



HiPace[®] 80

Compact yet powerful turbopumps with
pumping speeds of up to 71 l/s for N₂

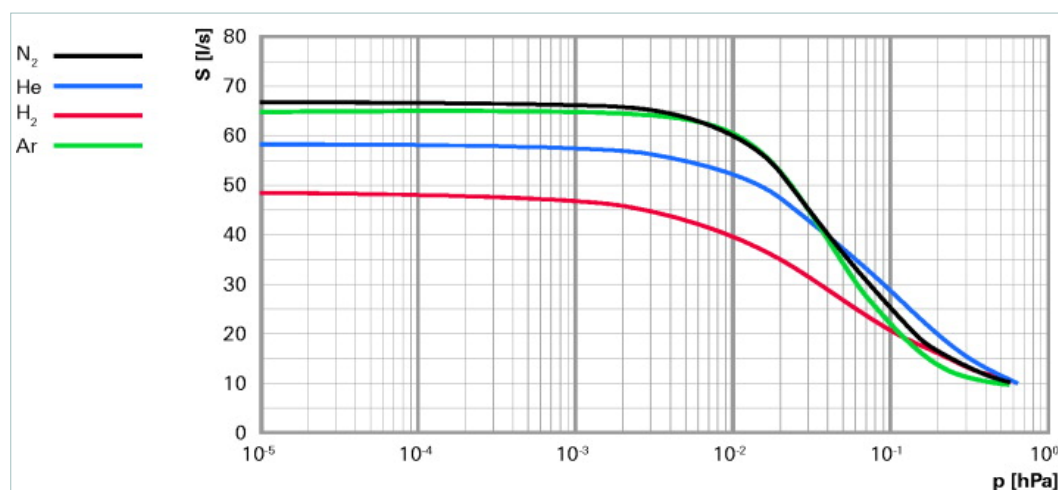




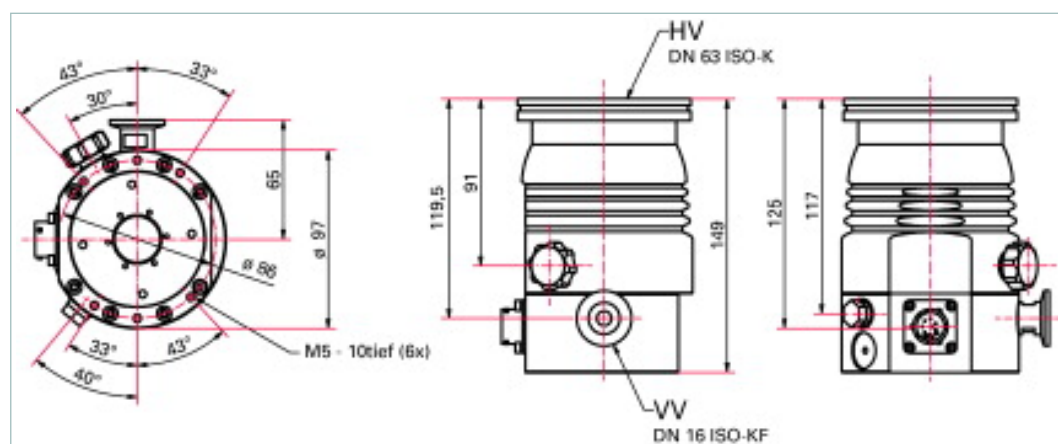
Similar Image

HiPace® 80 for TCP 350, DN 63 ISO-K

- Small yet powerful turbopump with a pumping speed of up to 67 l/s for N₂
- External TCP 350 drive electronics
- For installation in any orientation
- Ideal for dependable systems integration
- Extensive accessories expand the range of applications



Dimensions



| Technical Data | HiPace® 80 for TCP 350, DN 63 ISO-K |
|--|---|
| Bearing | Hybrid |
| Compression ratio for Ar | $> 1 \cdot 10^{11}$ |
| Compression ratio for H ₂ | $1.4 \cdot 10^5$ |
| Compression ratio for He | $1.3 \cdot 10^7$ |
| Compression ratio for N ₂ | $> 1 \cdot 10^{11}$ |
| Cooling method, optional | Air/water |
| Cooling method, standard | Convection |
| Cooling water consumption | 75 l/h |
| Cooling water temperature | 5-25 °C 41-77 °F 278-298 K |
| Electronic drive unit | for TCP 350 |
| Flange (in) | DN 63 ISO-K |
| Flange (out) | DN 16 ISO-KF / G 1/4" |
| Fore-vacuum max. for N ₂ | 22 hPa 16.5 Torr 22 mbar |
| Gas throughput at full rotational speed for Ar | 0.54 hPa l/s 0.41 Torr l/s 0.54 mbar l/s |
| Gas throughput at full rotational speed for H ₂ | 15.3 hPa l/s 11.47 Torr l/s 15.3 mbar l/s |

