



### Reduces air consumption when adsorbing workpiece

#### Mechanism

EC1 is equipped with energy saving system that does not use electric control.

Vacuum is generated when compressed air is supplied.

When reaching the set vacuum pressure, vacuum generating will be automatically stopped.

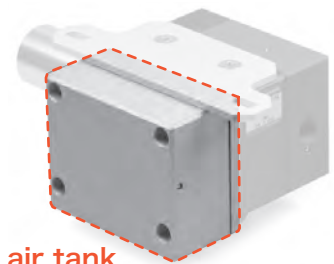
In case of workpiece which does not have vacuum leakage, vacuum will be retained by check valve inside.

When vacuum is getting lower, vacuum is automatically generated again to prevent the pressure reduction.

This operation is continued until compressed air is cut off.

### With blow-off air tank

- When supplied air is stopped, compressed air in the tank is blown out from vacuum port and vacuum break is mechanically done.



blow-off air tank

### Mountable to suction cup directly

- Suction cup is mountable to EC1 directly.

Recommend  
suction cup

PK2 (P.367) • PK2B (P.373) series

Direct  
mounting



## How to Order

EC1 – 10X – Z – 14

①                      ②                      ③

### ① Nozzle Type

Symbol	Nozzle size [mm]	Nozzle type
07X	0.7	Multi-stage
10X	1.0	
13S	1.3	Single

### ② Blow-off Air Tank

Symbol	Tank
T	With
Z	N/A

### ③ Screw Size of Vacuum Port (port to connect the suction cup)

Symbol	Screw type
14	Rc1/4
1F	M10 female screw (M10×P1.5, coarse screw)
1M	M10 female screw (M10×P1.25, fine screw)
2F	M12 female screw (M12×P1.75, coarse screw)

## Maintenance Parts

Model number	Specifications
EC1-FE	Filter element (metal mesh)



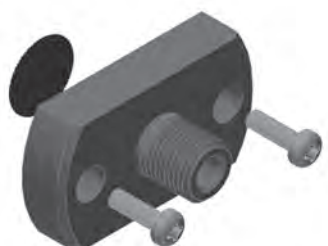
Model number	Specifications
EC1-VP-14	Vacuum port : Rc1/4 Adapter, metal mesh, screw



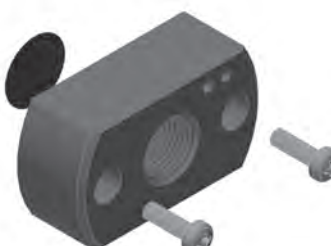
Model number	Specifications
EC1-VP-1F	Vacuum port : M10 female screw (M10×P1.5) Adapter, metal mesh, screw



Model number	Specifications
EC1-VP-1M	Vacuum port : M10 female screw (M10×P1.25) Adapter, metal mesh, screw



