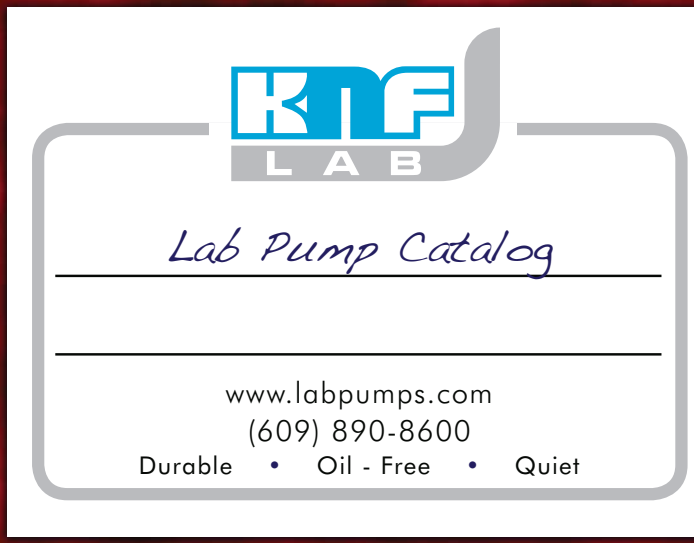
KNF
LAB
Lab Pump Catalog
www.labpumps.com
(609) 890-8600
Durable • Oil - Free • Quiet

Keep going.

At KNF Lab, we know you'd rather work on your research than on your equipment. Our chemically resistant diaphragm pumps can handle just about any kind of solvent and can run uninterrupted for years. We've designed them to keep on going, so you can too.

But don't take our word for it. Ask your colleagues. The following pages include words from some of your laboratory colleagues from around the world.

KNF LAB

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" At first I thought that writing a testimonial about a failed item wouldn't even get considered for publication, but then I figured that after being in the Semiconductor Maintenance field for nearly 29 years I've pretty much seen it all and STUFF just happens, and parts wear. **What impressed me about the KNF diaphragm pump was that it had run 24/7, year after year for nearly 5 years before I needed to do anything with it.** *It was a very quick and easy repair to get right back into production. Now that's what I like! My vote goes to KNF for an outstanding product."*

Dennis Elvin
Sr. Assistant Equipment Engineer
Fairchild Semiconductor

rotary evaporation

Pump Systems

KNF laboratory pump systems give you complete control over your vacuum tasks, providing strong flow, precise vacuum control and excellent solvent recovery. Compact and robust, these systems are built to last. Whether you're setting the system parameters manually or using automatic boiling point detection, ease of operation is a given.

Thanks to its wireless controller, the SC920 (shown above) offers a host of unique benefits. All system functions can be remotely managed from up to 90 feet away, so installation is a breeze. Place the system inside a cabinet, on a shelf above the work area, inside a fume hood…wherever it is most convenient. Plus, numerous studies prove that an open hood wastes energy. Shut the sash and take another big step toward reaching your sustainability goals. The SC920 is clearly a product ahead of its time.

