

F1

performance validated filters

8 to 1500 scfm



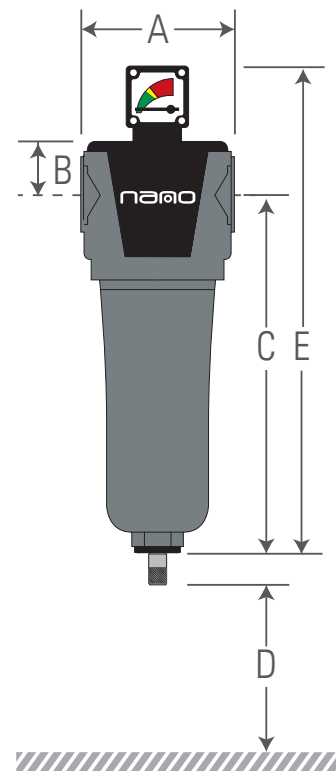
nano F1 performance validated compressed air & gas filters are available in a complete range of element grades designed to meet and exceed industry air quality requirements. Filtration performance is tested and validated by an independent laboratory to ISO 12500 standards.

filter model	replacement element	inlet & outlet NPT	rated flow ⁽¹⁾		dimensions (inches)					approx. weight lbs
	part no.		scfm	Nm ³ /h	A	B	C	D	E	
NF 0008 (grade)	E 0008 (grade)	¼"	8	13	1.93	0.71	5.47	3.00	6.18	0.7
NF 0015 (grade)	E 0015 (grade)	¼"	15	25	1.93	0.71	5.47	3.00	6.18	0.7
NF 0025 (grade)	E 0025 (grade)	¼"	25	42	2.76	0.98	6.65	3.00	9.29	1.3
NF 0030 (grade)	E 0030 (grade)	½"	30	48	2.76	0.98	6.65	3.00	9.29	1.3
NF 0035 (grade)	E 0035 (grade)	¾"	35	59	2.76	0.98	6.65	3.00	9.29	1.3
NF 0050 (grade)	E 0050 (grade)	½"	50	85	2.76	0.98	8.31	3.00	10.93	1.5
NF 0070 (grade)	E 0090 (grade)	½"	70	119	3.94	1.34	9.69	3.00	13.82	3.5
NF 0085 (grade)	E 0090 (grade)	¾"	85	144	3.94	1.34	9.69	3.00	13.82	3.5
NF 0090 (grade)	E 0090 (grade)	1"	90	153	3.94	1.34	9.69	3.00	13.82	3.5
NF 0125 (grade)	E 0135 (grade)	¾"	125	212	3.94	1.34	14.41	3.00	18.55	4.4
NF 0135 (grade)	E 0135 (grade)	1"	135	229	3.94	1.34	14.41	3.00	18.55	4.4
NF 0175 (grade)	E 0175 (grade)	1"	175	297	3.94	1.34	14.41	3.00	18.55	4.4
NF 0280 (grade)	E 0325 (grade)	1¼"	280	476	4.80	1.65	16.50	3.00	20.97	6.2
NF 0290 (grade)	E 0325 (grade)	1½"	290	493	4.80	1.65	16.50	3.00	20.97	6.2
NF 0325 (grade)	E 0325 (grade)	1½"	325	550	4.80	1.65	16.50	3.00	20.97	6.2
NF 0400 (grade)	E 0450 (grade)	1½"	400	680	5.75	2.05	17.01	3.00	21.85	9.2
NF 0450 (grade)	E 0450 (grade)	2"	450	765	5.75	2.05	17.01	3.00	21.85	9.2
NF 0700 (grade)	E 0700 (grade)	2"	700	1190	5.75	2.05	29.06	3.00	33.91	13.9
NF 0850 (grade)	E 1000 (grade)	2½"	850	1445	8.27	2.64	20.94	3.00	26.38	18.7
NF 1000 (grade)	E 1000 (grade)	3"	1000	1700	8.27	2.64	20.94	3.00	26.38	18.7
NF 1250 (grade)	E 1250 (grade)	3"	1250	2125	8.27	2.64	29.53	3.00	34.96	23.1
NF 1500 (grade)	E 1500 (grade)	3"	1500	2550	8.27	2.64	35.75	3.00	41.18	26.4

