



# INDUSTRIAL FILTRATION



### Industrial Pre-Filter

The Infinity industrial pre-filter is made of high quality aluminium alloy and carbon steel.

Featuring a compact design to reduce space for maintenance, its surface is coated with epoxy resin powders so as to improve its durability and resistance to corrosion.

The pre-filter features a high quality industrial float drain with ball valve for easy condensate removal and a threaded connection is used as both an inlet and outlet. The filter housing is marked with direction of air flow for ease of use, and the auto drain is serviceable without shutting off the air supply.

#### Features

- ✓ Filtration rating: 5µm
- ✓ Oil content: 5ppm
- ✓ Maximum pressure: 232 psi



#### Specs

CODE	DESCRIPTION	MICRONS	FLOW RATE CFM	MAX PRESSURE PSI	MAX TEMP	CONNECTION SIZE
IN-F15P-320	Industrial Pre-Filters 1/2"	5	35	232	65°C	1/2"
IN-F20P-320	Industrial Pre-Filters 3/4"	5	70	232	65°C	3/4"
IN-F25P-320	Industrial Pre-Filters 1"	5	105	232	65°C	1"
IN-F40P-320	Industrial Pre-Filters 1 1/2"	5	210	232	65°C	1 1/2"
IN-F50P-320	Industrial Pre-Filters 2"	5	630	232	65°C	2"
IN-F63P-320	Industrial Pre-Filters 2 1/2"	5	840	232	65°C	2 1/2"

### Functionality

The function of a pre-filter (or particulate filter) is to remove solid particles such as dust, pollen, mold and bacteria from the air.

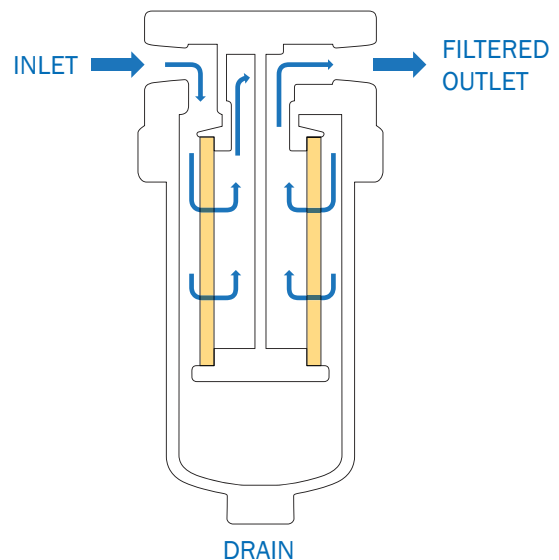
Particles are removed from the air using a two port filter housing and pre-filter element, specifically designed for this purpose. The ultra fine fibres of the pre-filter element capture microscopic particles up to 50 times smaller than the eye can see through a combination of diffusion, interception and inertial impaction.

With smaller particles, diffusion occurs when the random motion of the particles causes them to collide with fibres. Interception occurs when larger particles directly collide with a fibre. When a particle's inertia leads to its collision with a fibre, this is known as inertial impaction.

To select the correct size of filter for a particular application, choose on the basis of air flow and system pressure, rather than pipe size. Select a filter large enough to ensure that the air exits the filter at a low velocity.

Pre-filters are ideal for general purpose air tools and building sites, and used as the first stage before an Infinity coalescing and absorption filter. It is also recommended that they be used to filter the air before it reaches the air dryer.

The diagram below shows the pre-filter process. Compressed air flows from the compressor, entering the filter housing via the inlet. As the air flows through the filter element from inside to out, dust particles and condensate are removed and collected at the bottom of the bowl where they are ejected automatically by the auto drain system.