KNF LAB

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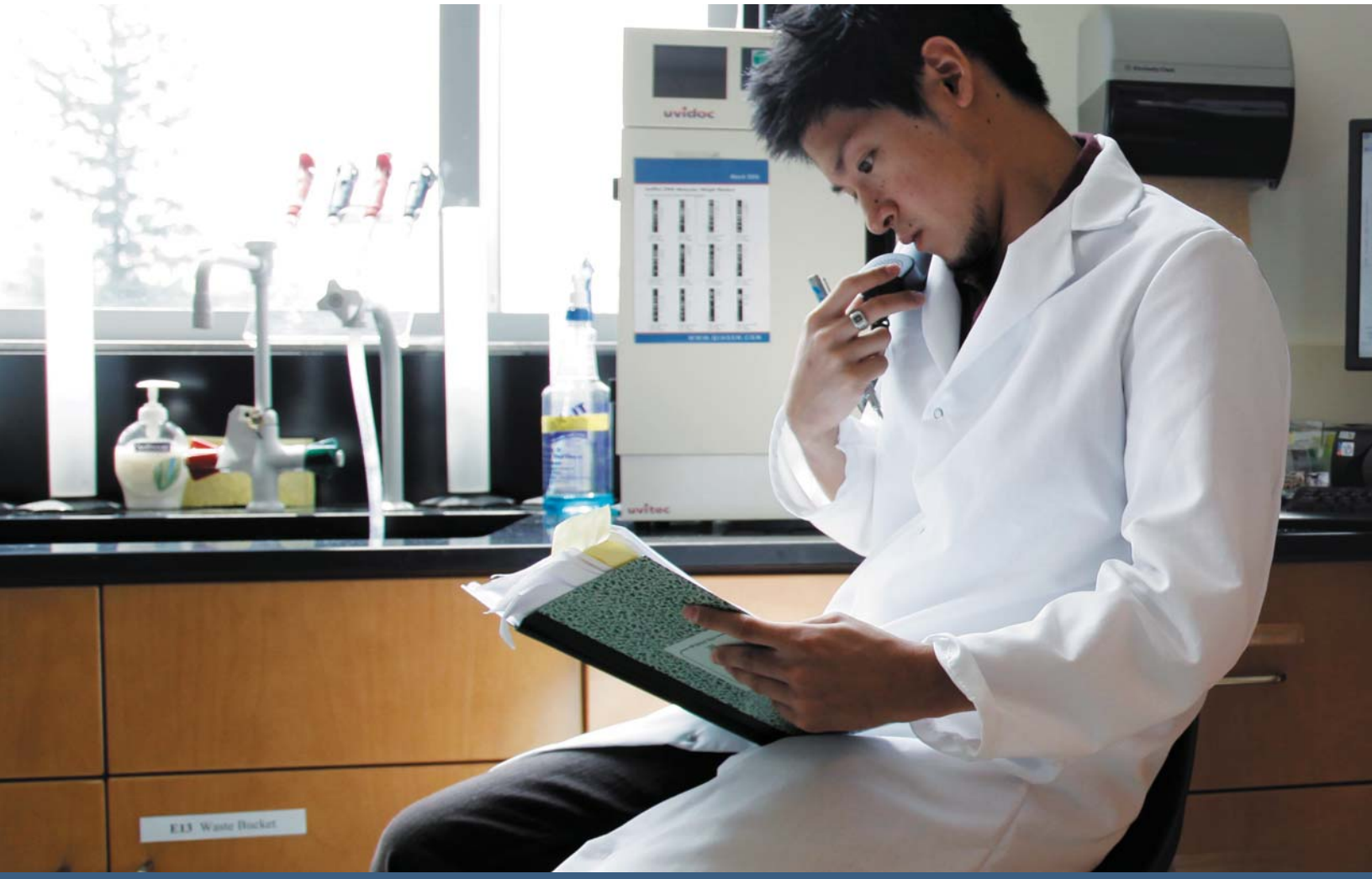
" We have used pumps from KNF Lab since the mid 1990s and, when we approached the company for more units, they asked us to trial the new remote-controlled SC920 vacuum pump that was soon to be released. Our laboratory was ideal for rigorous testing, with constant exposure to corrosive solvents and some potentially rough handling from students at all levels. We were already more than happy with our old pumps, which are still going strong, but the new system is even better. **The new vacuum mechanism makes it even quieter and even stronger than other pumps, and the controller touchscreen and remote control unit are very easy for students to learn to use.**"

Frank Hampel, Ph.D.
Organic Chemistry
University of Erlangen



rotary evaporation

vacuum ovens

gel drying

LABOPORT® Vacuum Pumps

The first thing you'll notice when you turn on the LABOPORT (shown above), our most popular laboratory vacuum pump, is that it's not very noticeable at all. The more you use the pump, the less you'll notice it. That's because LABOPORT pumps, like all KNF pumps, are built to run for years without any attention.

Used for a wide variety of applications including rotary evaporation and gel drying, researchers find the versatile pump to be quiet and sturdy – even when continuously running corrosive solvents. LABOPORT features a strong vacuum, chemical resistance, and an oil-free design. It is a perfect all-purpose pump for the laboratory researcher.

