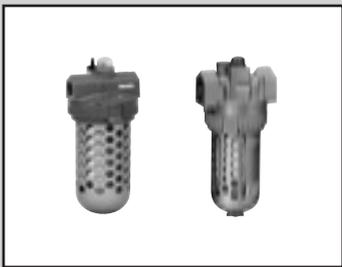


Lubricator/econo-mist

# 3003E/3004E/3005E Series



Supplying fine oil mist (oil fog).

● Port size: Rc 3/4 to Rc2

JIS symbol

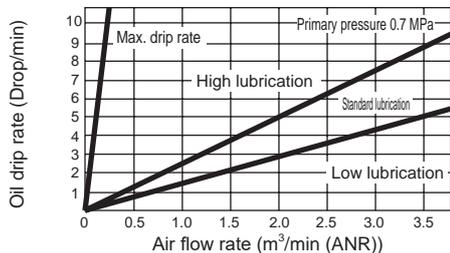


## Specifications

Item	3003E-6C/8C	3004E-10C/12C	3005E-16C
Appearance			
Working fluid	Compressed air		
Max. working pressure	1.0 (≈150 psi, 10 bar)		
Proof pressure	1.5 (≈220 psi, 15 bar)		
Ambient / fluid temperatures	5 (41°F) to 65 (149°F)		
Oil used	Turbine oil Class 1, ISO VG32 (spindle oil cannot be used)		
Oil storage capacity	cm <sup>3</sup>	660	660
Port size	Rc	3/4, 1	1 1/4, 1 1/2
Weight	kg	2.4	3.5
Bowl guard	Standard equipment		
Min. drip flow rate	ℓ/min (ANR)	60	200

\*1: The min. drip flow rate is the value at which five drops of oil drip per minute when the primary pressure is 0.5 MPa.

## Oil drip rate



## Option weight

\* Add to the weight of the standard accessories.

Unit: kg

Code	Drain disch		Bowl material				
	C	Z	M	MG	MG2	MG8	MG20
3003E	0	-0.025	0	0.17	8	18	28
3004E	0	-0.025	0	0.17	7	17	27
3005E	0	-0.025	0	0.17	7	17	27

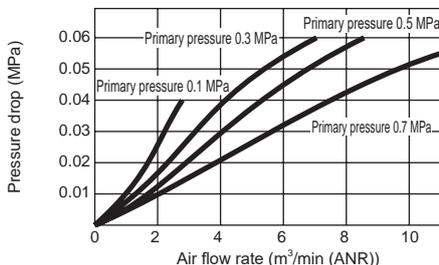
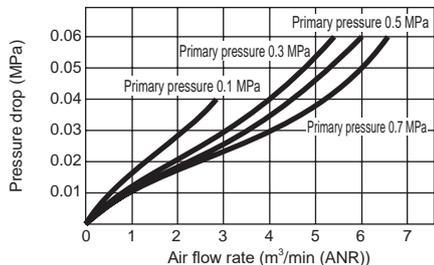
## Flow characteristics

● 3003E-6C

Rc3/4

● 3003E-8C

Rc1



● 3004E-10C

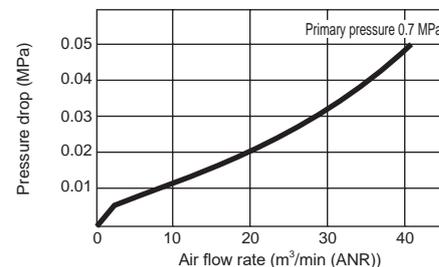
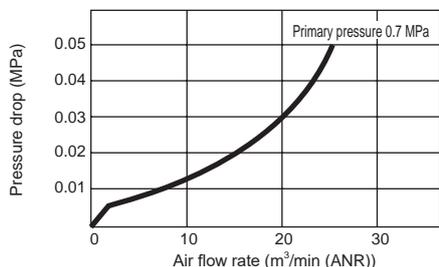
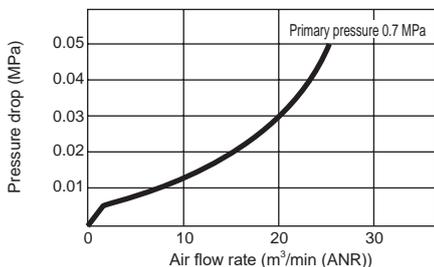
Rc1 1/4

