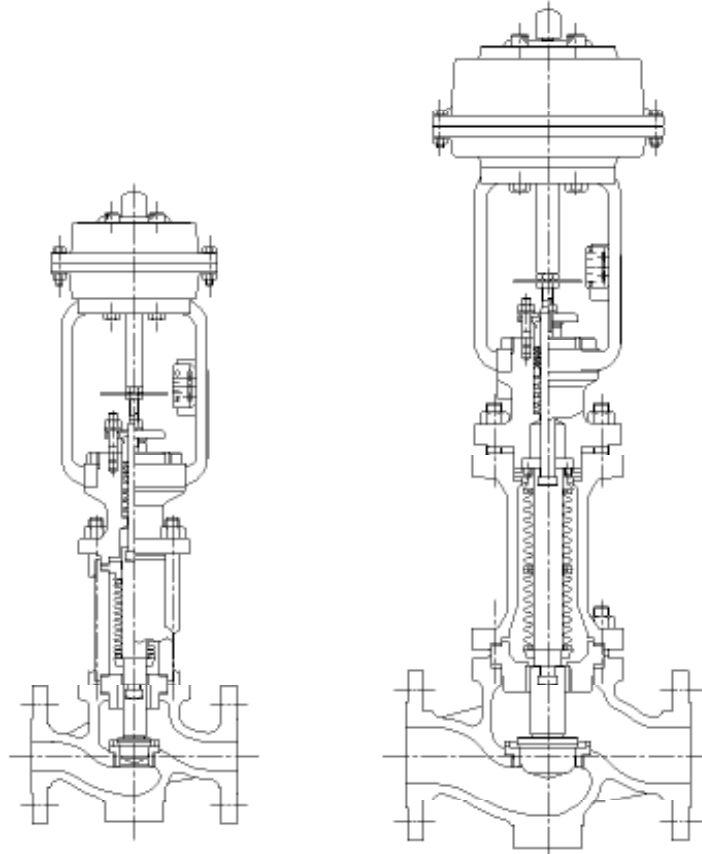


General Specification	Single-seated type bellows seal control valve	T-8115
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OT-8115: Bellows seal control valve



Feature

- The T-8115 type adjustment valve is a bellows seal valve.
- It is a valve of the bellows structure.
- There is no leakage from a grand part and it is the best for service that treats a dangerous fluid.
- The actuator called T-5000 type with trust is used.

■ 1. Standard specification

Table-1 Standard specification table

Model number	T-8115
Model name	Single-seated type bellows seal control valve
End connection standard	JIS10~63K,ANSI / ASME150~1500# フランジ形 RF
Nominal size	15A~300A
Rated Cv	0.01~1440
Body Material	SCPH2,SCS13A,SCS14A
Bonnet material	SCPH2,SCS13A,SCS14A
Valve plug material	SUS316,SUS316L
Seat ring material	SUS316,SUS316L
Bellows material / Working pressure	SUS316L / 1.5MPa,3.0MPa
Flow characteristics	Equal percentage(Rangeability50:1),Linear,Quick opening(ON-OFF)
Working pressure range	=Bellows Working pressure
Temperature range	0~180°C
Allowable seat leakage volume	ANSI CLASS IV(0.01%Cv or less),ANSI CLASS V(0.0001%Cv or less)

