



# HiPace<sup>®</sup> 1800

Powerful turbopumps with pumping speeds of up to 1700 l/s.





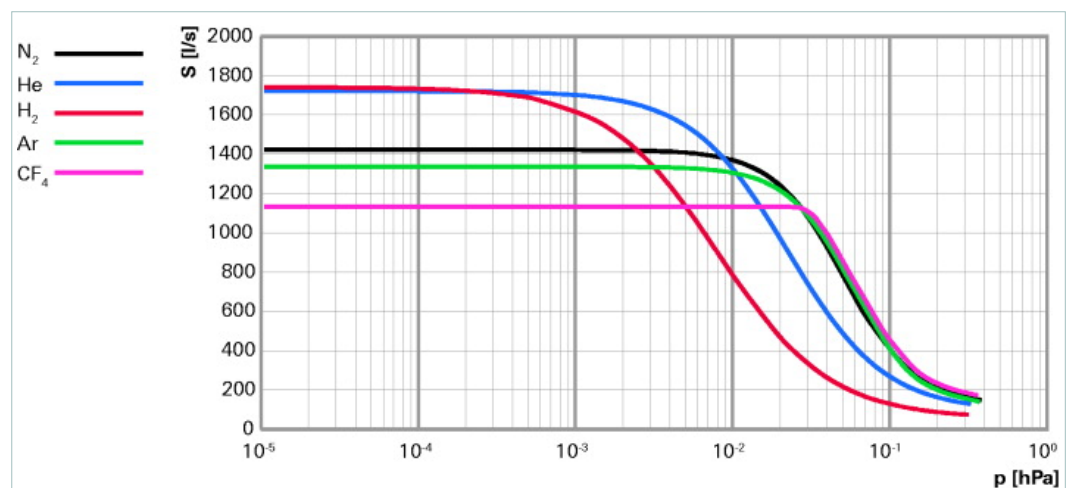
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## HiPace® 1800 U C with TC 1200, DN 200 ISO-F, upside down version, corrosive

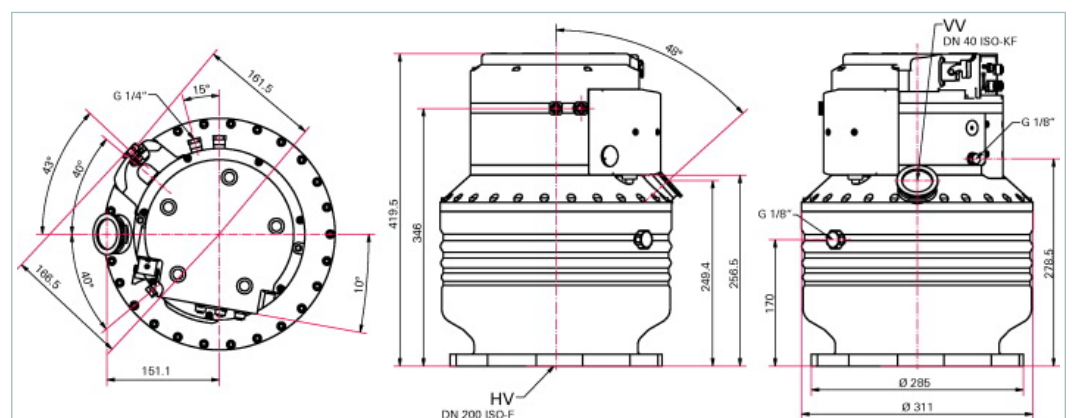
- Powerful turbopump with a pumping speed of up to 1450 l/s for N<sub>2</sub>
- DN 200 ISO-F flange
- Integrated TC 1200 drive electronics with power supply
- Integrated sealing gas system with electric sealing gas valve 24 V DC
- Cooling: Water cooling
- Installation orientation: Upside-down (90° - 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® 1800 U C with TC 1200, DN 200 ISO-F, upside down version, corrosive

Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^8$
Compression ratio for CF <sub>4</sub>	$> 1 \cdot 10^8$
Compression ratio for H <sub>2</sub>	$2 \cdot 10^4$
Compression ratio for He	$3 \cdot 10^5$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^8$

