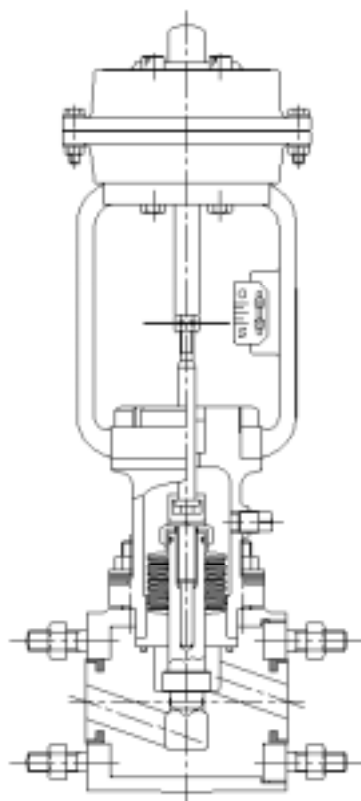
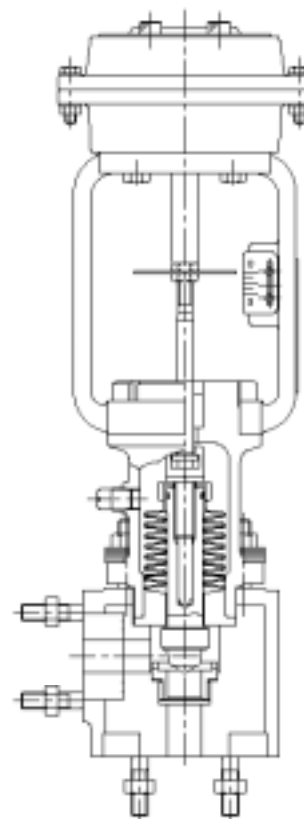


General Specification	Acid-proof Control Valve Multi-spring Actuator	T - 8 2 1 0 T - 8 2 2 0
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T-8210 Two-way Acid-proof Control Valve
 T-8220 Angle-type Acid-proof Control Valve



**T-8210 Two-way type
Feature**



T-8220 Angle type

- Two-way type's part that the liquid always touches is excellent in the resistance to corrosion to an acid and an alkaline fluid made of the resin.
- In the angle type, the body and the valve plug are made of resins. The metal with strong resistance to corrosion is used for the seat ring. It is effective for the hypochlorite soda and has the feature as the angle type.
- Both seal performances are improved by the GRANDRESS structure to build in the PTFE bellows.

1. Standard specification

Table 1 Standard specification table

Model number	T-8210	T-8220
Model name	Two-way type	Angle type
End connection standard	JIS10K,ANSI / ASME150# Flange ends RF equivalency stud bolt type	
Nominal size(A)	15A ~ 65A	15A ~ 100A
Rated Cv	0.01 ~ 76	0.01 ~ 180
Body materials	PTFE,PVC,PP(Body case:SCS13A)	
Bonnet materials	SCS13A	
Valve plug materials	PTFE	
Seat ring materials	-	SUS316,TB340
Berrows materials / withstanding pressure	PTFE / 0.5MPa	
Flow characteristics	Equal percentage characteristics (Rangeability 50:1)	
Working pressure range	Under 0.5MPa G , Atmospheric pressure ~ 1.2kPa abs(9torr)	
Temperature range	PTFE(0 ~ 100),PVC(0 ~ 50),PP(0 ~ 100)	
Allowable seat leakage volume	ANSI CLASS (0.01%Cv)	

