KNF LIQUID PUMPS
PRODUCT RANGE

YOUR PARTNER TODAY AND IN THE FUTURE

The KNF Group was founded 1946 in Freiburg, Germany, and is still family-owned. It develops, produces and distributes high-quality diaphragm pumps and systems for gases, vapors and liquids. KNF's innovative diaphragm pumps are available as integrated pumps for OEMs, as well as for process applications and laboratory use.
The independent KNF Group has a workforce of 850 employees. Today it comprises 16 companies with five production facilities around the world.

EXPERTS FOR DIAPHRAGM LIQUID PUMPS

KNF Flodos, based in Switzerland, is the KNF Group's product center for liquid pumps. Since its foundation in 1987, KNF Flodos has been focussing on the development and production of diaphragm pumps for the transfer of liquids. These are sold worldwide through the KNF Group's sales organizations. A highly innovative technology leader in its field, KNF Flodos employs some 190 people. The company is very successful in the medical field, laboratory analysis, the inkjet industry and in other high-tech markets.

A KEY COMPONENT IN HIGH-TECH APPLICATIONS

Our customized diaphragm liquid pumps and systems are used in numerous demanding applications. The catalog of industries we serve and applications we support is expanding day by day.

OEM PUMPS

- Inkjet printing
- Medical
- Cleaning and disinfection
- Analytical instruments
- Agriculture
- Chemical processes
- Environmental analysis
- Food
- Fuel cells
- Semiconductors

LABORATORY PUMPS

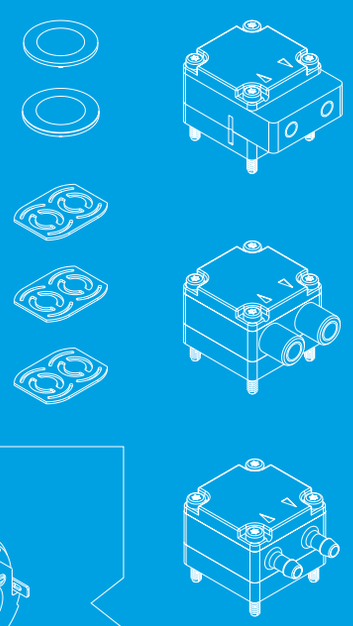
- Filtration
- Fluid aspiration
- Transfer of liquids
- Dosing of liquids
- Handling of aggressive liquids

KNF MODULAR SYSTEM

MATERIAL OPTIONS

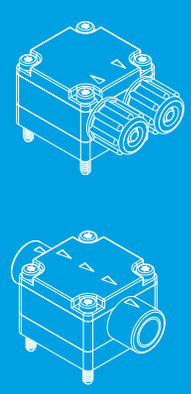
Valve/diaphragm

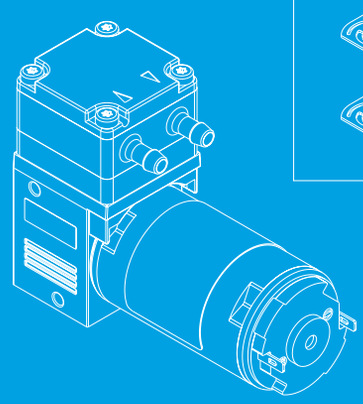
Pump head



MECHANICAL OPTIONS

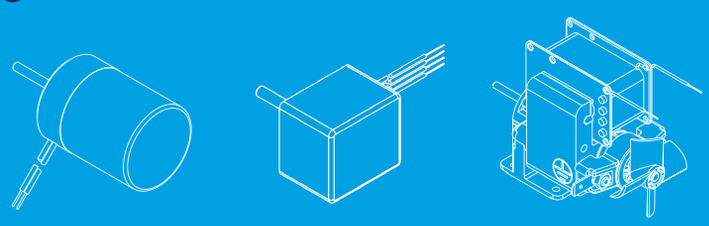
Connectors





MOTOR OPTIONS

All common voltage configurations are available.
Explosion-proof options



OEM PUMPS

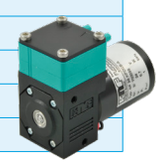
- Self priming
- Dry-run safe
- High chemical resistance
- High reliability
- Long life-time
- Low maintenance

NSF National Sanitary Foundation
This label shows that these pumps can be certified for the use with food/consumables.

