

Modular Vacuum Systems, controlled Vacuum

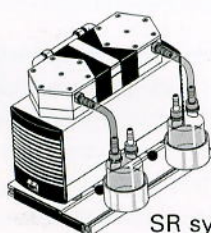


Product Range: Chemically-resistant LABOPORT® Vacuum Systems, modular

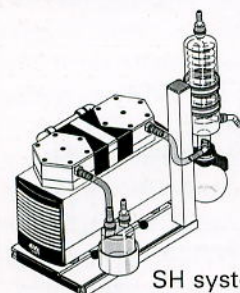
Technical features:

- Maintenance-free
- Silent
- Simple connection to the line power (power plug) and to the pneumatic system
- Environmentally friendly
- Easy to expand or convert

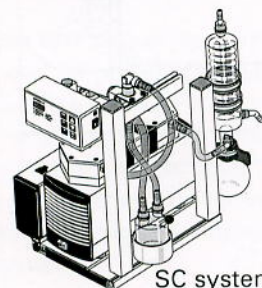
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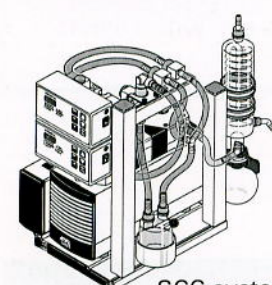
SR system



SH system



SC system



SCC system

System (completely assembled)	Delivery (l/min) ¹⁾	Ultimate vacuum (mbar abs)	Pneumatic connections for tube ID	Weight (kg)	Built in pump type	Page
SR system comprising pump, base plate and two separators						
SR 810	10	100	10 mm	8.4	N 810 FT.18	5.2
SR 810.3	10	8	10 mm	9.4	N 810.3 FT.18	5.2
SR 820	20	100	10 mm	9.4	N 820 FT.18	5.2
SR 820.3	20	8	10 mm	11.6	N 820.3 FT.18	5.2
SR 840	34	100	10 mm	12.6	N 840 FT.18	5.2
SR 840.3	34	8	10 mm	14.9	N 840.3 FT.18	5.2

SH system comprising pump, base plate, condenser and separator						
SH 810	10	100	10 mm	9.1	N 810 FT.18	5.4
SH 810.3	10	8	10 mm	10.1	N 810.3 FT.18	5.4
SH 820	20	100	10 mm	10.3	N 820 FT.18	5.4
SH 820.3	20	8	10 mm	12.5	N 820.3 FT.18	5.4
SH 840	34	100	10 mm	13.5	N 840 FT.18	5.4
SH 840.3	34	8	10 mm	15.8	N 840.3 FT.18	5.4

SC system comprising pump, base plate, condenser, separator and one vacuum controller						
SC 810	10	100	10 mm	11.6	N 810 FT.18	5.6
SC 810.3	10	8	10 mm	13.6	N 810.3 FT.18	5.6
SC 820	20	100	10 mm	13.8	N 820 FT.18	5.6
SC 820.3	20	8	10 mm	16	N 820.3 FT.18	5.6
SC 840	34	100	10 mm	17	N 840 FT.18	5.6
SC 840.3	34	8	10 mm	19.3	N 840.3 FT.18	5.6
SC 842.3	34	2	10 mm	20.1	N 842.3 FT.18	5.6

SCC system comprising pump, base plate, condenser, separator and two vacuum controllers for two different processes						
SCC 810	10	100	10 mm	14.2	N 810 FT.18	5.8
SCC 810.3	10	8	10 mm	15.2	N 810.3 FT.18	5.8
SCC 820	20	100	10 mm	15.2	N 820 FT.18	5.8
SCC 820.3	20	8	10 mm	17.6	N 820.3 FT.18	5.8
SCC 840	34	100	10 mm	18.6	N 840 FT.18	5.8
SCC 840.3	34	8	10 mm	20.9	N 840.3 FT.18	5.8
SCC 842.3	34	2	10 mm	21.7	N 842.3 FT.18	5.8

¹⁾ at atm. pressure

KNF reserves the right to make changes.

Modular Vacuum Systems, controlled Vacuum



Product Range: Chemically-resistant LABOPORT® Vacuum Pumps and modular Accessories

Technical features:

- Maintenance-free
- Silent
- Simple connection to the line power (power plug) and to the pneumatic system
- Environmentally friendly, because no water is consumed and no waste water is contaminated

LABOPORT® components for building or retrofitting

The modular components listed here are designed for customers who build their own vacuum system, for integration in a laboratory process setup, or for retrofitting an existing vacuum system. This enhances flexibility in laboratories.

