

Serial No.	H-V063-E-10
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Self Control Valves

Pressure Reducing Type (V182, V82)

Pressure Relief Type (V185)

Pressure Retaining Type (V186)

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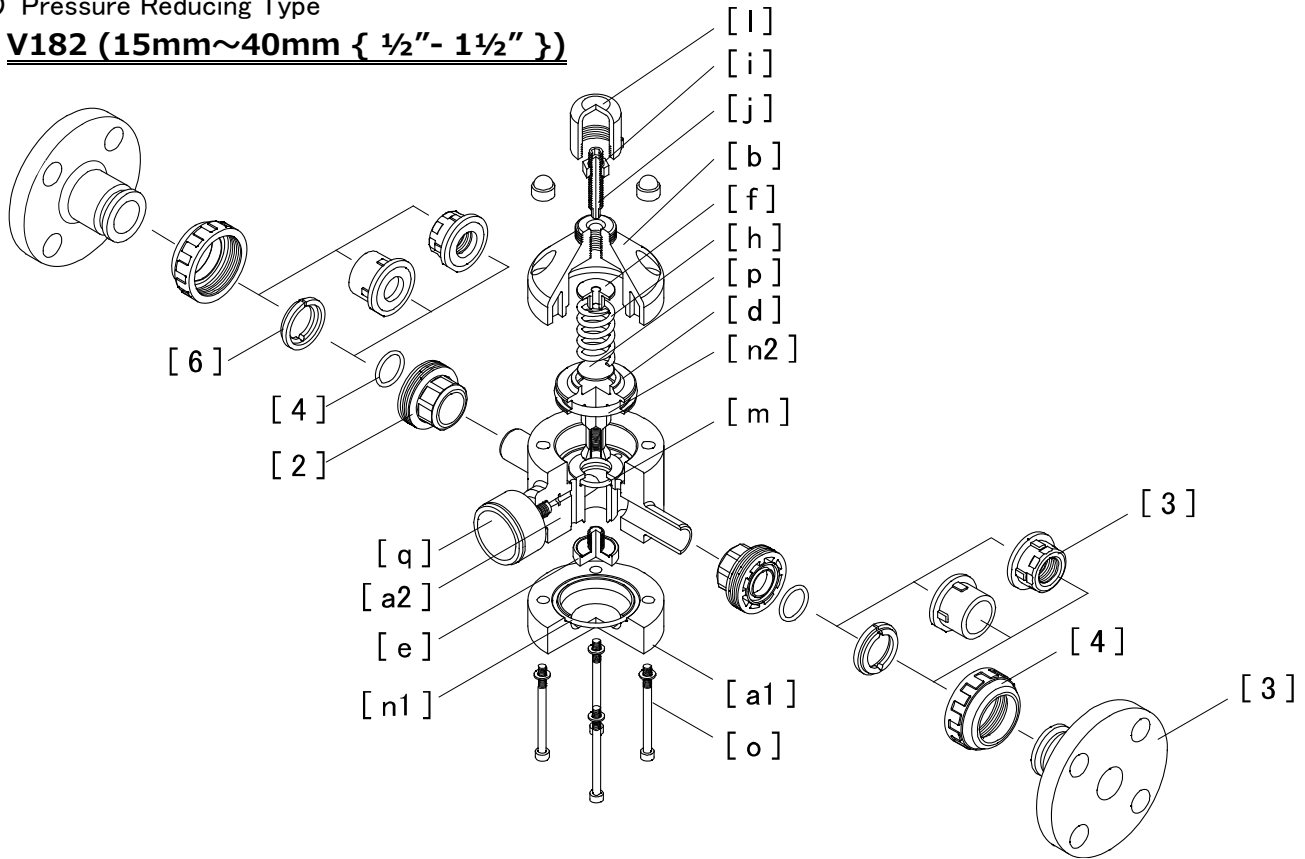
User's Manual



