

Technical brochure

Filter

FIA



FIA filters are a range of angleway and straightway filters, which are carefully designed to give favourable flow conditions. The design makes the filter easy to install, and ensures quick filter inspection and cleaning.

FIA filters are used ahead of automatic controls, pumps, compressors etc., for initial plant start-up and where permanent filtration of the refrigerant is required. The filter reduces the risk of undesirable system breakdowns and reduces wear and tear on plant components.

FIA filters are equipped with a screen mesh of stainless steel, available in sizes 100, 150, 250 and 500 μ (microns*), (US 150, 100, 72, 38 mesh*).

* Mesh is the number of threads per inch.
 μ (microns) is the distance between two threads
 $(1\mu = 1 / 1000 \text{ mm})$.

Features

- Housing is standard SVA angleway or straightway housing allowing other inserts from the SVL platform to be installed.
- Applicable to all common refrigerants including flammable hydrocarbons and all non-corrosive gases/liquids.
Can be used in chemical and petro-chemical applications.
- Filter net of stainless steel mounted direct without extra gaskets means easy servicing.
- Two types of filter inserts are available:
 - A plain insert of stainless steel.
 - A pleated insert (DN 15-200) with extra large surface, which ensures long intervals between cleaning and low pressure drop.
- FIA 15-40 (½ – 1 ½ in.):
A special insert (50 μ) can be used in combination with a standard version when cleaning a plant during commissioning.
- FIA 50-200 (2 - 8 in.):
A large capacity filter bag (50 μ) can be inserted for cleaning plant during commissioning.
- FIA 50-200 (2 - 8 in.) can be equipped with a magnetic insert for detention of iron particles and other magnetic particles.
- Each filter clearly marked with type, size and performance range
- Housing and bonnet of low temperature steel in accordance with the requirements of the Pressure Equipment Directive and those of other international classification authorities
- Temperature range:
 $-60/+150^\circ\text{C}$ ($-76/+302^\circ\text{F}$)
- Max. working pressure:
 52 bar g (754 psi g)
- Classification:
To obtain an updated product certification list please contact your local Danfoss Sales Company

Design
Connections

Available with the following connections:

- Butt-weld DIN (EN 10220)
DN 15 - 200 (½ - 8 in.)
- Butt-weld ANSI (B 36.10 Schedule 80),
DN 15 - 40 (½ - 1½ in.)
- Butt-weld ANSI (B 36.10 Schedule 40),
DN 50 - 200 (2 - 8 in.)
- Socket Weld (ANSI B 16.11),
DN 15 - 50 (½ - 2 in.)
- FPT Female Pipe Thread, NPT
(ANSI/ASME B 1.20.1),
DN 15 - 32 (½ - 1¼ in.)

Filter Insert

A filter grid and filter net of stainless steel ensure long element life. The filter net offers a very high degree of cleanability.

Housing

The filter housing is made of special, cold resistant steel.

Pressure Equipment Directive (PED)

FIA filters are approved in accordance with the European standard specified in the Pressure Equipment Directive and are CE marked. For further details / restrictions - see Installation Instruction



Nominal bore	DN ≤ 25 (1 in.)	DN 32-80 mm (1½ - 3 in.)	DN 100-200 mm (4-8 in.)
Classified for	Fluid group I		
Category	Article 3, paragraph 3	II	III

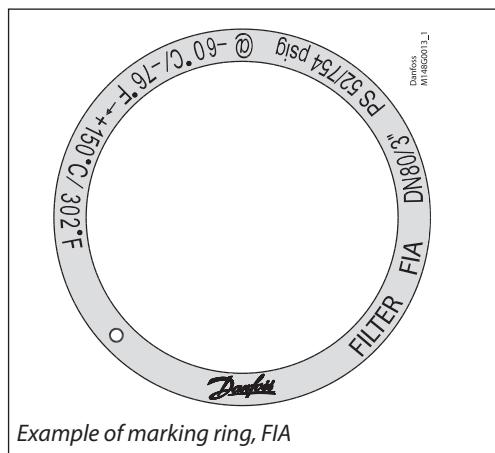
Installation/Maintenance

The filter is designed to resist high internal pressures. However, the piping system in general should be designed to avoid liquid traps and reduce the risk of hydraulic pressure caused by thermal expansion.

Install the filter with the cover in downward position.

Danfoss recommends replacement/cleaning of the filter when the differential pressure loss >0.5 bar (7.3 psi) in the liquid line and >0.05 bar (0.7 psi) in the suction line. The max. permissible differential pressure is 1 bar (15 psi).

