



WE BRING THE VISION OF  
DESIGN ENGINEERS TO LIFE

# ENGINEERS WORKING WITH ENGINEERS

## KNF Pumps

The perfect blend of individualized design, extraordinary performance, and reliability.

Just like no two OEM design engineers are alike, neither are their specifications. That's why KNF is proud to offer engineers an unmatched level of application flexibility. Combining our tradition of innovation and integration with workhorse endurance and reliability, we understand that each application — simple or complex — is unique, and requires collaboration and customization. Working closely with your design team and merging their system knowledge with our technical expertise, our application support professionals will help you create individualized solutions that meet your design goals.

Remember, when it comes to designing and running your instrument at peak performance, KNF Knows No Failure.



# WHEN CONDITIONS ARE CRITICAL, KNF KNOWS NO FAILURE

As a technology leader, KNF OEM pumps enable design engineers to create high-quality systems and devices across multiple industries. Combined with our history of precision production, we understand and anticipate the needs of each customer and every environment our pumps will perform in.



## Medical Industry

KNF pumps play a critical role in many medical applications including anesthesia monitoring, in vitro diagnostics, therapeutic and surgical equipment.



## Environmental

When environmental sample collection and analysis is required, KNF pumps are the driving force behind ambient, source, and portable safety monitors.



## Security & Defense

KNF pumps are a staple for TSA and first responders, who rely on them in airports and perimeter monitoring checkpoints where safety is of utmost importance.



## Printing Industry

KNF pumps are used in inkjet graphic and labeling applications where precision and reliability are critical for high-resolution imagery.



## Semiconductor Manufacturing

KNF pumps provide a new level of contamination-free, gas-tight media transfer where substances are measured at parts per trillion and trace impurities result in costly stoppages.



## Analytical Instruments

KNF pumps are used in analytical instruments for measuring physical and chemical properties of materials.



## Fuel Cells

KNF is a major player in supplying pumps to the manufacturers of fuel cells for portable devices, transportation, primary, and backup power.

**Technical expertise and high quality are the keys that drive KNF innovation across a wide-variety of vertical markets.**

# 50+ YEARS OF PRECISION

Since 1946, KNF has successfully delivered over 50,000 custom pump projects to a diverse customer base. Whether we're optimizing a pump for transfer, dosing, metering, sampling, or evacuation, you can count on KNF. Our precision performance starts with our German and Swiss engineering roots and then is blended with pure American ingenuity. The result? A unique level of innovation unmatched in the industry.

When you add up our design flexibility, multi-industry experience, and state-of-the-art manufacturing, you just couldn't pick a better partner to bring your designs to life.

## CUSTOMIZATION YOU CAN RELY ON

While our vast company resources provide a footprint that stretches around the world, our North American product team stands ready to meet your needs. Supported by a 50,000 sq. ft. facility, which is ISO 9001: 2008 registered, we can offer local collaboration and manufacturing of a wide variety of liquid and air/gas pumps to meet your specifications.



### KNF Options

Performance modifications ■ Electrical terminations and harnesses ■ Finishes and coatings ■ Custom pump connections  
Custom mounting plates ■ Shock and vibration isolation ■ Economical BLDC motors



# MICRO PUMPS



KNF micro pumps are small and quiet, yet powerful and dependable. Providing design engineers installation flexibility in virtually any environment, our micro pumps offer an efficient and durable solution to transfer, evacuate, or compress air or gases where space is a premium.



