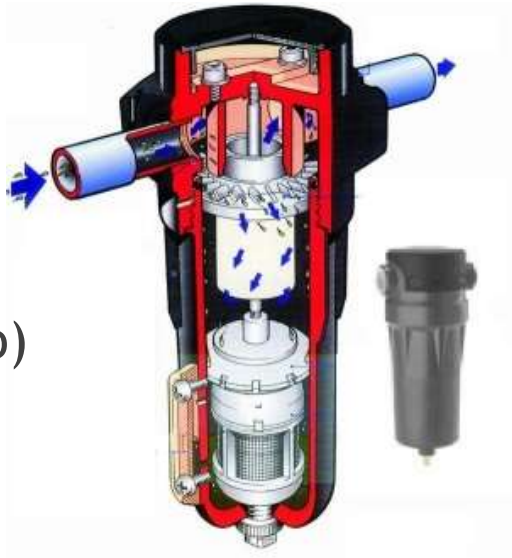
A·C·I Pharma

Filtros

- Separadores de agua
- De partículas
- Coalescentes
- De adsorción (carbón activado)
- Absolutos
- Grado médico
- Para alta presión



Coalescentes y partículas

Acero inoxidable 304

nano

PURIFICATION SOLUTIONS

F-Series[1]

performance validated compressed air & gas filtration

flow capacity: 8 - 1500 scfm (13 - 2550 Nm^3/hr)

F 1

F-Series[1]

performance validated compressed air & gas filter elements

flow capacity: 8 - 1500 scfm (13 - 2550 Nm^3/hr)

F 1

Leading edge technology and more than 100 years of **experience**...nano-purification solutions, your world-class provider of state-of-the-art compressed air and gas solutions to industry.

Our commitment at n-psi is to work alongside our **customers** and provide unique solutions with the highest quality products to solve your specific challenges.

A wealth of experience and leading edge products are only part of the equation. n-psi realize that world-class customer **service** is the most important component to any successful business.

Experience.Customer.Service...**n-psi**

Clean and Dry

Clean and dry compressed air is essential in every efficient and profitable manufacturing and process operation worldwide. nano-purification solutions' vast experience includes food, beverage, chemical, laboratory, medical and natural gas applications.

n-psi understands your needs and has created the nano range of high-performance, energy-saving compressed air and gas purification products to provide clean and dry compressed air and gases at an affordable price with unrivaled reliability.

Tested to ISO 12500 standards, the nano filter range has been independently validated to guarantee the highest levels of air quality making the F-Series[1] your premier filtration solution.

Advances in filter media provide enhanced filtration performance. These improvements mean reduced pressure loss, increased efficiency levels and lower energy costs.

nano F-Series[1] compressed air & gas filtration

Clean and oil-free compressed air is easily achieved with the new range of F-Series[1] performance validated compressed air and gas filters.

nano F-Series[1] filters provide:

- Improved filtration for your compressor room or point of use application
- Reliable & efficient liquid & particulate removal with low pressure drop
- Space saving design - no tie rod allows easy bowl removal
- Five element grades from 25 to 0.01 micron
- Nineteen models from 8 to 1500 scfm at 100 psig
- A comprehensive range of accessories for every application

Reliability is built in... backed by a 1 year element warranty and a 10 year housing warranty!

Design. Performance. Validation.

Optimized Design

Optimized performance is assured through extensive Computer Aided Design technology, finite element analysis & computational fluid dynamics.

–

1000 hour neutral salt spray test for corrosion resistance to ISO 9227:2006.

–

Burst pressure tested to a 5:1 safety factor.

–

100% tested for pressure leaks.

–

Fine coalescing filters are 100% tested for aerosol integrity.

Performance Standards

The nano F-Series[1] filters are available in a complete range of contaminant removal grades designed to meet or exceed compressed air purity requirements throughout the industry.

–

Designed to exceed the ISO 8573-1 standards for compressed air purity & the ISO 12500 Series International standard for compressed air filter testing.

