



## Diaphragm Pumps for Air, Gases and Vapours



### LABOPORT® Mini Diaphragm Vacuum Pumps and Compressors

#### Technical features:

- 100% oil-free transfer
- Pure transferring, evacuation and compression of gases
- Version for slightly aggressive or corrosive gases and vapours
- Maintenance-free
- Environmentally friendly
- High level of gas tightness.

#### Series LABOPORT® N 86 K\_.18 Pumps

Series N 86 diaphragm pumps are single-head, dry-running devices used in a wide range of laboratory applications. They transfer, compress and pump down without contamination. The heart of these very compact pumps is a KNF structured diaphragm. This patented diaphragm was stress-optimized using the Finite Elements method. As a result, we were able to make the pumps smaller while increasing the service life of the diaphragm.

The pumps are available in various versions differing in the materials which contact the media.

Technical data:	N 86 KN.18	N 86 KT.18
Delivery (l/min) <sup>1)</sup>	6	5.5
Ultimate vacuum (mbar abs.)	100	160
Operating pressure (bar g)	2.4	2.5
Connectors for tube (mm)	ID 4	ID 4
Permissible gas and ambient temperature	+5...+40 °C	+5...+40 °C
Mains	230V/50Hz	230V/50Hz
Motor protection	IP 20	IP 20
Power P <sub>1</sub>	60 W	60 W
Operating current	0.6 A	0.6 A
Weight	1.9 kg	1.9 kg
Dimensions LxHxW (mm)	164/141/90	164/141/90
With thermal switch and power fuse		

Motors with other voltages and frequencies on request.

#### Material in contact with the pumped media

Type/Order No.	Pump head	Diaphragm	Valves
N 86 KN.18	PPS	EPDM	FPM
N 86 KT.18	PPS	PTFE-coated	FFPM

<sup>1)</sup> at atm. pressure

### Accessories and spare parts

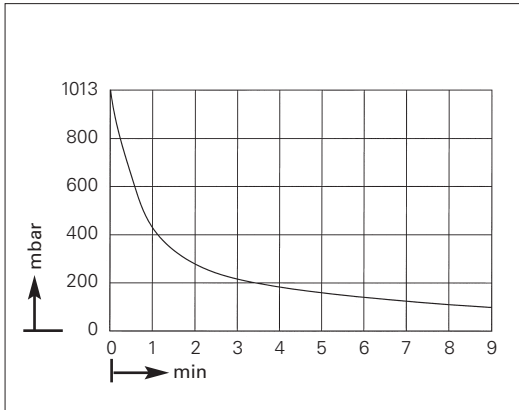
Description	Details	Order No.
Silencer	G 1/8	000345
Filter	G 1/8	000346
Hose connector	G 1/8, PVDF, for tube ID 4 mm	025671
Fine control valve with pressure gauge	pressure side	001786
Fine control valve with vacuum gauge	suction side	001787
Spares kit	for N 86 KN.18	043241
Spares kit	for N 86 KT.18	043242



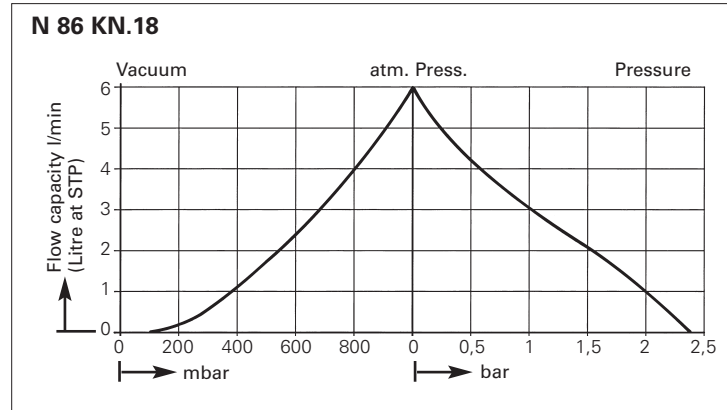
# Diaphragm Pumps for Air, Gases and Vapours

