



### » Air Filter, Regulator & Lubricator

- Adjust the spring force on the diaphragm to set the appropriate regulated pressure.
- The design of the FRL allows you to refill the lubricator without ever stopping your device.
- The polycarbonate, water and oil bowl offers better resistance.
- The E/EI series FRL supports more than 9Bar and offers an extended lifecycle during use while typical FRL oilers degrade in high pressure environments.

## ◎ How to Use and Maintain

1. Before use, check the unit to see if there is some damage during the transportation, or if the joint connection is loose. If everything is ok, then start to use.
2. When installing, please pay attention to the direction of airflow and keep the unit upright.
3. When the inlet and outlet are in reduced connection, the airflow rate will be reduced approx by 10%. If with higher rate of precision, the airflow rate will be reduced approx by 7%.
4. For units with bowl guards, make sure to fix them before use.
5. When use the regulator or filter and regulator. Firstly, we need to adjust the hand wheel to the zero position.  
Fix the pressure gauge and plugs on the right positions and ensure no leakage.  
(positions of the pressure gauge and plug can be exchanged) Then compressed air in and adjust the air to a proper pressure.
6. When using the lubricator, we need to adjust the oil valve needle to the zero position and add oil to the oil level line first. Then adjust to a proper position when compressed air in. Pay attention to the brand and grade of the lubricating oil. Never use spindle oil and lubricating oil containing lower ketone or aromatic hydrocarbon.
7. When using metal tubes for connection, remember to remove the metal grains, dusts and oil stains in the tubes.
8. Please attention whether the working condition meet the technical details of the units. (Such as the working pressure, working temperature)
9. Please change the filter element when filter's function not goes well.
10. When remove the units from the system, pls pay attention to protect the units by the dust plug on the threads.

## ◎ How to Order

1. Please let us know the item No, order number, specifications and quantity when placing an order.
2. For orders of filter, regulator and regulator+filter etc., please specify the filter precision and pressure range.  
Otherwise, we will provide the our normal standard products to you.
3. For special requirements, you can contact us by e-mail, fax and so on. We can discuss together and arrange specially.

## ◎ Remarks

1. The regulator and lubricator not with the drain type code and filter precision code.
2. The filter and lubricator without pressure scale unit code.
3. The three units and two units, without bracket code
4. When with type code of "C", combination quantity code "10" is for two units and "00" for three units, others all with "00".
5. EI series without 1000 series.

## EA

### Air Preparation Unit



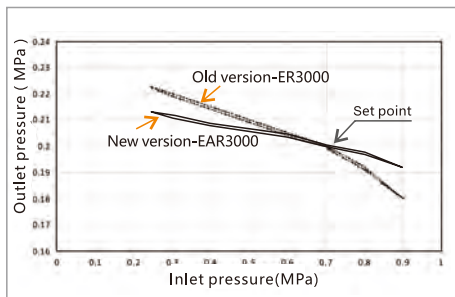
#### Co-moulded plastic cov



#### Square & Round meters options



#### Pressure chart

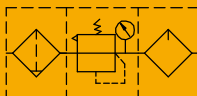


#### Product Features

1. High efficiency of solid grain and moisture elimination
2. The transparent plastic cover brings convenient observation, rustless and non-corrodible performance.
3. Special diaphragm design leads the pressure adjustment to a reliable and high precise performance.
4. Special drip nozzle design offers stable oil dripping and requests low flow at mist creating.
5. Round Meter and Square Meter are optional.
6. Manual Drain, Semi-auto drain, and Auto-drain are optional.

## EAC3000

F.R.L Unit



### Specifications

Model	EAC3000-02	EAC3000-03	EAC3000-04	
Working Medium	Clean Air(after 40 μm filtration)			
Guaranteed Pressure(MPa)	1.5			
Max. Working Pressure(MPa)	1.0			
Pressure Adjustment Range(MPa)	0.15-0.9, Low pressure type 0.15-0.4			
Working Temperature(°C)	-5-60 ( No freezing )			
Filter Precision	40 μm/5 μm optional			
Recommended Oil	Turbine No.1 Oil ISO VG32			
Bowl Material	PC(Polycarbonate)			
Water Bowl Capacity(CC)	40			
Oil Bowl Capacity(CC)	76			
Weight(g)	1245	1245	1223	
Component	Filter	EAF3000-02	EAF3000-03	EAF3000-04
	Regulator	EAR3000-02	EAR3000-03	EAR3000-04
	Lubricator	EAL3000-02	EAL3000-03	EAL3000-04

### How to Order?

Series No.	Port Size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Scale Unit	Filter Precision	Thread Type
EAC3000:EA3000 series F.R.L Unit (Filter+Regulator+Lubricator)	02: 1/4" 3000 03: 3/8" 04: 1/2"	Blank: Manual drain type C: Semi-anto drain D: Auto Drain type	Blank: Standard type L: Low pressure type①	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge②	③ Square pressure gauge optional Round pressure gauge optional	Blank: 40 μm 5M: 5 μm	Blank: G P: PT T: NPT
						1: MPa 2: Bar 3: Psi 4: Mpa/Psi 5: Bar/Psi		