Independent Validation

Filtration performance is validated & tested by independent laboratories in accordance with international filtration & safety standards.

–

Manufactured in ISO 9001 approved facilities.

–

Independently validated to ISO 12500. See our validation brochure for full details and a copy of the test report.

–

The nano F-Series1 filters carry CRN (Canadian Registration Numbers) for approved use in every province of Canada.

F-Series[1] compressed air & gas filters – in detail

Filter element features

Double element o-ring
Prevents contaminant by-pass.

Stainless steel cylinders
Provide strength, rigidity & corrosion resistance.

Spiral wound inner coil
Provides extra strength on larger elements.

Deep bed filter media
Provides low differential pressure resulting in improved energy efficiency & long element life.

Hydrophobic & oleophobic
Borosilicate glass microfiber media repels oil & water for improved coalescing performance.

Anti re-entrainment layer
Optimizes liquid drainage & minimizes differential pressure.

Outer Drainage Lager
Compatible with synthetic lubricants & prevents oil carry over.

Ultrasonic seam welded elements
Ensures element strength & integrity.

Air distribution duct
Provides uniform air flow, resulting in lower differential pressure & improved filtration & flow dynamics.

Drop-fit, self locating elements
No tie rod simplifies element change out & reduces access requirements for bowl removal.

Corrosion resistant endcaps
Color coded to provide easy & accurate filtration grade identification.

Lower annular location ring
Prevents element vibration, improves stability in reverse flow (dust removal) applications & improves drainage.

Filter housing features

Extensive range
Ports from ¼" to 3" in both NPT & BSP, & flow capacities up to 1500 scfm.

Compact design
Allows installation in confined spaces.

Modular design
Enables easy & compact installation of multiple filters.

Aluminum die cast housing
Pressure die casting provides enhanced strength & long life.

E-coat™ Internal Coating
Advanced process provides exceptional corrosion resistance.

Powder coated exterior
Provides a tough and abrasion resistant surface.

Secure bowl connection
Three full turns ensure head is safety connected to bowl.

High nitrile rubber seals
Provide enhanced resistance in challenging environments & applications.

Large condensate reservoir
Provide quiet zone for bulk oil collection.

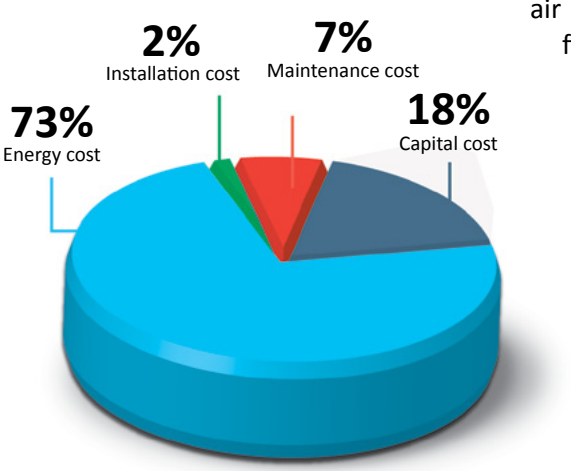
Automatic drain standard
Includes manual override for testing & depressurization.

Hexagon spanner locator
For simple bowl removal.

No tie rod
For minimum maintenance access.

Chemically compatible design
For use with all oil flooded or oil-free compressors.

energy efficiency



Once you have a well designed compressed air system with suitable air treatment and filtration, it is vital to maintain and monitor that system. Over the ten-year life of a compressor, the cost of energy to run the system far outweighs the capital investment. Maintenance accounts for only 7% of the total costs, yet this is a crucial activity for maximizing the energy efficiency of any compressor.

Repeated exposure to oil, vapor and particulate matter can, over time, cause the filter elements to become clogged. This creates an increase in pressure drop compromising not only performance but also resulting in an increase in energy cost.

optimized filtration

Every 10 psig of pressure drop represents a 5% increase in compressor energy costs. It is vital to observe a scheduled maintenance program which includes the replacement of filter elements.