## Dimensions and performance characteristics

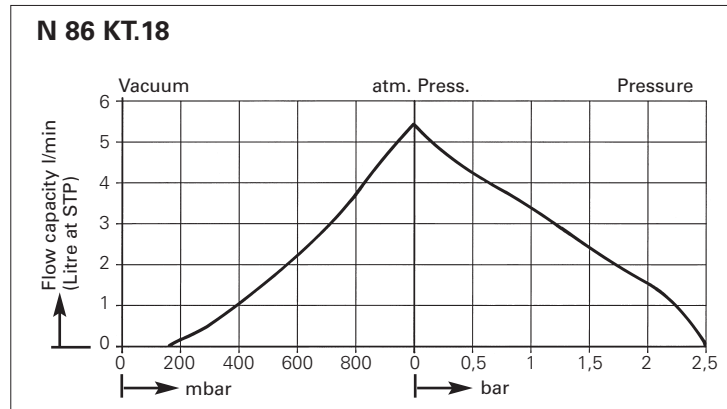
Pump down time for 5 l receiver



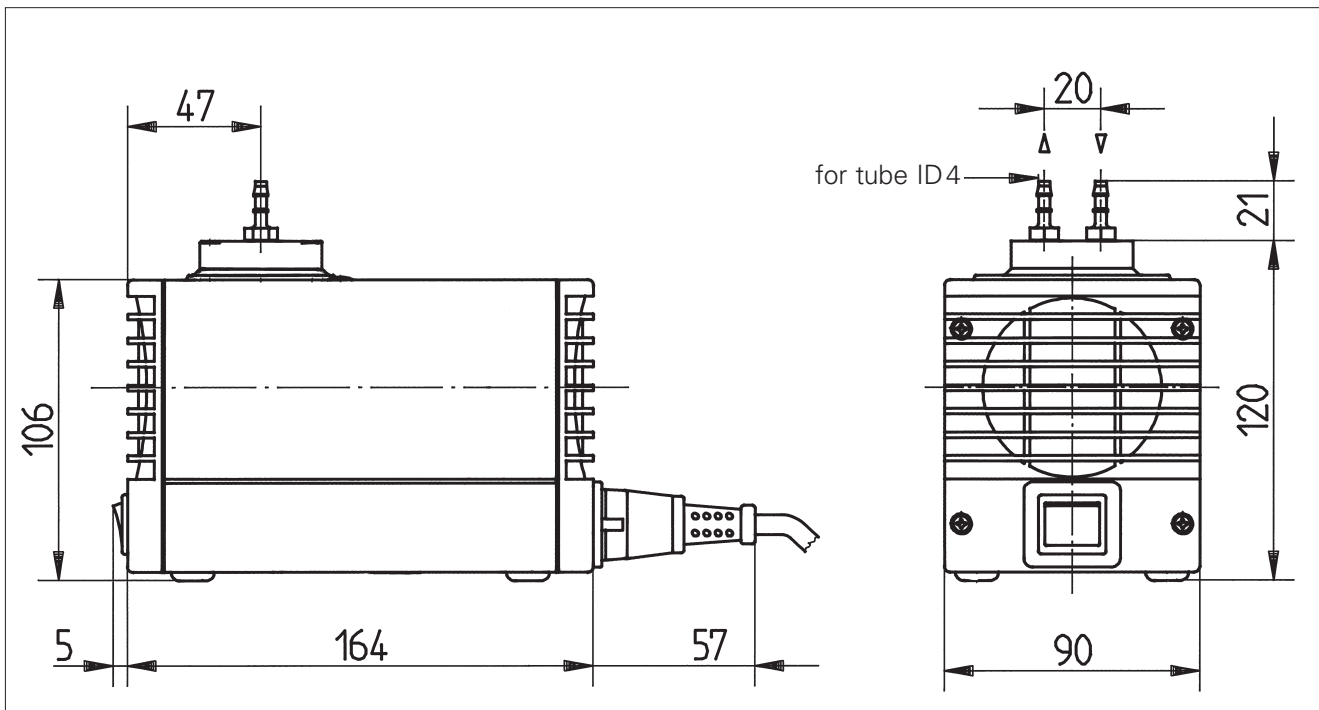
Performance characteristics



Performance characteristics



Dimensions (mm)





## Diaphragm Pumps for Air, Gases and Vapours



### LABOPORT® Mini Diaphragm Vacuum Pumps and Compressors

#### Series LABOPORT® N 811 K\_.18 Pumps

#### Technical features:

- 100% oil-free transfer
- Pure transferring, evacuation and compression of gases
- Version for slightly aggressive or corrosive gases and vapours
- Maintenance-free
- Environmentally friendly
- High level of gas tightness.

Series N 811 diaphragm pumps are single-head, dry-running devices used in a wide range of laboratory applications. They transfer, compress and pump down without contamination. The heart of these very compact pumps is a KNF structured diaphragm. This patented diaphragm was stress-optimized using the Finite Elements method. As a result, we were able to make the pumps smaller while increasing the service life of the diaphragm.

The pumps are available in various versions differing in the materials which contact the media.

#### Technical data:

	N 811 KN.18	N 811 KT.18
Delivery (l/min) <sup>1)</sup>	11.5	11.5
Ultimate vacuum (mbar abs.)	240	290
Operating pressure (bar g)	2	2
Connectors for tube (mm)	ID 6	ID 6
Permissible gas and ambient temperature	+5...+40 °C	+5...+40 °C
Mains	230V/50Hz	230V/50Hz
Motor protection	IP 20	IP 20
Power P <sub>1</sub>	65 W	65 W
Operating current	0.8 A	0.8 A
Weight	2.5 kg	2.5 kg
Dimensions LxHxW (mm)	187/157/90	187/157/90
With thermal switch and power fuse		

#### Material in contact with the pumped media

Type/OrderNo.	Pump head	Diaphragm	Valves
N 811 KN.18	PPS	EPDM	FPM
N 811 KT.18	PPS	PTFE-coated	FFPM

Motors with other voltages and frequencies on request.

