



HiPace[®] 2300

Powerful turbopumps with pumping speeds of
up to 2050 l/s.





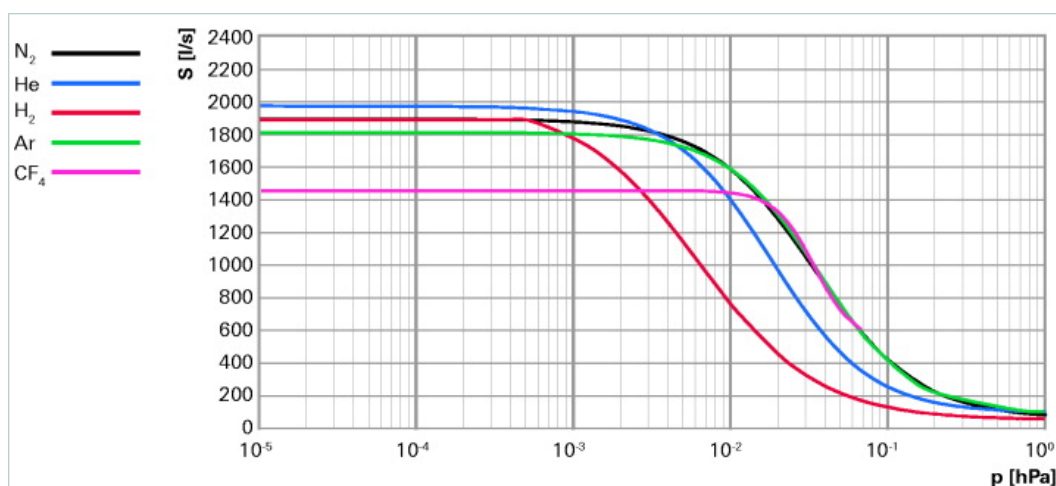
Similar Image

HiPace® 2300 U with TC 1200, DN 250 CF-F, upside down version

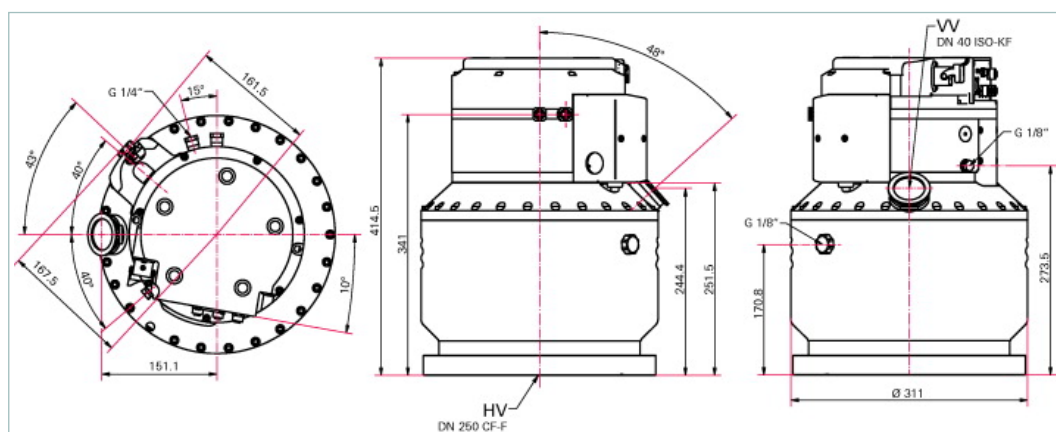
- Powerful turbopump with a pumping speed of up to 1900 l/s for N₂
- DN 250 CF-F flange for demanding UHV applications
- Integrated TC 1200 drive electronics with power supply
- Integrated sealing gas system with electric sealing gas valve 24 V DC
- Cooling: Water cooling
- Installation orientation: 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® 2300 U with TC 1200, DN 250 CF-F, upside down version

Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^8$
Compression ratio for H ₂	$2 \cdot 10^4$
Compression ratio for He	$3 \cdot 10^5$
Compression ratio for N ₂	$> 1 \cdot 10^8$
Cooling method, standard	Water
Cooling water consumption	100 l/h

