



THE PROFESSIONAL CONNECTION

WITH MATCHING CONNECTION PARTS FOR YOUR VACUUM PUMP

clearly arranged according to typical applications and laboratory equipment



CONTENT AND GUIDE

Vacuum – For many it is „nothing“. For us it is “everything”.

With 280 employees and more than 60 years of experience, VACUUBRAND manufactures the most comprehensive range of vacuum pumps, gauges and controllers for rough and fine vacuum for laboratory use.

The product range comprises oil-free diaphragm pumps, oil-free screw pumps, rotary vane pumps, complete pumping units, flexible vacuum systems and solutions for local area networks. The modular vacuum systems comply with the technical and economical requirements for vacuum generation and also ecological criteria in outstanding degree.



Our vacuum pumps fit your laboratory device

VACUUBRAND products can be easily used for various applications with laboratory equipment from all well-known manufacturers. All you need to connect our pumps are the right connectors. The selection of the connection parts depends on the type of application and the vacuum connection of your laboratory device. With the help of this brochure you can quickly and easily find out which connection parts you need for your application.

Note: Connections should be checked again in the event of technical changes to the laboratory equipment.

Version: 05/2021



TRADEMARK-INDEX

VACUU-LAN® (US-Reg.No 3,704,401), VACUU-BUS®, VACUU-CONTROL®, VACUU-SELECT® (US-Reg.No 5,522,260), VARIO® (US-Reg.No 3,833,788), VACUUBRAND® (US-Reg.No 3,733,388), VACUU-VIEW®, GREEN VAC® (US-Reg.No. 4,924,553), VACUU-PURE® (US-Reg No. 5,559,614) and also the shown company logos are registered trademarks of VACUUBRAND GMBH + CO KG in Germany and/or other countries.

All other trademarks mentioned or depicted here are the property of the respective owners.

Table of content

Content and guide	2
Find the right vacuum pump	4
Freeze-drying	6
Vacuum drying oven	8
Vacuum concentrator	10
Rotary evaporator	12
Filtration / solid phase extraction (SPE) / nucleic acid purification	14
Fore vacuum generation for turbomolecular pumps	16
Oil-free vacuum for reactors and synthesis applications	18
Fine vacuum distillation	18
Nomenclature	19
Overview of all connection parts	20

How to find the right connection parts:

- 1 Select your application from the table of contents.
- 2 Look for the type / size of the vacuum connection or brand and type of your laboratory device in the first column.
- 3 Look for the VACUUBRAND vacuum pump you are using in the second column.
- 4 In the third column, read off the corresponding connection parts required.

Example using freeze drying as an application:

Vacuum connection of the freeze dryer*		VACUUBRAND vacuum pump	Required connection parts from VACUUBRAND + order number	
2 KF DN 25	Martin Christ	RZ 2.5	1x PVC vacuum tubing angulated KF 16/25	20686040
	Equipment type:	RZ 6	1x Clamping ring KF DN 20/25, aluminium	20660001
	• Alpha	RC 6	1x External centring ring KF DN 20/25, PBT/NBR	20660191
	• Beta			
	• Gamma			
	• Delta			
	• Epsilon			
	Zirbus	3 RZ 9	1x PVC vacuum tubing angulated KF 25/25	20686041
	Equipment type:	VACUU-PURE 10C	1x Clamping ring KF DN 20/25, aluminium	20660001
	• VaCo Serie		1x External centring ring KF DN 20/25, PBT/NBR	20660191
	Büchi			
	Equipment type:			
	• Lyovapor			

* Third-party trademarks depicted or reproduced herein are the property of their respective trademark owners.



FIND THE RIGHT VACUUM PUMP

Diaphragm pumps

Most chemical applications take place in the rough vacuum range (down to 1 mbar). For such processes, diaphragm pumps are always the best choice. Diaphragm pumps run oil-free, do not consume any water and therefore do not generate either waste water or waste oil. This pump technology is also available in a chemically resistant version. At VACUUBRAND all wetted parts of chemical diaphragm pumps are made of fluoroplastics with excellent chemical resistance. The reliability, durability and ease of maintenance of the chemistry diaphragm pump make it an ideal choice for the chemical laboratory.



Rotary vane pumps and chemistry-HYBRID pumps

However, for some applications a vacuum of 1 mbar is not sufficient. Freeze drying or Schlenk lines, for example, require a pressure in the fine vacuum range (down to 10^{-3} mbar). Due to the technology used, diaphragm pumps reach their limits here. For this reason, rotary vane or chemistry-HYBRID pumps are often used, which can achieve an ultimate vacuum of 2×10^{-3} mbar. A disadvantage compared to the diaphragm pump is the need to use oil for lubrication and sealing, which can disrupt sensitive processes and has to be changed regularly. In addition, rotary vane pumps are not available in a chemical-resistant version. Many parts are made of metal and can corrode if they come into contact with chemicals. In addition, the oil can degrade.

In such cases, for better protection against corrosion, VACUUBRAND offers the chemistry-HYBRID pump. This consists of a rotary vane pump combined with a chemical-resistant diaphragm pump that permanently evacuates the oil chamber during the process and thus frees it from corrosive vapors and condensates.



Screw pumps

VACUU-PURE® is ideal for clean processes and pure products in the vacuum range down to 10^{-3} mbar.

A dry and hydrocarbon-free vacuum is indispensable for many applications such as in ultrahigh vacuum systems. As a dry fore vacuum pump for turbomolecular pumps, VACUU-PURE® offers a deep ultimate vacuum that was previously unreachable with oil-free technologies.

Drying processes, manipulation of oxygen- or moisture-sensitive compounds, distillations, and even coating processes can be run with the dry screw pump without downtime for maintenance. Common applications include freeze drying and Schlenk line. VACUU-PURE® can be operated continuously at higher pressures so that in drying processes, both the primary drying and subsequent residual drying steps can be performed with a single pump.