<sup>1)</sup> at atm. pressure

### Accessories and spare parts

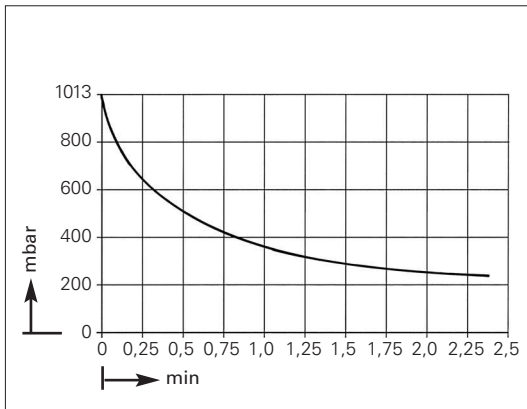
Description	Details	Order No.
Silencer	G 1/8	000345
Filter	G 1/8	000346
Hose connector	G 1/8, PVDF, for tube ID 6 mm	014052
Fine control valve with pressure gauge	pressure side	001786
Fine control valve with vacuum gauge	suction side	001787
Spares kit	for N 811 KN.18	044066
Spares kit	for N 811 KT.18	044067



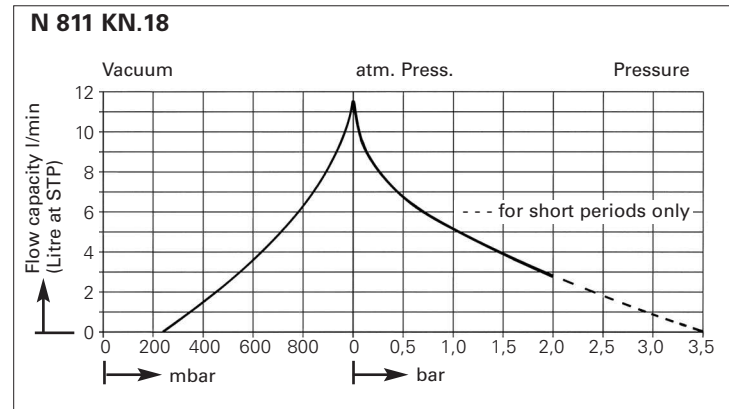
# Diaphragm Pumps for Air, Gases and Vapours