### Technical Characteristics

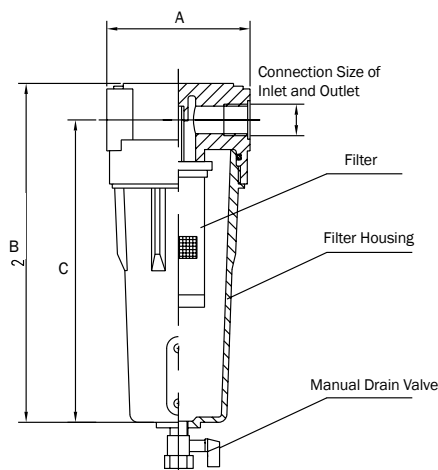


Fig. 1

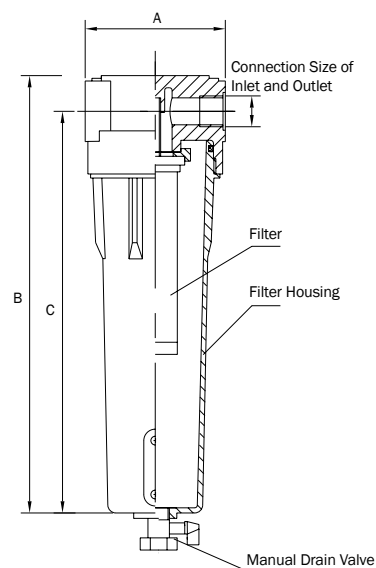


Fig. 2

CODE	FIG.	A	B	C	CONNECTION SIZE
IN-F15P-320	1	104 +/-0.8	243 +/-1.2	217 +/-1.2	1/2"
IN-F20P-320		104 +/-0.8	313 +/-1.2	287 +/-1.2	3/4"
IN-F25P-320		104 +/-0.8	313 +/-1.2	287 +/-1.2	1"
IN-F40P-320	2	138 +/-0.8	624 +/-1.2	624 +/-1.2	1 1/2"
IN-F50P-320		148 +/-0.8	685 +/-1.2	639 +/-1.2	2"
IN-F63P-320		150 +/-0.8	850 +/-1.2	800 +/-1.2	2 1/2"

### Industrial Coalescing Filter

The Infinity industrial coalescing filter is made of high quality aluminium alloy and carbon steel.

Featuring a compact design to reduce space for maintenance, its surface is coated with epoxy resin powders so as to improve its durability and resistance to corrosion.

The coalescing filter features a high quality industrial float drain with ball valve for easy condensate removal, and a threaded connection is used as both an inlet and outlet.

The filter housing is marked with direction of air flow for ease of use, and the auto drain is serviceable without shutting off the air supply.

#### Features

- ✓ Filtration rating: 0.01µm
- ✓ Oil content: 1ppm
- ✓ Maximum pressure: 232 psi



#### Specs

CODE	DESCRIPTION	MICRONS	FLOW RATE CFM	MAX PRESSURE PSI	MAX TEMP	CONNECTION SIZE
IN-F15C-130	Coalescing Filters 1/2"	0.01	35	232	65°C	1/2"
IN-F20C-130	Coalescing Filters 3/4"	0.01	70	232	65°C	3/4"
IN-F25C-130	Coalescing Filters 1"	0.01	105	232	65°C	1"
IN-F40C-130	Coalescing Filters 1 1/2"	0.01	210	232	65°C	1 1/2"
IN-F50C-130	Coalescing Filters 2"	0.01	630	232	65°C	2"
IN-F63C-130	Coalescing Filters 2 1/2"	0.01	840	232	65°C	2 1/2"

### Functionality

The main function of the coalescing filter is to trap and subsequently remove liquid, oil and water from a compressed air stream.