■ 2. Main body structure

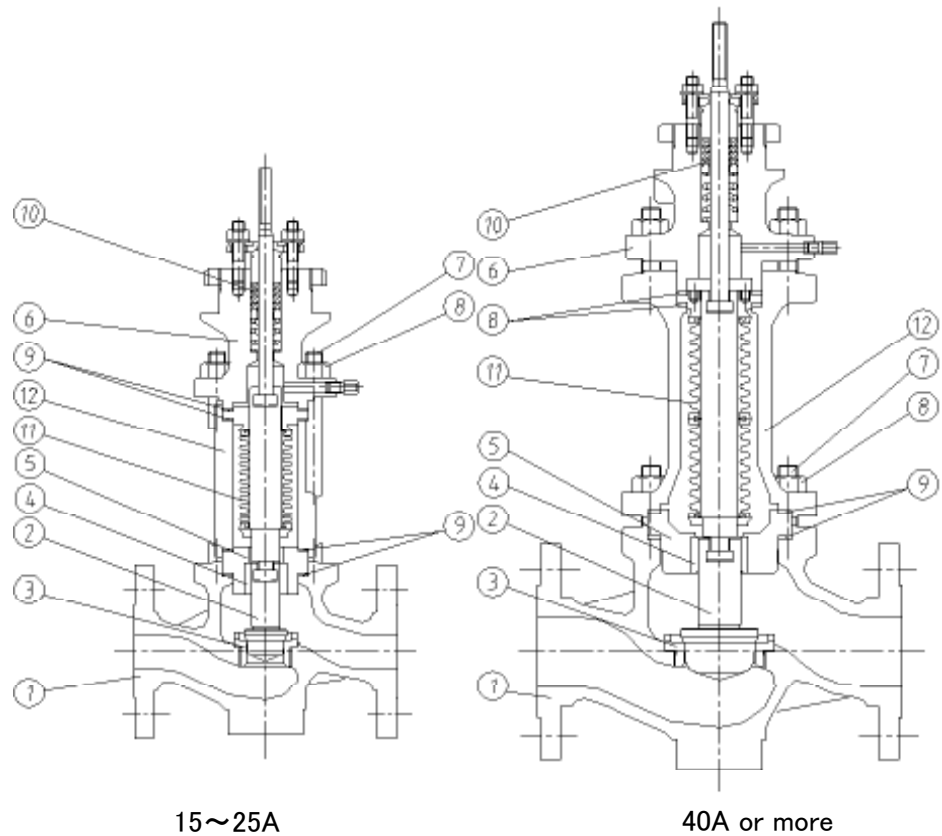


Fig. 1 Main Body Structural

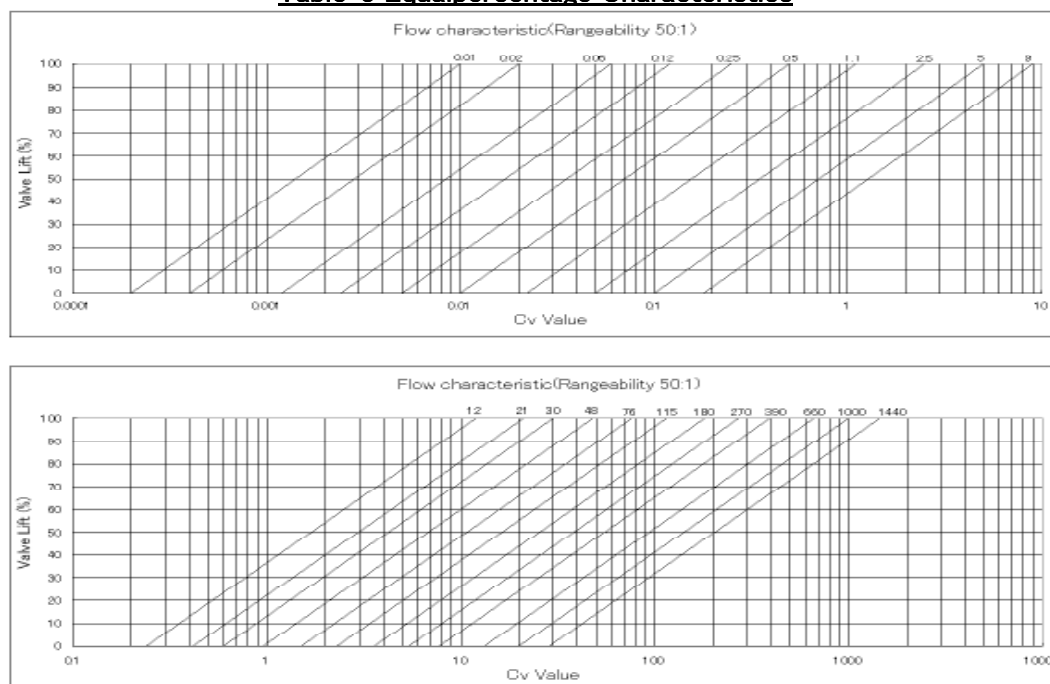
※When the saw tooth gasket made of the stainless steel is used, we will use the cast metal for Bellows-spacer.

