



## HiPace<sup>®</sup> 80

Compact yet powerful turbopumps with  
pumping speeds of up to 71 l/s for N<sub>2</sub>

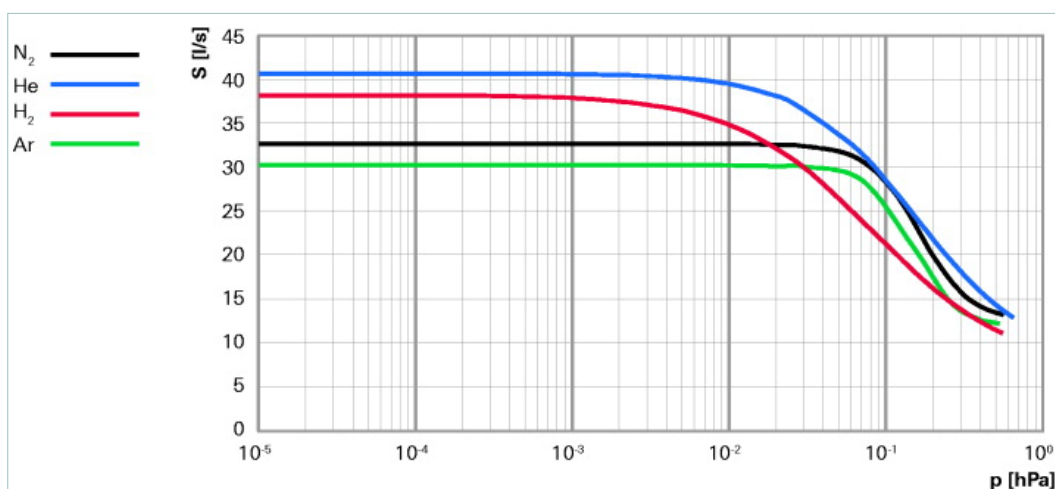




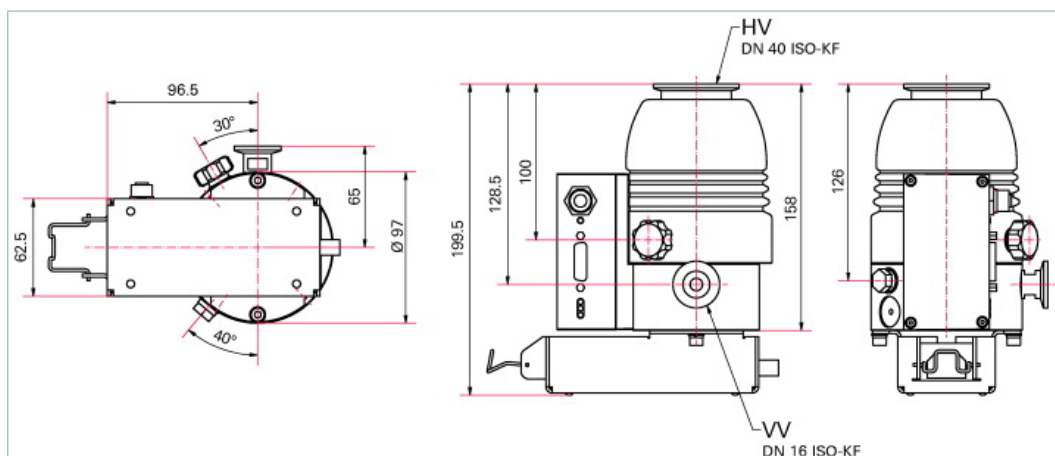
Similar Image

## HiPace® 80 with TC 110 and power supply OPS 70, DN 40 ISO-KF

- Small yet powerful turbopump with a pumping speed of up to 67 l/s for N<sub>2</sub>
- Maximum vacuum performance with minimum power consumption
- DN 40 ISO-KF flange
- Drive electronics TC 110 and power supply OPS 70 integrated
- For installation in any orientation
- Ideal for dependable systems integration
- Extensive accessories expand the range of applications



### Dimensions



### Technical Data

### HiPace® 80 with TC 110 and power supply OPS 70, DN 40 ISO-KF

Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H <sub>2</sub>	$1.4 \cdot 10^5$
Compression ratio for He	$1.3 \cdot 10^7$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^{11}$
Cooling method, optional	Air
Cooling method, standard	Convection
Cooling water consumption	75 l/h
Cooling water temperature	5-25 °C   41-77 °F   278-298 K
Electronic drive unit	with TC 110
Flange (in)	DN 40 ISO-KF

Technical Data		HiPace® 80 with TC 110 and power supply OPS 70, DN 40 ISO-KF	
Flange (out)		DN 16 ISO-KF / G 1/4"	
Fore-vacuum max. for N <sub>2</sub>		19 hPa   14.25 Torr   19 mbar	
Gas throughput at full rotational speed for Ar		0.37 hPa l/s   0.28 Torr l/s   0.37 mbar l/s	
Gas throughput at full rotational speed for H <sub>2</sub>		8.9 hPa l/s   6.67 Torr l/s   8.9 mbar l/s	
Gas throughput at full rotational speed for He		2.3 hPa l/s   1.73 Torr l/s   2.3 mbar l/s	
Gas throughput at full rotational speed for N <sub>2</sub>		0.7 hPa l/s   0.53 Torr l/s   0.7 mbar l/s	
Integrated power supply		yes	
Interfaces		RS-485, Remote	
Mounting orientation		in any orientation	
Operating voltage		24 (± 5 %) V DC	
Permissible magnetic field max.		3.3 mT	
Protection category		IP 30	
Pumping speed for Ar		30 l/s	
Pumping speed for H <sub>2</sub>		38 l/s	
Pumping speed for He		41 l/s	
Pumping speed for N <sub>2</sub>		35 l/s	
Rotation speed ± 2 %		90,000 min <sup>-1</sup>	
Rotation speed variable		50-100 %	
Run-up time		1.9 min	
Sound pressure level		48 dB (A)	
Ultimate pressure according to PNEUROP		< 1 · 10 <sup>-7</sup> hPa   < 7.5 · 10 <sup>-8</sup> Torr   < 1 · 10 <sup>-7</sup> mbar	
Venting connection		G 1/8"	
Weight		2.87 kg   6.33 lb	
Order number			
HiPace® 80		PM P04 265	

