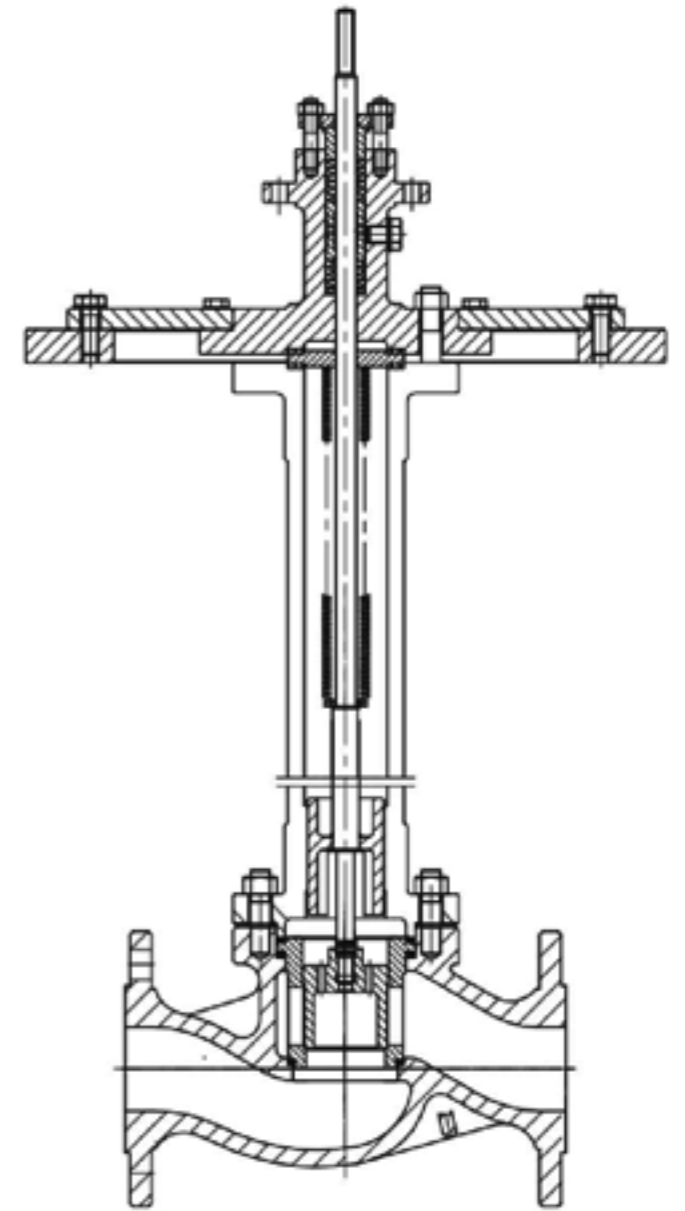


Table 3: MD type low temperature warm insulation sleeve control valve, spool integrated external suction structure, convenient and easy for maintenance.

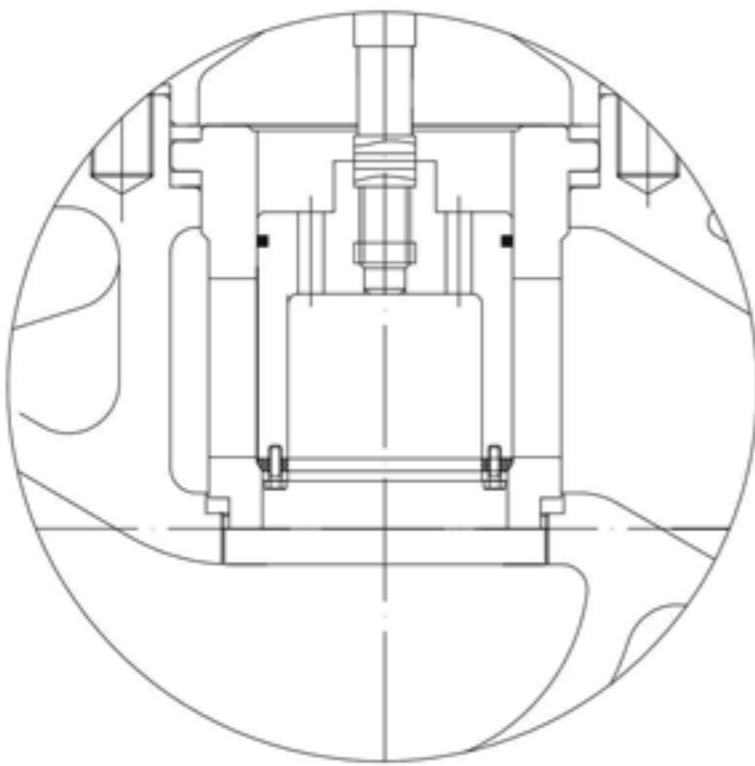


Table 4: MF soft sealing sleeve control valve, applicable for V grade sealing requirement.

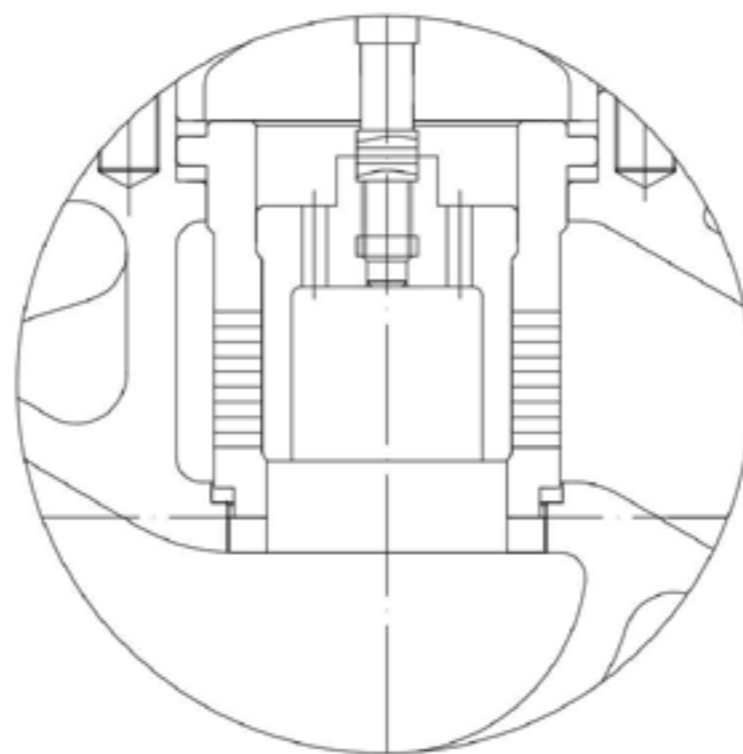


Table 5: ML type single sleeve control valve, unique symmetrical multi-pore disc, more efficiently controlling noisy and cavitation.

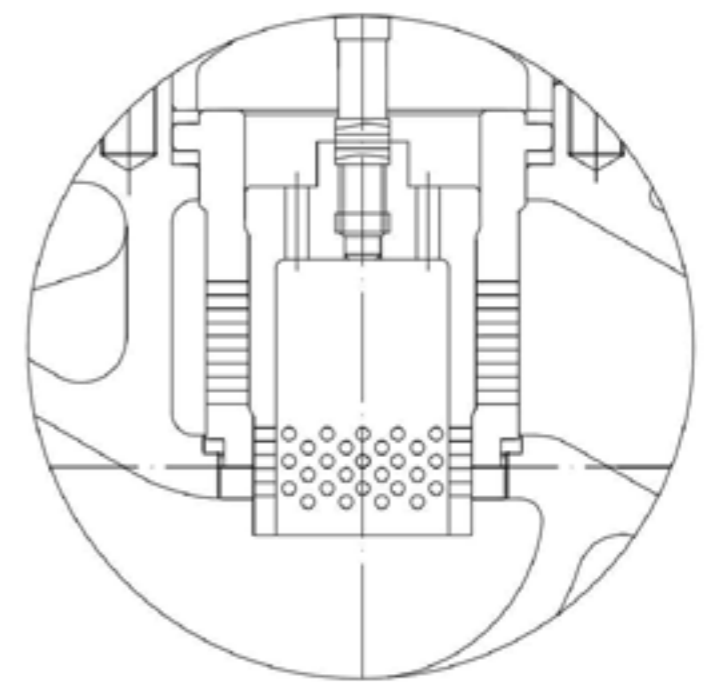
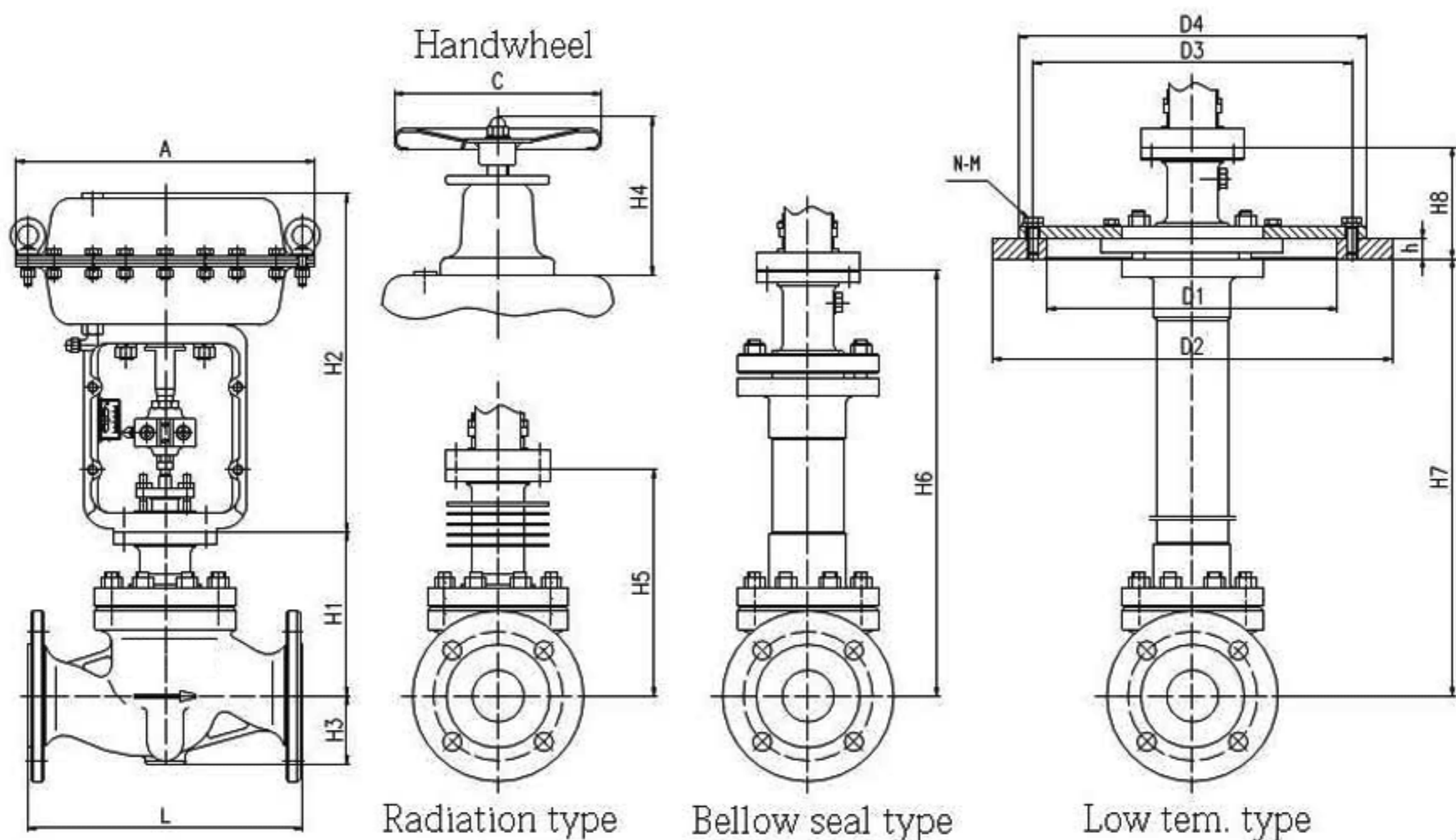


Table 6: MT type two-layer sleeve control valve, symmetrical multi-pore disc reducing pressure gradually, applicable for high pressure difference noisy and cavitation.

## ◆ Main out form dimension and weight

Table 5: PN16、CL150LB Pneumatic sleeve type control valve dimension and weight



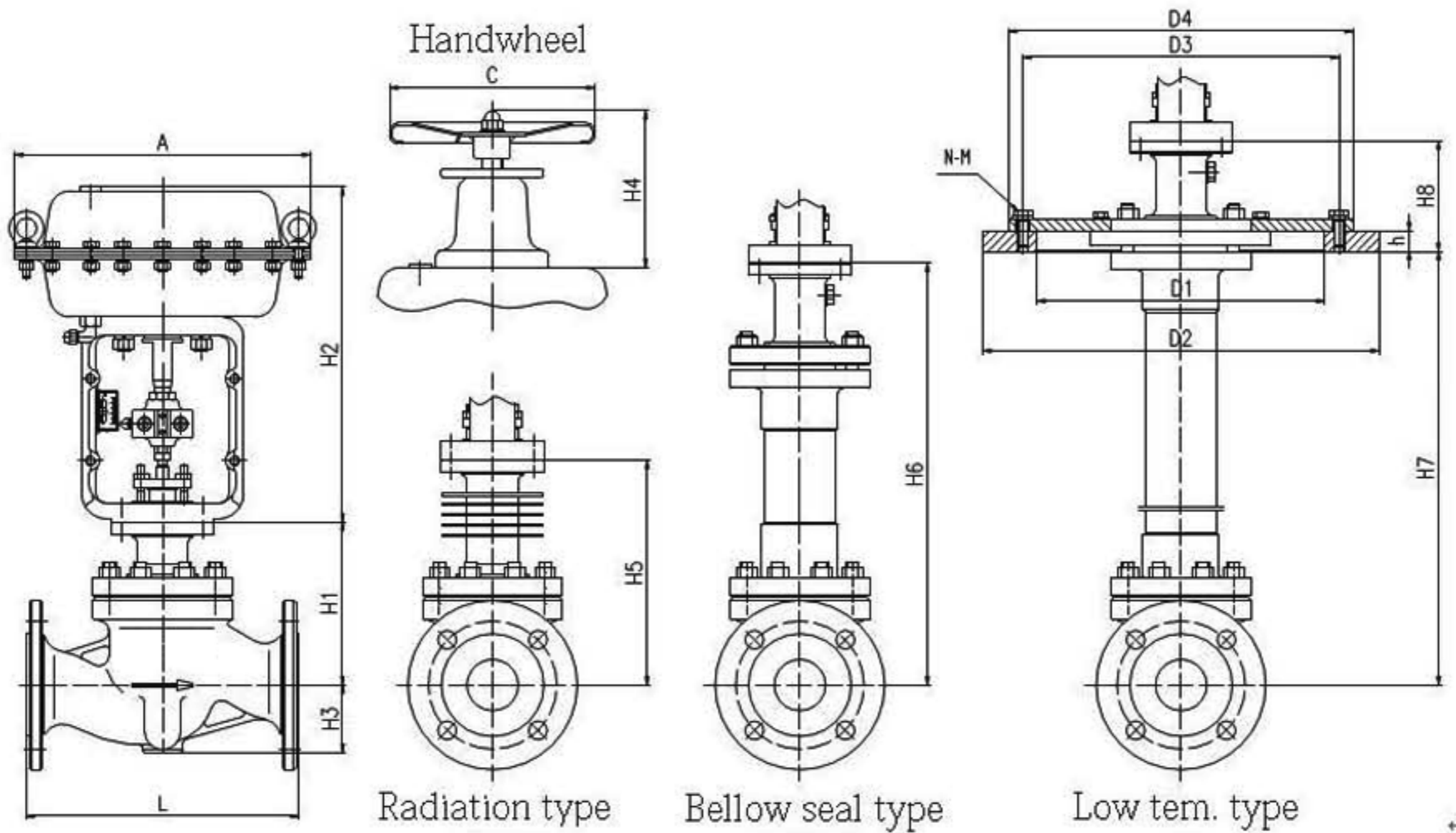
DN Size	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	184	200	222	254	276	298	352	420	451	600
C	200	200	200	200	240	240	240	350	350	350
A	285	285	288	288	365	365	365	475	475	475
H1	137	148	152	159	218	230	238	264	331	346
H2	303	303	323	323	417	417	417	520	520	520
H3	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	153	153	153	153	181	181	181	247	247	247
H5	208	224	228	228	334	334	342	408	453	482
H6	338	402	402	405	627	628	635	698	702	728
H7	700 (Customized)									
H8	88	88	88	88	94	94	94	110	110	110
h	15	15	15	15	18	18	18	20	20	20
D1	230	250	270	305	342	375	430	490	556	665
D2	310	335	355	390	430	465	520	585	660	770
D3	260	285	305	340	370	405	460	525	580	700
D4	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	22	24	32	38	62	67	83	132	160	245

※ Weight in the table did not include the accessory weight. Valve can install side handwheel.

