

# Product Range

e2

## Diaphragm Vacuum Pumps and Compressors for Air, Gases and Vapours

### OEM Models

Specially modified  
pumps for precise  
application



Page 1

Type	Flow rate at atm. conditions	Vacuum	atm Press	Pressure	Data sheet
Order-No	(l/min)	(mbar abs)		(bar g)	
NMP 05 S	0,4	500	0,15	004	
NMP 05 M	0,4	500	0,15	004	
NMP 05 L	0,45	500	0,25	004	
NMP 05 B	0,3	500	0,4	004	
NMP 09 S	0,8	550	0,2	004	
NMP 09 M	0,85	500	0,15	004	
NMP 09 L	0,85	500	0,25	004	
NMP 09 B	0,75	500	0,65	004	
NMP 015 S	1,4	400	0,9	004	
NMP 015 M	1,6	400	0,9	004	
NMP 015 L	1,4	400	0,9	004	
NMP 015 B	1,3	400	0,9	004	
<b>NEW</b> NMS 020	1,8	500	0,5	Flyer	
NMP 830 KNE	1,8	250	1,0	005	
<b>NEW</b> NMP 015.1.2 L	2,1	600	0,6	007	
NMP 830 KNDC B	2,5	240	1,4	005	
NMP 830 KNDC	3,1	250	1,0	005	
NMP 850 KNDC B	4,2	230	1,5	005	
NMP 850 KNDC	4,5	230	1,5	005	
N 84.3 ANE	4,2	5	0,3	006	
N 84.4 ANDC	4,8	2	0,3	006	
N 84.3 ANDC	5	5	0,3	006	
N 85.3 KNE	5	25	0,3	008	
N 85.3 KNDC	5	25	0,3	008	
N 86 KNE	6	100	2,4	008	
N 86 KNDC	6,5	100	1,5	008	
<b>NEW</b> NMP 850.1.2 KNDC B	8	230	1,5	005	
N 89 KNDC	9	100	0,5	010	
N 89 KNE	9,5	100	0,5	010	
N 811 KNDC	11	100	0,5	010	
N 811 KNE	11,5	100	0,5	010	
N 814 KNE	11,5	240	2	010	
N 814 KNDC	12	240	2	010	
N 813.3 ANE	13	3	1	039	
N 813.4 ANE	13	0,5	1	039	
N 815 KNE	15	100		024	
N 022 ANE	15	100	4	014	
N 816.3 KPE*	16	15	0,5	012	
N 815 KNDC	16	100		024	
N 813.5 ANE	19	1	1	039	
N 026 ANE	20	100	2,5	014	
<b>NEW</b> N 920 APE-W <sup>1)</sup>	21	1,5	0,5	015	
<b>NEW</b> N 920 APDC B <sup>1)</sup>	21	1,5	0,5	015	
N 026.3 ANE	22	20		023	
N 023 ANE	23	213	2	025	
N 023.3 ANE	23	52		025	
N 023 AN.30E	23	213	2	025	
N 023.3 AN.30E	23	52		025	
N 823.3 ANE	24	10	1	025	
N 828 KNDC	27	100	1	024	
N 828 ANDC	27	100	1	024	
N 816.6 KPE*	28	10	0,5	012	
N 828 KNE	28	100	1	024	
N 828 ANE	28	100	1	024	