VACUU-PURE® easily handles high vapor loads through its high condensate compatibility. A gas ballast is therefore not necessary. The associated disadvantages such as decline of the ultimate vacuum and increased noise levels are thus avoided. The integrated regeneration mode enables rapid drying of the pump after the end of the process and thus the sample throughput can be significantly increased, as compared to other pump technologies.

The chemically resistant version VACUU-PURE® 10C is especially designed for pumping aggressive gases and vapors. The operation of a cold trap is unnecessary in the majority of applications.



Mounting parts

Modern diaphragm pumping units have a so-called „condensate separator“ (AK) at the pump inlet, which protects the pump from entrained condensate droplets and solid particles. In addition, an „emission condenser“ (EK) on the exhaust side protects from solvent emissions and enables their efficient recovery.

Due to the lower chemical resistance of rotary vane pumps, it may be necessary to install a cold trap in order to catch corrosive chemicals and condensates before they enter the pump inlet. To protect the health of laboratory personnel, oil mist filters are often used at the pipe exhaust, which prevents indoor air pollution with oil vapors.



Vacuum control

A system with vacuum control is recommended for applications in which it is necessary to maintain certain pressure values or process conditions. VACUUBRAND uses the VACUU-SELECT® vacuum controller for this. The vacuum control can be achieved in two ways. Switching an electromagnetic valve in the suction line works regardless of the vacuum source. With this classic two-point control method, the vacuum is regulated by opening and closing an electromagnetic valve, thus maintaining the pressure range between the two valve switching points.

In contrast, adaptive speed control is very precise. However, this process only works in combination with a VARIO® diaphragm pump. The precise VARIO® control offers the advantage of maximum process efficiency, shorter process times as well as reproducible process control and results. In addition, the pump does not run at full capacity all of the time, but only as fast as necessary. This results in significant energy savings, reduced wear and tear and lower noise emissions. There is also an „automatic evaporation“ option available for evaporation processes. With just one push of a button, the controller automatically finds the boiling pressure and adjusts it continuously throughout the evaporation process. The process is carried out fully automatically and in the shortest possible time, without the need for constant monitoring and manual intervention.



Note: In many applications it is necessary to connect the outlet of the vacuum pump to an exhaust system. This prevents, for example, the pumped media and chemicals from getting into the ambient air. A suitable exhaust hose must be selected for this. Make sure that the exhaust hose is of the correct dimensions to ensure that no back pressure can build up. Please also pay careful attention to the corresponding information in the operating instructions for the vacuum pump. If you cannot find a suitable exhaust hose, we will be happy to advise you.

How to find the right vacuum pump

The choice of the right vacuum pump depends very much on the application and the type and amount of media used. To make your choice easier, VACUUBRAND has developed a Vacuum Pump Selection Guide. With only a few details about your application this online tool helps to focus in on the suitable products, which you can then easily compare at a glance. Test it yourself at:

www.vacuubrand.com/vpsg

Of course, we would also be happy to advise you personally. You can find the right contact person for your region at:

www.vacuubrand.com/contact



www.vacuubrand.com/vpsg



FREEZE-DRYING

Vacuum connection of the freeze dryer*		VACUUBRAND vacuum pump	Required connection parts** from VACUUBRAND + order number	
KF DN 16	Labogene Equipment type: <ul style="list-style-type: none">Coolsafe Serie	RZ 2.5 RZ 6 RC 6	1x PVC vacuum tubing angulated KF DN 16/25 1x Reducing piece KF DN 25/16, aluminium 1x Clamping ring KF DN 20/25, aluminium 1x External centring ring KF DN 20/25, PBT/NBR 1x Clamping ring KF DN 10/16, aluminium 1x External centring ring KF DN 10/16, PBT/NBR	20686040 20669041 20660001 20660191 20660000 20660190
		RZ 9 VACUU·PURE 10C	1x PVC vacuum tubing angulated KF DN 25/25 1x Clamping ring KF DN 20/25, aluminium 1x External centring ring KF DN 20/25, PBT/NBR 1x Clamping ring KF DN 10/16, aluminium 1x External centring ring KF DN 10/16, PBT/NBR 1x Reducing piece KF DN 25/16, aluminium	20686041 20660001 20660191 20660000 20660190 20669041
KF DN 25	Martin Christ Equipment type: <ul style="list-style-type: none">AlphaBetaGammaDeltaEpsilon Zirbus Equipment type: <ul style="list-style-type: none">VaCo Serie Büchi Equipment type: <ul style="list-style-type: none">Lyovapor	RZ 2.5 RZ 6 RC 6	1x PVC vacuum tubing angulated KF 16/25 1x Clamping ring KF DN 20/25, aluminium 1x External centring ring KF DN 20/25, PBT/NBR	20686040 20660001 20660191
		RZ 9 VACUU·PURE 10C	1x PVC vacuum tubing angulated KF DN 25/25 1x Clamping ring KF DN 20/25, aluminium 1x External centring ring KF DN 20/25, PBT/NBR	20686041 20660001 20660191
Hose connection / SW DN 19	Labconco Equipment type: <ul style="list-style-type: none">FreeZone VirTis Equipment type: <ul style="list-style-type: none">BenchTopAdVantage	RZ 2.5 RZ 6 RC 6	1x Vacuum hose DN 20 2x Hose clip DN 20 1x Hose nipple KF DN 16 / DN 19	20638872 20686050 20662531
		RZ 9 VACUU·PURE 10C	1x Vacuum hose DN 20 2x Hose clip DN 20 1x Hose nipple KF DN 25 / DN 20	20638872 20686050 20662532
Is your equipment not included?		Contact us: Tel.:+49 9342 808-5550 E-Mail: info@vacuubrand.com		

* Third-party trademarks depicted or reproduced herein are the property of their respective trademark owners.

** Connection parts are also available in other materials. See p. 20.

Please contact VACUUBRAND if you need a hose length > 1m.

You can find all abbreviations in our nomenclature on p. 19.