■ 2. Main body structure

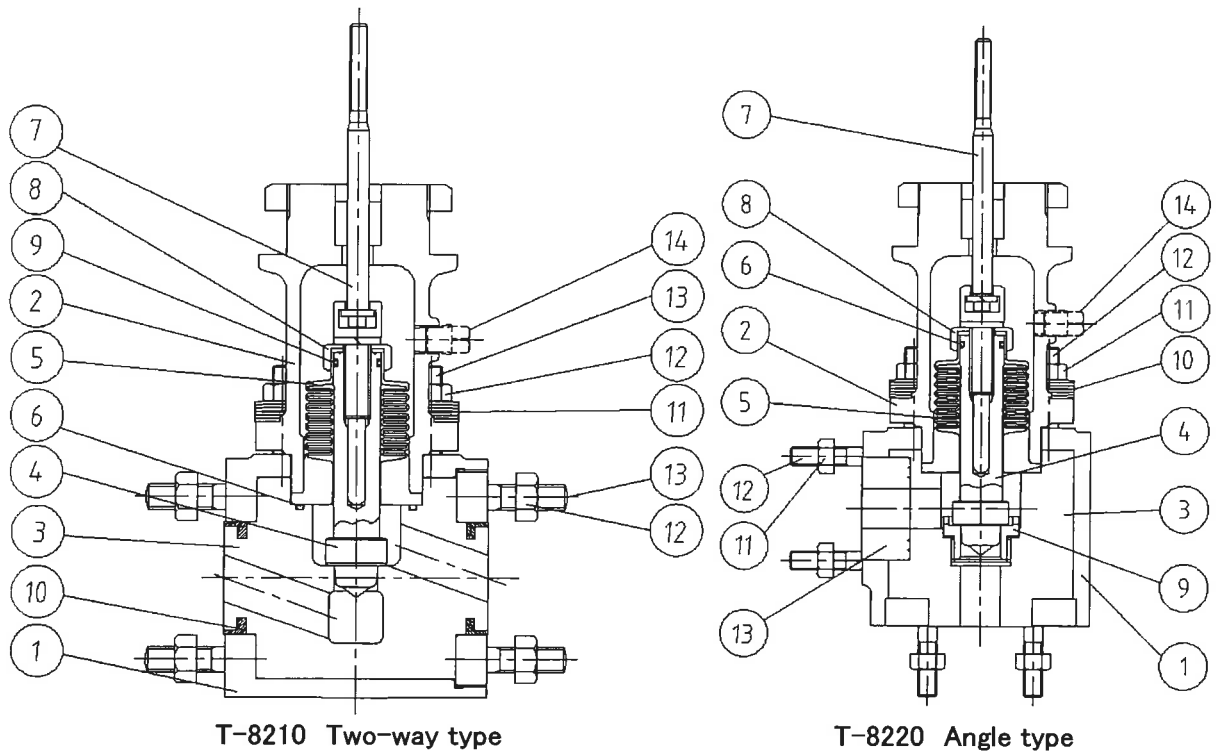


Fig.1 Body structural

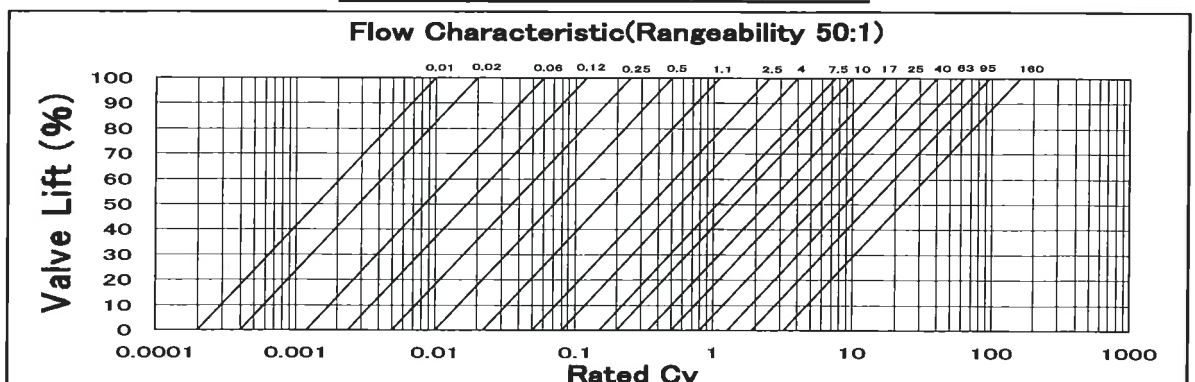
Table-2 Main part materials

Number	Parts name	Standard material
1	Body case	SCS13A
2	Bonnet	SCS13A
3	Body	PTFE,PVC,PP
4	Valve plug	PTFE
5	Berrows	PTFE
6	O-ring	FPM
7	Valve stem	SUS304
8	Berrows cap	SUS304
9	O-ring	FPM
10	Guide ring	SUS304
11	Plate spring	SUS304
12	Hexagonal nut	SUS304
13	Stud bolt	SUS304
14	Plug (for tightness leak test)	SUS304

Number	Parts name	Standard material
1	Body case	SCS13A
2	Bonnet	SCS13A
3	Body	PTFE,PVC,PP
4	Valve plug	PTFE
5	Berrows	PTFE
6	O-ring	FPM
7	Valve stem	SUS304
8	Berrows cap	SUS304
9	Seat ring	TB340
10	Plate spring	SUS304
11	Hexagonal nut	SUS304
12	Stud bolt	SUS304
13	Spacer	the same as the body material.
14	Plug (for tightness leak test)	SUS304

■ 3. Flow characteristic

Table-3 Equal percentage characteristics



4. Production size

Table 4 Size of port and Rated Cv value table

Port			Nominal size							
size	Rated Cv value	Stroke	15A	20A	25A	40A	50A	65A	80A	100A
4A No.5	0.01	13								
4A No.4	0.02									
4A No.3	0.06									
4A No.2	0.12									
4A No.1	0.25									
5A	0.5									
7A	1.1									
10A	2.5									
15A	4.0									
20A	7.5									
25A	10	25								
32A	17									
40A	25									
50A	40									
65A	63									
80A	95	40								
100A	160									

·Circles () show the range of production. Asterisks (*) show available sizes of angle-type product.

·When selecting from the above table the desired size valve based on calculated Cv values, check that the valve will attain the maximum calculated Cv value at 80% of the rated valve opening. Check as well that the Cv value at the minimum flow rate will be attained when the valve opening is at least 10% of the rated value.

·Use two valves in combination to cover split ranges if a single valve cannot cover the desired maximum and minimum flow rate range.

5. Standard Specifications of drive part

[T-5000-series multi-spring 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 withstanding pressure : 1.0MPa G
 O-ring materials : PTFE(PTFE body only)
 Gland structure : Gland packing(graphite etc...)

[Yoke]

Yoke materials : SCPH2,SCS13A etc...

[Actuator]

Hand operating device : Top handle
 Coating color : Each color
 Mechanical stopper : Maximum,minimum stopper
 Urgent exhaust function : At specified time
 When it is very fast, it might be impossible.

7. Accessories

Positioner	: IP Positioner:TP351,PP Positioner:TP601 etc...
Pressure reducing valves with filter	: XR104,XR108,AW3000
Solenoid-controlled valve	: AG33,M00U,M15G etc...
Limit switch	: 1LS,ZE- ** etc...
Proximity switches	: E2F etc...

