

GAS AND LIQUID
PUMP SOLUTIONS
ENGINEERED
VALUE WORLDWIDE



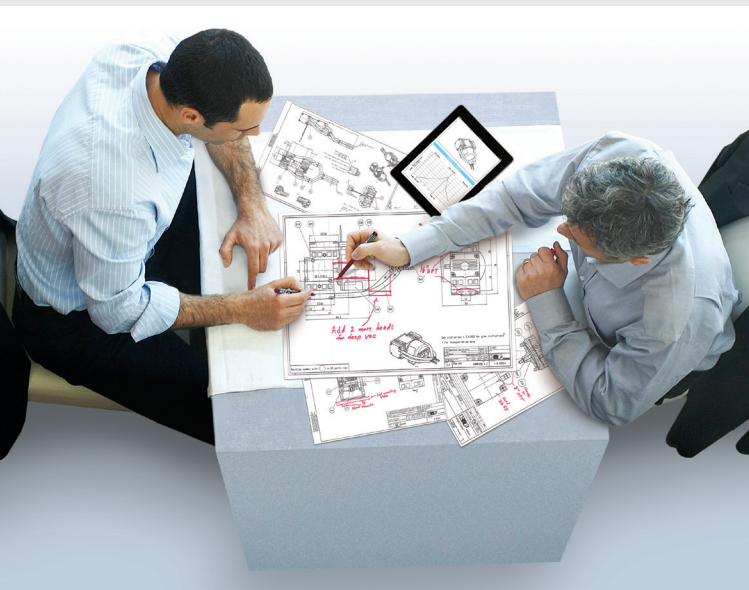
AT THE FOREFRONT OF TECHNOLOGY

KNF delivers quality engineering, meticulous design, and outstanding innovation. We are an independent, family-owned company that provides tailor-made solutions with diaphragm, solenoid, and swing piston pump technologies utilising cutting-edge materials.

We offer comprehensive engineering support to help you design the best products, whether you're trying to choose the perfect materials and components or speed up the start of production. Since 1946, KNF has successfully delivered more than 50,000 custom pump projects to a diverse customer base:

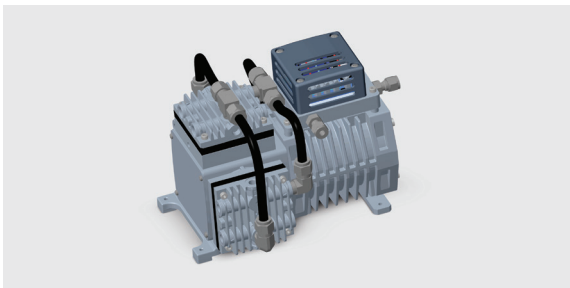
- Medical equipment
- Environmental protection and analysis
- Chemical and process engineering
- Printing technology
- Fuel cells
- Laboratory research
- Food service
- Cosmetics
- and many more

KNF UK has a dedicated team of experienced technical pump engineers. At our facilities in Witney, Oxfordshire we offer sales, full service capabilities, local stock and technical support. Whatever your pumping application needs or if you require a customised solution our team will be happy to discuss your requirements further.



Engineer-to-engineer collaboration

KNF specialises in custom-engineered pump solutions for original equipment manufacturers (OEMs). More than 90% of our OEM business is based on modifying our standard products for optimised pump performance, materials, motor types and configurations. Our technical and market experts work with you to create smart, application-specific solutions.



Meeting pump design challenges

KNF holds more than 300 patents and delivers pump solutions driven by precision engineering and innovation. Our modular pump design allows for cost-effective modifications—from simple adjustments to complex new constructions.

KNF's modular system

We can adapt mechanics, materials, and motors to our customers' needs, providing advantages like high capacity, extended service life, high pressure, leak tightness, high chemical resistance, noise reduction, alternative port configurations, and more.

Flexible

KNF creates 3,000 custom adaptations each year for customers worldwide based on more than 100 standard pump types for handling gases, liquids, and vapors. We align our inspection and testing procedures with application requirements, delivering any batch size—from thousands of products to single pumps.