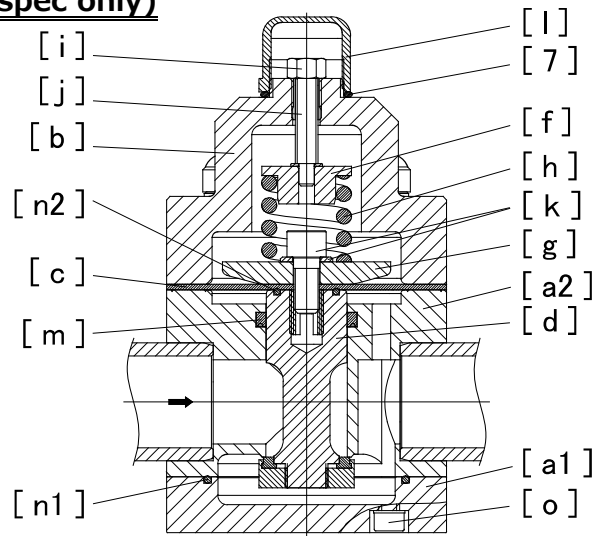
4. Name of parts

○ Pressure Reducing Type

V182 (15mm~40mm { 1/2" - 1 1/2" })



V82 (50mm {2"} ; PTFE spec only)



No.	Description	No.	Description	No.	Description	No.	Description
[a1]	Body (Bottom)	[g]	Compressor*1	[n1]	O-Ring (A)	[4]	Union nut
[a2]	Body (Top)	[h]	Compression spring	[n2]	O-Ring (B)	[5]	O-Ring (C)
[b]	Housing	[i]	Lock nut	[o]	Bolt, Nut, Washer	[6]	Stop ring*4
[c]	Diaphragm*1	[j]	Adjusting screw	[p]	Spring support plate*2	[7]	O-Ring (D)
[d]	Piston	[k]	Bolt, Washer*1	[q]	Pressure gauge		
[e]	Piston base*2	[l]	Cap	[2]	PJ-Body*3		
[f]	Spring plate	[m]	Ring seal	[3]	End connector		

*1; Used for V82

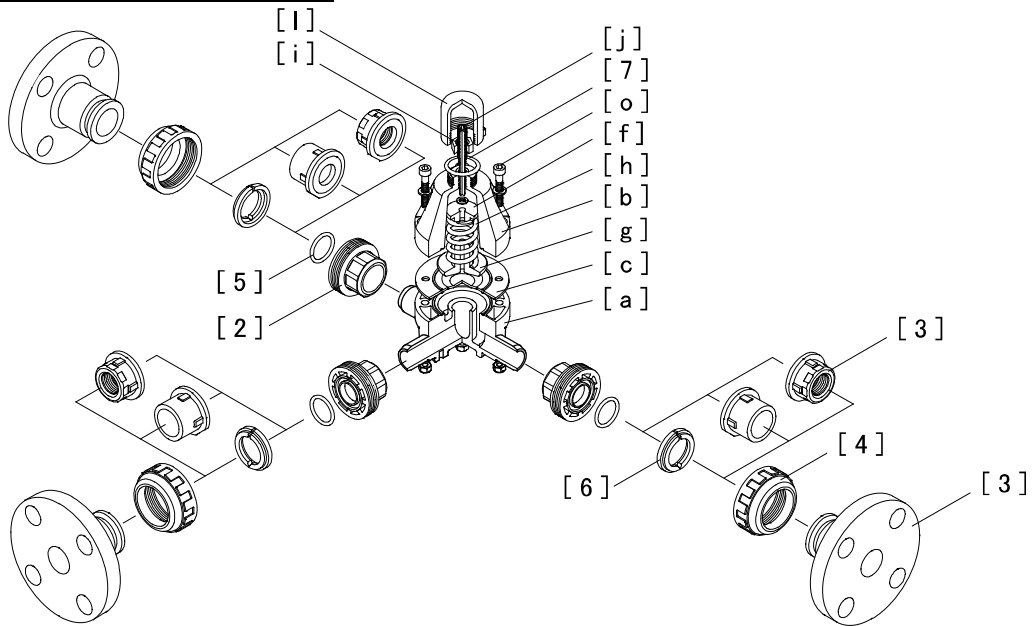
*2; Used for V182

*3; Part for self control valve

*4; Used for flange type

○ Pressure Relief Type

V185 (15mm~50mm { 1/2"-2" })

