



AIR FILTER AND WATER SEPARATOR

CF/ D-MT / WS Series





ABOUT DIT

DIT, Franco-Thai manufacturer with more than two decades of experience as an air treatment specialist, leverages its expertise to develop and design products tailored for industrial use in the compressed air field. DIT is constantly focused on achieving optimal performance and possesses several patents, ensuring a leading position in terms of innovation and an ongoing commitment to excellence in performance.

Emboldened by this expertise and in partnership with industry-leading component suppliers renowned for their cost-effective solutions, DIT provides you with a comprehensive selection of the most efficient products available on the market.

Our technical office and commercial team possess the expertise to assist you worldwide with both standard projects and tailor-made solutions. Through valuable suggestions and in response to your preferences, our team excels at identifying the most fitting solutions to meet your specific requirements, enabling you to respond adeptly and globally to address various challenges with precision and expertise.

At DIT, our foremost mission revolves around ensuring client satisfaction. We take great pride in crafting and tailoring solutions that are uniquely designed to meet YOUR specific needs and requirements.

Our air filters and water separators are a valuable addition to our comprehensive range of compressed air treatment solutions. This line complements a wide array of products, including:

- Refrigeration dryers
- Adsorption dryers
- Compressed air treatment unit
- Filtration
- Drains
- Oil/Water separators
- After coolers

Together, these offerings provide a comprehensive suite of compressed air solutions to meet your unique client request with respect of all international standards dedicated to compressed air systems.

OPERATING PRINCIPLE

Efficient Filtration Process

The CF filter range optimizes compressed air quality by utilizing network pressure to effectively eliminate impurities such as dirt, water, and oil. The sealed chamber created by the filter's body and head ensures thorough filtration, with the filtering element acting as a barrier against various contaminants based on the selected filtration grade.

Pressure Drop Monitoring and Lifespan Indication

The pressure drop generated during filtration serves as a key indicator of the filter's condition and lifespan. The pressure differential gauge constantly measures the difference between the filter's inlet and outlet, providing precise information about the wear and tear of the filtering element. The transition from the green to red zone acts as an alert for timely replacement, preventing potential downstream equipment and product issues.

Critical Importance of Proper Filtration

Dust and contaminants entering the compressed air stream can have detrimental and costly consequences for downstream equipment and final products. Hence, maintaining appropriate and regularly renewed filtration is essential for ensuring the longevity and performance of the entire compressed air system.

Condensate Management in Filtration

During the filtration process, water vapor in the compressed air partially condenses into a liquid mist. The CF filter efficiently collects and manages this condensate, preventing its accumulation. The drain, strategically located at the bottom of the filter, plays a crucial role in evacuating the condensate and maintaining the optimal functioning of the filtration system.