Table.2 Main Part Materials

15~25A		
1	Body	SCPH2,SCS13A,SCS14A
2	Valve plug	SUS316,SUS316L
3	Seat ring	SUS316,SUS316L
4	Guide bush	SUS630,SUS316,SUS316L
5	Guide frame	SUS316
6	Bonnet	SCPH2,SCS13A,SCS14A
7	Stud bolt	SUS304,SUS316
8	Hexagonal nut	SUS304,SUS316
9	Gasket	PTFE,Grahite
10	Gland packing	V-PTFE,V-PTFE+O" ring,Grahite
11	Bellows	SUS316,SUS316L
12	Bellows spacer	SUS304(TKA),SUS316(TKA),SUS304L,SUS316L
40A or more		
1	Body	SCPH2,SCS13A,SCS14A
2	Valve plug	SUS316,SUS316L
3	Seat ring	SUS316,SUS316L
4	Guide bush	SUS630,SUS316,SUS316L
5	Guide frame	SUS316
6	Bonnet	SCPH2,SCS13A,SCS14A
7	Stud bolt	SUS304,SUS316
8	Hexagonal nut	SUS304,SUS316
9	Gasket	PTFE,Grahite
10	Gland packing	V-PTFE,V-PTFE+O" ring,Grahite
11	Bellows	SUS316,SUS316L
12	Bellows spacer	SCPH2,SCS13A,SCS14A

3. Flow characteristic

Table 3 Equalpercentage Characteristics



4. Rated Cv value

Table 4 Size of port and Rated Cv value

Nominalsize	Portsize	Equalpercentage		on-off	
		Rated Cv value	Stroke	Rated Cv value	Stroke
15A~25A	4A No.5	0.01	13mm	-	8mm
	4A No.4	0.02		-	
	4A No.3	0.06		-	
	4A No.2	0.12		-	
	4A No.1	0.25		0.4	
	5A	0.5		0.7	
	7A	1.1		1.3	
	10A	2.5		2.8	
	15A	5		6.3	
	20A	9		11	
40A	20A	9	-	13mm	
	25A	12	-		
	32A	21	-		
50A	40A	30	25mm	35	25mm
	25A	12		-	
	32A	21		-	
	50A	48		54	
65A	32A	21	25mm	-	25mm
	40A	30		-	
	50A	48		-	
80A	65A	76	40mm	85	40mm
	40A	30		-	
	50A	48		-	
	65A	76		-	
100A	80A	115	40mm	130	40mm
	50A	48		-	
	80A	115		-	
	100A	180		205	
125A	80A	115	60mm	-	60mm
	100A	180		-	
150A	125A	270	60mm	270	60mm
	100A	180		-	
	125A	270		-	
	150A	390		410	
200A	125A	270	75mm	-	75mm
	150A	390		-	
	200A	660		680	
250A	150A	390	75mm	-	75mm
	200A	660		-	
300A	250A	1000	75mm	1100	75mm
	200A	660		-	
	300A	1440		1600	

5. Standard Specifications of drive part

[T-5000-series Multi springs Type Diaphragm Actuator]

Model name	: Multi springs type Diaphragm Actuator T-5000 series
Model number	: T-57 、 T-58 、 T-59 、 T-50
Action	: Direct action(DA),Reverse action(RA)
Diaphragm case materials	: Aluminum casting product (alumite processing)
Diaphragm materials	: CR rubber with base fabric
Yoke materials	: FC200
Actuator air pressure	: See Table 7,8,9,10
Drive part tightening pressure	: See Table 7,8,9,10
Ambient temperature	: -30 ~ 60
Coating color	: Yellow (Munsell 2.5Y 8/13)
Air piping connection	: Rc1/4