<sup>1)</sup> Diaphragm Vacuum Pumps with new technology

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Type	Flow rate at atm. conditions	Vacuum	atm Press	Pressure	Data sheet
Order-No	(l/min)	(mbar abs)		(bar g)	
N 035.3 ANE	30	13			032
N 035 ANE	30	100		4	016
N 145 ANE	30	100		7	030
N 836 APE*	31	80		0,5	180
N 836 AP.40E*	31	80		0,5	180
N 836 AP.41.E*	31	80		0,5	180
N 836.3 APE*	31	10		0,5	180
N 836.3 AP.40E*	31	10		0,5	180
N 836.3 AP.41E*	31	10		0,5	180
N 838 KNDC	32	100		0,5	024
N 838 ANDC	32	100		0,5	024
N 834.3 ANE	33	10		1	038
N 838 KNE	34	100		0,5	024
N 838 ANE	34	100		0,5	024
N 023.1.2 ANE	39	213		2	025
N 023.1 ANE	39	213			025
N 023.2 ANE	39			2	025
N 023.1.2 AN.30E	39	213		2	025
N 023.1 AN.30E	39	213			025
N 023.2 AN.30E	39			2	025
N 026.1 ANE	39	100			023
N 026.2 ANE	39			2	023
N 838.1.2 KNE	42	90		0,5	029
N 843.3 ANE	43	3		1	039
N 843.3 AN.22E	43	3		1	039
NEW N 940 APE <sup>1)</sup>	50	1,5		0,5	037
NEW N 940 APE-W <sup>1)</sup>	50	1,5		0,5	037
N 035.1 ANE	55	100			032
N 035.2 ANE	55			4	032
N 145.2 ANE	55			7	030
N 860 ANE	60	80		1	040
N 860.3 ANE	60	2		1	040
N 880.3 AN.22E	80	2		1	039
N 0150.3 ANE	150	20			059
N 0150 ANE	150	100		2	059
N 0150.1.2 ANE	280	100		2	059

\*Diaphragm Vacuum Pumps for moist gases (.40 = with drying system, .41 = with drying system and air-cooled heads).

<sup>1)</sup> Diaphragm Vacuum Pumps with new technology

## OEM Models for potentially explosive atmospheres (ATEX)

N 026 AT.9E	15	100		2,5	171
N 026.ST.9E	15	100		2,5	171
N 026.1.2 AT.9E	26	100		2	171
N 026.1.2 ST.9E	26	100		2	171
N 143 AT.9E	27	100		4	174
N 143 ST.9E	27	100		4	174
N 186 1.2 AT.9E	48	100		4	174
N 186 1.2 ST.9E	48	100		4	174
N 0150 AT.9E	120	115		1	178
N 0150 ST.9E	120	115		1	178
N 0150 1.2 AT.9E	220	115		1	178
N 0150 1.2 ST.9E	220	115		1	178

Performance figures refer to standard models pumping air.

See our data sheets or price list for information on materials used for pump head, diaphragm, valves and motor versions.

# Product Range

e3

## Diaphragm Liquid Pumps and Metering Pumps

Specially modified pumps for precise application



OEM Models

## Diaphragm Liquid Pumps

Type	Flow rate at atm. conditions	Suction height	Pressure head	Data sheet
Order-No	(l/min)	(mWg)	(mWg)	
NF 5	0.07	4	10	518
NF 10/11	0.1	3	10	511
NF 1.11	0.1	3	60	517
NF 1.30	0.17	5	60	512
NF 30/31 <sup>1)</sup>	0.3	6	10	513
NF 60/61	0.6	3	10	514
NF 100 <sup>1)</sup>	1.2	3	10	515
NF 1.100 <sup>1)</sup>	1.3	3	60	515
NF 300 <sup>1)</sup>	3	3	10	516
NF 1.300 <sup>1)</sup>	3	3	60	516
<b>NEW</b> NF 600 (4 pump heads)	6	3	10	520

<sup>1)</sup> Technical options: with integral over-pressure relief-valve system (.27), see data sheet

## Double headed Diaphragm Liquid Pumps



NFB 30	2x 0,3	6	10	513
NFB 60	2x 0,6	3	10	514

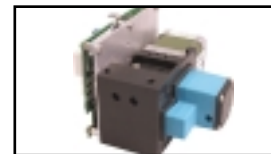
## Diaphragm Liquid Pumps for potentially explosive atmospheres (ATEX)



NF 1.100_Ex <sup>1)</sup>	1.2	2.5	40	ExFlyer
NF 1.300_Ex <sup>1)</sup>	3	2.5	40	ExFlyer

<sup>1)</sup> Technical options: with integral over-pressure relief-valve system (.27), see data sheet