8. The main part size

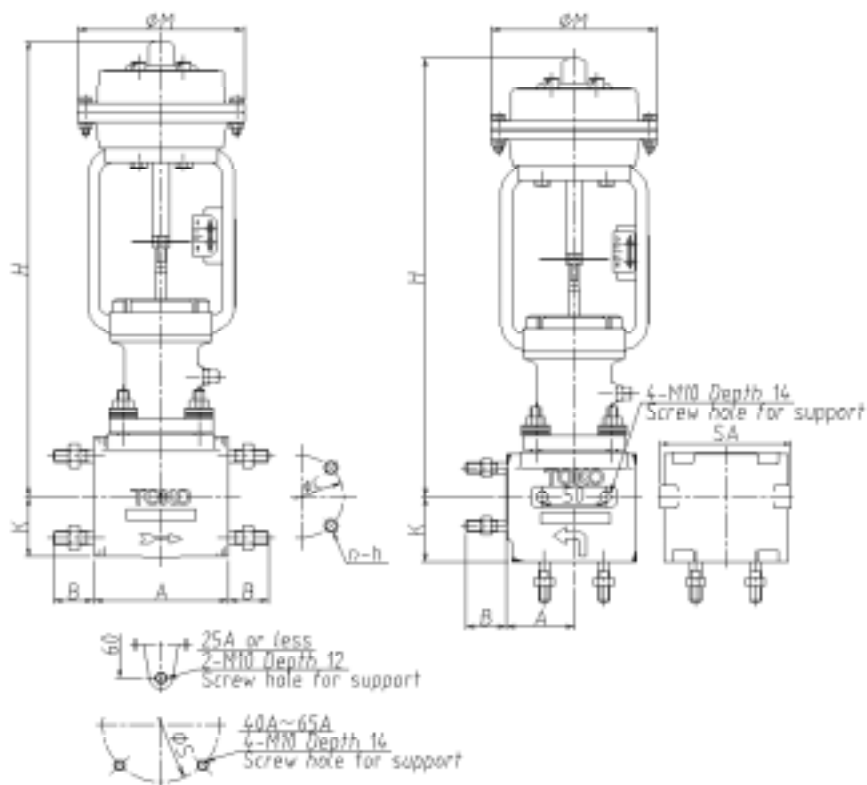


Fig.2 dimensional drawing

Table·5 Various size tables

Model	Sign	15A	20A	25A	40A	50A	65A
T-8210	A	120	120	120	190	230	270
	K	55	55	65	85	100	120
	H	407	407	416	530	545	580
	M	148	148	148	206	206	206
	B	36	36	41	48	48	48
	C	70	75	90	105	120	140
	n - h	4-M12	4-M12	4-M16	4-M16	4-M16	4-M16
	S	-	-	-	130	140	160

Model	Sign	15A	20A	25A	40A	50A	65A	80A	100A
T-8220	A	60	60	65	95	100	105	118	140
	K	60	60	65	95	100	105	118	140
	H	391	391	397	506	530	555	692	711
	M	148	148	148	206	206	206	300	300
	B	36	36	41	48	48	48	80	80
	n - h	4-M12	4-M12	4-M16	4-M16	4-M16	4-M16	8-M16	8-M16
	SA	116	116	134	174	190	204	230	270

As for T-8210, the tap processing for the support is given to the bottom of the body.

As for T-8220, the tap processing for the support is given to the front and the other side of the body.

Please fix the main body by using the tap for the support when using it to lay pipes other than metallic piping.

