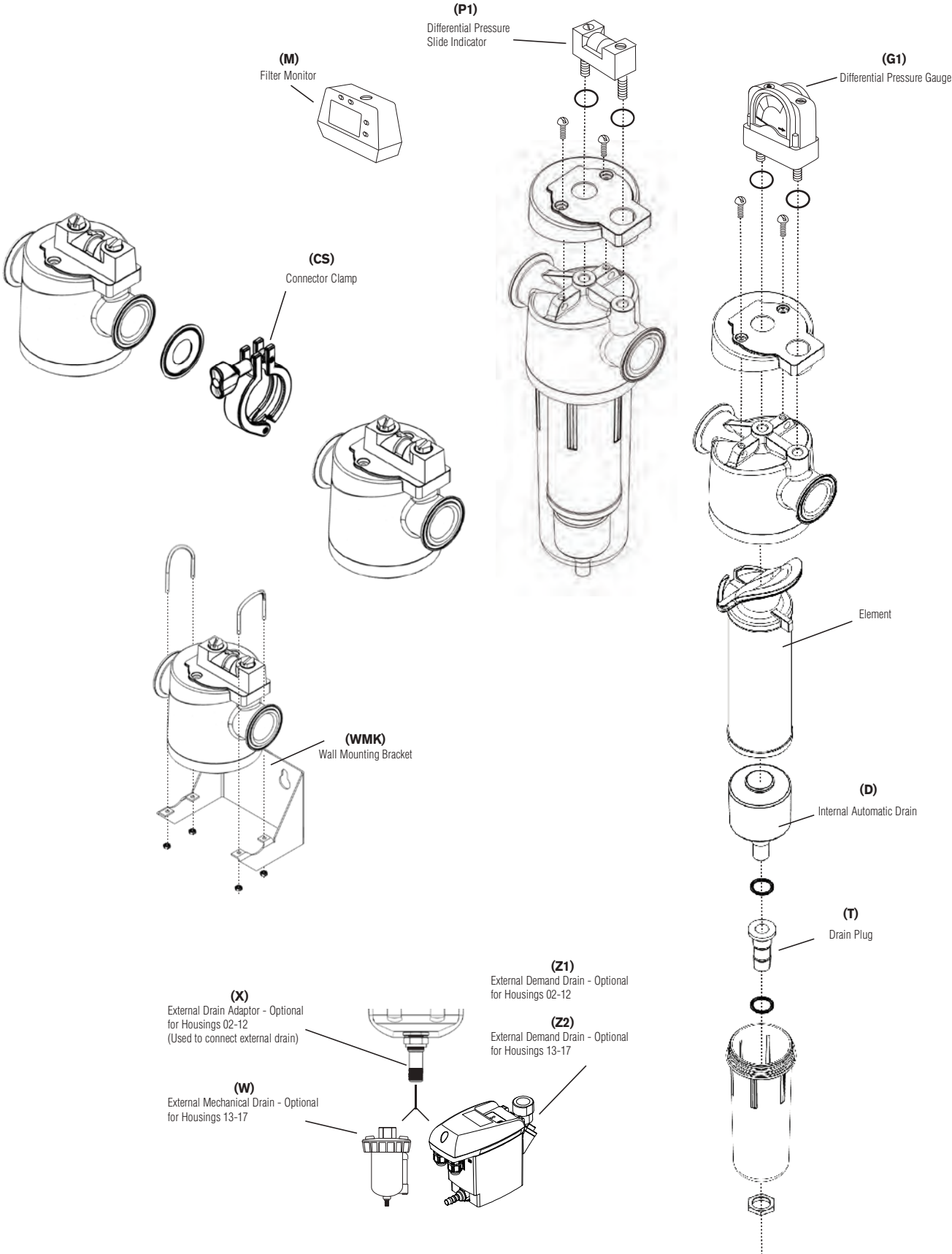


NGF Series Filter Illustration



COMPRESSED AIR
FILTRATION

NGF Series ISO 12500 Classifications

ISO 12500

ISO 12500 defines a universal method for manufacturers to test and rate compressed air filters. Critical performance parameters are specified for inlet oil challenge and solid particulate size distribution.

- ISO 12500-1 defines the testing of coalescing filters for oil aerosol removal performance.
- ISO 12500-2 quantifies vapor removal capacity of adsorption filters.
- ISO 12500-3 outlines requirements to test particulate filters for solid contaminant removal.

The NGF Series is tested to ISO 12500. Test results provide certifiable performance data based on defined challenge concentrations.