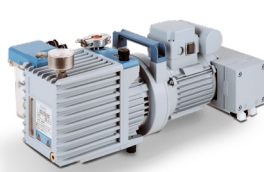
VACUUM PUMPS



RZ 2.5
Rotary vane pump
2.3 m³/h, 2 x 10⁻³ mbar
Vacuum connection:
Small flange DN 16



RZ 6
Rotary vane pump
5.7 m³/h, 2 x 10⁻³ mbar
Vacuum connection:
Small flange DN 16



RC 6
Chemistry-HYBRID pump
5.9 m³/h, 2 x 10⁻³ mbar
Vacuum connection:
Small flange DN 16



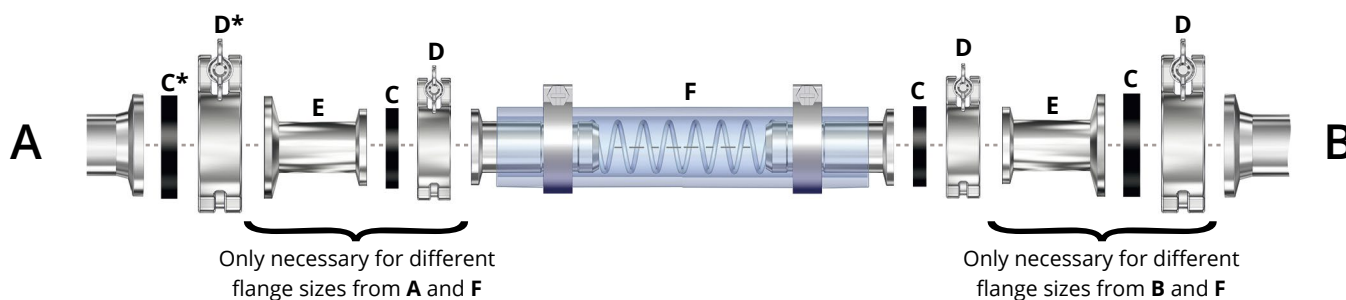
RZ 9
Rotary vane pump
8.9 m³/h, 2 x 10⁻³ mbar
Vacuum connection:
Small flange DN 25



VACUU-PURE 10C
Screw pump
9 m³/h, 5 x 10⁻³ mbar
Vacuum connection:
Small flange DN 25

CONNECTION EXAMPLES

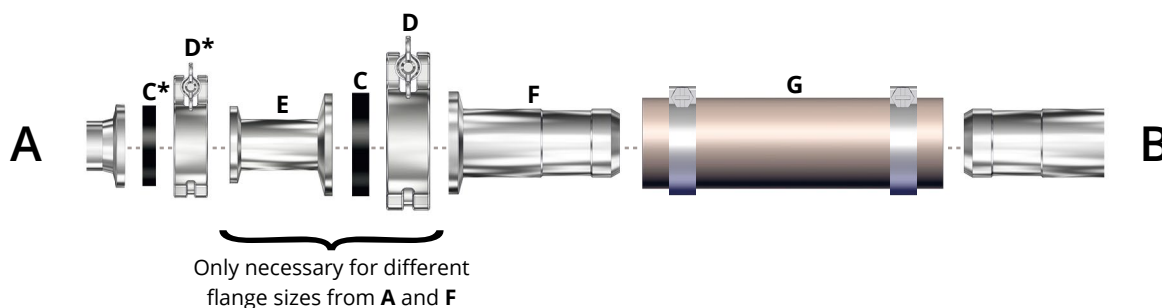
Freeze dryers with small flange vacuum connection



A = Pump inlet with small flange connection
B = Small flange connection of the freeze dryer
C = External centring ring
D = Clamping ring

E = Reducing piece
F = Vacuum tubing made of PVC with internal reinforcement
* Connection parts are included in the delivery of the pump

Freeze dryers with hose nipple vacuum connection



A = Pump inlet with small flange connection
B = Hose nipple connection of the freeze dryer
C = External centring ring
D = Clamping ring

E = Reducing piece
F = Hose nipple
G = Vacuum hose
* Connection parts are included in the delivery of the pump



VACUUM DRYING OVEN

Vacuum connection of the vacuum drying oven*		VACUUBRAND vacuum pump	Required connection parts** from VACUUBRAND + order number	
KF DN 16	Binder Equipment type: • VD-Series • VDL-Series	MZ 2C NT +AK +EK MD 4C NT +AK +EK PC 3003 VARIO select	1x Vacuum hose DN 8, rubber	20686001
			1x Clamping ring KF DN 10/16, aluminium	20660000
			1x External centring ring KF DN 10/16, PBT/NBR	20660190
			1x KF DN 16 with SW DN 10, PP	20662806
	Memmert Equipment type: • VO Serie	MD 12C NT +AK +EK VACUU-PURE 10C	1x PVC vacuum tubing angulated KF 25/25	20686041
			1x Clamping ring KF DN 25, aluminium	20660001
			1x Clamping ring KF DN 10/16, aluminium	20660000
			1x External centring ring KF DN 10/16, PBT/NBR	20660190
	MMM Med-Center Equipment type: • Vacucell-Series	MD 12C NT +AK +EK VACUU-PURE 10C	1x External centring ring KF DN 20/25, PBT/NBR	20660191
			1x Reducing piece KF DN 25/16, aluminium	20669041
	Salvislab Renggli Equipment type: • Vacucenter			
KF DN 25	Cascade Equipment type: • SVO-2 • TVO-Series	MZ 2C NT +AK +EK MD 4C NT +AK +EK PC 3003 VARIO select	1x Vacuum hose DN 8, rubber	20686001
			1x Clamping ring KF DN 20/25, aluminium	20660001
			1x External centring ring KF DN 20/25, PBT/NBR	20660191
			1x KF DN 25 with SW DN 10, PP	20662807
	Thermo Scientific Equipment type: • VT 6025 • VT 6060 • VT 6130	MD 12C NT +AK +EK VACUU-PURE 10C	1x PVC vacuum tubing angulated KF 25/25	20686041
			1x Clamping ring KF DN 20/25, aluminium	20660001
			1x External centring ring KF DN 20/25, PBT/NBR	20660191
Hose connec- tion DN 10	Sheldon Manufacturing Equipment type: • SVAC-Series	MZ 2C NT +AK +EK MD 4C NT +AK +EK PC 3003 VARIO select	1x Vacuum hose DN 8, rubber	20686001
		MD 12C NT +AK +EK VACUU-PURE 10C	1x Vacuum hose DN 10, rubber 1x KF DN 25 with SW DN 10, PP	20686002 20662807
Is your equipment not included?		Contact us: Tel.: +49 9342 808-5550 E-Mail: info@vacuubrand.com		

* Third-party trademarks depicted or reproduced herein are the property of their respective trademark owners.