Technical Data		HiPace® 1800 U C with TC 1200, DN 200 ISO-F, upside down version, corrosive
Cooling method, standard		Water
Cooling water consumption		100 l/h
Cooling water temperature		15-35 °C   59-95 °F   288-308 K
Corrosive gas version		yes
Electronic drive unit		with TC 1200
Flange (in)		DN 200 ISO-F
Flange (out)		DN 40 ISO-KF
Fore-vacuum max. for N <sub>2</sub>		1.8 hPa   1.35 Torr   1.8 mbar
Gas throughput at full rotational speed for Ar		16 hPa l/s   12 Torr l/s   16 mbar l/s
Gas throughput at full rotational speed for CF <sub>4</sub>		14 hPa l/s   10.5 Torr l/s   14 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		20 hPa l/s   15 Torr l/s   20 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.		7 mT
Protection category		IP 54
Pumping speed for Ar		1370 l/s
Pumping speed for CF <sub>4</sub>		1050 l/s
Pumping speed for H <sub>2</sub>		1700 l/s
Pumping speed for He		1650 l/s
Pumping speed for N <sub>2</sub>		1450 l/s
Rotation speed ± 2 %		31500 min <sup>-1</sup>
Rotation speed variable		50-100 %
Run-up time		4 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		34 kg   74.96 lb
Order number		
HiPace® 1800		PM P04 079

<b>Accessories</b>	
<b>Accessory for TC 400/1200 and TM 700</b>	
Y-connector, shielded, M12 for accessories	<b>P 4723 013</b>
<b>Adapter and control cables</b>	
Control cable for pumping stations 0.7 m	<b>PM 061 675 AT</b>
HiPace - ACP connection cable	<b>PM 071 142 -X</b>
<b>Control and display units</b>	
Accessories package for HPU 001/PC	<b>PM 061 005 -T</b>
DCU 002, Display Control Unit	<b>PM 061 348 -T</b>
HPU 001, Handheld Programming Unit	<b>PM 051 510 -T</b>
<b>DN ISO-F, Mounting kit</b>	
Mounting kit for DN 200 ISO-F, including coated centering ring, protective screen, hexagon screws	<b>PM 016 472 -T</b>
Mounting kit for DN 200 ISO-F, including coated centering ring, protective screen, stud screws	<b>PM 016 477 -T</b>
Mounting kit for DN 200 ISO-F, including coated centering ring, splinter shield, stud screws	<b>PM 016 476 -T</b>
Mounting kit for DN 200 ISO-F, including coated centering ring, stud screws	<b>PM 016 475 -T</b>
Mounting kit for HiPace 1200/1800, DN 200 ISO-F, including coated centering ring, splinter shield, hexagon screws	<b>PM 016 471 -T</b>
Mounting kit for HiPace DN 200 ISO-F, including coated centering ring, hexagon screws	<b>PM 016 470 -T</b>
<b>DN ISO-K / -F, sealings, splinter shields, protection screens</b>	
Centering ring with multifunction coating, DN 200 ISO-K/-F	<b>PM 016 220 -U</b>
Centering ring with multifunction coating and integrated protection screen, DN 200 ISO-K/-F	<b>PM 016 222 -U</b>
Centering ring with multifunction coating and integrated splinter shield, DN 200 ISO-K/-F	<b>PM 016 221 -U</b>
<b>Fore-vacuum safety valves</b>	
TVV 001 fore-vacuum safety valve, 115 V AC	<b>PM Z01 206</b>
TVV 001 fore-vacuum safety valve, 230 V AC	<b>PM Z01 205</b>
<b>Interface and extension cables</b>	
Interface cable, M12 m straight/M12 m straight, 3 m	<b>PM 061 283 -T</b>
<b>Mains cables</b>	
Mains cable 115 V AC, NEMA 5-15 to HAN 3A, 3 m	<b>PM 061 187 -X</b>
Mains cable 208 V AC, NEMA 6-15 to HAN 3A, 3 m	<b>P 4564 309 HB</b>
Mains cable 230 V AC, CEE 7/7 to HAN 3A, 3 m	<b>P 4564 309 HA</b>
<b>Relay boxes</b>	
Relay box, shielded, for backing pumps, 1-phase 20 A for TC 400/1200, TM 700 and TCP 350, M12	<b>PM 071 285 -X</b>
<b>RS-485</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 400/700/800 P and C version and HiPace 1200 - 2300	<b>PM Z01 318</b>
Sealing gas valve, shielded, HiPace 400/700/800 P and C with TC 400 and HiPace 1200 - 2300 with TC 1200	<b>PM Z01 313</b>
<b>Venting accessory with small flange, G 1/8", hoses, air drier</b>	
TTV 001, dryer for venting turbopumps	<b>PM Z00 121</b>

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>