Technical information on reverse side



<b>MICRO PUMPS—AIR &amp; GAS</b>				
<b>Model</b>	<b>Available Motors</b>	<b>LPM</b>	<b>mbar abs / in. Hg</b>	<b>barg / psig</b>
NMP 03	DC/BLDC	0.33	600 / 12.2	0.37/5.4
NMP 05	DC/BLDC	0.45	500 / 15.2	0.4/5.9
NMS 010	DC/BLDC	0.75	600 / 12.2	0.2/2.9
NMP 09	DC/BLDC	0.85	500 / 15.2	0.65/9.6
NMP 015	DC/BLDC	1.6	400 / 18.1	0.9/13.2
NMS 020	DC/BLDC	1.8	500 / 15.2	0.5/7.4
NMP 015.1.2	DC/BLDC	2.1	600 / 12.2	0.6/8.8
NMP 830	AC/DC/BLDC	3.1	240 / 22.8	1.4/20.6
NMP 850	DC/BLDC	4.5	230 / 23.1	1.5/22.1
NMP 830 HP	DC/BLDC	5.5	200 / 24	3/44.1
NMP 850.1.2	BLDC	8.0	230 / 23.1	1.5/22.1
NMP 830.1.2 HP	DC/BLDC	10	200 / 24	3/44.1
NMS 030.1.2	DC/BLDC	12	200 / 24	0.2/2.9

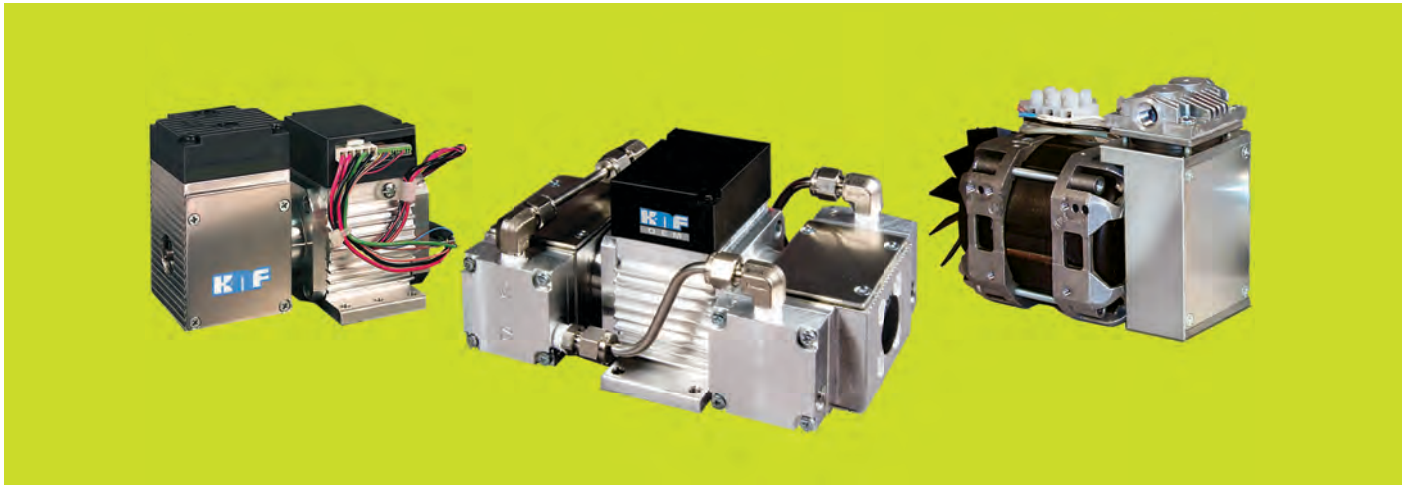
  

<b>Oil-Free Swing Piston Pumps</b>	<b>Available Motors</b>	<b>LPM / CFM</b>	<b>mbar abs / in. Hg</b>	<b>barg / psig</b>
NPK 03	DC/BLDC	3 / 0.11	250 / 22.5	5.4 / 79.4
NPK 04	DC/BLDC	3.3 / 0.12	300 / 21.1	1 / 14.7
NPK 06	BLDC	8 / 0.28	250 / 22.5	5.5 / 80.9

# MINI PUMPS



Extremely versatile, the KNF OEM mini pump line offers an extensive breadth of products to choose from. Each pump has been developed from thousands of design requests and unique application solutions. You can count on our versatile mini pumps to meet any equipment challenge.