With continous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 6: PN25/40、CL300LB Pneumatic sleeve type control valve dimension and weight



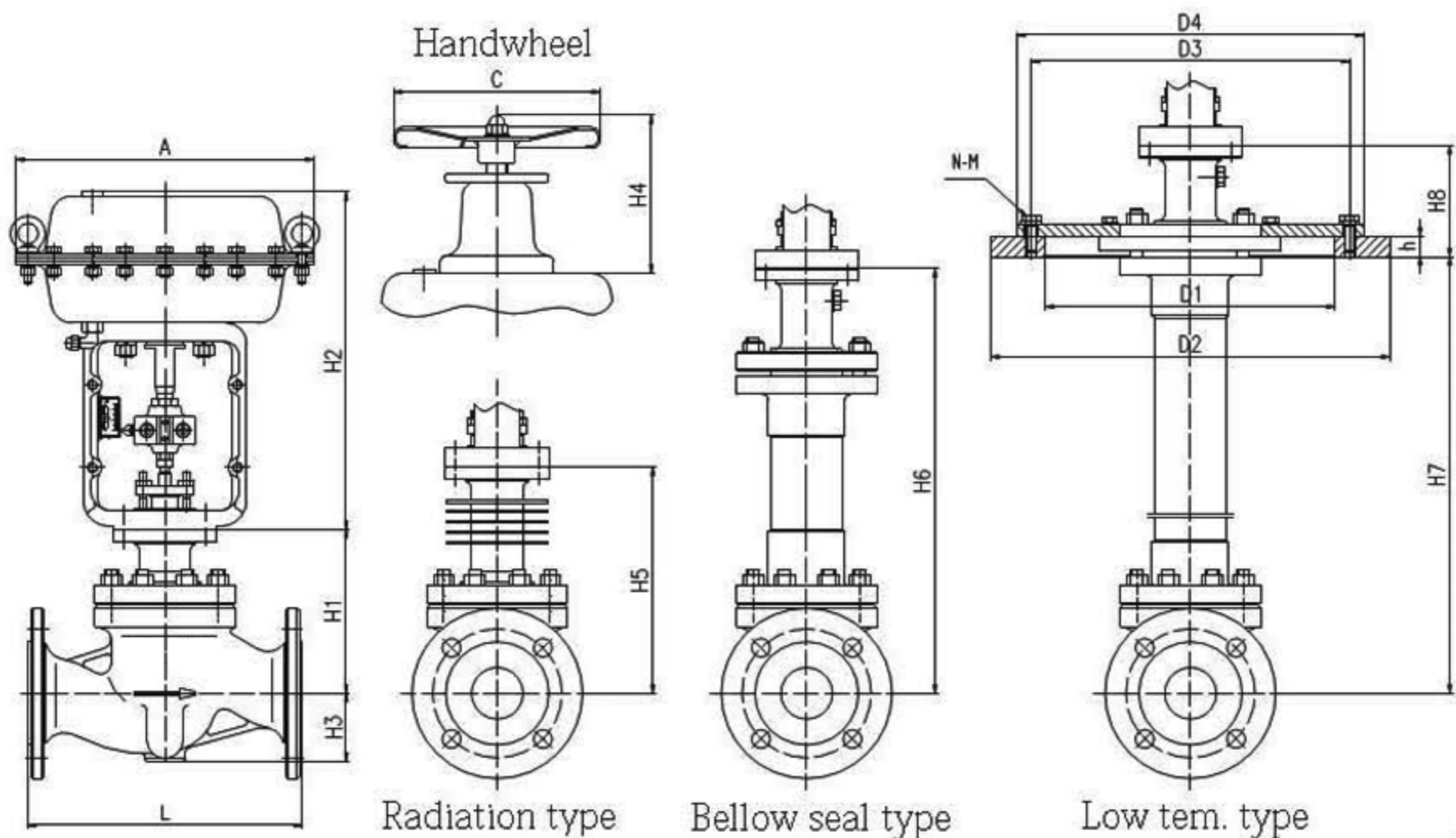


DN Size	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	197	200	235	267	292	317	368	420	473	600
C	200	200	200	200	240	240	240	350	350	350
A	285	285	288	288	365	365	365	475	475	475
H1	137	148	152	159	218	230	238	264	331	346
H2	303	303	323	323	417	417	417	520	520	520
H3	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	153	153	153	153	181	181	181	247	247	247
H5	208	224	228	228	334	334	342	408	453	482
H6	338	402	402	405	627	628	635	698	702	728
H7	700 (Customized)									
H8	88	88	88	88	94	94	94	110	110	110
h	15	15	15	15	18	18	18	20	20	20
D1	230	250	270	305	342	375	430	490	556	665
D2	310	335	355	390	430	465	520	585	660	770
D3	260	285	305	340	370	405	460	525	580	700
D4	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	24	26	35	42	67	74	89	134	166	255

※ Weight in the table did not include the accessory weight. Valve can install side handwheel.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 7: PN63/100、CL600LB Pneumatic sleeve type control valve dimension and weight

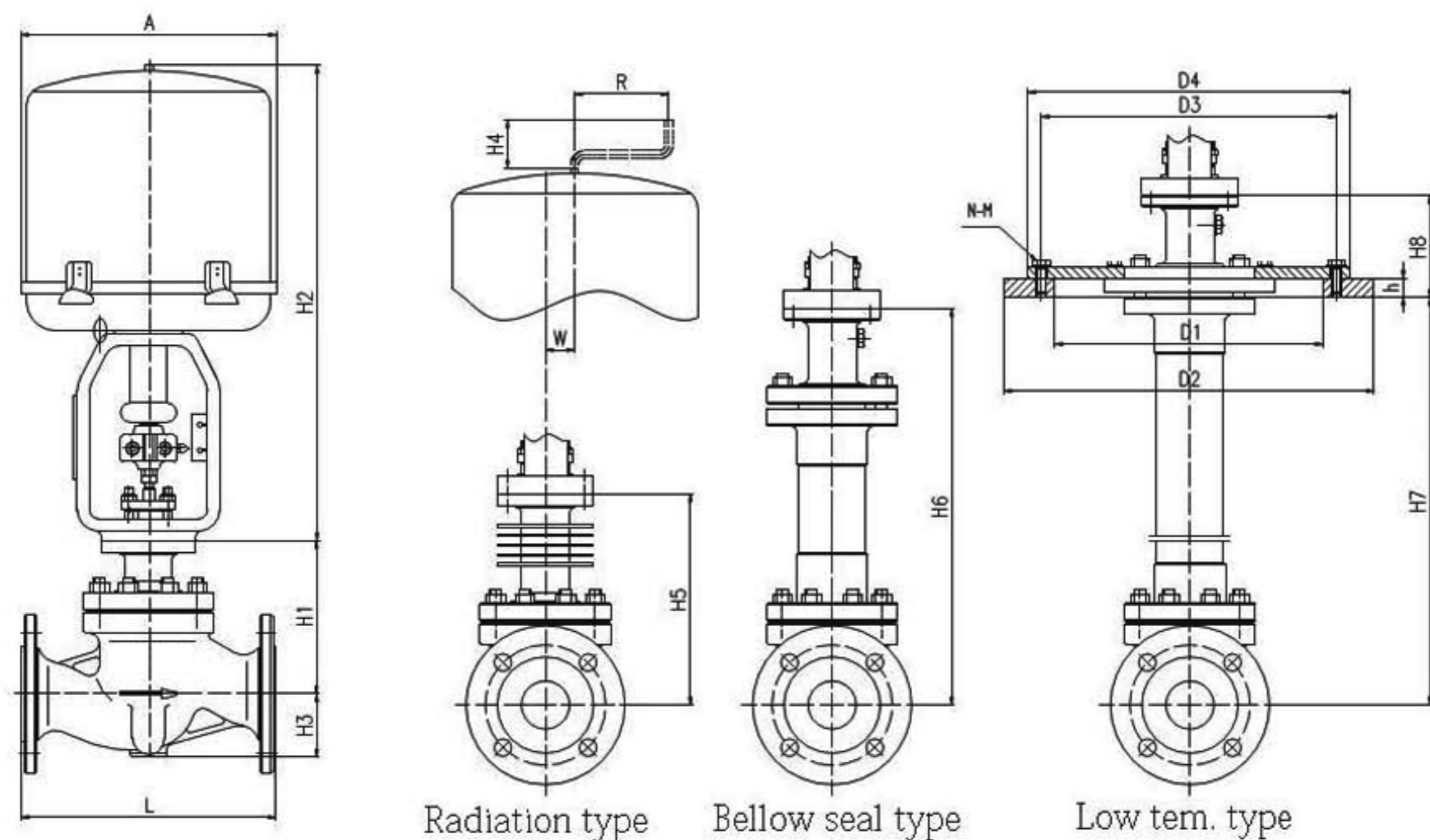


DN	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Size	1"	1 1/4"	1 1/2"	2"	1 1/2"	3"	4"	5"	6"	8"
L	210	251	251	286	311	337	394	500	508	650
C	200	200	200	200	240	240	240	350	350	350
A	285	285	288	288	365	365	365	475	475	475
H1	137	148	152	159	218	230	238	264	331	346
H2	303	303	323	323	417	417	417	520	520	520
H3	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	153	153	153	153	181	181	181	247	247	247
H5	220	240	240	240	350	350	360	420	470	500
H6	338	402	402	405	627	628	635	698	702	728
H7	700 (Customized)									
H8	88	88	88	88	94	94	94	110	110	110
h	15	15	18	18	18	20	20	20	20	20
D1	270	305	342	375	430	490	556	665	665	765
D2	355	390	430	465	520	585	600	770	770	850
D3	305	340	370	405	460	525	690	700	700	805
D4	335	370	400	435	490	555	630	740	740	845
N-M	8-M14	10-M14	10-M14	10-M14	12-M16	14-M16	18-M16	18-M16	18-M16	18-M16
Weight, Kg	25	30	42	52	78	82	102	170	190	285

※ Weight in the table did not include the accessory weight. Valve can install side handwheel.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 8: PN16、CL150LB Electric sleeve type control valve dimension and weight

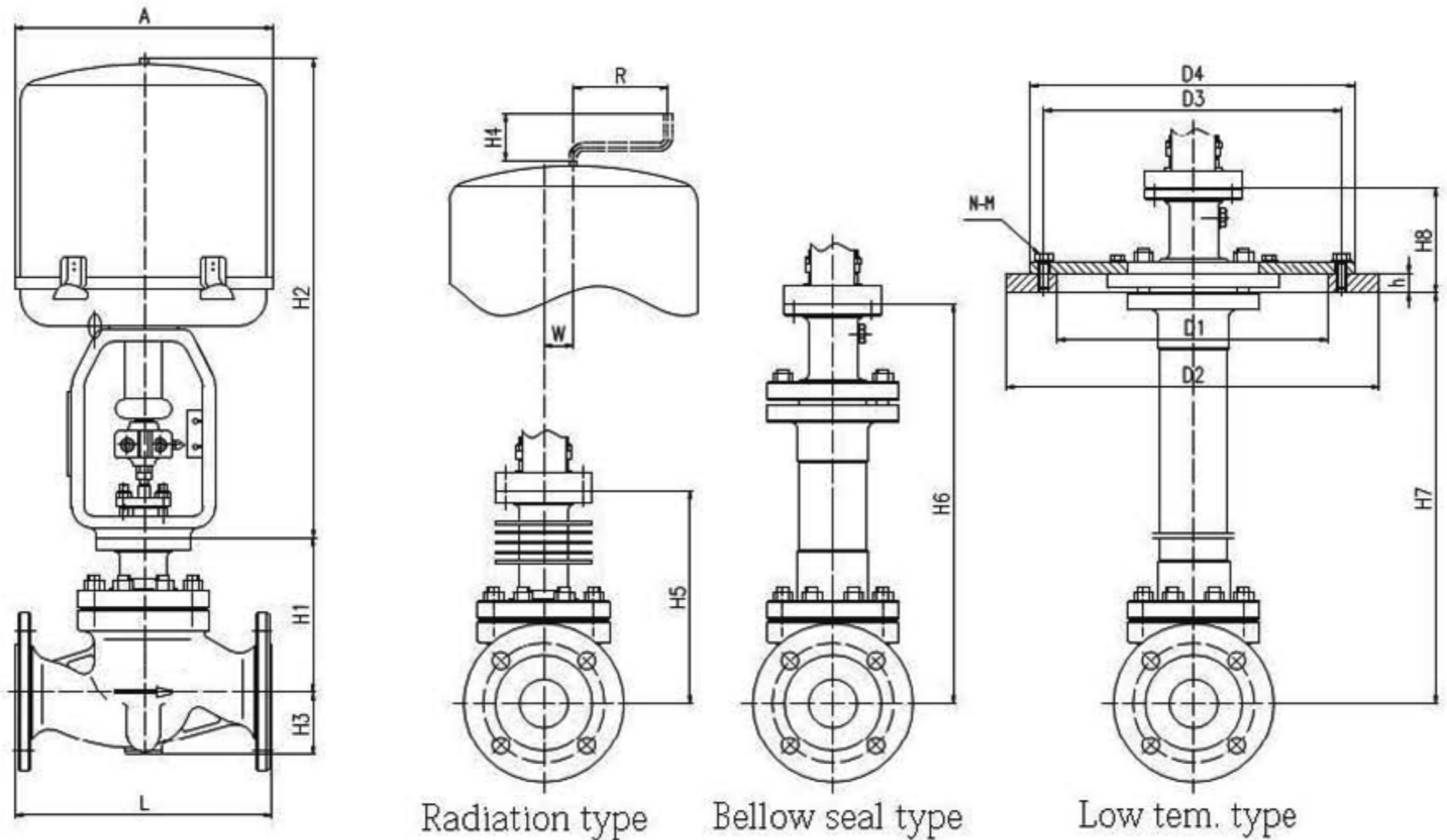


DN Size	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	184	200	222	254	276	298	352	420	451	600
A	225	255	255	255	255	255	255	310	310	310
H1	137	148	152	159	218	230	238	264	331	346
H2	373	495	495	495	535	535	535	725	725	725
H3	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	87	90	90	90	90	90	90	90	90	90
H5	208	224	228	228	334	334	342	408	453	482
H6	338	402	402	405	627	628	635	698	702	728
H7	700 ( Customized )									
H8	88	88	88	88	94	94	94	110	110	110
W	28	45	45	45	45	45	45	60	60	60
R	80	100	100	100	100	100	100	160	160	160
h	15	15	15	15	18	18	18	20	20	20
D1	230	250	270	305	342	375	430	490	556	665
D2	310	335	355	390	430	465	520	585	660	770
D3	260	285	305	340	370	405	460	525	580	700
D4	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	17	24	32	38	52	57	73	136	164	249