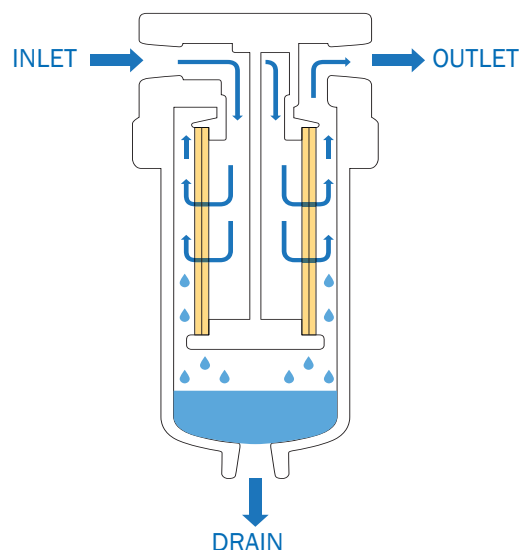
The separation of aerosol and solid contaminants from air is primarily dictated by gravity. Larger contaminants settle out of the air stream fairly quickly, however extremely small aerosol particles remain suspended, particularly in flowing air. The coalescing filter combines these aerosols into even larger droplets as they pass through the filter element's fibre matrix, eventually becoming large enough to be susceptible to the force of gravity and be drained away.

The coalescing filter can be seen as a multifunctional filtration solution, due to its ability to filter particulates just as effectively as it can coalesce aerosols and droplets. If you have an application that requires both types of filtration, a coalescing filter is ideal.

To select the correct size of filter for a particular application, choose on the basis of air flow and system pressure, rather than pipe size. Select a filter large enough to ensure that the air exits the filter at a low velocity and does not carry over coalesced liquid.

Coalescing filters are ideal for use after air has flowed through the compressed air dryer, acting as an excellent condensate removal. They are best used with an Infinity pre-filter.

The diagram below shows the coalescing process. Air enters the housing and flows through the filter media, passing from the inside element surface to the outside. Coalesced liquid collects in the bowl where it is drained and clean air exits the housing through the outlet port.



### Technical Characteristics

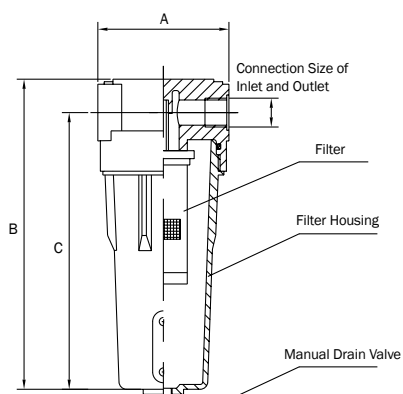


Fig. 1

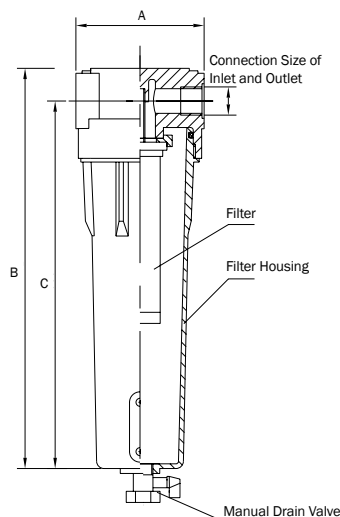


Fig. 2

CODE	FIG.	A	B	C	CONNECTION SIZE
IN-F15C-130	1	104 +/-0.8	243 +/-1.2	217 +/-1.2	1/2"
IN-F20C-130		104 +/-0.8	313 +/-1.2	287 +/-1.2	3/4"
IN-F25C-130		104 +/-0.8	313 +/-1.2	287 +/-1.2	1"
IN-F40C-130	2	138 +/-0.8	624 +/-1.2	624 +/-1.2	1 1/2"
IN-F50C-130		148 +/-0.8	685 +/-1.2	639 +/-1.2	2"
IN-F63C-130		150 +/-0.8	850 +/-1.2	800 +/-1.2	2 1/2"

### Industrial Absorption Filter

Activated absorption filters offer the final stage of filtration. The activated carbon removes smells and odors from the system, particularly important in breathing air systems. Combined with an Infinity pre-filter and coalescing filter, this filter set will offer air to a quality of 0.003ppm.