Effective Drain System for Condensate Evacuation

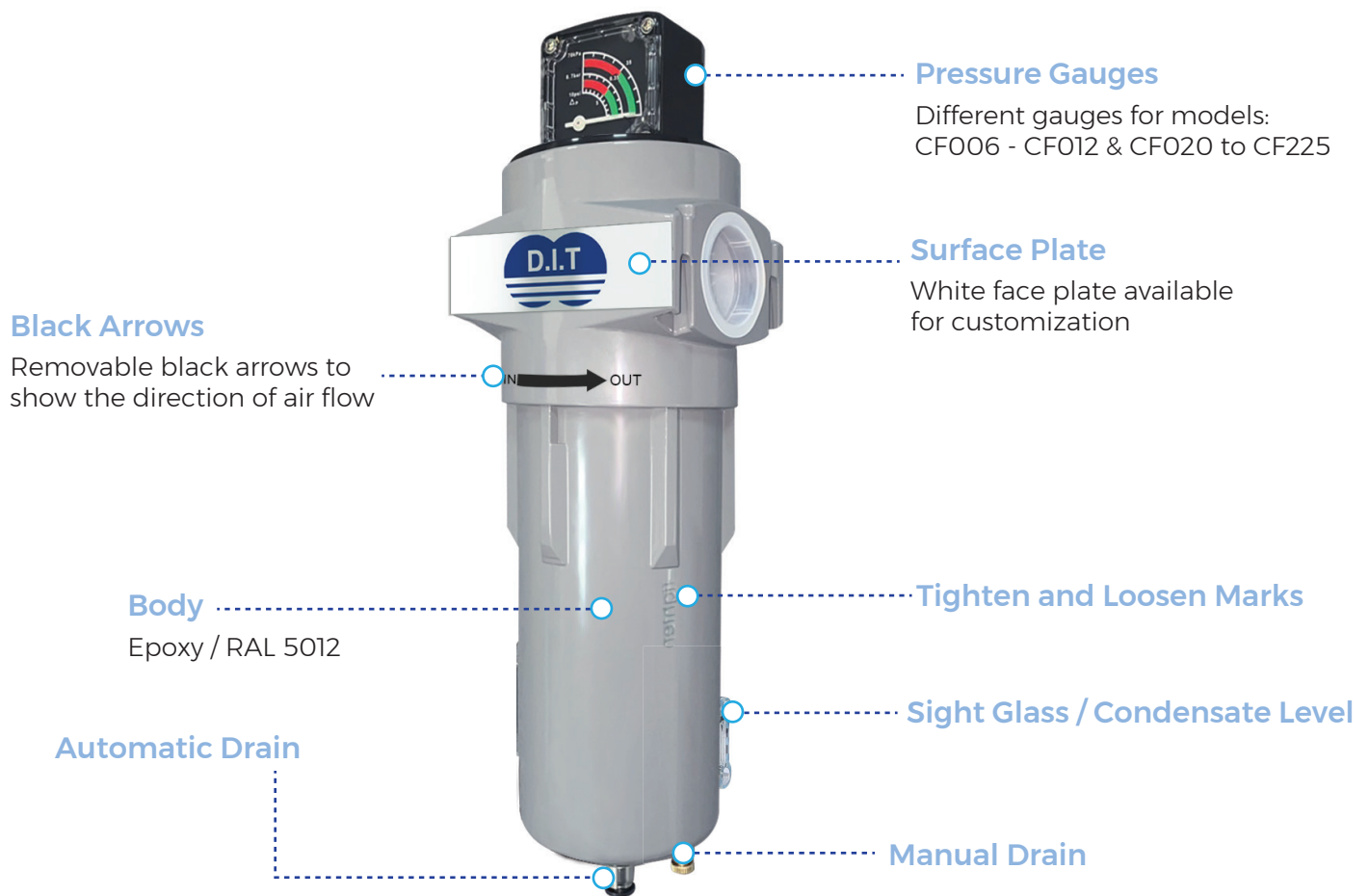
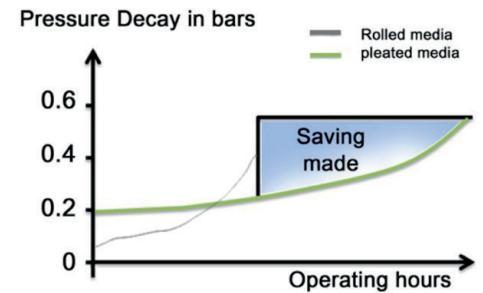
The drain, situated at the bottom of the filter body, prevents excessive buildup of liquid condensate. As the condensate level rises, the float in the drain ascends to the purge point, releasing the liquid condensates due to the pressure difference between the inside of the body and the surrounding ambient air. This efficient drain system ensures reliable condensate management within the CF filter.



CF SERIES

From 60 to 2232 m³/h Max. pressure 16 bar

Optima offers 5 different grades of filtration elements, each easily identifiable by their finish (P,M,S,X,A) : different colored EndCap and a plastic-coated label on the filter simplifies maintenance operations it's legibility over time. The cylindrical inner and outer cages are made from perforated sheet metal. The cartridge screws directly onto the threaded rod of the filter, thus providing improved sealing. This operation is simplified by the centering cone located at the bottom of the cartridge. The caps are made from industrial grade plastic ,guaranteeing high resistance to chemicals, heat and mechanical stresses, the seal is ensured by a nitrile O-ring.



The grade P filtration elementis comprised from cellulose acetate fibers in the form of pleated paper.

The grade M,S and X filtration elementsare equipped with a media offering 4-phase filtration with an outer and inner pleated layer made from polypropylene and 2 superposed pleated layers in the middle made from borosilicate microfibers.

The grade A filtration elementis equipped, in addition to grades S and M, with a media composed of activated carbon (32%) to absorb oil particles.



Housing in aluminium and bronze for a better durability.