KNF LAB

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" Our research is concerned with finding and synthesizing novel therapeutics for various cancers. We routinely extract compounds in corrosive, organic solvents and pump them under vacuum to obtain the pure molecules. As such, a high performance pump is an essential tool. Previously, we used oil-lubricated pumps, but these needed significant amounts of maintenance due to corrosive solvents mixing with the oil. **After two years, the chemically-resistant LABOPORT pumps have proven to be very reliable.** *In fact, they have lasted three times longer than any other pump we have used."*

Patrick Bureau
Research Developer
Aegera Therapeutics

filtration

desiccation

LABOPORT® Mini Pumps

Pictured above are the smaller siblings of the LABOPORT, the LABOPORT Mini pumps. These convenient, oil-free pumps are perfect for smaller bench-top applications like filtration. We think you'll like them because of their light weight and small physical footprint.

Although the Mini pumps have less vacuum than the larger models, the corrosion resistant parts and sturdy design features that are standard to all KNF pumps provide protection against corrosive solvents. If you need steady, reliable vacuum for small bench top applications, the LABOPORT Mini pump is for you.

KNF LAB

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" Many of the activities in our chemistry laboratories incorporate suction filtration, where water aspirators were used as a vacuum source for years. These aspirators were often unable to provide a reliable low pressure when all the students in the lab needed to complete a filtration. **After trying one KNF LABOPORT pump on a trial basis, the department has chosen KNF pumps as the vacuum source in all laboratories.** *Soon, the chemistry department will be moving into a new 'green' building, where managing water consumption will be a priority. All of our new laboratories will be outfitted with KNF pumps."*

