

Main Line Filter

Series **AFF**

RoHS

Can remove impurities such as oil, water and foreign matter in compressed air and can improve the function of a dryer in the downstream, extend the life of precision filter, and prevent trouble with the equipment.

Modular connection is possible with AFF2C to 22C.

(For details, refer to page 244.)



AFF2C to 22C



AFF37B, 75B

Symbol



(Drain cock specifications)

Symbol



(Auto drain specifications)



Made to Order

(For details, refer to page 250.)

Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

Model

Model	AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B	AFF75A	AFF125A	AFF150A	AFF220A
Rated flow Note) (L/min (ANR))	300	750	1500	2200	3700	6000	12000	12400	23700	30000	45000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	3/4, 1	1 1/2	1 1/2, 2	50(2B)	80(3B)	100(4B)	100(4B)
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5	50	52	72	87

Note) Max. flow capacity at 0.7 MPa.

Max. flow capacity varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 196) and "Maximum Flow Capacity Line" below.

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa Note 1)
Min. operating pressure Note 2)	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration rating	3 μm (Filtration efficiency: 99%)
Element life	2 years (1 year for A type) or when pressure drop reached 0.1 MPa

Note 1) AFF75A to AFF220A: 0.97 MPa

Note 2) With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)

Accessory/For AFF2C to 22C, AFF37B/75B

Applicable model	AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Accessory/For AFF75A to 220A

Applicable model	AFF75A	AFF125A	AFF150A	AFF220A
Auto drain with metal case (2 pcs. each)	AD402-03-2			
Auto drain with resin case (2 pcs. each)	AD402-03			
Pressure gauge (2 pcs. each)	G46-15-02			
Companion flange (2 pcs. each)	50(2B)JIS 10K FF flange	80(3B)JIS 10K FF flange	100(4B)JIS 10K FF flange	
Anchor bolt (3 pcs. each)	AI-2S			

Model Selection

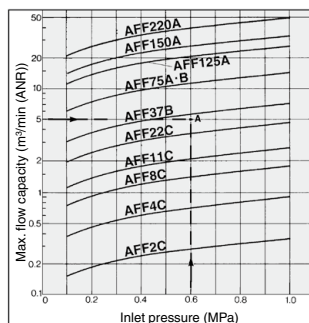
Select a model in accordance with the following procedure taking the inlet pressure and the max. flow capacity into consideration. (Example) Inlet pressure: 0.6 MPa

Max. flow capacity: 5 m³/min (ANR)

- Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
- The AFF37B is obtained when the max. flow capacity line is above the intersecting point A in the graph.

Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Maximum Flow Capacity Line



How to Order



AFF2C to 22C

AFF 22C - [] - **10** - [] - [] - [] - []

Body size

Symbol	Applicable compressor output (guide)
2C	2.2 kW
4C	3.7 kW
8C	7.5 kW
11C	11 kW
22C	22 kW

Thread type

Symbol	Type
NII	Rc
F	G*1
N	NPT

*1 Conforms to ISO1179-1.

Port size

Symbol	Size	Applicable body size				
		2C	4C	8C	11C	22C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Accessory

Symbol	Description
NII	—
B	Bracket *2 *3

*2 Bracket is included, (but not assembled).

*3 The model with bracket is not available for -X15 and -X17.

Made to Order

(*How to Order* and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
NII	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X15	With IN-OUT flange *3	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *3	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253

Option *4

Symbol	Description
NII	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
S	With differential pressure switch (125 VAC, 30 VDC) *6, (Note)
U	With differential pressure switch (30 VDC) *6
T	With element service indicator
V	Degreasing wash, *7 white vaseline

*5 Drain piping and piping for a stop valve such as ball valve are required.

*6 Differential pressure gauge is included, (but not assembled).

*7 Only body/housing is degreasing washed.

(Note) Order "U" if conformity to the EU directive is required.

Drain Exhaust Specifications/Option Combinations

○: All types of drain exhaust specifications are available. (including drain guide, "J" specification)

△: N.C. auto drain ("C" specification) is not available.

▽: Both N.C. and N.O. auto drain ("C", "D" specification) are not available.