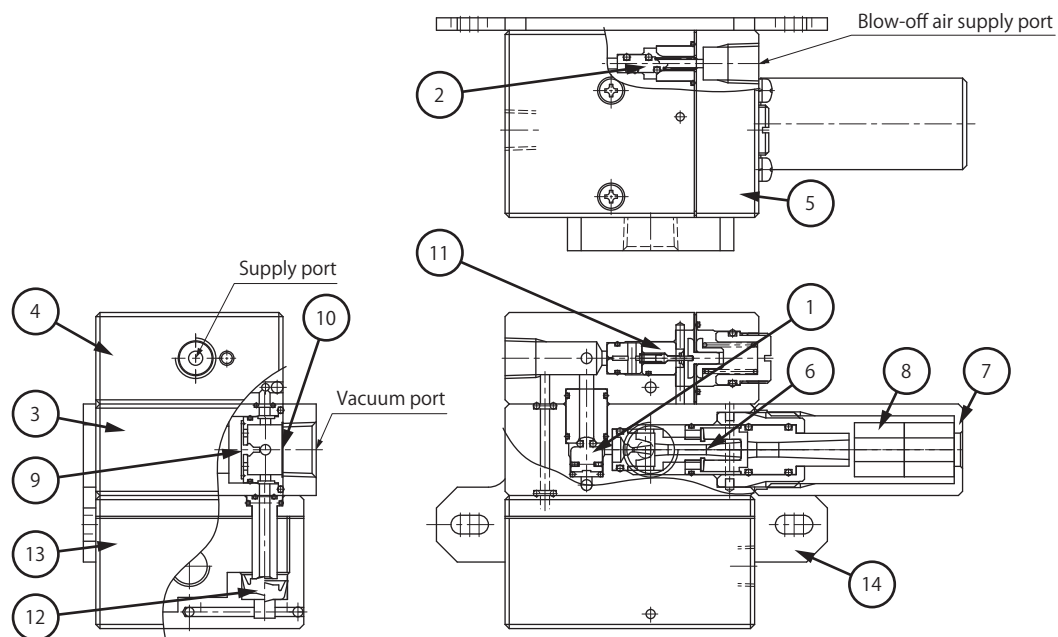
Model number	Specifications
EC1-VP-2F	Vacuum port : M12 female screw (M12×P1.75) Adapter, metal mesh, screw



## CONVUM Specifications

Description \ Model number		Unit	07X	10X	13S
Nozzle type			Multi-stage		Single
Nozzle size		mm	0.7	1.0	1.3
Fluid			Non-lubricated compressed air		
Ambient temperature		°C	0~50(No Freezing)		
Operating pressure range		MPa	0.45~0.6		
Rated pressure		MPa	0.5(at vacuum generation)		
Maximum vacuum pressure		kPa	-88		
Suction flow		L/min (ANR)	37	39	38
Air consumption		L/min (ANR)	30	52	82
Hysteresis		kPa	About 10-30 (depends on the adjust position)		
Capacity of tank		cc	14.5		
Energy-saving ON-OFF value ( in round figures)			65~85(ON-OFF position adjustable )		
Weight	With tank	g	520		
	Without tank		410		

