

Pressure Reducing Valve

감 압 밸 브



가스용, 액체용 감압밸브

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* 직동식 감압밸브(Direct Acting Type)

직동식 감압밸브는 2차 압력조절 스프링과 메인 밸브로 구성되어 있으며, 스프링과 연결된 다이어프램 또는 벨로우즈에 의해 메인 밸브가 직접 작동하는 밸브입니다.

* 파이롯트식 감압밸브(Pilot Type)

파이롯트 감압밸브는 2차 측 압력을 감지하는 파이롯트부분과 메인밸브로 구성됩니다.

메인밸브를 구동하는 방법에 따라 파이롯트 다이어프램식과 파이롯트 피스톤식으로 구분 할 수 있습니다.

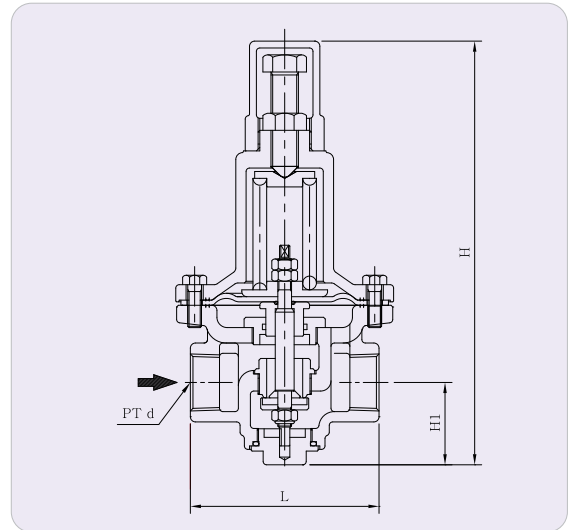
Pressure Reducing Valve

감압밸브는

통과하는 유체의 에너지에 따라 밸브의 열림 정도를 변화시켜 2차 측의 유체 압력을 1차 측의 유체 압력보다 낮은 어떤 일정한 압력으로 유지하는 자동조정 밸브입니다.

DRE-1S/2S | 감압밸브(Pressure Reducing Valve-Direct Acting Type)

- 성능이 우수하며 구조가 간단하여 내구성이 우수합니다.
- 조정범위가 넓고 흐름의 상태를 안정하게 유지하며 우수한 성능을 발휘합니다.



▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ² g)	Outlet Pressure (kgf/cm ² g)	Max Reducing Ratio	Design Temperature (°C)	Working Fluid	Connection	Materials	
						DRE-1S	DRE-2S
MAX. 10	0.5~5	10 : 1	80	Air(Gas) Water(Liquid)	Female PT Screwed	Body: Ductile Iron Trim: Stainless Steel, Synthetic Rubber	Body: Stainless Steel Trim: Stainless Steel, Synthetic Rubber

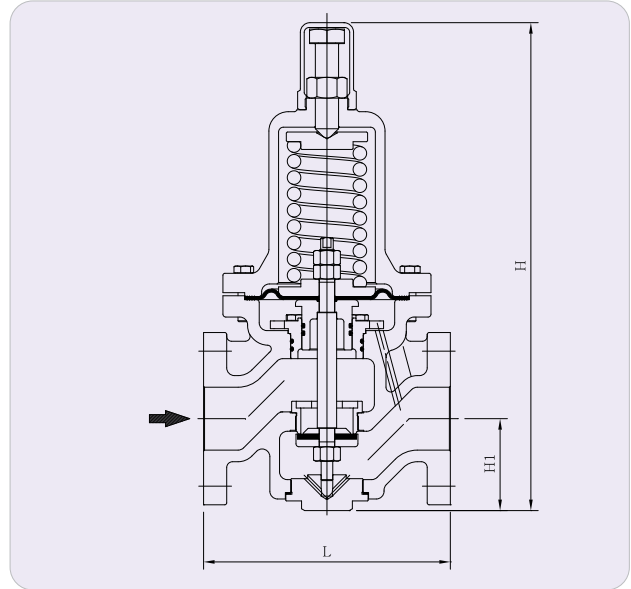
▶ 치수 (Dimensions)

Size		Part	d	L	H1	H
DRE-1S	DRE-2S					
15A			PT 1/2"	100	47	222
20A			PT 3/4"	100	47	222
25A	25A		PT 1"	110	51	231
32A	32A		PT 1 1/4"	150	70	290
40A	40A		PT 1 1/2"	160	70	290

※DRE-1S : 32A, 40A (KC인증품)

DRE-1F/2F | 감압밸브(Pressure Reducing Valve-Direct Acting Type)

- 대용량으로 성능이 우수하며 구조가 간단하여 내구성이 우수합니다.
- 조절 가능 유량의 범위가 넓고 안정된 흐름의 상태를 유지할 수 있으며 최소 조절가능 유량이 뛰어납니다.
- 상부측의 분해만으로 내부 점검을 할 수 있도록 설계제작되어 보수점검이 용이합니다.
- 한번만 조정하시면 항상 일정한 압력으로 유지시켜 줍니다.



▶ 사양 (Specifications)

Model	DRE-1F	DRE-2F
Inlet Pressure (kgf/cm ²)	MAX. 10	MAX. 20
Outlet Pressure (kgf/cm ²)	0.5~7	0.5~7
Type	Diaphragm Type	Diaphragm Type
Max Reducing Ratio	10 : 1	10 : 1
Design Temperature (°C)	80	80
Working Fluid	Air(Gas), Water(Liquid)	Air(Gas), Water(Liquid)
Connection	JIS 10K Flanged	JIS 10K / 20K Flanged
Materials	Body : Ductile Iron	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber	Trim : Stainless Steel, Synthetic Rubber

▶ 치 수 (Dimensions)

Size \ Part	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A	200A
L	160	160	160	180	180	190	230	250	300	370	400	484
H1	65	65	65	76	76	78	95	107	127	148	163	163
H	335	335	335	400	400	407	505	525	598	728	764	764

※DRE-2F - 주문에 따라 입·출구플랜지 ANSI, DIN 규격으로도 제작할 수 있습니다.

※DRE-1F : 32A~200A (KC인증품)

※DRE-2F - 주문에 따라 스테인레스 재질로 제작할 수 있습니다.(KC 인증품)

※주문에 따라 외부 센싱 가능합니다.

DRE-3F | 감압밸브(Pressure Reducing Valve-Direct Acting Type)

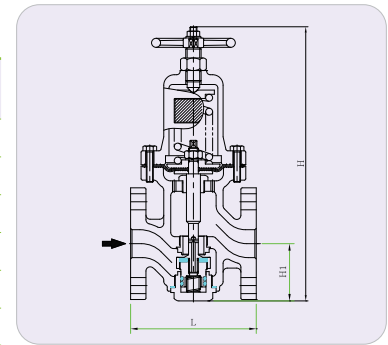
▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ²)	MAX. 40
Outlet Pressure (kgf/cm ²)	0.5~8
Max Reducing Ratio	10 : 1
Design Temperature (°C)	80
Working Fluid	Air(Gas), Water(Liquid)
Connection	JIS 30K, 40K Flanged
Materials	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber



▶ 치수 (Dimensions)

Size	Part	Connection	L	H1	H
15A	JIS 30K, 40K RF Flanged		145	76	366
20A			145	76	366
25A			150	76	366
32A			180	87	407
40A			180	82	407
50A			280	82	407



※주문에 따라 입·출구플랜지 ANSI, DIN 규격으로도 제작할 수 있습니다.

※주문에 따라 스테인레스 재질로 제작할 수 있습니다.

DRS-2S | 감압밸브(Pressure Reducing Valve-Direct Acting Type)

- 소형 경량으로 취급이 용이하고 구조가 간단하여 보수관리가 편리합니다.
- 조정범위가 넓고 흐름의 상태를 안정하게 유지하며 우수한 성능을 발휘합니다.

