

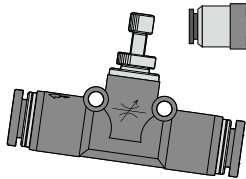
Vacuum Generator with blow-off function

Vacuum & Blow-off
Control by
1 Solenoid Valve!!

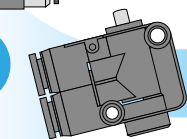
Blow-off air is also adjustable!

3 in 1!!

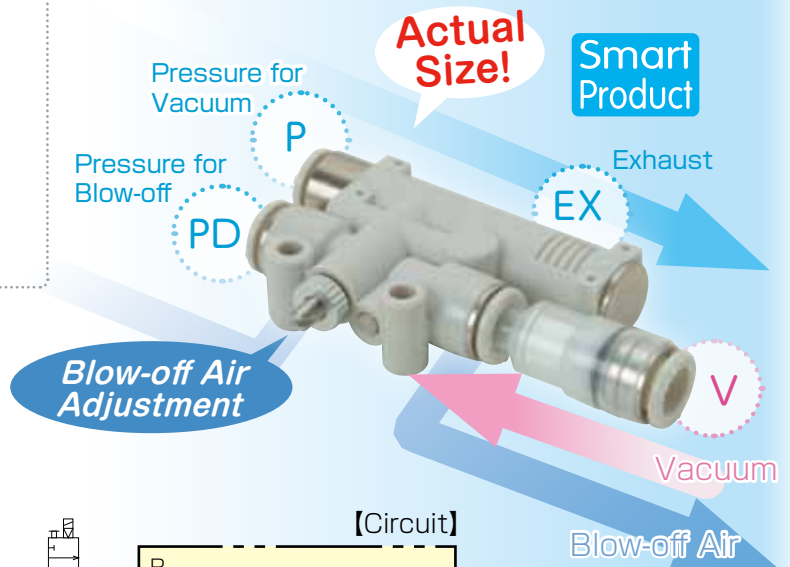
Vacuum generator



Needle valve

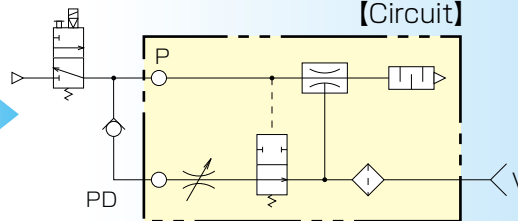


Mechanical valve



Blow-off Air Adjustment

[Circuit]



Save Space

Installation

You can install VY closer to your work-piece.

Reduce Solenoid Valve

You can reduce a solenoid valve for blow-off air!

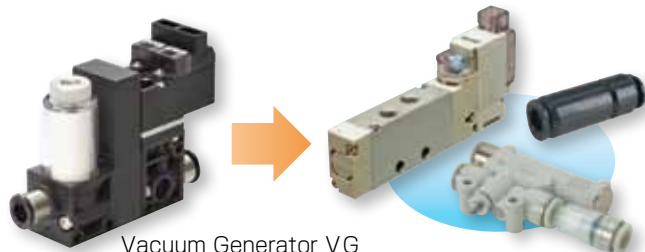
Save Cost

*compared with PISCO VG series

Initial Cost

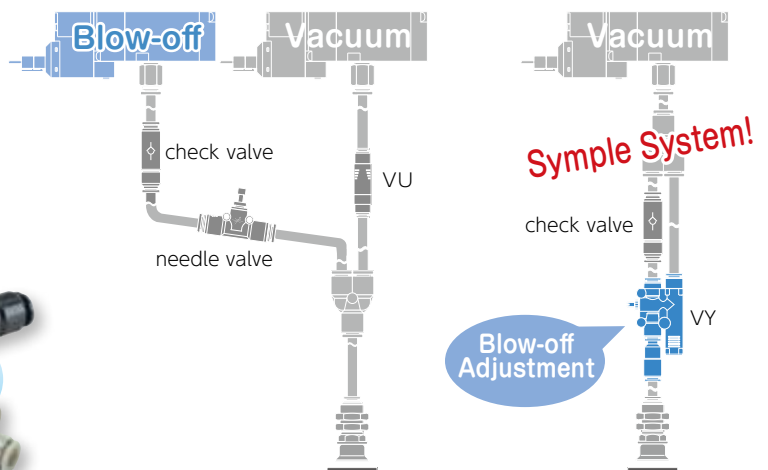
about **40%**

(Solenoid Valve SVB + Check Valve CVU + VY)