※ Weight in the table did not include the accessory weight. Applicable with 3810L type actuator.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 9: PN25/40、CL300LB Electric sleeve type control valve dimension and weight

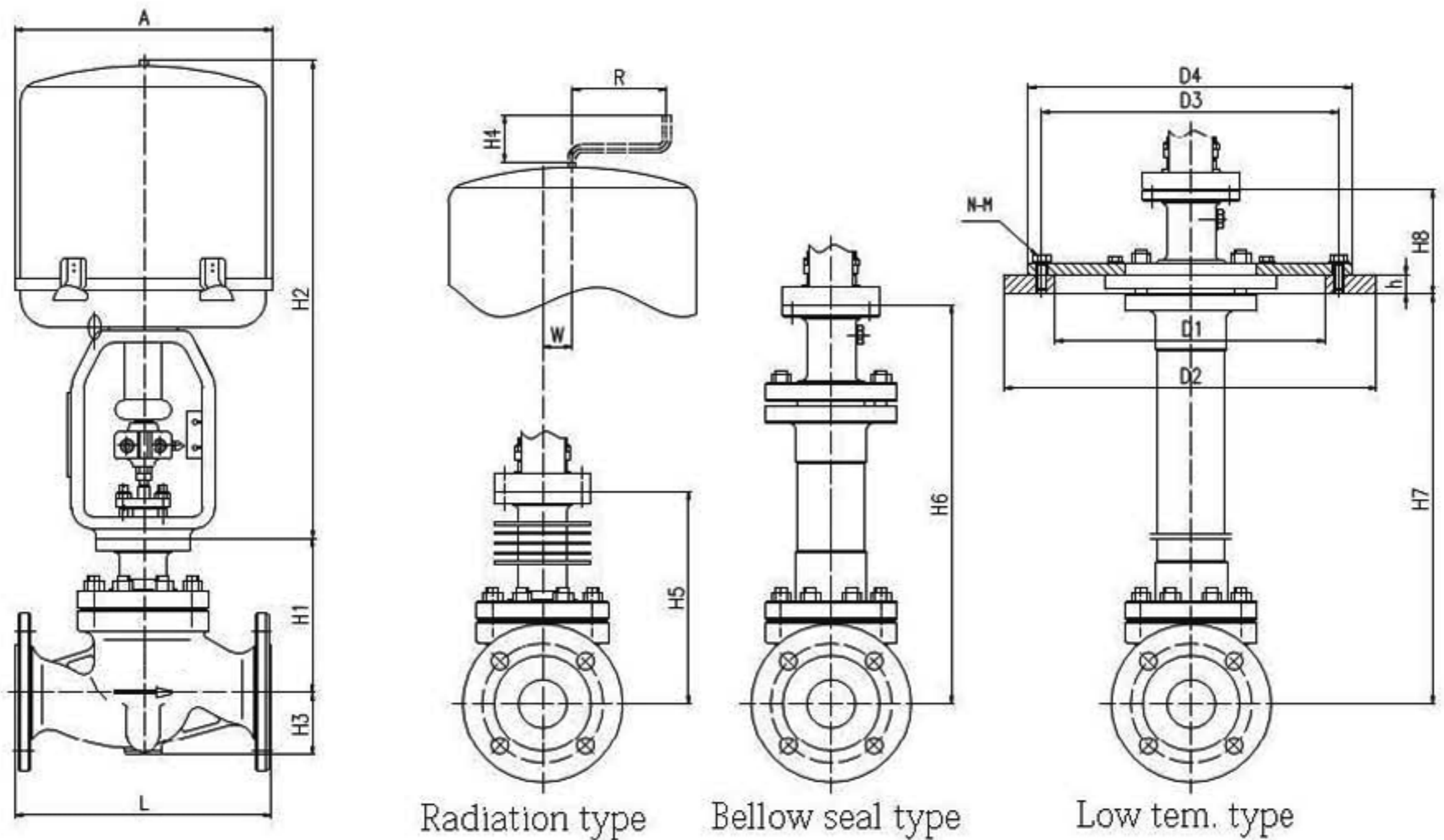


DN Size	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	197	200	235	267	292	317	368	420	473	600
A	225	255	255	255	255	255	255	310	310	310
H1	137	148	152	159	218	230	238	264	331	346
H2	373	495	495	495	535	535	535	725	725	725
H3	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	87	90	90	90	90	90	90	90	90	90
H5	208	224	228	228	334	334	342	408	453	482
H6	338	402	402	405	627	628	635	698	702	728
H7	700 (Customized)									
H8	88	88	88	88	94	94	94	110	110	110
W	28	45	45	45	45	45	45	60	60	60
R	80	100	100	100	100	100	100	160	160	160
h	15	15	15	15	18	18	18	20	20	20
D1	230	250	270	305	342	375	430	490	556	665
D2	310	335	355	390	430	465	520	585	660	770
D3	260	285	305	340	370	405	460	525	580	700
D4	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	19	26	35	42	57	64	79	144	150	259

※ Weight in the table did not include the accessory weight. Applicable with 3810L type actuator.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 10: PN64/100、CL600LB Electric sleeve type control valve dimension and weight



DN Size	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	210	251	251	286	311	337	394	500	508	650
A	225	255	255	255	255	255	255	310	310	310
H1	137	148	152	159	218	230	238	264	331	346
H2	373	495	495	495	535	535	535	725	725	725
H3	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	87	90	90	90	90	90	90	90	90	90
H5	220	240	240	240	350	350	360	420	470	500
H6	338	402	402	405	627	628	635	698	702	728
H7	700 (Customized)									
H8	88	88	88	88	94	94	94	110	110	110
W	28	45	45	45	45	45	45	60	60	60
R	80	100	100	100	100	100	100	160	160	160
h	15	15	18	18	18	20	20	20	20	20
D1	270	305	342	375	430	490	556	665	665	765
D2	355	390	430	465	520	585	600	770	770	850
D3	305	340	370	405	460	525	690	700	700	805
D4	335	370	400	435	490	555	630	740	740	845
N-M	8-M14	10-M14	10-M14	10-M14	12-M16	14-M16	18-M16	18-M16	18-M16	18-M16
Weight, Kg	20	30	42	52	68	72	92	174	194	289

※ Weight in the table did not include the accessory weight. Applicable with 3810L type actuator.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.



## ZH series linear actuator control valve

# ZHP type Single Seat Series

ZHP type single seat control valve is a kind of top pilot single seat valve, which has simple structure, well sealing, high flow rate and stable application performance. Reasonable top spiral system can avoid vibration during small opening percentage, so as to extend valve working life.

### ◆ Specification



- Body type: straight through casting globe type
- Spool type: non-balanced single seat plug type
- Nominal size: DN20~200 NPS 3/4" ~ 8"
- Nominal pressure: PN16 ~ 100 CLASS 150LB ~ 600LB
- Connection: flange: FF、RF、MF、RTJ
- Welding: SW、BW
- Flange dimension: acc. to IEC 60534
- Bonnet type: standard type (-5°C~230°C)、
- Radiator type: (-45°C~ high than 230°C occasion)、
- Low temperature extended type (-196°C~ -45°C)、
- Bellow seal type
- Warm insulation Jacket type
- Packing: V type PTFE packing, flex. graphite packing, etc.
- Gasket: Metal graphite packing
- Actuator: pneumatic: multi-spring diaphragm actuator, piston type actuator.
- electric: 3810L series smart actuator, PSL series actuator.
- Surface painting: Green color, acrylic acid polyurthene ceramic paint.

### ◆ Code

Z	Actuator	H	Structure	Nominal pressure	Body material	Nominal size
Z series control valve	J: pneumatic diaphragm actuator H: pneumatic piston actuator R: electric 3810L actuator D: electric PSL actuator	Hdirect travel	P: standard single seat PF: soft sealing single seat PL: single seat cage type PG: radiator single seat type PV: bellow seal single seat PD: low temperature single seat	PN16=16 CL150LB=150 LB JIS10K=10K	C=WCB LC=LCB P=CF8 PL=CF3 R=CF8M RL=CF3M D=special material	DN25= DN25 NPS1 =NPS1"

Such as: Z type pneumatic diaphragm single seat control valve, PN16, body: WCB, nominal size: DN50, type: ZJHP-16C DN50

## ◆ Performance

Flow characteristic	Linear, percentage, quick open		
Allowable range	50: 1 (CV<6.3 30: 1)		
Rated Cv value	Percentage CV1.6~630 , linear CV1.8~690		
Allowable leakage	Metal seal: IV grade (0.01% rated capacity) Soft seal: VI grade (foam grade) Leakage standard: GB/T 4213		
Performance		Pneumatic	Electric
	Intrinsic error %	±1.5	±1.0
	Return difference, %	≤1.5	≤1.0
	Dead zone, %	≤0.6	≤1.0
	Difference from beginning to end point, %	±2.5	±2.5
	Rated travel difference, %	≤2.5	≤2.5

Note: specification on the basis of control valve with positioner and PTFE packing.

## ◆ Special specification

Special test	Material penetration flaw detection (PT), radiator test (RT), flow characteristic test, low temperature test.
Special treatment	Trim nitrogen treatment, seat hard alloy treatment.
Special rinse	Degreasing and dehydration treatment
Special condition	Special piping or connection, vacuum condition, S.S fastener, special coating.
Special dimension	Customized face to face length or dimension
Test and inspection	Third party test report

## ◆ Actuator

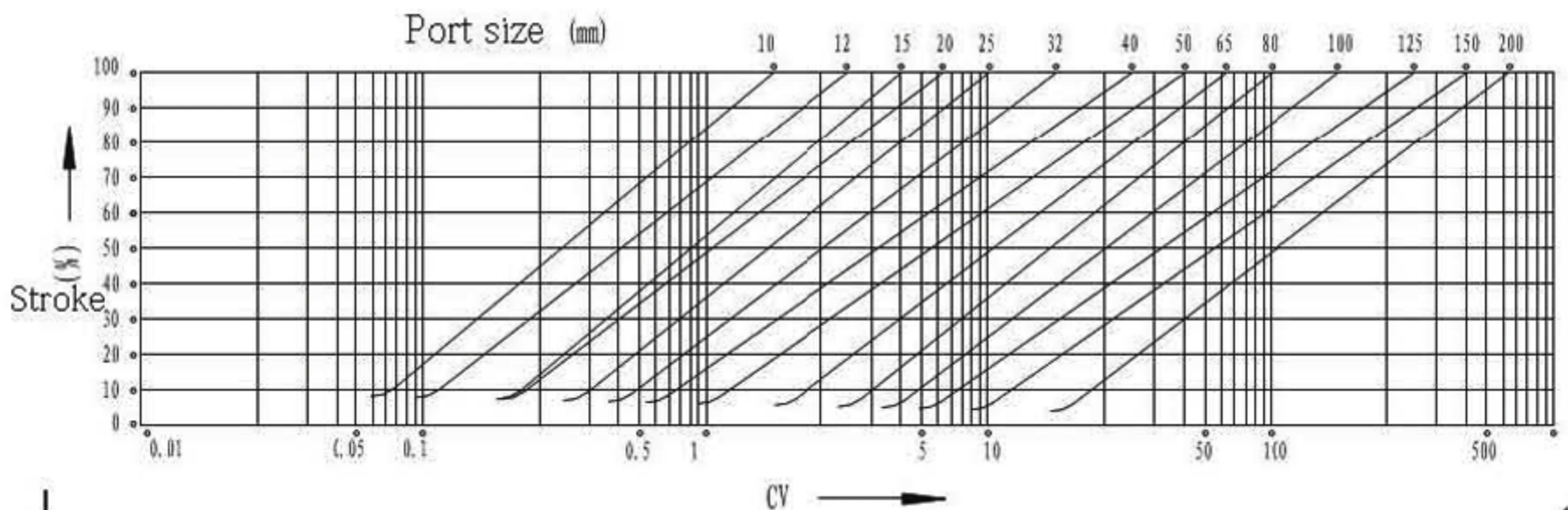
Method	Type	Pneumatic diaphragm actuator	Electric actuator
			ZH23~ZH56
		Multi-spring type	Intelligent integrated type
Usage		Regulating type, ON-OFF type	Regulating
Air supply pressure or Power supply voltage		Air supply pressure (Spring range) 140 (20~100) Kpa G 240 (40~200) Kpa G 280 (80~240) Kpa G	Power: AC 200V±10% 50Hz Or Power: AC 380V±10% 50Hz⊕
Connector		Air pipe connector: RC1/4	Normal type: cable inlet 2-PF(G1/2" ) Explosive proof: Protection jacket PF(G3/4" )
Direct action		Pressure increase, stem descend, valve close.	Input signal increase, stem descend, valve close.
Reaction		Pressure increase, stem ascend, valve open.	Input signal increase, stem ascend, valve open.
Input signal		40~20mA.DC (with positioner)	Input/output 4~20mA.DC
Lag		≤1%FS (with positioner)	≤0.8%FS
Linear type		2%FS (with positioner)	≤+1%FS
Environmental temperature		-10℃~+70℃	Standard type: -10℃~+60℃ With space heater⊕: -35℃~+60℃ Explosive proof: -10℃~+40℃
Surface coating		Green, acrylic acid polyurethane coating	Blue, acrylic acid polyurethane coating
Accessories		E/P, P/P valve positioner, filter regulator, valve converter, solenoid valve, limited switch	Space heater (normal type)

Note ⊕: non-standard accessories, need special customized notes.

