

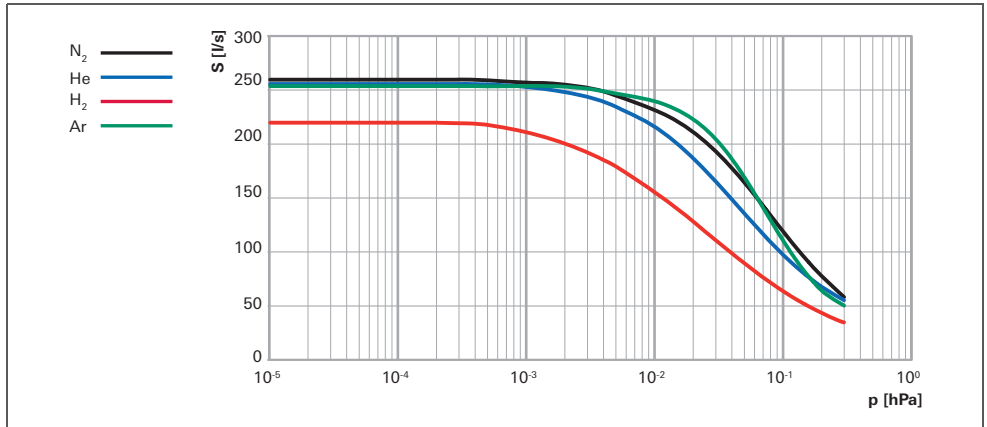
HiPace® 300



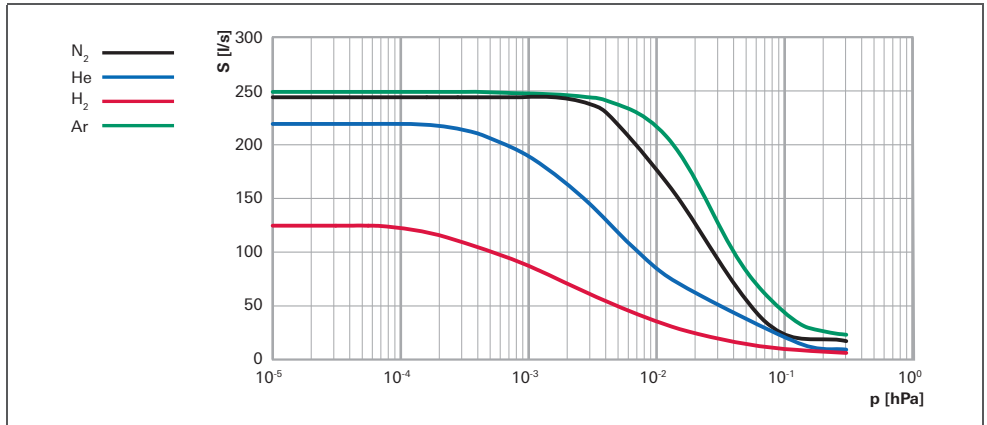
- Rugged, powerful turbopump with a pumping speed of up to 260 l/s for N₂
- Integrated TC 400 drive electronics
- Ideal for analytical and industrial applications
- For installation in any orientation
- With integrated water cooling for maximum gas throughput
- Flexible through the ability to employ up to 4 accessories
- Ideal for fast cycles
- Extensive accessories expand the range of applications