** Connection parts are also available in other materials. See p. 20.

Please contact VACUUBRAND if you need a hose length > 1m.

You can find all abbreviations in our nomenclature on p. 19.

VACUUM PUMPS



**MZ 2C NT +AK +EK
Chemistry diaphragm
pump**

2.0 m³/h, 7 mbar
Vacuum connection:
Hose nozzle DN 8-10



**MD 4C NT +AK +EK
Chemistry diaphragm
pump**

3.4 m³/h, 1.5 mbar
Vacuum connection:
Hose nozzle DN 8-10



**PC 3003 VARIO select
Chemistry diaphragm
pump**

2.8 m³/h, 0.6 mbar
Vacuum connection:
Hose nozzle DN 8-10



**MD 12C NT +AK +EK
Chemistry diaphragm
pump**

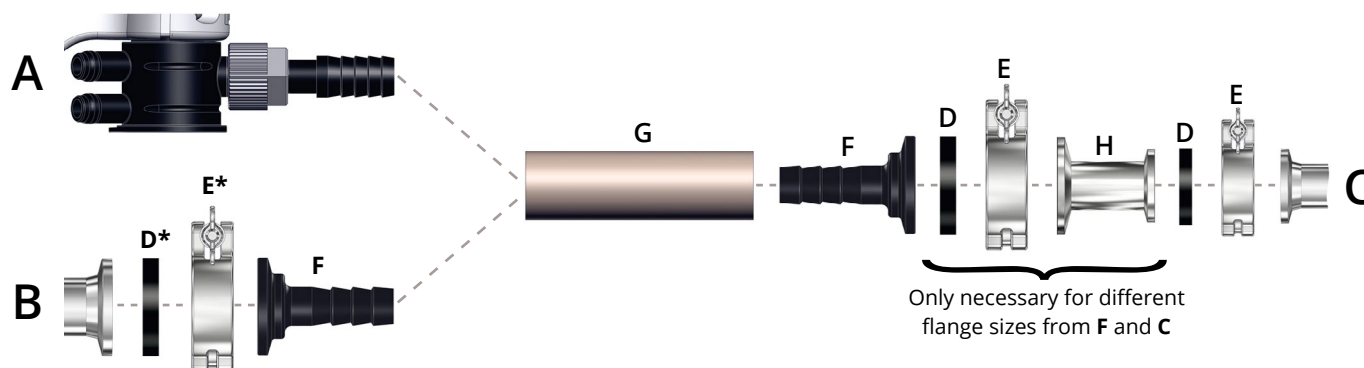
12.0 m³/h, 2 mbar
Vacuum connection:
Small flange DN 25 /
Hose nozzle DN 15



**VACUU-PURE 10C
Screw pump**
9 m³/h, 5×10^{-3} mbar
Vacuum connection:
Small flange DN 25

CONNECTION EXAMPLES

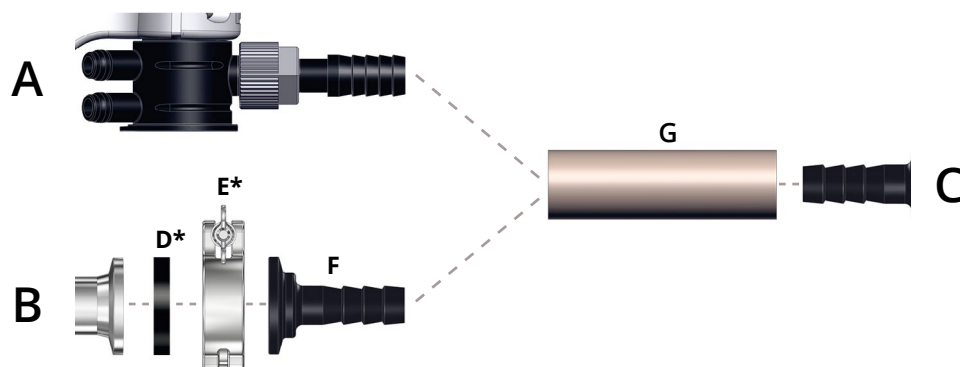
Vacuum drying ovens with small flange vacuum connection



A = Pump inlet with hose nozzle connection
B = Pump inlet with small flange connection
C = Small flange connection of the vacuum drying oven
D = External centring ring

E = Clamping ring
F = Small flange with hose nozzle
G = Vacuum hose
H = Reducing piece
* Connection parts are included in the delivery of the pump

Vacuum drying ovens with hose nozzle vacuum connection



A = Pump inlet with hose nozzle connection
B = Pump inlet with small flange connection
C = Hose nozzle connection of the vacuum drying oven
D = External centring ring

E = Clamping ring
F = Small flange with hose nozzle
G = Vacuum hose
* Connection parts are included in the delivery of the pump