NGF Series Filtration Performance

Element Grade	SF	PF	HF	UF	CF
Particle Retention Size¹ <i>(Per ISO 12500-3)</i>	3.0 µm	1.0 µm	0.01 µm	0.01 µm	0.01 µm
Particle Removal Efficiency <i>(Per ISO 12500-3)</i>	-	99.999+%	99.999+%	99.9999+%	99.999+%
Oil Removal Efficiency <i>(Per ISO 12500-1)</i>	50%	80%	99.9+%	99.99+%	-
Maximum Remaining Oil Content² <i>(Per ISO 12500-1)</i>	5.0 mg/m ³	2.0 mg/m ³	< 0.01 mg/m ³	< 0.001 mg/m ³	< 0.004 mg/m ³ (as a vapor)

¹ Solid particulate size distribution 0.01 to 5.0 µm

² Inlet oil challenge concentration 10mg/m³

NGF Series Pressure Drop Performance*

Element Grade	Filter Description	Dry Δp		Wetted Δp	
		psig	barg	psig	barg
SF	Bulk Liquid Separator/Filter	0.8	0.06	1.0	0.07
PF	General Purpose Filter	0.6	0.04	1.4	0.10
HF	High Efficiency Oil Removal Filter	0.6	0.04	1.8	0.12
UF	Ultra High Efficiency Oil Removal Filter	0.8	0.06	2.0	0.14
CF	Oil Vapor Removal Filter	1.0	0.07	-	-

*Pressure drop not to exceed stated values at ISO 12500 test conditions

ISO Quality Class 8573-1: 2010

Element Grade	ISO Quality Class Solids	ISO Quality Class Oil
SF	3	5
PF	2	4
HF	1	1
UF	1	1
CF	1	1 <i>(as a vapor)</i>

NGF Series Filter Model Number Configuration



Housing-Connection-Flow

Model*	Connection in	Flow @ 100 psig scfm	Flow @ 6.7 barg nm ³ /h
02	1/4"	20	34
03	3/8"	35	59
04	1/2"	50	85
06	3/4"	75	127
07	3/4"	103	175
08	1.0"	157	267
10	1 1/2"	257	437
11	1 1/2"	360	612
12	2"	401	681
13	2 1/2"	568	965
14	2 1/2"	775	1317
15	2 1/2"	1030	1750
16	3"	1200	2039
17	3"	1500	2549

Element Grade

SF	Bulk Liquid Removal
PF	Particulate Removal
HF	Oil Removal
UF	High Efficiency Oil Removal
CF	Oil Vapor Removal

Options

T	Drain Plug
D	Internal Automatic Drain
P1	Differential Pressure Slide Indicator
G1	Differential Pressure Gauge
X	External Drain Adaptor (02-12)
Z1	Electric Demand Drain (02-12)
Z2	Electric Demand Drain (13-17)
W	External Mechanical Drain (13-17)

Example: F02-SF-DP1

Flow and Connection: 20 scfm (34 nm³/h); 1/4" NPT

Element Grade: SF- bulk liquid removal

Options: Internal automatic drain; differential pressure slide indicator

*BSP threads are available. Add B to the model number. Example F02B-SF-DP

CAPACITY CORRECTION FACTORS

NGF Series flow capacities are rated per ISO 12500 conditions @ 100 psig (6.7 barg). To size the filter for non-standard conditions, a correction factor must be applied. Table 1 provides correction factors for inlet air pressure.

Do not select filters by pipe size; use flow rate and operating pressure.

Table 1 - Correction Factors for Inlet Pressure

Inlet Pressure	psig	20	30	40	60	80	100	120	150	200	250	300
	barg	1.4	2.1	2.8	4.1	5.5	6.9	8.3	10.3	13.8	17.2	20.7
Correction Factor		0.30	0.39	0.48	0.65	0.83	1.00	1.17	1.44	1.87	2.31	2.74

Adjusted Flow Capacity

To calculate the flow capacity based on non-standard inlet conditions, multiply the filter's rated flow capacity by the corresponding inlet pressure correction factor.

High Efficiency Coalescing Filter: F04-HF-DP Rated capacity: 50 scfm (85 nm³/h)

Operating Conditions: 120 psig (8.3 barg) Adjusted Flow Capacity: 50 scfm x 1.17 = 59 scfm (100 nm³/h)

Technical Specifications

Drain Option	Maximum Operating Pressure	Maximum Operating Temperature	Minimum Operating Temperature
Drain Plug	250 (17.2 barg)	150°F (66°C)	35°F (2°C)
Internal Float	250 (17.2 barg)	150°F (66°C)	35°F (2°C)
Electric Demand	232 (15.9 barg)	140°F (60°C)	35°F (2°C)
Externally Mounted Mechanical	150 (10.3 barg)	120°F (49°C)	35°F (2°C)

CF Grade: Recommended maximum inlet air temperature not to exceed 100°F to maintain 1,000 hours of life