



# HiPace<sup>®</sup> 1500

Powerful turbopumps with pumping speeds of up to 1450 l/s.





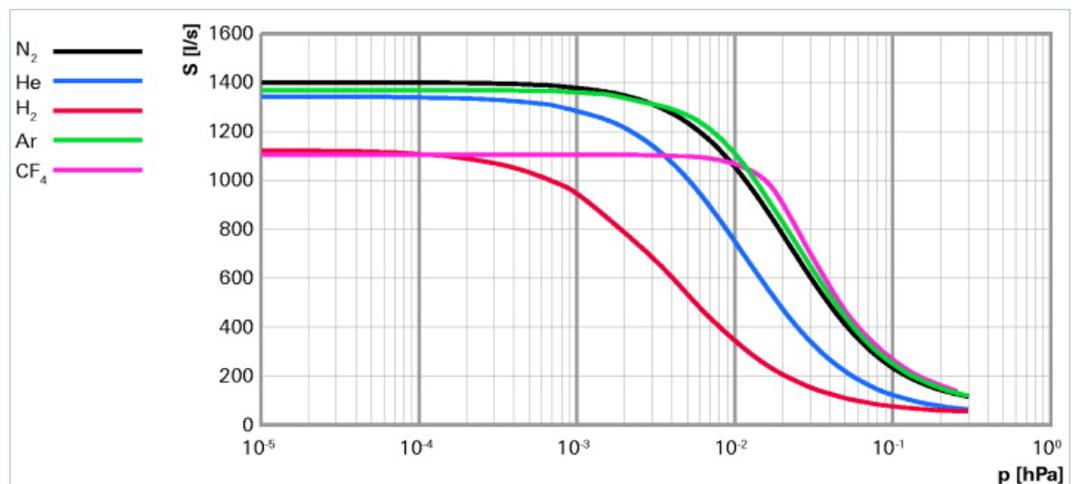
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## HiPace® 1500 U with TC 1200, DN 250 ISO-F, upside down version

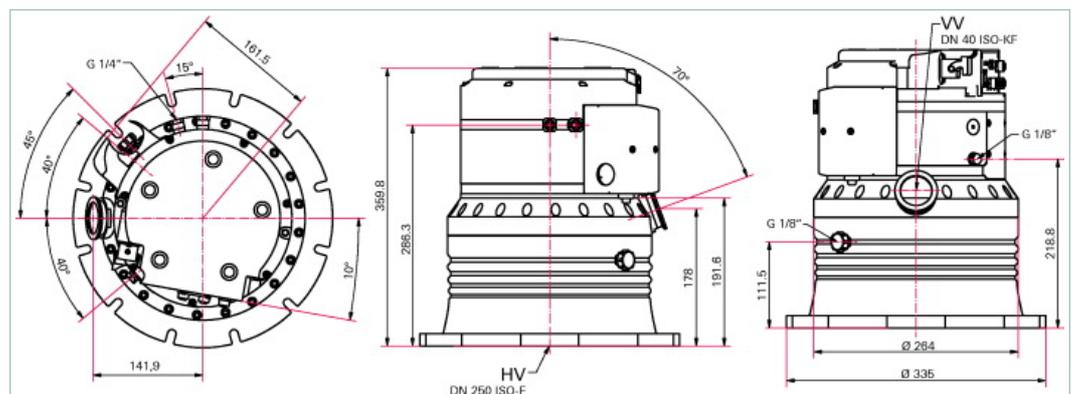
- Powerful turbopump with a pumping speed of up to 1450 l/s for N<sub>2</sub>
- DN 250 ISO-F flange
- Integrated TC 1200 drive electronics with power supply
- Integrated sealing gas system with electric sealing gas valve 24 V DC
- Cooling: Water cooling
- Installation orientation: Upside-down (90° - 180°)
- Protection Class: IP 54
- Interfaces: RS-485, Remote (Profibus/DeviceNet on request)
- Extensive accessories expand the range of applications

C = Corrosive gas version

U = Upside-down installation orientation



### Dimensions



Technical Data	HiPace® 1500 U with TC 1200, DN 250 ISO-F, upside down version
Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^8$
Compression ratio for H <sub>2</sub>	$6 \cdot 10^3$
Compression ratio for He	$2 \cdot 10^5$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^8$
Cooling method, standard	Water

