

Speed Exhaust Controller

Series ASV

Body Size: M3, M5, 1/8, 1/4, 3/8

Integration of a quick exhaust valve and an exhaust restrictor permits high-speed cylinder operation.

- The effective area is two times larger than that of speed controller.
Applicable model: ASV310F, ASV410F, ASV510F
- Silencer and One-touch fittings are installed.
- Flame resistant resin body as standard.
(UL standard V-0)
Applicable model: ASV310F, ASV410F, ASV510F
- Brass parts are all electroless nickel plated.

How to Order

ASV 3 1 0 F — **01** — **06** **S** — — —

Speed exhaust controller

Body size

1	M3
2	M5
3	1/8
4	1/4
5	3/8

Type

1	Tee
2	Elbow ⁽¹⁾

(1) "Elbow": M3, M5 only

Built-in One-touch fittings

Thread type

—	M3, M5, U10/32, R
N	NPT

Port size

M3	M3
M5	M5
01	R(PT)1/8
02	R(PT)1/4
03	R(PT)3/8
04	R(PT)1/2

Sealant

Symbol	Sealant	Applicable model
—	Without	ASV120F/E220F
S	With	ASV310F/E410F/E510F

Applicable tube O.D.

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Made to Order

X12	Lubricant: Vaseline
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Lock nut option

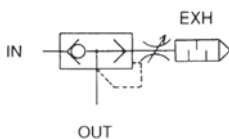
—	Hexagon lock nut
J	Round lock nut

Option

—	None
C	With spatter cover



JIS Symbol



Made to Order

1 Lubricant: Vaseline **X12**

Ex.) ASSV120F-M3-04-X12

Note) Only for ASV120F and ASV220F

Model

Model	Port size	Applicable tube O.D. (mm)					Effective area (mm ²)	
		4	6	8	10	12	IN .. OUT	OUT .. EXH.
ASV120F-M3	M3	●					0.3	0.3
ASV220F-M5	M5	●	●				1.3	1.3
ASV310F-01	R(PT)1/8		●	●			7	8
ASV310F-02	R(PT)1/4		●	●			7	8
ASV410F-01	R(PT)1/8			●	●		13.5	14
ASV410F-02	R(PT)1/4			●	●		13.5	14
ASV410F-03	R(PT)3/8			●	●		13.5	14
ASV510F-02	R(PT)1/4				●	●	23	27
ASV510F-03	R(PT)3/8				●	●	27	29
ASV510F-04	R(PT)1/2				●	●	27	29

Specifications

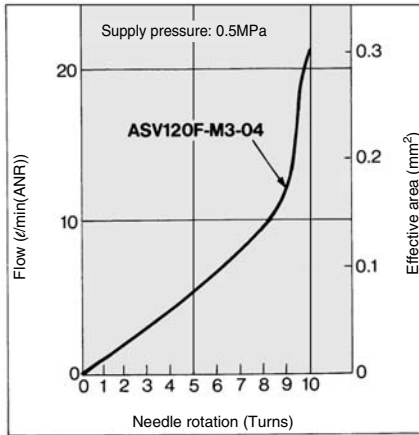
Model	ASV120F	ASV220F	ASV310F/410F	ASV510F
Proof pressure	1.5MPa			
Max. operating pressure	1MPa			
Min. operating pressure	0.1MPa			
Ambient and fluid temperature	-5 to 60°C (No freezing)			
Number of needle rotations	10 turns	8 turns	12 turns	15 turns
Applicable tubes ⁽¹⁾	Nylon, Soft nylon, Polyurethane			
Option	With hexagonal lock nut		With spatter cover, Hexagonal lock nut	

(1) Pay attention to the maximum supply pressure for Soft nylon and Polyurethane.