## Construction



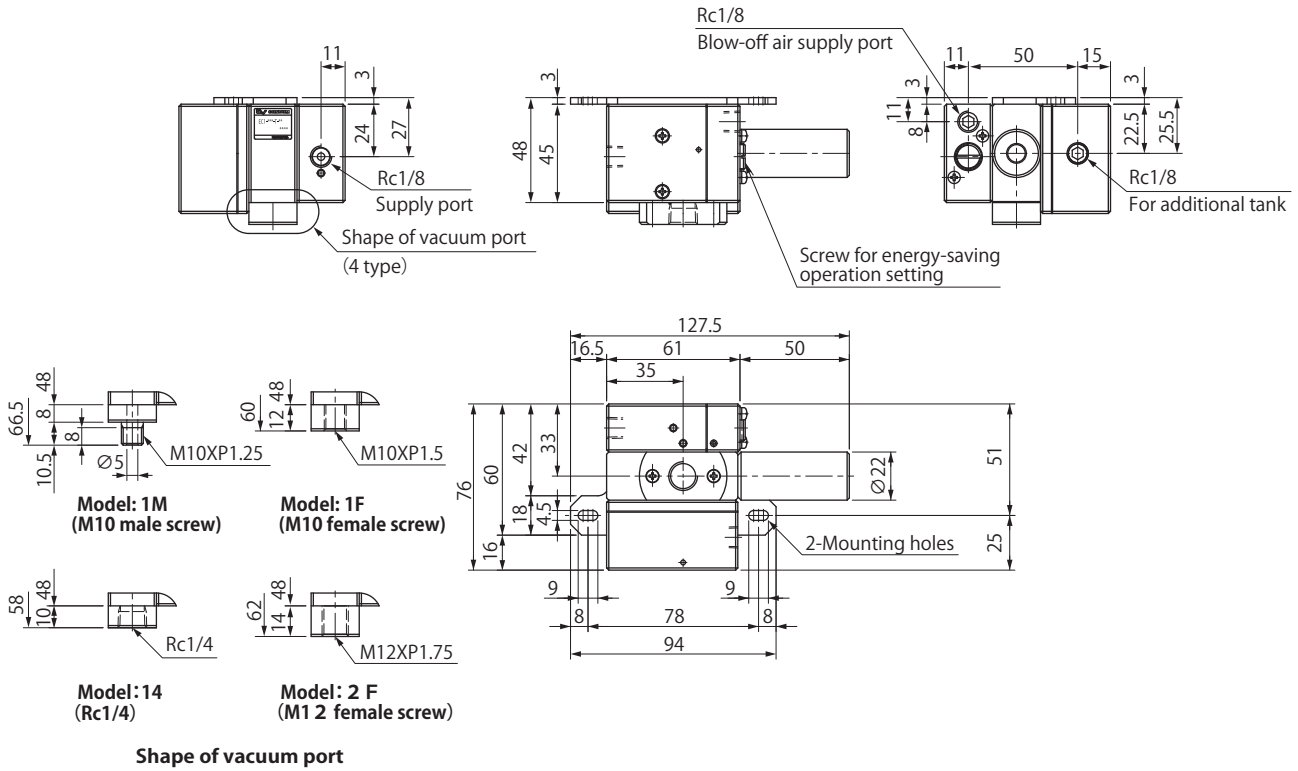
### Component Parts

No.	Parts name	Material
1	Vacuum generation poppet	Aluminum, NBR
2	Blow-off poppet	SUS, NBR
3	Body 1	Aluminum, NBR, iron
4	Body 2	Aluminum, NBR, iron
5	Body 3	Aluminum, NBR, iron
6	Nozzle kit	Aluminum, PA, NBR, FKM
7	Silencer	Aluminum
8	Silencer element	Needle felting
9	Check valve	Aluminum, NBR
10	Filter	SUS, aluminum, NBR
11	Energy-saving function	SUS, aluminum, NBR, iron
12	Shuttle valve	Aluminum, NBR
13	Tank	Aluminum, NBR, iron
14	Mounting plate	Aluminum, iron