9. Weight

Table·6 Mass table

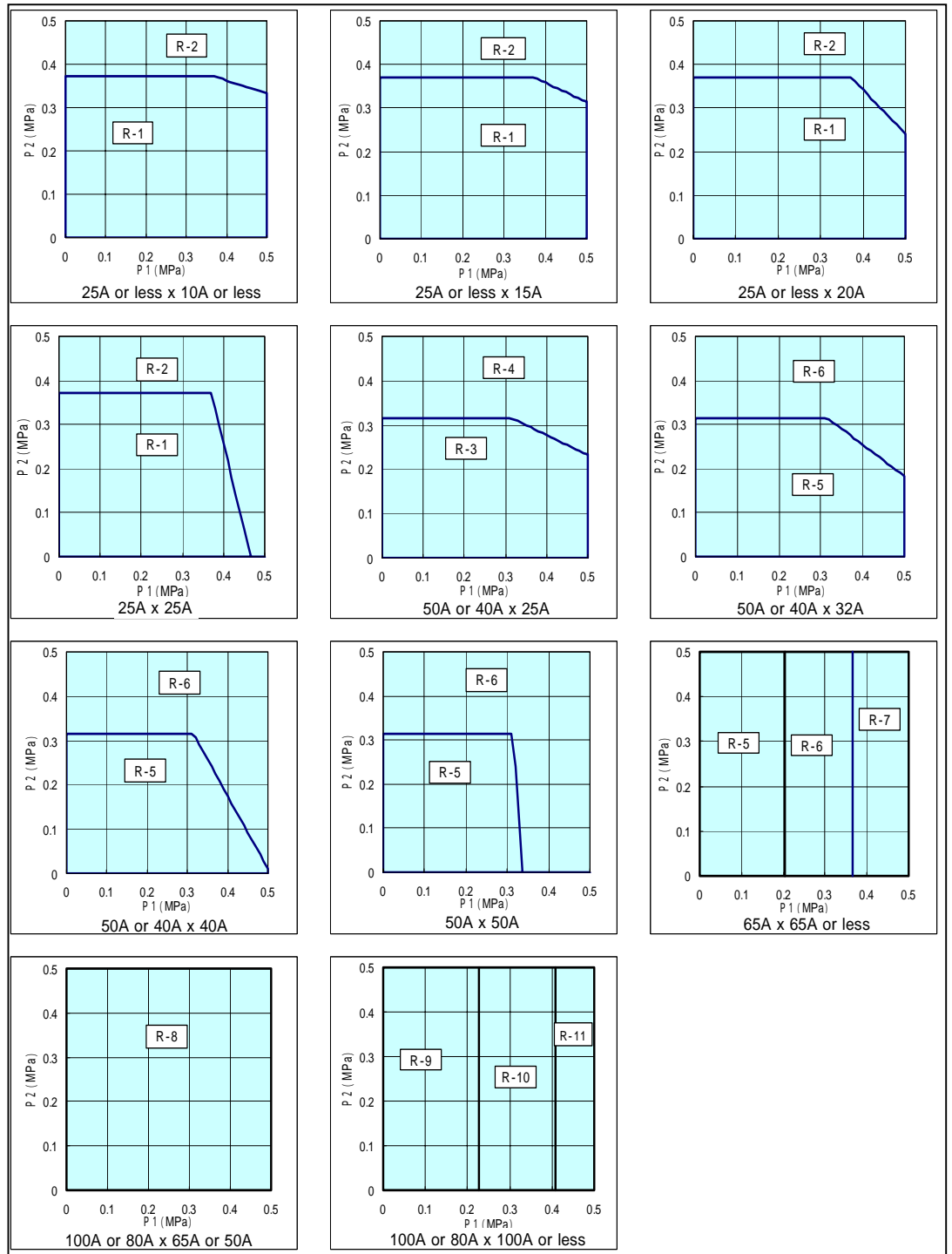
Materials \ Nominalsize	Unit (kg)							
	15A	20A	25A	40A	50A	65A	80A	100A
PTFE	15	15	22	37	45	55	65	80
PVC	14	14	21	35	42	51	60	73

10. Deadline Pressure(Air to Open)

Table 7 Actuator selection

No.	Model No.	Actuator air pressure (kPa)	Supply (kPa)
R-1	T-5772	50-110	140
R-2	T-5773	100-190	250
R-3	T-5872	50-110	140
R-4	T-5873	100-190	250
R-5	T-5882	50-110	140
R-6	T-5883	90-190	250
R-7	T-5886	140-300	350
R-8	T-5982	50-110	140
R-9	T-5942	50-100	140
R-10	T-5943	90-170	250
R-11	T-5946	140-270	350