PRODUCT FEATURES



TECHNICAL FEATURES



ADVANTAGES

HIGH QUALITY FILTRATION

Our pleated filter elements ensure excellent filtration quality and long lifespan over time due to a larger filtration surface.

ROBUST BODY AND STRUCTURE

Our filter bodies are made of aluminum and bronze, an alloy that offers better resistance over time. These are coated with a baked epoxy paint in RAL 7042.

OPTIMIZED DESIGN

The interior design of the filter body has been optimized to allow for easy airflow within the filter body, and the structure of the filter elements allows for optimal filtration and reduced pressure drop.

UPPER FILTER COVER

The upper cover optimally guides the airflow to the outlet for lower pressure drop and overall lower filter energy consumption.

EASY CONDENSATE DRAINAGE

Our filters are equipped with a visual condensate indicator, automatic and manual drain valves allowing for simplified condensate drainage.

STANDARD DIFFERENTIAL PRESSURE GAUGE

All CF filters come equipped with a standard differential pressure gauge that indicates the effective pressure drop within the filter and its filter element.

STURDINESS

The bodies made with high-quality industrial casting ensure maximum robustness and are able to withstand excess pressure and/or flow rates caused by water hammer.

EXTENDED LIFESPAN

Our filter elements, easily identifiable by a distinctive color collar, are composed of inner and outer cylindrical frames made of perforated sheet metal. The end caps of the filter elements are made of bakelite and have excellent chemical, thermal, and mechanical resistance. These various aspects guarantee an extended lifespan for the filter and filter elements.

LOW OPERATING COSTS

The low pressure drop across all filter elements in the CF line ensures limited operating costs for the user throughout its lifespan, enabling significant energy savings and a shorter return on investment compared to lower-quality and more expensive filters on the market.

ECONOMIC MAINTENANCE AND POSITIVE ENVIRONMENTAL IMPACT

The filter elements for CF filters are made with certain recyclable materials, allowing for cost stability and an environmentally friendly footprint.

EASE OF MAINTENANCE

All maintenance operations and their schedules are facilitated by the ability to handle the various filters by hand for filter element replacement. The presence of the differential pressure gauge allows for determining the appropriate period for filter element replacement.

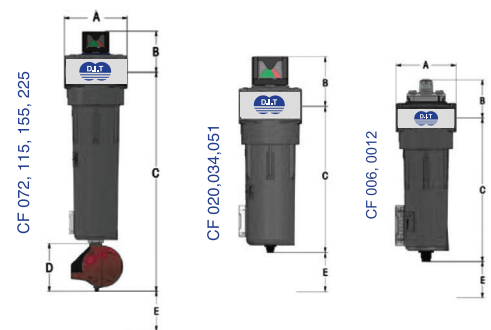


TECHNICAL SPECIFICATIONS: CF SERIES

MODEL #	Rated flow			Connections	Dimensions(mm)					Max. Working pressure		Weight	Element
	m3/min	m3/h	CFM	BSP	A	B	C	D	E	bar	PSI	(kg)	Ref. #
CF-006	1	60	35	1/2"	89	57	254	-	114	16	232	1	CY 08051
CF-008	1.3	78	46	1/2"	89	57	290	-	114	16	232	1.2	CY 11541
CF-012	2	120	71	3/4"	89	57	290	-	114	16	232	1.2	CY 11541-1
CF-020	3.3	198	117	1"	120	96	395	-	155	16	232	3	CY 17475
CF-034	5.6	336	198	1-1/2"	120	96	395	-	155	16	232	3.2	CY 17475-1
CF-051	8.5	510	301	1-1/2"	120	107	494	-	255	16	232	3.5	CY 27475
CF-072	12	710	425	1-1/2"	162	107	494	130	333	16	232	6.3	CY 34694
CF-115	19	1,140	673	2-1/2"	162	131	988	130	662	16	232	9	CY 67594
CF-155	25.8	1,548	913	2-1/2"	200	131	757	130	383	16	232	9	CY 41125
CF-225	37.2	2,232	1,317	3"	200	131	1012	130	660	16	232	16	CY 69125

Maximum temperature : +80 °C (±100 °C or higher temperatures. Please contact us) ** Minimum re:+ 1 °C

