

PowerDry® Vacuum Pumps for Saturated Vapors

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NEUBERGER, INC.



LABOPORT® PowerDry® Series N820.3FT.40P Vacuum Pump

LABOPORT® Self-drying, PowerDry® Vacuum Pump for Saturated Vapors

Technical features:

- Pure transfer and evacuation
- Highly compatible with vapors and condensation
- Chemically-resistant
- Therefore suitable for highly aggressive or corrosive gases and vapors
- Maintenance-free
- Environmentally friendly
- Gastight, leakage rate approx. 6×10^{-3} mbar x l/s, not tested in serial production.

The chemically-resistant series N820.3FT.40P diaphragm pump is a two-stage unit with an integrated PowerDry self-drying system. There is a wide range of applications for this pump in laboratories, especially whenever clean vacuum is required and moist gases must be pumped down. Examples include vacuum-drying of vacuum oven chambers (for drying or heat-treating substances and components) or steam sterilizers for sterilizing instruments, vessels, filters and textiles. Due to its high resistance to aggressive media, this pump can be used universally.

The heart of these very compact pumps are KNF structured diaphragms (PTFE-coated). These patented diaphragms were 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 KNF PowerDry® system allows condensed liquid to be blown out of the pump heads at high speed during evacuation. The vacuum in the vessel is not disturbed.

The drying cycle can be adjusted to the requirements of the individual process using three variables. After drying, the pump reaches a better vacuum and is able to evacuate significantly faster compared with pumps without a drying system.

Material in contact with the pumped media

Type/Order No.	Pump head	Diaphragm	Valves
N820.3FT.40P	PTFE	PTFE-coated	FFPM

Technical data:

	N 820.3 FT.40P
Delivery (l/min) ¹⁾	20
Ultimate vacuum (Torr)	8
Operating pressure (psi)	15
Connectors for tube (in.)	ID 3/8"
Permissible gas and ambient temperature	+5...+40 °C
Voltage/Frequencies	115V/60Hz
Motor protection	IP 44
Power P ₁	130 W
Operating current	1.2 A
Weight	21.2 lbs.
Dimensions	
LxHxW (mm)	312/220/177
With thermal switch and power fuse	

Motors with other voltages and frequencies on request.

¹⁾ at atm. pressure

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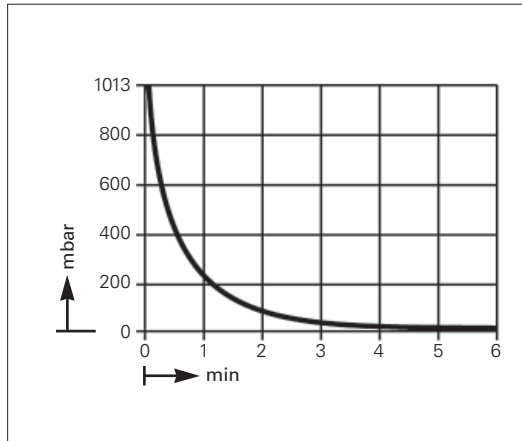
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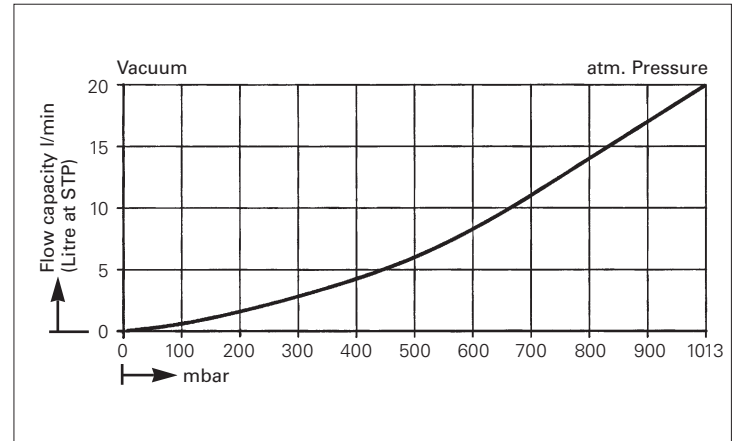
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Dimensions and performance characteristics

Pump down time for 10 l receiver



Performance characteristics



Dimensions (mm)