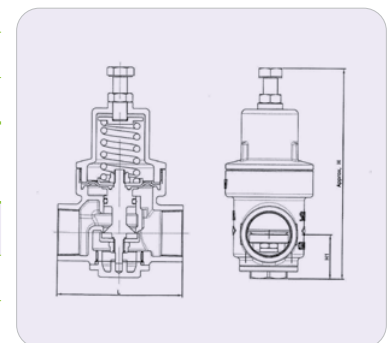
▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ²)	MAX. 10
Outlet Pressure (kgf/cm ²)	0.8~3
Max Reducing Ratio	10 : 1
Design Temperature (°C)	80
Working Fluid	City Water
Connection	Female PT Screwed
Materials	Body : Stainless Steel
	Trim : Synthetic Rubber



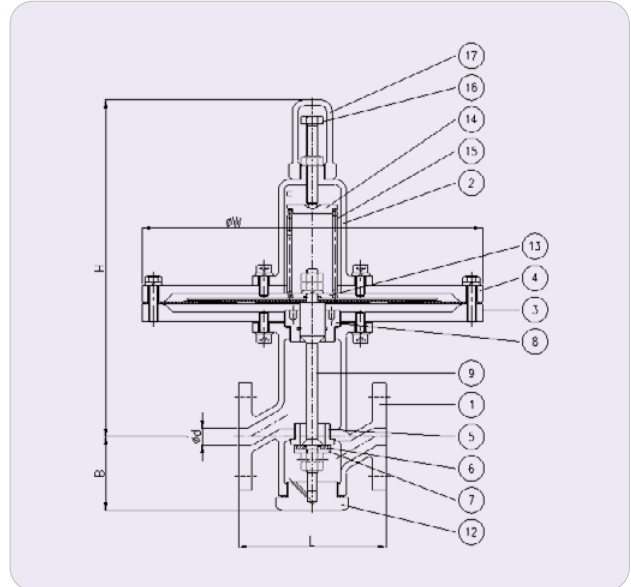
▶ 치수 (Dimensions)

Size	Part	d	L	H1	H
15A		15.0	PT 1/2	25.0	120.0
20A		20.0	PT 3/4	25.0	120.0



DRE-5F | 미압감압밸브(Pressure Reducing Valve-Direct Acting Type)

- 화학 플랜트 & 제철, 제강플랜트용으로 사용하고 미압기체용 다이어프램형 직동식 감압밸브입니다.
- 300 : 1의 높은 감압비율을 가지고 있습니다.
- 저압 GAS의 감압에 많이 사용됩니다.
- 성능이 우수하고 구조가 간단하여 내구성이 우수합니다.



▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ² g)	MAX. 3
Outlet Pressure (kgf/cm ² g)	0.01~0.3
Max Reducing Ratio	300 : 1
Design Temperature (°C)	80
Working Fluid	Gas(Air)
Connection	JIS 10K Flanged
Materials	Body : Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber

▶ 치 수 (Dimensions)

Size	Part	15A	20A	25A	32A	40A	50A
	L	130	150	160	180	200	230
	H1	297	297	297	390	390	390
	H	65.0	65.0	65.0	96.0	96.0	96.0

※ 주문에 따라 입.출구 플랜지 ANSI, DIN 규격으로도 제작할 수 있습니다.

PRE-1F/2F | 감압밸브(Pressure Reducing Valve—Piston Type)

▶ 사양 (Specifications)

Model	PRE-1F	PRE-2F
Inlet Pressure (kgf/cm ²)	MAX. 10	MAX. 20
Outlet Pressure (kgf/cm ²)	0.5~8	0.5~15
Type	Piston Type	Piston Type
Max Reducing Ratio	10 : 1	10 : 1
Design Temperature (°C)	150	150
Working Fluid	Air(Gas), Water(Liquid)	Air(Gas), Water(Liquid)
Connection	JIS 10K, 16K Flanged	JIS 10K,16K,20K Flanged
Materials	Body : Ductile Iron	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber	Trim : Stainless Steel, Synthetic Rubber



▶ 치수 (Dimensions)

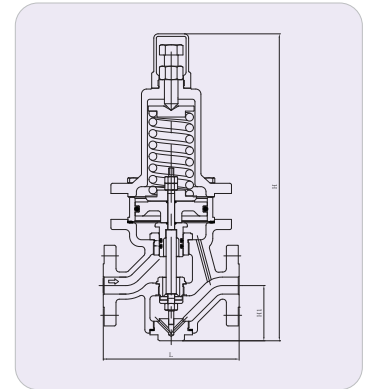
Size	Part	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A	200A
L		160	160	160	180	180	190	251	270	300	370	400	484
H1		65	65	65	65	76	78	95	107	127	148	163	163
H		361	361	361	361	436	445	554	574	656	796	832	832

※PRE-2F - 주문에 따라 입 · 출구플랜지 ANSI, DIN 규격으로도 제작할 수 있습니다.

※PRE-1F : 32A~200A (KC인증품)

※PRE-2F - 스테인레스 재질로 제작할 수 있습니다.(KC 인증품)

※주문에 따라 외부 센싱 가능합니다.



PRE-3F | 감압밸브(Pressure Reducing Valve—Piston Type)

▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ²)	MAX. 40
Outlet Pressure (kgf/cm ²)	0.5~20
Max Reducing Ratio	10 : 1
Design Temperature (°C)	150
Working Fluid	Air(Gas), Water(Liquid)
Connection	JIS 30K, 40K Flanged
Materials	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber

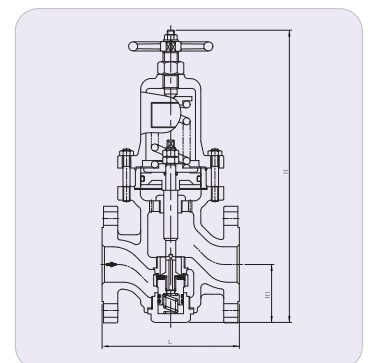


▶ 치수 (Dimensions)

Size	Part	Connection	L	H1	H
15A		JIS 30K, 40K RF Flanges	145	76	316
20A			145	76	316
25A			150	76	316
32A			180	87	346
40A			180	82	351
50A			280	82	351

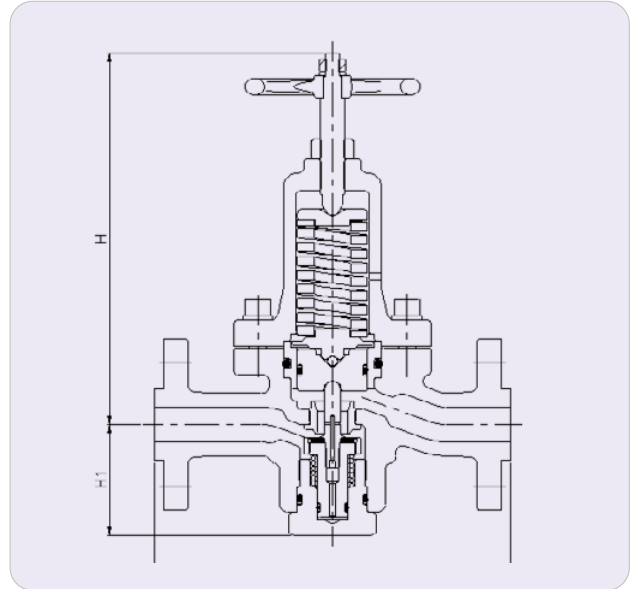
※PRE-3F - 주문에 따라 입 · 출구플랜지 ANSI, DIN 규격으로도 제작할 수 있습니다.

※PRE-3F - 주문에 따라 스테인레스 재질로 제작할 수 있습니다.



PRE-10F | 고압용 감압밸브(Pressure Reducing Valve For Water(Liquid), Air(Gas))

- 고압용 감압밸브로 성능이 우수하며 내구성이 우수합니다.
- Piston 구조로 되어있어 높은 2차측 압력 제어에 적합합니다.
- 핸들이 부착되어 2차 압력의 조정이 용이합니다.



▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ²)	MAX. 100
Outlet Pressure (kgf/cm ²)	1~70
Max Reducing Ratio	20:1
Design Temperature (°C)	150
Working Fluid	Air, Water, Noncorrosive Liquid
Connection	ANSI 600LB, 900LB RF Flanged
Materials	Body : Stainless Steel
	Trim : StainlessSteel, Sythetic Rubber

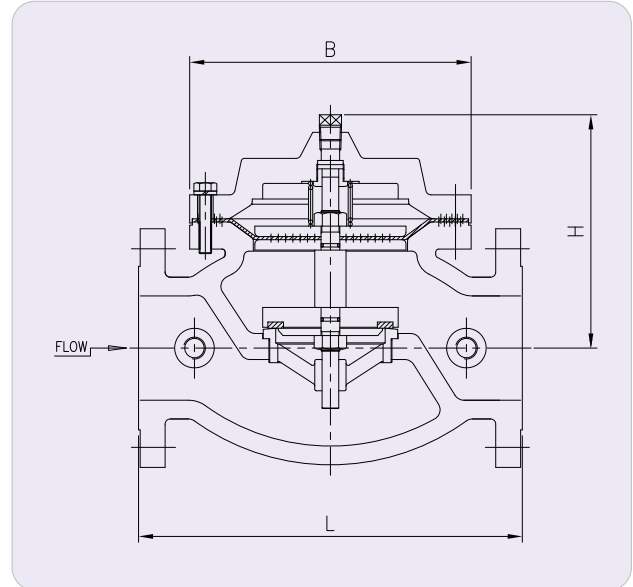
▶ 치 수 (Dimensions)

Size	Part	15A	20A	25A
L		244	244	254
H1		80	80	80
H		270	270	270

※ 주문에 따라 입.출구 플랜지 JIS, DIN 규격으로도 제작할 수 있습니다.

FRE-1F/2F | 대용량 감압밸브(Pressure Reducing Valve-Direct Acting Type)

- 대용량의 감압밸브로 성능이 우수하며 내구성이 우수합니다.
- 조절 가능 유량의 범위가 넓고 안정된 흐름의 상태를 유지할 수 있고 최소 조절가능 유량이 뛰어납니다.
- 한번만 조정하시면 항상 일정한 압력으로 유지시켜 줍니다.



▶ 사양 (Specifications)

Model	FRE-1F	FRE-2F
Inlet Pressure (kgf/cm ² g)	MAX. 10	MAX. 20
Outlet Pressure (kgf/cm ² g)	0.5~7	0.5~7
Max Reducing Ratio	10 : 1	10 : 1
Design Temperature (°C)	80	80
Working Fluid	Air(Gas), Water(Liquid), Oil	Air(Gas), Water(Liquid), Oil
Type	Diaphragm Type	Diaphragm Type
Connection	JIS 10K Flanged	JIS 10K, 20K Flanged
Materials	Body : Ductile Iron	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber	Trim : Stainless Steel, Synthetic Rubber

▶ 치 수 (Dimensions)

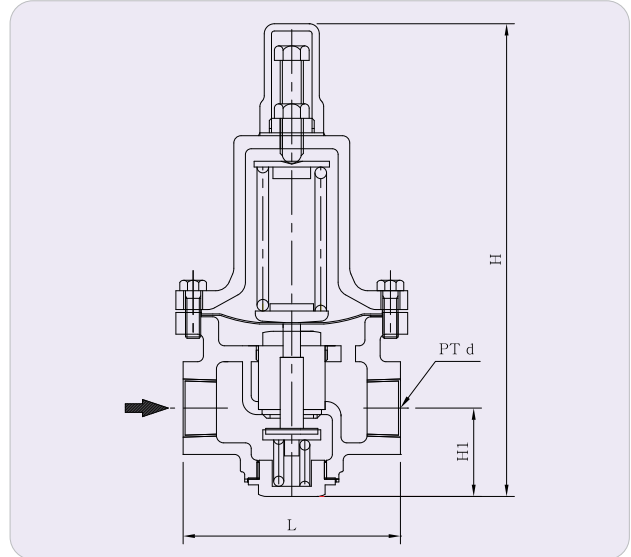
Size	Part	100A	125A	150A	200A	250A	300A	400A
L		360	360	460	560	760	800	1100
H		230	230	270	335	390	445	765
B		270	270	370	455	600	650	820

※ 주문에 따라 플랜지는 ANSI, DIN 규격으로도 제작할 수 있습니다.

※ 7K이상 12K까지는 Piston Type으로 제작할 수 있습니다.

PIR-1S | 감압밸브(Pressure Reducing Valve For Steam-Direct Acting Type)

- 성능이 우수하며 구조가 간단하여 내구성이 우수합니다.
- 조정범위가 넓고 흐름의 상태를 안정하게 유지하며 우수한 성능을 발휘합니다



▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ² g)	MAX. 10
Outlet Pressure (kgf/cm ² g)	0.5~5
Max Reducing Ratio	10 : 1
Design Temperature (°C)	220
Working Fluid	Steam
Connection	Female PT Screwed
Materials	Body : Ductile Iron
	Trim : Stainless Steel

▶ 치 수 (Dimensions)

Size	Part	d	L	H1	H
15A		PT 1/2"	120	55	260
20A		PT 3/4"	120	55	260
25A		PT 1"	120	55	260
32A		PT 1 1/4"	150	62	318
40A		PT 1 1/2"	150	62	318

HRE-1F | 소방용 감압밸브(Hydrant Reducing Valve)

▶ 사양 (Specifications)

Inlet Pressure (kgf/cm ²)	MAX. 16
Outlet Pressure (kgf/cm ²)	5~7
Design Temperature (°C)	80
Working Fluid	Sea Water
Connection	ANSI 150#, 300# Flanged
Type	Globe Type, Angle Type
Materials	Body : Cast Bronze
	Trim : Stainless Steel
	Disc : Synthetic Rubber
	Coupling : Cast Bronze or Brass

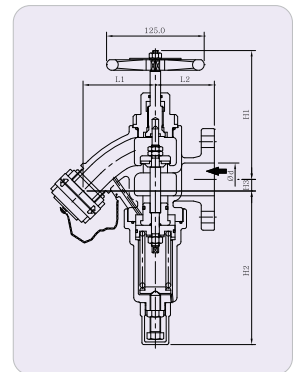
▶ 치수 (Dimensions)

Size	d	L1	L2	H1	H2	H3
50A	50	110	90	200	260	17
65A	65	140	117	240	290	23

※ 주문에 따라 JIS 16K 규격으로도 제작할 수 있습니다.



HRE-1F(N)



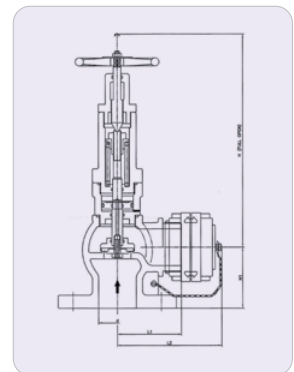
▶ 치수 (Dimensions)

Size	d	L1	L2	H	H3
40A	40.0	85.0	155.0	280.0	80.0
50A	50.0	85.0	155.0	280.0	80.0
65A	65.0	110.0	197.0	450.0	105.0

※ 주문에 따라 JIS 16K 규격으로도 제작할 수 있습니다.



HRE-1F(A)



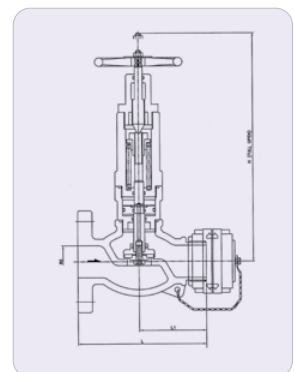
▶ 치수 (Dimensions)

Size	d	L1	L2	H3
40A	40.0	155.0	82.5	286.0
50A	50.0	155.0	82.5	286.0
65A	65.0	201.0	97.5	350.0

※ 주문에 따라 JIS 16K 규격으로도 제작할 수 있습니다.