For further information refer to installation instruction for FIA.

Identification:

Technical data

■ **Refrigerants**

Applicable to all common refrigerants including flammable refrigerants and all non-corrosive gases/liquids. For further information please see installation instruction for FIA.

■ **Temperature range**

-60°C/+150°C (-76°F/+302°F).

■ **Max. working pressure:**

52 bar g (754 psi g).

Filter, FIA

Selection of filter size

The mesh aperture size of the filter must satisfy the requirements stated by the suppliers of the equipment to be protected.

The following recommendations of aperture size apply in general to refrigeration installations:

All lines

First start up: **50 μ**

(Use filter element with removable insert for FIA DN15-40 or separate filter bag for FIA DN 50-200. 50 μ insert should normally be removed after the first 24 hours of operation)

Liquid Lines

Ahead of pumps: **500 μ** [38 mesh]

After pumps: **150 μ** [100 mesh] / 250 μ [72 mesh]

In front of AKVA valves **100 μ** [150 mesh]

Protection of automatic regulation equipment

Generally **150 μ** [100 mesh] / 250 μ [72 mesh]

Sensitive equipment, e.g. suction regulators with low temperature **250 μ** [72 mesh]

Suction Lines

Ahead of screw compressor **250 μ** [72 mesh]

Ahead of piston compressor **150 μ** [100 mesh]

Definition

Mesh is the number of threads per inch. μ (microns) is the distance between two threads ($1\mu = 1 / 1000 \text{ mm}$).

Flow coefficient (DIN/ANSI)

Connection size (DN) FIA	μ	mesh	wire mm	wire in.	free space %	screen area			
						Plain elements		Pleated elements	
						cm ²	in ²	cm ²	in ²
15 - 20 ($1/2''$ - $3/4''$)	100		0.068	0.003	35	25	3.9	45	7.0
	150	100	0.10	0.004	36	25	3.9	45	7.0
	250	72	0.10	0.004	51	25	3.9	45	7.0
	500	38	0.16	0.006	57.6	25	3.9	45	7.0
25 - 40 ($1''$ - $1\frac{1}{2}''$)	100		0.068	0.003	35	71	11	160	25.0
	150	100	0.10	0.004	36	71	11	160	25.0
	250	72	0.10	0.004	51	71	11	160	25.0
	500	38	0.16	0.006	57.6	71	11	160	25.0
50 (2")	100		0.068	0.003	35	71	11	200	31.2
	150	100	0.10	0.004	36	87	13.5	200	31.2
	250	72	0.10	0.004	51	87	13.5	200	31.2
	500	38	0.16	0.006	57.6	87	13.5	200	31.2
65 (2 $\frac{1}{2}$ ")	100		0.10	0.004	36	127	19.7	305	47.6
	250	72	0.10	0.004	51	127	19.7	305	47.6
	500	38	0.16	0.006	57.6	127	19.7	305	47.6
	150	100	0.10	0.004	36	205	31.8	450	70.2
80 (3")	250	72	0.10	0.004	51	205	31.8	450	70.2
	500	38	0.16	0.006	57.6	205	31.8	450	70.2
	150	100	0.10	0.004	36	370	57.4	790	123.2
	250	72	0.10	0.004	51	370	57.4	790	123.2
100 (4")	500	38	0.16	0.006	57.6	370	57.4	790	123.2
	150	100	0.10	0.004	36	510	79.1	1105	172.4
	250	72	0.10	0.004	51	510	79.1	1105	172.4
	500	38	0.16	0.006	57.6	510	79.1	1105	172.4
125 (5")	150	100	0.10	0.004	36	726	112.5	1600	249.6
	250	72	0.10	0.004	51	726	112.5	1600	249.6
	500	38	0.16	0.006	57.6	726	112.5	1600	249.6
	150	100	0.10	0.004	36	1315	203.8		
150 (6")	250	72	0.10	0.004	51	1315	203.8		
	500	38	0.16	0.006	57.6	1315	203.8		
	150	100	0.10	0.004	36				
	250	72	0.10	0.004	51				
200 (8")	500	38	0.16	0.006	57.6	1315	203.8		