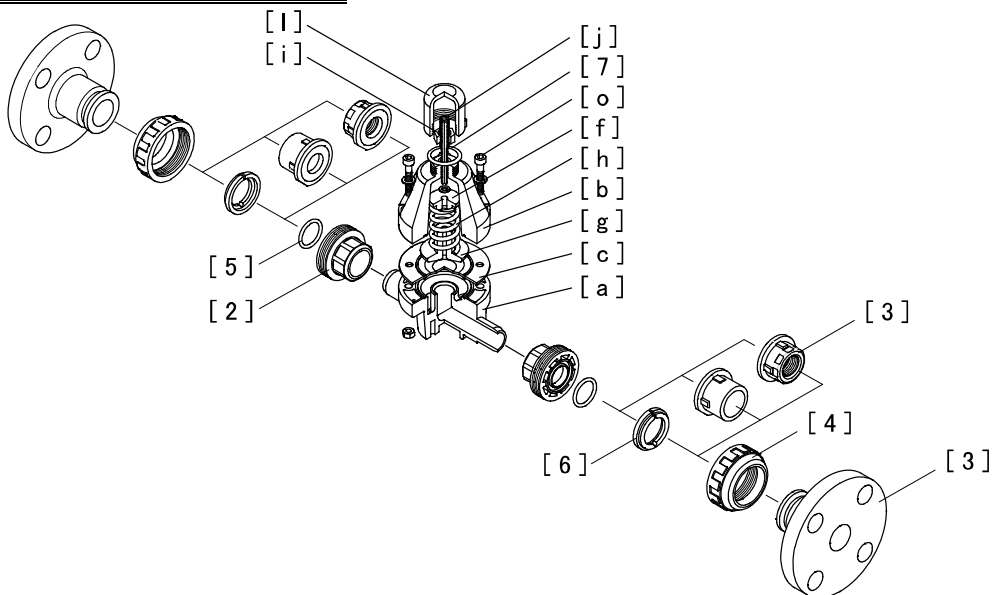


No.	Description	No.	Description	No.	Description	No.	Description
[a]	Body	[g]	Compressor	[i]	Cap	[4]	Union nut
[b]	Housing	[h]	Compression spring	[o]	Bolt, Nut, Washer	[5]	O-Ring (C)
[c]	Diaphragm	[i]	Lock nut	[2]	PJ-Body* ¹	[6]	Stop ring* ²
[f]	Spring plate	[j]	Adjusting screw	[3]	End connector	[7]	O-Ring (D)

*1; Part for self control valve *2; Used for flange type

○ Pressure Retaining Type

V186 (15mm~50mm { 1/2"-2" })