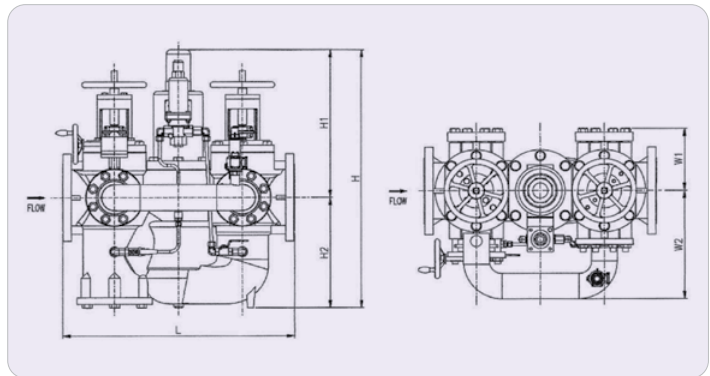


HRE-1F(G)



MRE-2F | 복합형 감압밸브(Multi Reducing Valve)

- 1차측 차단밸브, 2차측 차단밸브(체크), 스트레이너, 감압밸브, 릴리프 밸브(KFI 인증), 바이패스 라인 기능을 일체화시킨 복합 기능의 감압밸브입니다.
- KFI 성능인증 획득한 릴리프 밸브를 부착하여 2차측의 과도한 압력상승(균압방지기능)을 효과적으로 해소할 수 있습니다.
- 복합형 감압밸브는 감압밸브와 바이패스라인의 경량화 효과로 기존 감압밸브 배관라인 설치시보다 자재비, 인건비 등의 시공비용이 절감되고, 컴팩트한 사이즈로 설치공간의 축소 및 배관 설비의 중량감소 효과가 있습니다.
- 1차측 차단밸브에 스트레이너 여과망을 내장하여 배관내 이물질 제거하여, 밸브 및 압력계 등의 기기 오작동 및 이상 현상을 방지할 수 있습니다.
- 1차측 차단밸브의 벨로우즈 적용으로 입구측압력에 영향을 받지 않아 핸들로 밸브의 개폐를 힘들이지 않고 쉽게 할 수 있습니다.



▶ 사양 (Specifications)

Model	MRE-2F	
Inlet Pressure	Max. 20.0 kgf/cm ²	
Outlet Pressure	3.0 ~ 15kgf/cm ²	
Design Temperature	Max. 80℃	
Working Fluid	WATER	
Type	Pilot Type	
Connection	KS B 1503 20K RF	
Materials	Body	SCPH2
	Trim	BRASS, CAST BRONZE, STAINLESS STEEL
	Pilot	STAINLESS STEEL
	Screen	STAINLESS STEEL
	Relief Valve	STAINLESS STEEL

▶ 치수 (Dimensions)

SIZE	L	H	H2	H1	W1	W2
100A	640.0	650.0	279.0	371.0	155.0	296.0
125A	724.0	650.0	279.0	371.0	155.0	296.0
150A	804.0	904.0	388.0	516.0	271.0	380.0

※ RELIEF VALVE : KFI 인증품

Pressure Reducing Valve



Pressure Reducing Valve for Gas and Liquid

DRE-1S(Direct Acting Type)	22
DRE-1F/2F(Direct Acting Type)	23
DRE-3F	26
PRE-1F/2F/3F(Piston Type)	28
FRE-1F/2F(Direct Acting Type)	29



Pressure Reducing Valve for Steam

PIR-1S(Direct Acting Type)	30
PIR-1F/2F(Pilot Type)	31



Pressure Reducing Valve for Fire-fight system

HRE-1F(Hydrant Reducing Valve) ...	33
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* Direct Acting Type

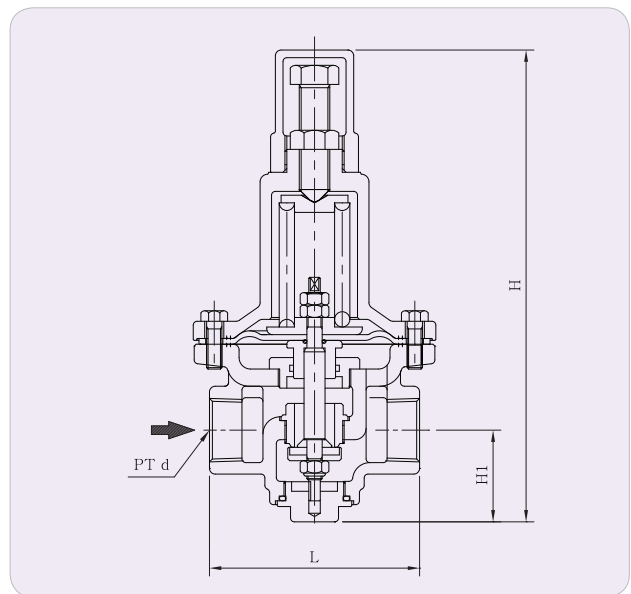
Direct acting type of pressure reducing valve is consist of the spring of the secondary pressure regulating and main valve, main valve directly operates by diaphragm connected to spring or bellows.

* Pilot Type

Pilot type of pressure reducing valve is consist of pilot part detects the secondary pressure and main valve. Depending on main valve operation, it can be divided into Diaphragm type and Pilot piston type.

Pressure Reducing Valve

DRE-1S | Pressure Reducing Valve—Direct Acting Type



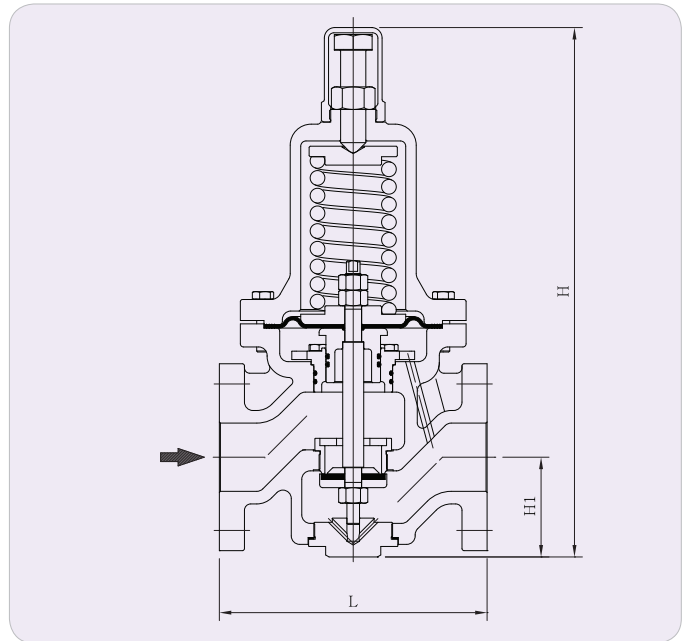
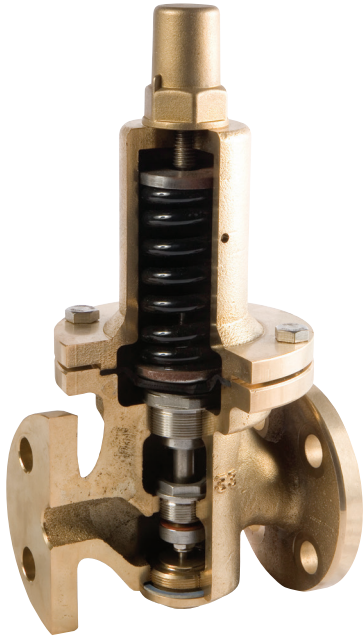
► Specifications

Inlet Pressure (kgf/cm ² g)	Outlet Pressure (kgf/cm ² g)	Max Reducing Ratio	Working Temperature (°C)	Working Fluid	Connection	Materials
10	0.5~5	10 : 1	80	Air(Gas) Water(Liquid)	PT Screwed	Body : Ductile Iron Trim : Stainless Steel, Synthetic Rubber

► Dimensions

Size	Part	d	L	H1	H
15A		PT 1/2"	100	47	222
20A		PT 3/4"	100	47	222
25A		PT 1"	110	51	231
32A		PT 1 1/4"	150	70	290
40A		PT 1 1/2"	160	70	290

