

Technical data sheet

## Vacuum Pump V-80 / V-180

The instrument is an economical and chemically resistant diaphragm vacuum pump with a space saving design. It covers the essential needs in vacuum generation.



## Vacuum pump comparison

Specification	Vacuum Pump V-80	Vacuum Pump V-180
Handle	No	Yes
Speed control (with interface)	Yes	Yes
Pump capacity	1.3 m <sup>3</sup> /h	1.5 m <sup>3</sup> /h
Terminal vacuum (absolute)	15 mbar	10 mbar

## Scope of delivery

All configurations are supplied ready to use.

Component	V-80 solution	V-180 solution
Vacuum Pump V-80	1	-
Vacuum Pump V-180	-	1
Vacuum tubing	1	1
Power cable	1	1
Tubing connections (set)	1	1
Communication cable (COM)	1	1
Interface I-80 / I-180 (incl. holder and cable)	*	*
Woulff bottle	*	*
Condensation assembly	*	*
Silencer	1	1

\* Optional, according to order code

## Order code

Choose the configuration according to your needs:



### Vacuum Pump

- 080 V-80 (15 mbar, 1.3 m<sup>3</sup>/min, incl. speed control)
- 180 V-180 (10 mbar, 1.5 m<sup>3</sup>/min, incl. speed control)

### Interface

- 0 Without
- 1 I-80
- 2 I-180

### Woulff bottle

- 0 Without
- 1 Woulff bottle

### Condensation assembly

- 0 Without
- 1 Secondary V condenser with insulation

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## Technical data

### Vacuum Pump

Specification	Vacuum Pump V-80	Vacuum Pump V-180
Dimensions (W × D × H)	185 mm × 207 mm × 238 mm	185 mm × 207 mm × 285 mm
Dimensions (W × D × H) with secondary condenser, interface and power plug	220 mm × 325 mm × 405 mm	220 mm × 325 mm × 405 mm
Weight	5.5 kg	5.6 kg
Connection voltage	100 – 240 VAC ± 10%	100 – 240 VAC ± 10%
Power consumption	180 W	180 W
Frequency	50 / 60 Hz	50 / 60 Hz
Overvoltage category	II	II
IP Code	IP21	IP21
Pollution degree	2	2
Terminal vacuum (absolute)	15 mbar	10 mbar
Pump capacity	1.3 m <sup>3</sup> /h	1.5 m <sup>3</sup> /h
Vacuum connection	GL-14	GL-14
Motor	Brushless DC motor	Brushless DC motor
Noise level	32 – 57 dBA 57 dBA with 100% load	32 – 57 dBA 57 dBA with 100% load
Minimum clearance on all sides	350 mm	350 mm
Certificate	CB , CE , UL/CSA	CB , CE , UL/CSA

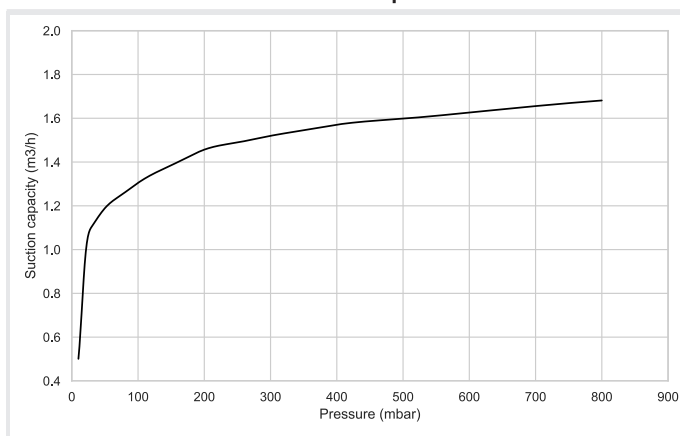
### Ambient conditions

For indoor use only.

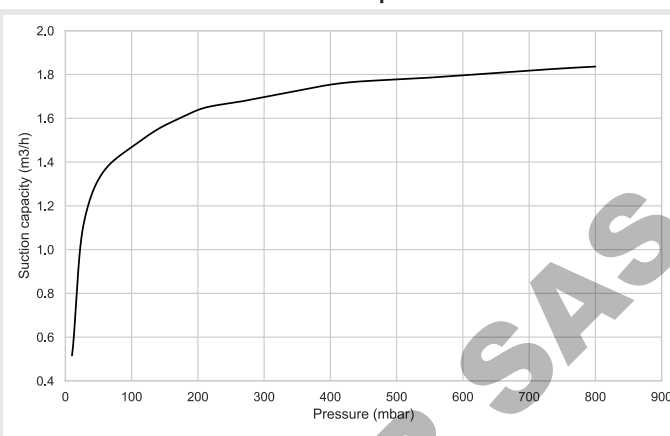
Specification	Value
Max. altitude above sea level	2,000 m
Ambient and storage temperature	5 – 40 °C
Max. relative humidity	80% for temperatures up to 31 °C decreasing linearly to 50% relative humidity at 40 °C

## Suction capacity against pressure

Vacuum Pump V-80



Vacuum Pump V-180



## Spare parts and accessories


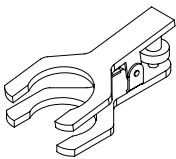

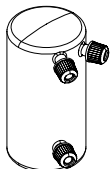
Use only genuine BUCHI consumables and spare parts in order to ensure correct, safe and reliable operation of the system.



