



# HiPace<sup>®</sup> 300

Compact yet powerful turbopumps with  
pumping speeds of up to 260 l/s for N<sub>2</sub>



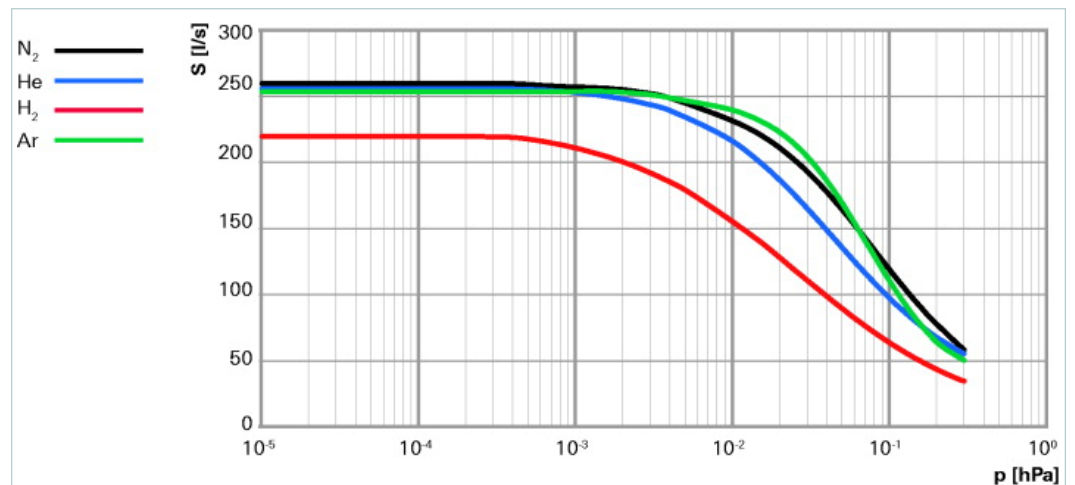


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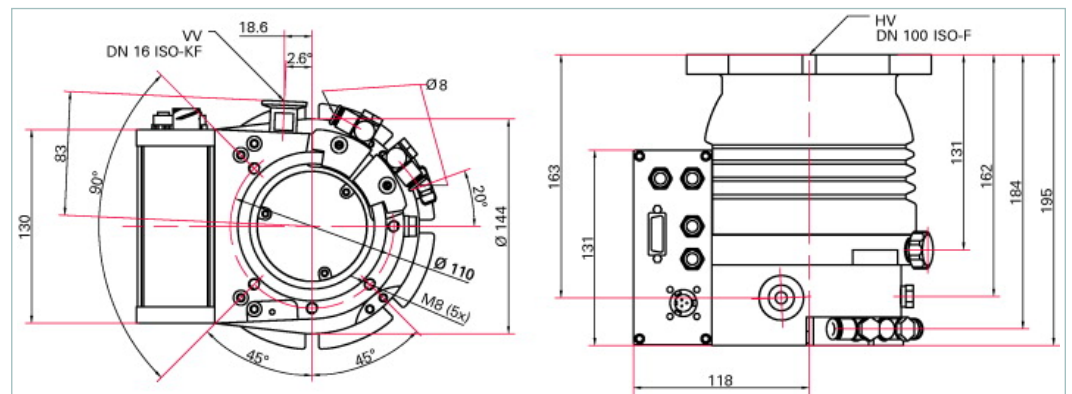
## HiPace® 300 with TC 400, DN 100 ISO-F

- Rugged, powerful turbopump with a pumping speed of up to 260 l/s for N<sub>2</sub>
- Integrated TC 400 drive electronics
- Ideal for analytical and industrial applications
- For installation in any orientation
- With integrated water cooling for maximum gas throughput
- Flexible through the ability to employ up to 4 accessories
- Ideal for fast cycles
- Extensive accessories expand the range of applications

C=Corrosive gas version



### Dimensions



Technical Data	HiPace® 300 with TC 400, DN 100 ISO-F
Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H <sub>2</sub>	$9 \cdot 10^5$
Compression ratio for He	$> 1 \cdot 10^8$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^{11}$
Cooling method, optional	Air
Cooling method, standard	Water
Cooling water consumption	50 l/h
Cooling water temperature	15-35 °C   59-95 °F   288-308 K
Electronic drive unit	with TC 400
Flange (in)	DN 100 ISO-F
Flange (out)	DN 16 ISO-KF / G 1/4"

Technical Data	HiPace® 300 with TC 400, DN 100 ISO-F
Fore-vacuum max. for N <sub>2</sub>	20 hPa   15 Torr   20 mbar
Gas throughput at full rotational speed for Ar	7 hPa l/s   5.25 Torr l/s   7 mbar l/s
Gas throughput at full rotational speed for H <sub>2</sub>	> 14 hPa l/s   > 10.5 Torr l/s   > 14 mbar l/s
Gas throughput at full rotational speed for He	20 hPa l/s   15 Torr l/s   20 mbar l/s
Gas throughput at full rotational speed for N <sub>2</sub>	14 hPa l/s   10.5 Torr l/s   14 mbar l/s
Interfaces	RS-485, Remote
Mounting orientation	in any orientation
Operating voltage	24 (± 5 %) V DC
Permissible magnetic field max.	5.5 mT
Protection category	IP 54
Pumping speed for Ar	255 l/s
Pumping speed for H <sub>2</sub>	220 l/s
Pumping speed for He	255 l/s
Pumping speed for N <sub>2</sub>	260 l/s
Rotation speed ± 2 %	60000 min <sup>-1</sup>
Rotation speed variable	35-100 %
Run-up time	1.8 min
Sound pressure level	50 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	7 kg   15.43 lb