Filtering Grade	P	M	S	X	A
Filter Type	DUST	MICRONIC	SUBMICRON	OIL SEPARATOR	ACTIVATED CARBON
Color	YELLOW	BLUE	RED	WHITE	METAL
Particules Maximum Class	-	2	1	1	1
Residual Oil Maximum Class	-	3	1	1	1
Particules Filtration (µm)	25	1	0.01	0.01	0.01
Oil Filtration at 21°C/ 70 °F (mg/m³)	-	0.6	0.01	0.001	0.003
Maximum Temperature (°C/°F)	80/176	80/176	80/176	80/176	80/176
Max Service Pressure (bar(g) / psig)	16/232	16/232	16/232	16/232	16/232
Pressure Drop (bar)	0.02	0.03	0.09	0.10	0.11



Flow Rate Correction Factors as a Function of Service Pressure																
bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
PSI	14	29	43	58	72	86	100	115	130	145	160	174	189	203	217	232
Correction Factor	0.25	0.38	0.5	0.65	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

To optimise condensate elimination ,DIT filters can easily be fitted with our electronic drain traps. DIT a compressed air treatment specialists also manufacture a complete range of refrigeration and absorption dryers and accessories (oil/water separators, etc.)

TECHNICAL SPECIFICATIONS: D-MT SERIES

MODEL #	D3001MT	D6002MT	D9003MT	D12004MT	D15005MT	D18006MT
Flow Rate (m3/h)	3,000	6,000	9,000	12,000	15,000	18,000
Flow Rate (CFM)	1,750	3,500	5,250	7,000	8,750	10,500
Connection	4" FL	6" FL	6" FL	8" FL	8" FL	10" FL
Dimensions (mm)	A	450	600	650	700	750
	C	1,052	1,264	1,366	1,418	1,480
	D	150	150	150	150	150
Max. Working Pressure (bar)	16	16	16	16	16	16
Max. Working Pressure (PSI)	232	232	232	232	232	232
Max. Inlet Temp	80	80	80	80	80	80
Weight (kg)	81	156	240	310	398	400
Element Reference	CY 69125-1 P/M/S/A/X					
Element QTY	1	2	3	4	5	6



TECHNICAL SPECIFICATIONS: WS SERIES | CYCLONE WATER SEPERATORS



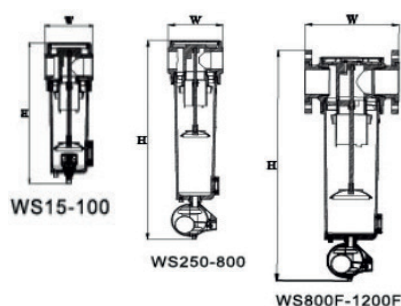
Water separator is one of purification products without elements which is used in front of the coalescing filters to protect against bulk liquid contamination ,where excessive cooling takes place in air receivers and distribution piping.

Existing problems:

Compressed air system have bulk liquid which bring pipeline corrosion, the damages of valves ,air cylinder and tools, reduce the efficiency of after air cooler and heat exchanger.

Futures:

- High speed cyclone
- Aluminum alloy die-casting housings
- Anti-corrosion treatment. No secondary pollution
- Static rotary vane. Keep 99.9% high efficiency separation
- 70 m³/min flow rate
- Low pressure loss. Differential pressure is 0.007 Mpa
- The max working pressure:1.6 Mpa
- The max. temperature is 80°C
- The lowest temperature is 1.5°C



Benifits:

- Reduce pipe rusting condition from water and the damages to valves ,cylinders
- Protects coalescing filters from bulk liquid contamination
- Improve air quality
- Protect the pre-filter of refrigerated and adsorption air dryers
- High liquid removal efficiency at all flow conditions
- Reduce operational and maintenance costs

MODEL #	Rated flow			Connection	Dimensions	
	L/S	m3/min	CFM		Width	Height
WS 25	60	3.6	127.1	3/4"	89	220
WS 50	75	4.5	158.9	1"	89	260
WS 100	166.7	10	353.1	1-1/2"	120	315
WS 250	416.8	25	882.7	2"	162	620

Below flows are for operation at 7 bar g (100 psi g)with reference to 20°C. For other pressure.

* Please refer to the correction factor*

Flow Rate Correction Factors as a Function of Service Pressure																
bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PSI	14	29	43	58	72	86	100	115	130	145	160	174	189	203	217	232
Correction Factor	0.25	0.38	0.5	0.65	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

SUSTAINABLE AIR & WATER SOLUTIONS FOR
INDUSTRIAL APPLICATIONS



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