We recommend that filter elements are replaced at least every 12 months (six months for activated carbon). All filters and elements are supplied with an element change out label which adheres to the filter housing and shows when the next change should take place.

Source: Carbon Trust

Pop up differential pressure indicator

Automatic drain with manual override

Filter mounting accessories

Differential pressure gauge

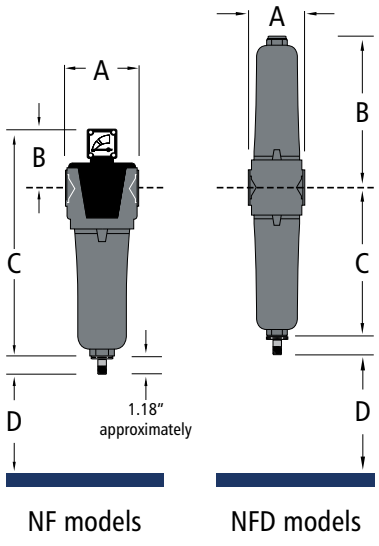
Elements change out label

sizing & specifications

Filter Model	Maximum Rated Flow		Inlet & Outlet Connections	Dimensions inches (mm)				Approximate Weight		Replacement Element kit
	scfm	Nm^3/h	NPT	A	B	C	D	lbs	kg	
NF Series - Coalescing, Particulate or Activated Carbon										
NF0008 (grade)	8	13	¼"	1.97 (50)	0.71 (18)	5.98 (152)	2.96 (75)	0.7	0.3	E0008 (grade)
NF0015 (grade)	15	25	¼"	1.97 (50)	0.71 (18)	5.98 (152)	2.96 (75)	0.7	0.3	E0015 (grade)
NF0025 (grade)	25	42	¼"	2.75 (70)	0.98 (25)	7.52 (191)	3.35 (85)	1.3	0.6	E0025 (grade)
NF0035 (grade)	35	59	⅜"	2.75 (70)	0.98 (25)	7.52 (191)	3.74 (95)	1.3	0.6	E0035 (grade)
NF0050 (grade)	50	85	½"	2.75 (70)	0.98 (25)	9.13 (232)	5.31 (135)	1.5	0.7	E0050 (grade)
NF0070 (grade)	70	119	½"	3.94 (100)	1.38 (35)	10.87 (276)	6.10 (155)	3.5	1.6	E0070 (grade)
NF0085 (grade)	85	144	¾"	3.94 (100)	1.38 (35)	10.87 (276)	6.10 (155)	3.5	1.6	E0085 (grade)
NF0125 (grade)	125	212	¾"	3.94 (100)	1.38 (35)	15.59 (396)	8.86 (225)	4.4	2.0	E0125 (grade)
NF0135 (grade)	135	229	1"	3.94 (100)	1.38 (35)	15.59 (396)	8.86 (225)	4.4	2.0	E0135 (grade)
NF0175 (grade)	175	297	1"	3.94 (100)	1.38 (35)	15.59 (396)	10.83 (275)	4.4	2.0	E0175 (grade)
NF0280 (grade)	280	476	1¼"	4.80 (122)	1.65 (42)	18.11 (460)	12.60 (320)	6.2	2.8	E0280 (grade)
NF0325 (grade)	325	550	1½"	4.80 (122)	1.65 (42)	18.11 (460)	12.60 (320)	6.2	2.8	E0325 (grade)
NF0400 (grade)	400	680	1½"	5.75 (146)	2.05 (52)	18.98 (482)	12.80 (325)	9.2	4.2	E0400 (grade)
NF0450 (grade)	450	765	2"	5.75 (146)	2.05 (52)	18.98 (482)	12.80 (325)	9.2	4.2	E0450 (grade)
NF0700 (grade)	700	1190	2"	5.75 (146)	2.05 (52)	30.91 (785)	24.80 (630)	13.9	6.3	E0700 (grade)
NF0850 (grade)	850	1445	2½"	8.27 (210)	2.60 (66)	23.43 (595)	16.14 (410)	18.7	8.5	E0850 (grade)
NF1000 (grade)	1000	1700	3"	8.27 (210)	2.60 (66)	23.43 (595)	16.14 (410)	18.7	8.5	E1000 (grade)
NF1250 (grade)	1250	2125	3"	8.27 (210)	2.60 (66)	32.09 (815)	24.80 (630)	23.1	10.5	E1250 (grade)
NF1500 (grade)	1500	2550	3"	8.27 (210)	2.60 (66)	38.39 (975)	30.91 (785)	26.4	12.0	E1500 (grade)
NFD (Duplex) Series - 0.01 micron Coalescing & Activated Carbon										
NFD25	25	42	¼"	2.75 (70)	6.42 (163)	6.26 (159)	3.35 (85)	2.0	0.9	E0025 - M01/AC
NFD35	35	59	⅜"	2.75 (70)	6.42 (163)	6.26 (159)	3.74 (95)	2.0	0.9	E0035 - M01/AC
NFD50	50	85	½"	2.75 (70)	8.03 (204)	7.87 (200)	5.31 (135)	2.2	1.0	E0050 - M01/AC
NFD70	70	119	½"	3.94 (100)	9.45 (240)	9.29 (236)	6.10 (155)	5.1	2.3	E0070 - M01/AC
NFD85	85	144	¾"	3.94 (100)	9.45 (240)	9.29 (236)	6.10 (155)	5.1	2.3	E0085 - M01/AC
NFD125	125	212	¾"	3.94 (100)	14.17 (360)	14.02 (356)	8.86 (225)	6.8	3.1	E0125 - M01/AC
NFD135	135	229	1"	3.94 (100)	14.17 (360)	14.02 (356)	8.86 (225)	6.8	3.1	E0135 - M01/AC
NFD175	175	297	1"	3.94 (100)	14.17 (360)	14.02 (356)	10.83 (275)	7.0	3.2	E0175 - M01/AC