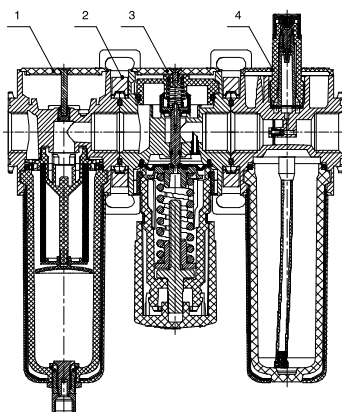
#### Order Example:

EA series F.R.L unit, port size of 1/2", differential pressure drain type, with square pressure gauge, Mpa, 5 μm, G thread, it's ERP code: EAC3000-04CLF15M

Remark:①Max pressure adjustable for low pressure type is 0.4Mpa;②Port of round pressure gauge is M6;

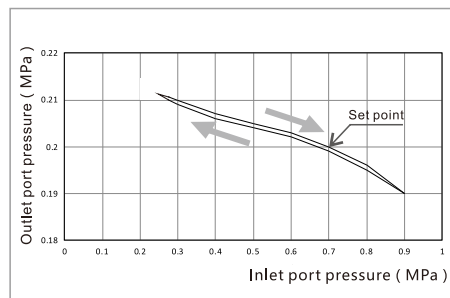
③Square pressure gauge is single scale, round pressure gauge is double scale

### Internal Structure



No.	Part Name
1	EA series filter
2	T type bracket
3	EA series regulator
4	EA series lubricator

### Pressure Feature



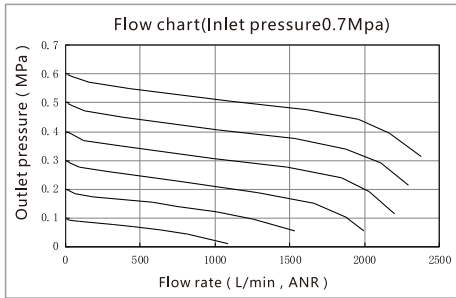


# EA Series Air Preparation Unit

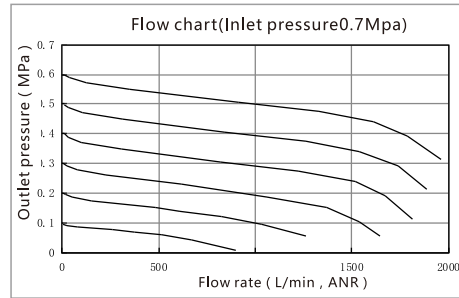


## Flow Chart

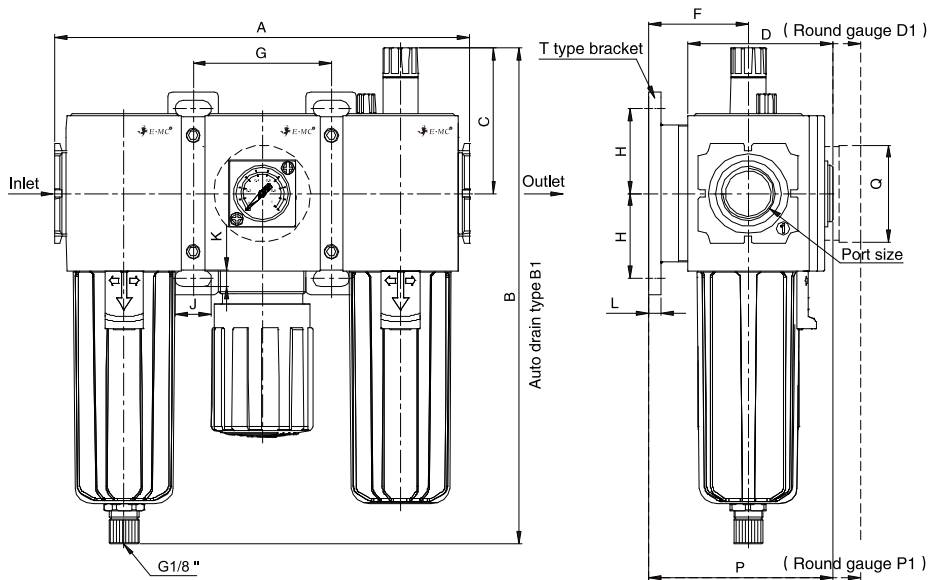
EAC3000-03/04



EAC3000-02



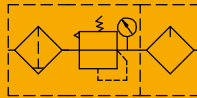
## Main Dimensions



Model	Port Size	A	B	B1	C	D	D1	F	G	H	J	K	L	P	P1	Q
EAC3000	1/4"-1/2"	171	203.5	200.5	60	59.8	71.5	41	57	35	15	7	5	75.8	87.5	40

