



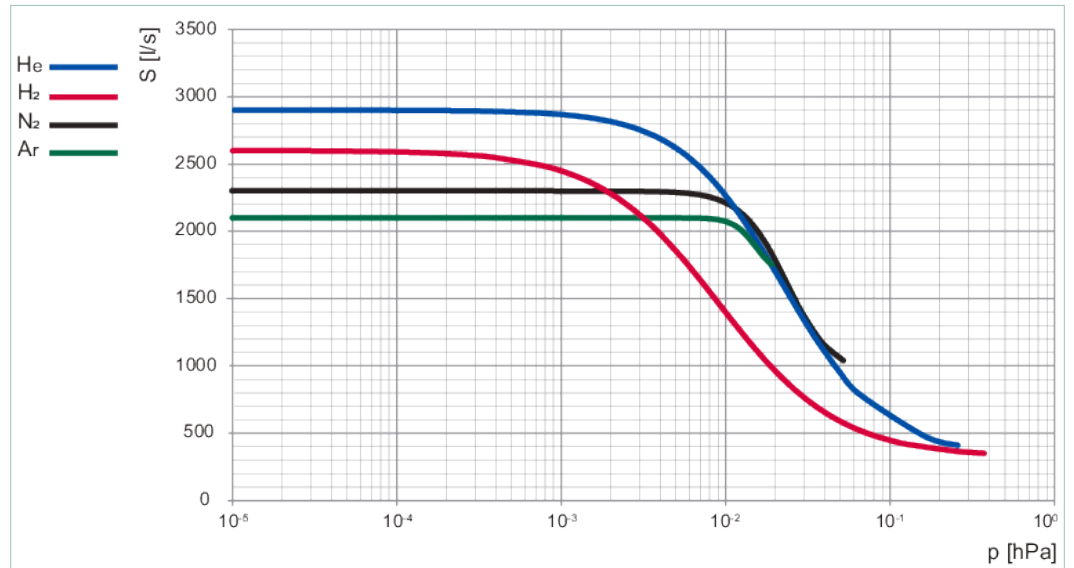
# HiPace<sup>®</sup> 2800 IT with TC 1200, DN 250 ISO-F



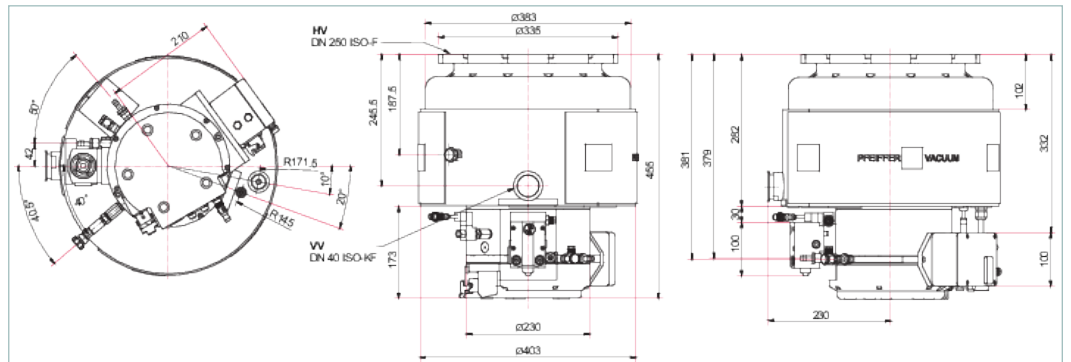
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## HiPace® 2800 IT with TC 1200, DN 250 ISO-F

- Ideal for ion implantation systems
- Optimized pumping speed for light gases
- The nickel-plated rotor guarantees resistivity to the dopants used
- The intelligent temperature management system reduces process condensation and deposits
- Semi S2 and UL/CSA certification



### Dimensions



Technical Data	HiPace® 2800 IT with TC 1200, DN 250 ISO-F
Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^8$
Compression ratio for H <sub>2</sub>	$4 \cdot 10^3$
Compression ratio for He	$6 \cdot 10^4$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^8$
Connection flange (in)	DN 250 ISO-F
Connection flange (out)	DN 40 ISO-KF
Cooling method	Water
Cooling method, optional	Water
Cooling water connection	G 1/4"
Cooling water flow	100 l/h
Cooling water flow, max.	100 l/h
Cooling water flow, min.	100 l/h

