




NATIONAL LINE™ FILTER SYSTEMS MODEL SELECTION

The National Filter Systems are available in three (3) horizontal designs. They come in 34", 42" and 60" diameter tanks in various lengths. They are available in 50 or 100 P.S.I.G. operating pressures with top or end mount piping configurations (Filter Model 34-075, 60-200, and 60-250 not available in top mount piping). This provides a wide range of filter bed surface areas from 7.5 up to 80 sq. ft. in 355 different models.

All National Line™ Filter Systems can be used with multiple types of granular media or one (1) single grade of # 20 or # 30 silica sand. The NFS-60 filtration system has a 27" usable filter media bed depth and can be used in multi-media configurations. NSF International, for single tank flow capacities, certifies all National Line Filter Systems to ANSI / NSF Standard 50 for both pool and spa applications from 37.5 to 1,600 U.S. GPM.

NFS-34-SERIES 	Model #	Filter Area Ft²	Flow Rate 5 to 20 US GPM Sq. Ft.	Backwash Rate USGPM	Pipe Size Inches	Silica Sand Ft³	Shipping Weight lbs.
	NFS-34-***-075*	7.5	37.5 to 150	112	4	8.5	350
	NFS-34-***-100*	10.0	50 to 200	150	4	12	400
	NFS-34-***-126*	12.6	63 to 252	189	4	16	450
	NFS-34-***-153*	15.3	76.5 to 306	229.5	4	20	500
	NFS-34-***-193*	19.3	96.5 to 386	289.5	4	25.5	550
	NFS-34-***-237*	23.7	118.5 to 474	355.5	4	32	630

Model #	Filter Area Ft²	Flow Rate 5 to 20 US GPM Sq. Ft.	Backwash Rate USGPM	Pipe Size Inches	Silica Sand Ft³	Shipping Weight lbs.	NFS-42-SERIES 
NFS-42-***145*	14.5	72.5 to 290	217.5	6	23	370	
NFS-42-***-200*	20.0	100 to 400	300	6	31.5	460	
NFS-42-***-225*	22.5	112.5 to 450	337.5	6	35.5	550	
NFS-42-***-250*	25.0	125 to 500	375	6	39.25	590	
NFS-42-***-275*	27.5	137.5 to 550	412.5	6	43	630	
NFS-42-***-310*	31.0	155 to 620	465	6	49	685	
NFS-42-***-360*	36.0	180 to 720	540	6	56	765	
NFS-42-***-410*	41.0	205 to 820	615	6	64	845	
NFS-42-***-460*	46.0	230 to 920	690	6	72	925	

NFS-60-SERIES 	Model #	Filter Area Ft²	Flow Rate 5 to 20 US GPM Sq. Ft.	Backwash Rate USGPM	Pipe Size Inches	Silica Sand Ft³	Shipping Weight lbs.
	NFS-60-***-200*	20.0	100 to 400	300	6	46	750
	NFS-60-***-250*	25.0	125 to 500	375	6	58.5	850
	NFS-60-***-300*	30.0	150 to 600	450	6	71	950
	NFS-60-***-350*	35.0	175 to 700	525	6	83.5	1050
	NFS-60-***-400*	40.0	200 to 800	600	6	96	1150
	NFS-60-***-450*	45.0	225 to 900	675	6	108.5	1250
	NFS-60-***-500*	50.0	250 to 1000	750	6	121	1350
	NFS-60-***-550*	55.0	275 to 1100	825	8	133.5	1450
	NFS-60-***-600*	60.0	300 to 1200	900	8	146	1550
	NFS-60-***-650*	65.0	325 to 1300	975	8	158.5	1650
	NFS-60-***-700*	70.0	350 to 1400	1050	8	171	1750
	NFS-60-***-750*	75.0	375 to 1500	1125	8	183.5	1850
	NFS-60-***-800*	80.0	400 to 1600	1200	8	196	1950

*** **Version Options:** When ordering filters the *** shown in the model number should be replaced with the following options: A= 50 psi operating pressure contact molded shell with dual influent/ effluent connections, B= 50 psi operating pressure contact molded shell with single influent/ effluent connections, 50A= 50 psi operating pressure filament wound shell with dual influent/ effluent connections, 50B= 50 psi operating pressure filament wound shell with single influent/ effluent connections, 10A= 100 psi operating pressure filament wound shell with dual influent/ effluent connections or 10B= 100 psi operating pressure filament wound shell with single influent/ effluent connections, 050= 50 psi operating pressure filament wound shell for top mount piping connections, 100= 100 psi operating pressure filament wound shell for top mount piping connections.