## EAC3010

FR.L Unit



### Specifications

Model	EAC3010-02	EAC3010-03	EAC3010-04	
Working Medium	Clean Air(after 40 μ m filtration)			
Guaranteed Pressure(MPa)	1.5			
Max. Working Pressure(MPa)	1.0			
Pressure Adjustment Range(MPa)	0.15-0.9, Low pressure type 0.15-0.4			
Working Temperature(°C)	-5-60 ( No freezing )			
Filter Precision	40 μ m/5 μ m optional			
Recommended Oil	Turbine No.1 Oil ISO VG32			
Bowl Material	PC(Polycarbonate)			
Water Bowl Capacity(CC)	40			
Oil Bowl Capacity(CC)	76			
Weight(g)	615	599	585	
Component	Filter regulator	EAW3000-02	EAW3000-03	EAW3000-04
	Lubricator	EAL3000-02	EAL3000-03	EAL3000-04

### How to Order?

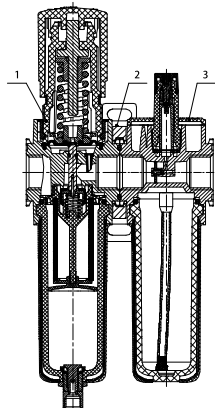
Series No.	Port Size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Scale Unit	Filter Precision	Thread Type
EAC3010:EA3000 series FR.L Unit (Filter+Lubricator)	02: 1/4" 3000 03: 3/8" 04: 1/2"	Blank: Manual drain type C: Semi-anto drain D: Auto Drain type	Blank: Standard type L: Low pressure type①	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge②	③ Square pressure gauge optional Round pressure gauge optional	Blank: 40 μ m 5M: 5 μ m	Blank: G P: PT T: NPT
						1: MPa 2: Bar 3: Psi 4: Mpa/Psi 5: Bar/Psi		

#### Order Example:

EA series FR.L unit, port size of 1/2", differential pressure drain type, with square pressure gauge, Mpa, 5 μ m, G thread, the ERP code is: EAC3010-04CLF15M

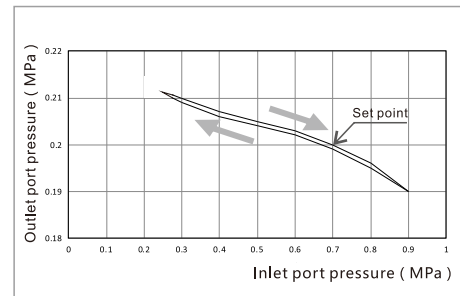
Remark:①Max pressure adjustable for low pressure type is 0.4Mpa;②Port of round pressure gauge is M6;  
③Square pressure gauge is single scale, round pressure gauge is double scale

### Internal Structure



No.	Part Name
1	EA series filter regulator
2	T type bracket
3	EA series lubricator