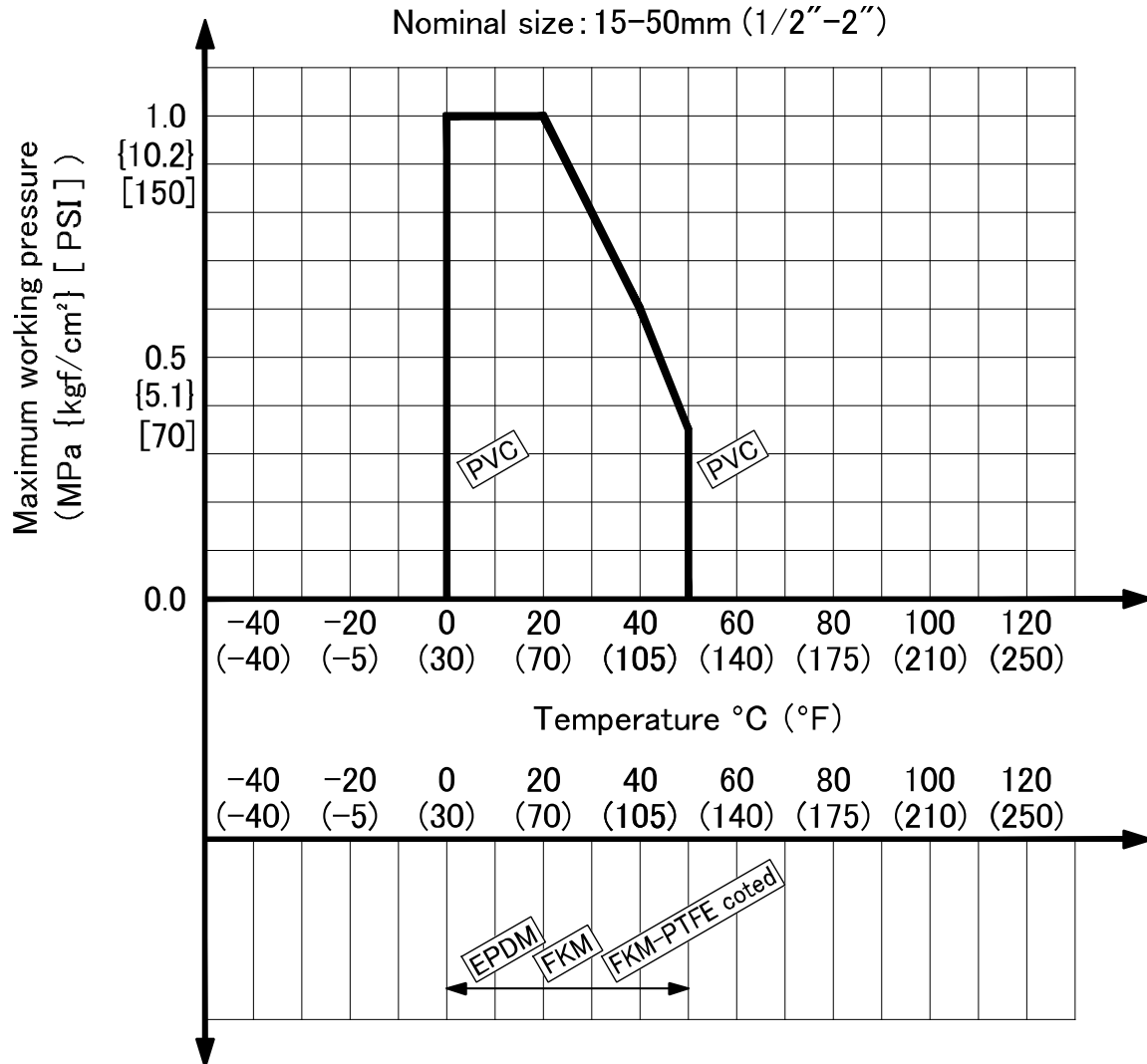


No.	Description	No.	Description	No.	Description	No.	Description
[a]	Body	[g]	Compressor	[i]	Cap	[4]	Union nut
[b]	Housing	[h]	Compression spring	[o]	Bolt, Nut, Washer	[5]	O-Ring (C)
[c]	Diaphragm	[i]	Lock nut	[2]	PJ-Body* ¹	[6]	Stop ring* ²
[f]	Spring plate	[j]	Adjusting screw	[3]	End connector	[7]	O-Ring (D)