## ◆ Parameter

Seat diameter (mm)		10	12	15	20	25	32	40	50	65	80	100	125	150	200		
Rated Cv	Percentage	1.6	2.5	4.0	6.3	10	16	25	40	63	100	160	250	400	630		
	Linear	1.8	2.8	4.4	6.9	11	17.6	27.5	44	69	110	176	275	440	690		
Nom. size	Travel	Option flow characteristic Cv. (★standard ●recommended ○customized)															
DN20	16mm	●	●	●	★												
DN25		●	●	●	●	★											
DN32	25 mm	○	○	○	○	○	★										
DN40			○	○	○	○	●	★									
DN50				○	○	○	●	●	★								
DN65	40mm						○	○	○	★							
DN80							○	○	○	●	★						
DN100							○	○	○	●	●	★					
DN125	60mm									○	○	○	★				
DN150										○	○	○	●	★			
DN200											○	○	○	●	●	★	
Pneumatic actuator		ZHA/B-22				ZHA/B-23				ZHA/B-34				ZHA/B-45			
Diaphragm area, A <sub>e</sub> (cm <sup>2</sup> )		350				350				560				900			
Action	Spring range	Metal sealing allowable pressure difference (MPa)															
Air open	20-100KPa	4.46	3.09	1.98	1.16	0.7	0.44	0.28	0.18	0.17	0.11	0.07	0.07	0.05	0.03		
	40-200 KPa	6.4	6.4	5.94	3.34	2.14	1.31	0.84	0.53	0.51	0.33	0.21	0.22	0.15	0.09		
	80-240 KPa	6.4	6.4	6.4	6.4	4.99	3.05	1.95	1.25	1.18	0.78	0.5	0.51	0.36	0.21		
Air close	20-100KPa	6.4	6.19	3.96	2.23	2.14	0.87	0.56	0.35	0.34	0.22	0.14	0.15	0.1	0.06		
	40-200 KPa	6.4	6.4	6.4	6.4	6.4	5.86	3.64	2.3	2.21	1.43	0.91	0.95	0.66	0.37		
	80-240 KPa	6.4	6.4	6.4	6.4	6.4	6.4	5.04	3.18	3.06	1.98	1.26	1.32	0.92	0.52		
Electric actuator		Metal sealing max. allowable pressure difference (MPa)															
Type	Thrust (N)																
3810L-08	800	6.4	5.5	3.5	2.38												
3810L-20	2000	6.4	6.4	6.4	4.77	3.05	1.86	1.19	0.76								
3810L-30	3000						2.79	1.79	1.14								
3810L-50	5000						4.66	2.98	1.91	1.13	0.6	0.47					
3810L-65	6500									1.35	0.8	0.57	0.39	0.26	0.16		
3810L-99	10000												0.61	0.42	0.20		
3810L-160	16000												0.97	0.67	0.35		

## ◆ IEC standard equal percentage flow characteristic diagram





## ◆ Material and working temperature

Table 3: body and bonnet material working temperature and pressure range (ANSI)

Temp °C	Class150					Class300					Class600				
	SCPL 1 LCB	SCPH 2 WCB	SCPH2 1 WC6	SCS13 A CF8	SCS14 A CF8M	SCPL 1 LCB	SCPH 2 WCB	SCPH2 1 WC6	SCS13 A CF8	SCS14 A CF8M	SCPL 1 LCB	SCPH 2 WCB	SCPH2 1 WC6	SCS13 A CF8	SCS14 A CF8M
-196~38	-	-	-	1.90	1.90	-	-	-	4.95	4.95	-	-	-	9.91	9.92
-45~38	1.84	-	-	1.90	1.90	4.78	-	-	4.95	4.95	9.57	-	-	9.91	9.92
-5~38	1.84	1.96	1.99	1.90	1.90	4.78	5.10	5.16	4.95	4.95	9.57	10.02	10.32	9.91	9.92
50	1.81	1.92	1.92	1.84	1.84	4.72	5.00	5.10	4.77	4.80	9.46	10.01	10.22	9.56	9.62
100	1.72	1.76	1.76	1.56	1.56	4.51	4.63	4.88	4.08	4.21	9.02	9.27	9.74	8.17	8.43
150	1.57	1.57	1.57	1.39	1.39	4.40	4.51	4.63	3.62	3.85	8.78	9.04	9.26	7.26	7.69
200	1.40	1.40	1.40	1.25	1.25	4.26	4.38	4.54	3.27	3.56	8.54	8.75	9.06	6.54	7.12
250	1.20	1.20	1.20	1.16	1.16	4.05	4.16	4.44	3.04	3.34	8.11	8.33	8.88	6.10	6.67
300	1.01	1.01	1.01	1.01	1.01	3.76	3.87	4.23	2.91	3.15	7.54	7.74	8.48	5.80	6.32
350	0.84	0.84	0.84	0.84	0.84	3.59	3.69	4.01	2.81	3.03	7.18	7.38	8.04	5.60	6.07
375		0.73	0.73	0.73	0.73		3.64	3.88	2.77	2.96		7.28	7.75	5.54	5.93
400		0.64	0.64	0.64	0.64		3.44	3.65	2.74	2.91		6.89	7.31	5.48	5.81
425		0.55	0.55	0.55	0.55		2.88	3.50	2.71	2.87		5.74	7.01	5.42	5.72
450		0.47	0.47	0.47	0.47		1.99	3.38	2.68	2.81		4.00	6.75	5.37	5.61
475		0.37	0.37	0.37	0.37		1.35	3.16	2.65	2.73		2.70	6.32	5.30	5.46
500		0.28	0.28	0.28	0.28		0.88	2.77	2.60	2.67		1.75	5.55	5.20	5.37
525		0.18	0.18	0.18	0.18		0.51	2.02	2.19	2.57		1.03	4.04	4.77	5.15
538		0.13	0.15	0.15	0.15		0.34	1.63	2.18	2.53		0.72	3.26	4.55	5.06

Table 4: body and bonnet working temperature and pressure range (GB)

Temp °C	PN16					PN25					PN40					PN100				
	LC B	WC B	WC 6	CF 8	CF8 M	LC B	WC B	WC 6	CF 8	CF8 M	LC B	WC B	WC 6	CF 8	CF8 M	LC B	WC B	WC 6	CF 8	CF8 M
-29~38	1.5	1.6	1.6	1.5	1.5	2.4	2.5	2.5	2.4	2.4	3.9	4.1	4.1	4.0	3.9	9.0	9.6	9.6	9.3	9.3
93	1.4	1.4	1.4	1.4	1.3	2.2	2.3	2.3	2.1	2.0	3.8	3.7	4.0	3.3	3.4	8.4	8.5	9.6	7.7	8.0
149	1.3	1.3	1.3	1.3	1.2	2.1	2.1	2.1	1.9	1.9	3.7	3.6	3.8	3.0	3.1	8.3	8.3	9.3	7.0	7.2
204	1.1	1.1	1.1	1.1	1.1	1.9	1.9	1.9	1.7	1.7	3.5	3.4	3.7	2.8	2.8	8.0	8.2	8.9	6.4	6.6
260	0.8	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.5	1.6	3.3	3.2	3.5	2.6	2.6	7.5	7.7	8.5	6.0	6.1
315	0.7	0.8	0.8	0.8	0.8	1.4	1.4	1.5	1.3	1.3	3.0	2.8	3.1	2.3	2.4	6.9	7.1	7.8	5.6	5.8
343	0.6	0.7	0.7	0.7	0.7	1.3	1.3	1.4	1.2	1.2	2.9	2.7	3.0	2.3	2.3	6.7	7.0	7.5	5.5	5.7
371	0.5	0.6	0.6	0.6	0.6	1.2	1.2	1.3	1.1	1.1	2.8	2.7	2.9	2.2	2.2	6.6	7.0	7.3	5.5	5.6
399	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.2	1.0	1.0	2.5	2.6	2.7	2.1	2.2	6.0	6.5	6.9	5.3	5.5
427	0.5	0.5	0.5	0.5	0.5	0.9	1.0	1.1	0.9	0.9	2.1	2.1	2.6	2.0	2.1	5.0	5.3	6.5	5.1	5.5
454	0.4	0.4	0.3	0.4	0.4	0.7	0.7	1.0	0.8	0.8	1.5	1.4	2.4	2.0	2.0	3.4	3.4	6.2	5.0	5.4
482		0.3	0.3	0.3	0.3		0.5	0.7	0.7	0.7		0.9	2.1	1.9	1.9		2.2	5.8	5.0	5.3
510		0.2	0.2	0.2	0.2		0.3	0.5	0.6	0.6		0.5	1.5	1.8	1.8		1.3	4.1	4.9	4.9
538		0.1	0.1	0.1	0.1		0.1	0.3	0.4	0.4		0.3	1.0	1.5	1.6		0.6	2.7	4.1	4.5
565			0.1	0.1	0.1			0.2	0.3	0.4			0.7	1.4	1.6			1.8	3.9	4.5
593			0.1	0.1	0.1			0.1	0.3	0.4			0.4	1.2	1.4			1.2	3.3	3.9

Note: 1. Temperature or pressure value in the middle range, can calculate the max. value by interpolation method.  
2. Pressure in the table are all manometer pressure.

Table 6: Metal seal material working temperature, pressure range and treatment

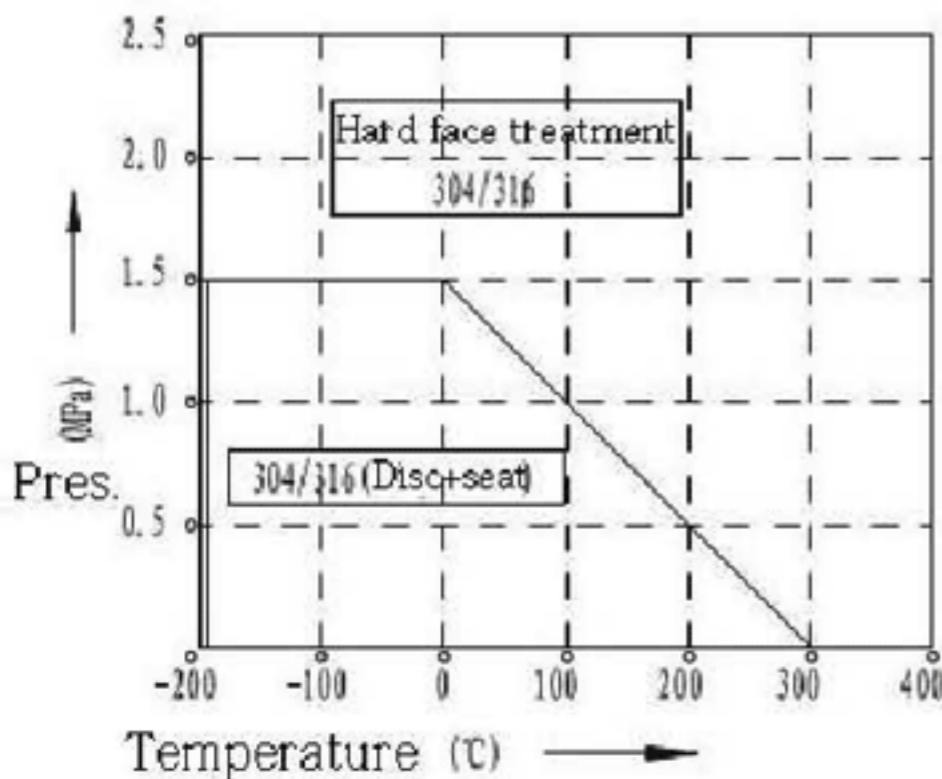


Table 7: Soft seal material working temperature, pressure range and treatment

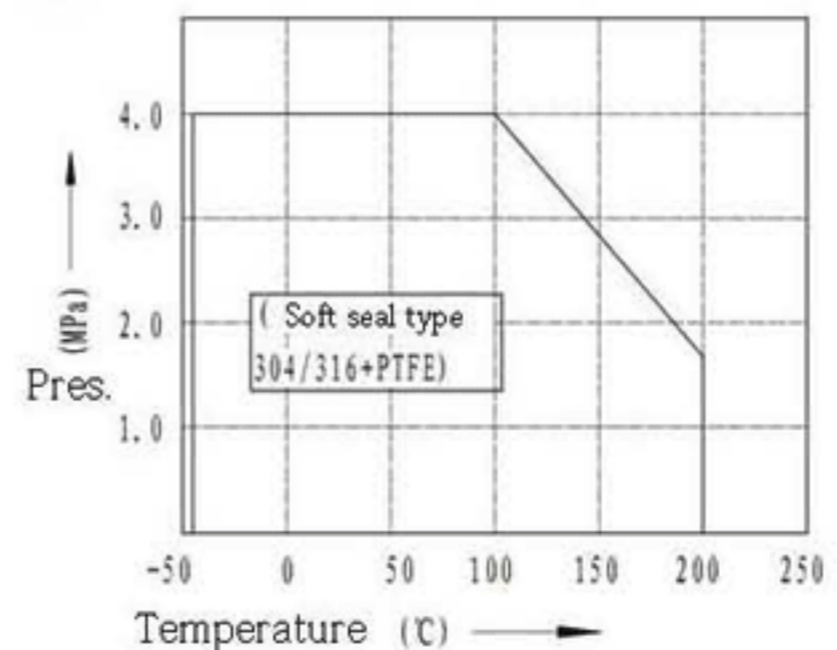


Table 8: RPTFE packing temperature and pressure range

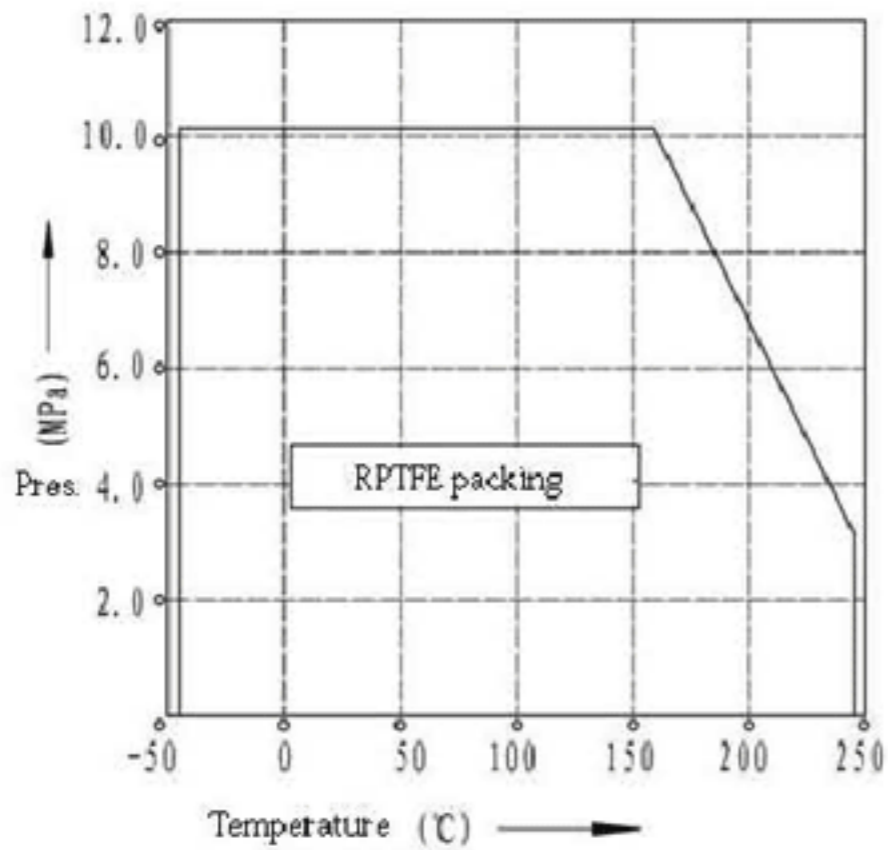


Table 9: Flex. Graphite packing temperature and pressure range.