specifications	NF 0008 to NF 0015	NF 0025 to NF 0050	NF 0070 to NF 1500
design operating pressure range	0 to 232 psig	0 to 232 psig	22 to 232 psig ⁽²⁾
automatic float drain	NDK 0050	NDK 0050	NDK 1500
differential pressure indicator / gauge	-	NDP 0050	NDP 1500

element performance	M25	M5	M1	M01	AC ⁽⁴⁾
maximum particle size (ISO Class) ⁽³⁾	-	3	2	1	-
maximum oil content (ISO Class) ⁽³⁾	-	4	2	1	1
particle removal (microns)	25	5	1	0.01	-
max oil carry over at 68°F (ppm or mg/m ³)	10	5	0.1	0.01	0.003
recommended operating temp range (°F)	35 - 176	35 - 176	35 - 176	35 - 176	35 - 77
design operating temperature range (°F)	35 - 176	35 - 176	35 - 176	35 - 176	35 - 122

pressure correction factors	58	72	87	100	115	145	174	203	232
operating pressure (psig)	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 factor table above

(2) for pressures below 22 psig order with an NDK 0050 condensate drain

(3) per ISO 8573.1:2010

(4) see page 13 for important information regarding the use of activated carbon filters

- for easy identification, elements are color coded. Ensure new element is the same color as the element being replaced. For element specifications and colors refer to "specifications" above
- refer to F1 spares & accessories & ND condensate drain section for a complete list of accessories & drains



HEAT nano P1

stainless steel industrial filters

50 to 1150 scfm

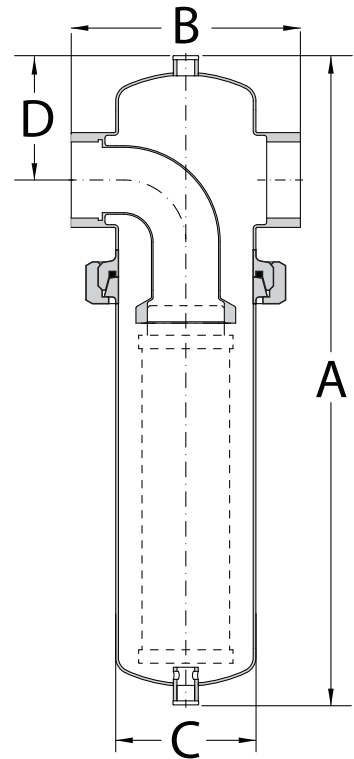
nano P1 stainless steel industrial filters are designed for critical compressed air and gas applications in high tech manufacturing, food processing, caustic, marine or any aggressive environments. There is no better filter for your critical industrial filtration needs.

filter model	replacement element	inlet & outlet	rated flow ⁽¹⁾		dimensions (inches)				approx. weight
	part no.		NPT(F)	scfm	Nm ³ /h	A	B ⁽²⁾	C	D
PF 0050 (grade) -N	E 102 (grade)	1/4"	50	85	9.45	4.14	2.76	2.24	4.2
PF 0065 (grade) -N	E 102 (grade)	3/8"	65	110	9.45	4.14	2.76	2.24	4.4
PF 0085 (grade) -N	E 102 (grade)	1/2"	85	144	9.45	4.25	2.76	2.24	4.6
PF 0120 (grade) -N	E 102 (grade)	3/4"	120	204	9.45	4.92	2.76	2.24	5.1
PF 0170 (grade) -N	E 105 (grade)	1"	170	289	11.40	4.92	3.35	2.78	7.3
PF 0295 (grade) -N	E 105 (grade)	1 1/2"	295	501	12.70	5.51	3.35	3.49	11.4
PF 0460 (grade) -N	E 110 (grade)	2"	460	782	19.02	6.70	4.10	3.64	12.1
PF 0680 (grade) -N	E 120 (grade)	2"	680	1156	29.37	6.70	4.10	3.64	15.0
PF 0850 (grade) -N	E 120 (grade)	2 1/2"	850	1444	29.53	7.17	4.10	3.80	15.2
PF 1150 (grade) -N	E 130 (grade)	3"	1150	1954	40.04	7.17	4.10	3.96	19.4

