

PFEIFFER  VACUUM

 伯東
Hakuto



HiPace[®] 2300

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



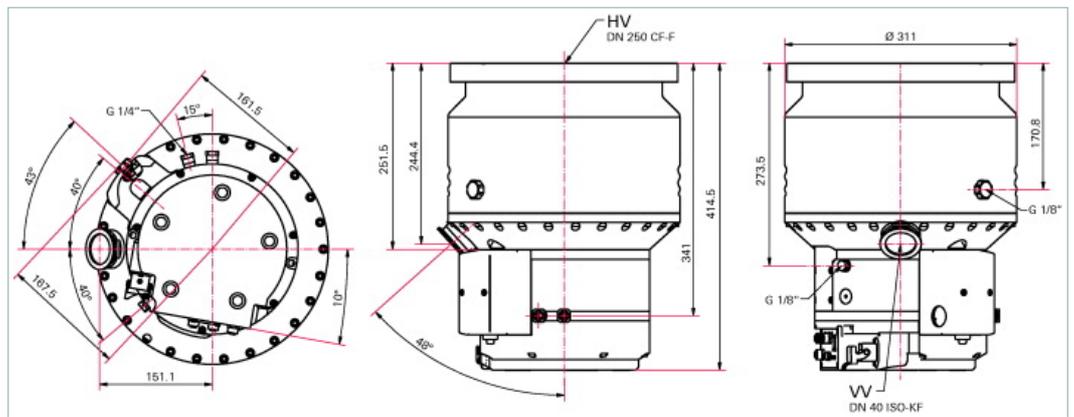
HiPace® 2300 with TC 1200 Profibus, DN 250 CF-F

- 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 Profibus and power supply
- Integrated sealing gas system with electric sealing gas valve 24 V DC
- Cooling: Water cooling
- Installation orientation: Standard (0° to 90°)
- Protection Class: IP 54
- Interfaces: Profibus, RS-485, Remote
- Extensive accessories expand the range of applications

C=Corrosive gas version

U=Upside-down installation orientation

Dimensions



| Technical Data | HiPace® 2300 with TC 1200 Profibus, DN 250 CF-F |
|--|--|
| 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 |
| 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 |
| Interface, extended | Profibus |
| Interfaces | RS-485, Remote |
| Mounting orientation | Standard (0°-90°) |
| Operating voltage | 100-120/200-240 V AC, 50/60 Hz |
| Particulate matter | yes |
| Permissible magnetic field max. | 7 mT |
| Protection category | IP 54 |

| Technical Data | HiPace® 2300 with TC 1200 Profibus, DN 250 CF-F |
|--|---|
| 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 P04 142 |

| 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 |
| Profibus | |
| Line filter for cable fitting | PM 061 806 |
| Plug and socket M12B for Profibus | PM 051 927 -T |
| T-Connector M12B to Profibus | P 4723 020 |
| Termination resistor M12B for Profibus | P 4723 030 |
| Y-Connector M12B to Profibus | P 4723 015 |
| Y-Connector with cable M12B to Profibus, 0.5 m | P 4723 018 |
| 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 |