

# KNF Lab PUMPS

## LABOPORT® Diaphragm Vacuum Pump



Models N 810.3 FtP, N 820.3 FtP, N 840.3 FtP, N 840.1.2 FtP, and N 842.3 FtP

- Flow rate to 34 L/min / Ultimate vacuum up to 1.5 torr
- High level of vapor and condensate compatibility
- PtFe pump head combined with PtFe-coated diaphragm is ideal for extremely aggressive/corrosive gases and vapors
- Single head pumps also available. See chart below.

## N 920 G Diaphragm Vacuum Pump



- Flow rate 21 L/min / Ultimate vacuum 1.5 torr
- High suction speed, particularly in the low vacuum range
- Integrated rotational speed control enables pumping capacity to be easily adapted to process requirements
- PPS pump head combined with PtFe-coated diaphragm is ideal for aggressive/corrosive gases and vapors
- integrated gas ballast valve

## N 860.3 FT.40P Diaphragm Vacuum Pump



- Flow rate 60 L/min / Ultimate vacuum 3 torr
- Integrated KNF self-drying system ensures that condensate is quickly removed from the pump heads without the vacuum being altered – processing times are markedly reduced as a result
- Chemically resistant and thus ideal for use with extremely aggressive/corrosive gases and vapors

## Technical Data

	LABOPORT® N 86 KtP	LABOPORT® N 811 KvP	LABOPORT® N 816.3 KtP	LABOPORT® N 816.1.2 KtP	LABOPORT® N 938.50 KtP	LABOPORT® N 810.3 FtP	LABOPORT® N 810 FtP	LABOPORT® N 820.3 FtP	LABOPORT® N 820 FtP	LABOPORT® N 840.3 FtP	LABOPORT® N 840.1.2 FtP	LABOPORT® N 840 FtP	LABOPORT® N 842.3 FtP	LABOPORT® SD N 820.3 Ft.40P	LABOPORT® SD N 840.3 Ft.40P	LABOPORT® SD N 860.3 Ft.40P
<b>Applications</b>																
rotary evaporation						x	x	x	x	x	x	x	x			x
distillation													x			x
degassing			x		x			x								
Filtration	x	x	x	x	x					x						
SPE	x	x	x	x	x											
Fluid aspiration	x	x	x	x		x										
gel drying								x		x						
Centrifugal concentration										x						x
vacuum oven								x		x				x	x	x
Multi-user vacuum systems																
Metering/transferring liquids																
<b>Technical Data</b>																
Flow rate (l/min) at atm. pressure	5.5	13	16	30	30	10	10	20	20	34	65	34	34	20	34	60
ultimate vacuum (torr)	120	75	15	120	11	6	75	6	75	6	68	75	1.5	8	8	3
operating pressure (psig)	36	7.4	7.4	7.4	7.4	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
Connectors for tube (in.)	1/4	1/4	1/4	1/4	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	1/2
Permissible media and ambient temperature	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C	+5... +40 °C
Weight (kg)	1.9	2.5	3.95	3.95	6.8	6.9	6.9	9.3	9.3	12.6	12.6	12.6	13.4	9.6	12.9	14.8
dimensions W x d x h (mm)	90 x 164 x 141	90 x 187 x 157	90 x 361 x 141	102 x 361 x 141	110 x 317 x 212	140 x 281 x 187	146 x 256 x 187	154 x 312 x 207	159 x 268 x 207	166 x 341 x 226	160 x 341 x 226	171 x 297 x 226	167 x 341 x 223	177 x 312 x 220	189 x 341 x 239	331 x 291 x 279
<b>Material</b>																
Pump head	PPS	PPS	PPS	PPS	PPS	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
diaphragm	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated
valves	FFPM	FPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM	FFPM
<b>Options</b>																
Pump model with vacuum gauge and regulator	N 86 KT.45P	N 811 KV.45P	N 816.3 KT.45P	N 816.1.2 KT.45P	N 938.50 KT.45P											
Pump model with pressure gauge and regulator	N 86 KT.46P															
<b>Accessories</b>																
Mufflers: - NZ10 r1/8" (007005) - NZ20 r1/8" (007006) - NZ30 r1/4" (007007)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
400 ml dry icetrapp - ust 800	x	x	x	x	x	x	x	x	x	x	x	x	x			x
500 ml Woulfe bottle (057953)	x	x	x	x	x	x	x	x	x	x	x	x	x			
1000 ml Woulfe bottle (057954)	x	x	x	x	x	x	x	x	x	x	x	x	x			



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# Technical Data

	N 920 g	sC 920	sC 950	LABOPORT® SC 820	LABOPORT® SC 840	
<b>Applications</b>	rotary evaporation	x	x	x	x	
	distillation	x	x	x		
	degassing	x				
	Filtration					
	SPE					
	Fluid aspiration					
	gel drying	x				
	Centrifugal concentration	x				
	vacuum oven					
	Multi-user vacuum systems			x		
	Metering/transferring liquids					
<b>Technical Data</b>	Flow rate (l/min) at atm. pressure	21	21	50	20	
	ultimate vacuum (torr)	1.5	1.5	1.5	6	
	operating pressure (psig)	7.3			14.5	
	Flow rate (ml/min) with water at 20 °C and zero pressure head					
	Flow rate (l/min) with water at 20 °C and zero pressure head					
	Pressure head (psig)					
	suction head (ft. water)					
	Connectors for tube (in.)	ID 3/8	pneumatic: ID 3/8 coolants: ID 5/16 inert gas: ID 1/4	pneumatic: ID 3/8 coolants: ID 5/16 inert gas: ID 3/16	pneumatic: ID 3/8 coolants: ID 5/16	pneumatic: ID 3/8 coolants: ID 5/16
	Permissible media and ambient temperature	Media temp.: +5 ... +40 °C Ambient temp.: +10 ... +40 °C	+5 ... +40 °C	+5 ... +40 °C	+5 ... +40 °C	+5 ... +40 °C
	Weight (kg)	8.5	15	14.5	16	19.3
dimensions W x d x h (mm)	158 x 324 x 226	366 x 294 x 423	246 x 313 x 487	289 x 397 x 506	289 x 417 x 506	
<b>Material</b>	Pump head	PPS	PPS	PPS	PTFE	
	diaphragm	PTFE-coated	PTFE-coated	PTFE-coated	PTFE-coated	
	valves	FFPM	FFPM	FFPM	FFPM	
<b>Accessories</b>	Coolant valve – g 1/2, id 5/16		117121	117121	045075	
	silencer	007006				
	small flange, stainless steel	046625				
	Column fixture		120132 (for remote control)			
	Wall fixture		120130 (for remote control)			
	Foot switch for version rC (rC = flow rate can be set both manually and via an external control device)					
	in-line filters					
	Charging station					
	Power-supply unit					
	gas washing bottle, 0.5 l					
	Non-return valve – unregulated, for fume hoods (PE-hd)					
	vacuum supply point – unregulated, for installation in laboratory equipment (PPs)					
	Mobile controller unit for regulated vacuum supply (chemically-resistant)					



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