

The Problem

In most compressors, oil is utilized in the compression chambers for both lubrication and cooling purposes. Under pressure, this oil is atomized and is subject to eight fold oxygenation at 100 psi (7 Bar) and compression temperatures of 393 F (200 C). Under these conditions, the oil oxidizes and becomes highly aggressive. As a result of this fine atomization, the oil passes in aerosol form into the compressed air network and acts as a troublesome and destructive force, while the aerosols remain suspended in the compressed air. Malfunctions are caused by oil damaged rubber, plastic components such as O-rings, seals, sleeves, tubing, as well as restricting control and switch valves. Production losses occur, maintenance increases, and product quality is affected, which results in profit losses.

The Solution

Microdyne filter elements are installed immediately after a Prefilter for obtaining the highest level of purified compressed air or gas for any application. Again, the prefilter insures that adequate protection, longevity and regenerative qualities of downstream higher grade filter elements will be maintained.

Application

At "Point of Use" and branch lines where the user demands the highest quality of compressed air purity, i.e., for sensing devices, fluidics, air logic systems, packaging applications, powder coating, chrome plating, etc. For centralized systems, preferably new piping systems prior to the formation of rust and pipe scale and before refrigerant dryers for technically 100% oil-free air. As a de-oiling filter before absorption/adsorption dryers to maintain long desiccant life.

Elements — Modular and interchangeable consisting of Prefilters, Coalescing Filters and Activated Carbon Filters.

- **PF-Prefilter** — Designed for maximum pre-filtration of larger particulates rated at 100% efficiency @ 1 micron with minimum differential pressures and to extend the service life of microfilters installed thereafter.
- **CFA-Coalescing Filter/Alpha Series®** — The most effective coalescing filter in this series to remove oil, water, and dirt from compressed air systems. The Alpha Series is capable of removing contaminants .01 micron with 99.99998% efficiency. The special foam socks on the coalescers are resistant to mineral, synthetic, and decomposed oils.
- **CFB-Coalescing Filter/Beta Series®** — For more effective micron retention of oil, water, and dirt from compressed air. The Beta Series filter is designed to trap particulates, .01 micron and larger at an efficiency of 99.9999%.
- **CFC-Coalescing Filter/Gamma Series®** — For the removal of oil, water, and dirt from compressed air systems. Capable of performing with 99.99% efficiency at the .01 micron level of filtration. In applications where compressed air is severely contaminated, it is recommended that CFC filters be installed upstream of the CFA filters, in order to achieve economical operation.
- **ACF-Activated Carbon Filter** — For the elimination of odors from compressed air. The ACF filter is capable of producing compressed air which is 400,000 times more pure than the ambient air in which we breathe and is thus available for such applications.
- **DF-Dustfilter** — Specialized in the removal of rust and dust particulates from compressed air systems.



Microdyne Products Corp.
12735 Carrollton Industrial Dr.
Bridgeton, MO 63044
phone: 314.291.5600
fax: 314.344.4422
email: sales@microdyneproducts.com
www.microdyneproducts.com

Technical Data — Aluminum Housings

Filter housings are fabricated in aluminum and are rated at 250 psi.

Size	Nominal flow (SCFM)	NPT Size Connections	Elements Per Filter	Dimensions in Inches		
				Length of Filter (Complete)	Width of Head (Inlet to Outlet)	Height to Connection
3	24-30	1/4"	1	6.85"	3.43"	5.40"
5	30-48	3/8"	1	6.85"	3.43"	5.40"
7	45-65	1/2"	1	9.61"	3.43"	8.16"
9	70-110	3/4"	1	11.04"	5.13"	9.87"
10	100-150	1"	1	14.92"	5.13"	13.75"
11	140-200	1"	1	14.92"	5.13"	13.75"
12	200-300	1 1/2"	1	18.92"	5.13"	17.75"
13	325-450	1 1/2"	1	26.74"	5.13"	25.57"
14	435-600	2"	1	26.50"	6.46"	24.61"
17	675-950	2"	1	36.34"	6.46"	34.45"
19	1090-1500	3"	1	41.42"	9.84"	38.50"

Technical Data — Steel Housings

Filter housings are fabricated in carbon steel, have flanged connections, and are rated at 250 psi.

Size	Nominal flow (SCFM)	NPT Size Connections	Elements Per Filter
14	436-554	2"	1
17	679-885	2"	1
20	1385-1770	3"	2
30	2037-2655	4"	3
40	2716-3540	6"	4
60	4074-5310	6"	6
80	5432-7080	8"	8
100	6790-8850	8"	10
120	8148-10620	10"	12
160	10865-14160	10"	16
200	13580-17700	12"	20

Microdyne Products Corp.
 12735 Carrollton Industrial Dr.
 Bridgeton, MO 63044
 phone: 314.291.5600
 fax: 314.344.4422
 email: sales@microdyneproducts.com
 www.microdyneproducts.com