Tailored

We offer a wide range of motors, wire connectors, and custom mounting plates. Material choices include 316 stainless steel, aluminum, PPS, FPM, EPDM, FFPM, PP, PTFE, PVDF, and many more.

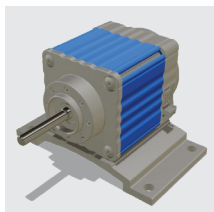
Additional options include soundproofing, alternative finishes, gas-tight performance, and wide temperature range materials. Pump accessories like shock and vibration isolators, pressure-safety valves, pulsation dampers, filters, and tubes are also available.

Economical

We strive to develop the fastest, most cost-efficient solution while applying your requirements at every level.

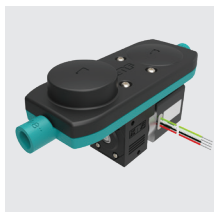
Proven single components enable quick and inexpensive development of customised pumps. KNF has production sites around the globe, allowing us to provide worldwide availability.

INNOVATIVE



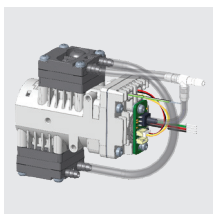
Programmable BLDC

KNF designs and builds brushless DC motors and controllers offering low current draw, long life, and reduced EMI/RFI. Integrated speed control, tachometer feedback and current-limiting circuitry deliver flexible pump controllability.



Smooth, pulseless flow

Pulsation and vibration are known to impact efficiency. KNF has developed a new line of products to address these inherent issues without compromising the benefits of diaphragm pump technology.



Integrated pump intelligence

KNF's closed-loop micro-controller can precisely regulate flow, pressure, and vacuum with the ability to measure ambient and gas temperatures, humidity, and pressure.



Special features

KNF offers a range of heated-head/heat-resistant, leak-tight, and ATEX pumps. These pumps safely handle higher temperature gases (up to 240° C), prevent leakage of dangerous and expensive gases, and operate in safety-critical locations.

OEM PUMPS

CLICK HERE TO SELECT YOUR PUMP

MICRO PUMPS—AIR & GAS				
Model	Available Motors	Flow Rate (l/min)	Vacuum (mbar abs.)	Pressure (bar g)
NMP 03	DC/BLDC	0.33	600	0.33
NMP 05	DC/BLDC	0.45	500	0.45
NMS 010	DC/BLDC	0.75	600	0.5
NMP 09	DC/BLDC	0.9	500	0.65
NMP 015	DC/BLDC	1.6	400	0.9
NMS 020	DC/BLDC	1.7	500	0.5
NMP 820.3	BLDC	1.7	100	–
NMP 820	DC/BLDC	2.1	330	1.2
NMP 015.1.2	DC/BLDC	2.2	600	0.55
NMP 830.3	BLDC	2.9	55	–
NMP 830	DC/BLDC	3.1	250	1.4
NMP 820 .1.2	BLDC	3.5	330	1.2
NMP 830.3 HP	BLDC	3.7	55	–
NMP 850.3	BLDC	4.2	60	–
NMP 850	DC/BLDC	4.5	230	2.5
NMP 830 HP	DC/BLDC	5	230	3
NMP 830.1.2	BLDC	5.6	230	1.5
NMP 850 HP	DC*/BLDC	7	220	2.2
NMP 850.3 HP*	DC*/BLDC	6.7	50	–
NMP 850 1.2	BLDC	8.5	230	2.5
NMP 830.1.2 HP	DC/BLDC	9	230	3
NMS 030 1.2	DC/BLDC	12	220	0.2
NMP 850.1.2 HP	DC*/BLDC	15	220	2.2

MINI PUMPS—AIR & GAS				
Model	Available Motors	Flow Rate (l/min)	Vacuum (mbar abs.)	Pressure (bar g)
N 86 ⁽¹⁾	AC/DC/BLDC	6.5	100	2.5
N 86.3	AC/DC/BLDC*	5.5	30	0.3
N 87	AC/BLDC*/EX	7.5	140	1.5
N 96	BLDC	8.5	100	2.5
N 86.0 (1.2)	DC/BLDC	12 (6 per head)	100	0.3
N 816	AC/BLDC	16	100	2
N 816.3	AC/BLDC*	16	15	0.5