6. Option

[Body]

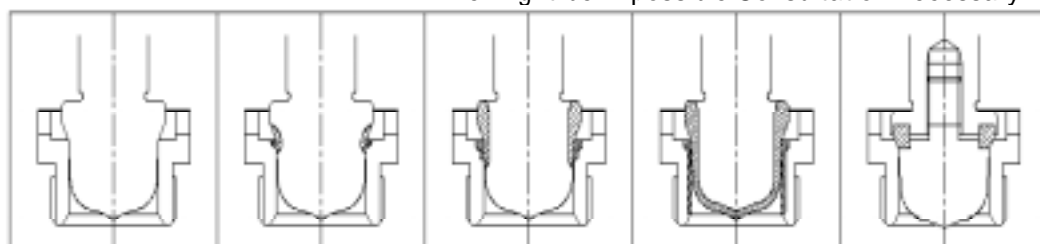
Berrows materials / Withstanding pressure	: 10.0MPa G Withstanding pressure
Gasket	: Tooth gasket , Spiral gasket etc
Gland Structure / materials	: Double gland / Graphite ,High pressure V-PTFE etc
End connection standard	: Ditch type , SW , BW
Jacket	: Full-Jacket,Semi-Jacket
Body / Bonnet materials	: HastelloyR,SCS19A,TB340 etc
Guide flame/bush materials	: All-in-one design,Chrysanthemum Type,Prevention-gnaw
Port shape	: V-port(Eq%)
Valve plug addition detailed specification	: Stellite processing , PTFE(PCTFE)disk etc see Fig.2,3
Seat ring	: All-Round Welding,Gasket

[Yoke]

Yoke materials	: SCPH2,SCS13A etc
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[Actuator]

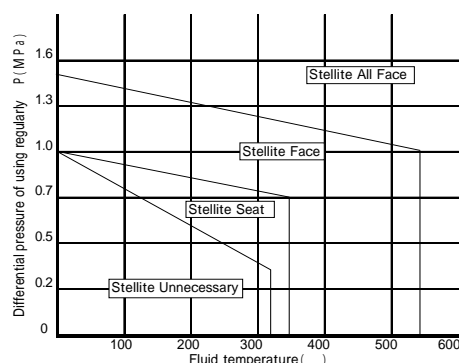
Manual Hand Wheel	: Top Handle
Coating color	: Each color
Mechanical stopper	: Maximum/Minimum Stopper
Urgent exhaust function	: In specified time We might be impossible. We might be impossible.Consultation necessary.



STD Stellite-Seat Stellite Face Stellite All Face PTFE(PCTFE) Disk

Fig. 2 valve plug addition detailed specification chart

For Liquid and Steam



For Gas

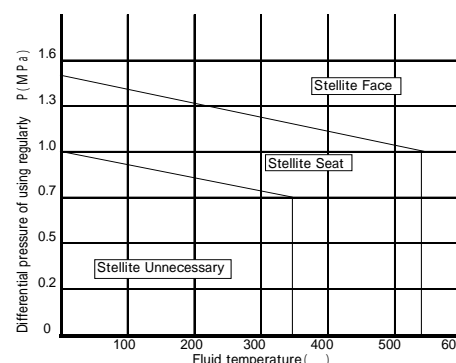


Fig.3 Relation between differential pressure and temperature that needs stellite welding

■ 7. Accessories

Positioner : IP(TP351),PP(TP601)
 Air Set(Filter-tipped Reducing valve) : XR104,XR108,AW3000
 Solenoid-controlled valve : AG33,MOOU,M15G
 Limit switch : 1LS,ZE-** etc...
 Adjacent switch : E2F etc...