## Dimensions and performance characteristics

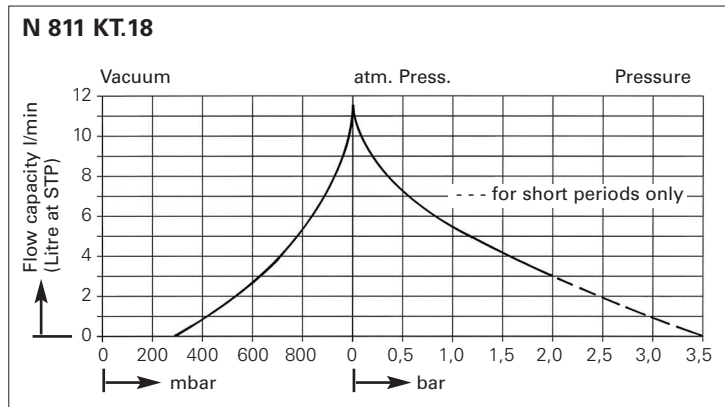
Pump down time for 5 l receiver



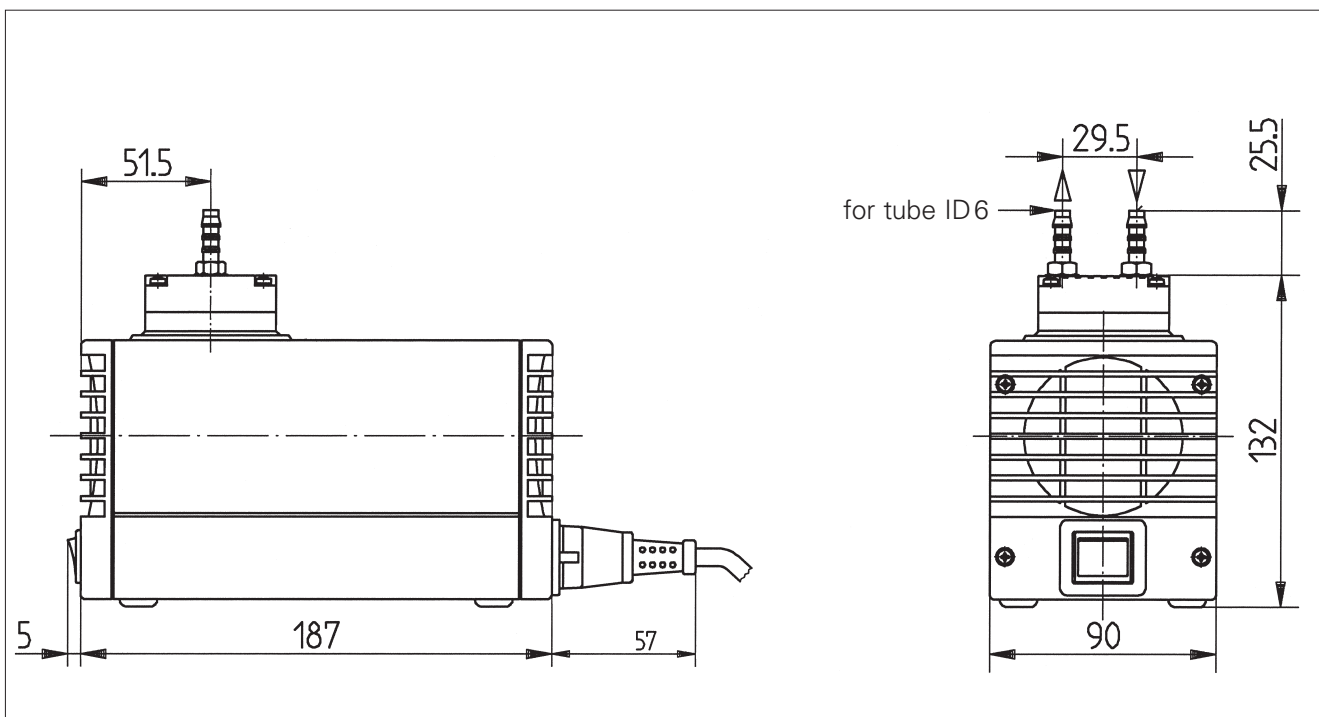
Performance characteristics



Performance characteristics

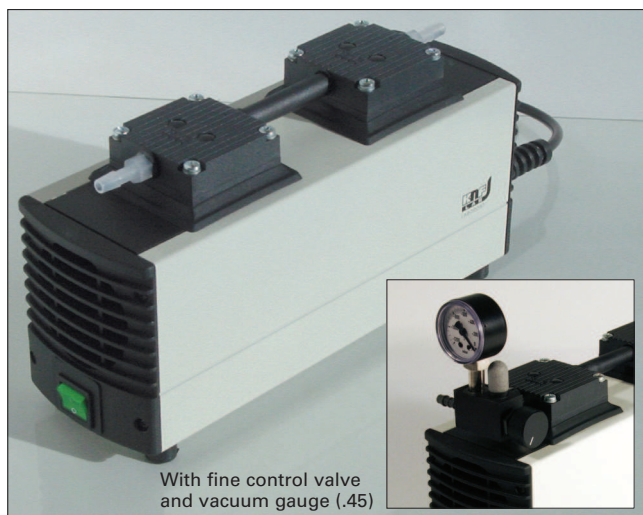


## Dimensions (mm)





## Diaphragm Pumps for Air, Gases and Vapours



With fine control valve and vacuum gauge (.45)

### LABOPORT® Mini Diaphragm Vacuum Pumps

#### Technical features:

- 100% oil-free transfer
- Pure transferring and evacuation of gases
- Version for slightly aggressive or corrosive gases and vapours
- Maintenance-free
- Environmentally friendly
- High level of gas tightness.

### Series LABOPORT® N 816.3 K\_.18 Pumps

Series N 816.3 diaphragm pumps are double-head, dry-running devices used in a wide range of laboratory applications. They transfer and pump down without contamination.

The heart of these very compact pumps is a KNF structured diaphragm. This patented diaphragm was stress-optimized using the Finite Elements method. As a result, we were able to make the pumps smaller while increasing the service life of the diaphragm.

The pumps are available in various versions differing in the materials which contact the media.

#### Material in contact with the pumped media

Type/Order No.	Pump head	Diaphragm	Valves
N 816.3 KN.18	PPS	EPDM	EPDM
N 816.3 KN.45.18	PPS	EPDM	EPDM
N 816.3 KT.18	PPS	PTFE-coated	FFPM
N 816.3 KT.45.18	PPS	PTFE-coated	FFPM

.45 = Pump with fine control valve and vacuum gauge

#### Technical data:

	N 816.3 KN.18	N 816.3 KT.18
	N 816.3 KN.45.18	N 816.3 KT.45.18

Delivery (l/min) <sup>1)</sup>	16	16
Ultimate vacuum (mbar abs.)	15	20
Operating pressure (bar g)	0.5	0.5
Connectors for tube (mm)	ID 6	ID 6
Permissible gas and ambient temperature	+5...+40 °C	+5...+40 °C
Mains	230V/50Hz	230V/50Hz
Motor protection	IP 20	IP 20
Power P <sub>1</sub>	100 W	100 W
Operating current	0.6 A	0.6 A
Weight	3.95 kg	3.95 kg
Dimensions LxHxW (mm)	361/141/90	361/141/90
With thermal switch and power fuse		

Motors with other voltages and frequencies on request.