Technical information on reverse side



MINI PUMPS—AIR & GAS				
Model	Available Motors	LPM / CFM	mbar abs / in. Hg	barg / psig
N 85.3	AC/DC/BLDC	5.5 / 0.19	25 / 29.2	0.3/4.4
N 86 <sup>(1)</sup>	AC/DC/BLDC	6.5 / 0.23	100 / 27	2.5/36.8
N 87	AC/BLDC/EX	7.5 / 0.26	140 / 25.8	1.5/22.1
N 96	AC/DC/BLDC	8.5 / 0.3	100 / 27	2.4/35.3
N 89	AC/DC/BLDC	9.5 / 0.34	100 / 27	0.5/7.4
N 811	AC/DC/BLDC	11.5 / 0.41	100 / 27	0.5/7.4
N 814	AC/DC/BLDC	12 / 0.42	240 / 22.8	2/29.4
N 815	AC/DC/BLDC	16 / 0.56	100 / 27	0/0
N 816	AC/DC/BLDC	16 / 0.56	100 / 27	0.5/7.4
N 816.3	AC/BLDC	16 / 0.56	15 / 29.5	0.5/7.4
N 916.50	AC/BLDC	28 / 0.99	20 / 29.3	0.5/7.4

Oil-Free Swing Piston Pumps				
NPK 012 PR	BLDC	12 / 0.42	220 / 23.4	4.9 / 72
NPK 012 VA	BLDC	13.5 / 0.48	140 / 25.8	1 / 14.7
NPK 09	AC/DC/BLDC	15 / 0.53	100 / 27	7 / 102.9
NPK 018	AC/DC	18 / 0.64	120 / 26.4	1.5 / 22.1
NPK 09.1.2	AC/BLDC	24 / 0.85	100 / 27	7 / 102.9
NPK 025	AC/DC	30 / 1.06	180 / 24.6	4.9 / 72
NPK 050	AC	50 / 1.77	80 / 27.6	2 / 29.4
NPK 0100	AC	78 / 2.75	80 / 27.6	2 / 29.4

Heated-Head and Heat-Resistant Pumps (insulation jacket optional)				
N 86	AC/EX	6 / 0.21	200 / 24	1.5 / 22.1
N 012	AC/EX	10.5 / 0.37	200 / 24	1.5 / 22.1

Deep Vacuum Pumps for Roughing or Backing				
N 84.4	DC/BLDC	4.8 / 0.17	2 / 29.9	0.3 / 4.4
N 84.3	AC/DC/BLDC	5 / 0.18	7 / 29.7	0.3 / 4.4
N 813.3	AC/BLDC	13 / 0.46	3 / 29.8	1 / 14.7
N 813.4	AC/BLDC	13 / 0.46	< 0.5 / < 29.9	1 / 14.7
N 813.5	AC/BLDC	19 / 0.67	< 1 / < 29.9	1 / 14.7

<sup>(1)</sup> Available as a double diaphragm pump.

# HIGH CAPACITY PUMPS



KNF designs and manufactures diaphragm pumps for high volume sampling, transferring, evacuating, and compressing media.