Order number
HiPace® 300
PM P03 902

Accessories	
<b>Accessory for TC 400/1200 and TM 700</b>	
Mains power socket, angled, for TC 400/TM 700	P 4723 101
Mains power socket TC 400/TM 700, straight	P 4723 100
Y-connector, shielded, M12 for accessories	P 4723 013
<b>Adapter and control cables</b>	
Control cable for pumping stations 0.7 m	PM 061 675 AT
HiPace - ACP connection cable	PM 071 142 -X
<b>Air cooling</b>	
Air cooling for HiPace 300/450, 115 V	PM Z01 308
Air cooling for HiPace 300/450, 230 V	PM Z01 309
Air cooling for HiPace 300 with TC 400	PM Z01 302
<b>Connection cables</b>	
Connection cable for HiPace with TC 400/TM 700 to power supply TPS/DCU 310/311/400/401	PM 061 352 -T
<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>DCU with integrated power supply</b>	
DCU 310, Display control unit incl. power supply	PM C01 822
<b>DN ISO-F, Mounting kit</b>	
Mounting kit for DN 100 ISO-F, including coated centering ring, hexagon screws	PM 016 450 -T
Mounting kit for DN 100 ISO-F, including coated centering ring, protection screen, stud screws	PM 016 457 -T
Mounting kit for DN 100 ISO-F, including coated centering ring, protective screen, hexagon screws	PM 016 452 -T
Mounting kit for DN 100 ISO-F, including coated centering ring, splinter shield, hexagon screws	PM 016 451 -T
Mounting kit for DN 100 ISO-F, including coated centering ring, splinter shield, stud screws	PM 016 456 -T
Mounting kit for DN 100 ISO-F, including coated centering ring, stud screws	PM 016 455 -T
<b>DN ISO-K / -F, sealings, splinter shields, protection screens</b>	
Centering ring with multifunction coating, DN 100 ISO-K/-F	PM 016 210 -U
Centering ring with multifunction coating and integrated protection screen, DN 100 ISO-K/-F	PM 016 212 -U
Centering ring with multifunction coating and integrated splinter shield, DN 100 ISO-K/-F	PM 016 211 -U
<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>	
Extension cable M12 on M12	PM 061 747 -T
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>	
Power failure venting valve, shielded, 24 V DC, G 1/8" for connection to TC 400, TM 700 and TC 1200	PM Z01 331

Accessories	
<b>Profibus</b>	
Remote adapter for RS-485	PM 061 649 -X
<b>Relay boxes</b>	
Backing pump relay box, single phase 20 A, for TC 400 and TCP 350, M12 plug	PM 061 375 -T
Relay box, shielded, for backing pumps, 1-phase 7 A for TC 400/1200, TM 700 and TCP 350, M12	PM 071 284 -X
<b>RS-485</b>	
Connector M12 to RS-485	PM 061 270 -X
Power separator for RS-485	PT 348 132 -T
Termination resistor for RS-485	PT 348 105 -T
USB converter to RS-485 interface	PM 061 207 -T
Y-Connector M12 to RS-485	P 4723 010
<b>Sealing gas</b>	
Sealing gas throttle for HiPace 300 - 800	PM Z01 317
Sealing gas valve, shielded for HiPace 300/400/700 and 800 with TC 400 and TM 700	PM Z01 312
<b>TPS-19" rack module</b>	
Front panel kit for TPS 311	PM 061 395 -T
TPS 311, mains pack 19" rack module 3HU	PM 061 346 -T
<b>TPS wall rail fitting</b>	
TPS 310, mains pack for wall/standard rail fitting	PM 061 342 -T
Wall rail fitting for TPS 110/180/310/400	PM 061 392 -T
<b>Venting accessory with small flange, G 1/8", hoses, air drier</b>	
Banjo fitting	PM 016 787 -T
Banjo fitting, small	PM 143 877 -T
Hose nozzle for 9 mm hose, G 1/8"	PM 016 783 -T
Plug-in fitting for 6 mm hose, G 1/8"	PM 016 781 -T
Plug-in fitting for 8 mm hose, G 1/8"	PM 016 782 -T
Screw-in flange, DN 10 ISO-KF, G 1/8"	PM 033 737 -T
Screw-on flange, DN 16 ISO-KF, G 1/8"	PM 016 780 -T
TTV 001, dryer for venting turbopumps	PM Z00 121
<b>Venting valve (normally closed)</b>	
Venting valve, shielded, 24 V DC, G 1/8", for connecting to TC 400,1200 and TM 700 with twisted plug 270°	PM Z01 292
Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 400/1200 and TM 700	PM Z01 291
<b>Vibration damper</b>	
Vibration damper for HiPace 300/400, DN 100 ISO-K/F	PM 006 459 -X
<b>Water cooling</b>	
Water cooling for HiPace 300 with tube fitting 1/4"	PM 016 637 -T