Selection of filter size
(Continued)
K_v values

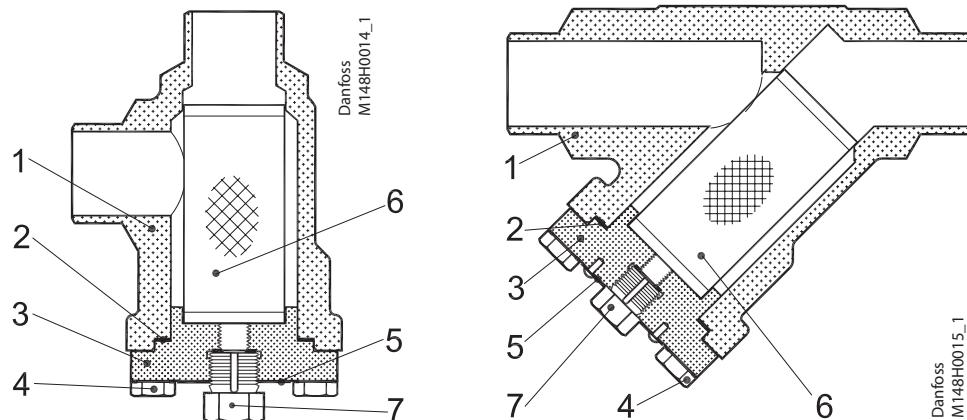
DN	FIA angle - plain filter net				FIA angle - pleated filter net		
	μ100	μ150	μ250	μ500	μ150	μ250	μ500
15	3.3	3.4	3.5	3.7	4.2		
20	6.9	7.1	7.3	7.7	8.8		
25	13.8	14.0	14.5	15.2	17.2	17.9	
32	23.0	23.8	24.7	25.5	29.2	30.5	
40	25.1	25.5	26.4	28.1	31.4	32.6	
50	45.1	45.9	47.6	50.2	56.7	58.8	62.0
65		56.1	57.8	60.4	69.3	71.4	74.6
80		104.6	108.0	113.1	129.2	133.4	139.7
100		162.4	167.5	176.0	200.6	206.9	217.4
125		275.4	283.9	298.4	340.2	350.7	368.6
150		362.1	373.2	391.9	447.3		
200		572.9	590.8	620.5			

DN	FIA straight - plain filter net				FIA straight - pleated filter net		
	μ100	μ150	μ250	μ500	μ150	μ250	μ500
15	2.5	2.6	2.7	2.8	3.3		
20	5.3	5.4	5.6	5.9	6.9		
25	10.5	10.7	11.1	11.6	13.8	14.5	
32	17.6	18.2	18.9	19.5	23.9	24.7	
40	19.2	19.5	20.2	21.5	25.5	26.4	
50	34.5	35.1	36.4	38.4	45.9	47.6	50.2
65		42.9	44.2	46.2	56.1	57.8	60.4
80		80.0	82.6	86.5	104.6	108.0	113.1
100		124.2	128.1	134.6	162.4	167.5	176.0
125		210.6	217.1	228.2	275.4	283.9	298.4
150		276.9	285.4	299.7	362.1		
200		438.1	451.8	474.5			

Filter, FIA

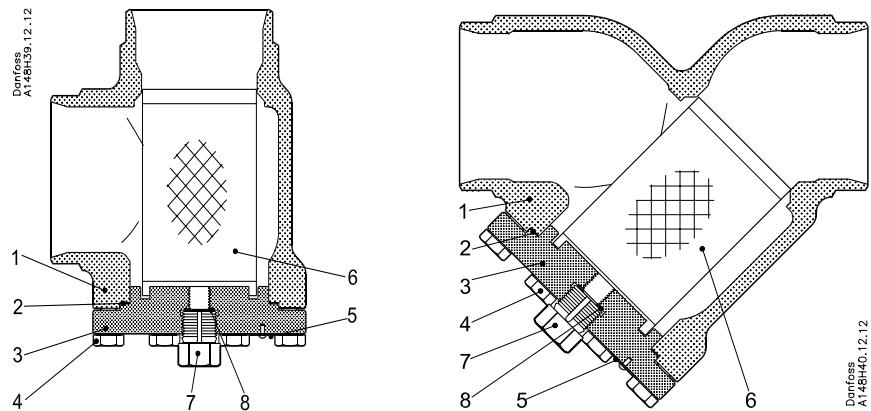
Material specification

FIA 15 - 40 (1/2 in. - 1 1/2 in.)



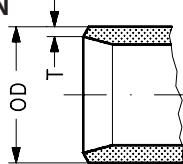
FIA 15-40 (1/2 in. - 1 1/2 in.)