	NII	F	H	R	S	U	T	V
NII	○	○	△	○		Note		○
F	○		▽	○				▽
H	△	▽		△				▽
R	○	○	△			Note		○
S								
U	Note			Note				
T								○
V	○	▽	▽	○				○

Note: Only one drain exhaust method can be selected.

□: Not available

Auto drain *4

Symbol	Description
NII	Drain cock (Without auto-drain)
C	N.C. auto drain
D	N.O. auto drain

*4 Refer to "Drain Exhaust Specifications/Option Combinations". (Only one drain exhaust method can be selected.)

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol J: Drain guide 1/4 female threaded



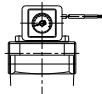
Can be piped to the drain exhaust port.

1/4 female thread

Symbol R: IN-OUT reversal direction

Air flow in the separator is changed to right to left. (Air flow direction of the standard: Left to right.)

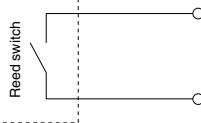
Symbol S: With differential pressure switch (with indicator)



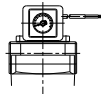
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "U".

Max. contact capacity: 10 VA AC, 10 W DC
Rated contact voltage (max. operating current): 125 V AC (0.08 A), 30 V DC (0.33 A)



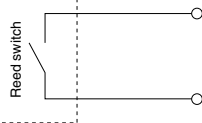
Symbol U: With differential pressure switch (with indicator)



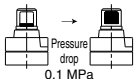
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "S".

Max. contact capacity: 10 W DC
Rated contact voltage (max. operating current): 30 V DC (0.33 A)



Symbol T: With element service indicator



Saturation of the separator can be observed visually. (Element life check)

0.1 MPa

Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.



How to Order

AFF37B/75B

AFF 37B - [] - **10** [] [] - [] - []

Body size¹

Symbol	Applicable compressor output (guide)
37B	37 kW
75B	75 kW

Thread type²

Symbol	Type
Nll	Rc
F	G
N	NPT

Port size³

Symbol	Size	Applicable body size	
		37B	75B
10	1	●	—
14	1½	●	●
20	2	—	●

Accessory⁴

Symbol	Description
Nll	—
B	Bracket ^{#1 #2}

^{#1} Bracket is included, (but not assembled).

^{#2} The model with bracket is not available for -X15 and -X17.

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nll	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X37	With differential pressure switch (With indicator, 125 VAC, 30 VDC)	P.251
X15	With IN-OUT flange ^{#2}	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange ^{#2}	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253
X12	White vaseline specifications	P.253

Option^{#3}

Symbol	Description
Nll	—
J	Drain guide ¼ female threaded ^{#5}
R	IN-OUT reversal direction
T	With element service indicator

^{#5} Drain piping and piping for a stop valve such as ball valve are required.

Auto drain^{#3}

Symbol	Description
Nll	Drain cock (Without auto drain) ^{#4}
D	N.O. auto drain

^{#3} Refer to "Auto Drain Specifications/Option Combinations".

^{#4} Body size 75B is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT 3/8 female threaded is required.

(Note) Refer to "How to Order Bowl Assembly" on page 246.

Auto Drain Specifications/Option Combinations

○ : Available □ : Not available

Auto drain specifications/Option		Auto drain specifications			Option			Applicable model	
		D	J	R	T	AFF37B	AFF75B		
Auto drain specifications	N.O. auto drain	D	○	○	○	○	○		
	Drain guide ¼	J	○	○	○	○	○		
Option	IN-OUT reversal direction	R	○	○	○	○	○		
	With element service indicator	T	○	○	○	○	○		

AFF75A to 220A

AFF 75A - **20** **D** []

Standard size¹ (Applicable compressor)

Symbol	Compressor output
75A	75 kW
125A	110 to 125 kW
150A	150 kW
220A	180 to 220 kW

Port size²

Symbol	Size	Applicable body size			
		75A	125A	150A	220A
20	50(2B) JIS 10K FF flange	●	—	—	—
30	80(3B) JIS 10K FF flange	—	●	—	—
40	100(4B) JIS 10K FF flange	—	—	●	●

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nll	—	—
X13	Mist separator for high flow rate (Nominal filtration rating: 0.3 μm)	P.254

Accessory

Symbol	Description
Nll	—
D	Auto drain (Metal case)
P	Auto drain (Resin case)
G	Pressure gauge
F	Companion flange
L	Anchor bolt

(Note) Combination of D and P is not available.