Technical information on reverse side



HIGH CAPACITY PUMPS – AIR & GAS				
Model	Available Motors	LPM / CFM	mbar abs / in. Hg	barg / psig
N 022	AC/BLDC	15 / 0.53	100 / 27	4/58.8
N 922	AC/DC/BLDC/EX	18 / 0.64	200 / 24	2 / 29.4
N 726	AC/BLDC/EX	17 / 0.6	65 / 28	1.5 / 22.1
N 726.3	AC/BLDC/EX	20 / 0.71	15 / 29.5	0 / 0
N 026	AC/BLDC/EX	20 / 0.71	100 / 27	2.5 / 36.8
N 023	AC	23 / 0.81	213 / 23.6	2 / 29.4
N 630.15	AC	35 / 1.24	100 / 27	16 / 176
N 828	AC/DC/BLDC	28 / 0.99	100 / 27	1 / 14.7
N 035	AC/BLDC/EX	30 / 1.06	100 / 27	4 / 58.8
N 630 <sup>(1)</sup>	AC/EX	35 / 1.24	100 / 27	7 / 102.9
N 145	AC	30 / 1.06	100 / 27	7 / 102.9
N 035.3	AC/BLDC/EX	30 / 1.06	0 / 29.9	0 / 0
N 630.3 <sup>(1)</sup>	AC/EX	35 / 1.24	25 / 29.2	0.5 / 7.4
N 726.1.2	AC/BLDC/EX	30 / 1.06	65 / 28	1.5 / 22.1
N 838	AC/DC/BLDC	34 / 1.2	100 / 27	0.5 / 7.4
N 936	AC	36 / 1.27	200 / 24	0.5 / 7.4
N 023.1.2	AC	39 / 1.38	213 / 23.6	2 / 29.4
N 936.3	AC	42 / 1.48	35 / 28.9	0.5 / 7.4
N 026.1.2	AC/EX	46 / 1.62	100 / 27	2 / 29.4
N 630.1.2 <sup>(1)</sup>	AC/EX	58 / 2.05	100 / 27	7 / 102.9
N 145.1.2	AC	55 / 1.94	100 / 27	7 / 102.9
N 860	AC/EX	60 / 2.12	80 / 27.6	1 / 14.7
N 860.3	AC/EX	60 / 2.12	2 / 29.9	1 / 14.7
N 838.1.2	AC/BLDC	60 / 2.12	100 / 27	0.5 / 7.4
N 035.1.2	AC/BLDC/EX	62 / 2.19	100 / 27	4 / 58.8
N 936.1.2	AC	72 / 2.54	200 / 24	0.5 / 7.4
N 880.3	AC	80 / 2.82	2 / 29.9	1 / 14.7
N 860.1.2	AC/EX	110 / 3.88	100 / 27	1 / 14.7
N 0150 <sup>(1)</sup>	AC/EX	150 / 5.3	100 / 27	1 / 14.7
N 0150.3 <sup>(1)</sup>	AC/EX	150 / 5.3	25 / 29.2	0.5 / 7.4
N 1200 <sup>(1)</sup>	AC/EX	150 / 5.3	100 / 27	6 / 88.2
N 2400.15	AC	150 / 5.3	1013 / 0	16 / 235.2
N 0150.1.2 <sup>(1)</sup>	AC/EX	280 / 9.88	100 / 27	1 / 14.7
N 1400.1.2 <sup>(1)</sup>	AC	290 / 10.24	100 / 27	6 / 88.2

Heated-Head and Heat Resistant Pumps (insulation jacket optional)				
N 86	AC/EX	6 / 0.21	200 / 24	1.5 / 22.1
N 012	AC/EX	10.5 / 0.37	200 / 24	1.5 / 22.1
N 024	AC	18 / 0.64	200 / 24	1.5 / 22.1
N 036	AC	30 / 1.06	200 / 24	1.5 / 22.1
N 036.0	AC	2 x 30 / 2 x 1.06	200 / 24	1.5 / 22.1
N 0100	AC	100 / 3.53	50 / 28.4	1.5 / 22.1