No.	Part	Material	DIN	ISO	ASTM
1	Housing	Steel	G20Mn5QT, 10213-3 ----- P285QH+QT, 10222-4		LCC, A352 ----- LF2, A350
2	Gasket	Fibre, Non-asbestos			
3	Cover	Steel	P285QH EN10222-4 ----- P275NL1 or 2 EN10028-3		LF2, A350 ----- A, A662
4	Bolts	Stainless steel	A2-70	A2-70	Type 308
5	Marking label	Aluminium			
6	Filter element	Stainless steel			
7	Pressure relief (screw)	Stainless steel			

Material specification
FIA 50 - 200 (2 in. - 8 in.)

FIA 50-200 (2 in. - 8 in.)

No.	Part	Material	DIN	ISO	ASTM
1	Housing	Steel	G20Mn5QT, 10213-3 ----- P285QH+QT, 10222-4		LCC, A352 ----- LF2, A350
2	Gasket	Fibre, Non-asbestos			
3	Cover	Steel	P285QH EN10222-4 ----- P275NL1 or 2 EN10028-3		LF2, A350 ----- A, A662
4	Bolts	Stainless steel	A2-70	A2-70	Type 308
5	Marking label	Aluminium			
6	Filter element	Stainless steel			
7	Pressure relief (screw)	Stainless steel			
8*	Packing washer	Aluminium			

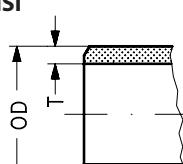
* pos 8 used in FIA 50-200

Filter, FIA
Connections
DIN


Size mm	Size in.	OD mm	T mm	OD in.	T in.
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Butt-weld DIN (EN 10220)

15	$\frac{1}{2}$	21.3	2.3	0.839	0.091
20	$\frac{3}{4}$	26.9	2.3	1.059	0.091
25	1	33.7	2.6	1.327	0.103
32	$\frac{1}{4}$	42.4	2.6	1.669	0.102
40	$\frac{1}{2}$	48.3	2.6	1.902	0.103
50	2	60.3	2.9	2.37	0.11
65	$\frac{2}{1/2}$	76.1	2.9	3	0.11
80	3	88.9	3.2	3.50	0.13
100	4	114.3	3.6	4.50	0.14
125	5	139.7	4.0	5.50	0.16
150	6	168.3	4.5	6.63	0.18
200	8	219.1	6.3	8.63	0.25

ANSI


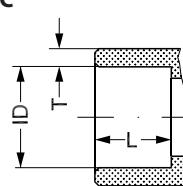
Size mm	Size in.	OD mm	T mm	OD in.	T in.
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Butt-weld ANSI (B 36.10 Schedule 80)

15	$\frac{1}{2}$	21.3	3.7	0.839	0.146
20	$\frac{3}{4}$	26.9	4.0	1.059	0.158
25	1	33.7	4.6	1.327	0.181
32	$\frac{1}{4}$	42.4	4.9	1.669	0.193
40	$\frac{1}{2}$	48.3	5.1	1.902	0.201

Butt-weld ANSI (B 36.10 Schedule 40)

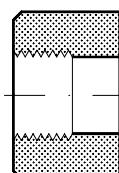
50	2	60.3	3.9	2.37	0.15
65	$\frac{2}{1/2}$	73.0	5.2	2.87	0.20
80	3	88.9	5.5	3.50	0.22
100	4	114.3	6.0	4.50	0.24
125	5	141.3	6.6	5.56	0.26
150	6	168.3	7.1	6.63	0.28
200	8	219.1	8.2	8.63	0.32

SOC


Size mm	Size in.	OD mm	T mm	OD in.	T in.
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Socket welding ANSI (B 16.11)