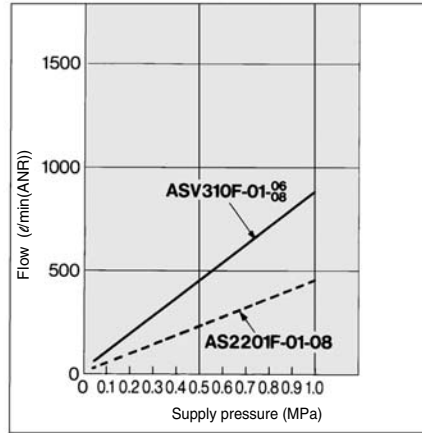
Series ASV

Needle Valve/Flow Characteristics

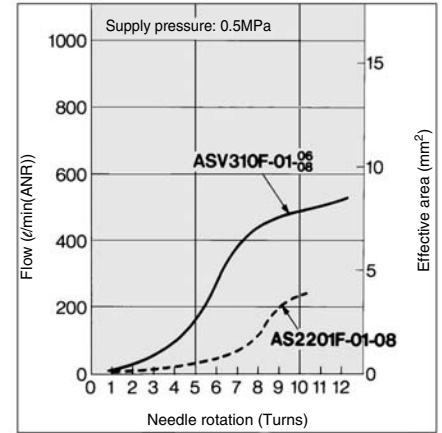
ASV120F
OUT-Exhaust Flow



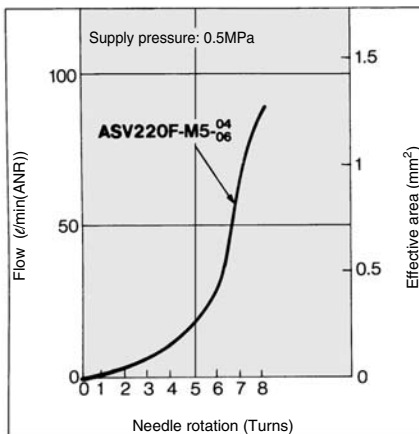
ASV310F
IN-OUT Flow



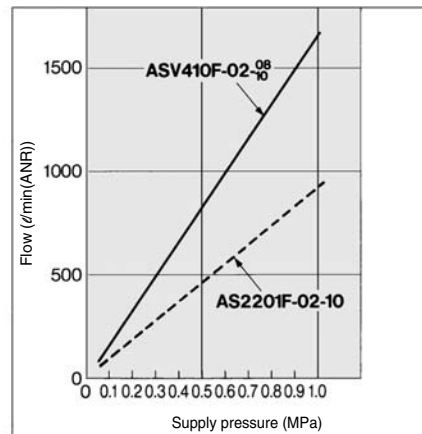
OUT-Exhaust Flow



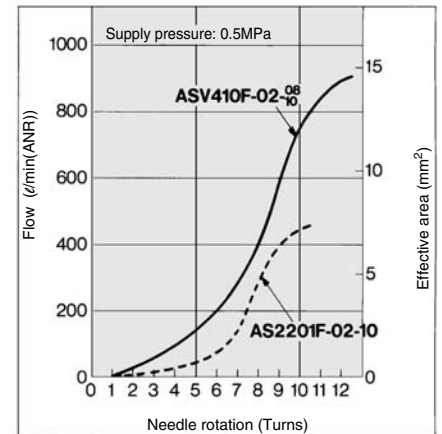
ASV120F
OUT-Exhaust Flow



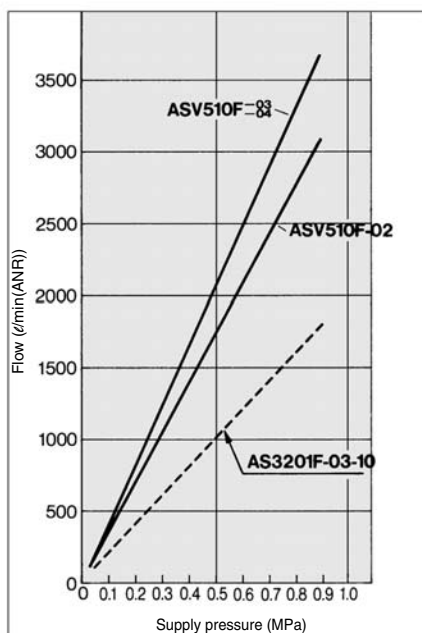
ASV410F
IN-OUT Flow



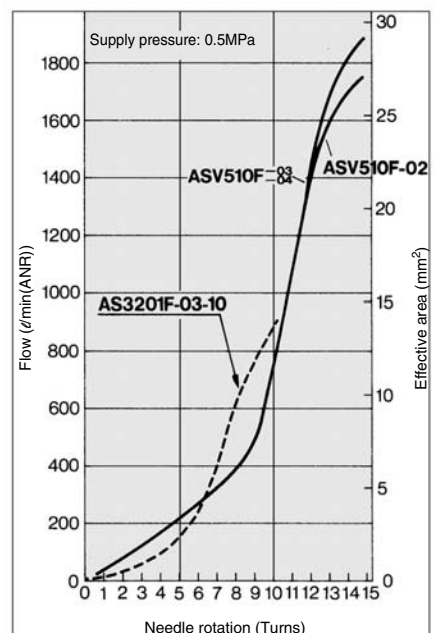
OUT-Exhaust Flow



ASV510F
IN-OUT Flow

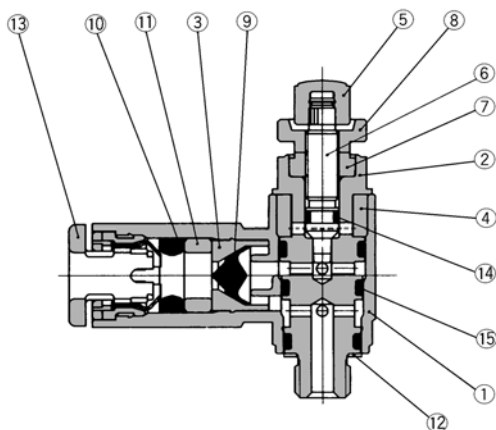


OUT-Exhaust Flow



Speed Exhaust Controller *Series ASV*

ASV120F, 220F/Construction

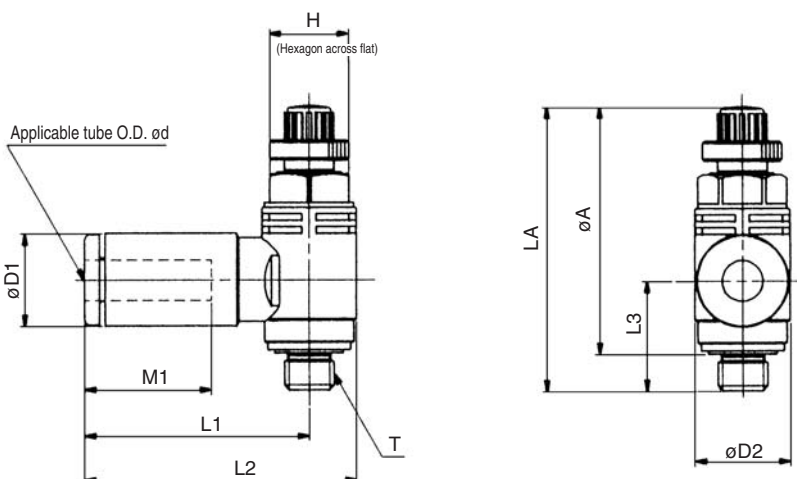


Component Parts

No.	Description	Material	Note
①	Body A	PBT	
②	Body B	Brass ^{Note 1)}	Electroless nickel plated
③	Seat ring	Brass	Electroless nickel plated
④	Silencer	PVA sponge	