● 3004E-12C

Rc1 1/2

● 3005E-16C

Rc2



### How to order



**A** Model No.

**B** Port size  
\*1

**C** Option  
\*2  
\*3  
\*4

A Model No.		
Large	Large bore	Large bore
3003E	3004E	3005E

Code	Description	3003E	3004E	3005E	
<b>B Port size</b>					
<b>6C</b>	Rc <sup>3</sup> / <sub>4</sub>	●			
<b>8C</b>	Rc1	●			
<b>10C</b>	Rc1 <sup>1</sup> / <sub>4</sub>		●		
<b>12C</b>	Rc1 <sup>1</sup> / <sub>2</sub>		●		
<b>16C</b>	Rc2			●	
<b>C Option</b>					
Drain discharge	<b>Blank</b>	Blank bowl	●	●	●
	<b>C</b>	Manual cock (M/MG: Cock)	●	●	●
Bowl material	<b>Blank</b>	Polycarbonate	●	●	●
	<b>Z</b>	Nylon bowl	●	●	●
	<b>M</b>	Metal bowl	●	●	●
	<b>MG</b>	Metal bowl with gauge	●	●	●
	<b>MG2</b>	Metal bowl for 2 ℓ	●	●	●
	<b>MG8</b>	Metal bowl for 8 ℓ	●	●	●
	<b>MG20</b>	Metal bowl for 20 ℓ	●	●	●

[Example of model No.]

**3003E-6C-CZ**

Model: Lubricator/econo-mist

**A** Model No.: Large

**B** Port size: Rc <sup>3</sup>/<sub>4</sub>

**C** Option: Manual cock, nylon bowl

### ⚠ Precautions for model No. selection

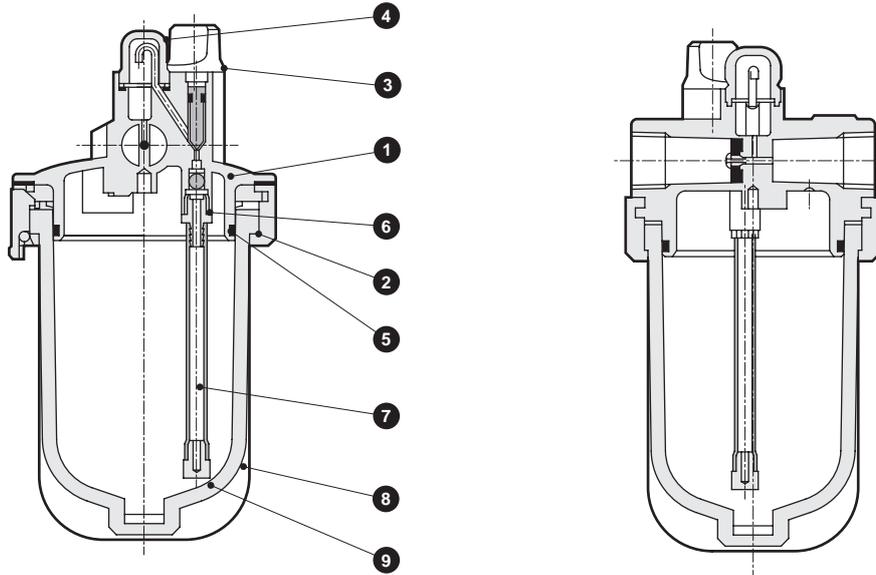
- \*1: If port size NPT thread is required, do not indicate nominal size C.  
(Example) 3003E-6
- \*2: Quart bowl for 2 ℓ to 20 ℓ is a made-to-order product.  
Combination with a bracket is not possible.
- \*3: This product cannot be used for a constant flow rate (minimal differential pressure) of an air motor, etc.
- \*4: The observation dome material is polyamide resin (nylon) even when a metal bowl is selected.