## Micro-Diaphragm Metering Pump with Microprocessor



Type	Flow rate at atm. conditions	Suction height	Pressure head	Data sheet
Order-No	(ml/min)	(mWg)	(mWg)	
FEM 1.03	0.03 - 30	4	60	755
FEM 1.08	0.08 - 80	3	40	

## with 2 phase stepper motor

<b>NEW</b> FEM 1.02	0.2 - 20	3	60	751
<b>NEW</b> FEM 1.09	0.9 - 90	3	60	

## Solenoid Diaphragm Metering Pump

Type	Dispense volume	Calibration range	Max. Frequency	Max. Pressure	Data sheet
Order-No	(µl)	(µl)	(Hz)	(mWg)	
<b>NEW</b> FMM 20	20	5 - 25	20	10	750

Performance figures refer to standard models and water at 20° C.

See our data sheet for information on materials used for pump head, diaphragm, valves and motors.

# Product Range

e4

## Chemically-resistant Diaphragm Gas Sampling Pumps

OEM Models



### Full-PTFE Gas Sampling Pumps

NEW

Type	Flow rate at atm. conditions (l/min)	Vacuum (mbar abs)	atm Press	Pressure (bar g)	Data sheet
N 87 TTE	7.5	140	1.5	151	
N 726 FTE	16	53	1.5	161	
N 834.3 FTE	33	10	1	038	
N 940.5 TTE	48	2	0,5	164	
N 860 FTE	60	80	1	040	
N 860.3 FTE	60	2	1	040	

### Full-PTFE Gas Sampling Pump with adjustable flowrate



N 726 FT.29 E*	16	125	1.5	161
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\*Flowrate, vacuum and pressure adjustable (.29)

### Full-PTFE Gas Sampling Pump Temperature-resistant (.16) up to 200°C



N 026 FT.16 E	15	240	1,5	161
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see also e5 (temperature resistant and heated Gas Sampling Pumps)

### Full-PTFE Gas Sampling Pump for potentially explosive atmospheres (ATEX)



N 87 TTE Ex	7.5	140	1,5	170
N 726 FTE Ex	13	53	1,5	172
N 726 FT.29E* Ex	13	125	1,5	172

\*Flowrate, vacuum and pressure adjustable (.29)

Performance figures refer to standard models pumping air.  
See our data sheets or price list for information on materials used for pump head, diaphragm and valves.

**Specially modified pumps for precise application**

# Product Range

**e5**

## Temperature-resistant and heated Diaphragm Gas Sampling Pumps up to 240°C

OEM Models

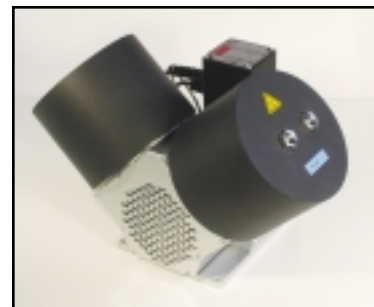


### Temperature-resistant (.16) and electrically heated (.11) Pumps

Typ-Bez.	Flow rate at atm. conditions	Vacuum	atm Press	Pressure	Data sheet
Bestell-Nr.	(l/min)	(mbar abs.)		(bar g)	
N 86 AT.16 E	6	290	1.5	074	
N 012 ST.11 E	10.5	240	1.5	076	
N 012 AT.16 E	10.5	240	1.5	076	
N 026 FT.16 E	15	240	1.5	161	
N 024 ST.11 E	18	200	1.5	076	
N 024 AT.16 E	18	200	1.5	076	
N 036 ST.11 E	30	200	1.5	076	
N 036 AT.16 E	30	200	1.5	076	
N 036.0 ST.11 E	30 pro pump head	200	1.5	078	
N 036.0 AT.16 E	30 pro pump head	200	1.5	078	
N 0100 ST.11 E	100	180	1.5	078	
N 0100 AT.16 E	100	180	1.5	078	