Technical Data	HiPace® 2800 IT with TC 1200, DN 250 ISO-F
Cooling water temperature	15-25 °C   59-77 °F   288-298 K
Current, max.	10 A
Electronic drive unit	TC 1200
Final pressure according to PNEUROP	$< 1 \cdot 10^{-7}$ hPa   $< 7.5 \cdot 10^{-8}$ Torr   $< 1 \cdot 10^{-7}$ mbar
Final pressure without gas ballast	$1 \cdot 10^{-7}$ hPa   $7.5 \cdot 10^{-8}$ Torr   $1 \cdot 10^{-7}$ mbar
For electronic drive unit	TCP 1200
Fore-vacuum max. for N <sub>2</sub>	0.8 hPa   0.6 Torr   0.8 mbar
Gas throughput at 0.1 hPa HV pressure for Ar	> 32 hPa·l/s
Gas throughput at 0.1 hPa HV pressure for H <sub>2</sub>	42 hPa·l/s
Gas throughput at 0.1 hPa HV pressure for He	62 hPa·l/s
Gas throughput at 0.1 hPa HV pressure for N <sub>2</sub>	> 50 hPa·l/s
Gas throughput at final rotation speed for Ar	12 hPa·l/s
Gas throughput at final rotation speed for H <sub>2</sub>	75 hPa·l/s
Gas throughput at final rotation speed for He	24 hPa·l/s
Gas throughput at final rotation speed for N <sub>2</sub>	18 hPa·l/s
Gas throughput at maximum rotation speed for Ar, heated pump at 65 °C	9 hPa·l/s
Gas throughput at maximum rotation speed for Ar, heated pump at 75 °C	6 hPa·l/s
Gas throughput at maximum rotation speed for H <sub>2</sub> , heated pump at 65 °C	30 hPa·l/s
Gas throughput at maximum rotation speed for H <sub>2</sub> , heated pump at 75 °C	18 hPa·l/s
Gas throughput at maximum rotation speed for N <sub>2</sub> , heated pump at 65 °C	13 hPa·l/s
Gas throughput at maximum rotation speed for N <sub>2</sub> , heated pump at 75 °C	7 hPa·l/s
I/O interfaces	E74, RS-485
Integrated power supply pack	YES
Mounting orientation	0° (HV flange top) – 90°
Permissible radial magnetic field max.	3.4 mT
Power consumption heating sleeve, max.	1100 W
Power consumption max.	1350 VA
Protection degree	IP20; Type 1
Pumping speed for Ar	2100 l/s
Pumping speed for H <sub>2</sub>	2600 l/s
Pumping speed for He	2900 l/s
Pumping speed for N <sub>2</sub>	2300 l/s
Rotation speed ± 2 %	27,300 rpm   27,300 min <sup>-1</sup>
Rotation speed variable	50 – 100 %
Run-up time	8.6 min
Sound pressure level	<50 dB(A)
Venting connection	G 1/8"
Weight	62 kg   136.69 lb
<b>Order number</b>	
HiPace® 2800 IT	<b>PM P05 241</b>