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner
Press Gauge
CompFRL
<b>LgFRL</b>
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PresCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

# 3003E/3004E/3005E Series

## F.R.L. Internal structure and parts list

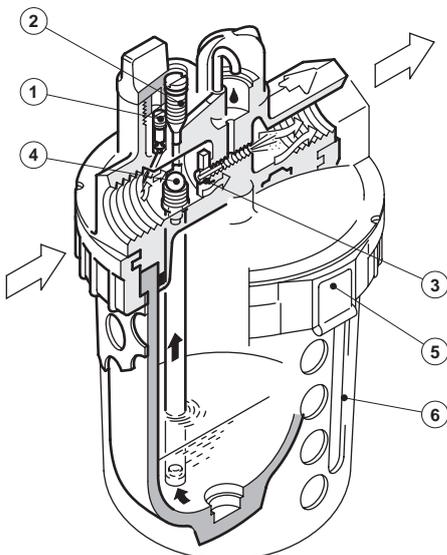
F.R.  
F (Filtr)  
R (Reg)  
L (Lub)  
Drain  
Separ  
Mech  
Press SW  
Res press  
exh valve  
SlowStart  
Anti-bac/Bac-  
remove Filtr  
Film  
Resist FR  
Oil-ProhR  
Med  
Press FR  
No Cu/  
PTFE FRL  
Outdrs FRL  
Adapter  
Joiner  
Press  
Gauge  
CompFRL



No.	Part name	Material		
		3003E	3004E	3005E
1	Body	Zinc alloy die-casting		
2	Clamp ring	Zinc alloy die-casting		
3	Filling plug	Polyacetal resin	Copper alloy	
4	Observation dome	Polycarbonate resin		
5	O-ring	Special nitrile rubber		
6	Adaptor	Copper alloy		
7	Siphon tube assembly	Polyamide resin, polypropylene		
8	Bowl guard	Steel		
9	Bowl	Polycarbonate resin		

LgFRL  
PrecsR  
VacF/R  
Clean FR  
ElecPneR  
AirBoost  
Speed Ctrl  
Silncr  
CheckV/  
other  
Fit/Tube  
Nozzle  
Air Unit  
PrecsCompn  
Electro  
Press SW  
ContactSW  
AirSens  
PresSW  
Cool  
Air Flo  
Sens/Ctrl  
WaterRtSens  
TotAirSys  
(Total Air)  
TotAirSys  
(Gamma)  
Gas  
generator  
RefrDry  
DesicDry  
HiPolymDry  
MainFiltr  
Dischrg  
etc  
Ending

## Functions

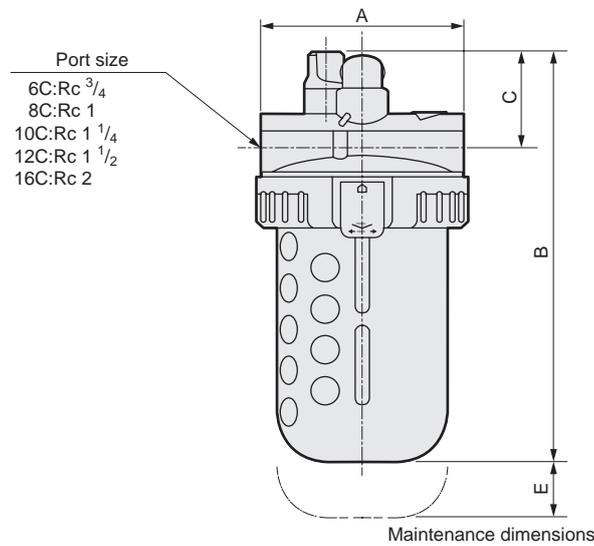
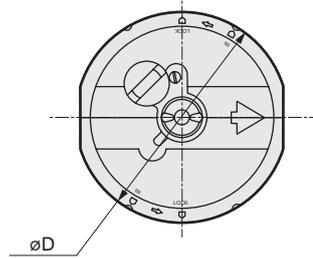


- (1) Pressure valve: Compressed air is supplied in a bowl. If filling plug is loosened, the pressure valve is closed to allow re-filling lubricant without stopping the pneumatic circuit.
- \* Caution: Loosen the filling plug first and remove the plug after the pressure in the bowl is released. Then refill the lubricant.
- (2) Oil rate adjustment needle: Adjust oil rate supplied to compressed air. Needle with a special shape is used to adjust the oil rate accurately. One drop of oil is approx. 0.02 cm<sup>3</sup>.
- (3) Flow guide: Constant proportion of compressed air vs. oil rate is maintained in both large and small flow rates to supply oil fog to pneumatic components.
- (4) Check valve: Lubricant in the bowl flows into the drip tube passing through the siphon tube. Check valve inside prevents oil from flowing backward.
- (5) Clamp ring: Push-in clamp ring is used to achieve easy bowl washing and lubrication from bowl.
- (6) Bowl guard: Lubricant volume can be checked through the oval hole, enabling maintenance to be performed easily. Even if the bowl breaks, its shards will not scatter.