### Pressure Feature

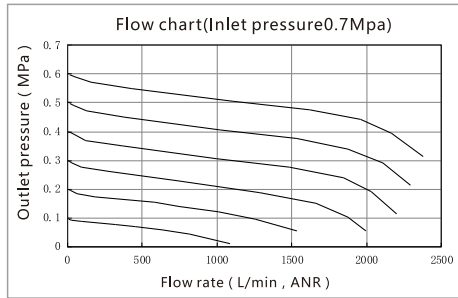


# EA Series Air Preparation Unit

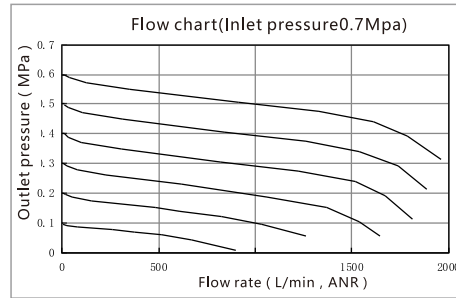


## Flow Chart

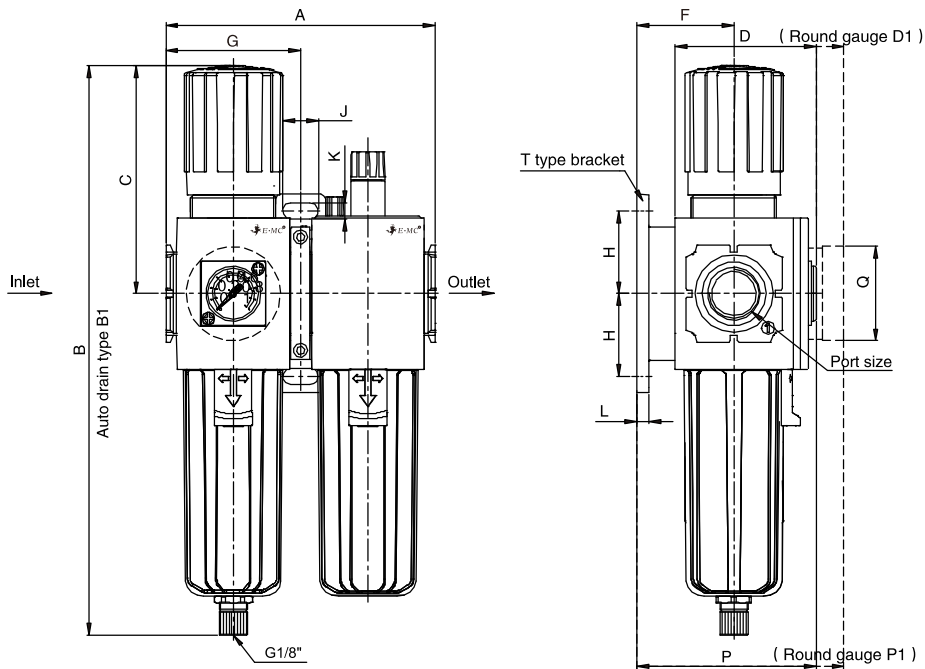
EAC3010-03/04



EAC3010-02

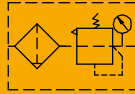


## Main Dimensions



Model	Port Size	A	B	B1	C	D	D1	F	G	H	J	K	L	P	P1	Q
EAC3010	1/4"-1/2"	114	239.6	236.6	96.6	59.8	71.5	41	57	35	15	7	5	75.8	87.5	40

## EAW3000 Filter Regulator



### Specifications

Model	EAW3000-02	EAW3000-03	EAW3000-04
Working Medium	Clean Air(after 40 μm filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	1.0		
Pressure Adjustment Range(MPa)	0.15~0.9, Low pressure type 0.15~0.4		
Working Temperature(°C)	-5~60 ( No freezing )		
Filter Precision	40 μm/5 μm optional		
Recommended Oil	PC(Polycarbonate)		
Water Bowl Capacity(CC)	40		
Weight(g)	490	484	477

### How to Order?

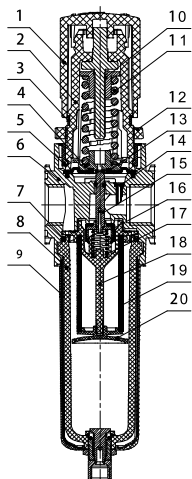
Series No.	Port Size	Drain Type	Type No.	Pressure Gauge	Pressure Gauge Type	Bracket Code	Scale Unit	Filter Precision	Thread Type
EAW3000:EA3000 series Filter regulator	02: 1/4" 03: 3/8" 04: 1/2"	Blank: Manual drain type C: Semi-anto drain D: Auto Drain type	Blank: Standard type L: Low pressure type ①	Blank: With pressure gauge N: No pressure gauge	F: Square pressure gauge Y: Round pressure gauge②	Blank: With bracket J: No bracket	③	Blank: 40 μm 5M: 5 μm	Blank: G P: PT T: NPT
3000							Square pressure gauge optional Round pressure gauge optional	1: MPa 2: Bar 3: Psi 4: Mpa/Psi 5: Bar/Psi	

#### Order Example:

EA series FR unit, port size of 1/2", differential pressure drain type, low pressure type, with square pressure gauge, with bracket, Mpa, 5 μm, G thread, the ERP code is: EAW3000-04CLF15M

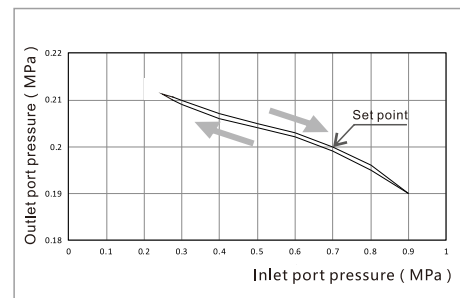
Remark:①Max pressure adjustable for low pressure type is 0.4Mpa;②Port of round pressure gauge is M6;  
③Square pressure gauge is single scale, round pressure gauge is double scale

### Internal Structure



No.	Part Name	Material
1	Pressure regulating handle	PA6 with glass fiber
2	Pressure regulating valve cover	PA6 with glass fiber
3	Marking ring	POM
4	Pressure regulating spring seat	POM
5	Cover plate	ABD
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Water bowl	PC
9	Protection guard	PC+ABS
10	Pressure regulating screw/Screw set	Free-cutting steel
11	Spring	SWC
12	Octagonal caps	POM with glass fiber/Zinc alloy
13	Diaphragm	NBR
14	Interline	POM
15	Valve stem	Brass
16	Valve core	6061+NBR
17	Spring	SUS304
18	Water separator propeller	POM
19	Filter element	PE
20	Water baffle	POM with glass fiber