Digital customization
Thanks to digital technology, this pump can be quickly adapted to the customer's system. This is done by parametrizing the firmware of the motor at KNF.

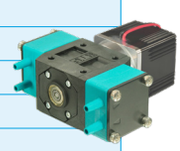
SINGLE HEADED TRANSFER PUMPS

Type	Flow rate at atmos. pressure (l/min)	Suction height (mWg)	Max. pressure (bar)
NF 5	0.07	3.0	1
FF 12	0.15	3.0	1
FF 20	0.23	3.5	3
NF 25	0.25	3.0	1
NF 30 / NF 30.27*	0.3	6.0	1
NF 60	0.6	3.0	1
NF 100 / NF 100.27*	1.2	3.0	1
NF 300 / NF 300.27*	3.0	3.0	1



DOUBLE HEADED TRANSFER PUMPS

Type	Flow rate at atmos. pressure (l/min)	Suction height (mWg)	Max. pressure (bar)
NFB 5	2 x 0.05	3.0	1
NFB 25	2 x 0.3	3.0	1
NFB 30	2 x 0.3	6.0	1
NFB 60	2 x 0.6	3.0	1
NFB 100	2 x 1.3	3.0	1

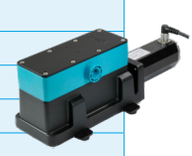


SMOOTH FLOW PUMPS

Type	Flow rate at atmos. pressure (l/min)	Suction height (mWg)	Max. pressure (bar)
FP 70	0.7	3.0	2
FP 150	1.5	3.0	2
FP 400	4.6	3.0	1
FP 1.150	1.1	2.3	6
FP 1.400	4.4	3.0	6
NF 600	6.0	3.0	1
FK 1100	12.4	4.5	1

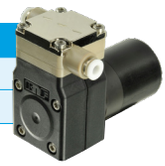
PRESSURE PUMPS FOR UP TO 6 BAR

Type	Flow rate at atmos. pressure (l/min)	Suction height (mWg)	Max. pressure (bar)
NF 1.5	0.06	3.0	6
NF 1.10	0.14	3.0	6
NF 1.25	0.30	3.0	6
NF 1.30	0.17	5.0	6
NF 1.60	0.65	3.0	6
NF 1.100 / NF 1.100.27*	1.2	3.0	6
FP 1.150	1.1	2.3	6
NF 1.300 / NF 1.300.27*	3.0	3.0	6
FP 1.400	4.4	3.0	1
NF 1.600	6.0	3.0	6
FK 1.1100	12.4	4.5	6



* .27: with integrated pressure safety valve

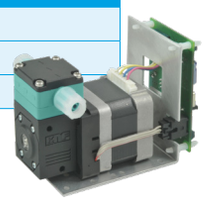
PRESSURE PUMP FOR UP TO 16 BAR			
Type	**Flow rate at atmos. pressure (l/min)**	**Suction height (mWg)**	**Max. pressure (bar)**
NF 2.35	0.35	3.0	16



TRANSFER PUMPS WITH LINEAR DRIVE				
Type	**Flow rate at atmos. pressure (l/min)**	**Suction height (mWg)**	**Max. press. (bar)**	**Max. frequency (Hz)**
FMM 20	0.018	3.0	1	20
FMM 80	0.048	4.0	1	10
FL 10	0.1	2.0	1	50

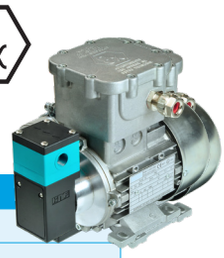
DOSING PUMPS WITH TWO-PHASE STEPPER MOTOR			
Type	**Dispense volume (ml/min)**	**Suction height (mWg)**	**Max. pressure (bar)**
FEM 1.02	0.2 – 20	4.0	6
FEM 1.09	0.9 – 90	4.0	6

DOSING SYSTEMS WITH TWO-PHASE STEPPER MOTOR			
Type	**Dispense volume (µl)**	**Suction height (mWg)**	**Max. pressure (bar)**
FEM 1.02.55 RC	5 – 180	4.0	6
FEM 1.09.55 RC	10 – 520	4.0	6



EXPLOSION-PROOF PUMPS

- ATEX certified
- For use in hazardous locations
- For transfer of flammable liquids
- Available with pressure safety valve