⑤	Handle	PBT	M3 type: Electroless nickel plated brass
⑥	Needle	Brass	Electroless nickel plated
⑦	Needle guide	Brass	Electroless nickel plated
⑧	Lock nut	Steel	Zinc chromated
⑨	Valve	NBR	
⑩	Packing	NBR	
⑪	Spacer	POM	M3 port: PVC
⑫	Gasket	Stainless steel/NBR	
⑬	Cassette	POM, Stainless steel	
⑭	O ring	NBR	
⑮	O ring	NBR	

Note 1) M3 port: Stainless steel

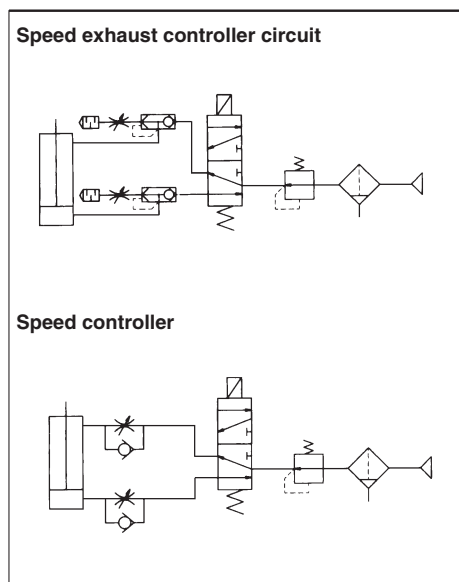
ASV120F, 220F/Dimensions



Model	Applicable tube O.D. ød	T	H	D1	D2	L1	L2	L3	L4		A*		M1	Weight (g)
									Max.	Min.	Max.	Min.		
ASV120F-M3-04	4	M3	5.5	9.3	7.2	21.4	25	9.8	28.6	26.1	25.8	23.3	12.7	5
ASV220F-M5-04	4	M3	8	9.3	9.6	22.8	27.6	11.1	31.4	28.6	27.7	24.9	12.7	8
ASV220F-M5-06	6	M3	8	11.6	9.6	23.6	28.4	11.1	31.4	28.6	27.7	24.9	13.5	9

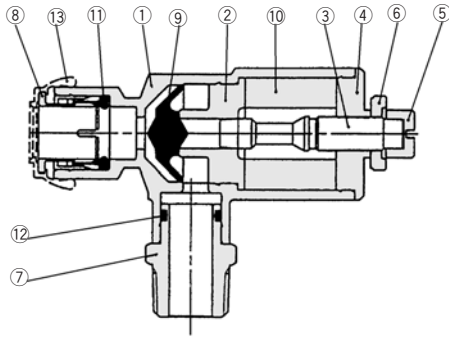
*Reference "N" thread dimensions after screwed in.