### Pressure Feature

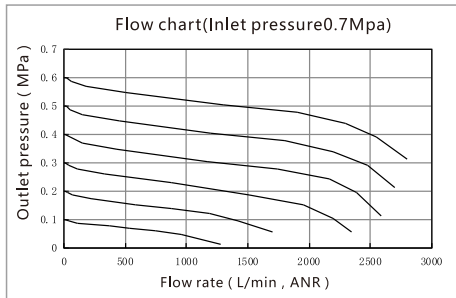




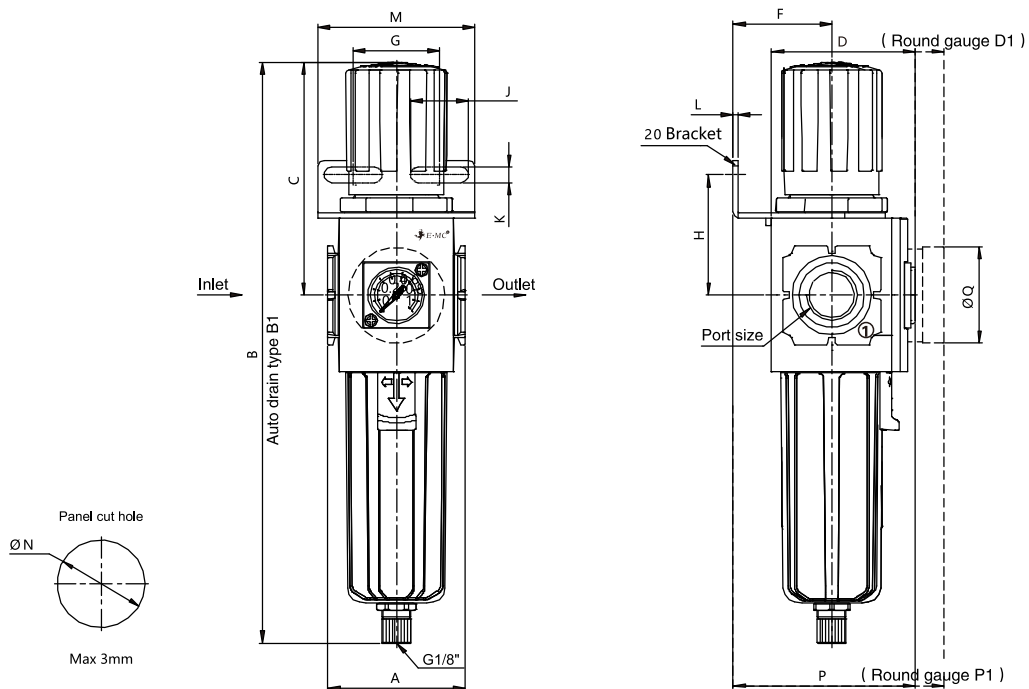
# EAW Series Air Preparation Unit



## Flow Chart

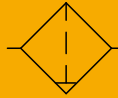


## Main Dimensions



Model	Port Size	A	B	B1	C	D	D1	F	G	H	J	K	L	M	N	P	P1	Q
EAW3000	1/4"-1/2"	57	239.6	236.6	96.6	59.8	71.5	41	36	50	24	6.5	2	65	36.5	75.8	87.5	40

## EAF3000 Filter



### Specifications

Model	EAF3000-02	EAF3000-03	EAF3000-04
Working Medium	Clean Air(after 40 μ m filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	0.15~1.0		
Working Temperature(°C)	-5~60 ( No freezing )		
Filter Precision	40 μ m/5 μ m optional		
Bowl Material	PC(Polycarbonate)		
Water Bowl Capacity(CC)	40		
Weight(g)	328	322	315

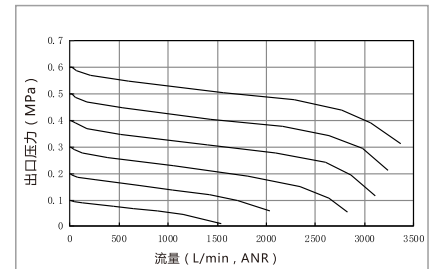
### How to Order?