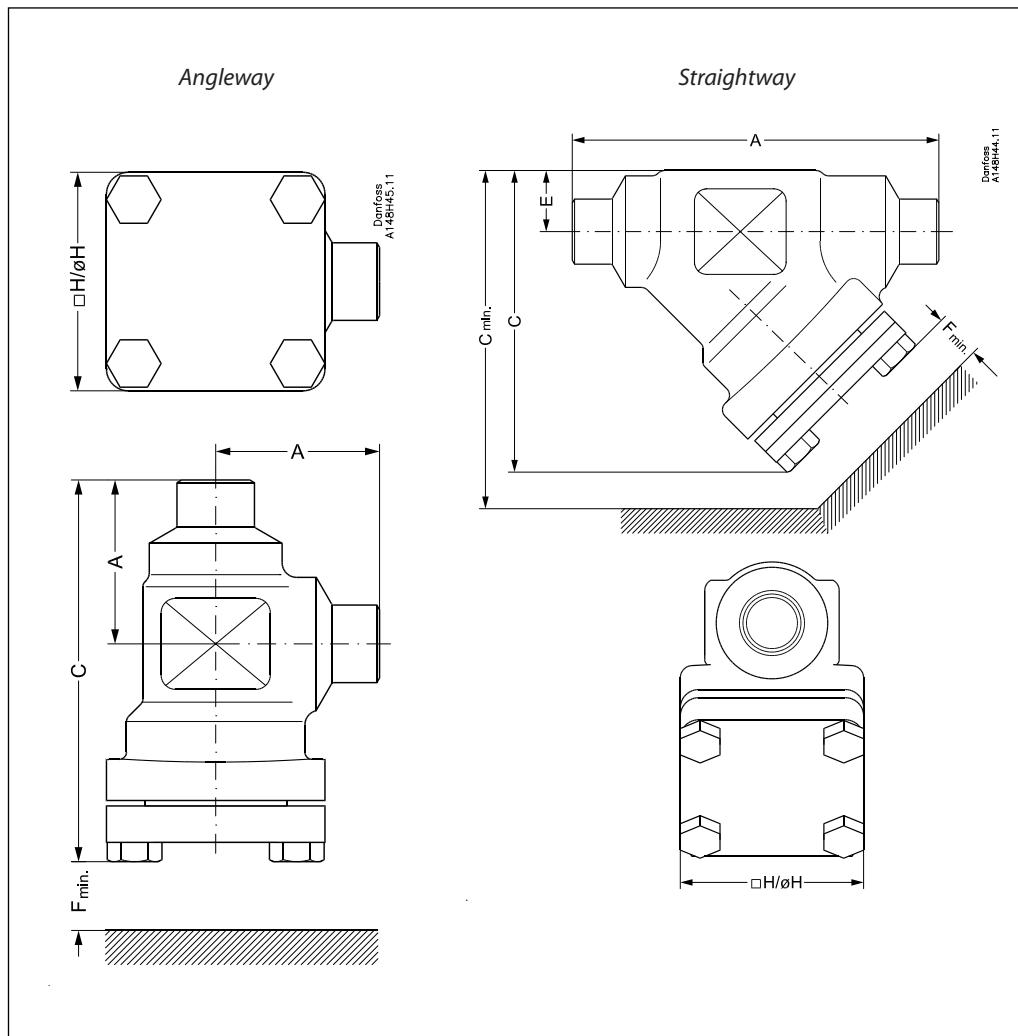
15	$\frac{1}{2}$	21.8	6.0	0.858	0.235
20	$\frac{3}{4}$	27.2	4.6	1.071	0.181
25	1	33.9	7.2	1.335	0.284
32	$\frac{1}{4}$	42.7	6.1	1.743	0.240
40	$\frac{1}{2}$	48.8	6.6	1.921	0.260
50	2	61.2	6.2	2.41	0.24

FPT


Size mm	Size in.	Inside pipe tread
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FPT inside pipe thread, NPT (ANSI/ASME B 1.20.1)

15	$\frac{1}{2}$	($\frac{1}{2} \times 14$ NPT)
20	$\frac{3}{4}$	($\frac{3}{4} \times 14$ NPT)
25	1	(1×11.5 NPT)
32	$\frac{1}{4}$	($1\frac{1}{4} \times 11.5$ NPT)

Dimensions and weights
FIA 15 - 65

Angleway

Filter size	A	C	H	$F_{min.}$	Weight
FIA 15-20 (1/2" - 3/4")	mm 45	105	60	68	1.1 kg
	in. 1.77	4.13	2.36	2.68	2.4 lbs
FIA 25-40 (1" - 1 1/2")	mm 55	132	70	95	1.7 kg
	in. 2.17	5.20	2.76	3.74	3.7 lbs
FIA 50 (2")	mm 60	132	77	92	2.8 kg
	in. 2.36	5.20	3.03	3.62	6.2 lbs
FIA 65 (2 1/2")	mm 70	152	90	107	3.8 kg
	in. 2.76	5.98	3.54	4.21	8.4 lbs