HIGH CAPACITY PUMPS—AIR & GAS				
Model	Available Motors	Flow Rate (l/min)	Vacuum (mbar abs.)	Pressure (bar g)
N 922	AC/EX	22	110	6
N 026.3	AC/BLDC*/EX*	22	20	–
N 035	AC/BLDC*	30	100	4
N 035.3	AC/BLDC*	30	13	–
N 630 ⁽¹⁾	AC/EX	30	120	7
N 630.15	AC/EX	30	70	12
N 630.3 ⁽¹⁾	AC/EX	30	25	0.5
N 838	AC/DC/BLDC	34	100	0.5
N 936	AC	34	200	0.5
N 938	BLDC	35	160	1
N 936.3	AC	36	35	0.5
N 026.1.2	AC/EX	39	100	2
N 938 1.2	BLDC	53	140	1
N 035.1.2	AC/BLDC*	55	100	4
N 630.1.2 ⁽¹⁾	AC/EX	58	120	7
N 838.1.2 ⁽¹⁾	AC/BLDC	60	90	0.5
N 860	AC	60	80	1
N 860.3	AC	60	2	1
N 936.1.2	AC	60	200	0.5
N 880.3	AC	80	2	1
N 0150.3 ⁽¹⁾	EX*	100	30	0.5
N 0150	EX*	100	130	1
N 1200 ⁽¹⁾	AC/EX*	130	150	6
N 2400.15	AC/EX*	130	100	12
N 680.1.2	EX	220	150	3
N 1400.1.2	AC/EX*	250	150	6

DEEP VACUUM PUMPS				
Model	Available Motors	Flow Rate (l/min)	Vacuum (mbar abs.)	Pressure (bar g)
N 84.4	DC/BLDC	4.8	2	0.3
N 84.3	AC/DC/BLDC*	5	7	0.3
N 84.5	DC/BLDC	10	1	0.1
N 813.3	BLDC	13	3	1
N 813.4	BLDC	13	0.5	1
N 920	AC/BLDC	21	1.5	0.5
N 952	AC/BLDC	36	1.5	0.1
N 940.5*	AC/BLDC*	50	1.5	0.5
N 860.3	AC	60	2	1
N 880.3	AC	80	2	1

HEATED-HEAD AND HEAT RESISTANT PUMPS				
Model	Available Motors	Flow Rate (l/min)	Vacuum (mbar abs.)	Pressure (bar g)
N 86.16	AC/EX*	6	290	1.5
N 012.11/.16/.17*	AC/EX*	10.5	240	1.5
N 024.11/.16/.17*	AC/EX*	18	200	1.5
N 036.11/.16/.17*	AC/EX*	30	200	1.5
N 036.0/.16/.17*	AC/EX*	60 (30 per head)	200	1.5
N 0100/.16/.17*	AC/EX*	100	180	1.5

EX - Explosion-Proof motor.
⁽¹⁾ Available with optional safety containment diaphragm.
*Available on project basis

SWING PISTON PUMPS				
Model	Available Motors	Flow Rate (l/min)	Vacuum (mbar abs.)	Pressure (bar g)
NPK 02	DC/BLDC	1.8	350	2.2
NPK 03	DC/BLDC	3	250	5.5 (3.3)*
NPK 04	DC/BLDC	3.3	300	2.5
NPK 06	BLDC	8	250	5.5 (6.5)*
NPK 09	AC/DC/BLDC*	15	100	12
NPK 012 (pressure)	BLDC	12	220	5
NPK 012 (vacuum)	BLDC	13.5	140	1
NPK 09.1.2	AC/BLDC*	24	100	7