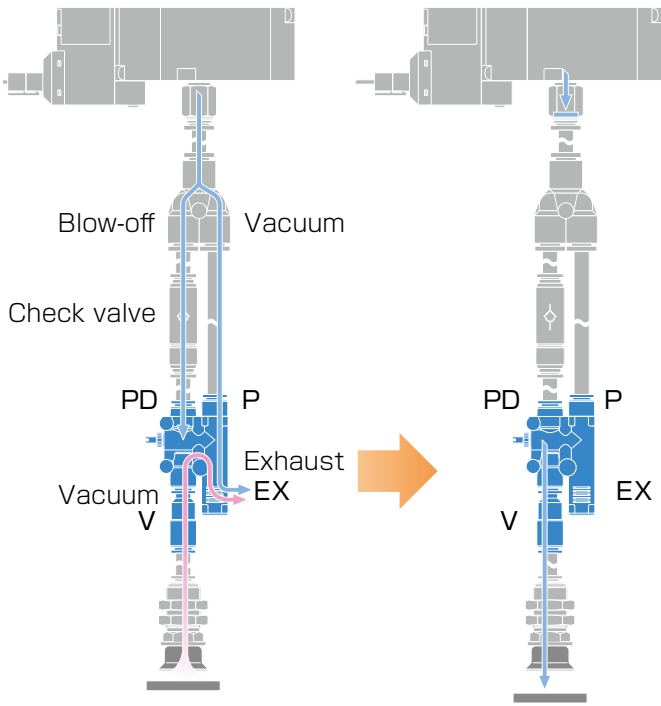


Vacuum Generator VG

Vacuum Generator VU: You need 2 solenoid valves for vacuum and blow-off.
Vacuum Generator VY: Solenoid valve for vacuum and needle valve are not required.



How to Operate



Air between check valve and PD port becomes an airtank while vacuuming. Once solenoid valve stops, the air from the airtank is released as a blow-off air. The air is adjustable with a needle. If you need more blow-off air, make the tubing between check valve and PD port longer.

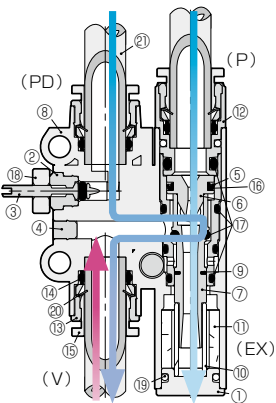
Spec.

Fluids	Air
Pressure Range	43.5~101.5psi (0.3~0.7 MPa)
Rated Pressure	H, L: 72.5psi (0.5 MPa) / E: 50.8psi (0.35 MPa)
Operating Temp. Range	41~122°F (5~50°C)
Lubrication	no required

Vacuum Filter (VYF)

Fluids	Air
Pressure Range	-29.5~0 inHg (-100~0 kPa)
Filtering Accuracy	10 μm
Operating Temp. Range	32~140°F (0~60°C) (No freezing)
Filter Area	size 44 : 0.8 cm ² / size 66 : 1.1 cm ²