Technical Data		HiPace® 2300 U with TC 1200, DN 250 CF-F, upside down version
Cooling water temperature		15-35 °C 59-95 °F 288-308 K
Electronic drive unit		with TC 1200
Flange (in)		DN 250 CF-F
Flange (out)		DN 40 ISO-KF
Fore-vacuum max. for N ₂		1.8 hPa 1.35 Torr 1.8 mbar
Gas throughput at full rotational speed for Ar		8 hPa l/s 6 Torr l/s 8 mbar l/s
Gas throughput at full rotational speed for H ₂		> 30 hPa l/s > 22.5 Torr l/s > 30 mbar l/s
Gas throughput at full rotational speed for He		10 hPa l/s 7.5 Torr l/s 10 mbar l/s
Gas throughput at full rotational speed for N ₂		11 hPa l/s 8.25 Torr l/s 11 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		1800 l/s
Pumping speed for H ₂		1850 l/s
Pumping speed for He		2000 l/s
Pumping speed for N ₂		1900 l/s
Rotation speed ± 2 %		31500 min ⁻¹
Rotation speed variable		50-100 %
Run-up time		4 min
Sound pressure level		50 dB (A)
Ultimate pressure according to PNEUROP		< 5 · 10 ⁻¹⁰ hPa < 3.75 · 10 ⁻¹⁰ Torr < 5 · 10 ⁻¹⁰ mbar
Venting connection		G 1/8"
Weight		47 kg 103.62 lb
Order number		
HiPace® 2300		PM P03 925

Accessories	
Accessory for TC 400/1200 and TM 700	
Y-connector, shielded, M12 for accessories	P 4723 013
Adapter and control cables	
Control cable for pumping stations 0.7 m	PM 061 675 AT
HiPace - ACP connection cable	PM 071 142 -X
CF-F, Mounting kit	
Set of hexagon screws for trough hole, DN 250 CF-F	PM 016 694 -T
Set of stud screws for threaded hole, DN 250 CF-F	PM 016 695 -T
Set of stud screws for trough hole, DN 250 CF-F	PM 016 737 -T
CF-F, Sealings, splinter shields, protection screens	
Protection screen for DN 250 CF-F	PM 016 345
Splinter shield for turbopumps, DN 250 CF-F	PM 016 324
Control and display units	
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
Fore-vacuum safety valves	
TVV 001 fore-vacuum safety valve, 115 V AC	PM Z01 206
TVV 001 fore-vacuum safety valve, 230 V AC	PM Z01 205
Interface and extension cables	
Interface cable, M12 m straight / M12 m straight, 3 m	PM 061 283 -T
Mains cables	
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
Relay boxes	
Relay box, shielded, for backing pumps, 1-phase 20 A for TC 400/1200, TM 700 and TCP 350, M12	PM 071 285 -X
Relay box, shielded, for backing pumps, 1-phase 7 A for TC 400/1200, TM 700 and TCP 350, M12	PM 071 284 -X
RS-485	
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
Sealing gas	
Sealing gas throttle for 1200–2300, 52.5 ± 7.5 sccm	PM Z01 325
Sealing gas throttle for HiPace 1200 - 2300	PM Z01 319
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

Accessories	
Shielded heating suitable for TC 400 PB, TC 1200 and TM 700	
Heating jacket, shielded, for HiPace 2300 with TC 1200, 115 V AC, UL plug	PM 071 277 -T
Heating jacket, shielded, for HiPace 2300 with TC 1200, 208 V AC, UL plug	PM 071 276 -T
Heating jacket, shielded, for HiPace 2300 with TC 1200, 230 V AC, safety plug	PM 071 275 -T
Venting accessory with small flange, G 1/8", hoses, air drier	
TTV 001, dryer for venting turbopumps	PM Z00 121
Venting valve (normally closed)	
Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 400/1200 and TM 700	PM Z01 291
Vibration damper	
Vibration damper for HiPace 1500/2300, DN 250 CF-F	PM 006 671 -X