### Dimensions



- 3003E
- 3004E
- 3005E

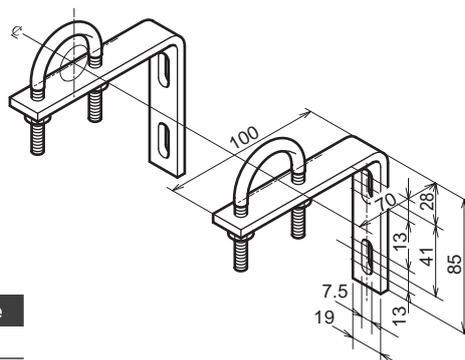


Model No.		3003E	3004E	3005E	
B	A	118	140	140	
	Combination option	Blank	259	291	314
		C	289	322	339
		M/MG	261	294	310
		CM/CMG	275	308	324.5
C	50	58	67		
D	118	114	127		
E	200	200	200		

- Pipe bracket: 6132

- Material: Steel
- Zinc plated

Bracket - Pipe bracket thickness 4.5 mm



Model No.	Port size
6132-6C	$\frac{3}{4}B$
6132-8C	1B

- F.R.L.
- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-ProhR
- Med Press FR
- No Cu/ PTFE FRL
- Outdrs FRL
- Adapter Joiner
- Press Gauge
- CompFRL
- LgFRL**
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/ other
- Fit/Tube
- Nozzle
- Air Unit
- PresCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending



3003E Series

# Lubricator/auto-fill

Only installing oil tank enables automatic lubrication to multiple lubricators.

● Port size: Rc 1/4 to Rc1

JIS symbol



## Specifications

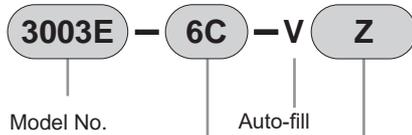
Item	3003E-6C/8C-V	
Working fluid	Compressed air	
Max. working pressure	MPa	1.0 (≈150 psi, 10 bar)
Proof pressure	MPa	1.5 (≈220 psi, 15 bar)
Ambient / fluid temperatures	°C	5 (41°F) to 65 (149°F)
Lubrication pressure	MPa	Working pressure plus 0.035 (≈5.1 psi, 0.35 bar) to 0.35 (≈51 psi, 3.5 bar)
Oil used	Turbine oil Class 1, ISO VG32 (spindle oil cannot be used)	
Port size	Rc	3/4, 1
Weight	kg	2.5
Bowl guard	Standard equipment	

## Option weight

\* Add to the weight of the standard accessories. Unit: kg

Code	Bowl material		
	Z	M	MG
3003E-V	-0.025	0	0.17

## How to order



● A Port size  
\*1

● B Option

Code	Description	
<b>A Port size</b>		
6C	Rc <sup>3/4</sup>	
8C	Rc1	
<b>B Option</b>		
Bowl material	Blank	Polycarbonate
	Z	Nylon bowl
	M	Metal bowl
	MG	Metal bowl with gauge

## ⚠ Precautions for model No. selection

\*1: If port size NPT thread is required, do not indicate nominal size C.  
(Example) 3003E-6-V

[Example of model No.]