Structure



No.	Parts	Materials
①	End Plug	Nickel-plated Brass
②	Stopper	Nickel-plated Brass
③	Adjustment Needle	Stainless Steel
④	Plug	Nickel-plated Brass
⑤	Sleeve	Nickel-plated Brass
⑥	Nozzle Piston	Nickel-plated Brass
⑦	Diffuser Spool	Nickel-plated Brass
⑧	Plastic Body	PBT Glass15%
⑨	Spool Seal Rubber	HNBR
⑩	Diffuser Seal Rubber	Stainless Steel
⑪	Silencer Element	PVF
⑫	Cartridge	-
⑬	Guide Ring	Nickel-plated Brass
⑭	Elastic Sleeve	NBR
⑮	Release Ring	POM
⑯	Y Seal Rubber	NBR
⑰	O Ring	NBR
⑱	Locknut	Aluminium
⑲	Spring Pin	Stainless Steel
⑳	Lock Claws	Stainless Steel
㉑	Tubing	Polyurethane, Nylon, etc.

e.g.) Order Code



Vacuum Generator VY

② Performance

Code	Performance
H	Deep Vacuum (rated pressure : 72.5psi (0.5MPa))
L	Large Flow (rated pressure : 72.5psi (0.5MPa))
E	Low Air Consumption (rated pressure : 50.8psi (0.35MPa))