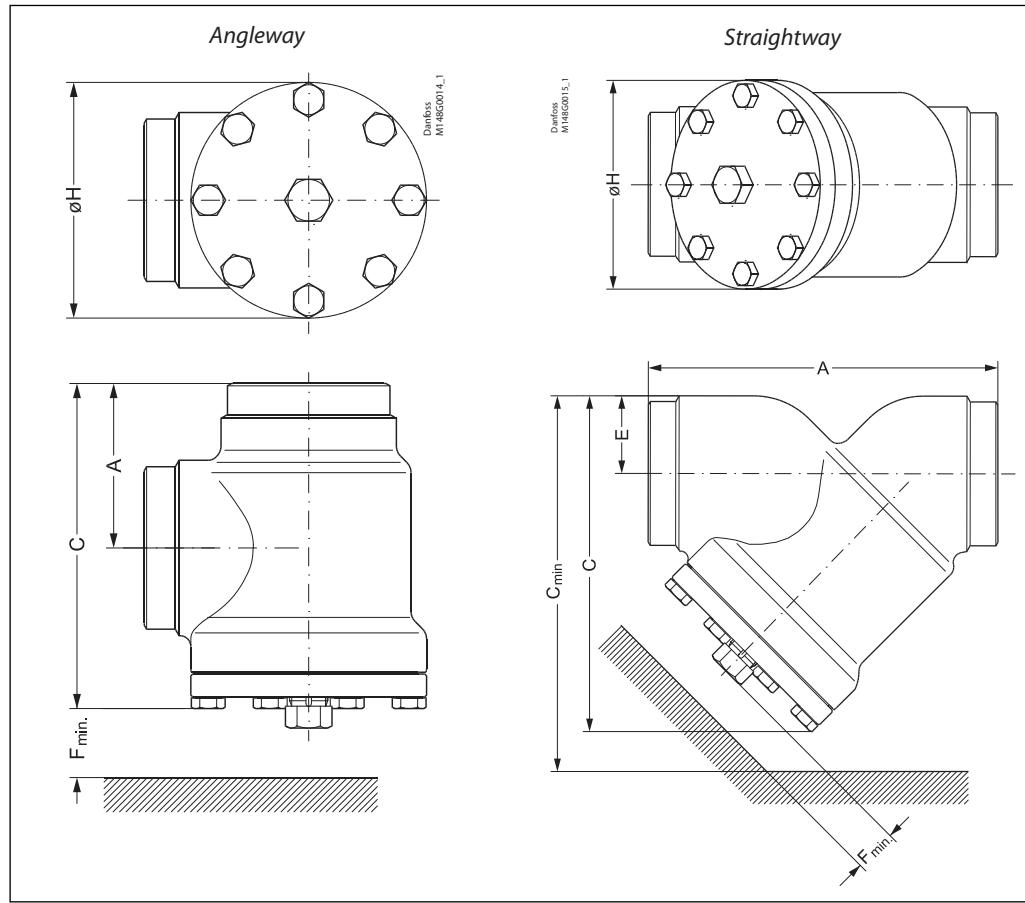
Straightway

Valve size	A	C	$C_{min.}$	H	E	$F_{min.}$	Weight
FIA 15-20 (1/2" - 3/4")	mm 120	99	133	60	20	68	1.4 kg
	in. 4.72	3.90	5.24	2.36	0.79	2.68	3.1 lbs
FIA 25-40 (1" - 1 1/2")	mm 155	129	177	70	26	95	2.4 kg
	in. 6.10	5.08	6.97	2.76	1.02	3.74	5.3 lbs
FIA 50 (2")	mm 148	138	184	77	32	92	3.5 kg
	in. 5.83	5.43	7.24	3.03	1.26	3.62	7.7 lbs
FIA 65 (2 1/2")	mm 176	165	219	90	40	107	5.3 kg
	in. 6.93	6.50	8.62	3.54	1.57	4.21	11.7 lbs

Filter, FIA

Dimensions and weights

FIA 80 - 200



Angleway

Filter size		A	C	H	$F_{min.}$	Weight
FIA 80 (3")	mm	90	189	129	133	7.3 kg
	in.	3.54	7.44	5.08	5.24	16.1 lbs
FIA 100 (4")	mm	106	223	156	163	11.9 kg
	in.	4.17	8.78	6.14	6.42	26.2 lbs
FIA 125 (5")	mm	128	268	192	190	21.2 kg
	in.	5.04	10.6	7.56	7.48	46.7 lbs
FIA 150 (6")	mm	145	303	219	223	30.5 kg
	in.	5.71	11.93	8.62	8.78	67.2 lbs
FIA 200 (8")	mm	180	372	276	280	68 kg
	in.	7.09	14.65	10.87	11.02	150 lbs