Chemically-resistant vacuum pumps

Delivery (l/min) ¹⁾	Ultimate vacuum (mbar abs.)	Operating pressure (bar g)	Motor ~230V/50Hz operating current (A)/ power P ₁ (W)	Protection class	Pneumatic connections for tube ID	Weight (kg)	Pump type Order No.	Data-Sheet, page
10	100	1	0.6/100	IP 44	10 mm	5.9	N 810 FT.18	1.30
10	8	1	0.6/90	IP 44	10 mm	6.9	N 810.3 FT.18	1.30
20	100	1	0.9/130	IP 44	10 mm	7.1	N 820 FT.18	1.32
20	8	1	0.7/120	IP 44	10 mm	9.3	N 820.3 FT.18	1.32
34	100	1	1.35/180	IP 44	10 mm	10.3	N 840 FT.18	1.34
34	8	1	1.8/245	IP 44	10 mm	12.6	N 840.3 FT.18	1.34
34	2	1	1.8/245	IP 44	10 mm	13.4	N 842.3 FT.18	1.36
60	90	1	1.9/270	IP 44	10 mm	12.6	N 840.1.2 FT.18	1.38

¹⁾ at atm. pressure

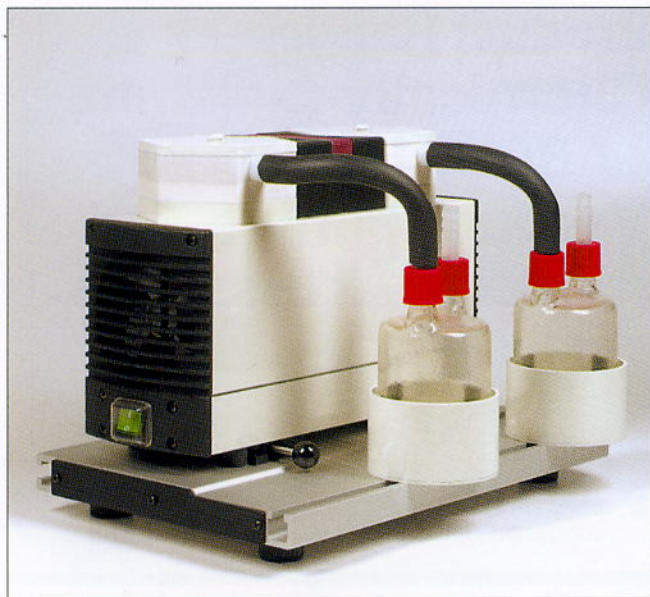
Modular accessories

Type designation Order No.	System modules
NP 810/820	base plate for vacuum pumps N 810 FT.18, N 810.3 FT.18, N 820 FT.18 a. N 820.3 FT.18
NP 840	base plate for vacuum pumps N 840 FT.18, N 840.3 FT.18 and N 842.3 FT.18
NR 800	separator (usable at pressure side or suction side)
NH 800	high-performance condenser
NC 800 A first controller	vacuum controller with valves, cabling and electrical supply unit
NC 800 B* second controller	vacuum controller, only with NC 800 A, with valves and cabling
NC 800 A/B*	two vacuum controllers with valves, cabling and electrical supply unit

*) For independent vacuum control of two different, simultaneous processes.

INC 800 A upgrades SH to SC. NC 800 B only in conjunction with NC 800 A or upgrades SC to the full system SCC. NC 800A/B upgrades SH to SCC).

Modular Vacuum Systems, controlled Vacuum



Chemically-resistant LABOPORT® Vacuum Systems with two Separators

Technical features:

- Maintenance-free
- Silent
- Simple connection to the line power (power plug) and to the pneumatic system
- Environmentally friendly
- Separation of solvent drops in the gas (at the pressure side)
- Collection of particles in the system (at the suction side)
- Easy to expand or convert

SR Systems, modular

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The SR vacuum systems are equipped with the LABOPORT-series chemically-resistant diaphragm pump of your choice (refer to the table/overview "modular accessories"). SR systems include two separators. There is a wide range of applications for these vacuum systems in laboratories, whenever clean, constant vacuum is required.