VACUUM CONCENTRATOR

Vacuum connection of the vacuum concentrator*		VACUUBRAND vacuum pump	Required connection parts** from VACUUBRAND + order number	
KF DN 16	Martin Christ Equipment type: <ul style="list-style-type: none">▪ RVC 2-Series	MZ 2C NT +AK +EK MD 4C NT +AK +EK		
	Labogene Equipment type: <ul style="list-style-type: none">▪ MiniVac Alpha▪ MiniVac Beta▪ MaxiVac Alpha▪ MaxiVac Beta	PC 3001 VARIO select	1x Clamping ring KF DN 10/16, aluminium 1x External centring ring KF DN 10/16, PBT/NBR 1x KF DN 16 with SW DN 10, PP 1x Vacuum hose DN 8, rubber	20660000 20660190 20662806 20686001
SW DN 10	Eppendorf Equipment type: <ul style="list-style-type: none">▪ Concentrator plus	MZ 2C NT +AK +EK MD 4C NT +AK +EK		
		PC 3001 VARIO select	1x Vacuum hose DN 8, rubber 20686001	
SW DN 12	Labconco Equipment type: <ul style="list-style-type: none">▪ CentriVap-Serie	MZ 2C NT +AK +EK MD 4C NT +AK +EK		
		PC 3001 VARIO select	1x Vacuum hose DN 10, rubber 20686002	
Hose connection DN 13	SP Scientific / Genevac Equipment type: <ul style="list-style-type: none">▪ HT▪ EZ-2▪ Rocket▪ MiVac DNA▪ MiVac Sample Concentrators	MZ 2C NT +AK +EK MD 4C NT +AK +EK		
		PC 3001 VARIO select	1x Vacuum hose DN 10 , rubber 20686002	
Is your equipment not included?		Contact us: Tel.: +49 9342 808-5550 E-Mail: info@vacuubrand.com		

* Third-party trademarks depicted or reproduced herein are the property of their respective trademark owners.

** Connection parts are also available in other materials. See p. 20.

You can find all abbreviations in our nomenclature on p. 19.

VACUUM PUMPS



MZ 2C NT +AK +EK Chemistry diaphragm pump

2.0 m³/h, 7 mbar

Vacuum connection:

Hose nozzle DN 8-10



MD 4C NT +AK +EK Chemistry diaphragm pump

3.4 m³/h, 1.5 mbar

Vacuum connection:

Hose nozzle DN 8-10



PC 3001 VARIO select Chemistry diaphragm pump

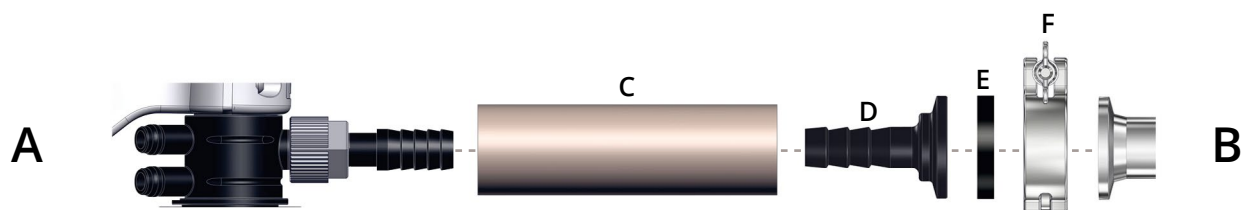
2.0 m³/h, 2.0 mbar

Vacuum connection:

Hose nozzle DN 6-10

CONNECTION EXAMPLES

Vacuum concentrators with small flange vacuum connection



A = Pump inlet with hose nozzle connection

B = Small flange connection of the vacuum concentrator

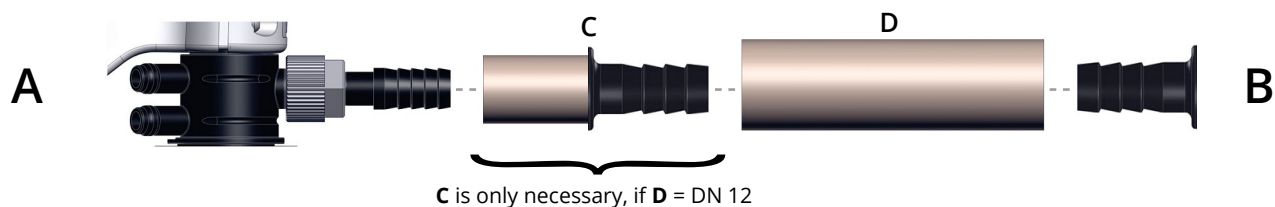
C = Vacuum hose

D = Small flange with hose nozzle

E = External centring ring

F = Clamping ring

Vacuum concentrators with hose nozzle vacuum connection



A = Pump inlet with hose nozzle connection

B = Hose nozzle connection of the vacuum concentrator

C = Adapter SW DN 10 to SW DN 12

D = Vacuum hose



ROTARY EVAPORATOR

Vacuum connection of the rotary evaporator*		VACUUBRAND vacuum pump	Required connection parts** from VACUUBRAND + order number	
SW DN 6	Eyela Equipment type: <ul style="list-style-type: none">N-1200	MZ 2C NT +AK +EK MD 1C +AK +EK PC 510/520 select PC 3003/3004 VARIO select	1x Vacuum hose DN 6, rubber 1x SW DN 6/10 with tube 10/8mm	20686000 20636635
		PC 3001 VARIO select VACUU-LAN components	1x Vacuum hose DN 6, rubber	20686000
SW DN 8	Büchi Equipment type: <ul style="list-style-type: none">R-100R-300	MZ 2C NT +AK +EK MD 1C +AK +EK PC 510/520 select PC 3003/3004 VARIO select	1x Vacuum hose DN 8, rubber	20686001
	Heidolph Equipment type: <ul style="list-style-type: none">Hei-VAP ValueHei-VAP Value digitalHei-VAP Advantage IKA Equipment type: <ul style="list-style-type: none">RV 8RV 10 digital KNF Equipment type: <ul style="list-style-type: none">RC 600RC 900 Phoenix Instruments Equipment type: <ul style="list-style-type: none">RE-100D Dragon Lab Equipment type: <ul style="list-style-type: none">RE 100-Pro	PC 3001 VARIO select VACUU-LAN components		
Is your equipment not included?		Contact us: Tel.:+49 9342 808-5550 E-Mail: info@vacuubrand.com		

* Third-party trademarks depicted or reproduced herein are the property of their respective trademark owners.

** Connection parts are also available in other materials. See p. 20.

You can find all abbreviations in our nomenclature on p. 19.