Oil-Free Swing Piston Pumps				
NPK 03	DC/BLDC	3 / 0.11	250 / 22.5	5.4 / 79.4
NPK 04	DC/BLDC	3.3 / 0.12	300 / 21.1	1 / 14.7
NPK 06	BLDC	8 / 0.28	250 / 22.5	5.5 / 80.9
NPK 012 PR	BLDC	12 / 0.42	220 / 23.4	4.9 / 72
NPK 012 VA	BLDC	13.5 / 0.48	140 / 25.8	1 / 14.7
NPK 09	AC/DC/BLDC	15 / 0.53	100 / 27	7 / 102.9
NPK 018	AC/DC	18 / 0.64	120 / 26.4	1.5 / 22.1
NPK 09.1.2	AC/BLDC	24 / 0.85	100 / 27	7 / 102.9
NPK 025	AC/DC	30 / 1.06	180 / 24.6	4.9 / 72
NPK 050	AC	50 / 1.77	80 / 27.6	2 / 29.4
NPK 0100	AC	78 / 2.75	80 / 27.6	2 / 29.4

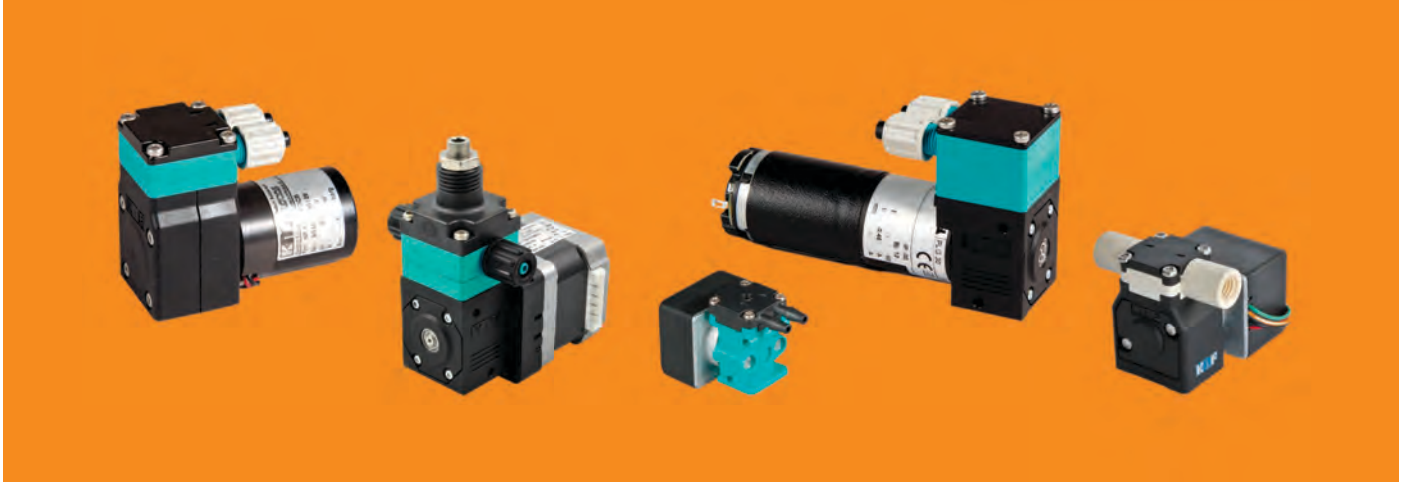
<sup>(1)</sup> Available as a double diaphragm pump.

Deep Vacuum Pumps for Roughing or Backing		LPM / CFM	mbar abs / in. Hg	barg / psig
N 84.4	DC/BLDC	4.8 / 0.17	2 / 29.9	0.3 / 4.4
N 84.3	AC/DC/BLDC	5 / 0.18	7 / 29.7	0.3 / 4.4
N 813.3	AC/BLDC	13 / 0.46	3 / 29.8	1 / 14.7
N 813.4	AC/BLDC	13 / 0.46	< 0.5 / < 29.9	1 / 14.7
N 813.5	AC/BLDC	19 / 0.67	< 1 / < 29.9	1 / 14.7
N 920	AC/BLDC	21 / 0.74	1.5 / 29.9	0.5 / 7.4
N 940.5	AC/BLDC	50 / 1.77	1.5 / 29.9	0.5 / 7.4
N 950.50	AC/BLDC	55 / 1.94	2 / 29.9	0.5 / 7.4



# LIQUID PUMPS

Our long history of designing liquid pumps allows us to modify our standard pump line to meet your specifications. Unlike the competition, this line is a dedicated liquid pump platform, affording customers the ultimate solution to meet their liquid handling requirements.