Allan Hovland, Ph.D.
Department of Chemistry
St. Mary's College of Maryland

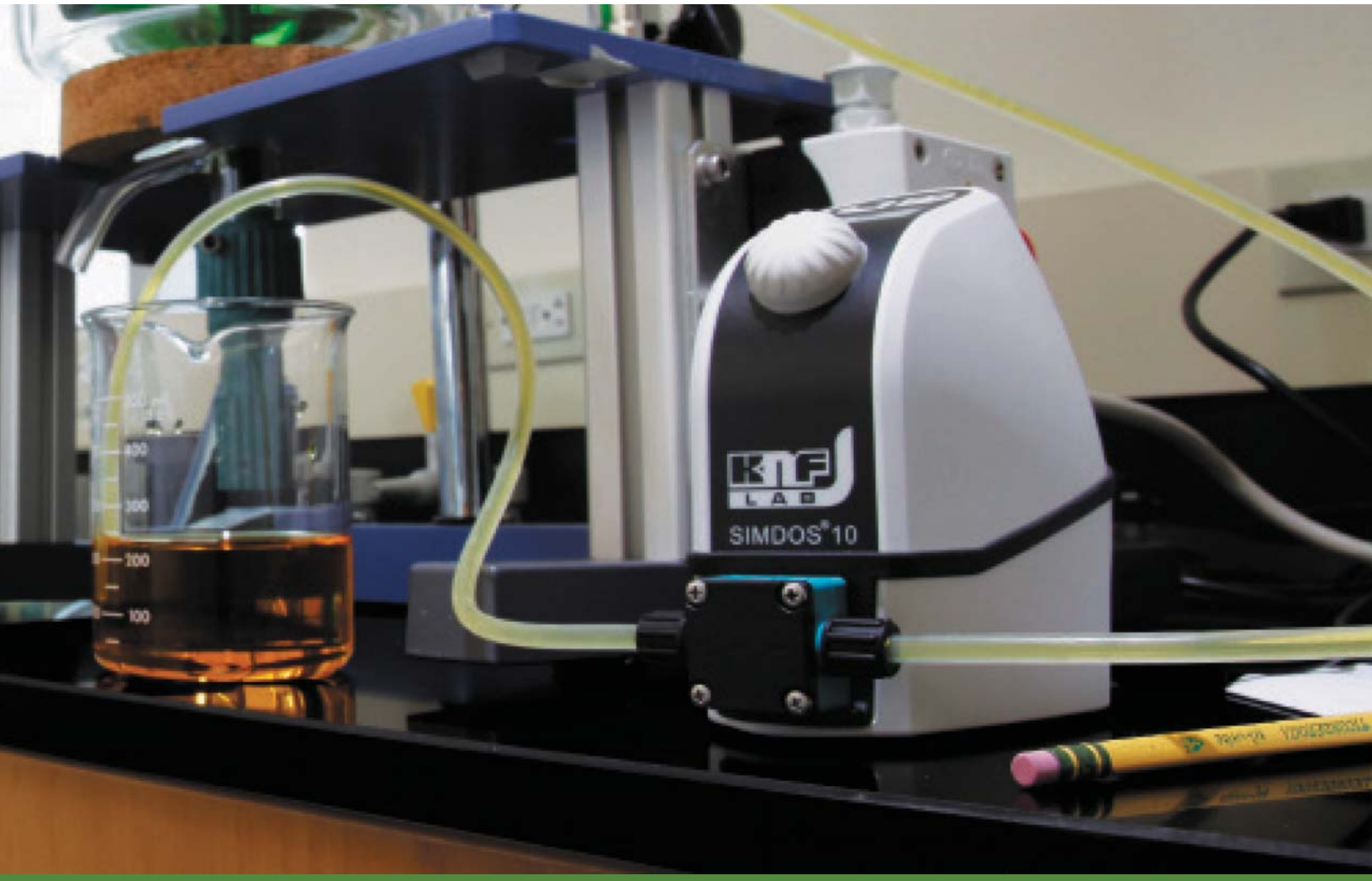
Liquid Pumps

When you need to move liquids quickly and accurately, KNF Liquid pumps can keep things clean and simple in your lab. Our liquid pumps provide you with precise control, so you don't have to "eye-ball" the correct volume anymore.

The programmable SIMDOS® pump is pictured above. With just a few clicks of the knob and taps of the button, the intuitive, easy control allows for tasks like dosing, liquid transfer and metering to be streamlined and simplified, so you can get on with the good stuff – your research. Also available are LIQUIPORT® pumps for transfer and STEPDOS® for micro-scale metering.

KNF LAB

see more online at www.labpumps.com, or call 1 (609) 890-8600



" To develop full-scale manufacturing processes, we need to start with a fundamental understanding of the process on a laboratory scale. Pumps are used in pilot plants and in full-scale production, therefore it is useful to be able to simulate this environment in the laboratory. It is important to have pumps of the right size for this kind of work, and having good control is much safer too, especially with very exothermic reactions. **KNF liquid pumps give us the control we need over the addition rates and it is a major advantage to be able to mimic a plant in a laboratory environment, with complete control of all the variables.**"

Csaba Urbaniczky, Ph.D.
Process Research and Development
AstraZeneca

New Pump Technology

Our primary goal is to give you exactly what you need – and in terms of product development, we push our design capabilities to the limit to give you what you really want. Our pumps aren't designed in a "bubble" at KNF headquarters – they're as good as they are because of the feedback we receive from our customers.

The N920 pump pictured above, the SC920 vacuum systems, and the SIMDOS liquid pump are designed for inspired laboratory researchers like you who don't want to settle for just any pump. We developed the features on our pumps by talking to people working in labs, so we could make your routine laboratory tasks that much easier.

KNF LAB

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" I have been using LIQUIPORT pumps in our laboratory for quite some time now, and have also been involved in the development of the new SIMDOS dosing pump. **Because the diaphragm pumps are available with a PTFE diaphragm and a variety of head materials, they have a very high level of chemical resistance and thus can handle a wide range of chemicals. This allows me more flexibility than with a peristaltic pump.** *In general, the bearings of many peristaltic pumps are not fully enclosed, making them susceptible to corrosion. In the case of the diaphragm pumps, only the liquid can come into contact with the head parts. On inspection of the maintenance intervals, it becomes clear that these are much longer for a diaphragm pump than the recommended lifetimes of the tubes for a peristaltic pump."*

Alexander Bozic
Lab Manager
Sanofi Aventis

rotary evaporation

Rotary Evaporation

LABOPORT Single-stage Pumps — LOW boiling point solvents (35°C to 80°C)

Model No.	Flow (L/min)	Vac (Torr)	Capable of handling vessel sizes to:	
N810	10	75	<0.5L	
N820	20	75	0.5L to 2L	*All models resistant to*
N840	34	75	2L to 5L	*condensate droplets*
N840.1.2	60	68	>5L	

LABOPORT Multi-stage Pumps — HIGH boiling point solvents (80°C to 110°C and higher)