■ 8. Weight

Table 5 Weight table

JIS10K [kg]

Nominal size	standard	Cooling Fin	Extension	Long Extension
15A	22	23	23	25
20A	22	23	23	25
25A	23	24	24	27
40A	36	37	38	43
50A	43	46	46	51
65A	58	61	61	67
80A	82	88	89	95
100A	91	102	103	110
125A	120	131	132	137
150A	230	252	274	280
200A	350	390	395	405
250A	470	520	525	530
300A	670	740	745	765

■ 9. Gland structure

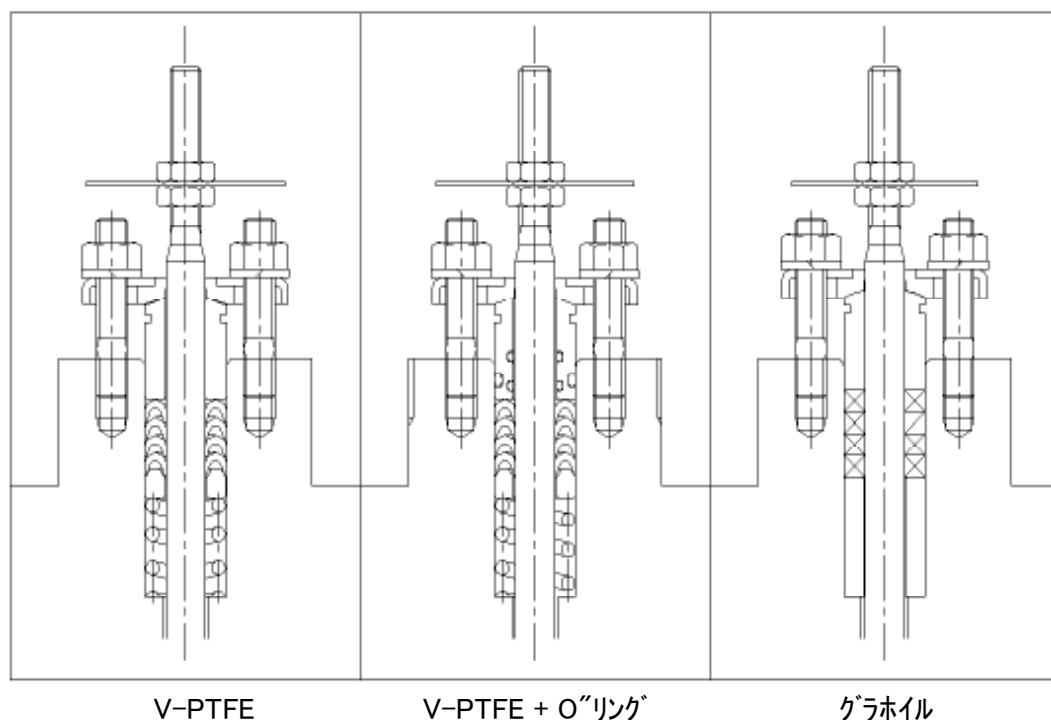
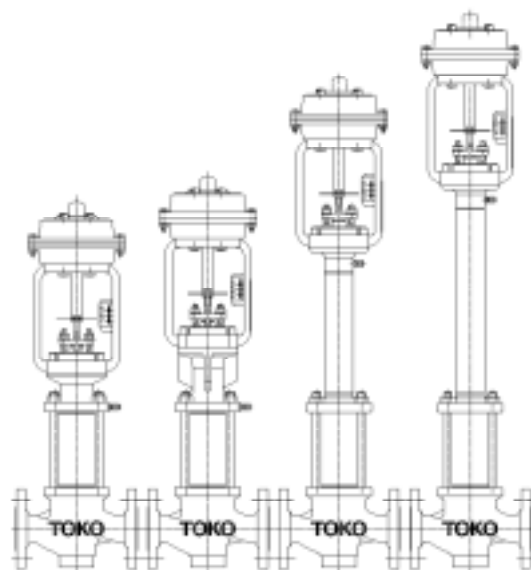