* **Version Option:** When ordering filters; the * shown in the model number should be replaced with E for end mount piping; T for top mount piping; S for base tank in end piped, filament wound, stacked tank on tank system..

NOTE: National Line™ NFS-Series Filters are certified by NSF International to ANSI / NSF Standard 50 for both pool and spa applications at filtration rates of 5 to 20 U.S. GPM / sq. ft. All NFS-Series Filters are certified by NSF International for use with # 20 grade silica sand, Zeoclere-30 zeolite or Zeobrite® zeolite in fresh water/ salt water applications. Filter media and pumping equipment are NOT included with the filter tanks.

ENGINEERING NOTES: All National Line™ NFS Filter Systems will have varying head loss that is dependent upon filter media and operational flow rates. Filters should be backwashed when 15 to 17 PSIG differential is indicated on the influent and effluent pressure gauges. When sizing the main circulation pump, calculate maximum head loss at 15 to 20 PSIG through the filter and face piping.

NATIONAL FILTERS
HORIZONTAL SERIES



NATIONAL LINE™ FILTER SYSTEMS

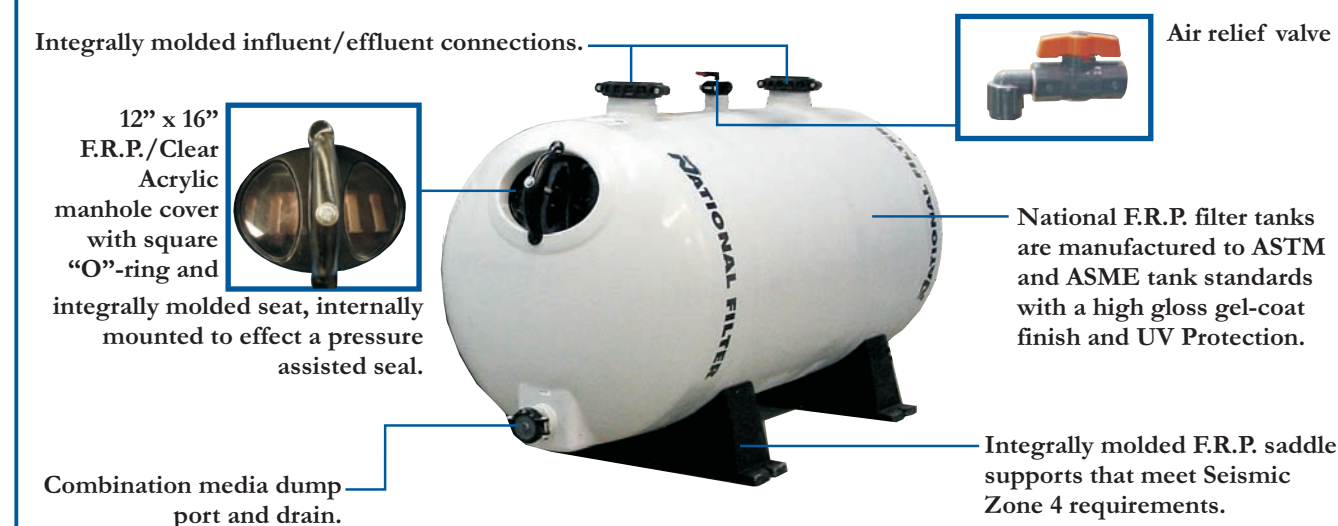
Nemato National Line™ filter tanks are constructed of Fiberglass Reinforced Isophthalic or Vinylester Resin (F.R.P.) and manufactured to ASTM and ASME tank standards using molded surfaces for all critical dimensions. The tanks are totally non-corrosive and have a high gloss gel-coat finish with UV protection. The filter systems are designed for working pressures of 50 P.S.I.G. or 100 P.S.I.G. with a 4 to 1 safety factor.