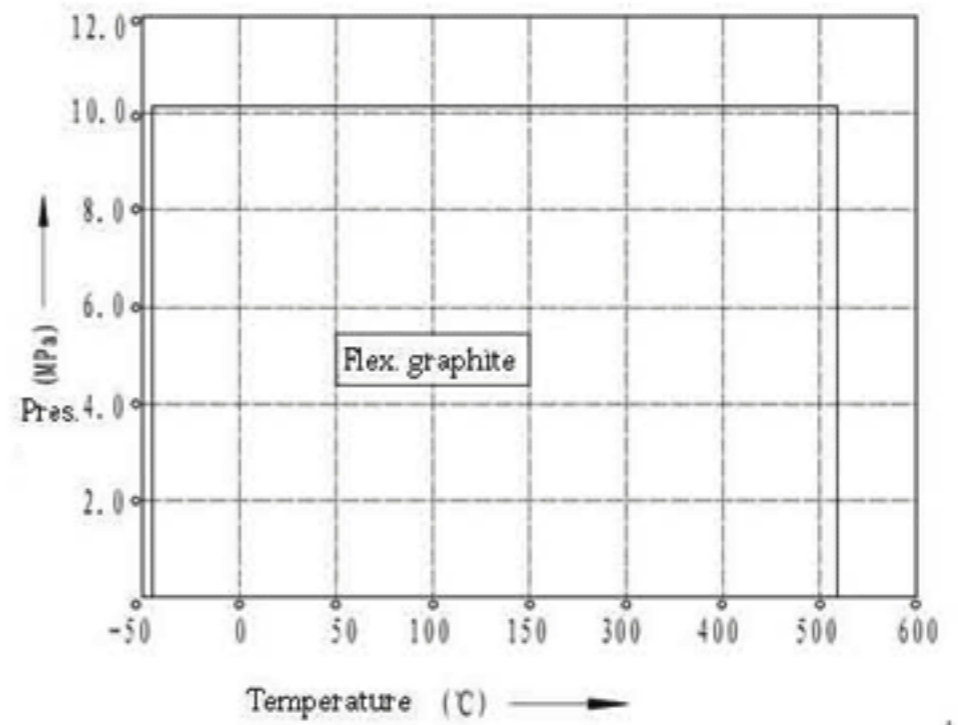


Table 10: Sawtooth gasket SUS316L, alloy steel temperature and pressure range

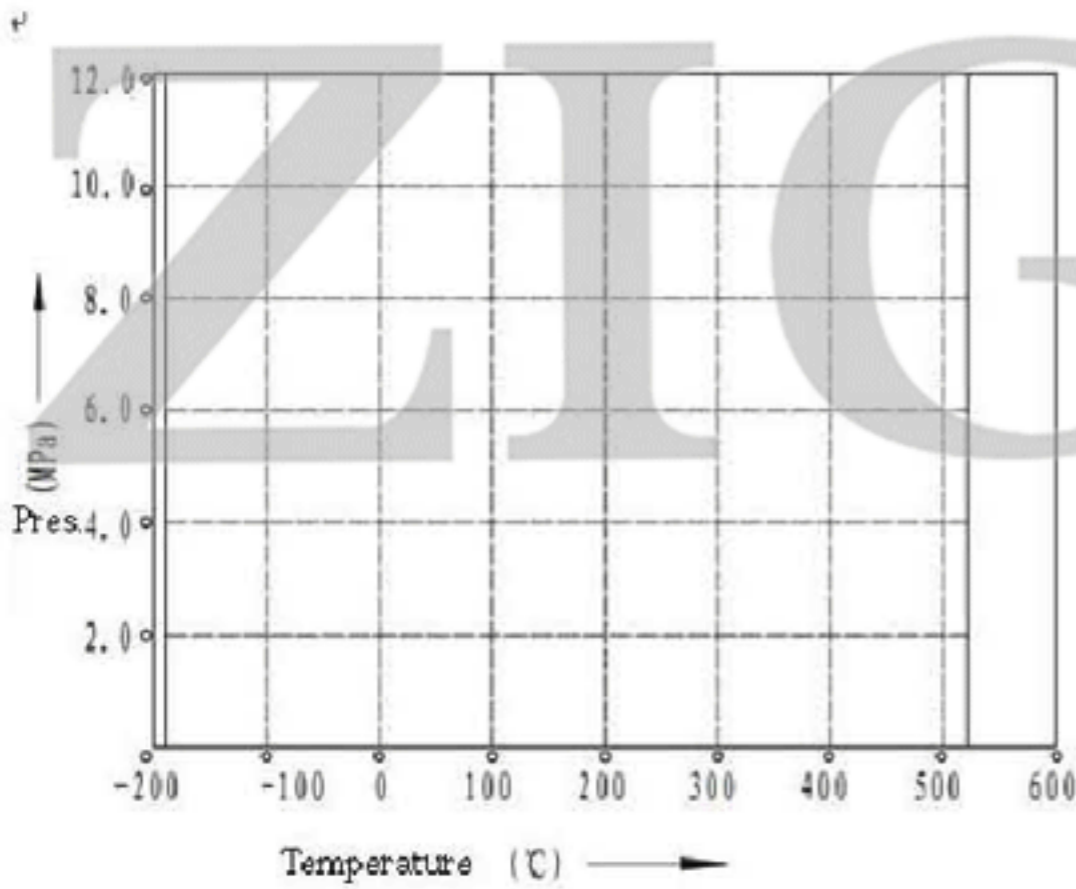


Table 11: Spiral gasket SUS316+ flex. graphite packing temperature and pressure range

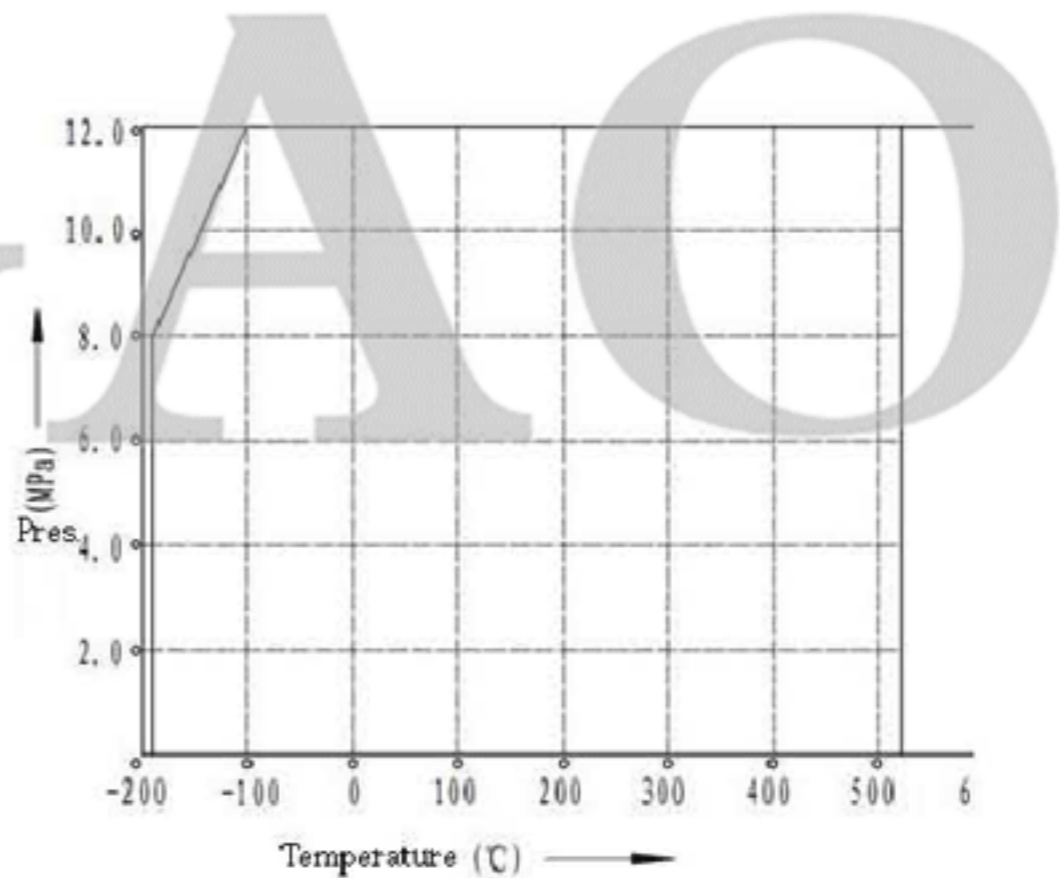


Table 12: Bellow seal working temperature and pressure range

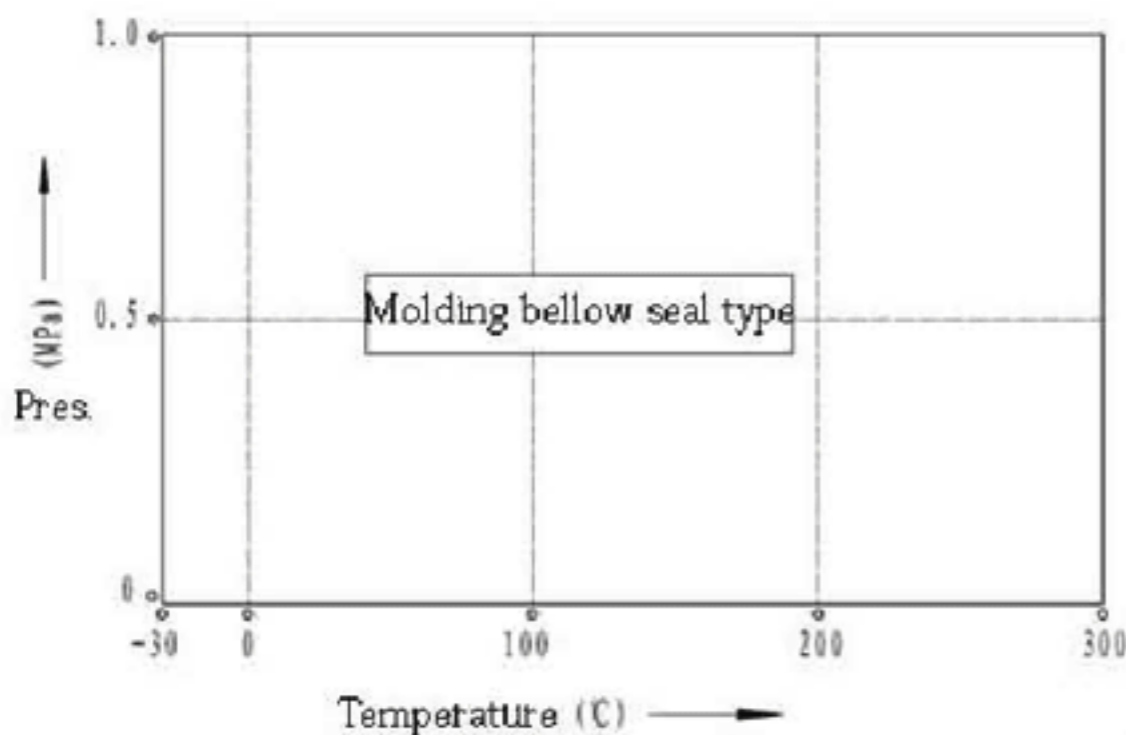
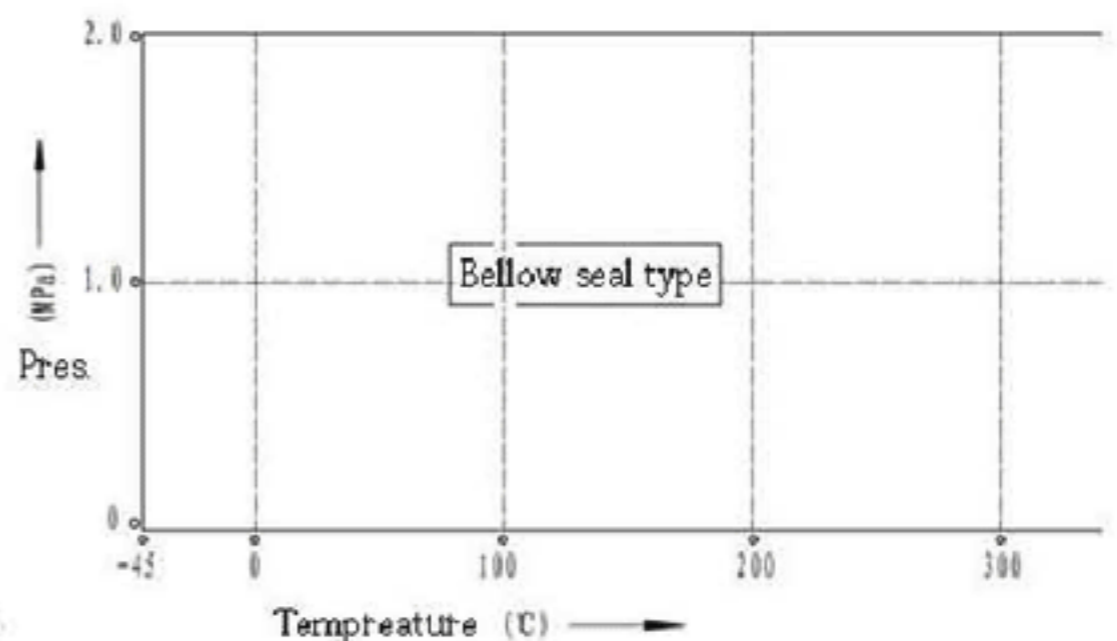


Table 13: Welded bellow sealed working temperature and pressure range.