③ Nozzle Size

code	Nozzle (mm)
05	0.5
06	0.6
07	0.7

⑦ Exhaust

code	Exhaust
no code	Silencer Exhaust
J	Tube Exhaust

④ Vacuum Port

⑤ Supply Port

⑥ Blow-off Port

code	Tubing O.D.
1/4	1/4"
04	5/32" or 4mm
06	6mm

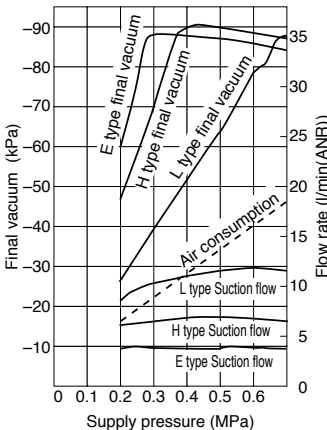
⑧ Filter Option

code	Option
F	Vacuum Filter

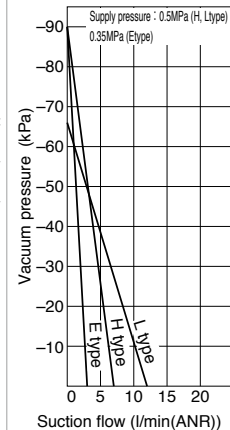
Characteristics

VYH05, VYL05, VYE05

Vacuum characteristics

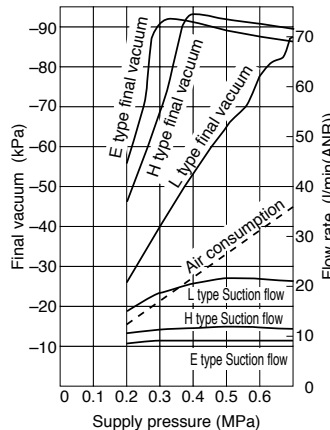


Flow characteristics

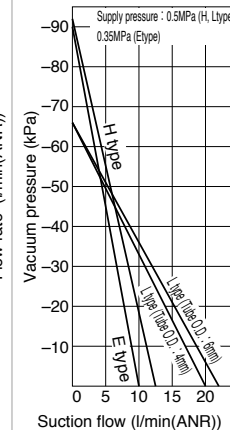


VYH07, VYL07, VYE07

Vacuum characteristics



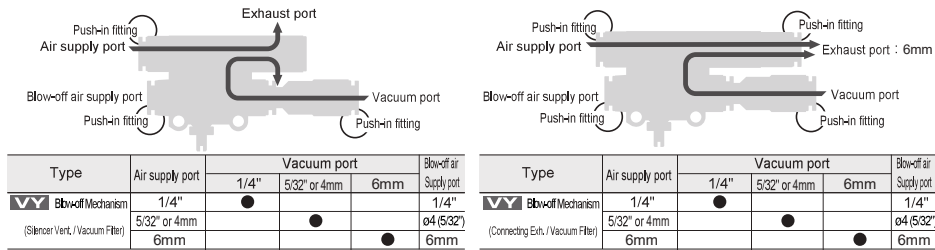
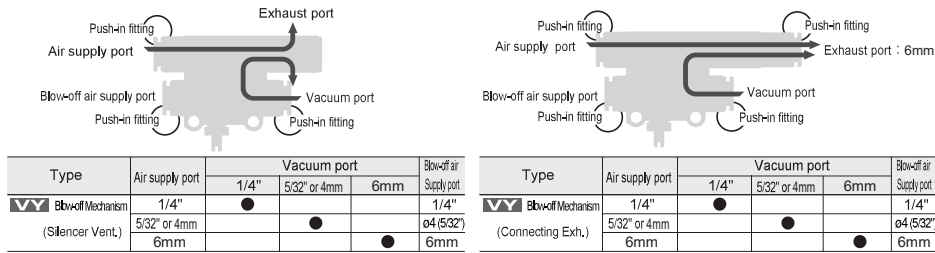
Flow characteristics



In-Line Vacuum Generator

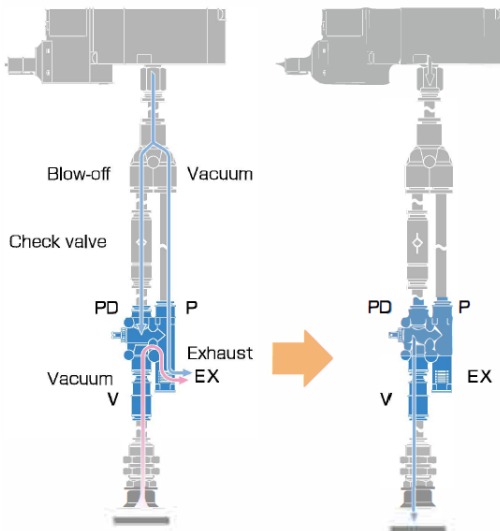
Tubing connection

Blow-Off Mechanism Equipped Type: VY (Nozzle dia. : ϕ 0.5mm, ϕ 0.7mm)



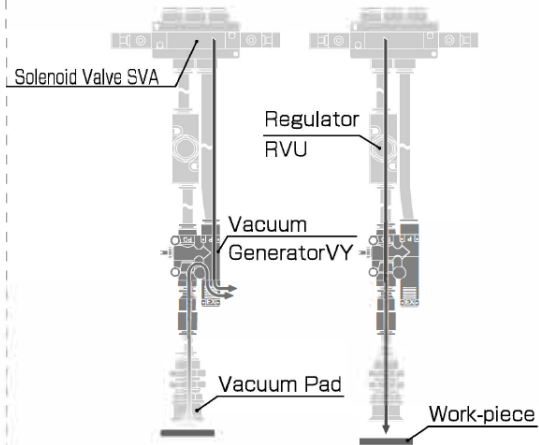
Blow-Off Mechanism Equipped (VY) Type

Example 1



Connect P Port and PD Port with Check Valve (Purchase separately). The residual pressure between Check Valve and PD Port turns into a blow-off air. The flow rate of the blow-off air is adjusted by a release needle. Blow-off time can be controlled by the tube length between Check Valve and PD Port.

Example 2. Usage with Twin 3-way valve (SVA21).



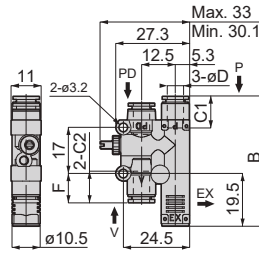
Work-piece can be released instantly by adjusting a blow-off pressure and a flow rate. But it is necessary to pay attention not to blow away the work-piece. The above figure shows an example to arrange the different pressure supplies to vacuum generation side and Blow-Off Mechanism side when a blow-off pressure needs to be controlled low (Pressure to vacuum generation side \geq Pressure to Blow-Off Mechanism side). A blow-off air is adjusted by the release needle. Blow-off time is controlled by the solenoid valve (SVA21 series).