VACUUM PUMPS



MZ 2C NT +AK +EK Chemistry diaphragm pump

2.0 m³/h, 7 mbar
Vacuum connection:
Hose nozzle DN 8-10



MD 1C +AK +EK Chemistry diaphragm pump

1.3 m³/h, 2 mbar
Vacuum connection:
Hose nozzle DN 8-10



PC 3001 VARIO select Chemistry diaphragm pump

2.0 m³/h, 2.0 mbar
Vacuum connection:
Hose nozzle DN 6-10



PC 510 select Chemistry diaphragm pump

2.0 m³/h, 7 mbar
Vacuum connection:
Hose nozzle DN 8-10



PC 3003 VARIO select Chemistry diaphragm pump

2.8 m³/h, 0.6 mbar
Vacuum connection:
Hose nozzle DN 8-10



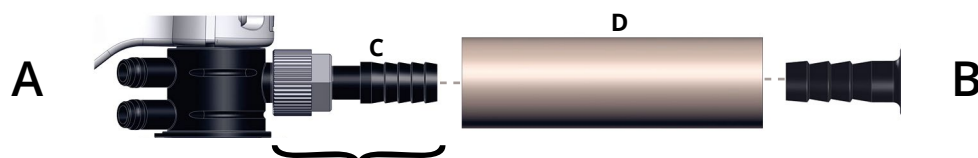
VCL-connection VACUU-LAN components

Vacuum connection:
Hose nozzle DN 6-10

*Example

CONNECTION EXAMPLE

Rotary evaporator with hose nozzle vacuum connection



C for changing is only necessary,
if D does not fit on A

A = Pump inlet with hose nozzle connection

B = Hose nozzle connection of the rotary evaporator

C = Hose nozzle for changing

D = Vacuum hose



FILTRATION / SOLID PHASE EXTRACTION (SPE) / NUCLEIC ACID PURIFICATION

Vacuum connection of the application*		VACUUBRAND vacuum pump	Required connection parts** from VACUUBRAND + order number	
SW DN 6	Vacuum connection Hose nozzle DN 6	ME 1	1x Vacuum hose DN 6, rubber 20686000	
		ME 4C NT + 2AK ME 1C ME 2C NT		
SW DN 8	Vacuum connection Hose nozzle DN 8	ME 1	1x Vacuum hose DN 8, rubber 20686001	
		ME 4C NT + 2AK ME 1C ME 2C NT		
SW DN 10	Vacuum connection Hose nozzle DN 10	ME 1	1x Vacuum hose DN 8, rubber 20686001	
		ME 4C NT + 2AK ME 1C ME 2C NT		
Is your equipment not included?		Contact us: Tel.: +49 9342 808-5550 E-Mail: info@vacuubrand.com		

* Third-party trademarks depicted or reproduced herein are the property of their respective trademark owners.

** Connection parts are also available in other materials. See p. 20.

You can find all abbreviations in our nomenclature on p. 19.

VACUUM PUMPS



ME 1 Diaphragm pump

0.7 m³/h, 100 mbar
Vacuum connection:
Hose nozzle DN 6-10



ME 1C Chemistry diaphragm pump

0.7 m³/h, 100 mbar
Vacuum connection:
Hose nozzle DN 8-10
(cannot be unscrewed)



ME 2C NT Chemistry diaphragm pump

2.1 m³/h, 70 mbar
Vacuum connection:
Hose nozzle DN 8-10
(cannot be unscrewed)

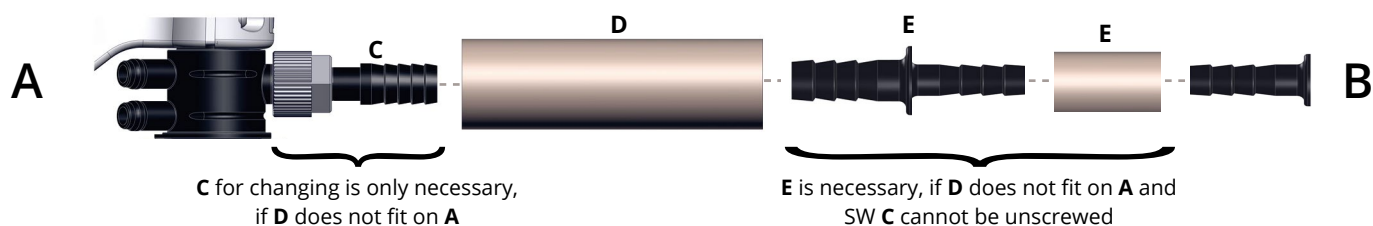


ME 4C NT + 2AK Chemistry diaphragm pump

3.9 m³/h, 70 mbar
Vacuum connection:
Hose nozzle DN 8-10

CONNECTION EXAMPLE

Applications with hose nozzle vacuum connection



A = Pump inlet with hose nozzle connection
B = Hose nozzle connection of the application
equipment