DRE-1F/2F | Pressure Reducing Valve—Direct Acting Type



► Specifications

Model	DRE-1F	DRE-2F
Inlet Pressure (kgf/cm ² g)	10	20
Outlet Pressure (kgf/cm ² g)	0.5~7	0.5~7
Type	Diaphragm Type	Diaphragm Type
Max Reducing Ratio	10 : 1	10 : 1
Working Temperature (°C)	80	80
Working Fluid	Air(Gas), Water(Liquid)	Air(Gas), Water(Liquid)
Connection	JIS 10K Flanged	JIS 20K Flanged
Materials	Body : Ductile Iron	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber	Trim : Stainless Steel, Synthetic Rubber

► Dimensions

Size	Part	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A	200A
	L	160	160	160	180	180	190	230	250	300	370	400	484
	H1	65	65	65	76	76	78	95	107	127	148	163	163
	H	335	335	335	400	400	407	505	525	598	728	764	764

※ DRE-2F – ANSI and DIN Flange are available upon request

Table for Sizing | DRE-1F(For Water)

•How to use the chart

where,

- Primary pressure : 5.5kgf/cm²g {0.55Mpa}
- Secondary pressure : 2kgf/cm²g {0.2Mpa}
- Pressure differential : 3.5kgf/cm²g {0.35Mpa}
- Specific gravity : 1 (water)
- Flow : 24m³/h

Obtain a cross point "A" by tracing down vertically from the pressure differential of 3.5kgf/cm² {0.35Mpa} L on the top up to the line of Flow 24m³/h. As the point "A" is between size 50 and 65mm. select safer size 65mm.

where,

- Same conditions except
- Specific gravity : 0.6

Obtain a cross point "B" by tracing down vertically from the pressure differential of 3.5kgf/cm² {0.35Mpa} up to the line of specific gravity 1.0

and move in paralalled with the slant line up to the cross point "C" on the line of the specific gravity 0.6 Trace down vertically to the point "D" on the cross line of Flow 24m³/h. As the point "D" is between size 40 and 50mm. select safer size 50mm.

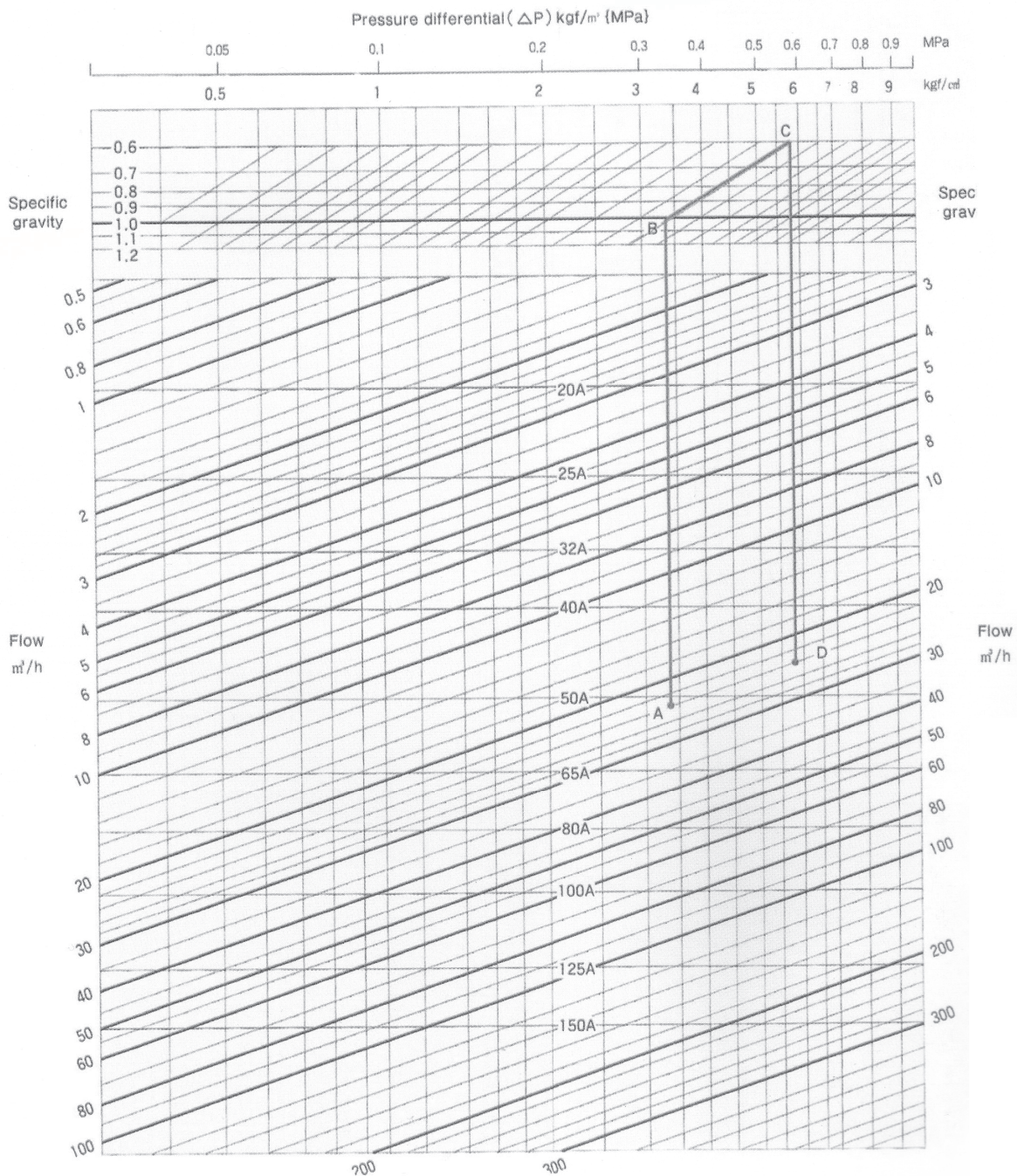
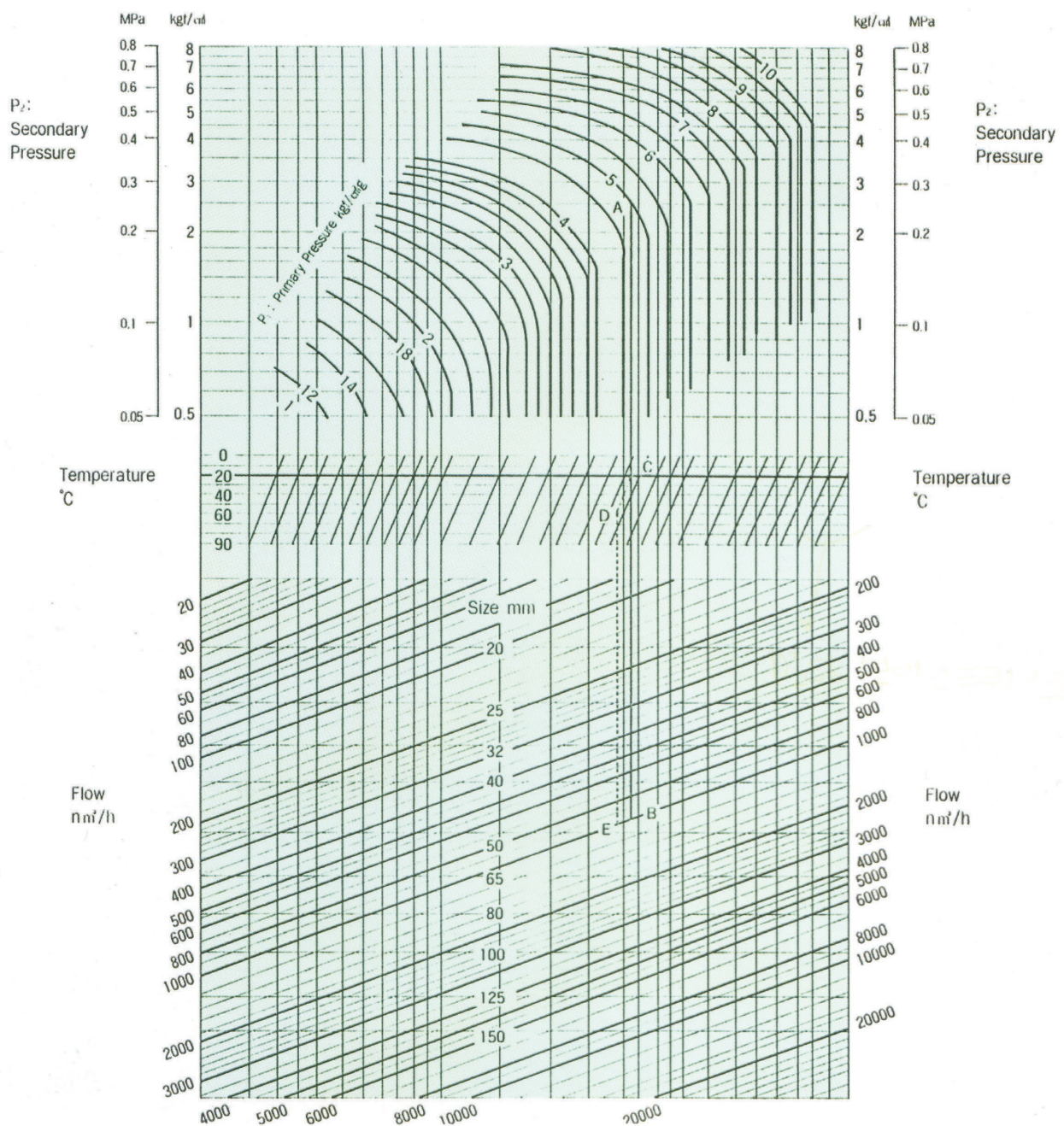


