

Vacuum Generators / Special Vacuum Filters

with Vacuum Break Function

Vacuum Generators with Vacuum Break Function

BDFK

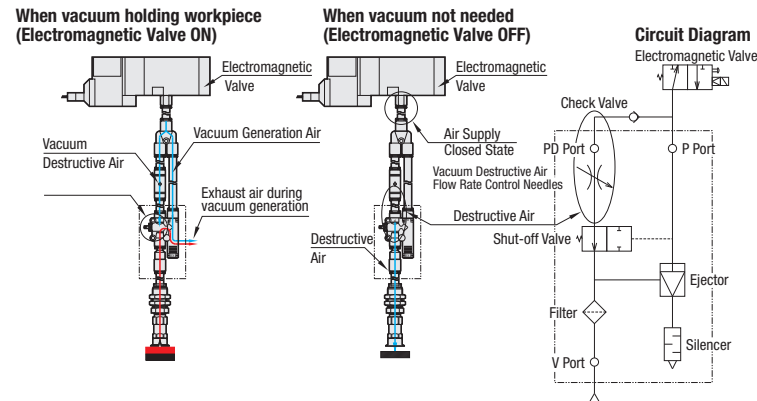
Max.33
Min.30.1
27.3
12.5 5.3
3-D
P
C1
B
11
2-03.2
17
F
2-C2
24.5
19.5
EXH
V
v

(Compressed Air Side)
PD Port
P Port
Vacuum Destructive Air Flow Rate Control Needle
Shut-off Valve
Ejector
Filter
V Port (Suction Surface)
Silencer

Part Number	Suction Flow Rate (l/min (ANR))	B	F	C ₁	C ₂	Nozzle Dia. (mm)	Pressure Rating (Mpa)	Ultimate Vacuum (-kPa)	Flow Consumption (l/min (ANR))	Mass (g)
BDFK	4	7	59.7	34.1	10.9	11	0.5	90	11.5	20.5
	6	12.5	62.9	34.4	11.7	11.6	0.7	92	23	21.5

Features

Vacuum break air is introduced to the suction line to shorten vacuum destructive air time. Hence shorter time for suctioning and moving workpiece improves activity efficiency. Flow Rate of Break Air is controlled by Control Valve.



Special Vacuum Filters

BDFL

Vacuum Generator Side Port
B
C
Work Side Port
D
L

Part Number	Applicable Fitting Dia. D ₁	B	L	C	P	Mass (g)	Filtration Area (cm ²)
BDFL	4	34.7	21.5	11.0	8.0	1.5	0.8
	6	35.2	21.8	11.6	10.5	2.5	1.1

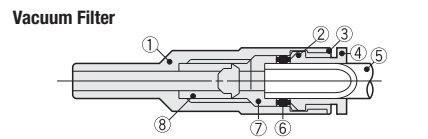
Special vacuum filters for BDFK.

Part Number Example	Part Number	Nozzle Dia. Nominal
	BDFK4 BDFL4	7

Application Example

Name of Parts / Material List

No.	Name of Parts	Material
(1)	End Plug	Brass, Electroless Nickel Plating
(2)	Upper Stopper	Brass, Electroless Nickel Plating
(3)	Break Needle	303 Stainless Steel or Equivalent
(4)	Stopper 2	Brass, Electroless Nickel Plating
(5)	Sleeve	Brass, Electroless Nickel Plating
(6)	Nozzle Piston	Brass, Electroless Nickel Plating
(7)	Diffuser Spool	Brass, Electroless Nickel Plating
(8)	Resin Body	PBT Polybutylene Terephthalate Glass 15%
(9)	Spool Gasket	Nitrile Rubber (H-NBR Nitrile Rubber)
(10)	Diffuser Spring	Stainless Steel
(11)	Silencer Element	Polyvinyl Formal (PVF)
(12)	Cartridge	—
(13)	Guide Ring	Brass, Electroless Nickel Plating
(14)	Elastic Sleeve	Nitrile Rubber (NBR Nitrile Rubber)
(15)	Release Ring	Polyacetal (POM Polyoxymethylene)
(16)	Y Gasket	Nitrile Rubber (NBR Nitrile Rubber)
(17)	O-Ring	Nitrile Rubber (NBR Nitrile Rubber)
(18)	Lock Nut	Aluminum Alloy
(19)	Spring Pins	Stainless Steel
(20)	Lock Pawl	Stainless Steel
(21)	Tube	Urethane or Nylon



No.	Name of Parts	Material
(1)	Resin Body	Polypropylene (PP)
(2)	Lock Pawl	Stainless Steel
(3)	Guide Ring	Brass, Electroless Nickel Plating
(4)	Release Ring	Polyacetal (POM)
(5)	Tube	Urethane or Nylon
(6)	Elastic Sleeve	Nitrile Rubber (NBR)
(7)	Element Presser	Polyacetal (POM)
(8)	Filter Element	Polyvinyl Formal (PVF)

Specification

Applicable Fluid	Air
Operating Pressure Range	0.3-0.7 MPa
Operating Temperature Range	5-50°C
Lubrication	Not Required

Applicable Fluid	Air
Operating Pressure Range	-100-0 kPa
Filtration Accuracy	10 μm
Operating Temperature Range	0-60°C
Filtration Area	Joint Size 44: 0.8 cm ² Joint Size 66: 1.1 cm ²

Fall Prevention Valve

Fall Prevention Valve

BAFP

Vacuum Generator Side
A1
P
M
H
B
L
A2
M
H
Pad (Work) Side

Part Number	Thread Size M	A ₁	A ₂	B	L	P	Opposite Side H	Valve Operation Suction Flow Rate (l/min (ANR))	Non-attached Vacuum Decline Level (kPa)	Effective Sectional Area (mm ²)		Mass (g)	
										Free Flow	Control Flow		
BAFP	4	M4 x 0.7	3	4.5	19.9	16.9	10	10	5	2	1.63	0.09	7.9
	6	M6 x 1.0	4	4.9	28.1	24.1	12	12	13	2	4.06	0.09	12.4

Part Number Example	Part Number
	BAFP4

Description of Fall Prevention Valve

