



HiPace[®] 700

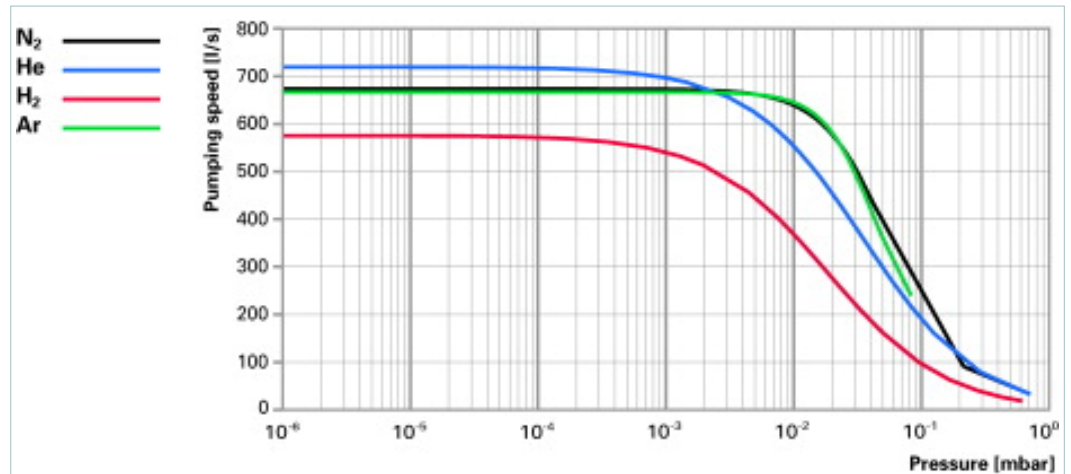
Maximum vacuum performance in a compact design with a pumping speed of 685 l/s for N₂



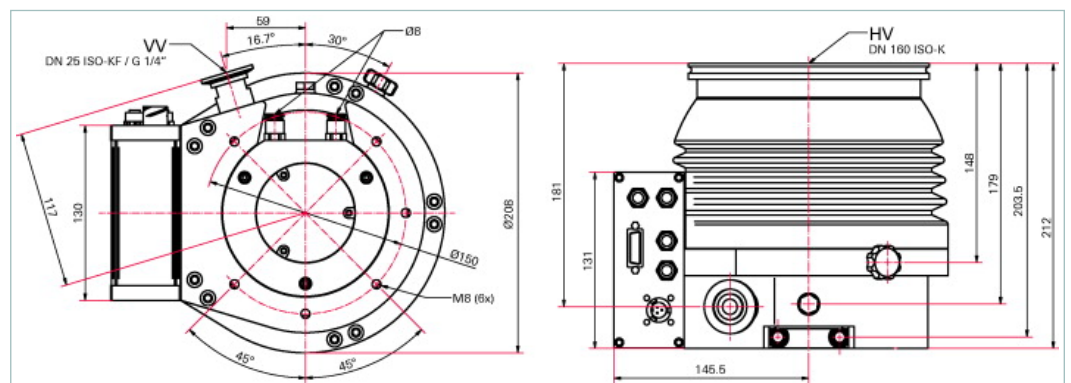
Similar Image

HiPace® 700, for TCP 350, 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
- For installation in any orientation
- External TC 350 drive electronics
- Integrated, powerful cooling system



Dimensions



Technical Data	HiPace® 700, for TCP 350, 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	for TCP 350
Flange (in)	DN 160 CF-F
Flange (out)	DN 25 ISO-KF / G 1/4"
Fore-vacuum max. for N ₂	10 hPa 7.5 Torr 10 mbar
Gas throughput at full rotational speed for Ar	1.5 hPa l/s 1.12 Torr l/s 1.5 mbar l/s
Gas throughput at full rotational speed for H ₂	> 8 hPa l/s > 6 Torr l/s > 8 mbar l/s
Gas throughput at full rotational speed for He	5 hPa l/s 3.75 Torr l/s 5 mbar l/s
Gas throughput at full rotational speed for N ₂	3 hPa l/s 2.25 Torr l/s 3 mbar l/s

Technical Data		HiPace® 700, for TCP 350, DN 160 CF-F	
Interfaces		RS-485, Remote	
Mounting orientation		in any orientation	
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		5.5 min	
Separate electronic drive unit		yes	
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		16.5 kg 36.38 lb	
Order number			
HiPace® 700		PM P04 081	

Accessories	
Accessory external drive units	
Adapter cable, TCP 350 - backing pump relay box, M12	PM 061 377 -T
Air cooling	
Air cooling for HiPace 400/700 and 800 with TC 400	PM Z01 303
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 from TCP 350 to HiPace with 2 accessory ports M12, 3 m	PM 061 356 -T
Control and display units	
RJ 45 interface cable on M12 for HiPace	PM 051 726 -T
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
Heating suitable for TC 110 and TC 400	
Heating jacket for HiPace 400/700/800 with TC 400, 115 V AC, UL plug	PM 061 371 -T
Heating jacket for HiPace 400/700/800 with TC 400, 208 V AC, UL plug	PM 061 370 -T
Heating jacket for HiPace 400/700/800 with TC 400, 230 V AC, safety plug	PM 061 369 -T
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	
Backing pump relay box, single phase 20 A, for TC 400 and TCP 350, M12 plug	PM 061 375 -T
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	
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 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
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

Accessories	
Vibration damper	
Vibration damper for HiPace DN 160 CF-F	PM 006 493 -X