pressure correction factors		To calculate maximum rated flow at pressures other than 100 psig: Max Rated Flow at 100 psig (per table above) x Correction Factor = Max Rated Flow at new pressure								
Operating Pressure	psig	60	70	85	100	115	145	175	205	235
	barg	4	5	6	7	8	10	12	14	16
Correction Factor		0.76	0.84	0.92	1.00	1.07	1.19	1.31	1.41	1.51

specifications	Element Grade				
	M25	M5	M1	M01	AC
Maximum particle size class*	-	3	2	1	1
Maximum oil content class*	-	4	2	1	1
Particle removal	25 micron	5 micron	1 micron	0.01 micron	0.01 micron
Maximum oil carryover at 68°F (20°C)	10 ppm (10 mg/m^3)	5 ppm (5 mg/m^3)	0.1 ppm (0.1 mg/m^3)	0.01 ppm (0.01 mg/m^3)	0.003 ppm (0.003 mg/m^3)
Maximum temperature**	248°F (120°C)				77°F (25°C)
Maximum working pressure	232 psig (16 barg)				232 psig (16 barg)



NF models NFD models

* to ISO 8573-1:2001 (E). **depending upon model and configuration.

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nano PURIFICATION SOLUTIONS

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stainless steel industrial filters

high efficiency stainless steel industrial filters for critical process applications & caustic environments

The nano P[1] range of industrial filters are fabricated from polished 304 or 316 stainless steel for critical compressed air and gas applications in the high tech manufacturing, food processing and beverage industries.

This range encompasses ten models with connections from ¼" to 3" and rated flows from 50 to 1150 scfm.

Specifically designed for the efficient and effective removal of contaminants in sterile or caustic environments, these filters are ideally suited for process applications such as food and beverage facilities with washdown requirements.