Circuit



Series ASV

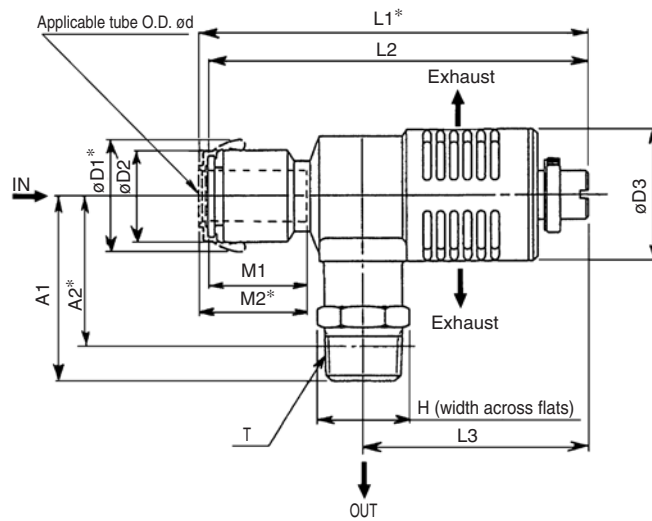
ASV310F, 410F, 510F/Construction



Component Parts

No.	Description	Material	Note
①	Body A	PBT	UL94V-0
②	Seat ring	Aluminum alloy	Chromate treated
③	Needle	Aluminum alloy	Electroless nickel plated
④	Needle guide	Aluminum alloy	Electroless nickel plated
⑤	Handle	Brass	Electroless nickel plated
⑥	Lock nut	Steel	Zinc chromated
⑦	Driving half	Brass	Electroless nickel plated
⑧	Cassette	PBT/Stainless steel	
⑨	Valve	Urethane rubber	
⑩	Silencer	PVA sponge	
⑪	Packing	NBR	
⑫	O ring	NBR	
⑬	Cover	Flame proof CR	UL94V-0

ASV310F, 410F, 510F/Dimensions



Model	Applicable tube O.D. ød	T	H	D1*	D2	D3	L1*		L2		L3		A1	A2**	M1	M2*	Weight (g)
							Max.	Min.	Max.	Min.	Max.	Min.					
ASV310F-01-06S	6	R(P)1/8	10	16.8	12.8	17.6	71.9	65.9	69.9	63.9	45.8	39.8	27.4	23.4	17	19	22
ASV310F-01-08S	8			19.3	15.2		73.8	67.8	71.8	65.8					19	21	23
ASV310F-02-06S	6	R(PT)1/4	14	16.8	12.8	17.6	71.9	65.9	69.9	63.9	45.8	39.8	31.4	25.4	17	19	30
ASV310F-02-08S	8			19.3	15.2		73.8	67.8	71.8	65.8					19	21	31
ASV410F-01-08S	8	R(PT)1/8	12	19.3	15.2	24	83.1	75.6	81.1	73.6	52.8	45.3	30.7	26.7	19	21	39
ASV410F-01-10S	10			23.3	18.5		85.2	77.7	83.2	75.7					21	23	41
ASV410F-02-08S	8	R(PT)1/4	14	19.3	15.2	24	83.1	75.6	81.1	73.6	52.8	45.3	34.7	28.7	19	21	47
ASV410F-02-10S	10			23.3	18.5		85.2	77.7	83.2	75.7					21	23	49
ASV410F-03-08S	8	R(PT)3/8	17	19.3	15.2	24	83.1	75.6	81.1	73.6	52.8	45.3	36.7	30.4	19	21	61
ASV410F-03-10S	10			23.3	18.5		85.2	77.7	83.2	75.7					21	23	63
ASV510F-02-10S	10	R(PT)1/4	17	23.3	18.5	30	90.2	84.2	88.2	82.2	55.6	49.6	39.8	33.8	21	23	69
ASV510F-02-12S	12			25.7	20.9		91.8	85.8	89.8	83.8					22	24	74
ASV510F-03-10S	10	R(PT)3/8	17	23.3	18.5	30	90.2	84.2	88.2	82.2	55.6	49.6	41.8	35.5	21	23	73
ASV510F-03-12S	12			25.7	20.9		91.8	85.8	89.8	83.8					22	24	78
ASV510F-04-10S	10	R(PT)1/2	22	23.3	18.5	30	90.2	84.2	88.2	82.2	55.6	49.6	45.8	37.6	21	23	95
ASV510F-04-12S	12			25.7	20.9		91.8	85.8	89.8	83.8					22	24	100

*: Cover attached type

** : Reference dimensions of "R(PT)" thread after screwed in.