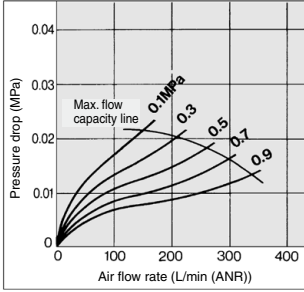
HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD□
GD

Series AFF

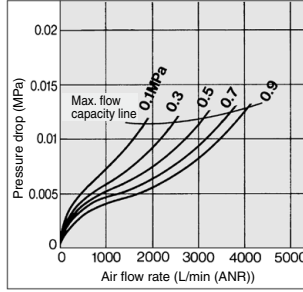
Flow Characteristics (Representative values) Select the model under the max. flow capacity line. (Element oil saturation)

Note) Compressed air over max. flow capacity line in the table below may not meet the specifications of the product.

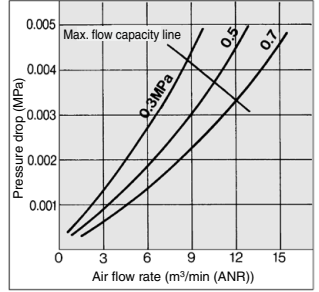
AFF2C



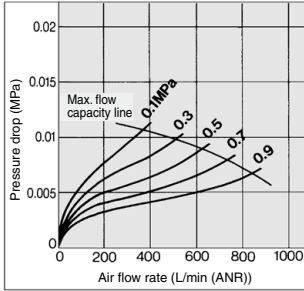
AFF22C



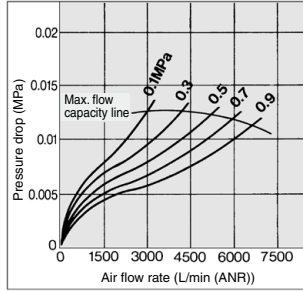
AFF75A



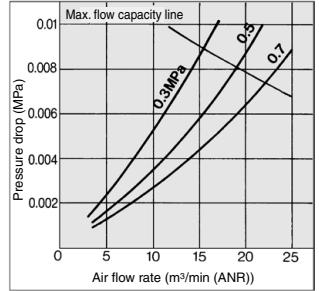
AFF4C



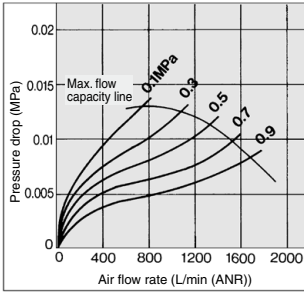
AFF37B



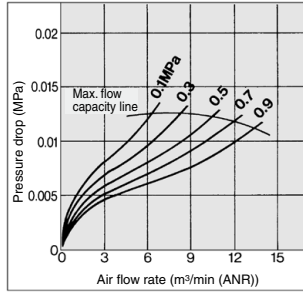
AFF125A



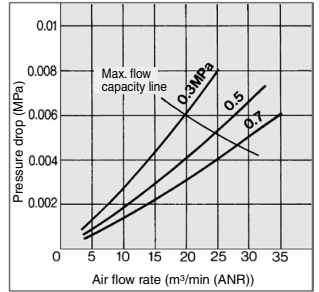
AFF8C



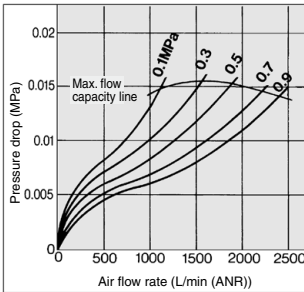
AFF75B



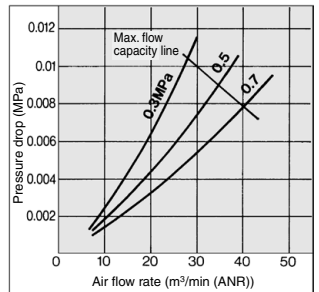
AFF150A



AFF11C

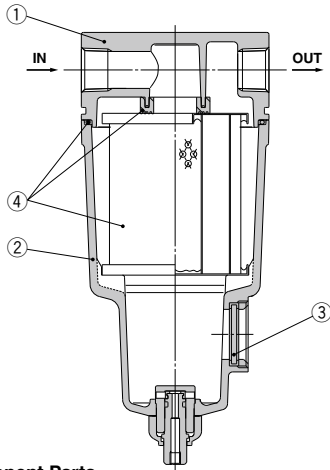


AFF220A

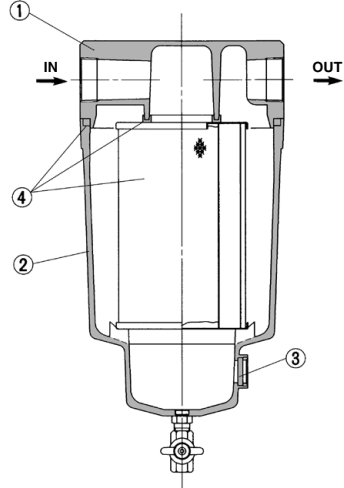


Construction

AFF2C to 22C, AFF37B



AFF75B



Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	Chrome treated
2	Housing	Aluminum alloy	Epoxy coating on inner surface