Series No.	Port Size	Drain Type	Bracket Code	Filter Precision	Thread Type
EAF3000:EA3000 series filter	02: 1/4" 3000 03: 3/8" 04: 1/2"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: With bracket J: No bracket	Blank: 40 μ m 5M: 5 μ m	Blank: G P: PT T: NPT

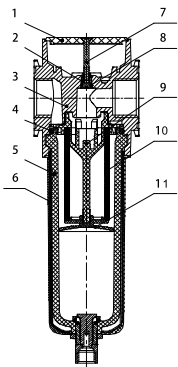
#### Order Example:

EA series Filter, port size of 1/2", differential pressure drain type, with bracket, filter precision 5 μ m, G thread, the ERP code is: EAF3000-04C5M

### Flow Chart

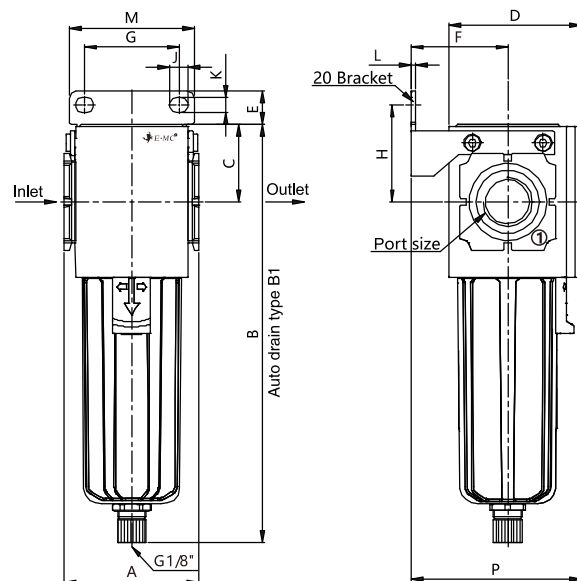


### Internal Structure



No.	Part Name	Material
1	Valve seat cover	ABS
2	Seal Pillar	6061
3	Valve body	Aluminum alloy
4	Seal	NBR
5	Water bowl	PC
6	Protection Guard	PC+ABS
7	Screw	Mild steel
8	O-ring	NBR
9	Water separator propeller	POM
10	Filter element	PE
11	Water baffle	POM with glass fiber

### Main Dimensions



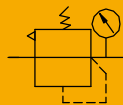
Model	Port Size	A	B	B1	C	D	E	F	G	H	J	K	L	M	P
EAF3000	1/4"-1/2"	57	176.5	173.5	33	56.4	14	41	40	41	8	6.5	2	53	72.4

# EAR Series Air Preparation Unit



## EAR3000

### Regulator



### Specifications

Model	EAR3000-02	EAR3000-03	EAR3000-04
Working Medium	Clean Air(after 40 μm filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	1.0		
Pressure Adjustment Range(Mpa)	0.15~0.9, Low pressure type 0.15~0.4		
Working Temperature(°C)	-5~60 ( No freezing )		
Weight(g)	393	387	380

### How to Order?

Series No.	Port Size	Type No.	Pressure Gauge	Pressure Gauge Type	Bracket Code	Scale Unit	Thread Type
EAR3000:EA3000 series Regulator			Blank: With pressure gauge N: No pressure gauge		Blank: With bracket J: No bracket		Blank: G P: PT T: NPT
3000	02: 1/4" 03: 3/8" 04: 1/2"	Blank: Standard type L: Low pressure type①	F: Square pressure gauge Y: Round pressure gauge②			③ Square pressure gauge optional [ 1: MPa 2: Bar 3: Psi Round pressure gauge optional [ 4: Mpa/Psi 5: Bar/Psi	

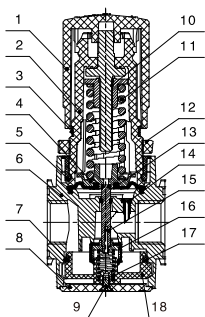
#### Order Example:

EA series Regulator, port size of 1/2", low pressure type, with square pressure gauge, with bracket, Mpa, G thread, the ERP code is: EAF3000-04LF1

Remark:①Max pressure adjustable for low pressure type is 0.4Mpa;②Port of round pressure gauge is M6;

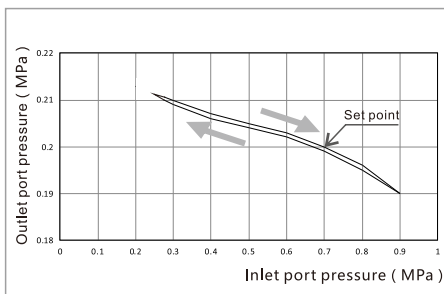
③Square pressure gauge is single scale, round pressure gauge is double scale

### Internal Structure

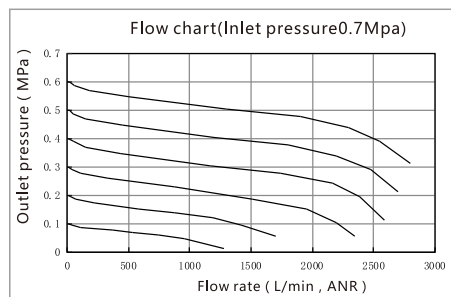


No.	Part Name	Material
1	Pressure regulating handle	PA6 with glass fiber
2	Pressure regulating valve cover	PA6 with glass fiber
3	Marking ring	POM
4	Pressure regulating spring seat	POM
5	Cover plate	ABS
6	Valve body	Aluminum alloy
7	Seal	NBR
8	Valve seat cover	ABS
9	Screw	Mild steel
10	Pressure regulating screw/ Screw set	Free-cutting steel
11	Spring	SWC
12	Octagonal caps	POM with glass fiber/Zinc alloy
13	Diaphragm	NBR
14	Interline	POM
15	Valve stem	Brass
16	Valve core	6061-NBR
17	Spring	SUS304
18	Pressure regulating valve seat	POM with glass fiber