The unique interchangeable borosilicate microfiber elements incorporate stainless steel support media and a positive double o-ring click-lock seal to ensure optimal filtration integrity.

high performance filtration for industrial process facilities

With high efficiency low pressure drop performance and a choice of adsorbing, coalescing and particulate elements, there is no better filter for your industrial process needs.

applications include:

- high tech manufacturing
- food processing
- beverage
- oil & gas
- chemical
- military

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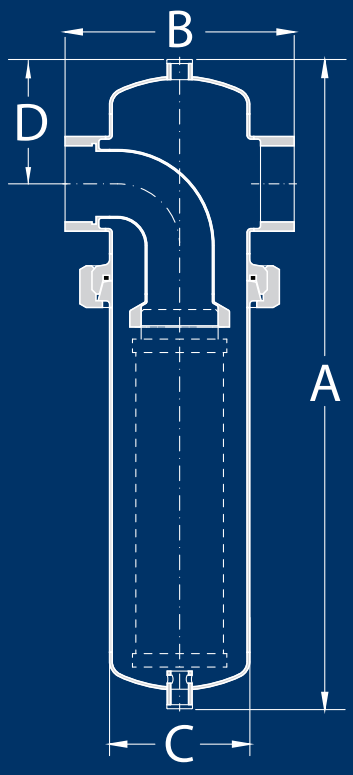
technical specification

filter model	inlet & outlet	rated flow (1)		dimensions (inches)				approx. weight	replacement element
	NPT(F)	scfm	Nm³/h	A	B (2)	C	D	lbs	part no.
PF 0050 (grade) -N	¼"	50	85	9.44	4.13	2.76	2.24	4.2	E 102 (grade)
PF 0065 (grade) -N	⅜"	65	110	9.44	4.13	2.76	2.24	4.4	E 102 (grade)
PF 0085 (grade) -N	½"	85	144	9.44	4.25	2.76	2.24	4.6	E 102 (grade)
PF 0120 (grade) -N	¾"	120	204	9.44	4.92	2.76	2.24	5.1	E 102 (grade)
PF 0170 (grade) -N	1"	170	289	11.40	4.92	3.35	2.77	7.3	E 105 (grade)
PF 0295 (grade) -N	1 ½"	295	501	12.70	5.51	3.35	3.48	11.4	E 105 (grade)
PF 0460 (grade) -N	2"	460	782	19.02	6.69	4.09	3.64	12.1	E 110 (grade)
PF 0680 (grade) -N	2"	680	1156	29.37	6.69	4.09	3.64	15.0	E 120 (grade)
PF 0850 (grade) -N	2 ½"	850	1444	29.53	7.17	4.09	3.80	15.2	E 120 (grade)
PF 1150 (grade) -N	3"	1150	1954	40.04	7.17	4.09	3.96	19.4	E 130 (grade)



specifications	standard	optional
design operating pressure range	0 to 232 psig	-
inlet & outlet connections	NPT(F)	tri-clamp sanitary
drain & vent connections	1/4" BSPP	-
differential pressure indicator / gauge	-	on request
filter housing material	304 stainless steel	316 stainless steel

element performance	M1	M01	AC
maximum particle size (ISO Class) (3)	2	1	1
maximum oil content (ISO Class) (3)	2	1	1
particle removal (microns)	1	0.01	-
max oil carry over at 68°F (ppm or mg/m³)	0.1	0.01	0.003
oil removal efficiency at 68°F	>99.99%	>99.999%	-
recommended operating temp range	35 to 212°F	35 to 212°F	35 to 77°F
design operating temperature range	35 to 248°F	35 to 248°F	35 to 122°F
pressure drop - clean	1.0 psid	1.5 psid	1.85 psid
maximum element life	12 months or 8000 hours		6 months or 1000 hrs

pressure correction factors									
operating pressure (psig)	60	70	85	100	115	145	175	205	232
correction factor	0.76	0.84	0.92	1.00	1.07	1.19	1.31	1.41	1.51

(1) at 100 psig. For all other pressures, refer to the pressure correction factors above
(2) +/- 0.118"
(3) per ISO 8573-1:2001 (E)

- *install with air flow from inside to outside for coalescing and from outside to inside for dry dust filtration*

MEMBER OF CAGI Compressed Air & Gas Institute

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