Straightway

Filter size		A	C	$C_{min.}$	H	E	$F_{min.}$	Weight
FIA 80 (3")	mm	216	204	271	129	48	133	8.6 kg
	in.	8.50	8.03	10.67	5.08	1.89	5.24	19 lbs
FIA 100 (4")	mm	264	256	337	156	60	163	14.9 kg
	in.	10.39	10.08	13.27	6.14	2.36	6.42	32.8 lbs
FIA 125 (5")	mm	322	313	408	192	74	190	26.9 kg
	in.	12.68	12.32	16.06	7.56	2.91	7.48	59.3 lbs
FIA 150 (6")	mm	370	370	482	219	91	223	51 kg
	in.	14.57	14.57	18.98	8.62	3.58	8.78	112 lbs
FIA 200 (8")	mm	464	465	605	276	117	280	95 kg
	in.	18.27	18.31	23.82	10.87	4.61	11.02	209 lbs

Filter, FIA
Ordering

The table below is used to identify the filter required. Please note that you have to order **FIA filter without element, a filter element and accessories.**

Example:
FIA 50 D ANG + FIA-X 50 150 μ Filter Element +
Filter Bag = **148H5912 + 148H3130 + 148H3150**

Size	Type	FIA Without Filter Element	Filter Element 100 μ 150 mesh	Filter Element 150 μ 100 mesh	Filter Element 250 μ 72 mesh	Filter Element 500 μ 38 mesh	Pleated filter element 150 μ 100 mesh	Pleated filter element 250 μ 72 mesh	Pleated filter element 500 μ 38 mesh
mm	in.								

Butt-weld DIN (EN 10220) - Angleway

15	1/2	FIA 15 D ANG	148B5242
20	3/4	FIA 20 D ANG	148B5342
25	1	FIA 25 D ANG	148B5442
32	1 1/4	FIA 32 D ANG	148B5543
40	1 1/2	FIA 40 D ANG	148B5624
50	2	FIA 50 D ANG	148B5712
65	2 1/2	FIA 65 D ANG	148B5812
80	3	FIA 80 D ANG	148B5905
100	4	FIA 100 D ANG	148B6006
125	5	FIA 125 D ANG	148B6105
150	6	FIA 150 D ANG	148B6202
200	8	FIA 200 D ANG	148B6302

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-
148H3157	148H3130	148H3138	148H3144	148H3179	148H3184	148H3189
-	148H3131	148H3139	148H3145	148H3180	148H3185	148H3190
-	148H3119	148H3120	148H3121	148H3181	148H3186	148H3191
-	148H3132	148H3140	148H3146	148H3182	148H3187	148H3192
-	148H3133	148H3141	148H3147	148H3183	148H3188	148H3193
-	148H3134	148H3142	148H3148	148H3226	-	-
-	148H3135	148H3143	148H3149	-	-	-

Butt-weld DIN (EN 10220) - Straightway

15	1/2	FIA 15 D STR	148B5243
20	3/4	FIA 20 D STR	148B5343
25	1	FIA 25 D STR	148B5443
32	1 1/4	FIA 32 D STR	148B5544
40	1 1/2	FIA 40 D STR	148B5625
50	2	FIA 50 D STR	148B5713
65	2 1/2	FIA 65 D STR	148B5813
80	3	FIA 80 D STR	148B5906
100	4	FIA 100 D STR	148B6007
125	5	FIA 125 D STR	148B6106
150	6	FIA 150 D STR	148B6203
200	8	FIA 200 D STR	148B6303

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-
148H3157	148H3130	148H3138	148H3144	148H3179	148H3184	148H3189
-	148H3131	148H3139	148H3145	148H3180	148H3185	148H3190
-	148H3119	148H3120	148H3121	148H3181	148H3186	148H3191
-	148H3132	148H3140	148H3146	148H3182	148H3187	148H3192
-	148H3133	148H3141	148H3147	148H3183	148H3188	148H3193
-	148H3134	148H3142	148H3148	148H3226	-	-
-	148H3135	148H3143	148H3149	-	-	-

Butt-weld ANSI (B 36.10 Schedule 80) - Angleway

15	1/2	FIA 15 A ANG	148B5244
20	3/4	FIA 20 A ANG	148B5344
25	1	FIA 25 A ANG	148B5444
32	1 1/4	FIA 32 A ANG	148B5545
40	1 1/2	FIA 40 A ANG	148B5642