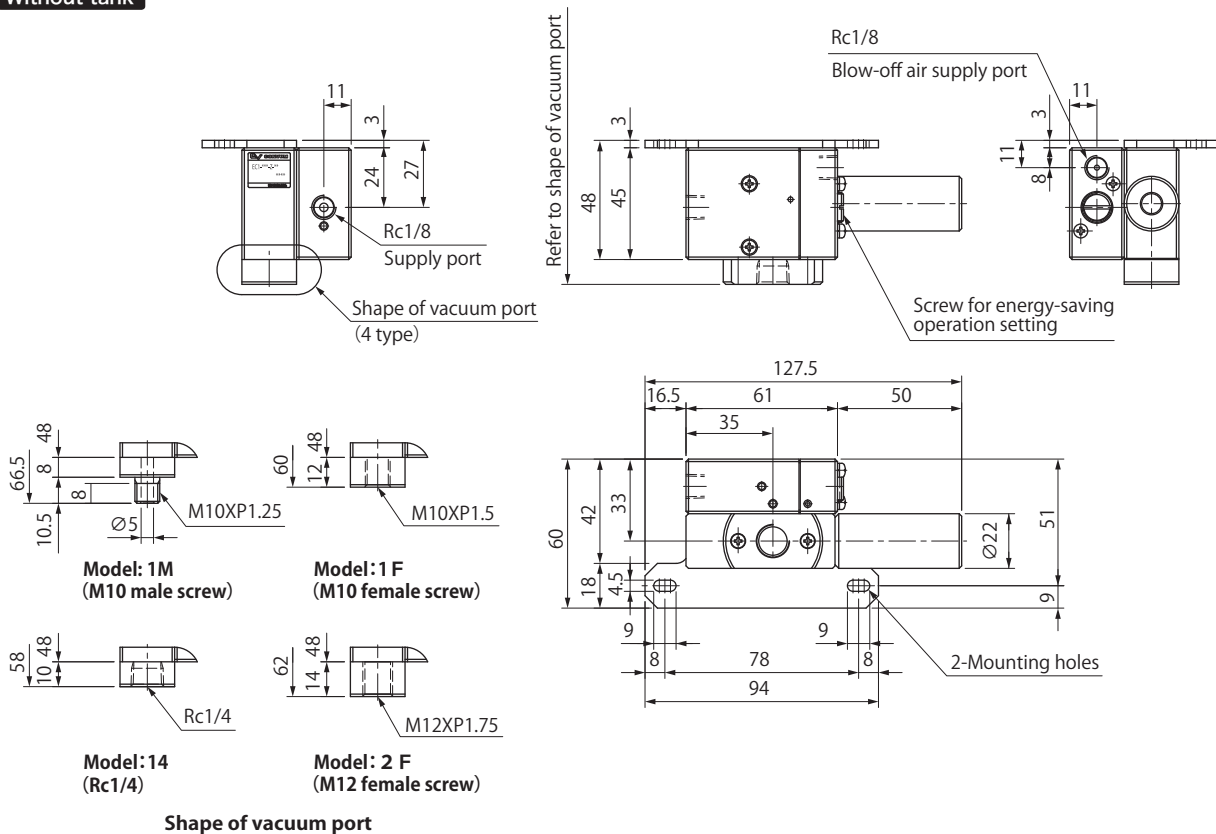
Dimensions

(mm)

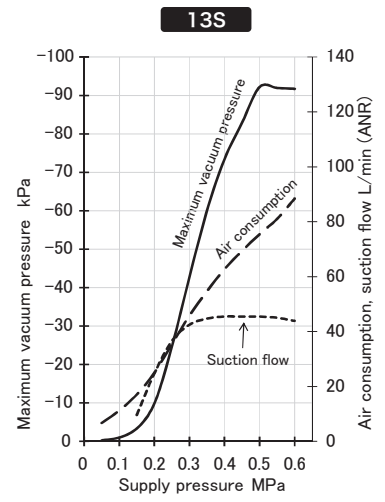
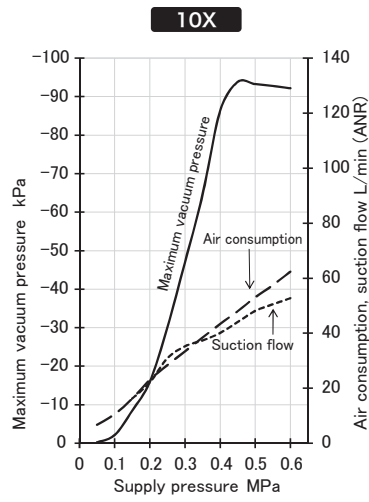
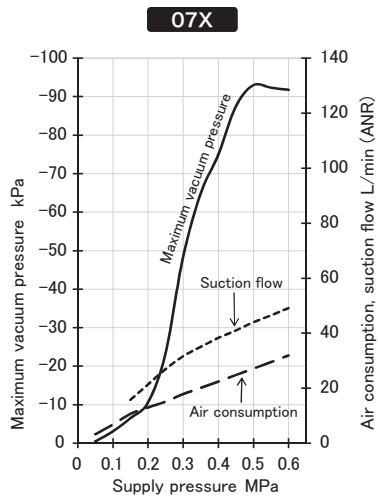
With tank



Without tank



### Performance Charts



**01**  
CONVUM

SC1

SC2

SC3

MC22

MC72

CCV

MCV

CV

CVA2

**EC1**

MCA

HDV

HFV

CVZ