The absorption filter features a high quality industrial float drain with ball valve for easy condensate removal, and a threaded connection is used as both an inlet and outlet.

The filter housing is marked with direction of air flow for ease of use, and the auto drain is serviceable without shutting off the air supply.

#### Features

- ✓ Filtration rating: 0.01µm
- ✓ Oil content: 0.003ppm
- ✓ Maximum pressure: 232 psi



#### Specs

CODE	DESCRIPTION	MICRONS	FLOW RATE CFM	MAX PRESSURE PSI	MAX TEMP	CONNECTION SIZE
IN-F15A-150	Absorption Filters 1/2"	0.01	35	232	65°C	1/2"
IN-F20A-150	Absorption Filters 3/4"	0.01	70	232	65°C	3/4"
IN-F25A-150	Absorption Filters 1"	0.01	105	232	65°C	1"
IN-F40A-150	Absorption Filters 1 1/2"	0.01	210	232	65°C	1 1/2"
IN-F50A-150	Absorption Filters 2"	0.01	630	232	65°C	2"
IN-F63A-150	Absorption Filters 2 1/2"	0.01	840	232	65°C	2 1/2"

### Functionality

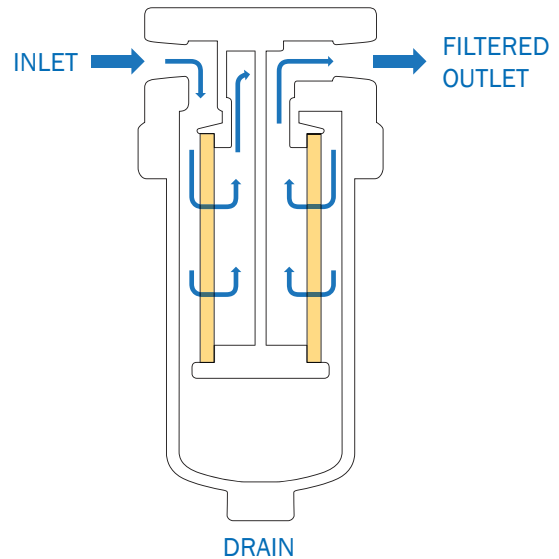
The main function of the absorption filter is to absorb smells, odors and taste from compressed air, making it suitable and comfortable for breathing.

This degree of filtration also offers other benefits including virtually oil free air, making it extremely appropriate for applications such as high quality painting, glass manufacturing and laser cutting, when used with the correct air drying process.

For breathing air, the absorption filter must be used in conjunction with other specified equipment, including the Infinity pre-filter, coalescing filter and dryers. This will ensure that air is at the correct quality and highest of standards. It is also recommended that all breathing air systems are regularly tested.

To select the correct size of filter for a particular application, choose on the basis of air flow and system pressure, rather than pipe size. Select a filter large enough to ensure that the air exits the filter at a low velocity.

The diagram below shows the absorption filtration process. As air enters the housing, it flows through the filter element from outside to in, during which the activated carbon in the element absorbs smells and odors from the compressed air. The air then exits the housing through the outlet port.