The heart of the very compact LABOPORT pumps used in the vacuum systems is KNF structured diaphragm. This patented diaphragm was 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.

For laboratory applications, there is a wide variety of vacuum pumps with many different performance levels and various modular system components. The systems listed here are fully assembled at the factory. They can be converted quickly and easily; special tools are not required.

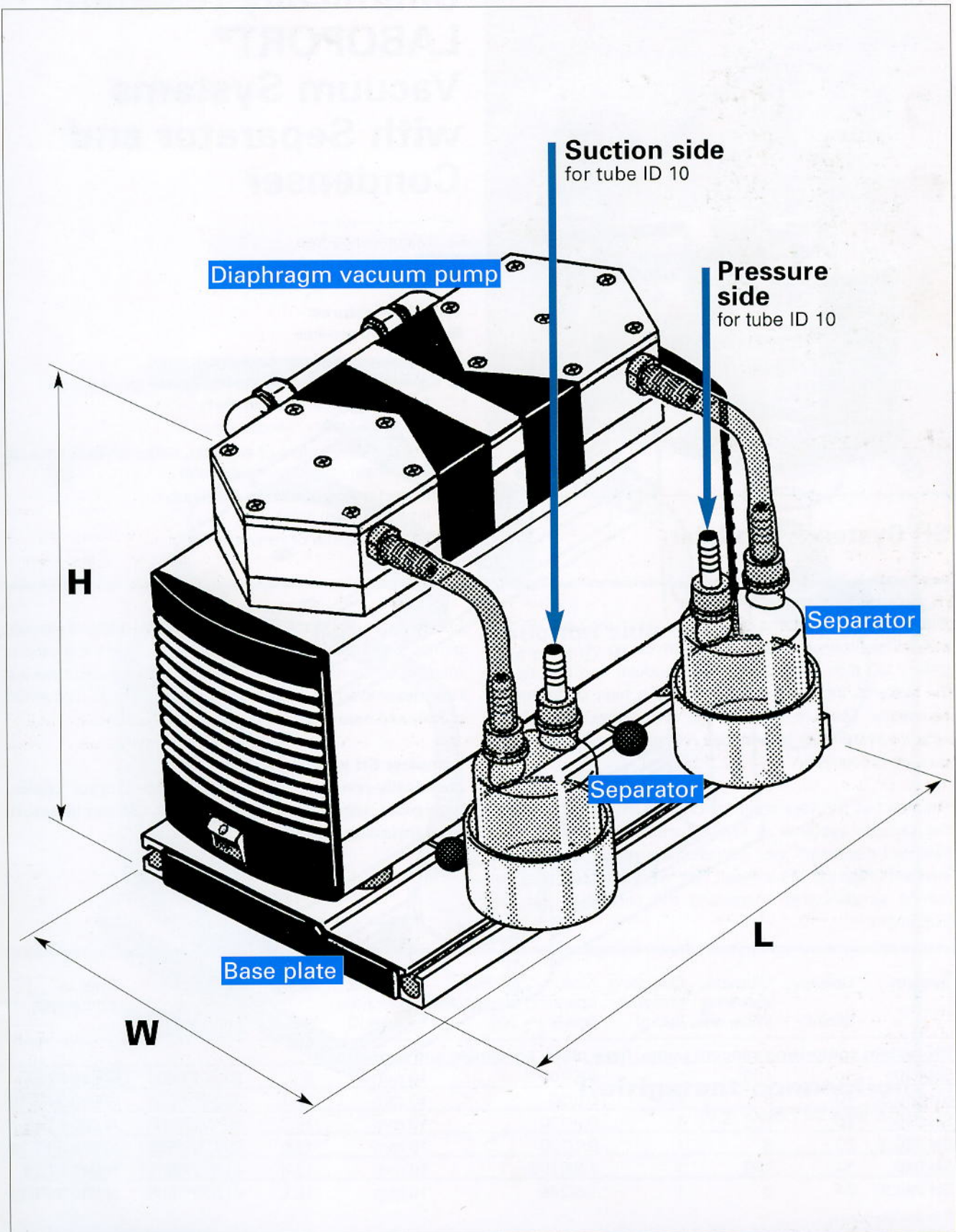
Complete SR vacuum systems with: chemically-resistant diaphragm pump of your choice, base plate, two separators for suction and pressure side including tubing ready to connect.