<sup>1)</sup> at atm. pressure

### Accessories and spare parts

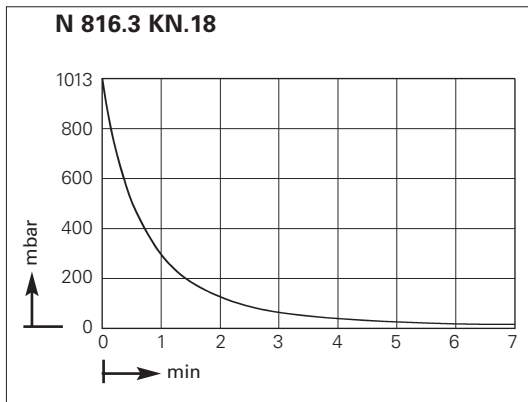
Description	Details	Order No.
Silencer	G 1/8	000345
Hose connector	G 1/8, PVDF, for tube ID 6 mm	014052
Fine control valve with vacuum gauge	suction side	056547
Spare kit	for N 816.3 KN	056315
Spare kit	for N 816.3 KT	056316



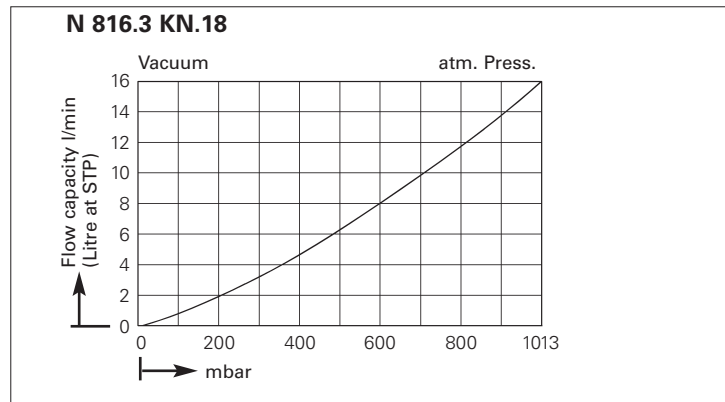
# Diaphragm Pumps for Air, Gases and Vapours

