

## VARIO® CHEMISTRY PUMPING UNIT

### ME 16C NT VARIO, PC 3016 NT VARIO

■ These powerful pumps feature exceptionally high pumping speed. VARIO® pumping units provide precise vacuum control by adjusting the diaphragm pump's motor speed. They feature fully automatic evaporation control at the push of a button. The PC 3016 NT VARIO pumping unit is a proven concept for evaporations with large amounts of solvents. The inlet separator (AK) retains particles and liquid droplets, the waste vapor condenser at the outlet (EK) is highly efficient and compact. The condenser enables near-100-percent solvent recovery, efficient recycling, and active protection of the environment. Eight-cylinder NT pumps features quiet operation with smooth, easy-to-clean surfaces.



#### PERFORMANCE FEATURES

- VARIO®: Automatic adjustment of the vacuum level throughout the process for high process reproducibility and unattended operation
- very high pumping speed even at low vacuum levels
- systems +EK and PC 3016 NT VARIO: excellent environmental friendliness due to efficient solvent recovery
- VARIO®: short process times due to zero-fluctuation (hysteresis-free) vacuum control, even for large amounts of vapor
- VARIO®: easily operated CVC 3000 vacuum controller with clear text menus and integrated venting valve



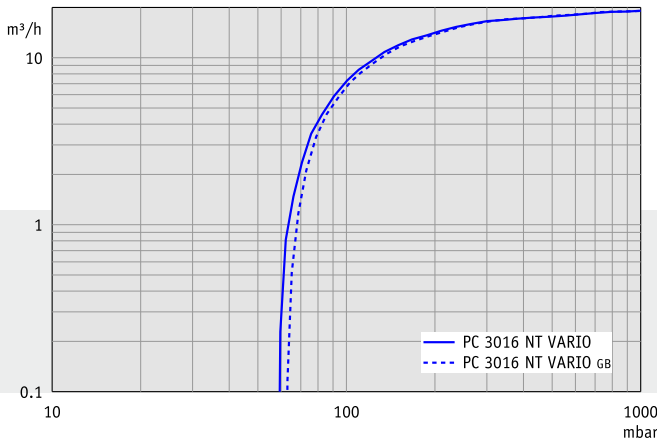
**ME 16C NT VARIO**  
19.3 m<sup>3</sup>/h  
70 mbar

**PC 3016 NT VARIO**  
19.3 m<sup>3</sup>/h  
70 mbar

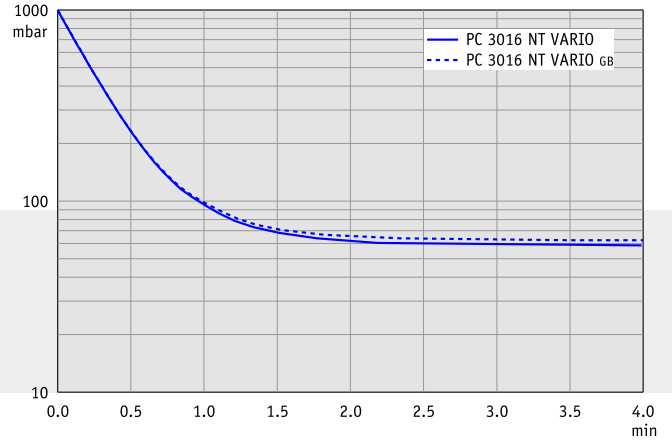


#### APPLICATIONS

The extraordinarily high pumping speed reduces the process time significantly and permits the usage of these pumps to support large vacuum networks, or in life science labs where high gas throughput is needed, but only a modest vacuum level. VARIO® provides hysteresis-free vacuum control. Typical applications with such characteristics include evaporation processes with low boiling solvents. Evaporation processes can be run fully automatically and with short process times and high sensitivity at the same time. The VARIO® control ensures high process reliability by preventing superheating and foaming. The inlet separator of the PC 3016 NT VARIO® makes this pump well-suited to rough operating conditions and enables efficient solvent recovery. These accessories such as the optional separator at the inlet (AK) for pump protection and the exhaust waste vapor condenser (EK), can be mounted to the pumps later, if the need arises.



Pumping speed graph with/without gas ballast



Pump down graph with/without gas ballast (100 l volume)

Pumping speeds and pump down times are only for information. Ultimate vacuum specification: See "Technical Data"

TECHNICAL DATA		ME 16C NT VARIO	PC 3016 NT VARIO
Vacuum controller		CVC 3000	CVC 3000
Number of heads / stages		8 / 1	8 / 1
Max. pumping speed 50/60 Hz	m <sup>3</sup> /h	19.3	19.3
Ultimate vacuum (abs.)	mbar	70	70
Ultim. vac. (abs.) with gas ballast	mbar	100	100
Max. back pressure (abs.)	bar	1.1	1.1
Inlet connection		Small flange KF DN 25	Small flange KF DN 25 / hose nozzle DN 15 mm
Outlet connection		Hose nozzle DN 15 mm	Hose nozzle DN 8-10 mm
Vacuum sensor connection		PTFE tubing connection 10/8 mm, hose nozzle DN 6/10 mm (KF DN 16 optional)	PTFE tubing connection 10/8 mm, hose nozzle DN 6/10 mm (KF DN 16 optional)
Rated motor power	kW	0.53	0.53
Degree of protection		IP 40	IP 40
Dimensions (L x W x H), approx.	mm	533 x 260 x 420	616 x 387 x 420
Weight, approx.	kg	28.1	29.7

**ORDERING INFORMATION ME 16C NT VARIO**

200-230 V ~ 50-60 Hz	CEE	Ex*	741700
100-120 V ~ 50-60 Hz	US		741703

Ex\*: ATEX: II 3G IIC T3 X, Internal Atm. only

**ORDERING INFORMATION PC 3016 NT VARIO**

200-230 V ~ 50-60 Hz	CEE	Ex*	741800
100-120 V ~ 50-60 Hz	US		741803

Ex\*: ATEX: II 3G IIC T3 X, Internal Atm. only

VACUU·BUS®-compatible accessories

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Additional accessories

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**ACCESSORIES ME 16C NT VARIO**

- PTFE tubing KF DN 25 (1000 mm: 686033)
- Inlet separator KF DN 25 (699979)
- Emission condenser kit for NT pump models (699948)
- Rubber vacuum tubing DN 15 mm (686003)
- Vent valve VBM-B (674217)
- Centering and sealing ring KF DN 25 C Al/FEP (635722)

**ACCESSORIES PC 3016 NT VARIO**

- PTFE tubing KF DN 25 (1000 mm: 686033)
- Vent valve VBM-B (674217)
- Centering and sealing ring KF DN 25 C Al/FEP (635722)
- Rubber vacuum tubing DN 8 mm (686001)

**ITEMS SUPPLIED**

Pumping unit completely mounted, ready for use, with manual