*1; Part for self control valve *2; Used for flange type

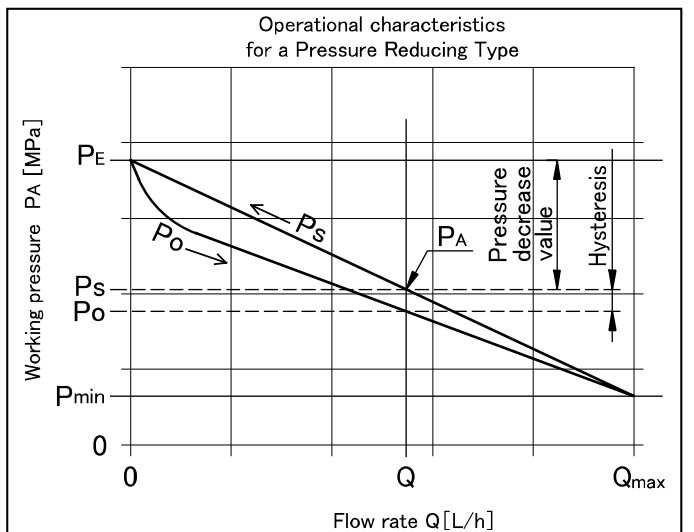
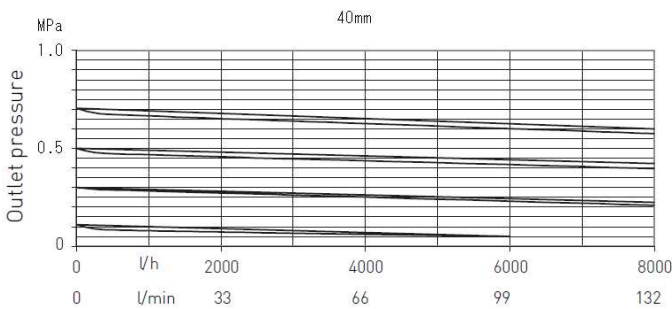
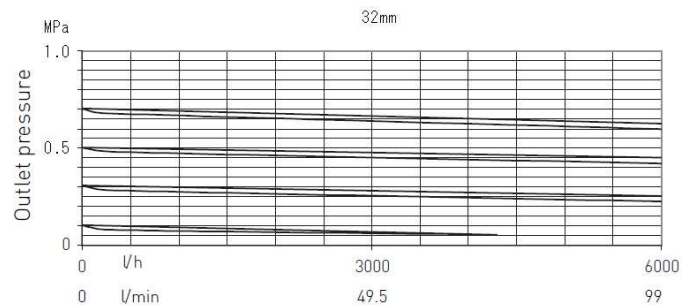
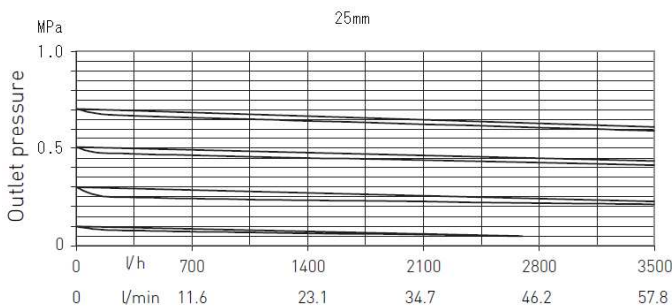
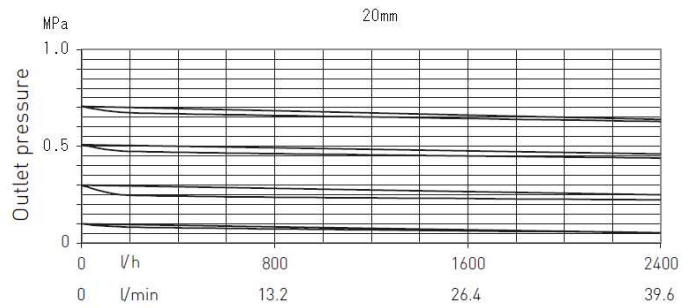
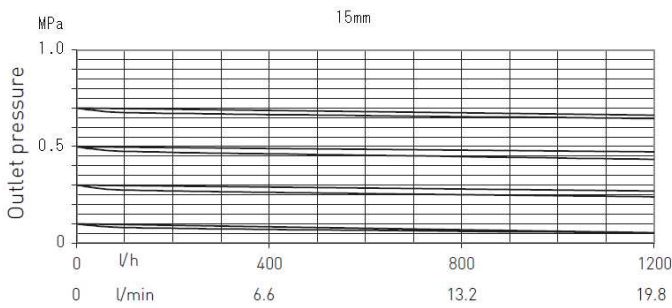
6. Maximum working pressure vs. temperature

- Pressure Reducing Type (V182, V82), Pressure Relief Type (V185), Pressure Retaining Type (V186)

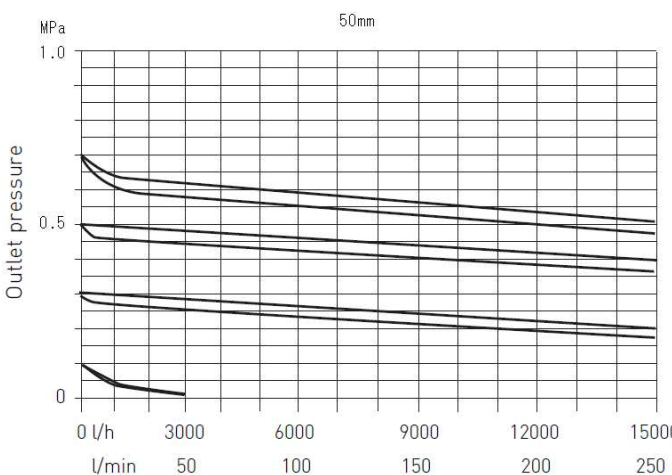


7. Valve flow characteristic

- Pressure Reducing Type (V182)