Technical Data	HiPace® 1500 U with TC 1200, DN 250 ISO-F, upside down version
Cooling water consumption	100 l/h
Cooling water temperature	15-35 °C   59-95 °F   288-308 K
Electronic drive unit	with TC 1200
Flange (in)	DN 250-ISO-F
Flange (out)	DN 40 ISO-KF
Fore-vacuum max. for N <sub>2</sub>	2 hPa   1.5 Torr   2 mbar
Gas throughput at full rotational speed for Ar	11 hPa l/s   8.25 Torr l/s   11 mbar l/s
Gas throughput at full rotational speed for H <sub>2</sub>	> 30 hPa l/s   > 22.5 Torr l/s   > 30 mbar l/s
Gas throughput at full rotational speed for He	> 30 hPa l/s   > 22.5 Torr l/s   > 30 mbar l/s
Gas throughput at full rotational speed for N <sub>2</sub>	20 hPa l/s   15 Torr l/s   20 mbar l/s
Integrated power supply	yes
Interfaces	RS-485, Remote
Mounting orientation	Upside down (90°-180°)
Operating voltage	100-120/200-240 V AC, 50/60 Hz
Particulate matter	yes
Permissible magnetic field max.	6 mT
Protection category	IP 54
Pumping speed for Ar	1350 l/s
Pumping speed for H <sub>2</sub>	1150 l/s
Pumping speed for He	1350 l/s
Pumping speed for N <sub>2</sub>	1400 l/s
Rotation speed ± 2 %	37800 min <sup>-1</sup>
Run-up time	2.5 min
Sound pressure level	≤ 50 dB (A)
Ultimate pressure according to PNEUROP	< 1 · 10 <sup>-8</sup> hPa   < 7.5 · 10 <sup>-9</sup> Torr   < 1 · 10 <sup>-8</sup> mbar
Venting connection	G 1/8"
Weight	30 kg   66.14 lb
Order number	
HiPace® 1500	<b>PM P04 064</b>

<b>Accessories</b>	
<b>Accessory for TC 400/1200 and TM 700</b>	
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>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
<b>DN ISO-F, Mounting kit</b>	
Mounting kit for DN 250 ISO-F, including coated centering ring, hexagon screws	PM 016 480 -T
Mounting kit for DN 250 ISO-F, including coated centering ring, protective screen, hexagon screws	PM 016 482 -T
Mounting kit for DN 250 ISO-F, including coated centering ring, protective screen, stud screws	PM 016 487 -T
Mounting kit for DN 250 ISO-F, including coated centering ring, splinter shield, hexagon screws	PM 016 481 -T
Mounting kit for DN 250 ISO-F, including coated centering ring, splinter shield, stud screws	PM 016 486 -T
Mounting kit for DN 250 ISO-F, including coated centering ring, stud screws	PM 016 485 -T
<b>DN ISO-K / -F, sealings, splinter shields, protection screens</b>	
Centering ring with multifunction coating, DN 250 ISO-K/-F	PM 016 225 -U
Centering ring with multifunction coating and integrated protection screen, DN 250 ISO-K/-F	PM 016 227 -U
Centering ring with multifunction coating and integrated splinter shield, DN 250 ISO-K/-F	PM 016 226 -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>	
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 HAN 3A, 3 m	PM 061 187 -X
Mains cable 208 V AC, NEMA 6-15 to HAN 3A, 3 m	P 4564 309 HB
Mains cable 230 V AC, CEE 7/7 to HAN 3A, 3 m	P 4564 309 HA
<b>Relay boxes</b>	
Relay box, shielded, for backing pumps, 1-phase 20 A for TC 400/1200, TM 700 and TCP 350, M12	PM 071 285 -X
<b>RS-485</b>	
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 400/700/800 P and C version and HiPace 1200 - 2300	PM Z01 318
Sealing gas valve, shielded, HiPace 400/700/800 P and C with TC 400 and HiPace 1200 - 2300 with TC 1200	PM Z01 313
<b>Venting accessory with small flange, G 1/8", hoses, air drier</b>	
TTV 001, dryer for venting turbopumps	PM Z00 121

Accessories	
<b>Venting valve (normally closed)</b>	
Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 400/1200 and TM 700	<b>PM Z01 291</b>