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	1.4301 quality 304 stainless steel	1.4404 quality 316L stainless steel

element performance	M1	M01	AC
maximum particle size (ISO Class) ⁽³⁾	2	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/m ³)	0.1	0.01	0.003
oil removal efficiency at 68°F	>99.99%	>99.999%	-
recommended operating temp range (°F)	35 to 212	35 to 212	35 to 77
design operating temperature range (°F)	35 to 248	35 to 248	35 to 122
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 factor table above
- (2) +/- 0.118"
- (3) per ISO 8573-1:2010
- (4) install with air flow from inside to outside for coalescing and from outside to inside for dry dust filtration



Activated Carbon filters must always be installed immediately downstream of a M01 coalescing filter. They will not remove carbon monoxide (CO) or carbon dioxide (CO₂) and are not suitable for breathing air applications. The life of the element decreases as the inlet temperature increases. They are not recommended for temperatures above 77°F. As a maximum, activated carbon elements should be replaced every 1000 hours or 6 months, whichever is shorter.

HEATX nano sterile air membrane filters

HEATX nano P1

40 to 702 scfm



nano P1 stainless steel sterile air membrane filters are specifically designed for the pharmaceutical, high tech manufacturing, food processing and beverage industries. The PTFE membrane media provides absolute particulate and bacterial retention for critical sterile environments.

filter model	replace-ment element	inlet & outlet	rated flow ⁽¹⁾		dimensions (inches)				approx. weight
	part no.		NPT(F)	scfm	Nm ³ /h	A	B ⁽²⁾	C	D
PF 0050 SM-N	E 102 SM	1/4"	40	68	9.45	4.14	2.76	2.24	4.2
PF 0065 SM-N	E 102 SM	3/8"	50	85	9.45	4.14	2.76	2.24	4.4
PF 0085 SM-N	E 102 SM	1/2"	55	93	9.45	4.25	2.76	2.24	4.6
PF 0120 SM-N	E 102 SM	3/4"	60	102	9.45	4.92	2.76	2.24	5.1
PF 0170 SM-N	E 105 SM	1"	102	173	11.40	4.92	3.35	2.78	7.3
PF 0295 SM-N	E 105 SM	1 1/2"	118	201	12.70	5.51	3.35	3.49	11.4
PF 0460 SM-N	E 110 SM	2"	235	399	19.02	6.70	4.10	3.64	12.1
PF 0680 SM-N	E 120 SM	2"	435	739	29.37	6.70	4.10	3.64	15.0
PF 0850 SM-N	E 120 SM	2 1/2"	468	795	29.53	7.17	4.10	3.80	15.2
PF 1150 SM-N	E 130 SM	3"	702	1193	40.04	7.17	4.10	3.96	19.4

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	-
filter housing material	1.4301 quality 304 stainless steel	1.4404 quality 316L stainless steel
filter housing polishing	passivated & polished to grade Ra <1.6um	-
filter housing seals	aseptic EPDM	consult factory

element performance	SM
particle removal (at 100% PTFE membrane)	0.01 micron
continuous operating temperature range	35 to 120°F
maximum sterilizing temperature ⁽³⁾	257°F
media material	hydrophobic PTFE membrane
media support & endcap material	polypropylene
element to housing connection	positive click lock with dual silicone o-rings

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 factor table above
 - (2) +/- 0.118"
 - (3) at 30 psia for 20 minutes. Applies to element only
 - (4) validation documentation available on request
- not for use in air or gas streams containing water or oil
 - all materials conform to 21CFR Part 177 of the US code of Federal Regulations and USP Class VI Biological test for plastics
 - air flow from outside to inside