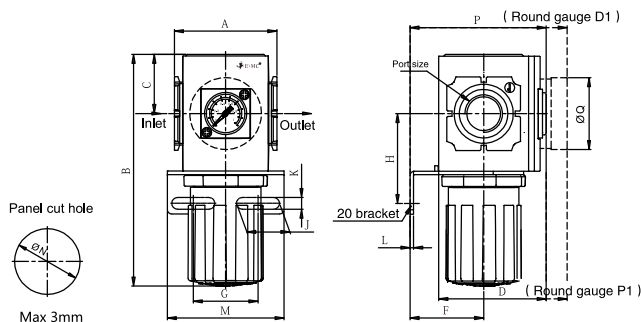
### Pressure Feature



### Flow Chart



### Main Dimensions

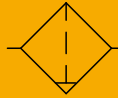


Model	Port Size	A	B	C	D	D1	F	G	H	J	K	L	M	N	P	P1
EAR3000	1/4"-1/2"	57	129.1	33	59.8	71.5	41	36	50	24	6.5	2	65	36.5	75.8	87.5

4  
EAF3000

## EAL3000

Lubricator



### Specifications

Model	EAL3000-02	EAL3000-03	EAL3000-04
Working Medium	Clean Air(after 40 μm filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	0.05~1.0		
Working Temperature(°C)	-5~60 ( No freezing )		
Recommended Oil	Turbine No.1 Oil ISO VG32		
Bowl Material	PC(Polycarbonate)		
Oil Bowl Capacity(CC)	76		
Weight(g)	296	287	279

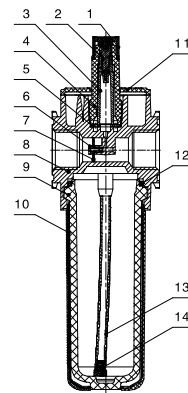
### How to Order?

Series No.	Port Size	Bracket Code	Thread Type
EAL3000:EA3000 series lubricator	02: 1/4" 3000 03: 3/8" 04: 1/2"	Blank: With bracket J: No bracket	Blank: G P: PT T: NPT

#### Order Example:

EA series lubricator, port size of 1/2", with bracket, G thread, the ERP code is: EAL3000-04

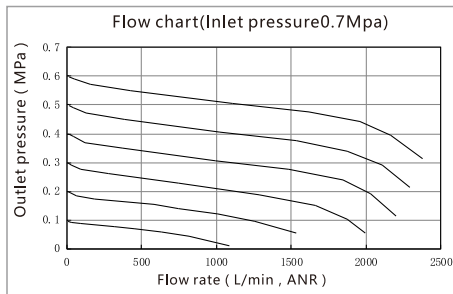
### Internal Structure



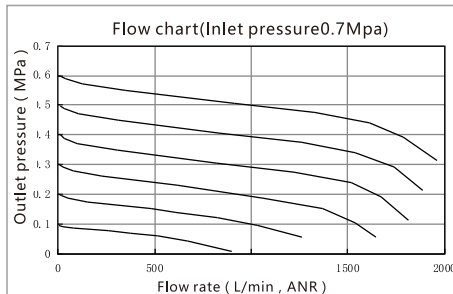
No.	Part Name	Material
1	Adjusting screw cap	POM
2	Oil flow adjusting unit	Brass
3	Oil dripping tube	PC
4	Oil window	PC
5	Seal	NBR
6	Bolt brass	Brass
7	Baffle	NBR
8	Valve body	Aluminum alloy
9	Water bowl	PC
10	Protection guard	PC+ABS
11	Lubricator cover plate	ABS
12	Sealing	NBR
13	Pipe	PU
14	Filter element	Brass