In-Line Vacuum Generator

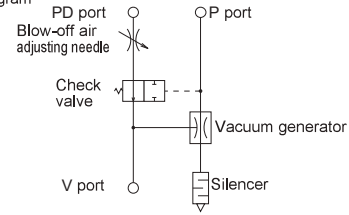
VY type

VY Blow-off Mechanism (Silencer vent)

RoHS compliant



Circuit Diagram

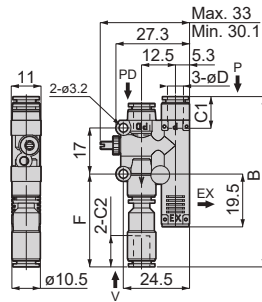
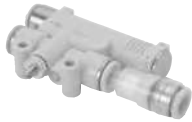


Unit : mm

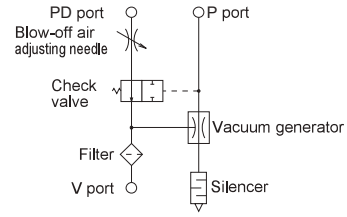
Model	Tube dia. øD	B	F	C1	C2	Nozzle Bore	Rated pressure (MPa)	Final vacuum (-kPa)	Suction flow (l/min[ANR])	Consumption (l/min[ANR])	Weight (g)	
VYH05-1/4-1/4-1/4	1/4"	49.7	11	11.4	11.4	0.5	0.5	90	7	11.5	20	
VYH05-444	5/32" or 4	45.1	10.4	10.9	11						19	
VYH05-666	6	48	10.8	11.7	11.6						20	
VYH07-1/4-1/4-1/4	1/4"	49.7	11	11.4	11.4	0.7		92	12.5	23	20	
VYH07-444	5/32" or 4	45.1	10.4	10.9	11						19	
VYH07-666	6	48	10.8	11.7	11.6						20	
VYL05-1/4-1/4-1/4	1/4"	49.7	11	11.4	11.4	0.5	66		12	11.5	20	
VYL05-444	5/32" or 4	45.1	10.4	10.9	11						19	
VYL05-666	6	48	10.8	11.7	11.6						20	
VYL07-1/4-1/4-1/4	1/4"	49.7	11	11.4	11.4	0.7		21	18	23	20	
VYL07-444	5/32" or 4	45.1	10.4	10.9	11						19	
VYL07-666	6	48	10.8	11.7	11.6						20	
VYE05-1/4-1/4-1/4	1/4"	49.7	11	11.4	11.4	0.5	0.35		90	3	8	20
VYE05-444	5/32" or 4	45.1	10.4	10.9	11							19
VYE05-666	6	48	10.8	11.7	11.6							20
VYE07-1/4-1/4-1/4	1/4"	49.7	11	11.4	11.4	0.7		9	17	19	20	
VYE07-444	5/32" or 4	45.1	10.4	10.9	11						19	
VYE07-666	6	48	10.8	11.7	11.6						20	

VY Blow-off Mechanism (Silencer vent & Vacuum Filter)