SELF-PRIMING LIQUID PUMPS				
Model	Available Motors	Flow Rate (l/min)	Max. Suction height (mH ₂ O)	Pressure (bar g)
Single Headed				
NF 5	DC/BLDC	0.07	3	1
FF12	DC/BLDC	0.15	3	1
FF 20	DC/BLDC	0.23	3.5	3
NF 25	DC/BLDC	0.25	3	1
NF 30	DC/BLDC	0.30	6	1
NF 60	DC/BLDC	0.60	3	1
NF 100	DC/BLDC	1.20	3	1
NF 300	DC/BLDC	3.0	3	1
Double Headed				
NFB 5	BLDC	2 x 0.04	3	1
NFB 25	BLDC	2 x 0.3	3	1
NFB 30	BLDC	2 x 0.3	6	1
NFB 60	BLDC	2 x 0.6	3	1
NFB 100	BLDC	2 x 1.3	3	1
Low Pulsation				
FP 7	DC/BLDC	0.07	2	1
FP 25	DC/BLDC	0.25	3	1
FP 70	DC/BLDC	0.70	3	2
FP 150	BLDC	1.5	2.7	2
FP 400	BLDC	4.6	3	1
FK 1100	AC/BLDC	12.4	4.5	1
Low Pulsation Pressure Pumps				
FP 1.7	DC/BLDC	0.07	2	6
FP 1.25	DC/BLDC	0.25	3	6
FP 1.150	BLDC	1.1	2.3	6
FP 1.400	BLDC	4.4	3	6
FK 1.1100	AC/BLDC	12.4	4.5	6
Pressure Pumps				
NF 1.5	DC/BLDC	0.06	3	6
NF 1.10	BLDC	0.14	3	6
NF 1.25	DC/BLDC	0.30	3	6
NF 2.35	BLDC	0.35	3	16
NF 1.60	DC/BLDC	0.65	3	6
NF 1.100	DC/BLDC/EX*	1.30	3	6
NF 1.300	DC/BLDC/EX*	3.0	3	6
Solenoid Driven Transfer Pumps				
FMM 20	Solenoid	0.018	3	1
FMM 80	Solenoid	0.048	4	1
FL 10	Solenoid	0.1	2	1

SELF-PRIMING LIQUID DOSING AND METERING PUMPS					
Model	Available Motors	Dispense volume (µl)	Flow Rate (ml/min)	Max. Suction height (mH ₂ O)	Max. pressure (bar)
FEM 1.02	Stepper		0.2-20	4	6
FEM 1.02.55RC	Stepper	5 to 180		4	6
FEM 1.09	Stepper		0.9-90	4	6
FEM 1.09.55RC	Stepper	10 to 500		4	6
FM 50	BLDC		100-500	3	1

PULSATION DAMPERS - LIQUIDS		
Model	Liquid Pump Compatibility	Max. pressure (bar)
FPD 06	NF 5 / NFB 5/ FL 10 / FF 12 / NF 25 / NFB 25/ NF 30 / NF 60 / NF 100 / FP 70	2
FPD 1.06	NF 1.5 / NF 1.25 / NF 1.10/ NF 1.30 / NF 1.60 / FF 20 / FP 150 / FP 1.150	6
FPD 10	NFB 100 / NF 300 / FP 400	2
FPD 1.10	NF 1.100 / NF 1.300 / NF 1.600 / FP 1.400	6

IN-LINE FILTERS - LIQUIDS			
Model	Mesh Opening µl/min	LPM (max)	Interface
FS 60T	70	0.6	UNF 1/4" - 28
FS 60 X	35	0.6	UNF 1/4" - 28
FS 25T	70	0.25	IDTubing 3.2 / 4 mm
FS 25 X	35	0.25	IDTubing 3.2 / 4 mm

PRESSURE RELIEF VALVES - LIQUID & GAS			
Model	Liquid l/min (max)	Gas l/min (max)	Max. pressure (bar)
FDV 30/31	3	150	0.5 - 2.5
FDV 1.30/1.31	3	150	2.0 - 6.5
FDV 300/301	12	300	0.8 - 2.5
FDV 1.300/1.301	12	300	2.0 - 6.5



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