Table for Sizing | DRE-1F(For Air)

•How to use the chart

where,
 Primary pressure : 5kgf/cm²g {0.5Mpa}
 Secondary pressure : 2.5kgf/cm²g {0.2Mpa}
 Pressure differential : 3.5kgf/cm²g {0.35Mpa}
 Specific gravity : 1 (water)
 Flow : 24m³/h
 Obtain a cross point "A" by tracing down vertically from the pressure differential of 3.5kgf/cm² {0.35Mpa} L on the top up to the line of Flow 24m³/h. As the point "A" is between size 50 and 65mm. select safer size 65mm.

where,
 Same conditions except
 Specific gravity : 0.6
 Obtain a cross point "B" by tracing down vertically from the pressure differential of 3.5kgf/cm² {0.35Mpa} up to the line of specific gravity 1.0 and move in parallel with the slant line up to the cross point "C" on the line of the specific gravity 0.6 Trace down vertically to the point "D" on the cross line of Flow 24m³/h. As the point "D" is between size 40 and 50mm. select safer size 50mm.



DRE-3F | Pressure Reducing Valve—Direct Acting Type

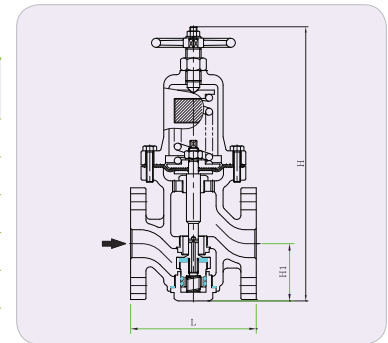
► Specifications

Inlet Pressure (kgf/cm ² g)	30~40
Outlet Pressure (kgf/cm ² g)	0.5~10
Max Reducing Ratio	10 : 1
Working Temperature (°C)	80
Working Fluid	Air(Gas), Water(Liquid)
Connection	JIS 30K, 40K Flanged
Materials	Body : Cast Steel, Stinless Steel
	Trim : Stainless Steel, Synthetic Rubber



► Dimensions

Size	Part	Connection	L	H1	H
15A		JIS 30K, 40K RF Flanged	145	76	366
20A			145	76	366
25A			150	76	366
32A			180	87	407
40A			180	82	407
50A			280	82	407



※ ANSI, DIN Flanges are available upon request

Table for Sizing | DRE-3F(For Air)

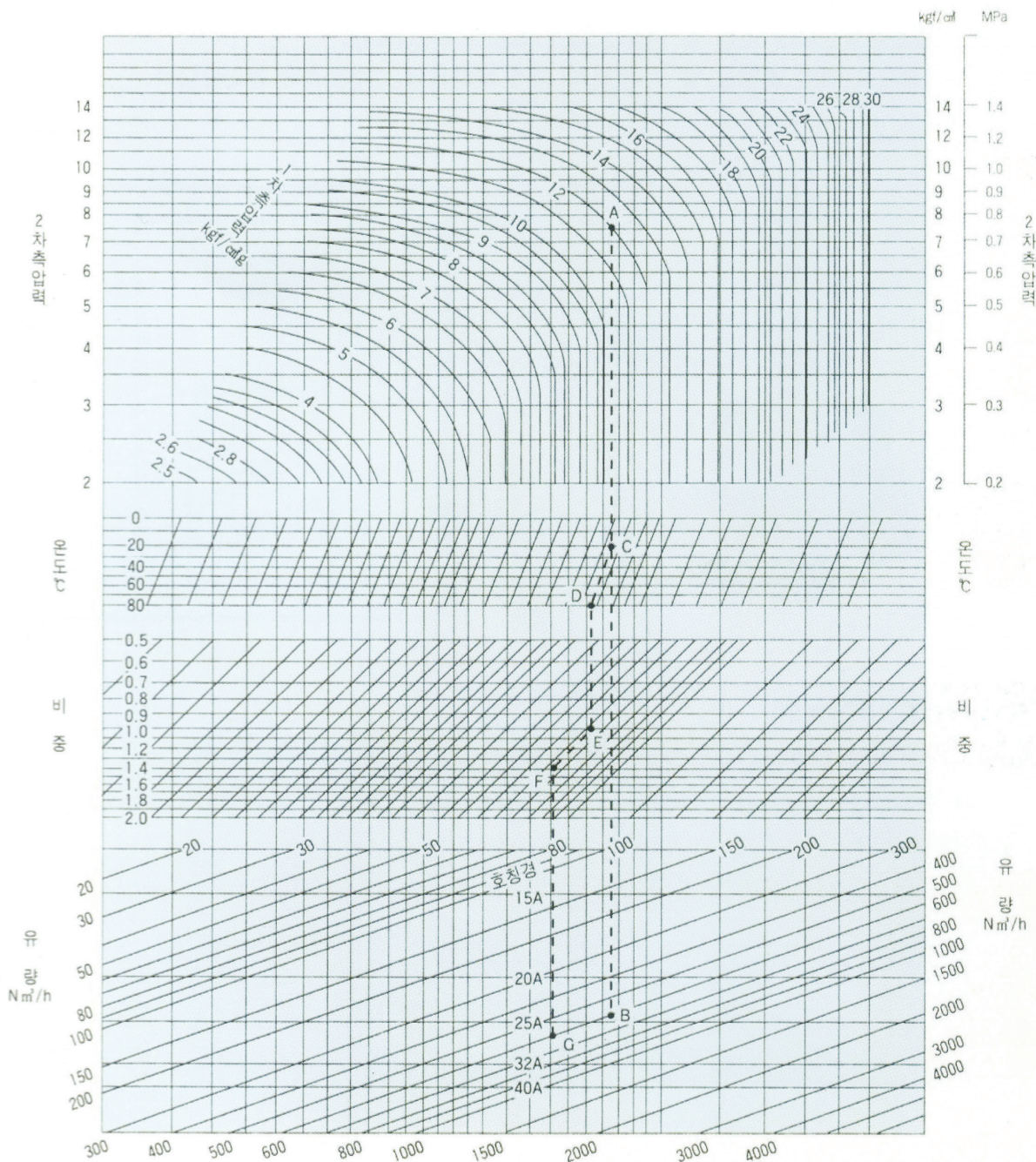
•How to use the chart

where,

- Primary pressure : 4kgf/cm²g {0.4Mpa}
- Secondary pressure : 2kgf/cm²g {0.2Mpa}
- Flow (Saturated steam) : 800kg/h

Obtain a cross point "A" on the vertically line of primary pressure 4kgf/cm² {0.4Mpa} with horizontal line of secondary pressure 2kgf/cm² {0.2Mpa}.

Obtain a cross point "B" on the vertical line down from the point "A" with the oblique line of flow 800kg/h. As the point "B" is between size 40 and 50mm, select safer size 50mm.