.0 = 2-headed pump without connecting pipes

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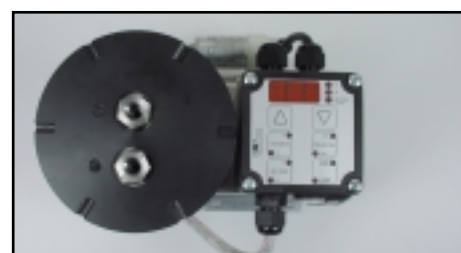
### Electrically heated Pumps with Electronic Temperature Control (.26)

Type	Flow rate at atm. conditions	Vacuum	atm Press	Pressure	Data sheet
Order-No	(l/min)	(mbar abs.)		(bar g)	
N 012 ST.26 E	10.5	240	1.5	076	
N 024 ST.26 E	18	200	1.5	076	
N 036 ST.26 E	30	200	1.5	076	
N 036.0 ST.26 E	30 pro pump head	200	1.5	078	
N 0100 ST.26 E	100	180	1.5	078	

.0 = 2-headed pump without connecting pipes

.26 = Pumps with RS 232 interface. The interface protocol can be made available for applications which externally control the circuitry.

Performance figures refer to standard models pumping air.  
See our data sheets or price list for information on materials used for pump head, diaphragm and valves.  
Diaphragm Pumps in explosion protected to ATEX on enquiry

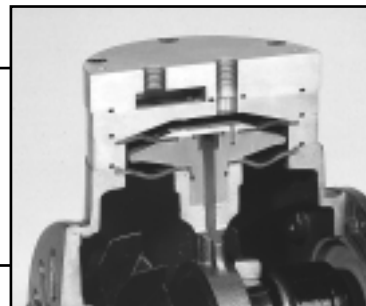


# Product Range

e6

## Double Diaphragm Pumps for toxic, dangerous and costly Gases.

### OEM Models



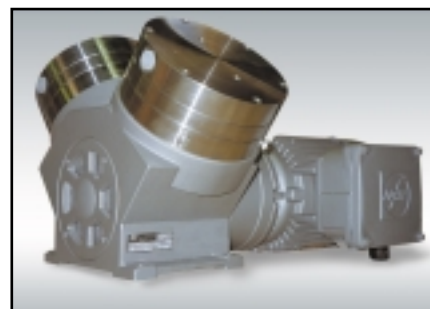
Typ-Bez.	Flow rate at atm. conditions	Vacuum	atm Press	Pressure	Data sheet
Bestell-Nr.	(l/min)	(mbar abs)		(bar g)	
N 86 AN.12 DCB	4.5	250		1	081
N 838 AN.12 DCB	25	200		0.6	081
N 143 AN.12 E	30	100		3	065
N 186.3 AN.12 E	30	4			065
N 186.1.2 AN.12 E	50	100		3	065
N 150 AN.12 E	150	100		2	059
N 150.3 AN.12 E	150	20			059
N 150.1.2 AN.12 E	280	100		2	059

Performance figures refer to standard models pumping air.

See our data sheets or price list for information on materials used for pump head, diaphragm and valves.

Double Diaphragm Pumps in explosion protected to ATEX on enquiry.

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pumps for precise  
application**



Double Diaphragm Pump in ATEX version

# Product Range

## Swing Piston Compressors and Vacuum Pumps

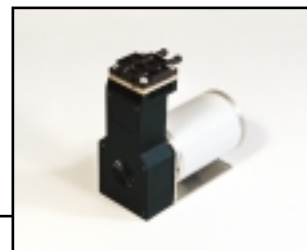
e7

### OEM Models

**Specially modified  
pumps for precise  
application**



NPK 04



NPK 018

Type	Flow rate at atm. conditions	Vacuum	atm Press	Pressure	Data sheet
Order-No	(l/min)	(mbar abs)		(bar g)	
NPK 04 Vacuum	3.3	300			303
NPK 04 Pressure	3.3			1	303
NPK 09	12	100		7	308
NPK 018 Vacuum	18	120			305
NPK 018 Pressure	18			1.5	305
NPK 09.1	24	100			308
NPK 09.2	24			7	308
NPK 09.1.2	24	100		7	308
NPK 25	30	180		5	310
NPK 050	50	80		2	310
NPK 0100	78	80		2	310

NEW

Performance figures refer to standard models pumping air.

