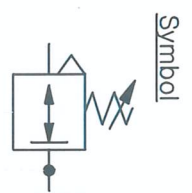
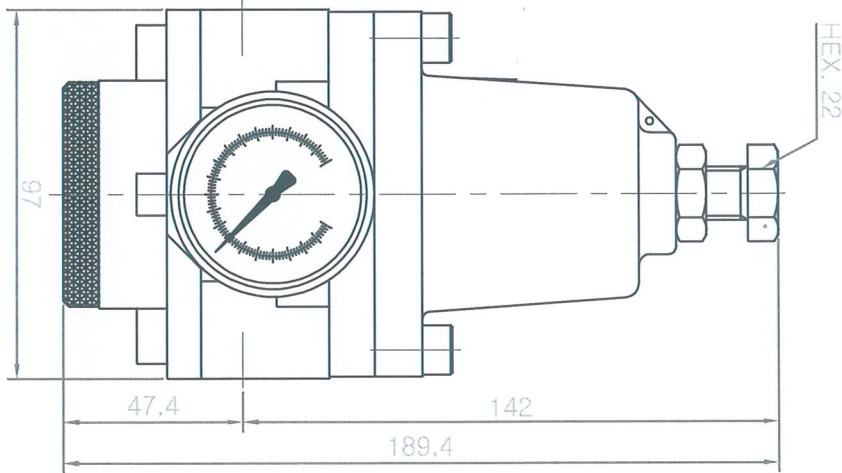
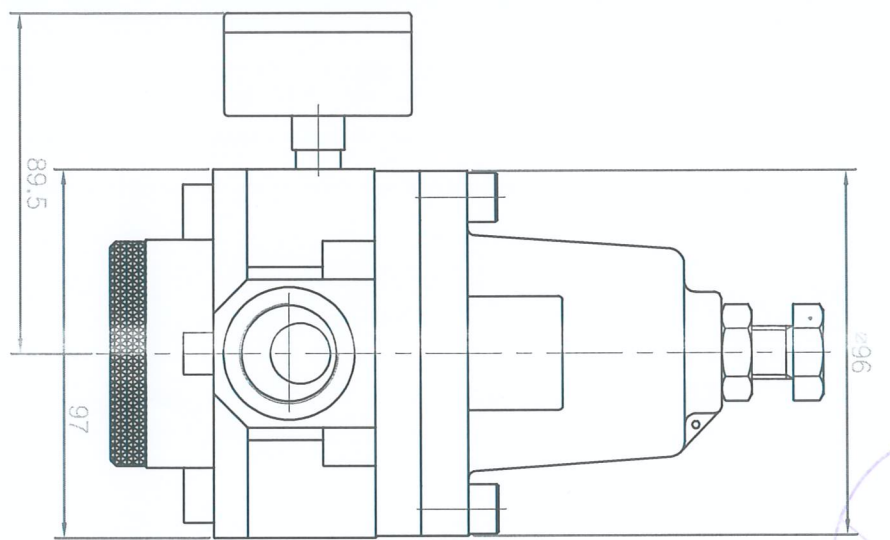




ITEM : 1



MARK	Date	Description Of Revision	Drawn	Chk'd	App'd
△	20070727	Original	d.h.Cho	k.g.Kim	d.g.Kang
△	20130329	PRESS. GAUGE : OIL 충전식으로 변경	w.j.Jung	/	d.g.Kang

**NOTE**

1. MAKER : LeBe
2. TYPE NO. : HR40P-G20
3. WORKING PRESSURE : MAX. 40 BAR
4. SECONDARY PRESSURE : 0.5 ~ 10 BAR
5. ADMISSIBLE MEDIUM : COMPRESSED AIR
4. AMBIENT TEMPERATURE : -15 ~ 70°C
5. FLOW RATE : 6800 l/min  
(7 BAR, ΔP = 1 BAR)
6. CONNECTION : PF 3/4"
7. BODY MATERIAL : DIE CAST AL
8. WEIGHT : 2.1kg

