



first class pumps for first class science

Corrosion-Resistant Vacuum Pumps for the Laboratory

LABOPORT® Oil-Free Diaphragm Pumps

for rotary evaporators, vacuum ovens, concentrators

compatible with all brands of rotary evaporators

corrosion-resistant PTFE wetted parts

maintenance-free, no oil or water needed

flow range from 10 to 65 Lit/min

clean, oil-free vacuum to 1.5 Torr

compact, quiet, reliable



LABOPORT® Vacuum Pumps

The clean, reliable oil-free pump for rotary evaporators, vacuum ovens

This portable, dry, vacuum pump is designed for use with all brands of rotary evaporators. No additional components are needed. It can also be used in common laboratory applications such as vacuum ovens, gel dryers, filtration and concentration.

• **Built to last** - KNF pioneered in the use of solid PTFE materials for its vacuum pumps over 45 years ago. Our products are legendary for their low-maintenance, robust design. Details such as a totally-enclosed, ball-bearing motor, heads of solid PTFE, efficient PTFE-bonded diaphragms, and liquid-tolerant FFPM valves assure a long, trouble-free life.

• **Handle the most aggressive vapors*** without damage to the pump, and easily tolerate the abuse found in busy labs. Having no metal parts in contact with the gas stream, eliminates corrosion and reduces your total cost of ownership. The occasional replacement of diaphragms and valves is accomplished in minutes, on-site, using a screwdriver.

Selection Chart

Pump Model No.	Capacity Lit/min	Vacuum Torr ("Hg)	Head Configuration	Weight kg
Distillation of high BP solvents (>110°C)				
<i>Chlorobenzene, DMF, DMSO, isoamyl alcohol, xylene</i>				
N842.3FTP	34	1.5 (29.86)	two-stage	12.2
Reflux reactions/distillation of high BP solvents (80-110°C)				
<i>Water, heptane, isobutyl alcohol, toluene</i>				
N842.3FTP	34	1.5 (29.86)	two-stage	12.2
N840.3FTP	34	6 (29.7)	two-stage	12.2
Distillation of medium BP solvents (60-80°C)				
<i>Acetonitrile, benzene, chloroform, ethanol, ethyl acetate, hexane, methanol</i>				
N840.3FTP	34	6 (29.7)	two-stage	12.2
N820.3FTP	20	6 (29.7)	two-stage	9.5
Distillation of low BP solvents (35-60°C)				
<i>Acetone, methylene chloride, pentane</i>				
N840.3FTP	34	6 (29.7)	two-stage	12.2
N820.3FTP	20	6 (29.7)	two-stage	9.5
N810.3FTP	10	10 (29.7)	two-stage	7.2
N840FTP	34	75 (27)	single-stage	12.2
N820FTP	20	75 (27)	single-stage	9.5

• **Use PowerDry for pumping saturated vapors** - KNF's innovative, continuous-cleaning pumps solves the problem of condensate accumulating inside the pump head during low-flow periods, as encountered with vacuum ovens and gel dryers. The PowerDry system automatically injects a burst of ambient air into the pump heads, clearing any trapped liquids from the pump without disturbing the system vacuum. KNF recommends using a cold trap when pumping saturated vapors.

Physical Specifications

Ambient Temperature Range	+5°C to +40°C	N820 LWH	32x16x20 cm	Heads	Solid PTFE
Medium Temp Range	+5°C to +40°C	N840, N842 dimensions LWH	33x17x22 cm	Valves	FFPM
Barbed Fittings	N860 1/2" ID, all others 3/8" ID	N860 dimension LWH	33x29x28 cm	Diaphragms	PTFE

*You should always check corrosion-resistance charts for compatibility with the chemicals used in your laboratory. KNFLab, LABOPORT, and PowerDry are registered trademarks of KNF Neuberger. Specifications subject to change without notice. Other LABOPORT vacuum pump models are available. Visit www.knflab.com for details and a list of distributors.



PowerDry Pump and UNC800 Vacuum Pump Controller.

- tolerates occasional liquid condensate
- corrosion-resistant PTFE wetted parts
- clean, oil-free uncontaminated vacuum
- no aspirator waste to dispose of
- reliable, maintenance-free design
- easy to setup without using tools

• **Pump features** - Lightweight and portable, you can easily pick up and move these pumps to anywhere you need vacuum. Make disposal of contaminated aspirator waste and pump oil a thing of the past. Connect the pump to your system with 3/8" tubing, and setup is complete. No need for wrenches or other tools.

Pump Model No.	Capacity Lit/min	Vacuum Torr ("Hg)	Head Configuration	Weight kg
Large scale evaporation <i>Vessels >10 Liters</i>				
N860.3FT.40P	60	3 (29.8)	two-stage	14.8
N840.1.2FTP	65	68 (27.3)	parallel-heads	12.2
Large vacuum ovens <i>Chamber capacity >30 Lit/min</i>				
N860.3FTP	60	3 (29.8)	two-stage	14.8
Medium vacuum ovens <i>Chamber capacity 15-30 Liters</i>				
N842.3FTP	34	3 (29.8)	two-stage	13.7
N840.3FTP	34	7.5 (29.6)	two-stage	12.9
Small vacuum ovens <i>Chamber capacity <15 Liters</i>				
N842.3FTP	34	3 (29.8)	two-stage	13.7
N820.3FTP	20	7.5 (29.6)	two-stage	9.6
Large scale vacuum concentration				
N860.3FTP	60	3 (29.8)	two-stage	14.8
Vacuum concentration				
N842.3FTP	34	3 (29.8)	two-stage	13.7
N840.3FTP	34	7.5 (29.6)	two-stage	12.9
Gel drying				
N820.3FTP	20	7.5 (29.6)	two-stage	9.6

KNF LABOPORT® pumps are available from your favorite lab equipment distributor.

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