Technical information on reverse side



### SELF-PRIMING LIQUID TRANSFER PUMPS

*NSF certified option and higher pressure models available.*

Model	Available Motors	LPM	mL/min	mH2O / ft. H2O	barg / psig
NF 5	DC/BLDC		70	3 / 9.8	1 / 14.7
NFB 5	BLDC		2 x 50	3 / 9.8	1 / 14.7
NF 1.5	DC/BLDC		60	3 / 9.8	6 / 88.2
NF 10	DC/BLDC		100	3 / 9.8	1 / 14.7
NF1.10	BLDC		140	3 / 9.8	6 / 88.2
FF 12	DC/BLDC		150	3 / 9.8	1 / 14.7
NF 1.30	Geared DC		170	5 / 16.4	6 / 88.2
FF 20	DC/BLDC		230	3.5 / 11.5	3 / 44.1
NF 25	DC/BLDC		250	3 / 9.8	1 / 14.7
NF 1.25	DC/BLDC		300	3 / 9.8	6 / 88.2
NFB 25	BLDC		2 x 300	3 / 9.8	1 / 14.7
NF 30	DC/BLDC		300	6 / 19.7	1 / 14.7
NFB 30	DC/BLDC		2 x 300	6 / 19.7	1 / 14.7
NF 2.35	DC/BLDC		350	3 / 9.8	12 / 176.4
NF 60	DC/BLDC		600	3 / 9.8	1 / 14.7
NFB 60	DC/BLDC		2 x 600	3 / 9.8	1 / 14.7
NF 1.60	DC/BLDC		650	3 / 9.8	6 / 88.2
NF 100	AC/DC/BLDC	1.2		3 / 9.8	1 / 14.7
NF 1.100	AC/DC/BLDC	1.2		3 / 9.8	6 / 88.2
NFB 100	BLDC	2 x 1.3		3 / 9.8	1 / 14.7
FP 150	BLDC	1.5		3 / 9.8	2 / 29.0
NF 300	AC/DC/BLDC/EX	3		3 / 9.8	1 / 14.7
NF 1.300	AC/DC/BLDC/EX	3		3 / 9.8	6 / 88.2
FP 400	BLDC	4.6		3 / 9.8	1 / 14.7
NF 600	AC/DC/BLDC/EX	6		3 / 9.8	1 / 14.7
NF 1.600	AC/DC/BLDC/EX	6		3 / 9.8	6 / 88.2
FK 1100	AC/BLDC	12.4		4.5 / 14.8	1 / 14.7
FK 1.1100	AC/BLDC	12.4		4.5 / 14.8	6 / 88.2

### SELF-PRIMING LIQUID SOLENOID PUMPS

Model	Available Motors		mL/min	mH2O / ft. H2O	barg / psig
FMM 20	Solenoid		18	3 / 9.8	1 / 14.7
FMM 80	Solenoid		48	4 / 13.1	1 / 14.7
FL 10	Solenoid		100	2 / 6.6	1 / 14.7

### SELF-PRIMING LIQUID DOSING AND METERING PUMPS

Model	Available Motors	Dispense Volume	mL/min	mH2O / ft. H2O	barg / psig
FEM 1.02	Stepper		0.2-20	4 / 13.1	6 / 88.2
FEM 1.02 .55RC	Stepper	5-180 µL	0.2-20	4 / 13.1	6 / 88.2
FEM 1.09	Stepper		0.9-90	4 / 13.1	6 / 88.2
FEM 1.09 .55RC	Stepper	10-520 µL	0.9-90	4 / 13.1	6 / 88.2

(12-19)