**△ PRESSURE GAUGE**

1. MAKER : DAHO or similar
2. SIZE : <math>\varnothing 50</math>(WITH OIL FILLED)
3. TYPE : Bourdon tube
4. RANGE : 0 ~ 16 BAR
5. CONNECTION : PT 1/4"

No	DESCRIPTION	MATERIAL	Q'TY	REMARKS
1	HR40P-20G			

Type :	Projec.:	Title
HR40P-20G	1 각 1 本	PRESSURE REDUCING V/V

Scale:	Size :	Drawing No. :	Sheet No.
2/1	A4	10H3001-1	6

MMC  
MIRAE  
MECHATRONICS CO.

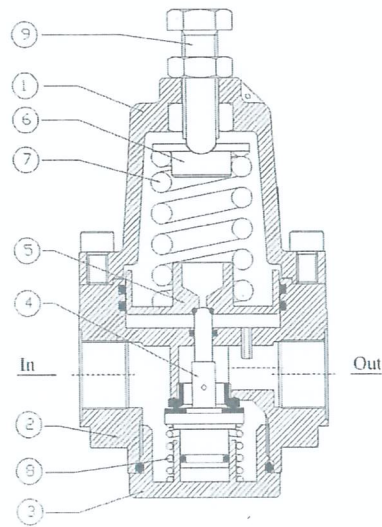


Product	High Pressure Reducing Valve
Model	HR40P-G20
Maker	LEBE



## 1. Specifications and Main Parts

Item	Specification
Working pressure	max. 40 bar
Secondary pressure range	0.5 ~ 10 bar
Admissible medium	compressed air
Ambient temperature	-15 ~ 70 °C
Flow rate	6,500 l/min (7 bar, ΔP: 1bar)
Connection	PF 3/4"
Body material	Aluminium alloy for die-casting
Weight	2.1 kg



No.	Part Name	Material
1	Upper body	ADC
2	Lower body	ADC
3	End cap	Brass
4	Poppet valve	Brass
5	Piston	Brass
6	Support	Brass
7	Control spring	Spring steel
8	Valve spring	Spring steel
9	Adjusting bolt	S45C

## 2. Operating Method

- 1) Turn the adjusting bolt(9) clockwise to rise the secondary pressure, the control spring(7) is pressed and the poppet valve(4) is opened.  
Simultaneously, the secondary pressure rises and is constant when the adjusting bolt(9) stops.
- 2) Adjust the secondary pressure to target pressure seeing the pressure gauge.
- 3) Turn the adjusting bolt(9) counterclockwise to reduce the secondary pressure. If so, the secondary air is vented to the upper body(1) through the relief hole of piston(5).

### Notice!

- Because the relief pressure by the o-ring in the piston(5) is added when you set the target pressure as reducing the secondary pressure, you can not accurately set the target pressure.
- To avoid that problem, set the target pressure rising the secondary pressure if possible.

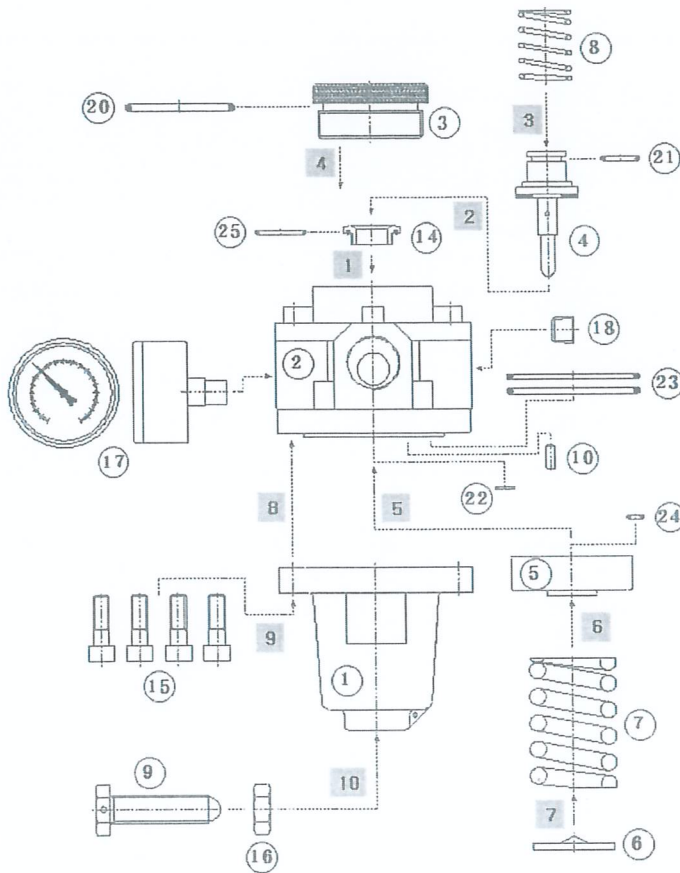
### Warning!