Model No.	Flow (L/min)	Vac (Torr)	Capable of handling vessel sizes to:	
N810.3	10	6	>0.5L	
N820.3	20	6	0.5L to 2L	*Most Popular sizes*
N840.3	34	6	2L to 5L	
N920	20	1.5	<2L	*Adjustable Flow*
N842.3	34	1.5	2L to 5L	*Deepest Vacuum*
N860.3	60	1.5	>5L	

Pump Systems — Recommended for all brands of rotary evaporator configurations

Model No.	Flow (L/min)		Vac (Torr)	Capable of handling vessel sizes to:
SC810	10	6	<0.5L	
SC820	20	6	10L to 20L	
SC840	34	6	>20L	
SC842	34	1.5	>20L	*Deepest Vacuum*
SC920	20	1.5	<2L	*Comes w/ Wireless Control*

vacuum ovens

Vacuum Ovens

LABOPORT Multi-stage Pumps — Recommended for a variety of vacuum oven capacities

Model No.	Flow (L/min)	Vac (Torr)	Capable of handling vacuum oven chamber capacities to:	
N820.3	20	6	<1cu. ft	
N840.3	34	6	<2cu. ft	*Most Popular*
N860.3	60	1.5	>2cu. ft	

gel drying

Gel Drying

LABOPORT Multi-stage Pumps

Model No.	Flow (L/min)	Vac (Torr)	Approximate gel drying area:
N820.3	20	6	<1sq. ft
N840.3	34	6	>1sq. ft

desiccation

Desiccation

LABOPORT Mini Pumps

Model No.	Flow (L/min)	Vac (Torr)	Approximate flow requirement:	
N816.3	16	15	<1cu. ft	*Replaces Water Aspirators*
N838.3	22	11	>1cu. ft	

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filtration

Filtration

LABOPORT Mini Pumps — Bottletop or Disposable Filtration

Model No.	Flow (L/min)	Vac (Torr)	Size capacity of filtration device:	
N86	5.5	120	<500mL	*Choice of Corrosion resistance*
N811	13.0	75	>500mL	*materials for all models*

LABOPORT Mini Pumps — Glass Filtration

Model No.	Flow (L/min)	Vac (Torr)	Size capacity of filtration device:	
N811	13	75	<1L	*Replace Water Aspirators*
N816.1.2	30	120	>1L	

LABOPORT Mini Pumps — Manifold Filtration

Model No.	Flow (L/min)	Vac (Torr)	Size capacity of filtration device:	
N816.1.2	30	120	<1L	*Up to 4 funnels*
N838.1.2	37	113	>1L	

transfer

Liquid Transfer/Metering*

LIQUIPORT Pumps — Transfer and Dosing Applications

Model No.	Flow (L/min)	Max. suction	Max. pressure (psig):	
NF100	0.2 - 1.3	10ft (water)	15	
NF1.100	0.2 - 1.3	10ft (water)	90	*Most Popular*
NF300	0.5 - 3.0	10ft (water)	15	
NF1.300	0.5 - 3.0	10ft (water)	90	

dosing

SIMDOS Pumps — Dosing Neutral and Corrosive Liquids

Model No.	Flow (mL/min)	Dosing vol (mL)	Max. pressure (psig):	
UFEM 10	1 - 100	1 - 1000	85	*Calibrates in Minutes*

STEPDOS Pumps — Controlled Metering of Neutral and Corrosive Liquids

Model No.	Flow (mL/min)	Max. suction	Max. pressure (psig):	
FEM03	0.03 - 30	13ft (water)	90	*Use for Micro-Scale Pipetting*
FEM08	0.08 - 80	13ft (water)	30	

metering

**Available with a choice of corrosion resistant materials, please visit www.labpumps.com. Manual and remote control models available.*

Need help finding the best pump for your laboratory application?

Try our Pump Finder at www.labpumps.com to find the best KNF Lab pump for your laboratory. KNF pumps are organized by the routine laboratory tasks represented by the icons shown in this catalog.

degassing

fluid aspiration

centrifugal concentration

solid phase extraction

Always check chemical compatibility for the chemicals that come into contact with your pump. Specifications are subject to change. LABOPORT® is a registered trademark of KNF Neuberger GmbH. KNF would like to express its thanks to Bryn Athyn College for its assistance in making this catalog possible.

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