System	Delivery (l/min) ¹⁾	Ultimate vacuum (mbar abs)	Operating pressure (bar g)	Motor ~230V/50Hz operating current (A)/ power P ₁ (W)	Pneumatic connections for tube ID	Weight (kg)	Dimensions (LxHxW) (mm)	Built in pump type
SR system comprising pump, base plate and two separators								
SR 810	10	100	1	0.6/100	10 mm	8.4	312/227/232	N 810 FT.18
SR 810.3	10	8	1	0.6/90	10 mm	9.4	312/227/232	N 810.3 FT.18
SR 820	20	100	1	0.9/130	10 mm	9.4	312/227/252	N 820 FT.18
SR 820.3	20	8	1	0.7/120	10 mm	11.6	312/227/252	N 820.3 FT.18
SR 840	34	100	1	1.35/180	10 mm	12.6	334/227/266	N 840 FT.18
SR 840.3	34	8	1	1.8/245	10 mm	14.9	334/227/266	N 840.3 FT.18

¹⁾ at atm. pressure

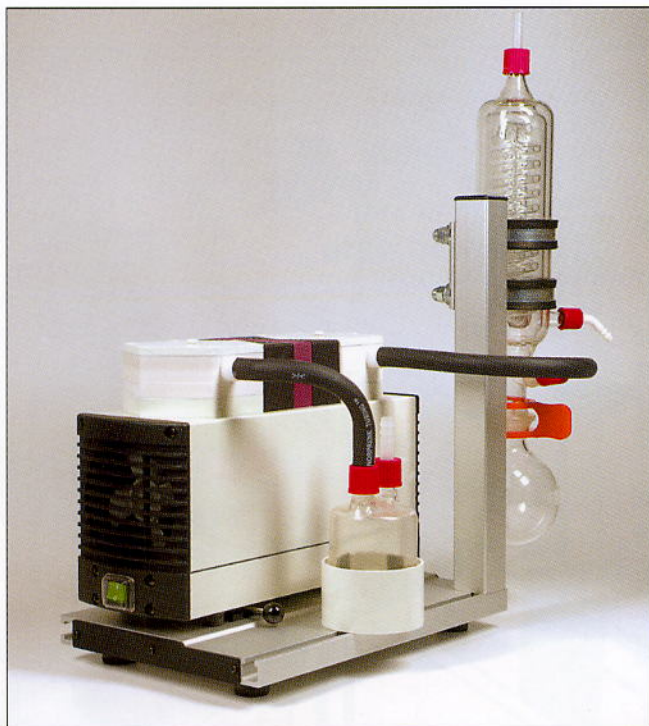
Modular Vacuum Systems, controlled Vacuum

Dimensions (see table)



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Modular Vacuum Systems, controlled Vacuum



Chemically-resistant LABOPORT® Vacuum Systems with Separator and Condenser

Technical features:

- Maintenance-free
- Silent
- Simple connection to the line power (power plug) and to the pneumatic system
- Environmentally friendly
- Controlled recovery of solvents, with high-performance condenser (at the pressure side)
- Collection of particles in the system (at the suction side)
- Easy to expand or convert

SH Systems, modular

The SH vacuum systems are equipped with the LABOPORT-series chemically-resistant diaphragm pump of your choice (refer to the table/overview "modular accessories"). SH systems include a separator and a high performance condenser. There is a wide range of applications for these vacuum systems in laboratories, whenever clean, constant vacuum is required.

The heart of the very compact LABOPORT pumps used in the vacuum systems is KNF structured diaphragm. This patented diaphragm was 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.

For laboratory applications, there is a wide variety of vacuum pumps with many different performance levels and various modular system components. The systems listed here are fully assembled at the factory. They can be converted quickly and easily; special tools are not required.