- Make sure that the pipe pressure is 0barg through the pressure gauge before disassembling.

## 3. Notice

- Make sure that the equipment and the pipes are connected correctly for the occurring air pressure.
- Depressurize the pressure reducing unit and the connected systems before you disconnected parts of the system. The sudden escape of compressed air can cause serious injury or damage.
- Use teflon grease on the o-rings.
- Contact your supplier if you detect a problem that you cannot solve with this manual.

#### 4. Assembly and Parts



No.	Part name	Q'ty	Part Number
1	Upper body	1	HR01P01
2	Lower body	1	HR01P02
3	End cap	1	HR01P03
4	Poppet valve	1	HR01P04
5	Piston	1	HR01P05
6	Support	1	HR01P06
7	Control spring	1	HR01P07
8	Valve spring	1	HR01P08
9	Adjusting bolt	1	HR01P09
10	Orifice	1	HR01P10
11	Name plate	1	HR01P11
12	Bracket-body	1	HR01P12
13	Bracket-gauge	1	HR01P13
14	Bushing	1	HR01P14
15	Assembly bolt	4	M8WB25
16	Lock nut	1	M14HN
17	Gauge	1	G15B08PT
18	Plug(Gauge)	1	PL08PT
19	Bolt-bracket	3	M8WB10
20	O-ring(end cap)	1	OR48P
21	O-ring(valve)	1	OR14P
22	O-ring(lower body)	1	OR07S
23	O-ring(cylinder)	2	OR60G
24	O-ring(piston)	1	OR05P1B
25	O-ring(bushing)	1	OR020K

#### 5. Maintenance Scheme

Part	Action		Period
O-ring	Check	Disassemble a pressure reducing valve and make sure all o-ring's state. Change o-rings in out of condition. Change the whole valve if the valve sheet is damaged and the piston is worn.	2 year
Valve	Change		
Piston	Change		

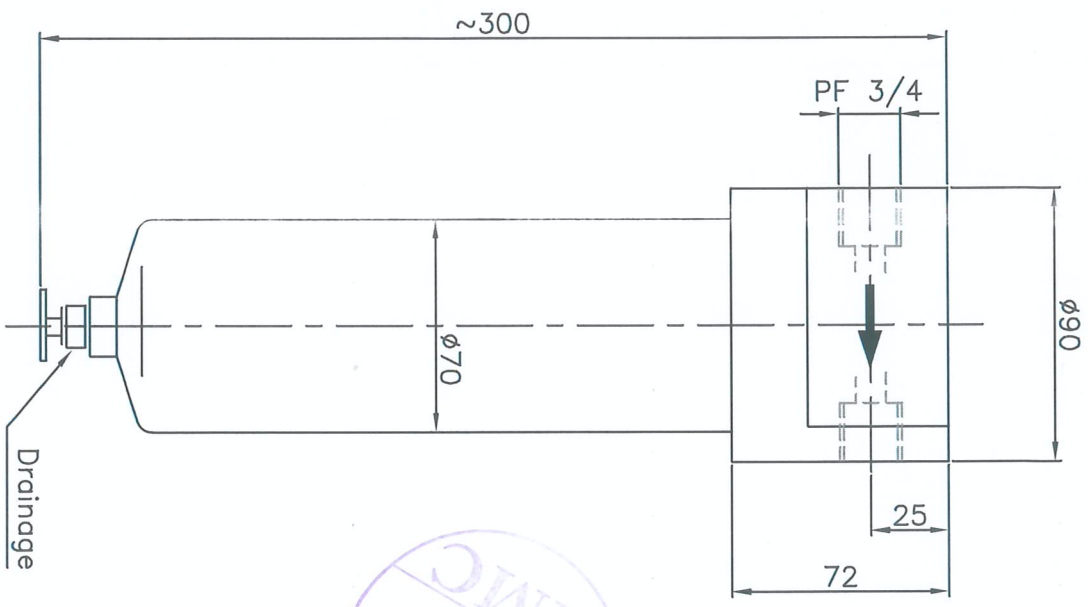
#### 6. Replacement Kit (HR01RP) ITEM : 2