◆ Standard material and internal structure

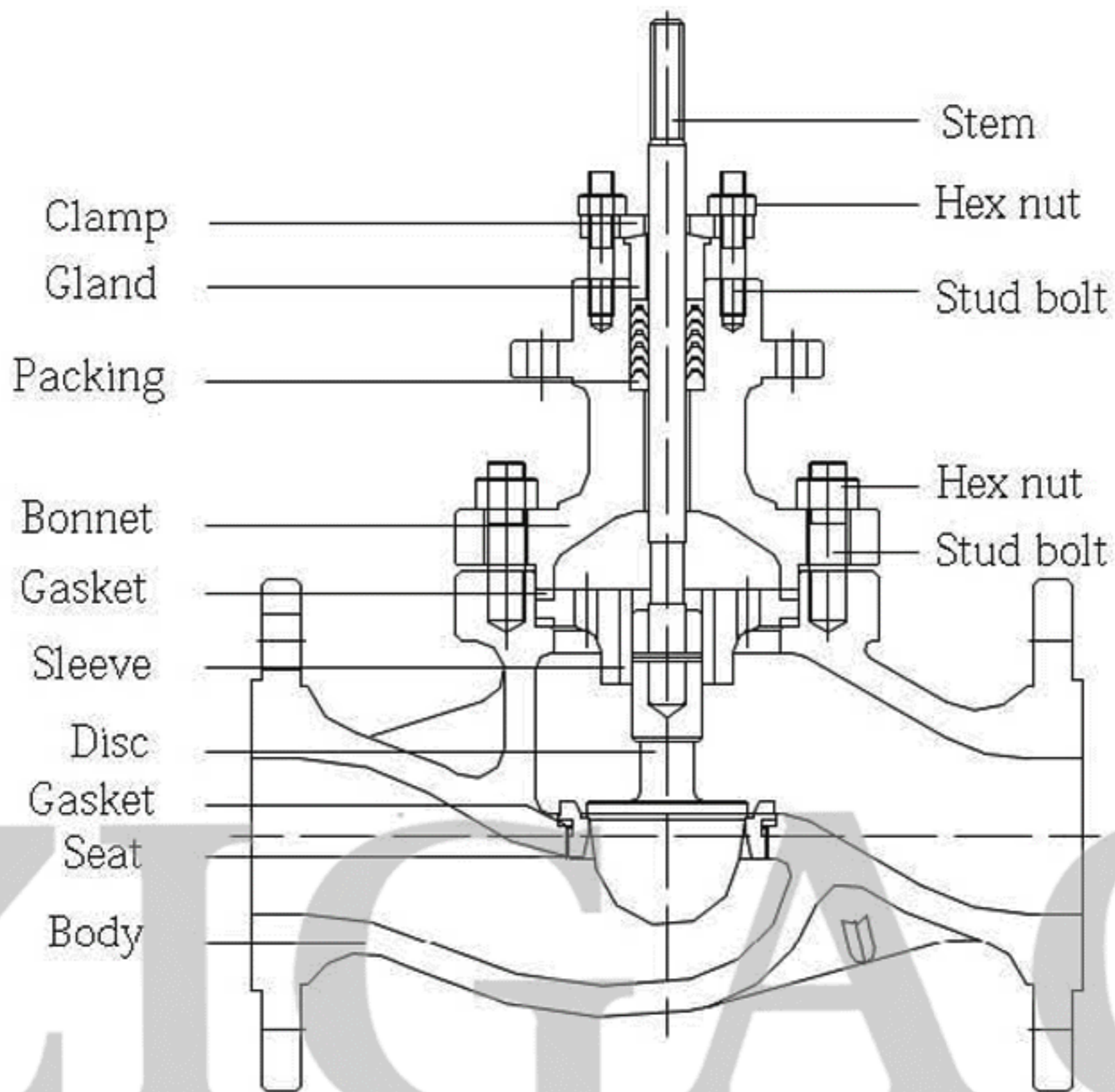


Table 1: Body WCB

1	Body	WCB	LCB	WC9
2	Seat	304	304	304
3	Spool	304	304	304
4	Gasket	316+graphite/PTFE		
5	Bushing	304	304	304
6	Bonnet	WCB	LCB	WC9
7	Packing	PTFE/flex. graphite		
8	Packing bushing	304	304	304
9	Gland	WCB	WCB	WCB
10	Stem	304	304	304
12	Stud	45	40MnB	25Cr2Mo1VA
13	Nut	35	35	25Cr2Mo1VA

Table 2: Body S.S

1	Body	CF8	CF8M	CF3M
2	Seat	304	316	316L
3	Spool	304	316	316L
4	Gasket	316+graphite/PTFE		
5	Bushing	304	316	316L
6	Bonnet	CF8	CF8M	CF3M
7	Packing	PTFE/flex. graphite		
8	Packing bushing	304	316	316L
9	Gland	CF8	CF8M	CF3M
10	Stem	304	316	316L
12	Stud	304	316	316L
13	Nut	304	316	316L

**Note:**

1. Above structure, seat is metal sealing, PTFE soft sealing is VI grade as option, also can provide stellite hard seal. As per actual working temperature, we may choose proper bolt & nut accordingly.
2. PTFE V type stem packing is with graphite, the working temperature can be higher than 232°C (450 F)
3. The common body material is WCB and S.S, can apply with other high corrosion resistance alloy material.

◆ Variety valve structure

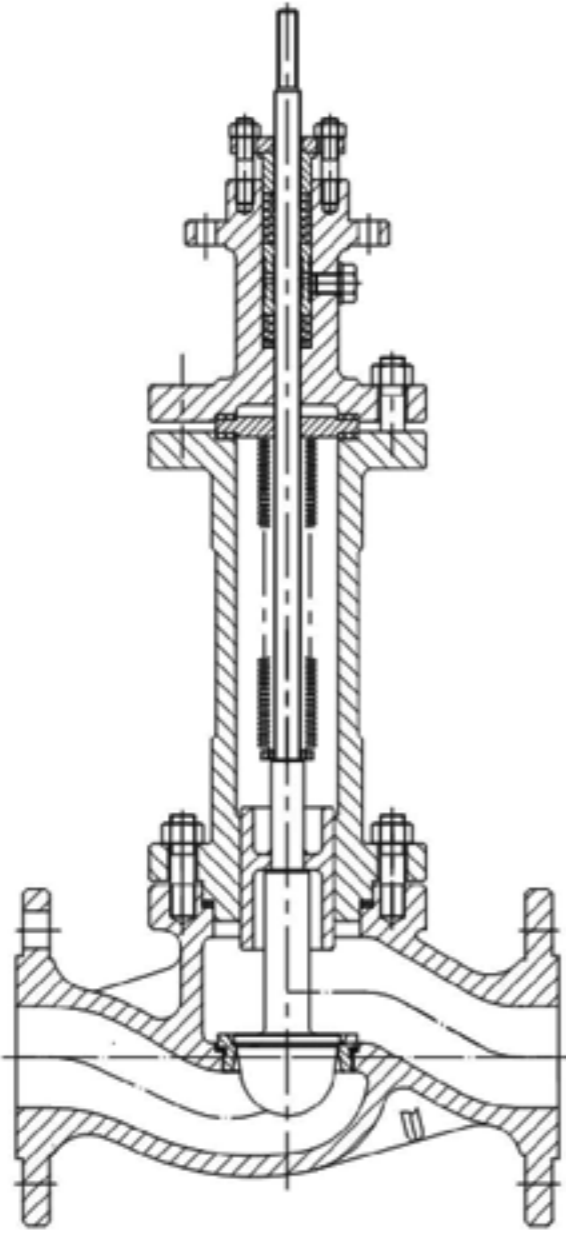


Table 1: PV bellow sealed single seat control valve. Can apply with multi-layer bellow seal, well protect medium against loss.

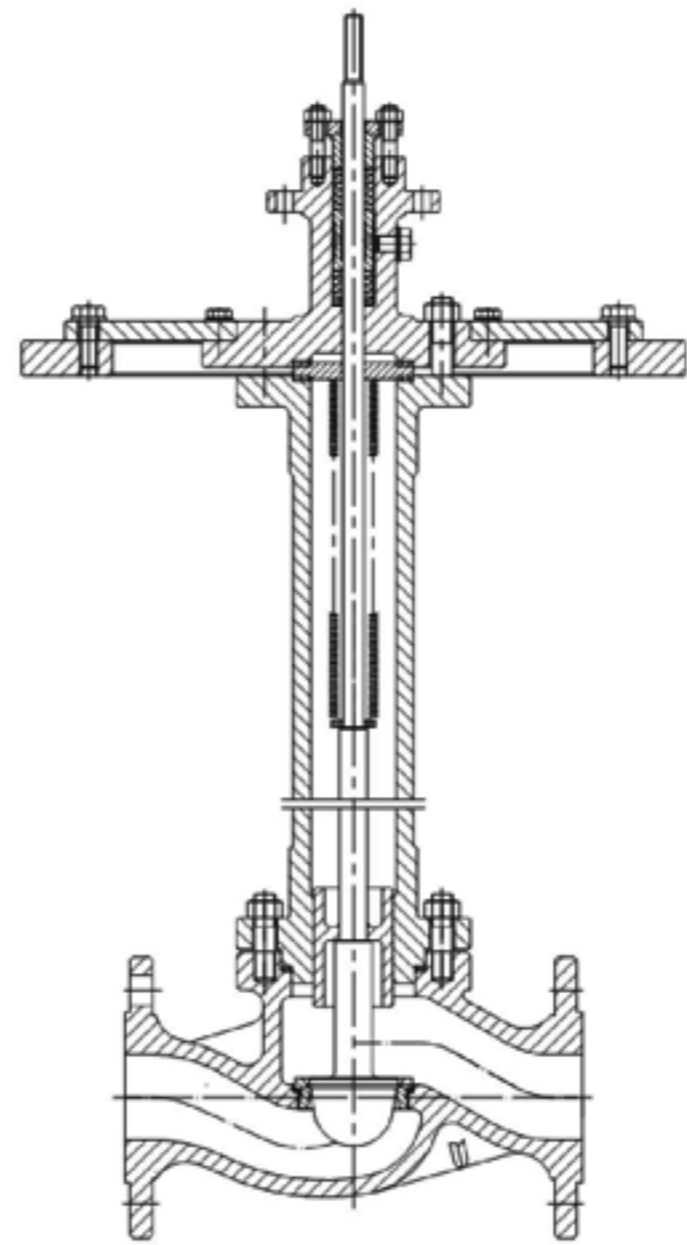


Table 2: PD low temperature single seat control valve, spool integrated external suction structure, convenient and easy for maintenance.

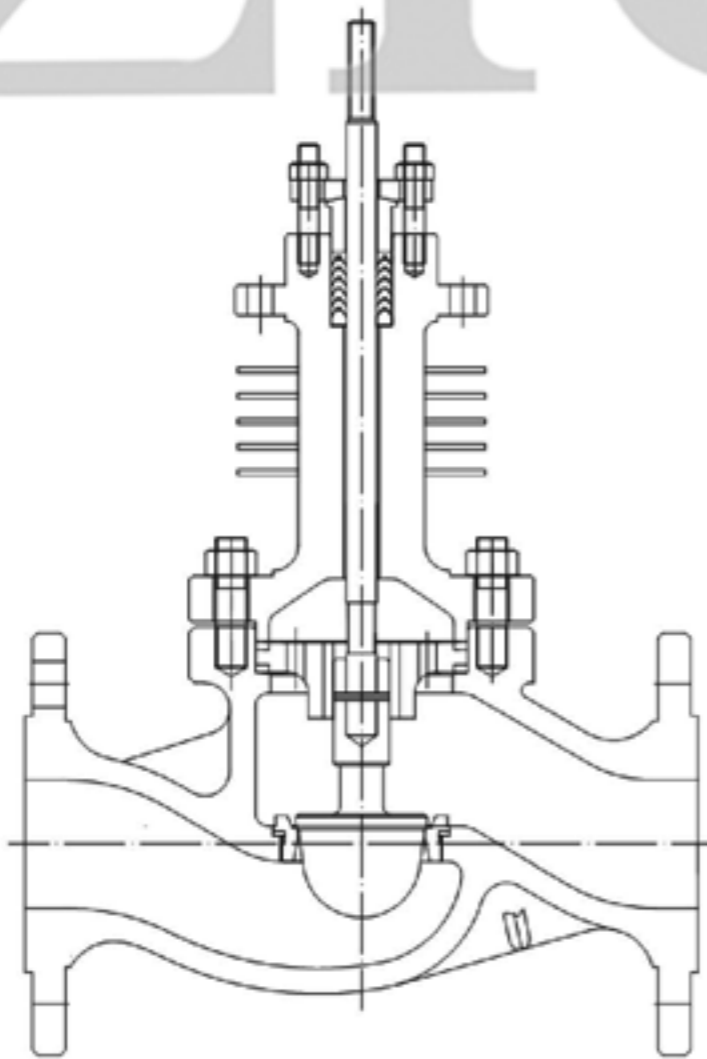


Table 3: PG radiator single seat control valve, applicable for temperature  $-45^{\circ}\text{C}$  ~ higher  $230^{\circ}\text{C}$ .

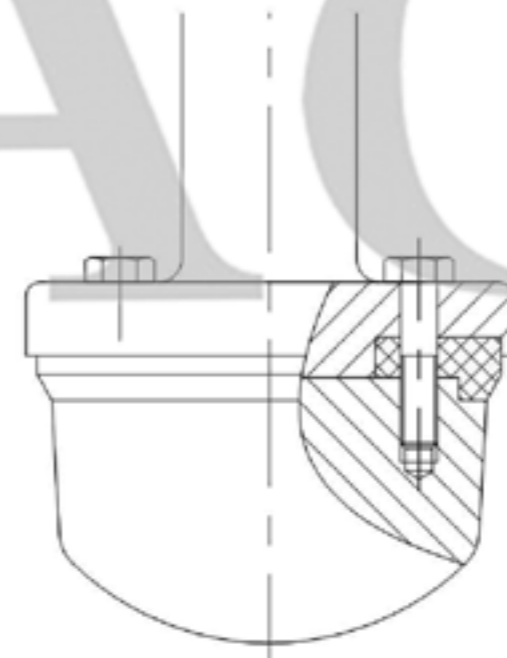
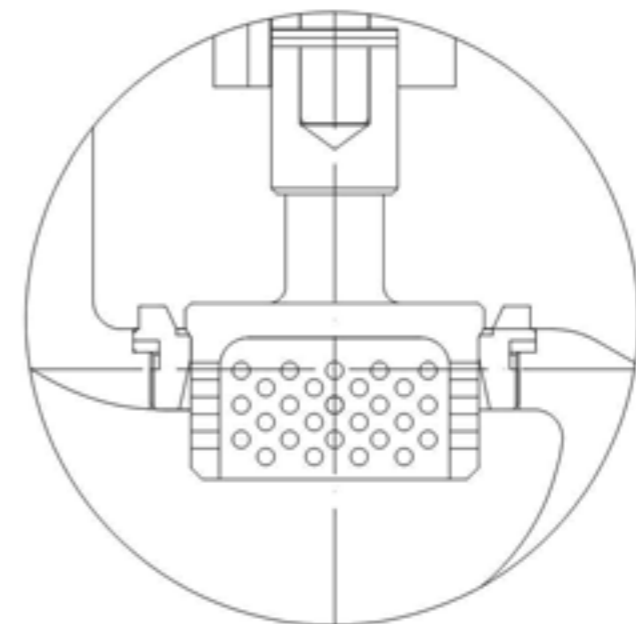