PRE-1F/2F | Pressure Reducing Valve—Piston Type

► Specifications

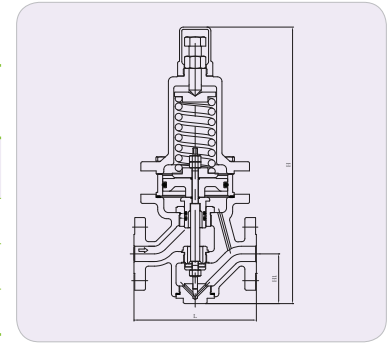
Model	PRE-1F	PRE-2F
Inlet Pressure (kgf/cm ² g)	10~16	10~20
Outlet Pressure (kgf/cm ² g)	0.5~12	0.5~15
Type	Piston Type	Piston Type
Max Reducing Ratio	10 : 1	10 : 1
Working Temperature (°C)	150	150
Working Fluid	Air(Gas), Water(Liquid)	Air(Gas), Water(Liquid)
Connection	JIS 10K, 16K Flanged	JIS 16K, 20K Flanged
Materials	Body : Ductile Iron	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber	Trim : Stainless Steel, Synthetic Rubber



► Dimensions

Size	Part	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A	200A
L		160	160	160	180	180	190	251	270	300	370	400	484
H1		65	65	65	65	76	78	95	107	127	148	163	163
H		361	361	361	361	436	445	554	574	656	796	832	832

※ PRE-2F – ANSI and DIN Flange are available upon request



PRE-3F | Pressure Reducing Valve—Piston Type

► Specifications

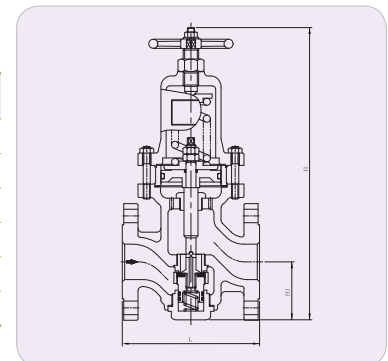
Inlet Pressure (kgf/cm ² g)	30~40
Outlet Pressure (kgf/cm ² g)	0.5~24
Max Reducing Ratio	10 : 1
Working Temperature (°C)	150
Working Fluid	Air(Gas), Water(Liquid)
Connection	JIS 30K, 40K Flanged
Materials	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber



► Dimensions

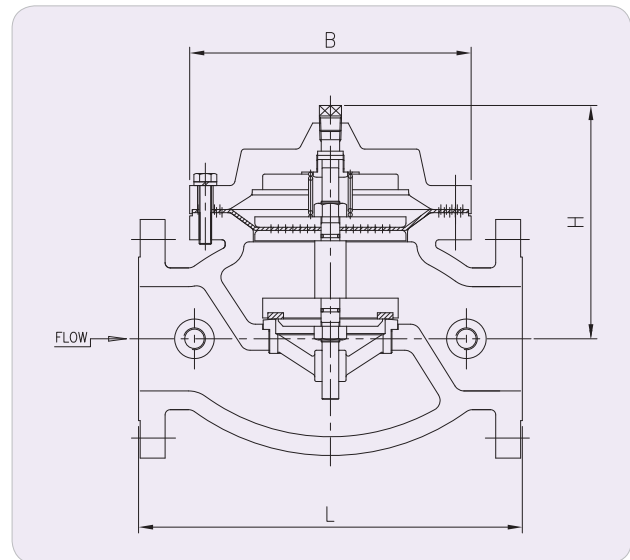
Size	Part	Connection	L	H1	H
15A	JIS 30K, 40K RF Flanges		145	76	316
20A			145	76	316
25A			150	76	316
32A			180	87	346
40A			180	82	351
50A			280	82	351

※ PRE-3F – ANSI and DIN Flange are available upon request



FRE-1F/2F | Pressure Reducing Valve—Direct Acting Type

- Superior performance and durability with large-capacity pressure reducing valve.
- The range of adjustable flow is wide and stable flow condition can be maintained and the minimum adjustable flow rate is excellent.
- Only one adjustment keeps constant pressure at all times.



► Specifications

Model	FRE-1F	FRE-2F
Inlet Pressure (kgf/cm ² g)	10	20
Outlet Pressure (kgf/cm ² g)	0.5~7	0.5~7
Max Reducing Ratio	10 : 1	10 : 1
Working Temperature (°C)	80	80
Working Fluid	Air(Gas), Water(Liquid), Oil	Air(Gas), Water(Liquid), Oil
Type	Diaphragm Type	Diaphragm Type
Connection	JIS 10K Flanged	JIS 10K, 20K Flanged
Materials	Body : Ductile Iron	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel, Synthetic Rubber	Trim : Stainless Steel, Synthetic Rubber

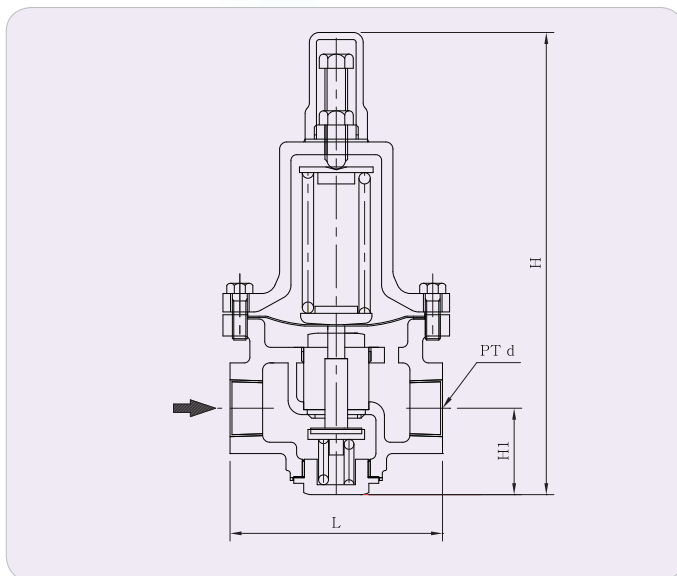
► Dimensions

Size	Part	50A	65A	80A	100A	125A	150A	200A	250A	300A	400A
L		240	290	290	360	360	460	560	760	800	1100
H		145	180	180	230	230	270	335	390	445	765
B		170	210	210	270	270	370	455	600	650	820

※ FRE-2F – ANSI and DIN Flange are available upon request

※ Piston Type is available from 7K to 12K

PIR-1S | Pressure Reducing Valve For Steam-Direct Acting Type



► Specifications

Inlet Pressure (kgf/cm ² g)	10
Outlet Pressure (kgf/cm ² g)	0.5~5
Max Reducing Ratio	10 : 1
Working Temperature (°C)	220
Working Fluid	Steam
Connection	PT Screwed
Materials	Body : Ductile Iron
	Trim : Stainless Steel

► Dimensions

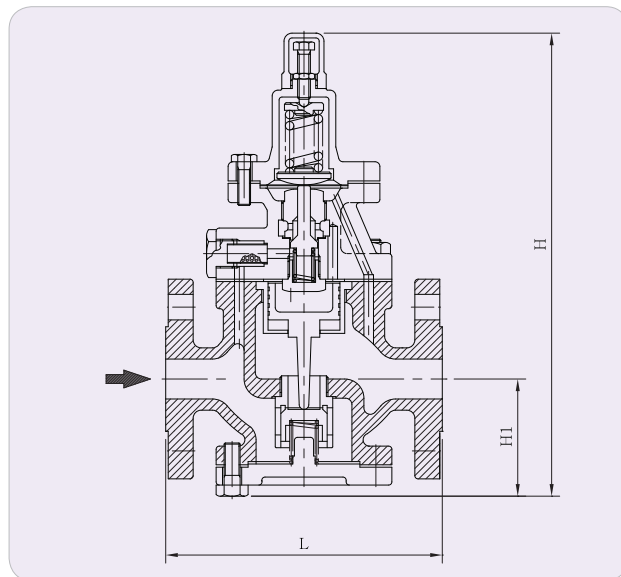
Size	Part	d	L	H1	H
15A	PT 1/2"		120	55	260
20A	PT 3/4"		120	55	260
25A	PT 1"		120	55	260
32A	PT 1 1/4"		150	62	318
40A	PT 1 1/2"		150	62	318

► CV

Model	Size	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A
DRE-1F		1	2	3.5	5.5	8	14	22	32	48	75	108
DRE-1S		0.8	0.8	1								
PIR-1F		1	2.5	4	6.5	9	16	25	36	64	100	144
DRE-3F		1	2.5	4	6.3	8						

PIR-1F/2F | Pressure Reducing Valve For Steam—Pilot Type

- The mechanism that automatically adjusts the pressure in pressure reducing valves uses the balance between the steam pressure and the adjustment spring.
- The steam flowing through the pilot valve is controlled by the balance between the adjustment spring and the secondary pressure.
- This steam causes the piston to fall and rise, which controls the amount of opening of the main valve.