### Flow Chart

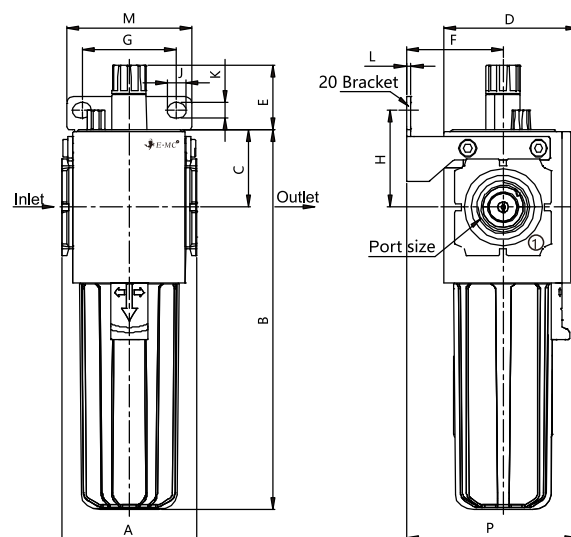
#### EAL3000-03/04



#### EAL3000-02



### Main Dimensions



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	M	P
EAL 3000	1/4"-1/2"	57	188	33	56.4	27	41	40	41	8	6.5	2	53	72.4

## EA Series Air Preparation Unit– Accessories

### How to Order?

#### Square pressure gauge

Series No.	Pressure Range	Scale Unit
EAC-FB: EA series special square pressure gauges	010: 0~1.0 Mpa 0~10 Bar 0~150 Psi	1 : MPa 2 : Bar 3 : Psi

#### Order Example:

EA series special square pressure gauge, pressure range: 0~1.0Mpa, scale:Mpa, the ERP code is EAC-FB0101

#### Round pressure gauge

Series No.	Dial Diameter	Pressure Range	Scale Unit	Case Material	Case Color	Fitting Material	Port Size
EAC-EYZ: EA series special round pressure gauges	25 : 25mm ( Used in the EA2000 series ) 40 : 40mm ( Used in the EA3000 /4000series )	010:0~1.0MPa/0~150Psi 0~10Bar/0~150Psi	4:MPa/Psi 5:Bar/Psi	1:The iron shell	B:Black	Blank:Brass	M6:M6

#### Order Example:

EA series special round pressure gauge, diameter is 40mm, pressure range:0-1.0Mpa/0-150psi, scale is Mpa/Psi, black metal shell, brass fitting, port size is M6, the ERP code is EAC-EYZ4001041B-M6

#### Spacer

Series No.	Type No.	Port Size	Thread Type
EA300:EA3000 series spacer	1: 1000 series 2: 2000 series 3: 3000 series 4: 4000 series	3000 02:1/4" 03:3/8" 04:1/2"	Blank: G P: PT T: NPT

#### Order Example:

EA series spacer, 2 way, port size of 1/4", G thread, the ERP code is: EA3002-02

Note: ① It means bypass port qty, not including inlet/outlet port;  
If use spacer together with EAC series F.R.L or FR.L, should mount together with T type bracket.

### Product Features

- Mount between filter regulator/regulator and lubricator of EA series, to branch air supply line;
- Could be used with T type bracket or used seperately

4

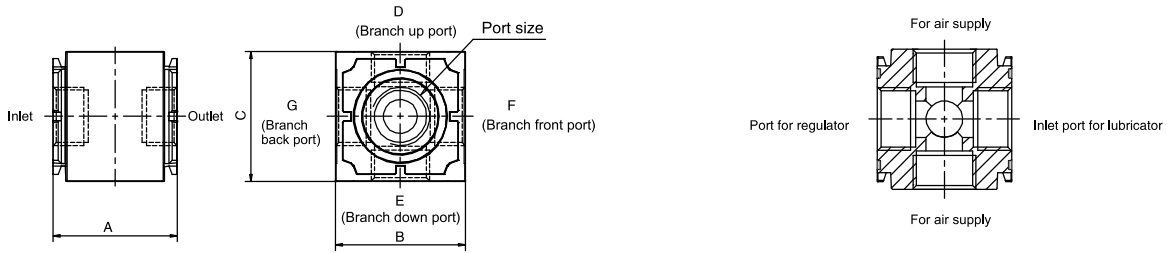
配件

### Specifications

Model	EA300□-02	EA300□-03	EA300□-04
Working Medium	Clean Air(after 40 μ m filtration)		
Guaranteed Pressure(MPa)	1.5		
Max. Working Pressure(MPa)	1.0		
Weight(g)	200	190	180



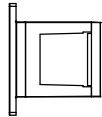
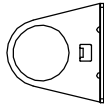
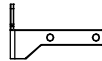
## Internal Structure



## Dimensions and Ports

Model	Port size	A	B	C	D	E	F	G
EA3001	1/4"-1/2"	44	46	46	Through hole	Blind hole	Blind hole	Blind hole
EA3002					Through hole	Through hole	Blind hole	Blind hole
EA3003					Through hole	Through hole	Through hole	Blind hole
EA3004					Through hole	Through hole	Through hole	Through hole

## Mounting Accessories

Model	Code	Dimensions	Applicable product specifications	
T-type bracket	EAC30T-P01		EAC3000	EAC3010
20-type bracket	EAC320-P01		EAW3000	EAR3000
40-type bracket	EAC340-P01		EAF3000	EAL3000

## Accessories Application Example