C=Corrosive gas version

Pumping speed

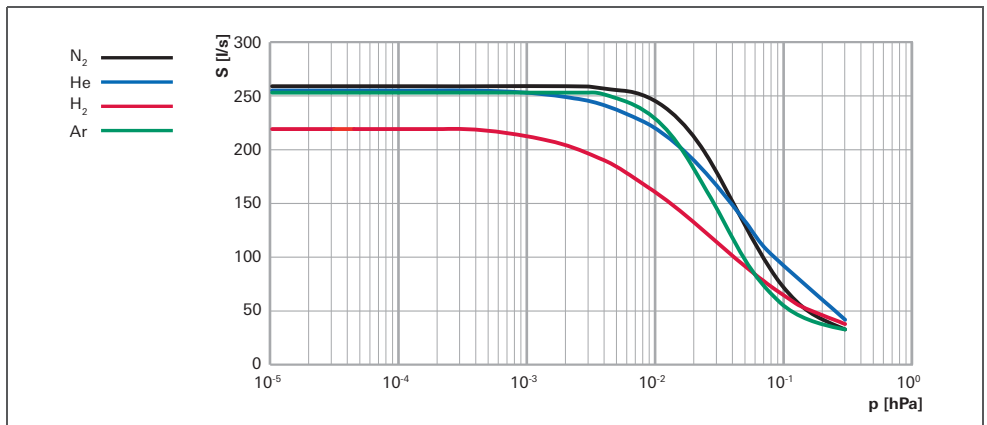


HiPace® 300 with TC 400



HiPace® 300 C with TC 400

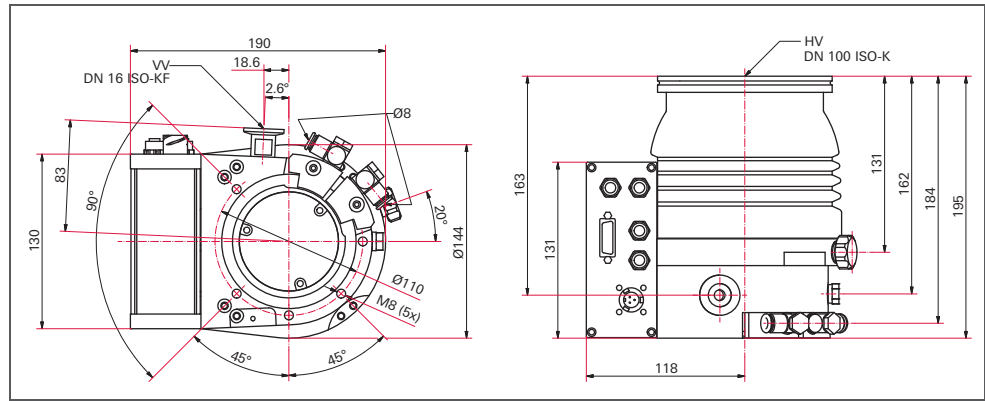
HiPace® 300 P with TC 400



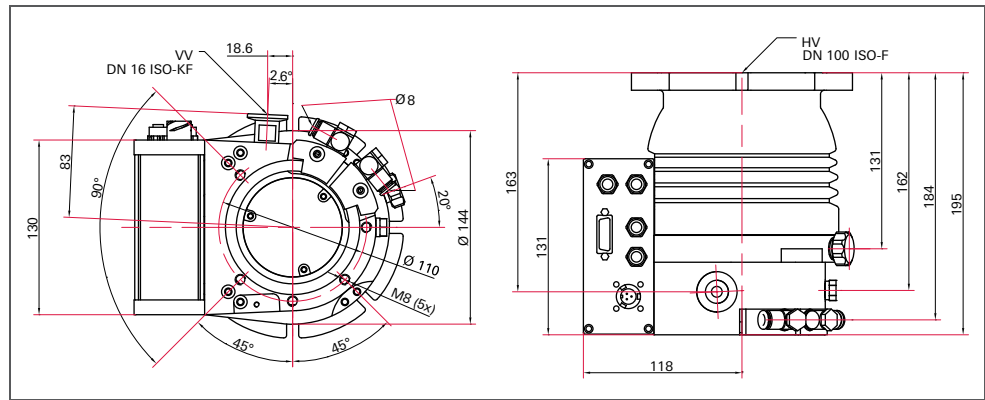
HiPace® 300 with TC 110

HiPace® 300 Plus with TC 110

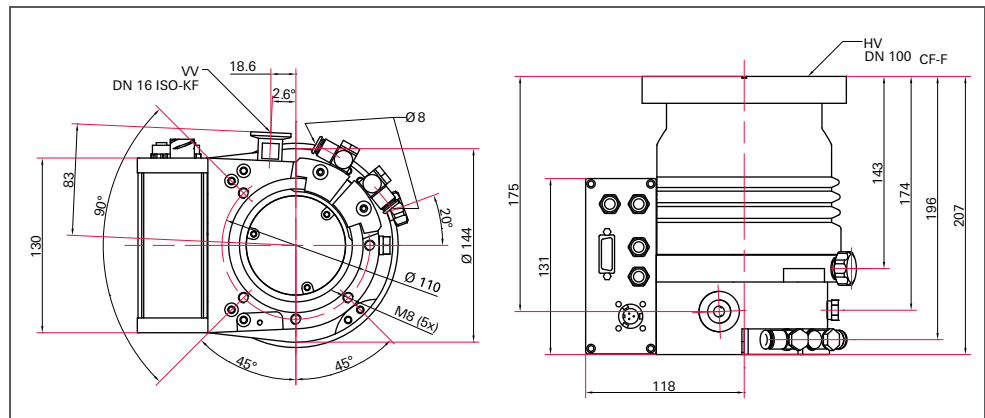
Dimensions (in mm)