TRANSFER PUMPS WITH EX-PROOF MOTOR			
Type	**Flow rate at atmos. pressure (l/min)**	**Suction height (mWg)**	**Max. pressure (bar)**
NF 1.100 EX	1.2	2.5	4
NF 1.300 EX	3	2.5	4

LABORATORY PUMPS

- Diaphragm pumps for laboratory applications
- Intelligent design
- High chemical resistance
- Reliable and maintenance-free
- Intuitive handling

LIQUIPORT

Pumps for industry and laboratory

TRANSFER PUMPS					
Type	Flow rate at atmos. pressure (l/min)	Suction height (mWg)	Pressure (bar)	Materials of head components	
				Head	Valves, Diaphragm
NF 100	0.2 – 1.3	3.0	1	PP, PVDF, PTFE	FFKM, PTFE
NF 1.100	0.2 – 1.3	3.0	4	PP, PVDF, PTFE	FFKM, PTFE
NF 300	0.5 – 3.0	3.0	1	PP, PVDF, PTFE	FFKM, PTFE
NF 1.300	0.5 – 3.0	3.0	4	PP, PVDF, PTFE	FFKM, PTFE

SIMDOS 02

The easy way to dose aggressive and neutral liquids

DOSING PUMP						
Type	Flow rate at atmos. pressure	Dosing range	Suction height (mWg)	Pressure (bar)	Materials of head components	
					Head	Valves, Diaphragm
FEM 1.02	30 µl/min – 20 ml/min	30 µl – 999 ml	2.0	6	PP, PVDF, PTFE, STAINLESS STEEL	FFKM, PTFE, EPDM

SIMDOS 10

The easy way to dose aggressive and neutral liquids

DOSING PUMP						
Type	Flow rate at atmos. pressure	Dosing range	Suction height (mWg)	Pressure (bar)	Materials of head components	
					Head	Valves, Diaphragm
FEM 1.10	1 – 100 ml/min	1 – 999 ml	3.0	6	PP, PVDF, PTFE, STAINLESS STEEL	FFKM, PTFE, EPDM

ACCESSORIES FOR OEM AND LABORATORY PUMPS

KNF offers a full range of accessories. The most common ones are listed below. For further parts, contact your local KNF partner or consult our accessory catalogue.

PRESSURE RELIEF VALVES				
Type	Max. flow rate with liquid (l/min)	Setting range (barg)	Material selection	
			Lower body	Diaphragm
FDV 30/31	3.0	0.5 – 2.5	PP, PVDF	EPDM, FKM, FFKM
FDV 1.30/1.31	3.0	2.0 – 6.5	PP, PVDF	EPDM, FKM, FFKM
FDV 300/301	12.0	0.8 – 2.5	PP, PVDF	EPDM, FKM, FFKM
FDV 1.300/1.301	12.0	2.0 – 6.5	PP, PVDF	EPDM, FKM, FFKM

This valve can be used for different purposes eg.: keeping the pressure constant, as a pressure safety valve or to prevent siphoning through the pump.

PULSATION DAMPERS				
Type	KNF pump type being used	Max. pressure (bar)	Material selection	
			Upper body	Diaphragm
FPD 06	NF 5 / NF 10 / FL 10 / FF 12 / FF 20 / NF 25 / NF 30 / NF 60 / NF 100 / FP 70	2	PP, PVDF	EPDM, FFKM
FPD 1.06	NF 1.5 / NF 1.25 / NF 1.30 / NF 1.60 / FP 150 / FP 1.150	6	PP, PVDF	EPDM, FFKM
FPD 10	NF 300 / NF 600 / FP 400	2	PP, PVDF	EPDM, FFKM
FPD 1.10	NF 1.100 / NF 1.300 / NF 1.600 / FP 1.400	6	PP, PVDF	EPDM, FFKM

Reduces pulsation in a liquid system

IN-LINE FILTERS				
Type	Material	Mesh opening (µm)	Max. flow rate with liquid (l/min)	Connectors
FS 60T	PVDF	70	0.6	UNF 1/4“- 28
FS 60 X	PEEK	35	0.6	UNF 1/4“- 28
FS 25T	PVDF	70	0.25	for tubes ID 3.2 or 4 mm
FS 25 X	PEEK	35	0.25	for tubes ID 3.2 or 4 mm

Prevents foreign objects from entering the liquid system

YOUR LOCAL PARTNER AROUND THE WORLD

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