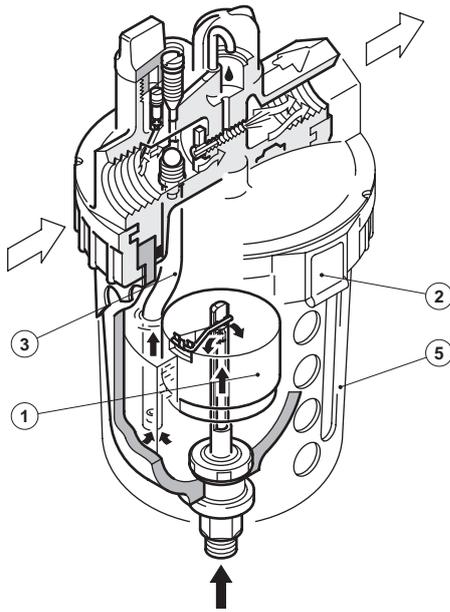
**3003E-6C-Z**

Model: Lubricator/auto-fill

● A Port size: Rc 3/4

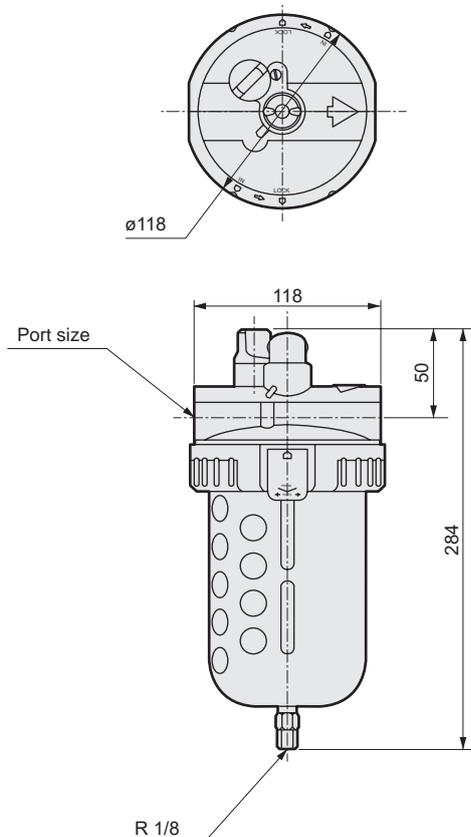
● B Option: Nylon bowl

## Functions

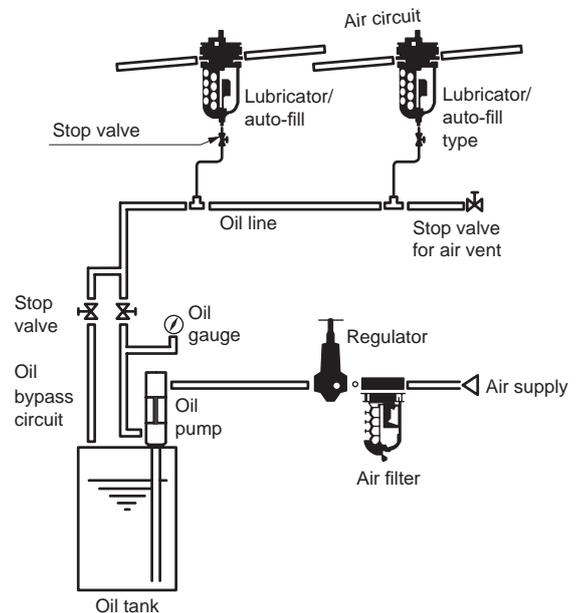


- (1) Float: The float using rubber foam detects a decrease of lubricant by its buoyancy and opens the orifice seat by the level arm to supply lubricant.
- (2) Clamp ring: A push-in clamp ring is used to achieve easy washing, maintenance and inspection of bowl.
- (3) Siphon tube: Uniquely shaped siphon tube is designed not to make contact with the float. Re-assemble the tube not to contact to the float after washing.
- (4) Stop valve: Always use the stop valve for bowl washing or maintenance to avoid jetting lubricant. No stop valve is installed to the product.
- (5) Bowl guard: Even if the bowl breaks, operator safety will be maintained. Drainage remaining and the internal state can be checked through the oval hole.

## Dimensions



## Standard piping



- (1) Always use zinc plating steel tube for an oil line.
- (2) Install an oil line as near as possible to the auto-fill lubricator.
- (3) Connect auto-fill lubricator with flexible tube (1m or below).
- (4) Always install a stop valve for the air vent to the end of the oil line.
- (5) Oil supply pressure to auto-fill lubricator is to be 0.035 to 0.35 MPa higher than air pressure of lubricator.

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner
Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending