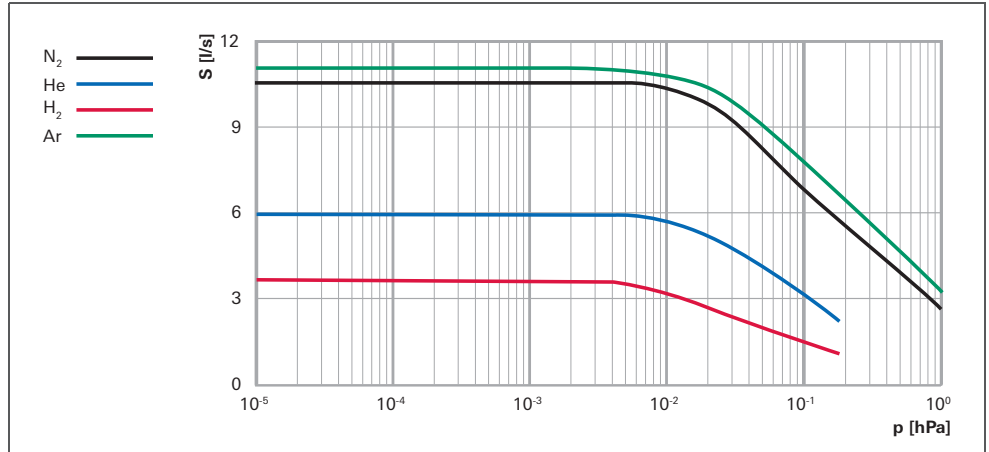


HiPace® 10



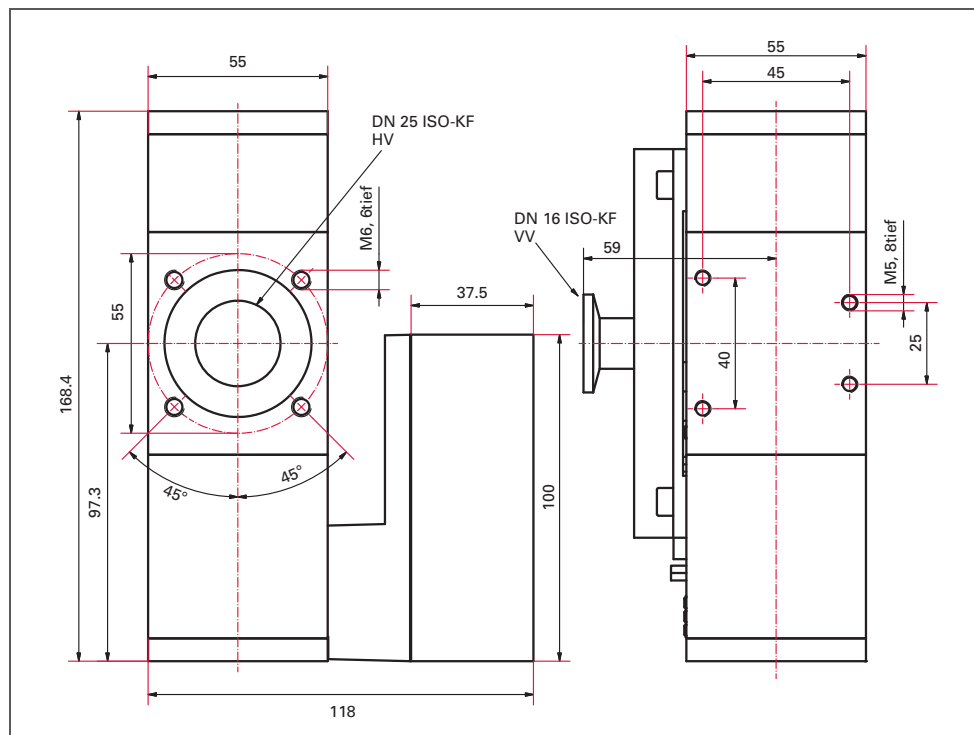
- The world's smallest series-production turbopump
- A powerful, rugged turbopump with a pumping speed of 10 l/s for N₂
- DN 25 connection
- Integrated drive electronics with 24 V supply voltage
- Mobile usable
- Requires no additional cooling
- Electronic connection in direction of fore-vacuum connection