## Dimensions and performance characteristics

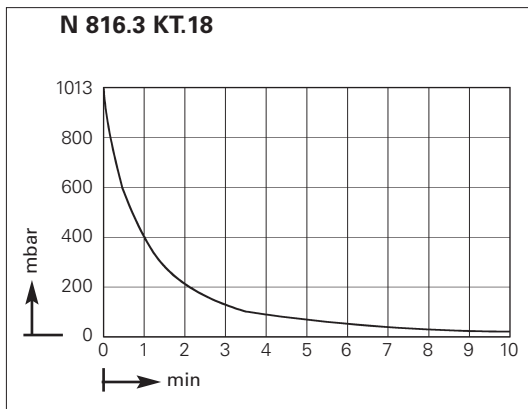
Pump down time for 10 l receiver



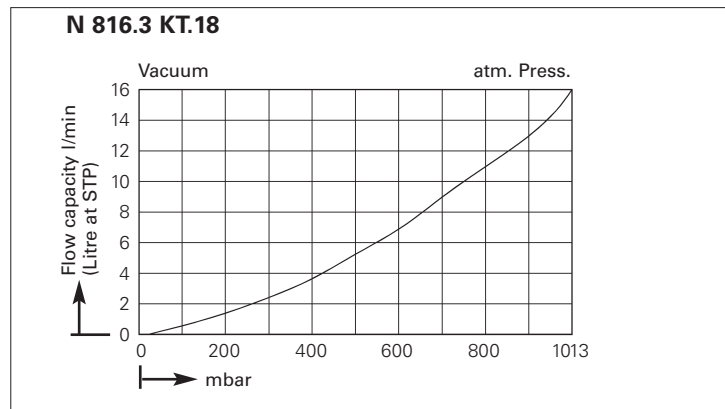
Performance characteristics



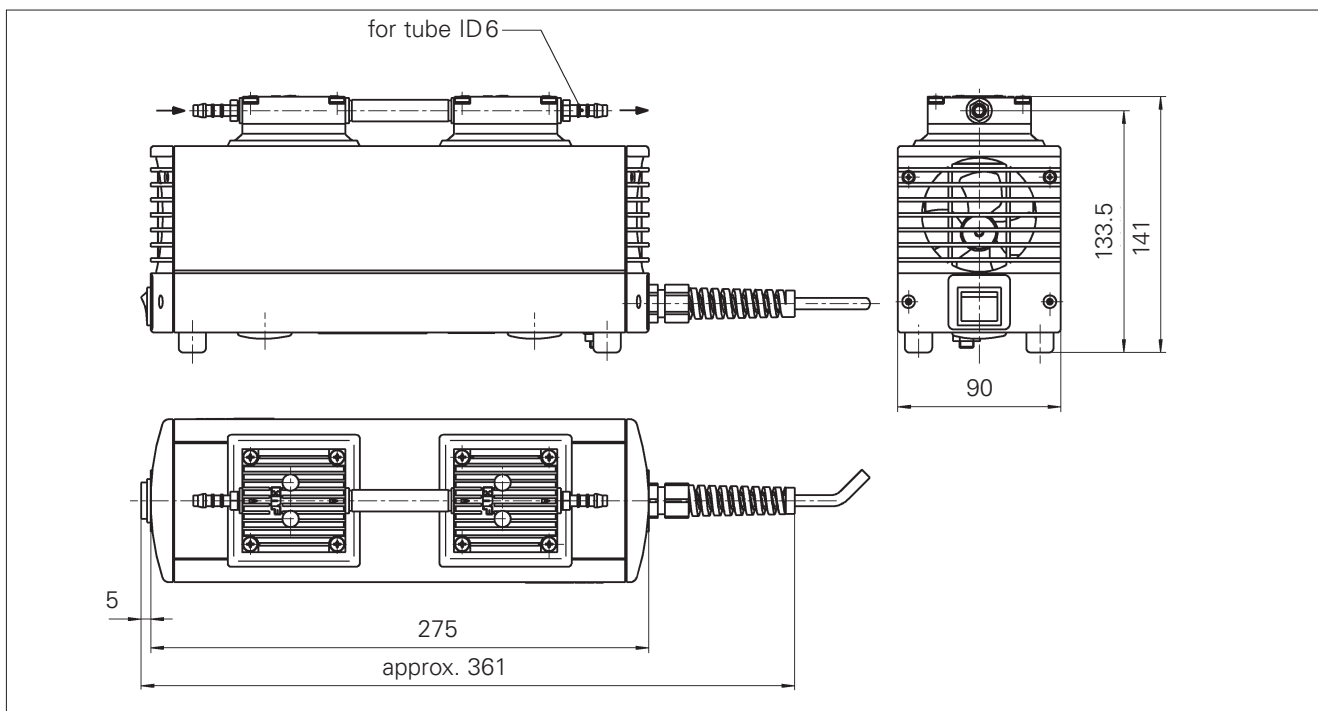
Pump down time for 10 l receiver



Performance characteristics



## Dimensions (mm)





## Diaphragm Pumps for Air, Gases and Vapours



With fine control valve and vacuum gauge (.45)

### LABOPOINT® Mini Diaphragm Vacuum Pumps

#### Technical features:

- 100% oil-free transfer
- Pure transferring and evacuation of gases
- Version for slightly aggressive or corrosive gases and vapours
- Maintenance-free
- Environmentally friendly
- High level of gas tightness.

### Series LABOPOINT® N 838.3 K ... .18 Pumps

Series N 838.3 diaphragm pumps are double-headed, dry-running devices used in a wide range of laboratory applications. They transfer and pump down without contamination. The heart of these very compact pumps is a KNF structured diaphragm. This patented diaphragm was stress-optimized using the Finite Elements method. As a result, we were able to make the pumps smaller while increasing the service life of the diaphragm.

The pumps are available in various versions differing in the materials which contact the media.

#### Material in contact with the pumped media

Type/Order No.	Pump head	Diaphragm	Valves
N 838.3 KN.18	PPS	EPDM	FPM
N 838.3 KN.45.18	PPS	EPDM	FPM
N 838.3 KT.18	PPS	PTFE-coated	FFPM
N 838.3 KT.45.18	PPS	PTFE-coated	FFPM

.45 = Pump with fine control valve and vacuum gauge

Technical Data:	N 838.3 KN.18	N 838.3 KT.18
	N 838.3 KN.45.18	N 838.3 KT.45.18
Delivery (l/min) <sup>1)</sup>	22	22
Vacuum (mbar abs.)	12	15
Pressure (bar)	0.5	0.5
Connectors for tube (mm)	ID 10	ID 10
Permissible gas and ambient temperature	+5...+40 °C	+5...+40 °C
Mains	230V/50Hz	230V/50Hz
Motor protection	IP 20	IP 20
Power P <sub>1</sub>	80 W	80 W
Operating current	0.5 A	0.5 A
Weight	6.8 kg	6.8 kg
Dimensions		
LxHxB (mm)	402/212/110	402/212/110
With thermal switch and power fuse		

Motors with other voltages and frequencies on request.

<sup>1)</sup> at atm. pressure

### Accessories and spare parts

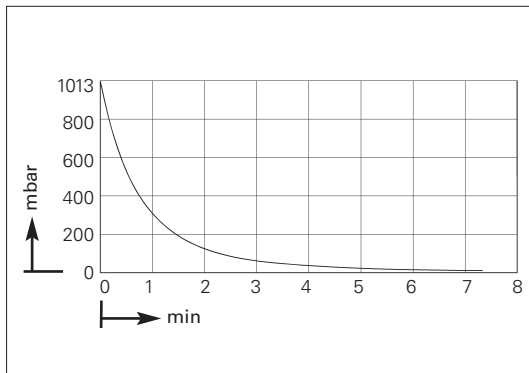
Description	Details	Order No.
Silencer	G 1/8	007006
Hose connector	G 1/8, PVDF, for tube ID 10 mm	112004
Fine control valve with vacuum gauge	suction side	112432
Spare kit	for N 838.3 KN	111952
Spare kit	for N 838.3 KT	111953