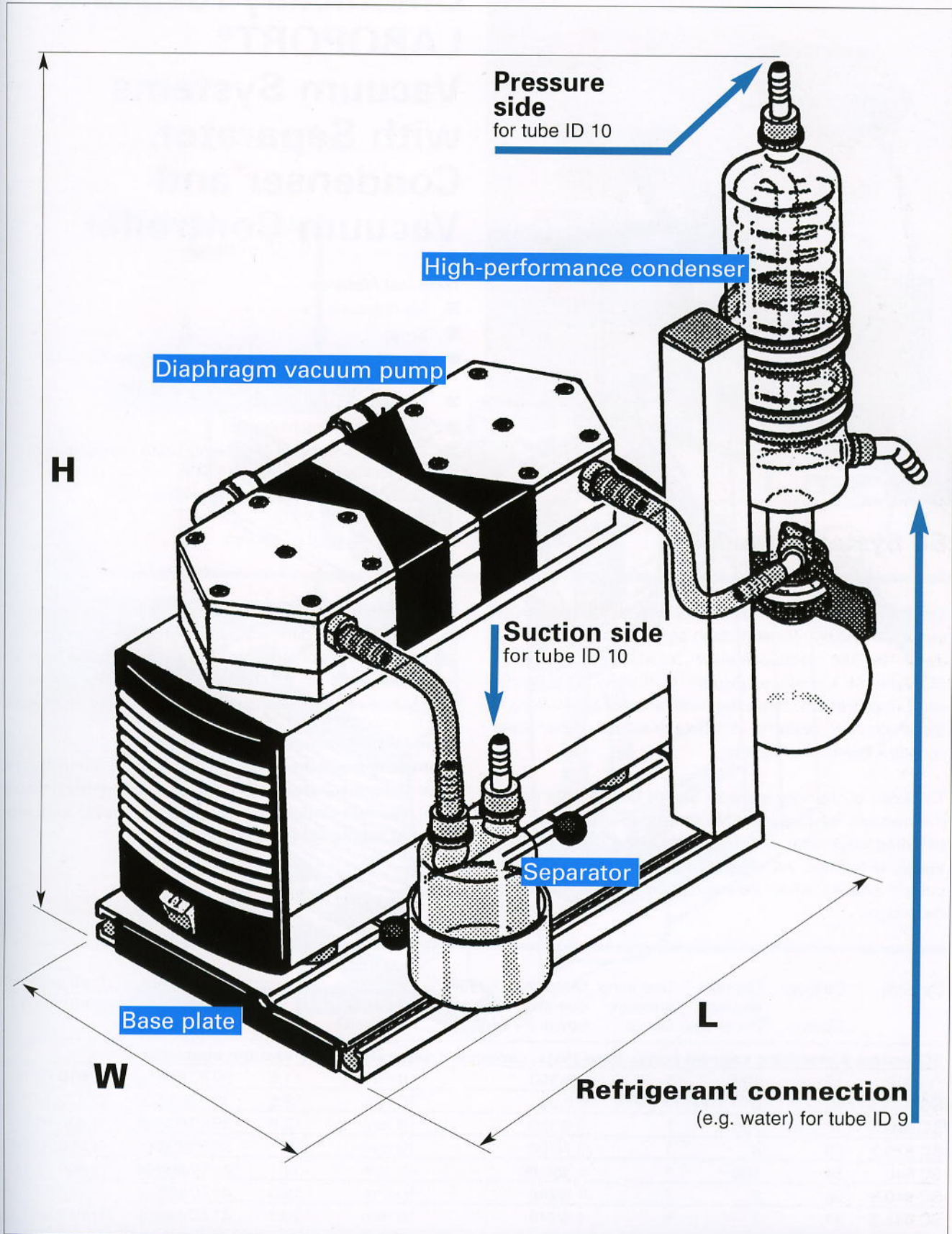
Complete SH vacuum systems with: chemically-resistant diaphragm pump of your choice, base plate, separator (suction side), condenser (pressure side) including tubing ready to connect.

System	Delivery (l/min) ¹⁾	Ultimate vacuum (mbar abs)	Operating pressure (bar g)	Motor ~230V/50Hz operating current (A)/ power P ₁ (W)	Pneumatic connections for tube ID	Weight (kg)	Dimensions (LxHxW) (mm)	Built in pump type
SH system comprising vacuum pump, base plate, condenser and separator								
SH 810	10	100	1	0.6/100	10 mm	9.1	397/227/506	N 810 FT.18
SH 810.3	10	8	1	0.6/90	10 mm	10.1	397/227/506	N 810.3 FT.18
SH 820	20	100	1	0.9/130	10 mm	10.3	397/227/506	N 820 FT.18
SH 820.3	20	8	1	0.7/120	10 mm	12.5	397/227/506	N 820.3 FT.18
SH 840	34	100	1	1.35/180	10 mm	13.5	417/227/506	N 840 FT.18
SH 840.3	34	8	1	1.8/245	10 mm	15.8	417/227/506	N 840.3 FT.18