### Operation

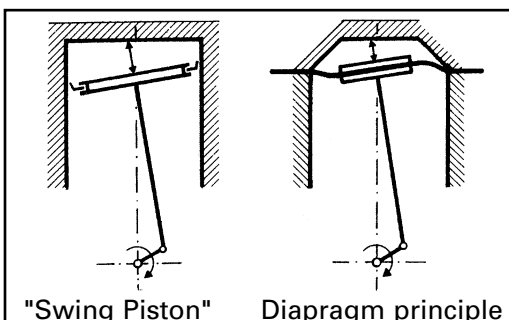
Connecting rod and piston are designed in one single unit. The piston does not move vertically in the cylinder, it rather "swings" in an angular motion inside the cylinder. The close similarity to the diaphragm compressor is easily recognized. The "Swing Piston" with its special seal ring operates totally without lubrication and therefore the compressed air is 100% oil-free. 100% oil-free has another meaning ... maintenance free operation for thousands of hours !!!



NPK 25



NPK 09.1.2



Both principles uses an eccentric/connecting rod system which will give the connecting rod the angular motion. The forces are transmitted vertically into the connecting rod. Contrary to the diaphragm principle the "Swing Piston" has a seal ring, to trap the pump volume instead of a Diaphragm.

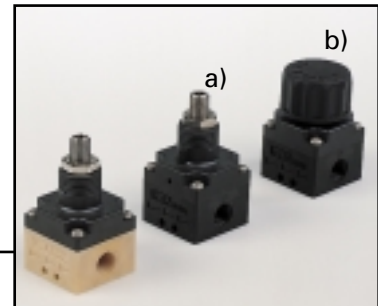


NPK 0100

# Product Range

ez

## Accessories



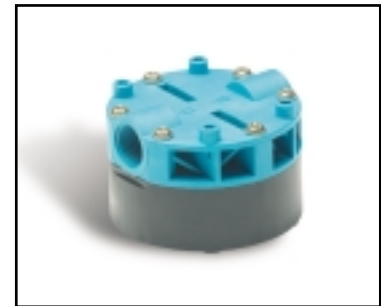
## Diaphragm Pressure Control Valves

Type	Max. flowrate with mit liquid	Min. preesure	Max. pressure	Data sheet
Order-No	(l/min)	(bar g)	(bar g)	
FDV 30/31	3.0	0.2	2.5	760
FDV 1.30/1.31	3.0	2	6.5	760
FDV 300/301	12.0	0.8	2.5	760
FDV 1.300/1.301	12.0	2	6,5	760

Also suitable for gaseous media, max. flowrate with air / gases: 150 NI/min by FDV 30/31 and FDV 1.30/1.31 and 300 NI/min by FDV 300/301 and FDV 1.300/1.301.

### Technical options

- a) with adjustable spindle / locking nut system
- b) with adjustable turning knob



## Diaphragm Pulsation Damper

Type	Suitable for the following types of standard pumps	Max. pressure	Data sheet
Order-No		(bar g)	
FPD 06	NF 10 / NF 30 / NF 60 / NF 100	2,0	765
FPD 1.06	NF 1.30	6,0	765
FPD 10	NF 300 / FM 15 /30	2,0	765
FPD 1.10	NF 1.100 / 1.300 / FM 1.15 / 1.30	6,0	765

Performance figures refer to standard models and water at 20° C.  
See our data sheet for information on wetted materials and other technical details.

## Non-return Valves

for gases and liquids, temperature-resistant up to approx. 205 °C

Type	Dimensions (mm)	Max. pressure	Data sheet
Order-No		(bar g)	
072214	Length 42, tube connection OD 5	1.3	790
072215	Length 40, tube connection OD 6,4	1.3	790