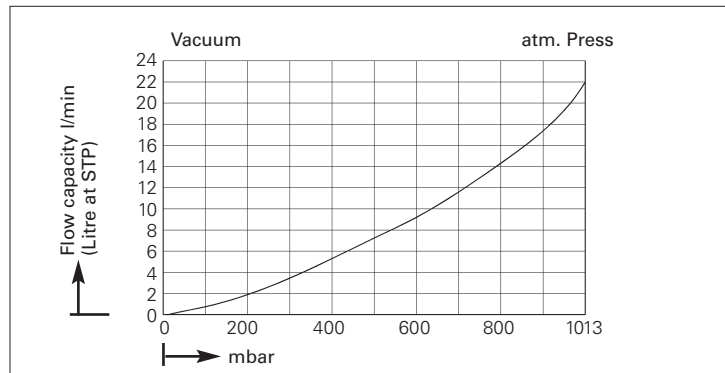
# Diaphragm Pumps for Air, Gases and Vapours

## Dimensions and performance characteristics

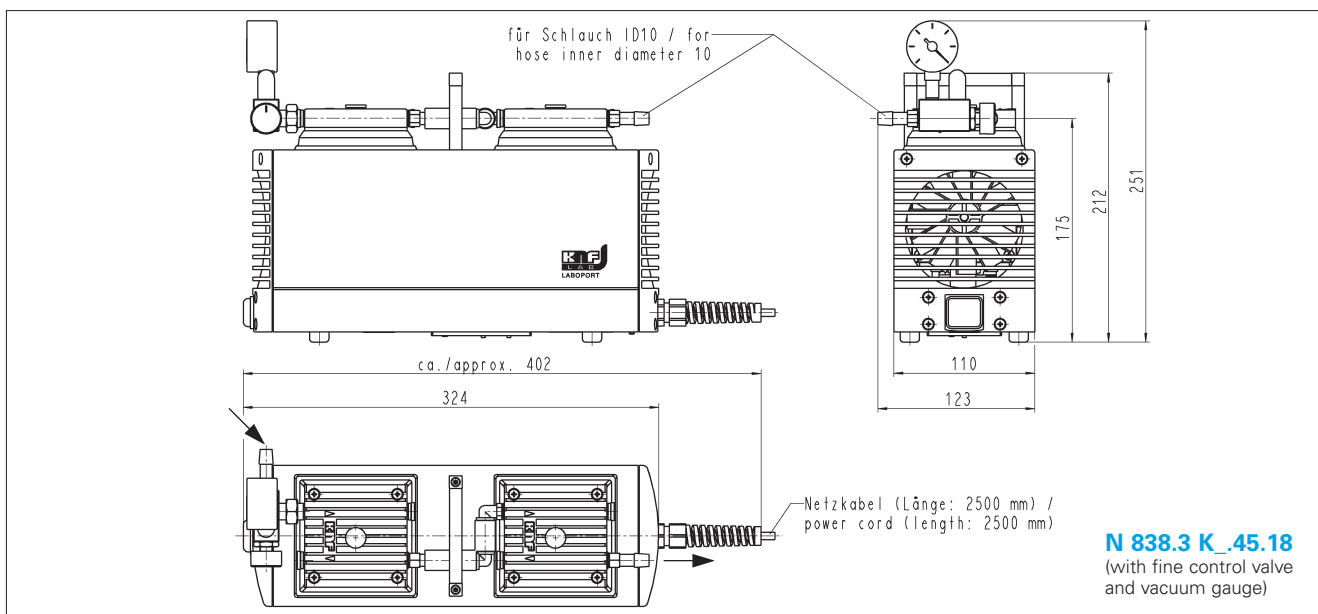
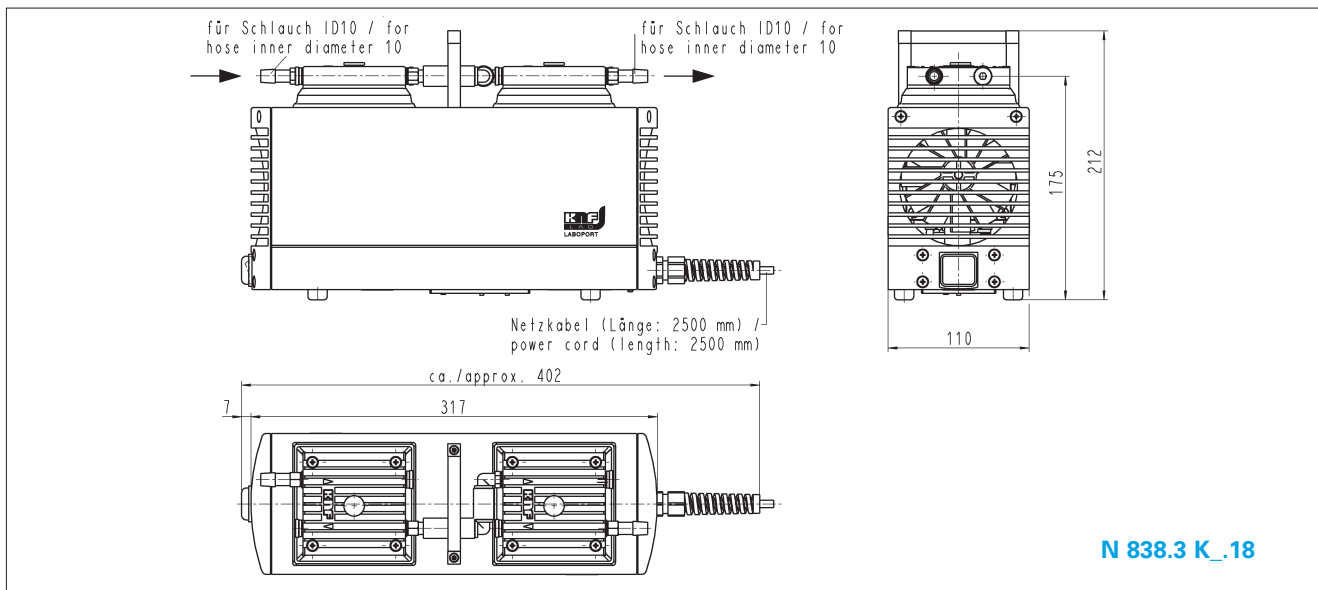
### Pump down time for 10 l receiver