¹⁾ at atm. pressure

Modular Vacuum Systems, controlled Vacuum

Dimensions (see table)



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KNF worldwide - Diaphragm Pumps and Systems

Modular Vacuum Systems, controlled Vacuum



Chemically-resistant LABOPORT® Vacuum Systems with Separator, Condenser and Vacuum Controller

Technical features:

- Maintenance-free
- Silent
- Simple connection to the line power (power plug) and to the pneumatic system
- Environmentally friendly
- Automatic vacuum control
- Controlled recovery of solvents, with high-performance condenser (at the pressure side)
- Collection of particles in the system at the suction side)
- Easy to expand or convert

5

SC Systems, modular

The SC vacuum systems are equipped with the LABOPORT-series chemically-resistant diaphragm pump of your choice (refer to the table/overview "modular accessories"). SC systems include a vacuum controller for controlled vacuum processes. There is a wide range of applications for these vacuum systems in laboratories, whenever clean, constant vacuum is required.

The heart of the very compact LABOPORT pumps used in the vacuum systems is KNF structured diaphragm. This patented diaphragm was 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.

For laboratory applications, there is a wide variety of vacuum pumps with many different performance levels and various modular system components. The systems listed here are fully assembled at the factory. They can be converted quickly and easily; special tools are not required.

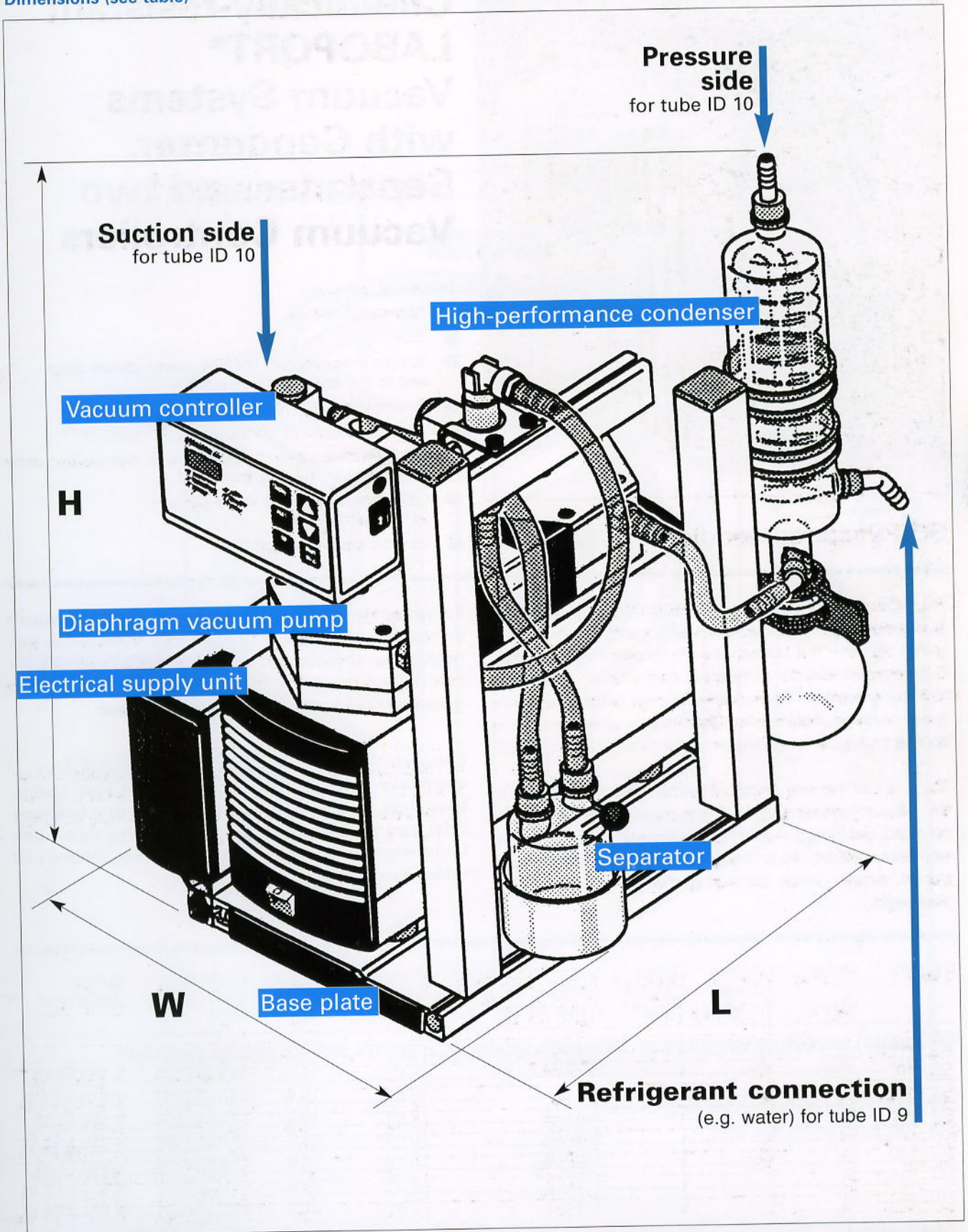
Complete SC vacuum systems with: chemically-resistant diaphragm pump of your choice, base plate, separator (suction side), condenser (pressure side), vacuum controller with electrical supply unit, cabling and tubing ready to connect.