Table 8 Deadline Pressure

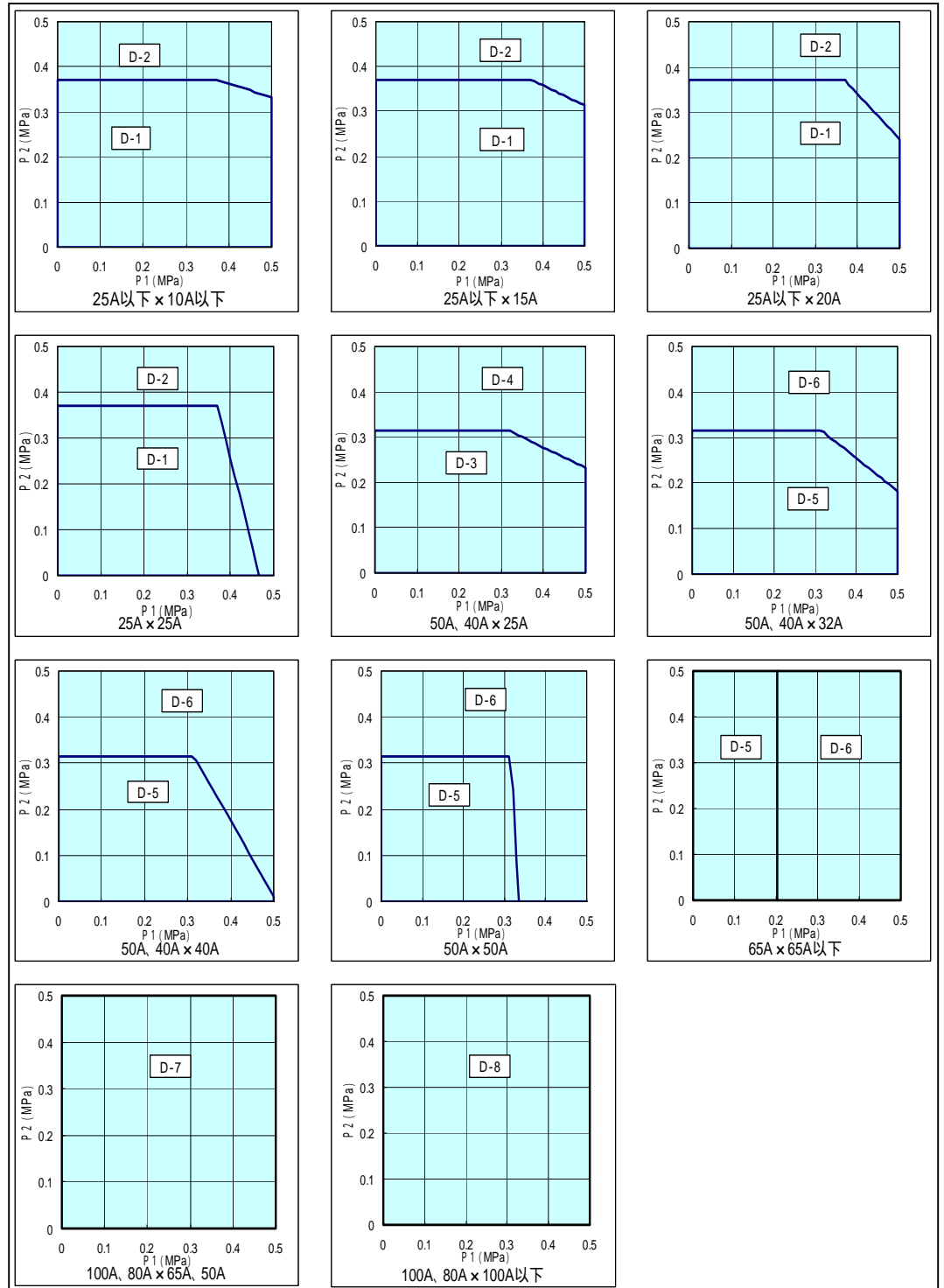


11. Deadline Pressure(Air to Close)

Table 9 Actuator selection

No.	Model No.	Actuator air pressure (kPa)	Supply (kPa)
D-1	T-5772	50-110	160
D-2	T-5773	100-190	350
D-3	T-5872	50-110	160
D-4	T-5873	100-190	350
D-5	T-5882	50-110	160
D-6	T-5883	90-190	350
D-7	T-5982	50-110	160
D-8	T-5942	50-100	250

Table 10 Deadline Pressure



N o t e s

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.

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