C = Hose nozzle for changing
D = Vacuum hose

E = Reducing piece + hose DN 6



FORE VACUUM GENERATION FOR TURBOMOLECULAR PUMPS

Vacuum connection of the turbomolecular pump*		VACUUBRAND vacuum pump	Required connection parts** from VACUUBRAND + order number		
KF DN 16	Pfeiffer Equipment type: ▪ HiPace 30/60/80/300/350/450	MD 4 NT	1x Stainless steel tubing KF DN 16, length 250mm***	20673306	
			2x Clamping ring KF DN 10/16, aluminium	20660000	
			2x External centring ring KF DN 10/16, PBT/NBR	20660190	
	Edwards Equipment type: ▪ nEXT85	VACUU·PURE 10	1x Clamping ring KF DN 10/16, aluminium	20660000	
			1x External centring ring KF DN 10/16, PBT/NBR	20660190	
			1x Reducing piece KF DN 25/16, aluminium	20669041	
	Agilent Equipment type: ▪ TwisTorr300-serie + 70/80	MD 1	2x Clamping ring KF DN 25, aluminium	20660001	
			2x External centring ring KF DN 20/25, PBT/NBR	20660191	
			1x Stainless steel tubing KF DN 25, length 250mm***	20673307	
KF DN 25	Pfeiffer Equipment type: ▪ HiPace 10	MD 4 NT	1x KF DN 16 hose nozzle DN 6, aluminium	20662510	
			1x Vacuum hose DN 6, rubber	20686000	
			1x Clamping ring KF DN 10/16, aluminium	20660000	
	Edwards Equipment type: ▪ nEXT240/300/400	VACUU·PURE 10	1x External centring ring KF DN 10/16, PBT/NBR	20660190	
			1x Stainless steel tubing KF DN 16, length 250mm***	20673306	
			1x Reducing piece KF DN 25/16, aluminium	20669041	
	Agilent Equipment type: ▪ TwisTorr400/700/800	MD 1	2x Clamping ring KF DN 10/16, aluminium	20660000	
			2x External centring ring KF DN 10/16, PBT/NBR	20660190	
			1x Clamping ring KF DN 25, aluminium	20660001	
				1x External centring ring KF DN 20/25, PBT/NBR	20660191
				1x Stainless steel tubing KF DN 25, length 250mm***	20673307
				2x Clamping ring KF DN 25, aluminium	20660001
			2x External centring ring KF DN 20/25, PBT/NBR	20660191	
			1x KF DN 25 with hose nozzle DN 8, aluminium	20662516	
			1x Vacuum hose DN 6, rubber	20686000	
Is your equipment not included?		Contact us: Tel.: +49 9342 808-5550 E-Mail: info@vacuubrand.com			

* Third-party trademarks depicted or reproduced herein are the property of their respective trademark owners.

** Connection parts are also available in other materials. See p. 20.

*** Available in different lengths. See p. 21.

You can find all abbreviations in our nomenclature on p. 19.

VACUUM PUMPS



MD 4 NT
Diaphragm pump
3.8 m³/h, 1 mbar
Vacuum connection:
Small flange DN 16



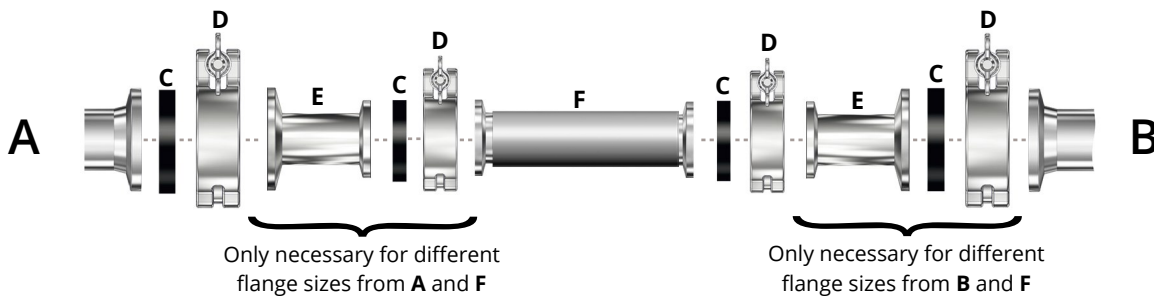
MD 1
Diaphragm pump
1.2 m³/h, 1.5 mbar
Vacuum connection:
Hose nozzle DN 6



VACUU-PURE 10
Screw pump
10 m³/h, 5 x 10⁻³ mbar
Vacuum connection:
Small flange DN 25

CONNECTION EXAMPLES

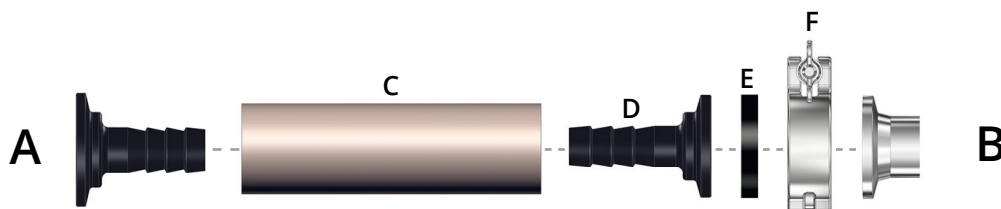
Turbomolecular pumps with small flange vacuum connection



A = Pump inlet with small flange connection
B = Small flange connection of the turbomolecular pump
C = External centring ring

D = Clamping ring
E = Reducing piece
F = Stainless steel tubing

Turbomolecular pumps with hose nozzle vacuum connection



A = Pump inlet with hose nozzle connection
B = Small flange connection of the turbomolecular pump
C = Vacuum hose

D = Small flange with hose nozzle
E = External centring ring
F = Clamping ring



OIL-FREE VACUUM FOR REACTORS AND SYNTHESIS APPLICATIONS

Connections are individual and not standardized. Please contact VACUUBRAND:

Tel.: +49 9342 808-5550

E-Mail: info@vacuubrand.com

VACUUM PUMPS



PC 3003 VARIO select Chemistry diaphragm pump

2.8 m³/h, 0.6 mbar

Vacuum connection:

Hose nozzle DN 8-10



PC 3010 VARIO select Chemistry diaphragm pump

13.0 m³/h, 0.6 mbar

Vacuum connection:

Small flange DN 25



VACUU-PURE 10C Screw pump

9 m³/h, 5 x 10⁻³ mbar

Vacuum connection:

Small flange DN 25



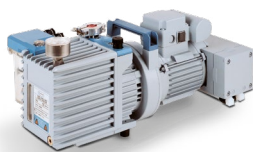
FINE VACUUM DISTILLATION

Connections are individual and not standardized. Please contact VACUUBRAND:

Tel.: +49 9342 808-5550

E-Mail: info@vacuubrand.com

VACUUM PUMPS



RC 6 Chemistry-HYBRID pump

5.9 m³/h, 2 x 10⁻³ mbar

Vacuum connection:

Small flange DN 16



VACUU-PURE 10C Screw pump

9 m³/h, 5 x 10⁻³ mbar

Vacuum connection:

Small flange DN 25



NOMENCLATURE

VACUUBRAND pumps

The names of the VACUUBRAND pumps are intended to provide a first support to the technical design. More detailed information can be found in the technical specifications of the pumps.