Pumping speed



HiPace® 10

Dimensions (in mm)

HiPace[®] 10 with TC 110, DN 25

Technical data	HiPace® 10 with TC 110, DN 25
Connection nominal diameter	
Flange (out)	DN 16 ISO-KF / G 1/8"
Flange (in)	DN 25
Pumping speed	
Pumping speed for Ar	11.5 l/s
Pumping speed for H ₂	3.7 l/s
Pumping speed for He	6 l/s
Pumping speed for N ₂	10 l/s
Compression	
Compression ratio for Ar	$2.5 \cdot 10^7$
Compression ratio for H ₂	$3 \cdot 10^2$
Compression ratio for He	$3 \cdot 10^3$
Compression ratio for N ₂	$3 \cdot 10^6$
Fore-vacuum max. for N₂	
	25 hPa
Gas throughput	
Gas throughput at full rotational speed for Ar	0.37 hPa l/s
Gas throughput at full rotational speed for H ₂	2.78 hPa l/s
Gas throughput at full rotational speed for He	0.48 hPa l/s
Gas throughput at full rotational speed for N ₂	0.37 hPa l/s
Electronic drive unit	with TC 110
Operating voltage	24 (± 5 %) V DC
Rotation speed ± 2 %	90000 min ⁻¹
Rotation speed variable	50-100 %
Mounting orientation	in any orientation
Ultimate pressure*	$< 5 \cdot 10^{-6}$ hPa
Weight	1.8 kg
Run-up time	0.9 min
Cooling method, standard	Convection
Bearing	Ball bearing
Sound pressure level	< 50 dB (A)
Interfaces	RS-485, Remote
Protection category	IP 54
Permissible magnetic field max.	3 mT
Order number pump Pumpe	PM P03 960

*Ultimate pressure please find description on page 272

Accessories	HiPace® 10 with TC 110, DN 25
Order number pump Pumpe	PM P03 960
Power supplies/power	
DCU - power supply with display control unit	PM C01 820
TPS - mains pack for wall/standard rail fitting	PM 061 340 -T
TPS - mains packl 19" rack module 3 RU	PM 061 344 -T
Control units	
DCU - Display Control Unit	PM 061 348 -T
HPU - Handheld Programming Unit	PM 051 510 -T
Accessories for HPU	PM 061 005 -T
Mains cable DCU/TPS/TCP, 3 m	
230 V AC mains cable with Euro-style safety plug	P 4564 309 ZA
115 V AC mains cable with UL plug	P 4564 309 ZE
208 V AC mains cable with UL plug	P 4564 309 ZF
Connection cable, length 3 m between	
Connection cable for HiPace with TC 110 to TPS/DCU 110/111/180/181 with accessorie ports and RS-485	PM 061 351 -T
Connection cable for HiPace with TC 110 to power supply TPS/DCU 110/111/180/181	PM 061 350 -T
Backing pump control	
Backing pump relay box, shielded, 1-phase 20 A	PM 061 373 -T
Backing pump relay box, shielded, 1-phase 7 A	PM 071 282 -X
TVV 001 backing pump safety valve, 230 V AC	PM Z01 205
TVV 001 backing pump safety valve, 115 V AC	PM Z01 206
TCS 15 for controlling backing pumps	PM 061 685 -X
HiPace-ACP connection cable	PM 071 142 -X
General accessories	
Connecting adapter DN 25 ISO-KF	PM 093 315 -T
Centering ring	PF 110 125 -T
Centering ring with integrated mesh screen	PF 113 225 -T
USB/RS-485-Converter	PM 061 207 -T
Interface cable 3 m	PM 061 283 -T
Y-connector M12 for RS-485	P 4723 010
Connection cable RJ 45 on M 12	PM 051 726 -T
TCS 11, adapter for TC 110 with interface RS-485	PM 061 636 -U
TCS 12, adapter for TC 110 with interface RS-485, 4 accessory ports	PM 061 638 -U
Mounting materials	
Centering ring with 4 prackets, screws and U-washers	PM 016 627 -T