| Technical Data | HiPace® 80 for TCP 350, DN 63 ISO-K |
|--|--|
| Gas throughput at full rotational speed for He | 2.7 hPa l/s 2.02 Torr l/s 2.7 mbar l/s |
| Gas throughput at full rotational speed for N ₂ | 1.3 hPa l/s 0.97 Torr l/s 1.3 mbar l/s |
| Interfaces | RS-485, Remote |
| Mounting orientation | in any orientation |
| Permissible magnetic field max. | 3.3 mT |
| Protection category | IP 54 |
| Pumping speed for Ar | 66 l/s |
| Pumping speed for H ₂ | 48 l/s |
| Pumping speed for He | 58 l/s |
| Pumping speed for N ₂ | 67 l/s |
| Rotation speed ± 2 % | 90,000 min ⁻¹ |
| Rotation speed variable | 50-100 % |
| Run-up time | 3 min |
| Separate electronic drive unit | yes |
| Sound pressure level | 48 dB (A) |
| Ultimate pressure according to PNEUROP | < 1 · 10 ⁻⁷ hPa < 7.5 · 10 ⁻⁸ Torr < 1 · 10 ⁻⁷ mbar |
| Venting connection | G 1/8" |
| Weight | 2.1 kg 4.63 lb |

| Order number | |
|--------------|------------|
| HiPace® 80 | PM P03 943 |

| Accessories | |
|---|---------------|
| Accessory external drive units | |
| Adapter cable, TCP 350 - backing pump relay box, M8 | PM 061 376 -T |
| Air cooling | |
| Air cooling for HiPace 60/80, SplitFlow 50/80, 230 V | PM Z01 343 |
| Air cooling for HiPace 60 P, HiPace 80 and SplitFlow 50/80 with TC 110/120 | PM Z01 300 |
| Air cooling for HiPace 60 P and 80, SplitFlow 50/80, 115 V | PM Z01 344 |
| Connection cables | |
| Connection cable from TCP 350 to HiPace with 2 accessory ports M8, 3 m | PM 061 353 -T |
| Control and display units | |
| RJ 45 interface cable on M12 for HiPace | PM 051 726 -T |
| DN ISO-K, claws | |
| Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring, splinter and claw grips | PM 016 511 -T |
| Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring and claws | PM 016 510 -T |
| Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring with integrated protection screen and claws grips | PM 016 512 -T |
| DN ISO-K, Mounting kit, bracket screws | |
| Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring, protection screen and bracket screws | PM 016 362 -T |
| Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring, splinter shield and bracket screws | PM 016 361 -T |
| Mounting kit for HiPace 60/80, DN 63 ISO-K, including coated centering ring and bracket screws | PM 016 360 -T |
| DN ISO-K / -F, sealings, splinter shields, protection screens | |
| Centering ring with multifunction coating, DN 63 ISO-K/-F | PM 016 206 -U |
| Centering ring with multifunction coating and integrated protection screen, DN 63 ISO-K/-F | PM 016 208 -U |
| Centering ring with multifunction coating and integrated splinter shield, DN 63 ISO-K/-F | PM 016 207 -U |
| External drive units | |
| TCP 350 DN, drive electronics, DeviceNet | PM C01 742 |
| TCP 350 electronic drive unit | PM C01 740 |
| TCP 350 PB, drive electronics, Profibus | PM C01 741 |
| 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 | |
| Extension cable M8 on M8 | PM 061 783 -T |
| Interface cable, M12 m straight/ M12 m angled 0.7 m | PM 061 791 -T |
| 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 C13, 3 m | P 4564 309 ZE |
| Mains cable 208 V AC, NEMA 6-15 to C13, 3 m | P 4564 309 ZF |
| Mains cable 230 V AC, CEE 7/7 to C13, 3 m | P 4564 309 ZA |
| Power failure venting units (normally open) | |
| Shielded power failure venting unit, 24 V DC, G 1/8", for connection to TC 110/120 | PM Z01 330 |

| Accessories | |
|--|---------------|
| Relay boxes | |
| Relay box, shielded, for backing pumps, 1-phase 7A for TC 110/120 and TCP 350, plug M8 | PM 071 282 -X |
| Relay box for backing pump, single phase 20 A for TC 110/120 and TCP 350, M8 plug | PM 061 373 -T |
| 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 HiPace 60/80 | PM Z01 316 |
| Sealing gas valve, shielded for HiPace 60/80 with TC 110 | PM Z01 310 |
| TPS-19" rack module | |
| Front panel kit for TPS 111 | PM 061 393 -T |
| Venting accessory with small flange, G 1/8", hoses, air drier | |
| Banjo fitting | PM 016 787 -T |
| Banjo fitting, small | PM 143 877 -T |
| Hose nozzle for 9 mm hose, G 1/8" | PM 016 783 -T |
| Plug-in fitting for 6 mm hose, G 1/8" | PM 016 781 -T |
| Plug-in fitting for 8 mm hose, G 1/8" | PM 016 782 -T |
| Screw-in flange, DN 10 ISO-KF, G 1/8" | PM 033 737 -T |
| Screw-on flange, DN 16 ISO-KF, G 1/8" | PM 016 780 -T |
| TTV 001, dryer for venting turbopumps | PM Z00 121 |
| Venting valve (normally closed) | |
| Venting valve, 24 V DC, G 1/8" without cable | PM Z01 293 |
| Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 110/120 | PM Z01 290 |
| Vibration damper | |
| Vibration damper for HiPace 60/80, DN 63 ISO-K | PM 006 800 -X |
| Water cooling | |
| Water cooling for HiPace 60 P, HiPace 80 and for SplitFlow 50/80 with plug-in connection, 8 mm | PM 016 623 -T |