► Specifications

Model	PIR-1F	PIR-2F
Inlet Pressure (kgf/cm ² g)	10	20
Outlet Pressure (kgf/cm ² g)	0.5~7	0.5~15
Max Reducing Ratio	10 : 1	10 : 1
Working Temperature (°C)	220	250
Working Fluid	Steam	Steam
Connection	JIS 10K Flanged	JIS 20K Flanged
Materials	Body : Ductile Iron	Body : Cast Steel, Stainless Steel
	Trim : Stainless Steel	Trim : Stainless Steel

► Dimensions

Size	Part	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A	200A	250A
L		165	165	170	200	200	220	250	290	320	350	395	560	650
H1		75	75	75	85	85	95	105	125	130	148	466	620	267
H		357	357	357	375	375	395	415	440	465	459	181	250	685

※ PIR-2F – ANSI and DIN Flange are available upon request

Nominal diameter chart | PIR-1F(For Steam)

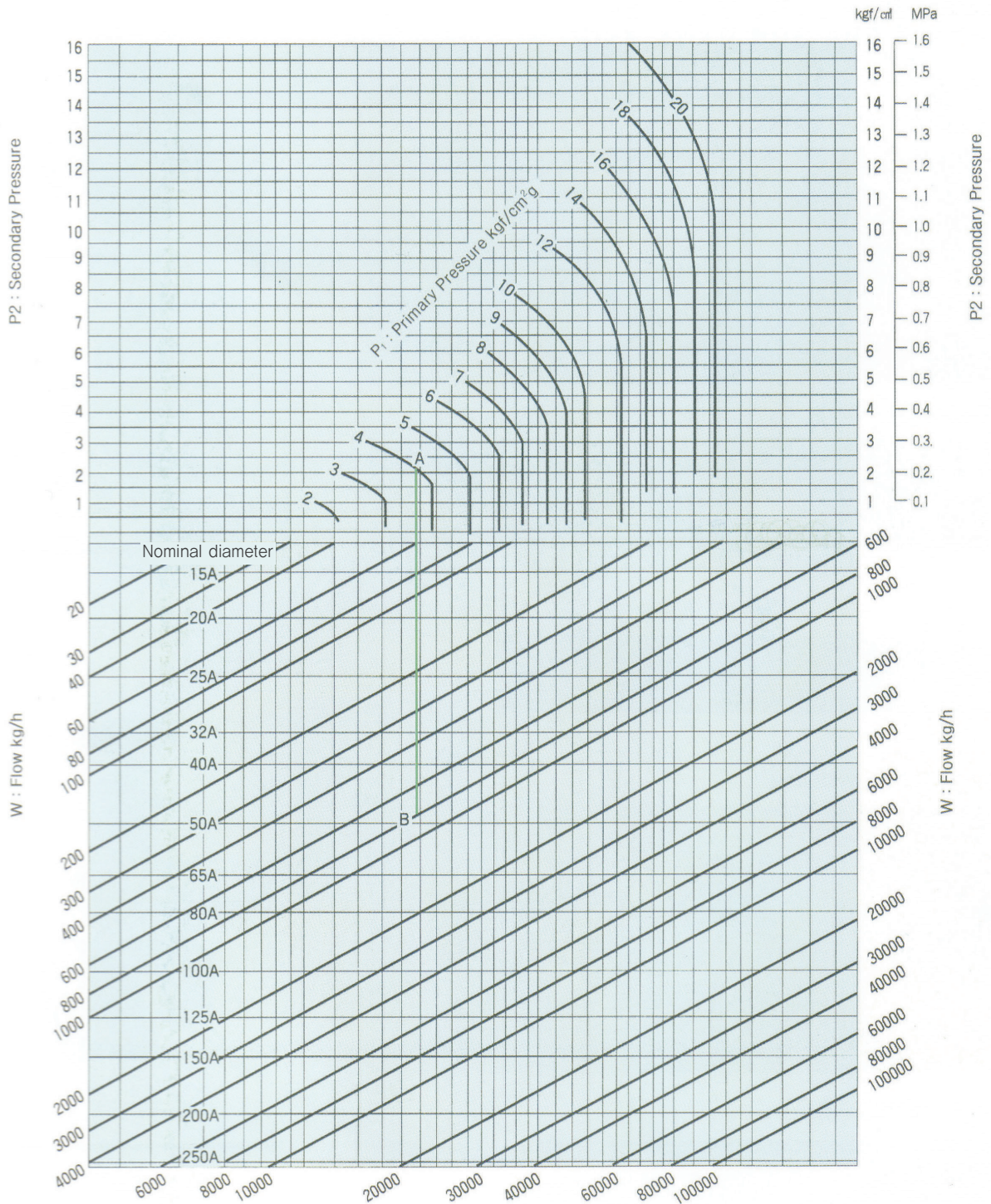
•How to use the chart

where,

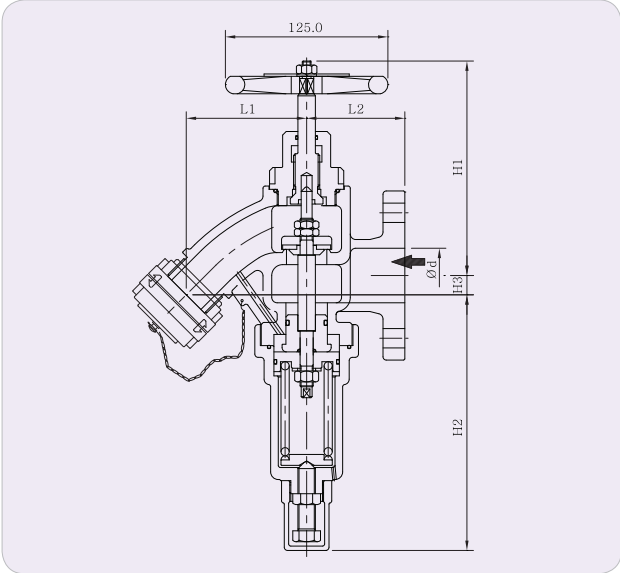
Primary pressure : 4kgf/cm²g {0.4Mpa}
 Secondary pressure : 2kgf/cm²g {0.2Mpa}
 Flow (Saturated steam) : 800kg/h

Obtain a cross point "A" on the vertically line of primary pressure 4kgf/cm² {0.4Mpa} with horizontal line of secondary pressure 2kgf/cm² {0.2Mpa}.

Obtain a cross point "B" on the vertical line down from the point "A" with the oblique line of flow 800kg/h. As the point "B" is between size 40 and 50mm. select safer size 50mm.



HRE-1F | Hydrant Reducing Valve



► Specifications

Inlet Pressure (kgf/cm ²)	16
Outlet Pressure (kgf/cm ²)	5~7
Working Temperature (°C)	80
Working Fluid	Sea Water
Connection	ANSI 150#, 300# Flanged
Type	Globe Type, Angle Type
Materials	Body : Cast Bronze
	Trim : Stainless Steel
	Disc : Teplon
	Coupling : Cast Bronze

► Dimensions

Size	d	L1	L2	H1	H2	H3
50A	50	110	90	200	260	17
65A	65	140	117	240	290	23