<b>Accessories</b>	
<b>Adapters (electrical) Profibus</b>	
Y-distributor M12B for Profibus	P 4723 015
Y-distributor with M12B cable for Profibus, length 0.5 m	P 4723 018
T-distributor M12B for Profibus	P 4723 020
Terminal resistor M12B for Profibus	P 4723 030
Plug and socket M12B for Profibus	PM 051 927 -T
Remote adapter for RS-485	PM 061 649 -X
Line filter for cable fitting	PM 061 806
<b>Adapters (electrical) PV-Can</b>	
TIC 010, adapter for two sensors	PT R70 000
<b>Adapters (electrical) Remote</b>	
Y-Connector, shielded, M12 for accessories	P 4723 013
<b>Adapters (electrical) RS-232/485</b>	
Y-connector M12 for RS-485	P 4723 010
USB RS-485 converter	PM 061 207 -T
Terminal resistor for RS-485	PT 348 105 -T
Power separator for RS-485	PT 348 132 -T
<b>Cables Backing pump control cables</b>	
Control cable for pumping stations 0.7 m	PM 061 675 AT
HiPace – ACP connection cable	PM 071 142 -X
<b>Cables Extension cables</b>	
Extension cable M12 on M12	PM 061 747 -T
<b>Cables Mains cables / Power cords</b>	
Mains cable 230 V AC, CEE 7/7 to HAN 3A, 3 m	P 4564 309 HA
Mains cable 208 V AC, NEMA 6-15 to HAN 3A, 3 m	P 4564 309 HB
Mains cable 115 V AC, NEMA 5-15 to HAN 3A, 3 m	PM 061 187 -X
<b>Cables RS-485 Interface cables</b>	
Interface cable, M12 m straight/M12 m straight, 3 m	PM 061 283 -T
Interface cable, M12 m straight/ M12 m angled, 0.7 m	PM 061 791 -T
<b>Control Devices Backing pump</b>	
Relay box, shielded, for backing pumps, 1-phase 7 A for TC 400/1200, TM 700 and TCP 350, M12	PM 071 284 -X
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>Control Devices Power supplies and control displays</b>	
OmniControl 001, rack unit without integrated power supply pack	PE D42 100 0
OmniControl 001 Mobile, control units	PE D22 000 0
<b>Monitoring Pressure Sensors</b>	
RPT 010, digital Piezo/Pirani sensor	PT R71 100
IKT 010, digital cold cathode sensor, low current	PT R72 100
IKT 011, digital cold cathode sensor, high current	PT R73 100
<b>Monitoring Sealing gas monitoring units</b>	
Sealing gas monitoring unit G 1/8"	PM 016 911 -U

<b>Accessories</b>	
<b>Mounting DN ISO-F, Mounting kits</b>	
Mounting kit for DN 250 ISO-F, including coated centering ring, hexagon screws	<b>PM 016 480 -T</b>
Mounting kit for DN 250 ISO-F, including coated centering ring, splinter shield, hexagon screws	<b>PM 016 481 -T</b>
Mounting kit for DN 250 ISO-F, including coated centering ring, protective screen, hexagon screws	<b>PM 016 482 -T</b>
Mounting kit for DN 250 ISO-F, including coated centering ring, stud screws	<b>PM 016 485 -T</b>
Mounting kit for DN 250 ISO-F, including coated centering ring, splinter shield, stud screws	<b>PM 016 486 -T</b>
Mounting kit for DN 250 ISO-F, including coated centering ring, protective screen, stud screws	<b>PM 016 487 -T</b>
<b>Mounting DN ISO-K/-F, sealings</b>	
Centering ring with multifunction coating, DN 250 ISO-K/-F	<b>PM 016 225 AU</b>
<b>Protection DN ISO-K/-F, sealings, splinter shields, protection screens</b>	
Centering ring with multifunction coating and integrated splinter shield, DN 250 ISO-K/-F	<b>PM 016 226 AU</b>
Centering ring with multifunction coating and integrated protection screen, DN 250 ISO-K/-F	<b>PM 016 227 AU</b>
<b>Stainless steel and FKM</b>	
Connection kit for mounting pumps, DN 40 ISO-KF	<b>120SWS040-1000</b>
<b>Valves Fore-vacuum safety valves</b>	
TVV 001, fore-vacuum safety valve, 230 V AC	<b>PM Z01 205</b>
TVV 001, fore-vacuum safety valve, 115 V AC	<b>PM Z01 206</b>
<b>Valves Sealing gas valves, shielded (normally closed)</b>	
Sealing gas valve, shielded for HiPace 1200–2800 with TC 1200	<b>PM Z01 322</b>
<b>Venting Venting accessories</b>	
TTV 001, Drier for venting turbopumps	<b>PM Z00 121</b>
<b>Venting Venting valves (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>

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