RoHS compliant



Circuit Diagram



Unit : mm

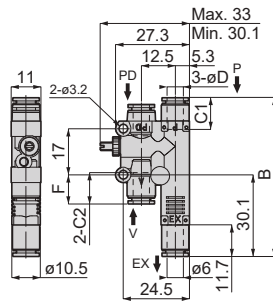
Model	Tube dia. øD	B	F	C1	C2	Nozzle Bore	Rated pressure (MPa)	Final vacuum (-kPa)	Suction flow (l/min)[ANR]	Consumption (l/min)[ANR]	Weight (g)			
VYH05-1/4-1/4-1/4F	1/4"	65.2	35	11.4	11.4	0.5	0.5	90	7	11.5	22			
VYH05-444F	5/32" or 4	59.7	34.1	10.9	11						20.5			
VYH05-666F	6	62.9	34.4	11.7	11.6						21.5			
VYH07-1/4-1/4-1/4F	1/4"	65.2	35	11.4	11.4	0.7					92	12.5	23	22
VYH07-444F	5/32" or 4	59.7	34.1	10.9	11									20.5
VYH07-666F	6	62.9	34.4	11.7	11.6									21.5
VYL05-1/4-1/4-1/4F	1/4"	65.2	35	11.4	11.4	0.5	66	12	11.5	22				
VYL05-444F	5/32" or 4	59.7	34.1	10.9	11					20.5				
VYL05-666F	6	62.9	34.4	11.7	11.6					21.5				
VYL07-1/4-1/4-1/4F	1/4"	65.2	35	11.4	11.4	0.7				66	21	23	22	
VYL07-444F	5/32" or 4	59.7	34.1	10.9	11								18	
VYL07-666F	6	62.9	34.4	11.7	11.6								21	
VYE05-1/4-1/4-1/4F	1/4"	65.2	35	11.4	11.4	0.5	90	3	8				22	
VYE05-444F	5/32" or 4	59.7	34.1	10.9	11								20.5	
VYE05-666F	6	62.9	34.4	11.7	11.6								21.5	
VYE07-1/4-1/4-1/4F	1/4"	65.2	35	11.4	11.4	0.7				90	9	17	22	
VYE07-444F	5/32" or 4	59.7	34.1	10.9	11								21	
VYE07-666F	6	62.9	34.4	11.7	11.6								22	

In-Line Vacuum Generator

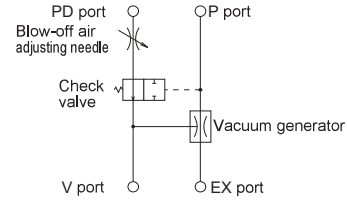
VY type

VY Blow-off Mechanism (Connecting exhaust)

RoHS compliant



Circuit Diagram

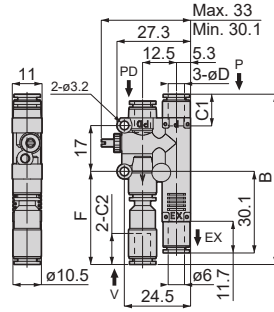


Unit : mm

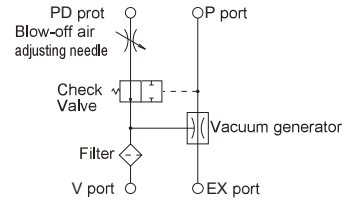
Model	Tube dia. øD	B	F	C1	C2	Nozzle Bore	Rated pressure (MPa)	Final vacuum (-kPa)	Suction flow (l/min)[ANR]	Consumption (l/min)[ANR]	Weight (g)	
VYH05-1/4-1/4-1/4J	1/4"	60.1	11	11.4	11.4	0.5	0.5	90	7	11.5	23	
VYH05-444J	5/32" or 4	55.7	10.4	10.9	11							
VYH05-666J	6	58.6	10.8	11.7	11.6							
VYH07-1/4-1/4-1/4J	1/4"	60.1	11	11.4	11.4	0.7		92	12.5	23		
VYH07-444J	5/32" or 4	55.7	10.4	10.9	11							
VYH07-666J	6	58.6	10.8	11.7	11.6							
VYL05-1/4-1/4-1/4J	1/4"	60.1	11	11.4	11.4	0.5	66		12	11.5	23	
VYL05-444J	5/32" or 4	55.7	10.4	10.9	11							
VYL05-666J	6	58.6	10.8	11.7	11.6							
VYL07-1/4-1/4-1/4J	1/4"	60.1	11	11.4	11.4	0.7		66	21	23		
VYL07-444J	5/32" or 4	55.7	10.4	10.9	11				18			
VYL07-666J	6	58.6	10.8	11.7	11.6				21			
VYE05-1/4-1/4-1/4J	1/4"	60.1	11	11.4	11.4	0.5	0.35		90	3	8	23
VYE05-444J	5/32" or 4	55.7	10.4	10.9	11							
VYE05-666J	6	58.6	10.8	11.7	11.6							
VYE07-1/4-1/4-1/4J	1/4"	60.1	11	11.4	11.4	0.7		0.35	90	9	17	24
VYE07-444J	5/32" or 4	55.7	10.4	10.9	11							23
VYE07-666J	6	58.6	10.8	11.7	11.6							24