No.	Part name	Part number	Q'ty
1	Poppet valve	HR01P04	1
2	Piston	HR01P05	1
3	O-ring(piston)	OR05P1B	1
4	O-ring(end cap)	OR48P	1
5	O-ring(valve)	OR14P	1
6	O-ring(cylinder)	OR60G	2
7	O-ring(bushing)	OR020K	1

※ All replacement parts are ordered and packed in a bundle.



ITEM : 3



SYMBOL

MARK	Date	Description Of Revision	Drawn	Chk'd	App'd
Δ	20030625	Original	K.g:Kim	Y.d:Na	d.g:Kang
Δ	20030915	SUPPLIER Added	K.g:Kim	Y.d:Na	d.g:Kang
Δ	20100205	POROSITY 변경(25→40μm)	m.j:Park	/	d.g:Kang
Δ	20100215	CONNECTIONS(NPT 1/2→PF3/4)	m.j:Park	/	d.g:Kang

NOTE

- MAKER : Parker ( LeBe )
- SUPPLIER : MMC
- TYPE NUMBER : J2SL
- FLOW RATE : 22,100 l/min
- WORKING PRESSURE : 105 bar
- ADMISSIBLE MEDIUM : Compressed air
- POROSITY : 40 μm
- CONNECTIONS : PF 3/4
- MATERIAL :
  - Housing : Ductile iron
  - Filter element : bronze

No	DESCRIPTION	MATERIAL	Q'TY	REMARKS
1				
Type	Scale	TITLE		
	N/S	AIR FILTER		
	Projec.			
	Size	A4		
 MIRAE MECHATRONICS CO.		Sheet No.	10H1607-3 5	

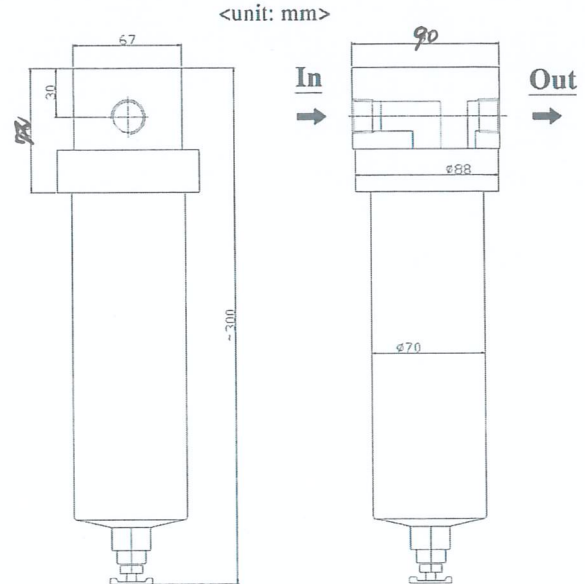




Product	High Pressure Air Filter
Model	J2SL
Maker	Lebe(Parker)