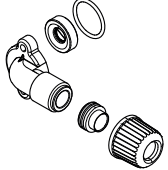


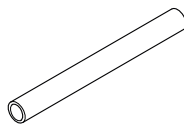
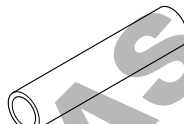
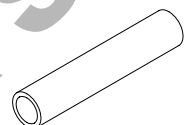
### NOTE

Any modifications of spare parts or assemblies are only allowed with the prior written permission of BUCHI.

## Spare parts

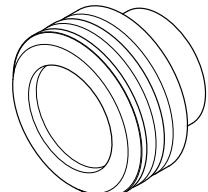
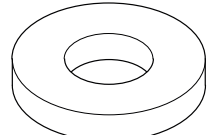
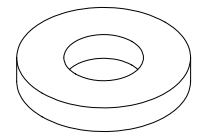
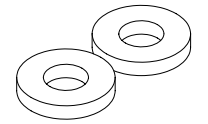
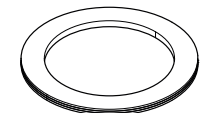
	Order no.	Image
Silencer	11080471	
Ball joint clamp. For BJ 35/20 To fasten receiving flask on condenser/secondary condenser.	003275	
Receiving vessel, GL 40, 125 mL, P+G For Woulff bottle	047233	
Secondary condenser V. Glass condenser Condenses remaining vapors after the vacuum pump outlet. Used with a recirculating chiller or tap water. Content: Secondary V condenser, cap nut GL14 (3 pcs.). Does not include holder and insulator.	11059902	

	Order no.	Image
<p>Secondary condenser V. Glass condenser, incl. Insulator, excl. Holder</p> <p>Condenses remaining vapors after the vacuum pump outlet. Used with a recirculating chiller or tap water. Content: Secondary V condenser, cap nut GL14 (3 pcs.) and condenser insulation. Does not include the holder.</p>	11063841	
Support secondary condenser V. Incl. holder, EPDM seal, connection piece	11055584	
Support condenser V/C. Holder	047182	
<p>Insulator. For secondary condenser (11059900)</p> <p>Insulation cover of the secondary condenser prevents condensation.</p>	11059903	
<p>Pump head</p> <p>For Vacuum Pump</p>	11061577	
<p>Pump head, set.</p> <p>For Vacuum Pump</p> <p>Content: Pump head, set connection piece straight, set connection piece angled</p>	11061578	
<p>Mounting rail</p> <p>Adapter to mount the Woulff bottle or the secondary condenser to the pump or a lab stand.</p>	11080481	
Woulff bottle holder	11075161	
<p>Connection piece. Straight, for pump head</p> <p>Content: Connection straight, valve, O-ring, cap nut GL 14, EPDM seal</p>	11061580	
<p>Connection piece. Bent, for pump head</p> <p>Content: Connection bent, valve, O-ring, cap nut GL 14, EPDM seal</p>	11061579	

	Order no.	Image
Connection piece. FEP, Ø6/8 mm Center tube between the pump heads	047066	
Connection piece. FEP, Ø6/8 mm Tubing between secondary condenser and vacuum pump	047186	
Connection piece. FEP, Ø6/8 mm Tubing between Woulff bottle and vacuum pump	11059909	

## Wear parts

### Seals

	Order no.	Image
Seal For cap nut GL14, EPDM seal	038225	
Seals, set. 10 pcs, for hose barbs GL 14, EPDM, black	040029	
Seals, set. 10 pcs, for hose barbs GL 14, FPM, green	040040	
Seals, set. 10 pcs, for hose barbs GL 14, silicone, red	040023	
Seal Woulff bottle	047165	


## Hose barbs

	Order no.	Image
Hose barb, bent, GL 14, incl. silicone seal	018916	
Hose barbs, set. 3 pcs, bent, GL 14, silicone seal Content: Hose barbs, seals.	041987	
Hose barbs, set. 4 pcs, bent, GL 14, EPDM seal Content: Hose barbs, cap nuts, seals.	043129	
Hose barbs, set. 4 pcs, bent, GL 14, FPM seal Content: Hose barbs, cap nuts, seals.	040295	
Hose barbs, set. 4 pcs, bent GL 14, silicone seal Content: Hose barbs, cap nuts, seals	037287	
Hose barbs, set. 4 pcs, straight, GL 14, EPDM seal Content: Hose barbs, cap nuts, seals.	043128	
Hose barbs, set. 4 pcs, straight, GL 14, FPM seal Content: Hose barbs, cap nuts, seals.	040296	
Hose barbs, set. 4 pcs, straight, GL 14, silicone seal Content: Hose barbs, cap nuts, seals	037642	
Hose barbs, set. 6 pcs, bent (4), straight (2), GL 14, silicone seal Content: Hose barbs, cap nuts, seals.	038000	