3	Sight glass	Tempered glass	—

Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Please refer to pages 198 through to 200 for details.

Replacement Parts

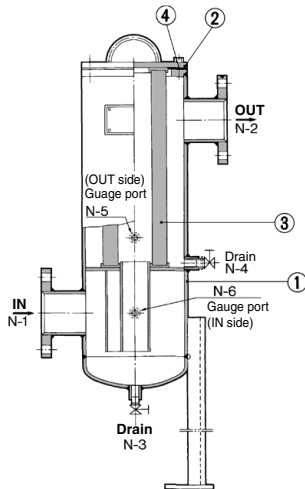
No.	Description	Material	Applicable model	Model						
				AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B
4	Element assembly	Cotton paper, others	Except option F For option F	AFF-EL2B AFF-EL2B-F	AFF-EL4B AFF-EL4B-F	AFF-EL8B AFF-EL8B-F	AFF-EL11B AFF-EL11B-F	AFF-EL22B AFF-EL22B-F	AFF-EL37B —	AFF-EL75B —

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

* Refer to page 259 for replacement of auto drain.

* Element assemblies for Made to Order (X6, X12, X15, X17, X26, X37) are same as those for standard (see the above table).

AFF75A to 220A



Component Parts

No.	Description	Material	Note
1	Case	SGP-E, SS400	
2	Cover	SS400	

Replacement Parts

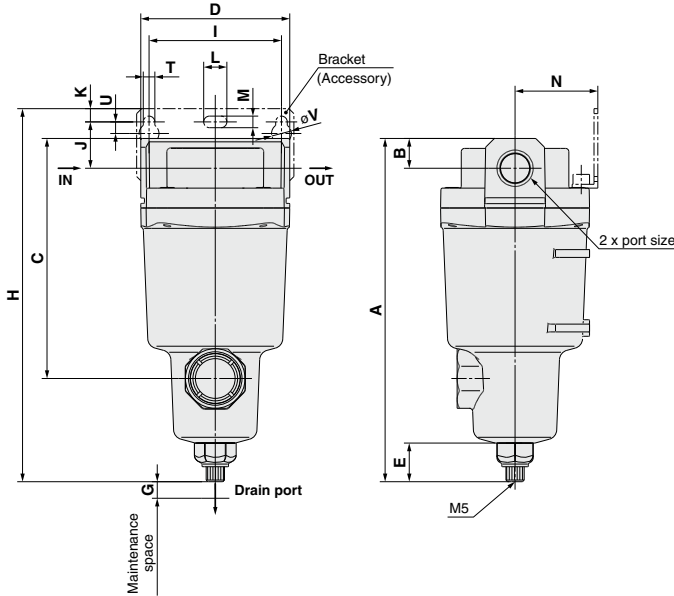
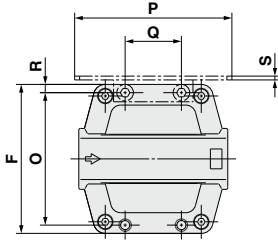
No.	Description	Material	Qty.	Model		
				AFF75A	AFF125A	AFF150A
3	Element	—	1	EC700-003N	EC800-003N	EC900-003N
4	Seal	NBR	1	AL-33S	AL-34S	AL-35S

- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF**
- AM
- AMD
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD
- GD

Series AFF

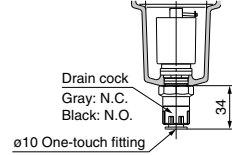
Dimensions

AFF2C to 22C

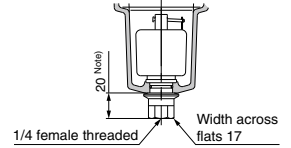


Auto drain

C: With auto drain (N.C.)
D: With auto drain (N.O.)



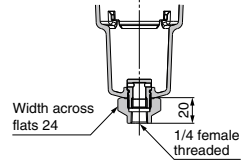
Combination of D: With auto drain (N.O.)
and H: For medium air pressure



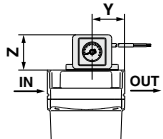
Note) 23 for AFF4C.

Option

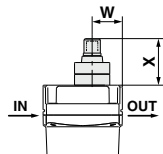
J: Drain guide 1/4 female threaded



S, U: With differential pressure switch (with indicator)



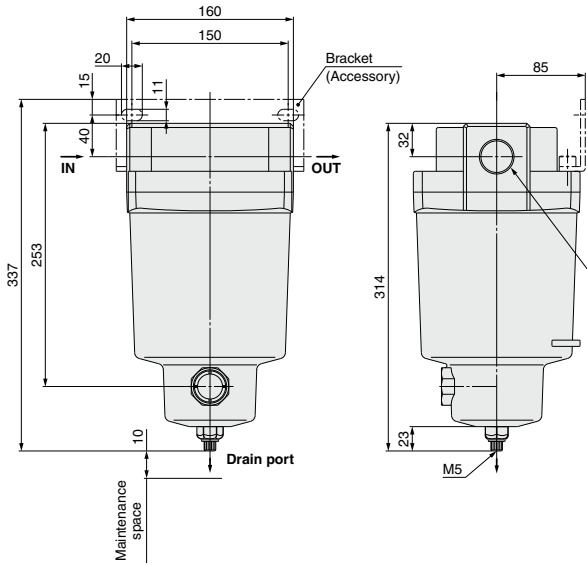
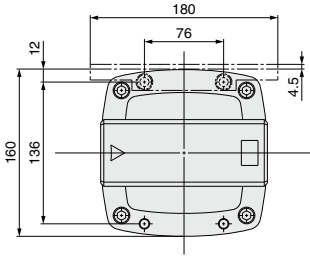
T: With element service indicator



Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions													Element service indicator related dimensions	Differential pressure switch related dimensions			
									H	I	J	K	T	U	L	M	V	N	O	P	Q			R	S	W
AFF2C	1/8, 1/4	161	10	99	63	23	63	10	176	56	20	5	6	12	6	10	35	54	70	26	4.5	1.6	24	37	32	41
AFF4C	1/4, 3/8	175	14	113	76	23	76	10	193	66	24	8	6	12	6	10	40	66	80	28	5	2	27	37	36	41
AFF8C	3/8, 1/2	207	18	145	90	23	90	10	225	80	28	8	7	14	7	12	50	80	95	34	5	2.3	32	37	42	41
AFF11C	1/2, 3/4	228	20	166	106	23	106	10	249	90	31	10	9	18	9	15	55	88	111	50	9	3.2	37	37	43	41
AFF22C	3/4, 1	262	24	200	122	23	122	15	281	100	33	10	9	18	9	15	65	102	126	60	10	3.2	39	37	51	41

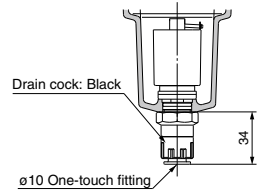
Dimensions

AFF37B



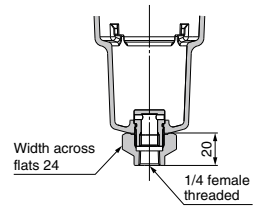
Auto drain

D: With auto drain (N.O.)