VY Blow-off Mechanism with Connecting Exhaust & Vacuum Filter

RoHS compliant



Circuit Diagram

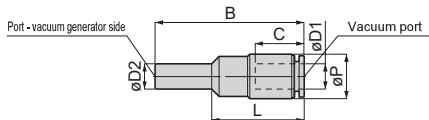


Unit : mm

Model	Tube dia. øD	B	F	C1	C2	Nozzle Bore	Rated pressure (MPa)	Final vacuum (-kPa)	Suction flow (ℓ/min[ANR])	Consumption (ℓ/min[ANR])	Weight (g)
VYH05-1/4-1/4-1/4JF	1/4"	65.2	35	11.4	11.4	0.5	0.5	90	7	11.5	25
VYH05-444JF	5/32" or 4	59.7	34.1	10.9	11						24
VYH05-666JF	6	62.9	34.4	11.7	11.6	0.7	92	12.5	23	25	25
VYH07-1/4-1/4-1/4JF	1/4"	65.2	35	11.4	11.4						24
VYH07-444JF	5/32" or 4	59.7	34.1	10.9	11	0.5	66	12	11.5	25	24
VYH07-666JF	6	62.9	34.4	11.7	11.6						25
VYL05-1/4-1/4-1/4JF	1/4"	65.2	35	11.4	11.4	0.5	66	21	23	25	24
VYL05-444JF	5/32" or 4	59.7	34.1	10.9	11						24
VYL05-666JF	6	62.9	34.4	11.7	11.6	0.7	90	3	8	25	25
VYL07-1/4-1/4-1/4JF	1/4"	65.2	35	11.4	11.4						24
VYL07-444JF	5/32" or 4	59.7	34.1	10.9	11	0.5	90	9	17	25.5	26
VYL07-666JF	6	62.9	34.4	11.7	11.6						24.5
VYE05-1/4-1/4-1/4JF	1/4"	65.2	35	11.4	11.4	0.35	90	3	8	25	24
VYE05-444JF	5/32" or 4	59.7	34.1	10.9	11						25
VYE05-666JF	6	62.9	34.4	11.7	11.6	0.7	90	9	17	25.5	26
VYE07-1/4-1/4-1/4JF	1/4"	65.2	35	11.4	11.4						24.5
VYE07-444JF	5/32" or 4	59.7	34.1	10.9	11	0.5	90	9	17	25.5	26
VYE07-666JF	6	62.9	34.4	11.7	11.6						24.5

VYF VY vacuum fitler

RoHS compliant

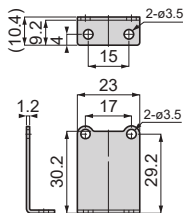


Unit : mm

Model	Tube O.D. øD1	Nipple O.D. øD2	B	L	C	øP	Weight (g)	Filtering area (cm ²)
VYF1/4-1/4M	1/4"	1/4"	35.4	22.1	11	10.5	2	1.1
VYF44M	5/32" or 4	5/32" or 4	34.7	21.5	11	8	1.5	0.8
VYF66M	6	6	35.2	21.8	11.6	10.5	2.5	1.1

VYB VY bracket

RoHS compliant



Unit : mm

Model	Weight (g)
VYB11	8

■ Blow-off air volume setting

- For adjusting the blow-off air volume, use the screwdriver with 0.8mm width slot. Turn the adjusting needle clockwise to decrease the flow and turn counter-clockwise to increase. Make sure to tighten the lock-nut once the setting is done.