System	Delivery (l/min) ¹⁾	Ultimate vacuum (mbar abs)	Operating pressure (bar g)	Motor ~230V/50Hz operating current (A)/ power P ₁ (W)	Pneumatic connections for tube ID	Weight (kg)	Dimensions (LxHxW) (mm)	Built in pump type
SC 810	10	100	1	0.6/100	10 mm	11.6	397/289/506	N 810 FT.18
SC 810.3	10	8	1	0.6/90	10 mm	13.6	397/289/506	N 810.3 FT.18
SC 820	20	100	1	0.9/130	10 mm	13.8	397/289/506	N 820 FT.18
SC 820.3	20	8	1	0.7/120	10 mm	16	397/289/506	N 820.3 FT.18
SC 840	34	100	1	1.35/180	10 mm	17	417/289/506	N 840 FT.18
SC 840.3	34	8	1	1.8/245	10 mm	19.3	417/289/506	N 840.3 FT.18
SC 842.3	34	2	1	1.8/245	10 mm	20.1	417/289/506	N 842.3 FT.18

¹⁾ at atm. pressure

Modular Vacuum Systems, controlled Vacuum

Dimensions (see table)



Modular Vacuum Systems, controlled Vacuum



Chemically-resistant LABOPORT® Vacuum Systems with Condenser, Separator and two Vacuum Controllers

Technical features:

- Maintenance-free
- Silent
- Simple connection to the line power (power plug) and to the pneumatic system
- Environmentally friendly
- Automatic vacuum control for two processes
- Controlled recovery of solvents, with high-performance condenser (at the pressure side)
- Collection of particles in the system (at the suction side)
- Easy to expand or convert

5

SCC Systems, modular

The SCC vacuum systems are equipped with the LABOPORT-series chemically-resistant diaphragm pump of your choice (refer to the table/overview "modular accessories"). Fully-featured SCC systems have two vacuum controllers for two independent processes with just one pump. There is a wide range of applications for these vacuum systems in laboratories, whenever clean, constant vacuum is required.

The heart of the very compact LABOPORT pumps used in the vacuum systems is KNF structured diaphragm. This patented diaphragm was 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.

For laboratory applications, there is a wide variety of vacuum pumps with many different performance levels and various modular system components. The systems listed here are fully assembled at the factory. They can be converted quickly and easily; special tools are not required.