Accessories	
<b>Accessory for TC 110</b>	
TCS 11, adapter for TC 110/120 with RS-485 interface	PM 061 636 -U
TCS 12, adapter for TC 110/120 with interface RS-485, 4 accessory ports and coupling set	PM 061 638 -U
TCS 13, adapter for TC 110/120 with interface RS-485, 2 accessory ports and coupling set	PM 061 856 -U
<b>Adapter and control cables</b>	
Control cable for valve	PM 061 687 -T
HiPace - ACP connection cable	PM 071 142 -X
<b>Air cooling</b>	
Air cooling for HiPace 60/80, SplitFlow 50/80, 230 V	PM Z01 343
Air cooling for HiPace 60 P, HiPace 80 and SplitFlow 50/80 with TC 110/120	PM Z01 300
Air cooling for HiPace 60 P and 80, SplitFlow 50/80, 115 V	PM Z01 344
<b>Control and display units</b>	
Accessories package for HPU 001/PC	PM 061 005 -T
DCU 002, Display Control Unit	PM 061 348 -T
HPU 001, Handheld Programming Unit	PM 051 510 -T
RJ 45 interface cable on M12 for HiPace	PM 051 726 -T
<b>DN ISO-K, Mounting kit, bracket screws</b>	
Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring, protection screen and bracket screws	PM 016 362 -T
<b>DN ISO-KF, mounting kit</b>	
Mounting kit for HiPace 60/80, DN 40 ISO-KF, including centering ring and clamping ring	PM 016 625 -T
Mounting kit for HiPace 60/80, DN 40 ISO-KF, splinter shield, clamping ring	PM 016 626-T
<b>DN ISO-KF, sealings, splinter shields, protection screens</b>	
Centering ring, FPM/aluminum, DN 40 ISO-KF	PF 110 140 -T
Centering ring with integrated mesh screen, DN 40 ISO-KF	PF 113 240 -T
<b>Fore-vacuum safety valves</b>	
TVV 001 fore-vacuum safety valve, 115 V AC	PM Z01 206
TVV 001 fore-vacuum safety valve, 230 V AC	PM Z01 205
<b>Interface and extension cables</b>	
Interface cable, M12 m straight/ M12 m angled 0.7 m	PM 061 791 -T
Interface cable, M12 m straight / M12 m straight, 3 m	PM 061 283 -T
<b>Mains cables</b>	
Mains cable 115 V AC, NEMA 5-15 to C13, 3 m	P 4564 309 ZE
Mains cable 208 V AC, NEMA 6-15 to C13, 3 m	P 4564 309 ZF
Mains cable 230 V AC, CEE 7/7 to C13, 3 m	P 4564 309 ZA
<b>Power failure venting units (normally open)</b>	
Shielded power failure venting unit, 24 V DC, G 1/8", for connection to TC 110/120	PM Z01 330
<b>Relay boxes</b>	
Relay box, shielded, for backing pumps, 1-phase 7A for TC 110/120 and TCP 350, plug M8	PM 071 282 -X
Relay box for backing pump, single phase 20 A for TC 110/120 and TCP 350, M8 plug	PM 061 373 -T

<b>Accessories</b>	
<b>RS-485</b>	
Connector M12 to RS-485	<b>PM 061 270 -X</b>
Power separator for RS-485	<b>PT 348 132 -T</b>
Termination resistor for RS-485	<b>PT 348 105 -T</b>
USB converter to RS-485 interface	<b>PM 061 207 -T</b>
Y-Connector M12 to RS-485	<b>P 4723 010</b>
<b>Sealing gas</b>	
Sealing gas throttle for HiPace 60/80	<b>PM Z01 316</b>
Sealing gas valve, shielded for HiPace 60/80 with TC 110	<b>PM Z01 310</b>
<b>Venting accessory with small flange, G 1/8", hoses, air drier</b>	
Banjo fitting	<b>PM 016 787 -T</b>
Banjo fitting, small	<b>PM 143 877 -T</b>
Hose nozzle for 9 mm hose, G 1/8"	<b>PM 016 783 -T</b>
Plug-in fitting for 6 mm hose, G 1/8"	<b>PM 016 781 -T</b>
Plug-in fitting for 8 mm hose, G 1/8"	<b>PM 016 782 -T</b>
Screw-in flange, DN 10 ISO-KF, G 1/8"	<b>PM 033 737 -T</b>
Screw-on flange, DN 16 ISO-KF, G 1/8"	<b>PM 016 780 -T</b>
TTV 001, dryer for venting turbopumps	<b>PM Z00 121</b>
<b>Venting valve (normally closed)</b>	
Venting valve, 24 V DC, G 1/8" without cable	<b>PM Z01 293</b>
Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 110/120	<b>PM Z01 290</b>
<b>Vibration damper</b>	
Vibration damper for HiPace 60/80, DN 40 ISO-K	<b>PM 006 799 -X</b>