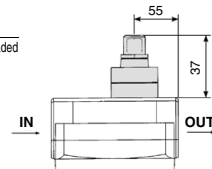


Option

J: Drain guide 1/4 female threaded



T: With element service indicator

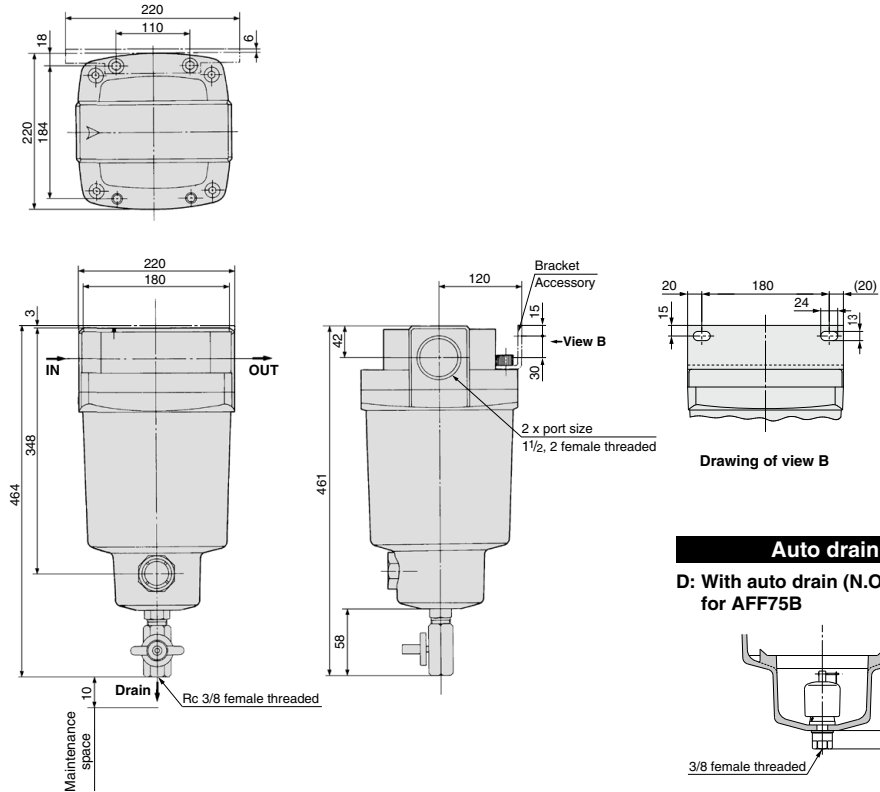


HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

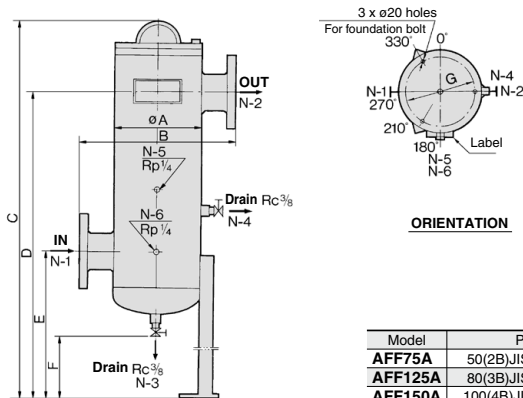
Series AFF

Dimensions

AFF75B

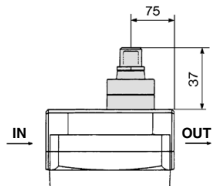


AFF75A to 220A



Option

T: With element service indicator



Model	Port size	ϕA	B	C	D	E	F	G	(mm)
AFF75A	50(2B)JIS10K FF flange	200 (8B)	380	1125	935	505	265	184	
AFF125A	80(3B)JIS10K FF flange	200 (8B)	380	1125	935	505	265	184	
AFF150A	100(4B)JIS10K FF flange	250 (10B)	450	1178	980	540	265	236	
AFF220A	100(4B)JIS10K FF flange	300 (12B)	500	1291	1070	670	325	288	