### Technical Characteristics

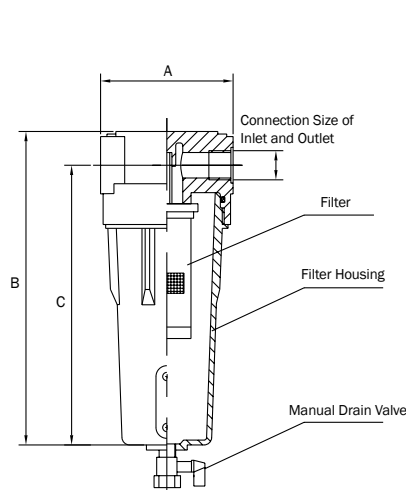


Fig. 1

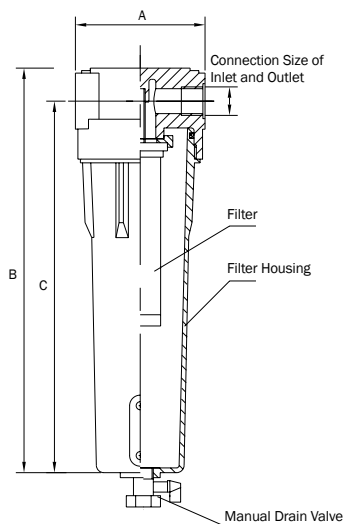
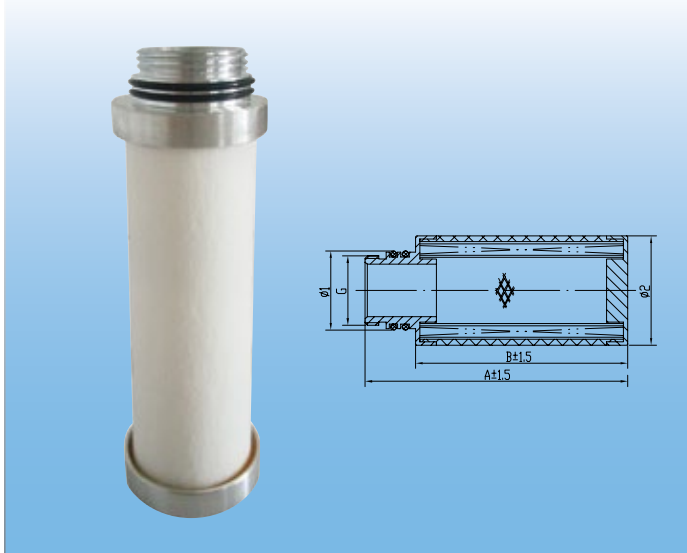


Fig. 2

CODE	FIG.	A	B	C	CONNECTION SIZE
IN-F15A-150	1	104 +/-0.8	243 +/-1.2	217 +/-1.2	1/2"
IN-F20A-150		104 +/-0.8	313 +/-1.2	287 +/-1.2	3/4"
IN-F25A-150		104 +/-0.8	313 +/-1.2	287 +/-1.2	1"
IN-F40A-150	2	138 +/-0.8	624 +/-1.2	624 +/-1.2	1 1/2"
IN-F50A-150		148 +/-0.8	685 +/-1.2	639 +/-1.2	2"
IN-F63A-150		150 +/-0.8	850 +/-1.2	800 +/-1.2	2 1/2"

### Industrial Pre-Filter Element

Pre-filter elements are composed of fibrous materials which capture and remove fine, solid particles such as dust, pollen, mold and bacteria from the air. As the air flows through the filter element from inside to out, dust particles and condensate are removed and collected at the bottom of the bowl where they are ejected automatically by the auto drain system.



#### Features

- ✓ Filtration rating: 5µm
- ✓ Maximum temperature: 65 °C
- ✓ Maximum pressure: 232 psi

#### Specs

CODE	DESCRIPTION	FLOW RATE
IN-E15P-320	Pre-Filter Elements 1/2"	35 cfm
IN-E20P-320	Pre-Filter Elements 3/4"	70 cfm
IN-E25P-320	Pre-Filter Elements 1"	105 cfm
IN-E40P-320	Pre-Filter Elements 1 1/2"	210 cfm
IN-E50P-320	Pre-Filter Elements 2"	630 cfm
IN-E63P-320	Pre-Filter Elements 2 1/2"	840 cfm

#### Technical Specs

DESCRIPTION	G	φ1	φ2	A	B	O-RING
Industrial Filter Element 1/2"	G 3/4"	31	42	94	76	25.8 x 2.65
Industrial Filter Element 3/4"	G 1"	38.5	52	128	104	30 x 3.55
Industrial Filter Element 1"	G 1"	38.5	52	152	128	30 x 3.55
Industrial Filter Element 1 1/2"	G 1"	38.5	62	204	180	30 x 3.55
Industrial Filter Element 2"	-	-	86	397	381	54.5 x 3.55
Industrial Filter Element 2 1/2"	-	-	86	524	508	54.5 x 3.55

### Industrial Coalescing Element

The coalescing filter element comprises of two parts, an inner and outer layer. The inner layer consists of a high-efficiency coalescing stage, while the outer layer is a coarser stage used for drainage. Any liquid aerosols or droplets are caught within the fine fibres of the inner layer, eventually accumulating to the extent that they are forced to the outer layer of the filter element and into the 'bowl' of the housing.