### Performance characteristics



### Dimensions (mm)







## Diaphragm Pumps for Air, Gases and Vapours



### LABOPOINT® Mini Diaphragm Vacuum Pumps

#### Technical features:

- 100% oil-free transfer
- Pure transferring and evacuation of gases
- Version for slightly aggressive or corrosive gases and vapours
- Maintenance-free
- Environmentally friendly
- High level of gas tightness.

### Series LABOPOINT® N 838.1.2 K\_.18 Pumps

Series N 838.1.2 diaphragm pumps are double-headed, dry-running devices used in a wide range of laboratory applications. They transfer and pump down without contamination. The heart of these very compact pumps is a KNF structured diaphragm. This patented diaphragm was stress-optimized using the Finite Elements method. As a result, we were able to make the pumps smaller while increasing the service life of the diaphragm.

The pumps are available in various versions differing in the materials which contact the media.

#### Material in contact with the pumped media

Type/Order No.	Pump head	Diaphragm	Valves
N 838.1.2 KN.18	PPS	EPDM	FPM
N 838.1.2 KN.45.18	PPS	EPDM	FPM
N 838.1.2 KT.18	PPS	PTFE-coated	FFPM
N 838.1.2 KT.45.18	PPS	PTFE-coated	FFPM

.45 = Pump with fine control valve and vacuum gauge

Technical data:	N 838.1.2 KN.18	N 838.1.2 KT.18
	N 838.1.2 KN.45.18	N 838.1.2 KT.45.18
Delivery (l/min) <sup>1)</sup>	37	37
Vacuum (mbar abs.)	100	150
Pressure (bar)	0.5	0.5
Connectors for tube (mm)	ID 10	ID 10
Permissible gas and ambient temperature	+5...+40 °C	+5...+40 °C
Mains	230V/50Hz	230V/50Hz
Motor protection	IP 20	IP 20
Power P <sub>1</sub>	80 W	80 W
Operating current	0.5 A	0.5 A
Weight	6.8 kg	6.8 kg
Dimensions LxHxB (mm)	402/212/110	402/212/110
With thermal switch and power fuse		

Motors with other voltages and frequencies on request.

<sup>1)</sup> at atm. pressure

### Accessories and spare parts

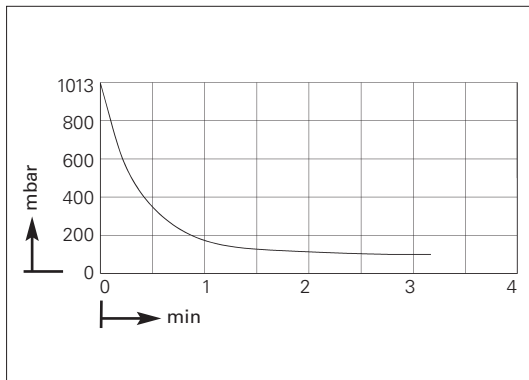
Description	Details	Order No.
Silencer	G 1/8	007006
Hose connector	G 1/8, PVDF, for tube ID 10 mm	112004
Fine control valve with vacuum gauge	suction side	112432
Spares kit	for N 838.1.2 KN	111952
Spares kit	for N 838.1.2 KT	111953



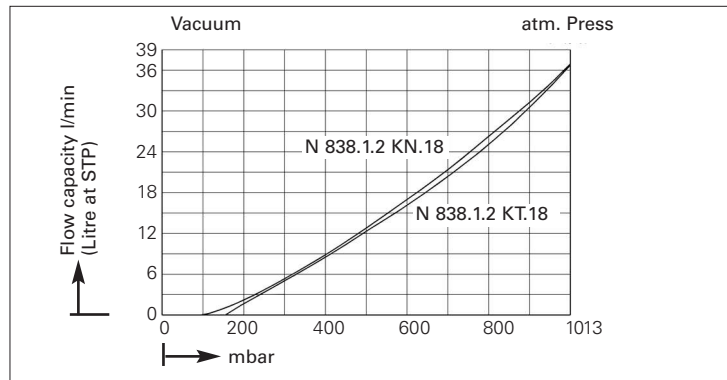
# Diaphragm Pumps for Air, Gases and Vapours

## Dimensions and performance characteristics

Pump down time for 10 l receiver



Performance characteristics



### Dimensions (mm)

