



HiPace[®] 700

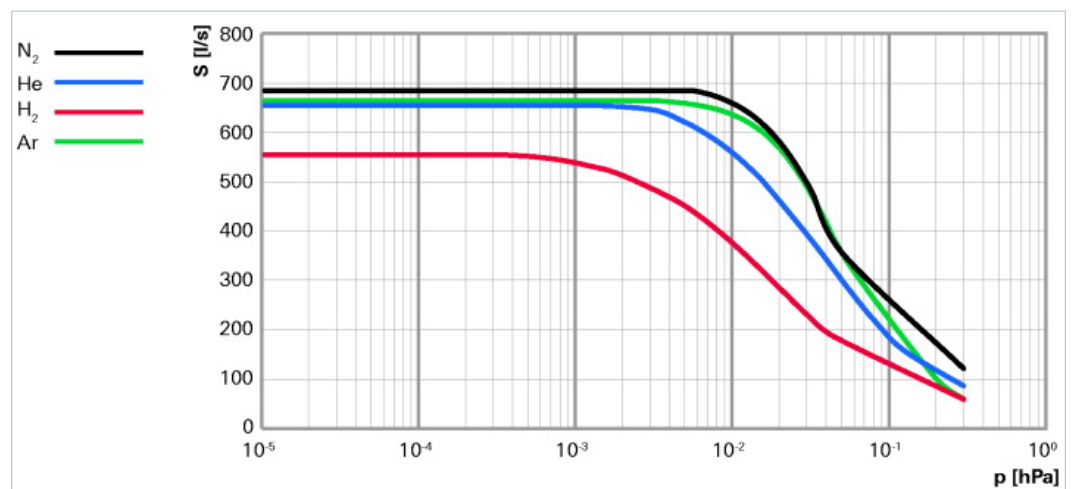
Maximum vacuum performance in a compact design with a pumping speed of 685 l/s for N₂



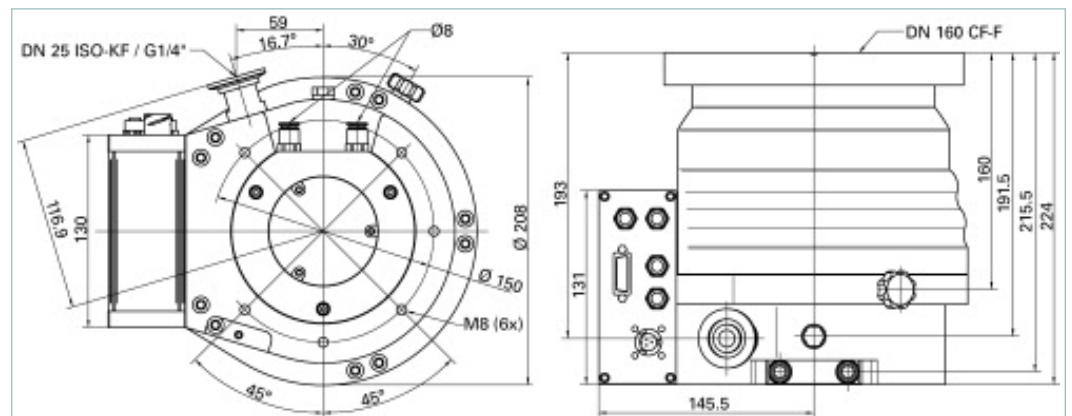
Similar Image

HiPace® 700 with TC 400, Profibus, DN 160 CF-F

- Compact yet powerful turbopump with a pumping speed of up to 685 l/s for N₂
- Maximum vacuum performance with minimum power consumption
- Integrated TC 400 drive electronics with Profibus
- For installation in any orientation
- With integrated water cooling for maximum gas throughput
- Profibus connection with M12-plug-in connector
- Extensive accessories expand the range of applications
- Corrosive gas version on request
- DN 160 CF-F flange for demanding UHV applications



Dimensions



Technical Data

HiPace® 700 with TC 400, Profibus, DN 160 CF-F

Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H ₂	$4 \cdot 10^5$
Compression ratio for He	$3 \cdot 10^7$
Compression ratio for N ₂	$> 1 \cdot 10^{11}$
Cooling method, optional	Air
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 400
Flange (in)	DN 160 CF-F

Technical Data	HiPace® 700 with TC 400, Profibus, DN 160 CF-F
Flange (out)	DN 25 ISO-KF / G 1/4"
Fore-vacuum max. for N ₂	11 hPa 8.25 Torr 11 mbar
Gas throughput at full rotational speed for Ar	3.5 hPa l/s 2.62 Torr l/s 3.5 mbar l/s
Gas throughput at full rotational speed for H ₂	> 14 hPa l/s > 10.5 Torr l/s > 14 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	6.5 hPa l/s 4.88 Torr l/s 6.5 mbar l/s
Interface, extended	Profibus
Interfaces	RS-485, Remote, Profibus
Mounting orientation	in any orientation
Operating voltage	48 (± 5 %) V DC
Permissible magnetic field max.	6 mT
Protection category	IP 54
Pumping speed for Ar	665 l/s
Pumping speed for H ₂	555 l/s
Pumping speed for He	655 l/s
Pumping speed for N ₂	685 l/s
Rotation speed ± 2 %	49200 min ⁻¹
Rotation speed variable	60-100 %
Run-up time	2 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	17.4 kg 38.36 lb

Order number	
HiPace® 700	PM P04 254

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
Air cooling	
Air cooling, shielded, for HiPace 400/700/800 and 300700/800 M with TC 400 PB/TM 700	PM Z01 363
CF-F, Mounting kit	
Set of hexagon screws for trough hole, DN 160 CF-F	PM 016 691 -T
Set of stud screws for trough hole, DN 160 CF-F	PM 016 693 -T
CF-F, Sealings, splinter shields, protection screens	
Protection screen for DN 160 CF-F	PM 016 339
Splinter shield for turbopumps, DN 160 CF-F	PM 016 318
Connection cables	
Connection cable for HiPace with TC 400/TM 700 to power supply TPS/DCU 310/311/400/401	PM 061 352 -T
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
RJ 45 interface cable on M12 for HiPace	PM 051 726 -T
DCU with integrated power supply	
DCU 400, Display control unit incl. power supply	PM C01 823
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 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
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	
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 300 - 800	PM Z01 317
Sealing gas valve, shielded for HiPace 300/400/700 and 800 with TC 400 and TM 700	PM Z01 312

Accessories	
Shielded heating suitable for TC 400 PB, TC 1200 and TM 700	
Heating jacket, shielded, for HiPace 400/700/800 with TC 400 PB/TM 700, 115 V AC, UL plug	PM 071 271 -T
Heating jacket, shielded, for HiPace 400/700/800 with TC 400 PB/TM 700, 208 V AC, UL plug	PM 071 270 -T
Heating jacket, shielded, for HiPace 400/700/800 with TC 400 PB/TM 700, 230 V AC, safety plug	PM 071 269 -T
TPS-19" rack module	
Front panel kit for TPS 401	PM 061 396 -T
TPS 401, power supply 48 V DC, 19" partial plug-in 3HU	PM 061 347 -T
TPS wall rail fitting	
TPS 400, power supply 48 V DC, for wall/standard rail fitting	PM 061 343 -T
Wall rail fitting for TPS 110/180/310/400	PM 061 392 -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 DN 160 CF-F	PM 006 493 -X