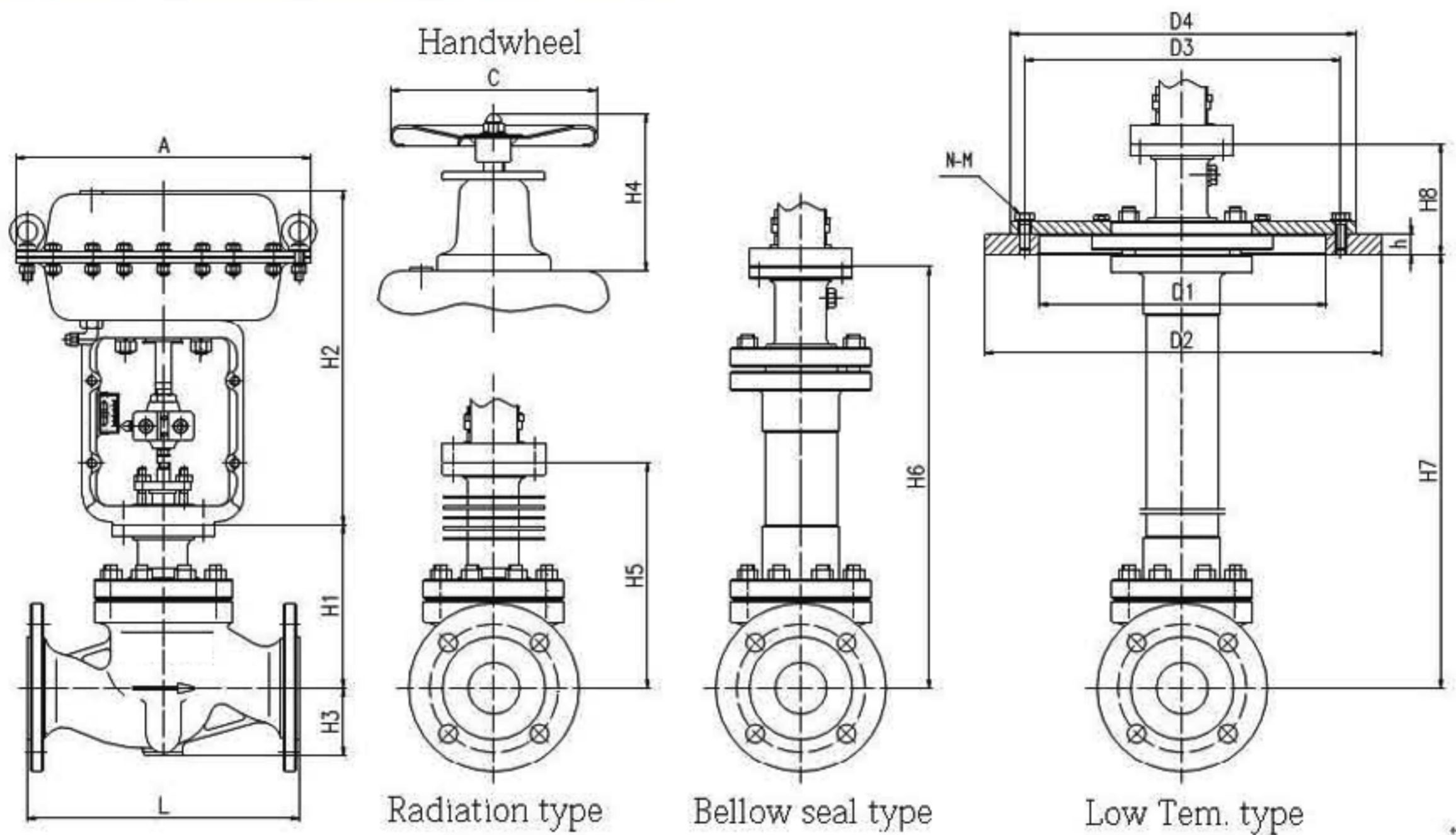
Table 4: PF soft sealing single seat control valve, applicable for VI grade sealing requirement.



Type 5: PL single seat cage type control valve, symmetry multi-pore cage structure can control noisy and cavitation effectively.

## ◆ Main out form dimension and measurement

Table 5: PN16、CL150LB Pneumatic single seat control valve

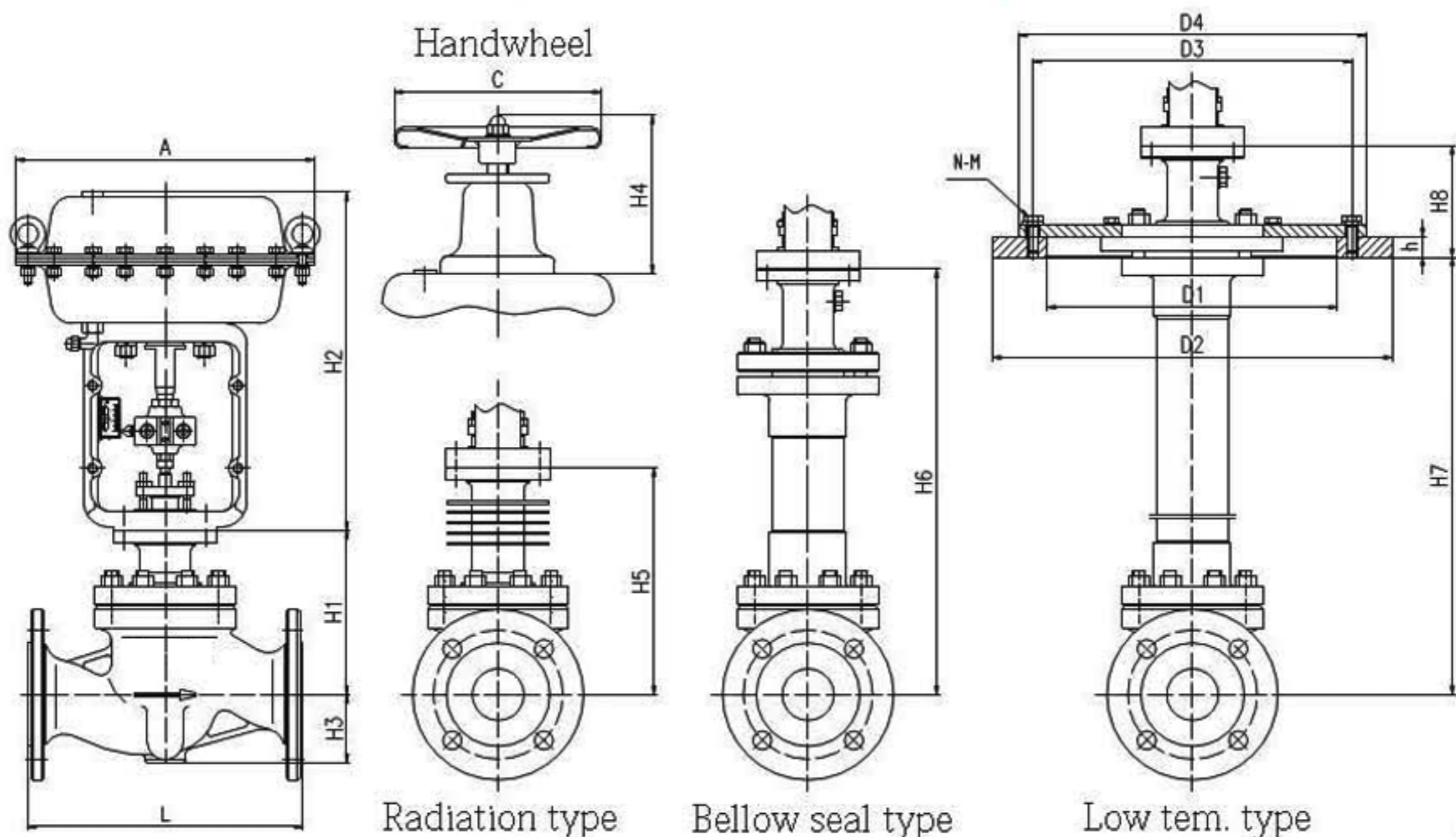


Size \ DN	DN20 3/4"	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	181	184	200	222	254	276	298	352	420	451	600
C	200	200	200	200	200	240	240	240	350	350	350
A	285	285	285	288	288	365	365	365	475	475	475
H1	128	137	148	152	159	218	230	238	264	331	346
H2	303	303	303	323	323	417	417	417	520	520	520
H3	65	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	153	153	153	153	153	181	181	181	247	247	247
H5	208	208	224	228	228	334	334	342	408	453	482
H6	338	338	402	402	405	627	628	635	698	702	728
H7	700 (customized)										
H8	88	88	88	88	88	94	94	94	110	110	110
h	15	15	15	15	15	18	18	18	20	20	20
D1	230	230	250	270	305	342	375	430	490	556	665
D2	310	310	335	355	390	430	465	520	585	660	770
D3	260	260	285	305	340	370	405	460	525	580	700
D4	290	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	21	22	24	32	38	62	67	83	132	160	245

※ Weight in the table did not include the accessory weight. Valve can install side handwheel.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 6: PN25/40、CL300LB Pneumatic single seat control valve dimension and weight.

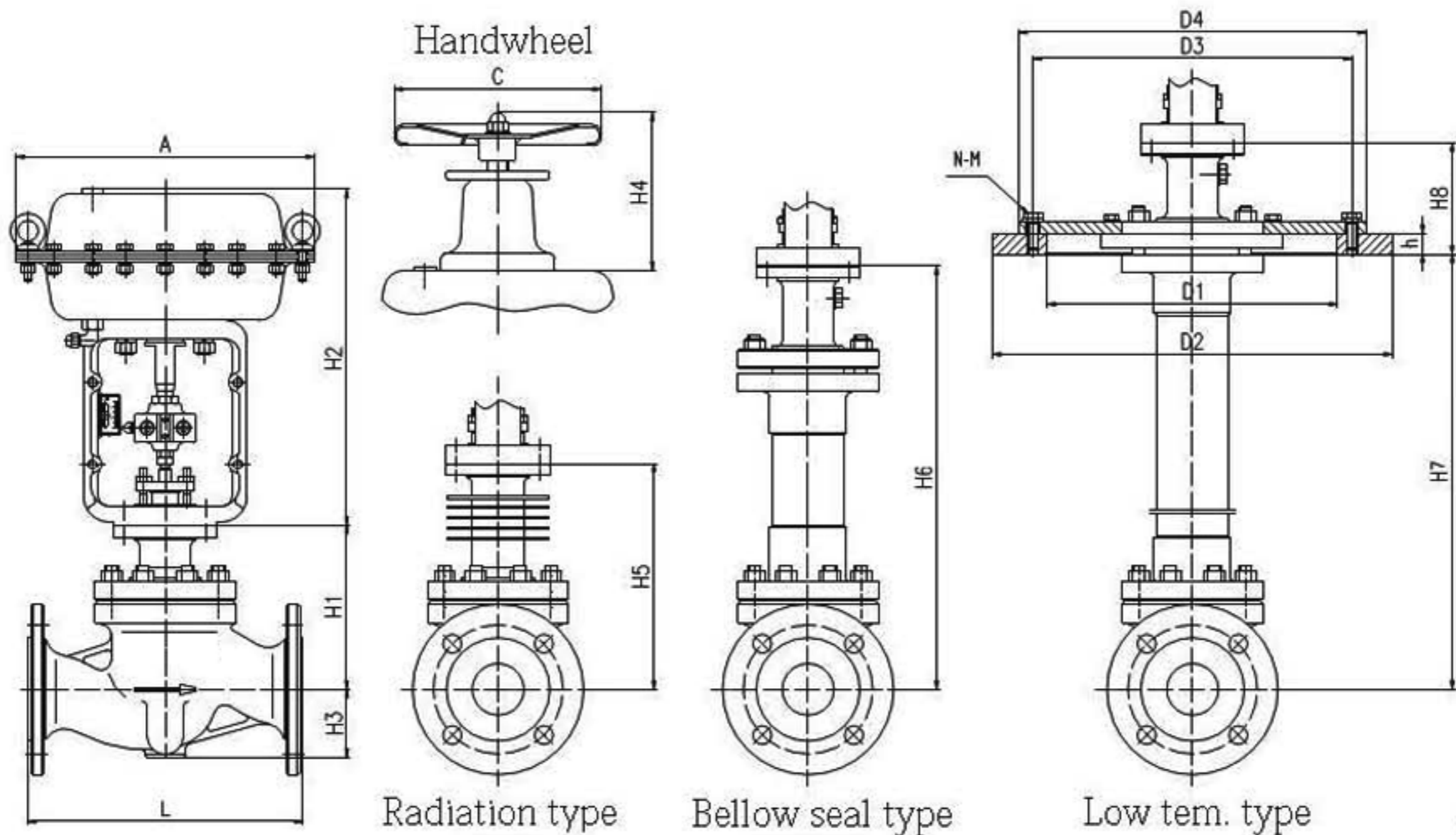


DN Size	DN20 3/4"	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	194	197	200	235	267	292	317	368	420	473	600
C	200	200	200	200	200	240	240	240	350	350	350
A	285	285	285	288	288	365	365	365	475	475	475
H1	128	137	148	152	159	218	230	238	264	331	346
H2	303	303	303	323	323	417	417	417	520	520	520
H3	65	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	153	153	153	153	153	181	181	181	247	247	247
H5	208	208	224	228	228	334	334	342	408	453	482
H6	338	338	402	402	405	627	628	635	698	702	728
H7	700 (customized)										
H8	88	88	88	88	88	94	94	94	110	110	110
h	15	15	15	15	15	18	18	18	20	20	20
D1	230	230	250	270	305	342	375	430	490	556	665
D2	310	310	335	355	390	430	465	520	585	660	770
D3	260	260	285	305	340	370	405	460	525	580	700
D4	290	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	22	24	26	35	42	67	74	89	138	166	255

※ Weight in the table did not include the accessory weight. Valve can install side handwheel.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 7: PN63/100、CL600LB Pneumatic single seat control valve dimension and weight.