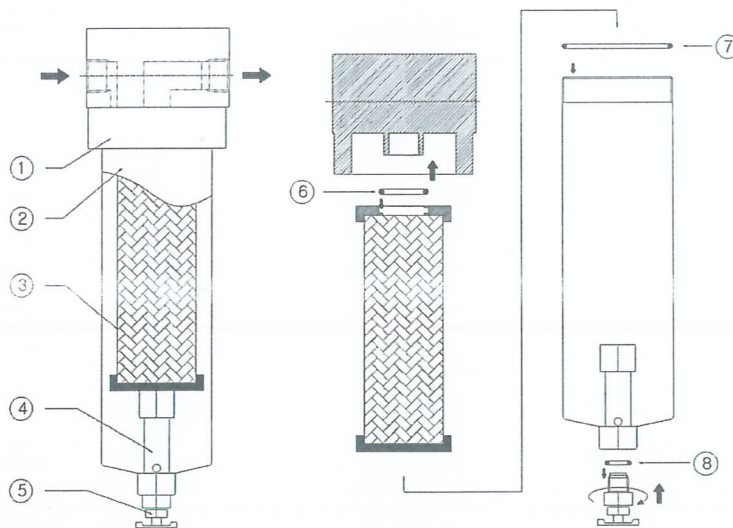
**1. Specifications and Size**

ITEM	SPECIFICATION
Flow Rate	22,100/min
Working Pressure	Max. 105bar
Admissible Medium	Compressed Air
Porosity	40 μm
Connection	PF 3/4"
Material	
Head	Die-casting AL alloy
Bowl	AL6061
Element	Brass sintered



**2. Assembly and Parts**

- 1) Shut off the compressed air of inlet side.
- 2) Depressurize the pressure reducing unit to 0bar after closing the inlet valve.  
Check through the pressure gauge.
- 3) Turn the lower body of housing (B) counterclockwise and pull the lower body from the upper body (A).
- 4) Pull the filter element (C) and remove the old filter element (C).  
Don't loose the stopper (D) and the drain valve (E).
- 5) Place a new filter element (C).
- 6) Assemble the parts in the opposite direction.



No.	Part name	Q'ty	Part Number
1	Head	1	HF01P01
2	Bowl	1	HF01P02
3	Element	1	25CWC11-150
4	Stopper	1	HF01P04
5	Drain valve	1	HF01P05
6	O-ring(element)	1	OR25P
7	O-ring(bowl)	1	OR138K
8	O-ring(drain)	1	OR12P

■ : replacement parts

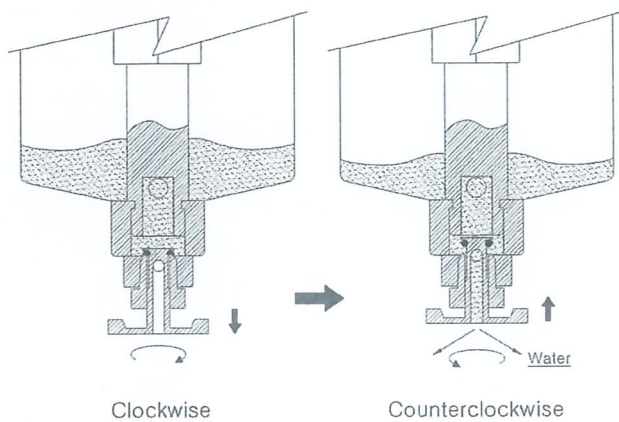
**Warning!**

Make sure that the pipe pressure is 0bar through the pressure gauge before disassembling.  
 Never supply the compressed air without the filter element; operating without the filter element will lead to expensive repair.

### 3. Notice

- Make sure that the equipment and the pipes are connected correctly for the occurring air pressure.
- Depressurize the pressure reducing unit and the connected systems before you disconnected parts of the system. The sudden escape of compressed air can cause serious injury or damage.
- Contact your supplier if you detect a problem that you cannot solve with this manual.

### 4. Drain Method



- 1) The manual handle of drain valve is a left handed screw. So, if you turn the manual handle clockwise, the drain handle moves a downward direction and the drain valve is closed.
- 2) To the contrary, if you turn the manual handle counterclockwise, the drain handle moves an upward direction and the drain valve is opened.