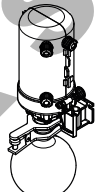
## Further wear parts

	Order no.	Image
Membrane, set. 2 pcs, incl. support rings and membrane clamp Content: 2 membranes with support rings and 1 membrane clamp.	11065776	
Membrane, set. 10 pcs, incl. support rings and membrane clamp	11055214	
O-ring. For secondary condenser, FKM/FEP, Ø28.2/2.6 mm	11057661	
O-ring for check valve, set. 4 pcs, FFKM, Ø 15.4/1.55 mm	11057136	
Check valve, set. 4pcs, with O-rings	047156	
Check valve, set. 4 pcs, without O-rings	11058389	
Screw caps, set. 5 pcs, closed with PTFE seal, GL 14	040624	
Cap nuts, set. 10 pcs, screw cap with hole GL14, seal EPDM Content: Cap nuts, seals	041999	
Cap nuts, set. 10 pcs, screw cap with hole, GL 14	041956	

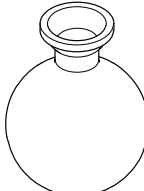
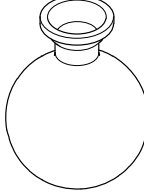
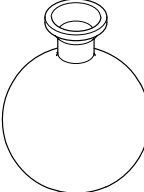
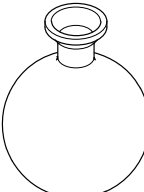
	Order no.	Image
Set wear parts. Membranes, hose barbs Content: Membrane 2 pcs, support ring 2 pcs, check valve 4 pcs, connection piece, set seals 10 pcs, set hose barbs.	11062144	

## Accessories

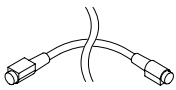

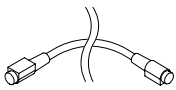
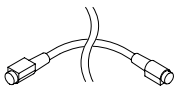
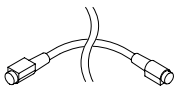
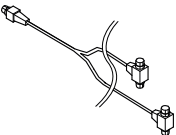
### Secondary condenser

	Order no.	Image
Secondary condenser V incl. insulation, holder and 500 mL receiving flask Condenses vapor that goes through the pump, is cooled by cooling liquid	047180	

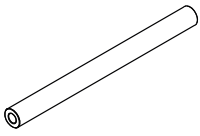
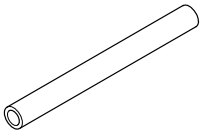
### Receiving flask

	Order no.	Image
Receiving flask Glass, BJ 35/20, 250 mL	000423	
Receiving flask Glass, BJ 35/20, 250 mL, P+G	11060907	
Receiving flask Glass, BJ 35/20, 500 mL	000424	
Receiving flask Glass, BJ 35/20, 500 mL, P+G	025264	

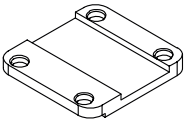
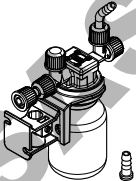
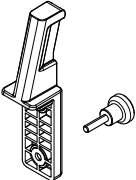
## Communication cable

	Order no.	Image
Communication cable. BUCHI COM, 0.3 m, 6p	11058705	
Communication cable. BUCHI COM, 0.9 m, 6p	11070540	
Communication cable. BUCHI COM, 1.8 m, 6p	11058707	
Communication cable. BUCHI COM, 5.0 m, 6p	11058708	
Communication cable. BUCHI COM, 15 m, 6p	11064090	
Communication cable. Mini-DIN, Y-piece, with double-sided connectors, 2 m To connect 2 Rotavapor® systems with valve unit to 1 vacuum pump	11080283	

## Tubing

	Order no.	Image
Tubing, synthetic rubber, Ø6/13 mm, black, per m Use: Vacuum	11063244	
Tubing, silicone, Ø6/9 mm, transparent, per m Use: Cooling media	004133	

## Other accessories

	Order no.	Image
Adapter plate For stacking vacuum pumps.	11074923	
Woulff bottle, 125 mL, P+G, incl. holder For trapping particles and droplets and for pressure equalization.	11075622	
Interface holder To install the Interface I-80 / I-180 on the Vacuum pump V-80 / V-180	11075588	

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11594508A en Vacuum Pump V-80 / V-180 04.2024  
Technical data are subject to change without notice  
Quality Systems ISO 9001

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