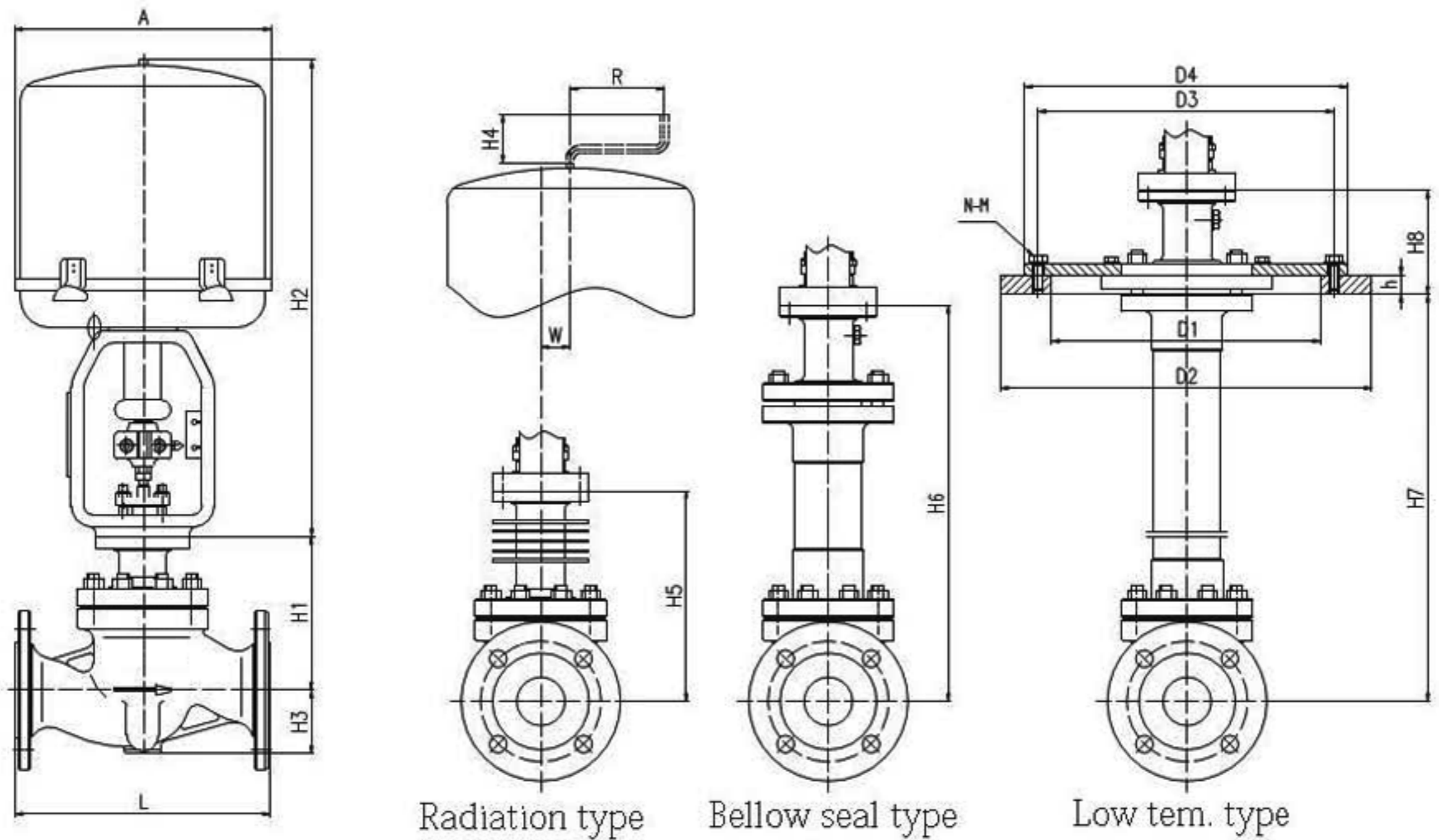


DN Size	DN20 3/4"	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	206	210	251	251	286	311	337	394	500	508	650
C	200	200	200	200	200	240	240	240	350	350	350
A	285	285	285	288	288	365	365	365	475	475	475
H1	128	137	148	152	159	218	230	238	264	331	346
H2	303	303	303	323	323	417	417	417	520	520	520
H3	65	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	153	153	153	153	153	181	181	181	247	247	247
H5	220	220	240	240	240	350	350	360	420	470	500
H6	338	338	402	402	405	627	628	635	698	702	728
H7	700 (customized)										
H8	88	88	88	88	88	94	94	94	110	110	110
h	15	15	15	18	18	18	20	20	20	20	20
D1	270	270	305	342	375	430	490	556	665	665	765
D2	355	355	390	430	465	520	585	600	770	770	850
D3	305	305	340	370	405	460	525	690	700	700	805
D4	335	335	370	400	435	490	555	630	740	740	845
N-M	8-M14	8-M14	10-M14	10-M14	10-M14	12-M16	14-M16	18-M16	18-M16	18-M16	18-M16
Weight, Kg	24	25	30	42	52	78	82	102	170	190	285

※ Weight in the table did not include the accessory weight. Valve can install side handwheel.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 8: PN16、CL150LB Electric single seat control valve dimension and weight.



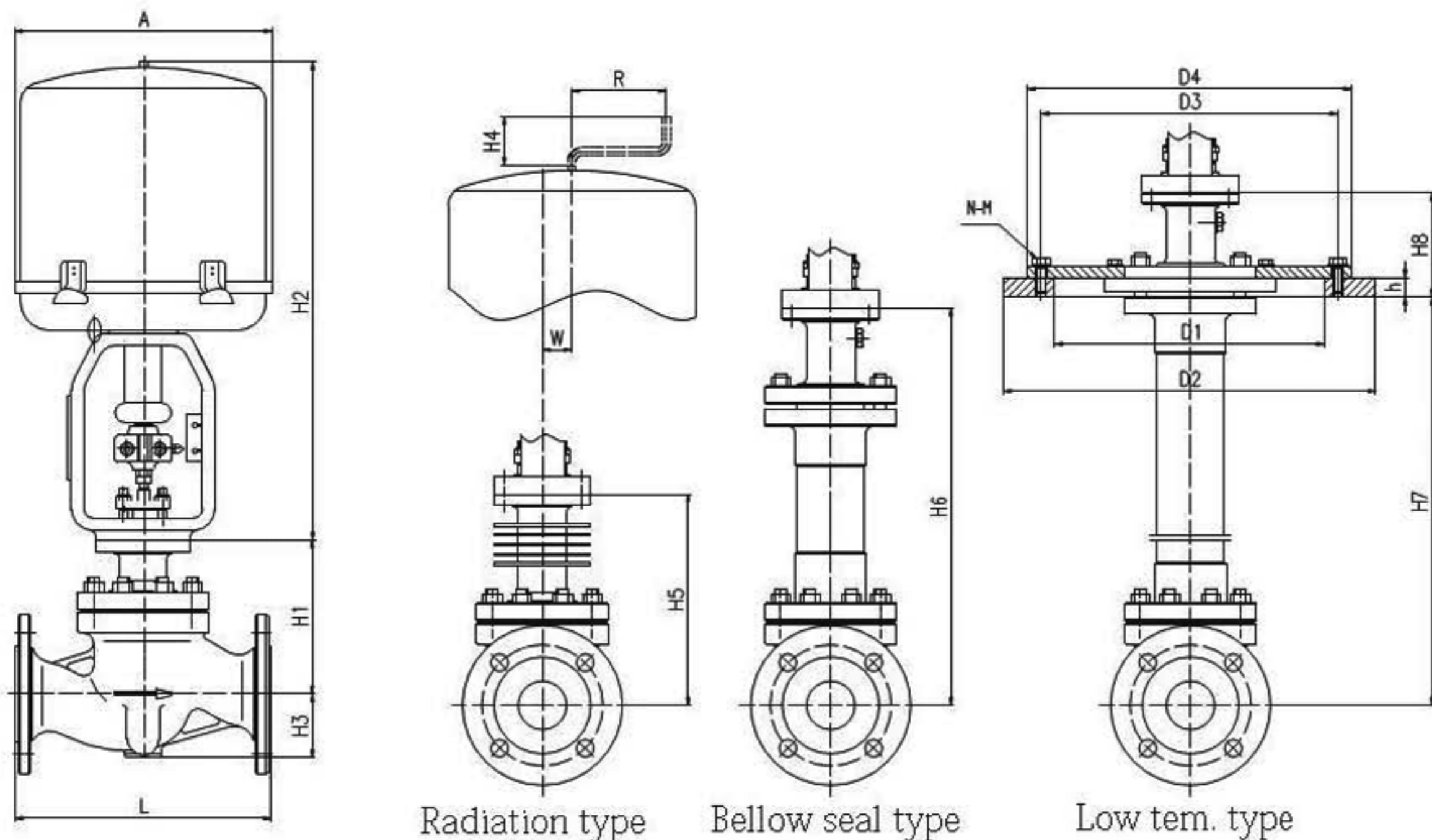
DN Size	DN20 3/4"	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	181	184	200	222	254	276	298	352	420	451	600
A	225	225	255	255	255	255	255	255	310	310	310
H1	128	137	148	152	159	218	230	238	264	331	346
H2	373	373	495	495	495	535	535	535	725	725	725
H3	65	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	87	87	90	90	90	90	90	90	90	90	90
H5	208	208	224	228	228	334	334	342	408	453	482
H6	338	338	402	402	405	627	628	635	698	702	728
H7	700 (customized)										
H8	88	88	88	88	88	94	94	94	110	110	110
W	28	28	45	45	45	45	45	45	60	60	60
R	80	80	100	100	100	100	100	100	160	160	160
h	15	15	15	15	15	18	18	18	20	20	20
D1	230	230	250	270	305	342	375	430	490	556	665
D2	310	310	335	355	390	430	465	520	585	660	770
D3	260	260	285	305	340	370	405	460	525	580	700
D4	290	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	16	17	24	32	38	52	57	73	136	164	249

※ Weight in the table did not include the accessory weight. Installed with 3810L type actuator.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.



Table 9: PN25/40、CL300LB Electric single seat control valve dimension and weight



Radiation type

Bellow seal type

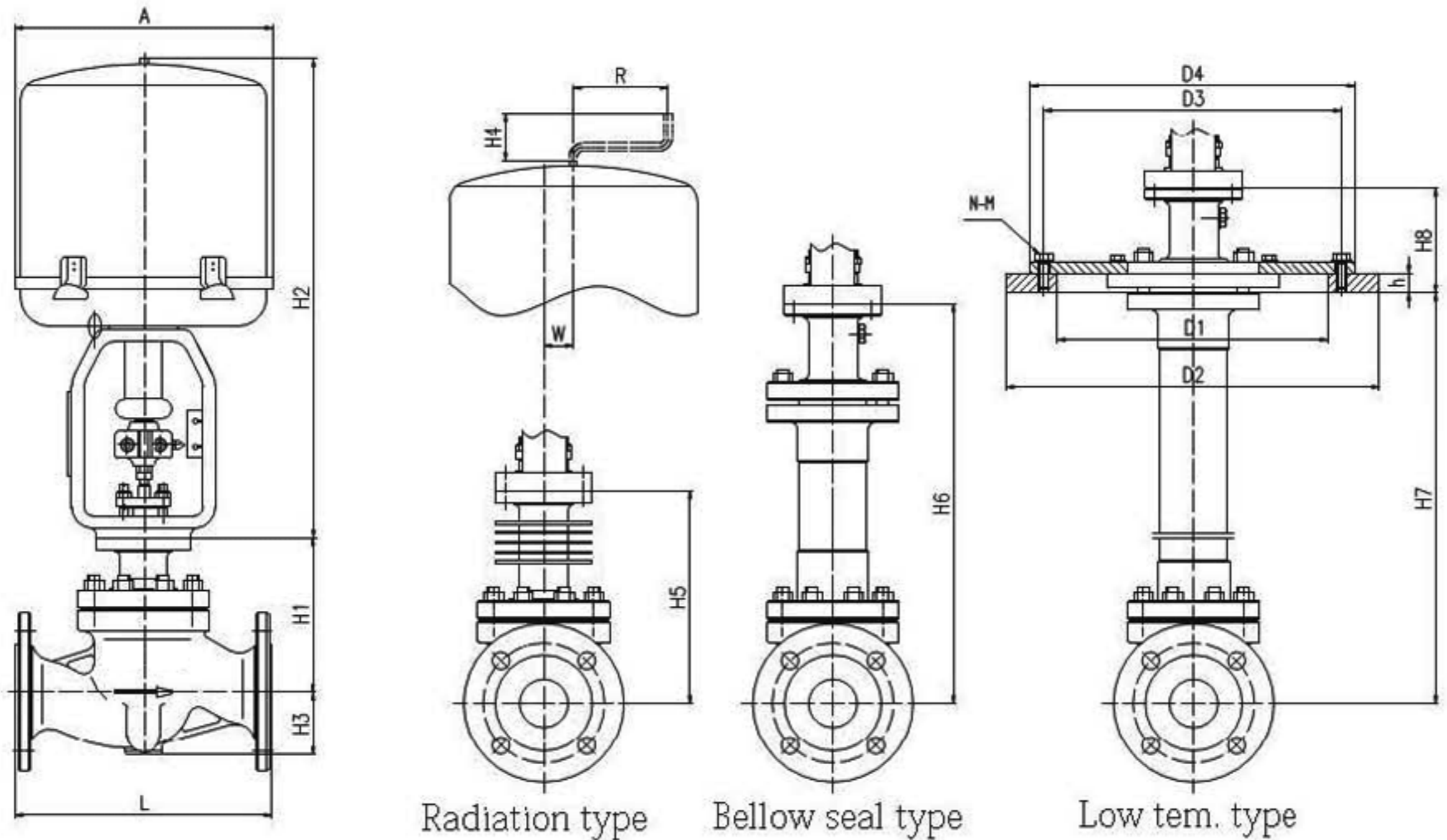
Low tem. type

DN Size	DN20 3/4"	DN25 1"	DN32 1 1/4"	DN40 1 1/2"	DN50 2"	DN65 1 1/2"	DN80 3"	DN100 4"	DN125 5"	DN150 6"	DN200 8"
L	194	197	200	235	267	292	317	368	420	473	600
A	225	225	255	255	255	255	255	255	310	310	310
H1	128	137	148	152	159	218	230	238	264	331	346
H2	373	373	495	495	495	535	535	535	725	725	725
H3	65	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	87	87	90	90	90	90	90	90	90	90	90
H5	208	208	224	228	228	334	334	342	408	453	482
H6	338	338	402	402	405	627	628	635	698	702	728
H7	700 (customized)										
H8	88	88	88	88	88	94	94	94	110	110	110
W	28	28	45	45	45	45	45	45	60	60	60
R	80	80	100	100	100	100	100	100	160	160	160
h	15	15	15	15	15	18	18	18	20	20	20
D1	230	230	250	270	305	342	375	430	490	556	665
D2	310	310	335	355	390	430	465	520	585	660	770
D3	260	260	285	305	340	370	405	460	525	580	700
D4	290	290	315	335	370	400	435	490	555	630	740
N-M	8-M12	8-M12	8-M12	8-M14	8-M14	10-M14	10-M14	12-M16	14-M16	16-M16	18-M16
Weight, Kg	17	19	26	35	42	57	64	79	144	150	259

※ Weight in the table did not include the accessory weight. Installed with 3810L type actuator.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.

Table 10: PN64/100、CL600LB Electric single seat control valve dimension and weight.



DN	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
Size	3/4"	1"	1 1/4"	1 1/2"	2"	1 1/2"	3"	4"	5"	6"	8"
L	206	210	251	251	286	311	337	394	500	508	650
A	225	225	255	255	255	255	255	255	310	310	310
H1	128	137	148	152	159	218	230	238	264	331	346
H2	373	373	495	495	495	535	535	535	725	725	725
H3	65	70	70	85	90	102.5	107.5	125	125	172.5	180
H4	87	87	90	90	90	90	90	90	90	90	90
H5	220	220	240	240	240	350	350	360	420	470	500
H6	338	338	402	402	405	627	628	635	698	702	728
H7	700 (customized)										
H8	88	88	88	88	88	94	94	94	110	110	110
W	28	28	45	45	45	45	45	45	60	60	60
R	80	80	100	100	100	100	100	100	160	160	160
h	15	15	15	18	18	18	20	20	20	20	20
D1	270	270	305	342	375	430	490	556	665	665	765
D2	355	355	390	430	465	520	585	600	770	770	850
D3	305	305	340	370	405	460	525	690	700	700	805
D4	335	335	370	400	435	490	555	630	740	740	845
N-M	8-M14	8-M14	10-M14	10-M14	10-M14	12-M16	14-M16	18-M16	18-M16	18-M16	18-M16
Weight, Kg	19	20	30	42	52	68	72	92	174	194	289

※ Weight in the table did not include the accessory weight. Installed with 3810L type actuator.

※ With continuous valve development, the dimension maybe will have some regulation, kindly contact with DATIAN for any update valve document.