#### Features

- ✓ Filtration rating: 0.01µm
- ✓ Maximum temperature: 65 °C
- ✓ Maximum pressure: 232 psi

#### Specs

CODE	DESCRIPTION	FLOW RATE CFM
IN-E15C-130	Coalescing Elements 1/2"	35
IN-E20C-130	Coalescing Elements 3/4"	70
IN-E25C-130	Coalescing Elements 1"	105
IN-E40C-130	Coalescing Elements 1 1/2"	210
IN-E50C-130	Coalescing Elements 2"	630
IN-E63C-130	Coalescing Elements 2 1/2"	840

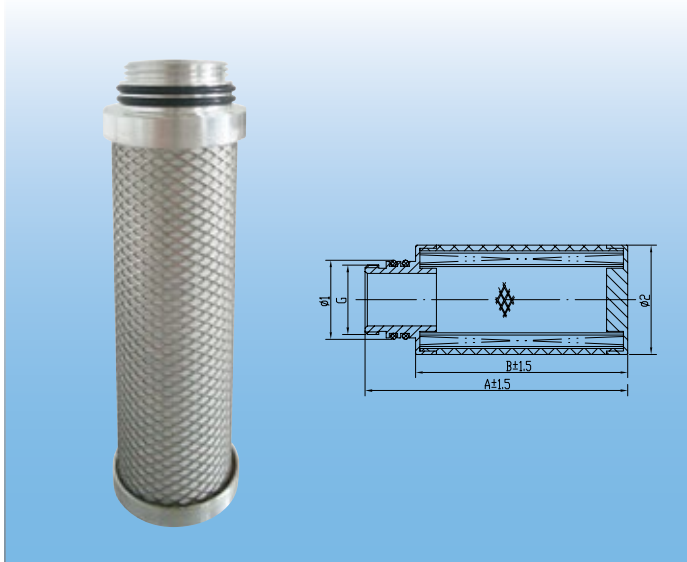
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Coalescing Elements 1"	G 1"	38.5	52	152	128	30 x 3.55
Coalescing Elements 1 1/2"	G 1"	38.5	62	204	180	30 x 3.55
Coalescing Elements 2"	-	-	86	397	381	54.5 x 3.55
Coalescing Elements 2 1/2"	-	-	86	524	508	54.5 x 3.55



### Industrial Absorption Element

Industrial absorption elements offer the final stage of filtration. As the air flows through the element from outside to in, the activated carbon in the element absorbs smells and odors from the compressed air system, making it suitable and comfortable for breathing.



#### Features

- ✓ Filtration rating: 0.01µm
- ✓ Maximum temperature: 65 °C
- ✓ Maximum pressure: 232 psi

#### Specs

CODE	DESCRIPTION	FLOW RATE CFM
IN-E15A-150	Absorption Elements 1/2"	35
IN-E20A-150	Absorption Elements 3/4"	70
IN-E25A-150	Absorption Elements 1"	105
IN-E40A-150	Absorption Elements 1 1/2"	210
IN-E50A-150	Absorption Elements 2"	630
IN-E63A-150	Absorption Elements 2 1/2"	840

#### Technical Specs

DESCRIPTION	G	φ1	φ2	A	B	O-RING
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Absorption Elements 2"	-	-	86	397	381	54.5 x 3.55
Absorption Elements 2 1/2"	-	-	86	524	508	54.5 x 3.55