### 5. Maintenance Scheme

Part	Action		Period
Drain valve	Check	Manually drain the stagnant water in the housing and close the drain valve.	Every day
	Change	If the element surface is badly contaminated by particles, Replace the old element by a new one.	1 year
element	Check	Disassemble the filter and confirm the element state. Clean the element with a compressed air nozzle.	3 month
	Change	If the element surface is badly contaminated by particles, Replace the old element by a new one.	1 year
O-ring	Change	Change replacement o-rings in 1 year.	1 year

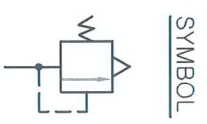
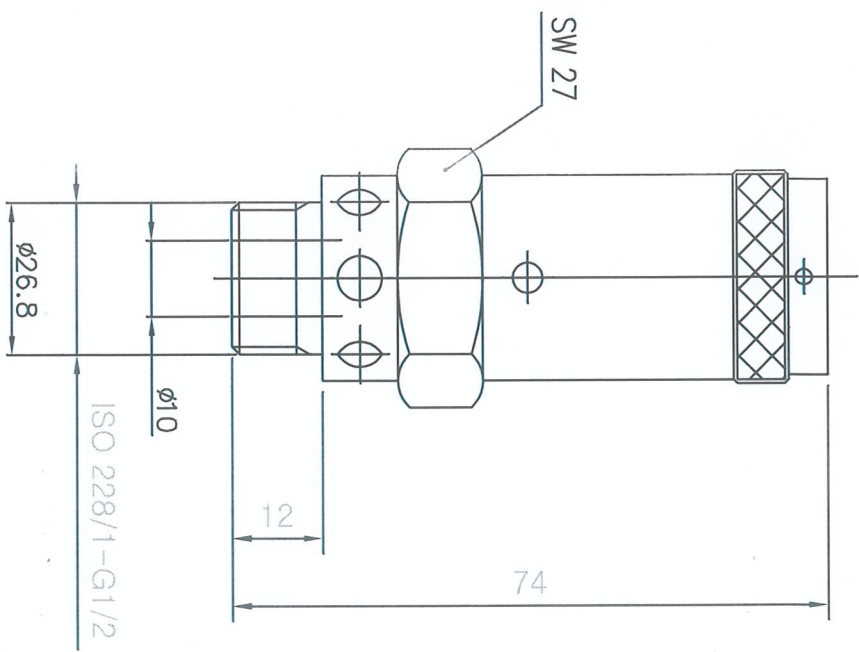
### 6. Replacement Kit (HF01RP)

No.	Part name	Part number	Q'ty
1	Element	10CWC40-150	1
2	Drain valve	HF01P05	1
3	O-ring(bowl)	OR138K	1
4	O-ring(drain)	OR12P	1

※ All replacement parts are ordered and packed in a bundle.



ITEM: 4



MARK	Date	Description Of Revision	Drawn	Chk'd	App'd
△	20060315	Original	d.h.Cho	k.g.Kim	d.g.Kang
△	20070409	Redawing	d.h.Cho	k.g.Kim	d.g.Kang

Code Number	Opening press. bar	exhaust capacity NI/min
13797	5.5	2667
2923	6.0	2883
13805	6.5	3083
2931	7.0	3300
13821	8.0	3717
13862	8.5	3917
13870	9.0	4133
2949	10.0	4550
14027	10.5	4767
2956	11.0	4967
14613	11.5	5183

NOTE

1. MAKE : J. LORCH GES
2. ADMISSIBLE MEDIUM : COMPRESSED AIR
3. AMBIENT TEMPERATURE : -10°C TO +180°C

No	DESCRIPTION	MATERIAL	Q'TY	REMARKS
1				
Type	Scale	TITLE		
	N/S	SAFETY VALVE		
	Projec.			
	Size			
 MIRAE MECHATRONICS CO.		A4	10H1001-1	Sheet No. 7