The filter systems are shipped with all internal components and media dump port in a fully assembled state. All National filter designs come with uniquely placed integrally molded influent/ effluent connections (both top piped & end piped), 12" X 16" integrally molded manhole seat with internally mounted F.R.P. or F.R.P./ Clear Acrylic cover, integrally molded F.R.P. saddle supports and molded pressure gauge panel with two (2) panel mount gauges.

END PIPED FILTER SYSTEMS



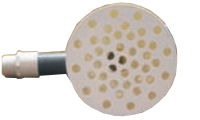
TOP PIPED FILTER SYSTEMS



NATIONAL LINE™ INTERNAL COMPONENTS



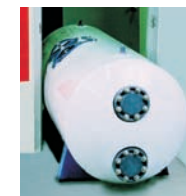
The Upper Distribution System in all National Line™ filtration systems, incorporate proprietary hydraulically engineered ABS plastic distribution lenses. The lenses are strategically placed to ensure a flat uniform media bed while preventing turbulence, media migration and channeling over a broad range of flow rates ranging from 5 to 20 U.S.G.P.M. per sq. ft. of filter area.



The Lower Collection System utilizes 2" ABS plastic laterals to retain multiple types of granular filter media or a single grade of #20 or #30 silica sand. The laterals are strategically placed to produce minimum head loss due to full filter bed coverage. The laterals are self-cleaning due to a molded V slot configuration and promote thorough filter media cleansing through balanced fluidization during backwash.



NATIONAL LINE™ FILTER ACCESS & HANDLING SOLUTIONS



National 34" Line™ filtration systems have an exterior molded surface for control of the 34" overall outside diameter. The controlled outside diameter and lightweight modular design allows for handling without special lifting equipment. All National 34" Line™ filtration systems can be walked through openings as small as 34 1/4" for 50 P.S.I.G. systems and 34 3/8" for 100 P.S.I.G. systems.

NATIONAL LINE™ HOUSEKEEPING PADS

National Line™ filtration system Housekeeping Pads provide a reliable alternative to forming and pouring housekeeping pads on the job site. The Housekeeping Pad is suitable for use with filters, stacking stand or tank on tank designs. The Housekeeping Pads provide easy installation with accurate centerline alignment due to a self-locking tapered saddle support design.



The Housekeeping Pads are constructed of Fibcrete (Vinylester resin, sand, gravel, and rebar) are totally non-corrosive and have a high gloss gel-coat finish with UV protection. All Housekeeping Pads are manufactured to Seismic Zone 4 requirements. The lightweight, modular designs are economical to ship, and capable of supporting up-to a 80-sq. ft. stacked filtration system.

NATIONAL LINE™ FILTER STACKING STANDS OR TANK ON TANK STACKING DESIGNS



National Line™ filtration system stacking stands provide a reliable solution to floor space constraints. The stacking stand or tank on tank (for filament wound models only) designs allow for ease of installation in limited (81 1/2" for 34" diameter, 96" for 42" diameter and 140 1/4" for 60" diameter filter systems) head space and provides for accurate tank to tank centerline alignment due to self-locking tapered saddle supports. The stacking stand provides for independent support or the top filter tank, which facilitates individual removal of the bottom filter tank where site conditions permit.



The stacking stands are constructed of Fiberglass Reinforced Vinylester Resin (F.R.P.) for 34" and 42" diameter filters and epoxy painted steel for 60" diameter filters. All National stacking systems are manufactured to Seismic Zone 4 requirements. The lightweight, modular designs are economical to ship, non-corrosive in design and capable of supporting up-to a 80-sq. ft. filtration system.