M Diaphragm (membrane) pump

The letters E, Z, D, V complete the name of a diaphragm pump and indicate the internal configuration and the ultimate vacuum that can be achieved with it:

E = single stage (attainable ultimate vacuum typical 70 mbar)

Z = two stages (attainable ultimate vacuum typical 7 mbar)

D = three stages (attainable ultimate vacuum typical 1.5 mbar)

V = four stages (attainable ultimate vacuum typical 0.6 mbar)

R Rotary vane pump

The letters E, Z complete the name of a rotary vane pump and indicate the internal configuration and the ultimate vacuum that can be achieved with it:

E = single stage (attainable ultimate vacuum typical 10^{-1} mbar)

Z = two stages (attainable ultimate vacuum typical 10^{-3} mbar)

C Chemistry design, with fluoropolymer flowpath

PC „Pumping Unit, Chemistry“ – a chemistry pump with vacuum control and solvent recovery

AK Separator catchpot for inlet or outlet condensates, collects particles and droplets, keeps condensate in vacuum line from flowing into the pump, protecting pump performance and providing additional noise reduction on the pressure side

EK Exhaust vapor (emission) condenser for nearly 100 % solvent recovery in compact design, protecting environment and lab air

NT Labels the series of pumps comprising the New Technology

Example:

MD 12C +AK +EK is a diaphragm (membrane) pump, with three stages (ultimate vacuum in the range down to 1.5 mbar), with about 12 m³/h, chemistry design, which has a condensate separator and an exhaust vapor (emission) condenser.

Connection parts

DN Nominal diameter

KF Small flange

SW Hose nozzle



OVERVIEW

CLAMPING RINGS AND CENTERING RINGS

Clamping ring for KF DN 10/16, aluminium	20660000
Clamping ring for KF DN 20/25, aluminium	20660001
Clamping ring for KF DN 10/16, stainless steel	20660010
Clamping ring for KF DN 20/25, stainless steel	20660011



External centring ring for KF DN 10/16 PBT (non-wetted) with sealing ring NBR	20660190
External centring ring for KF DN 20/25 PBT (non-wetted) with sealing ring NBR	20660191
External centring ring for KF DN 10/16 PBT (non-wetted) with sealing ring FPM	20660195
External centring ring for KF DN 20/25 PBT (non-wetted) with sealing ring FPM	20660196



Centring ring aluminium, sealing ring FEP KF DN 10/16	20635065
Centring ring aluminium, sealing ring FEP KF DN 20/25	20635722

SMALL FLANGES

Small flange DN 10 with hose nozzle DN 6, aluminium	20662500
Small flange DN 16 with hose nozzle DN 6, aluminium	20662510
Small flange DN 16 with hose nozzle DN 10, aluminium	20662511
Small flange DN 25 with hose nozzle DN 8, aluminium	20662516
Small flange DN 25 with hose nozzle DN 10, aluminium	20662517
Small flange DN 25 with hose nozzle DN 12, aluminium	20662518
Small flange DN 25 with hose nozzle DN 15, aluminium	20662519



Small flange DN 16 with hose nozzle DN 10, plastic PP	20662806
Small flange DN 25 with hose nozzle DN 10, plastic PP	20662807
Small flange DN 25 with hose nozzle DN 15, plastic PP	20662808



Small flange DN 10 with hose nipple DN 12, aluminium	20662530
Small flange DN 16 with hose nipple DN 19, aluminium	20662531
Small flange DN 25 with hose nipple DN 19-20, aluminium	20662532
Small flange DN 25 with hose nipple DN 25, aluminium	20662533



REDUCING PIECES

Reducing piece with KF DN 25/10, aluminium	20669040
Reducing piece with KF DN 25/16, aluminium	20669041
Reducing piece with KF DN 25/10, stainless steel	20672910
Reducing piece with KF DN 25/16, stainless steel	20672911



TUBING

Vacuum tubing made of stainless steel KF DN 16, length 250 mm	20673306
Vacuum tubing made of stainless steel KF DN 16, length 500 mm	20673316
Vacuum tubing made of stainless steel KF DN 16, length 750 mm	20673326
Vacuum tubing made of stainless steel KF DN 16, length 1000 mm	20673336
Vacuum tubing made of stainless steel KF DN 25, length 250 mm	20673307
Vacuum tubing made of stainless steel KF DN 25, length 500 mm	20673317
Vacuum tubing made of stainless steel KF DN 25, length 750 mm	20673327
Vacuum tubing made of stainless steel KF DN 25, length 1000 mm	20673337



Vacuum tubing made of PVC with internal spiral KF DN 16, length 1000 mm	20686020
Vacuum tubing made of PVC with internal spiral KF DN 25, length 1000 mm	20686021



Vacuum tubing made of PTFE with KF DN 16, length 1000 mm	20686031
Vacuum tubing made of PTFE with KF DN 25, length 1000 mm	20686033



Vacuum tubing made of rubber DN 6 mm, available per meter	20686000
Vacuum tubing made of rubber DN 8 mm, available per meter	20686001
Vacuum tubing made of rubber DN 10 mm, available per meter	20686002
Vacuum tubing made of rubber DN 15 mm, available per meter	20686003
Vacuum tubing made of rubber DN 20 mm, available per meter	20686005



Vacuum tubing made of PVC with internal spiral KF DN 16/25, 1m	20686040
Vacuum tubing made of PVC with internal spiral KF DN 25/25, 1m	20686041



Adapter hose nozzle DN 10 mm to hose nozzle 1/2" (DN 12 mm)	20636002
---	----------



VACUUBRAND GMBH + CO KG
Alfred-Zippe-Straße 4
97877 Wertheim, Germany

T +49 9342 808-5550
F +49 9342 808-5555

info@vacuubrand.com
www.vacuubrand.com