FIG.4 Gland structure

	V-PTFE	V-PTFE+O'ring	Graphite
Material	PTFE	PTFE+CR, FPM, NBR	Graphite
Temperature	-15~180°C	CR:-40~110°C FPM:-15~230°C、NBR:-50~	-200~400°C
Pressure	3.0MPa	3.0MPa or more is combined with the	15.5MPa

FIG.7 Gland part structural chart

10. Bonnet Shape



STD Cooling Fin Extension Long-Extension

FIG.8 Various bonnets

Table 6 Bonnet temperature span for selection

· STD	: 0 ~ 180
· Cooling Fin	: 180 以上
· Extension	: -50 ~ 0
· Long Extension	: -196 ~ -50

11. Various sizes

Table 7 JIS10K,20K, ANSI150,300 Size table (mm)

Body Size	H	K	A
15	501	55	184 (194)
20	501	55	184 (194)
25	511	60	184 (197)
40	654	70	222 (235)
50	668	85	254 (267)
65	670	85	276 (292)
80	886	115	298 (317)
100	892	128	352 (368)
125	1460	165	403 (425)
150	1500	220	451 (473)
200	1486	260	543 (568)
250	1672	320	673 (708)
300	1679	350	737 (775)

()The size becomes the face-to-face dimension of JIS20K and ANSI300.

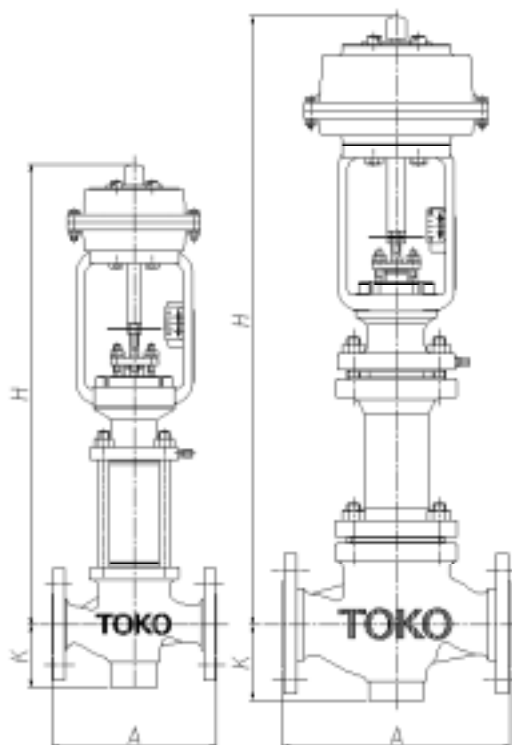


Fig. 6 Body Size

Table 8 Size H table according to bonnet shape (mm)

Body Size	Cooling-Fin	Extension	Long Extension
15	546	666	716
20	546	666	716
25	571	676	751
40	714	841	894
50	728	864	909
65	750	863	918
80	966	1109	1142
100	992	1128	1161
125	1700	1698	1768
150	1793	1734	1804
200	1915	2884	1976
250	2261	2059	2165
300	2426	2129	2239

Notes

- The supplied instrumentation air must use dry cleanly and enough air for instrumentation.
- We might change a part of the specification and externals without the refusal for the demand and the quality improvement.

TOKO VALEX CO.,LTD.

Headoffice and fac. : 4-2-17,MATSUSHIMA,EDOGAWA-KU,TOKYO 132-0031,JAPAN / TEL +81-3-3655-3171 FAX +81-3-3655-5166

Sales Headquarters : 4-2-17,MATSUSHIMA,EDOGAWA-KU,TOKYO 132-0031,JAPAN / TEL +81-3-3655-3171 FAX +81-3-3655-5166

Osaka branch : 1-12-3,NAKATSU,KITA-KU,OOSAKA-SHI,OOSAKA 531-0071,JAPAN / TEL +81-6-6372-0118 FAX +81-6-6375-0340

Fukushima fac. : 93-239,SAINOKAMI,AZA,TONO-MACHI,IWAKI-CITY,FUKUSHIMA 972-0162,JAPAN / TEL +81-2-4689-3326 FAX +81-2-4689-2775