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-

Butt-weld ANSI (B 36.10 Schedule 80) - Straightway

15	1/2	FIA 15 A STR	148B5247
20	3/4	FIA 20 A STR	148B5347
25	1	FIA 25 A STR	148B5447
32	1 1/4	FIA 32 A STR	148B5552
40	1 1/2	FIA 40 A STR	148B5644

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-

Butt-weld ANSI (B 36.10 Schedule 40) - Angleway

50	2	FIA 50 A ANG	148B5714
65	2 1/2	FIA 65 A ANG	148B5814
80	3	FIA 80 A ANG	148B5907
100	4	FIA 100 A ANG	148B6008
125	5	FIA 125 A ANG	148B6107
150	6	FIA 150 A ANG	148B6204
200	8	FIA 200 A ANG	148B6304

148H3157	148H3130	148H3138	148H3144	148H3179	148H3184	148H3189
-	148H3131	148H3139	148H3145	148H3180	148H3185	148H3190
-	148H3119	148H3120	148H3121	148H3181	148H3186	148H3191
-	148H3132	148H3140	148H3146	148H3182	148H3187	148H3192
-	148H3133	148H3141	148H3147	148H3183	148H3188	148H3193
-	148H3134	148H3142	148H3148	148H3226	-	-
-	148H3135	148H3143	148H3149	-	-	-

D = Butt-weld DIN

A = Butt-weld ANSI

ANG = Angleway

STR = Straightway

Filter, FIA

Ordering (continued)

Size	Type	FIA Without Filter Element	Filter Element 100µ 150 mesh	Filter Element 150µ 100 mesh	Filter Element 250µ 72 mesh	Filter Element 500µ 38 mesh	Pleated filter element 150µ 100 mesh	Pleated filter element 250µ 72 mesh	Pleated filter element 500µ 38 mesh
mm	in.								

FPT inside pipe thread, NPT (ANSI/ASME B 1.20.1) - Angleway

15	½	FIA 15 FTP ANG	148B5246
20	¾	FIA 20 FTP ANG	148B5346
25	1	FIA 25 FTP ANG	148B5446
32	1¼	FIA 32 FTP ANG	148B5547

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-

FPT inside pipe thread, NPT (ANSI/ASME B 1.20.1) - Straightway

15	½	FIA 15 FTP STR	148B5249
20	¾	FIA 20 FTP STR	148B5349
25	1	FIA 25 FTP STR	148B5449
32	1¼	FIA 32 FTP STR	148B5549

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-

Socket welding ANSI (B 16.11) - Angleway

15	½	FIA 15 SOC ANG	148B5245
20	¾	FIA 20 SOC ANG	148B5345
25	1	FIA 25 SOC ANG	148B5445
32	1¼	FIA 32 SOC ANG	148B5546
40	1½	FIA 40 SOC ANG	148B5643
50	2	FIA 50 SOC ANG	148B5715

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-
148H3157	148H3130	148H3138	148H3144	148H3179	148H3184	148H3189

Socket welding ANSI (B 16.11) - Straightway

15	½	FIA 15 SOC STR	148B5248
20	¾	FIA 20 SOC STR	148B5348
25	1	FIA 25 SOC STR	148B5448
32	1¼	FIA 32 SOC STR	148B5548
40	1½	FIA 40 SOC STR	148B5645
50	2	FIA 50 SOC STR	148B5717

148H3122	148H3124	148H3126	148H3128	148H3303	-	-
148H3123	148H3125	148H3127	148H3129	148H3304	148H3269	-
148H3157	148H3130	148H3138	148H3144	148H3179	148H3184	148H3189

SOC = Socket welding
FPT = Inside pipe thread
ANG = Angleway
STR = Straightway

Accessories

Part	Accessory for	Code number
Magnet insert	FIA 65-100	148H3447
	FIA 125-200	148H3448
Part	Accessory for	Code number
	Filter element µ150 with removable element µ50 for the first start up	148H3301
Filter bag	FIA 15-20	148H3302
	FIA 25-40	
Part	Accessory for	Code number
	FIA 50	148H3150
	FIA 65	148H3151
	FIA 80	148H3152
	FIA 100	148H3153
	FIA 125	148H3154
	FIA 150	148H3155
Part	Accessory for	Code number
	FIA 50 - 300	148H3450
Blind nut with gasket		