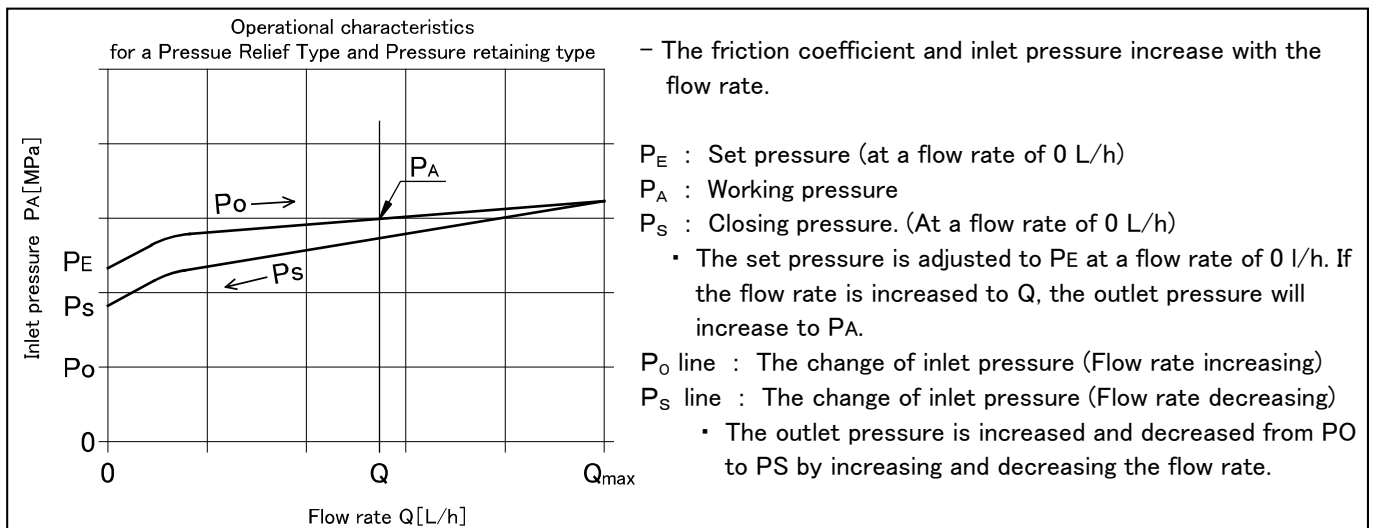
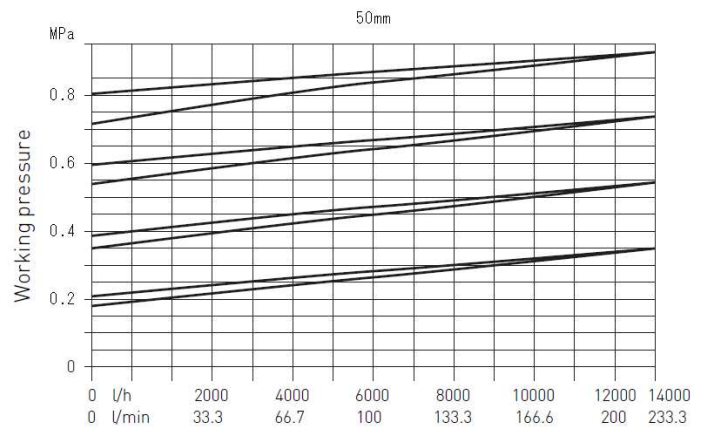
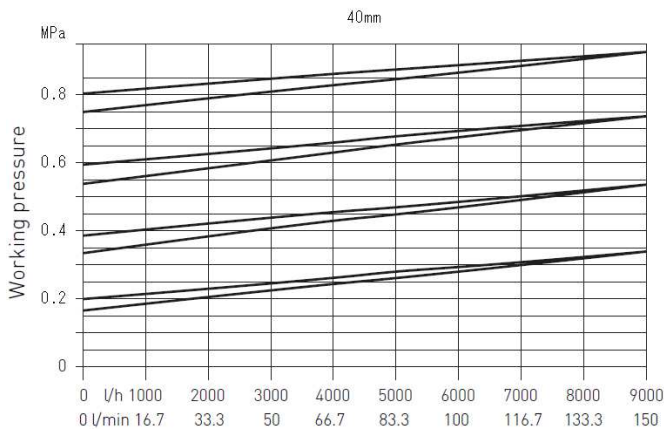
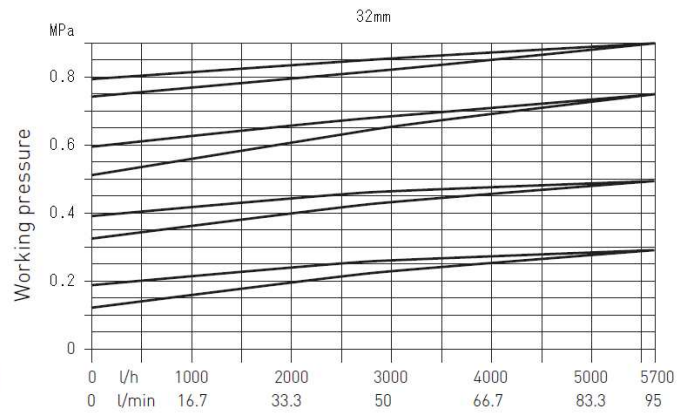
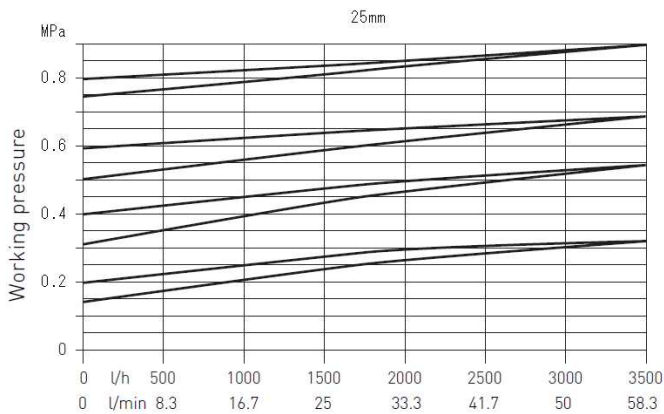
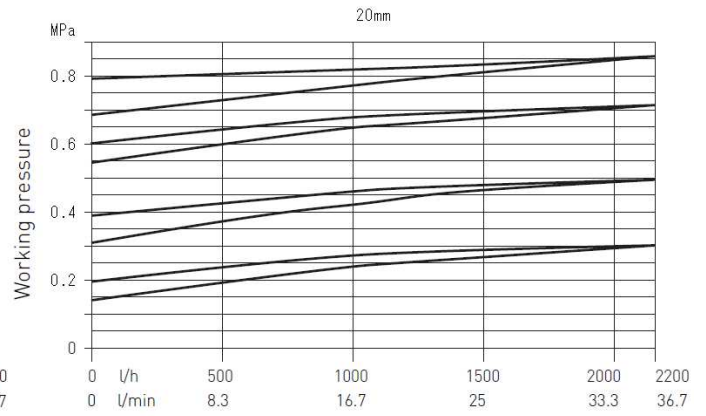
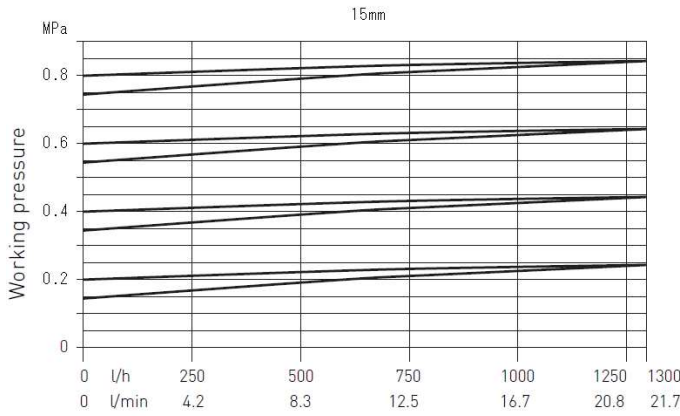
- Pressure Reducing Type (V82)



- The friction coefficient increases with the flow rate and the outlet pressure decreases.

- P_E : Set pressure (at a flow rate of 0 L/h)
- $P_E - P_{min}$: Max. pressure reduction value
 - The set pressure is set at P_E . If the flow rate is increased to Q , the outlet pressure will decrease to P_O .
- P_O line : Opening pressure characteristic. (Flow rate increasing)
- P_S line : Closing pressure characteristic. (Flow rate decreasing)
- Hysteresis : The flow rate is affected by the influence of the spring, piston and diaphragm in the valve. The working pressure is also a function of these parts, and will change depending on whether the flow rate is increasing or decreasing.

- Pressure Relief Type (V185), Pressure Retaining Type (V186)



Self Control Valves

Pressure Reducing Type / Pressure Relief Type / Pressure Retaining Type

15-50mm (1/2"-2")

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