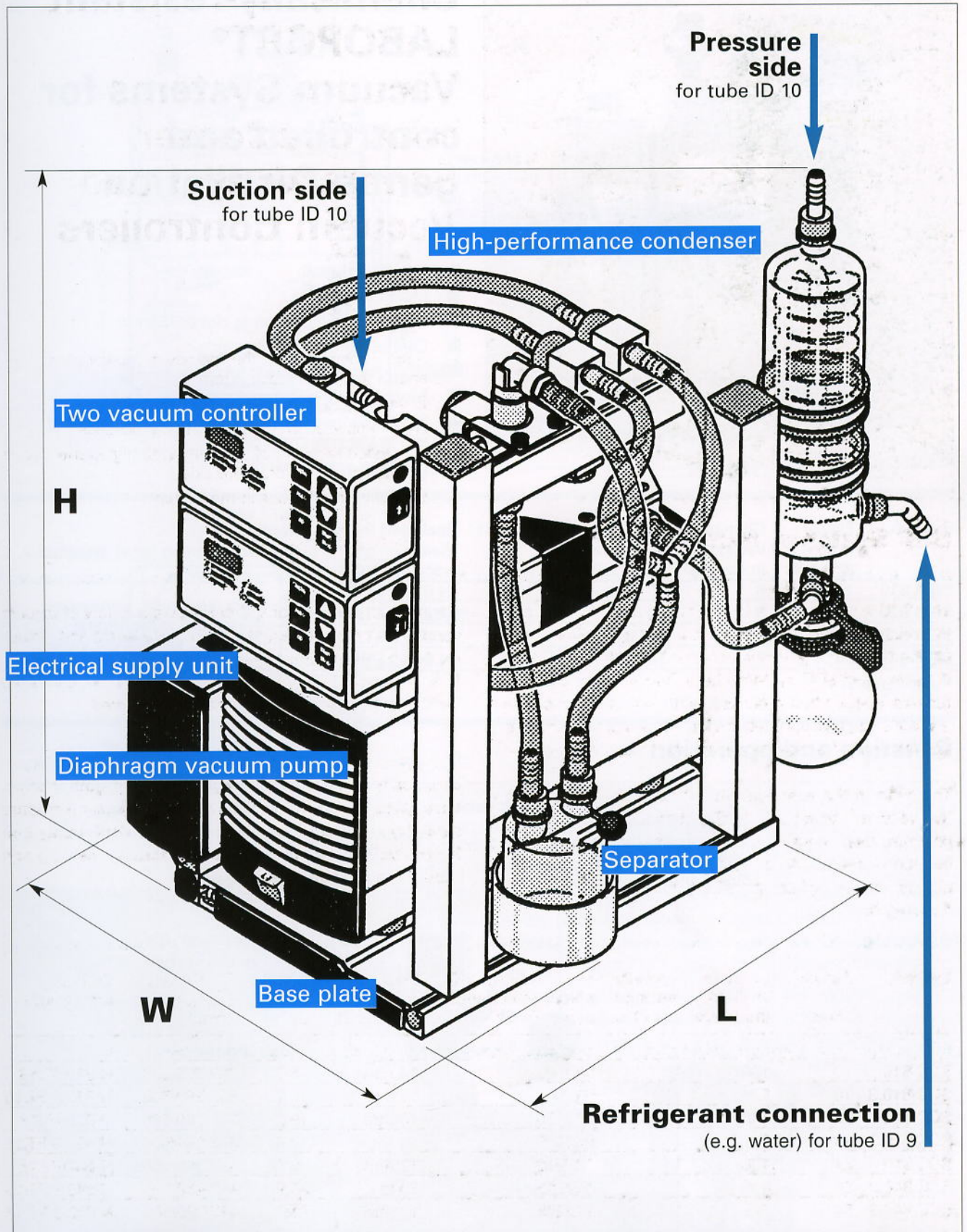
Complete SCC vacuum systems (fully-featured) with: chemically-resistant diaphragm pump of your choice, base plate, separator (suction side), condenser (pressure side), two vacuum controllers with electrical supply unit for controlling two independent processes, cabling and tubing ready to connect.

System	Delivery (l/min) ¹⁾	Ultimate vacuum (mbar abs)	Operating pressure (bar g)	Motor ~230V/50Hz operating current(A)/ power P ₁ (W)	Pneumatic connections for tube ID	Weight (kg)	Dimensions (LxHxW) (mm)	Built in pump type
SCC system comprising vacuum pump, base plate, condenser, separator, and two vacuum controllers								
SCC 810	10	100	1	0.6/100	10 mm	14.2	397/289/506	N 810 FT.18
SCC 810.3	10	8	1	0.6/90	10 mm	15.2	397/289/506	N 810.3 FT.18
SCC 820	20	100	1	0.9/130	10 mm	15.2	397/289/506	N 820 FT.18
SCC 820.3	20	8	1	0.7/120	10 mm	17.6	397/289/506	N 820.3 FT.18
SCC 840	34	100	1	1.35/180	10 mm	18.6	417/289/506	N 840 FT.18
SCC 840.3	34	8	1	1.8/245	10 mm	20.9	417/289/506	N 840.3 FT.18
SCC 842.3	34	2	1	1.8/245	10 mm	21.7	417/289/506	N 842.3 FT.18

¹⁾ at atm. pressure

Modular Vacuum Systems, controlled Vacuum

Dimensions (see table)



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