HiPace® 300 with TC 400, DN 100 ISO-K



HiPace® 300 with TC 400, DN 100 ISO-F



HiPace® 300 with TC 400, DN 100 CF-F

Technical data	HiPace® 300 with TC 400, DN 100 ISO-K	HiPace® 300 with TC 400, DN 100 CF-F	HiPace® 300 with TC 400, DN 100 ISO-F	HiPace® 300 P with TC 400, DN 100 ISO-K
Connection nominal diameter				
Flange (out)	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"
Flange (in)	DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-F	DN 100 ISO-K
Venting connection	G 1/8"	G 1/8"	G 1/8"	G 1/8"
Pumping speed				
Pumping speed for Ar	255 l/s	255 l/s	255 l/s	250 l/s
Pumping speed for H ₂	220 l/s	220 l/s	220 l/s	125 l/s
Pumping speed for He	255 l/s	255 l/s	255 l/s	220 l/s
Pumping speed for N ₂	260 l/s	260 l/s	260 l/s	245 l/s
Compression				
Compression ratio for Ar	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ⁷
Compression ratio for H ₂	9 · 10 ⁵	9 · 10 ⁵	9 · 10 ⁵	3 · 10 ²
Compression ratio for He	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	2 · 10 ³
Compression ratio for N ₂	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ⁶
Fore-vacuum max. for N₂				
	20 hPa	20 hPa	20 hPa	1 hPa
Gas throughput				
Gas throughput at full rotational speed for Ar	7 hPa l/s	7 hPa l/s	7 hPa l/s	2.9 hPa l/s
Gas throughput at full rotational speed for H ₂	> 14 hPa l/s	> 14 hPa l/s	> 14 hPa l/s	> 20 hPa l/s
Gas throughput at full rotational speed for He	10 hPa l/s	10 hPa l/s	10 hPa l/s	> 10 hPa l/s
Gas throughput at full rotational speed for N ₂	14 hPa l/s	14 hPa l/s	14 hPa l/s	14 hPa l/s
Electronic drive unit				
Separate electronic drive unit				
Operating voltage	24 (± 5 %) V DC	24 (± 5 %) V DC	24 (± 5 %) V DC	24 (± 5 %) V DC
Rotation speed ± 2 %	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹
Rotation speed variable	35-100 %	35-100 %	35-100 %	35-100 %
Mounting orientation	in any orientation	in any orientation	in any orientation	in any orientation
Ultimate pressure*	< 1 · 10 ⁻⁷ hPa	< 5 · 10 ⁻¹⁰ hPa	< 1 · 10 ⁻⁷ hPa	< 1 · 10 ⁻⁷ hPa
Weight	6.7 kg	8.7 kg	7 kg	6.4 kg
Run-up time	1.8 min	1.8 min	1.8 min	1.2 min
Corrosive gas version				
Cooling method, optional	Air	Air	Air	Air
Cooling method, standard	Water	Water	Water	Water
Cooling water temperature	15-35 °C	15-35 °C	15-35 °C	15-35 °C
Cooling water consumption	50 l/h	50 l/h	50 l/h	50 l/h
Bearing	Hybrid	Hybrid	Hybrid	Hybrid
Particulate matter				YES
Sound pressure level	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)
Interfaces	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote
Protection category	IP 54	IP 54	IP 54	IP 54
Low vibrations				
Permissible magnetic field max.	5.5 mT	5.5 mT	5.5 mT	5.5 mT
Order number pump	PM P03 900	PM P03 901	PM P03 902	PM P04 710

*Ultimate pressure please find description on page 272

HiPace® 300 P with TC 400, DN 100 CF-F	HiPace® 300 P with TC 400, DN 100 ISO-F	HiPace® 300 C with TC 400, DN 100 ISO-K	HiPace® 300 C with TC 400, DN 100 CF-F	HiPace® 300 C with TC 400, DN 100 ISO-F
DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"
DN 100 CF-F	DN 100 ISO-F	DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-F
G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"
250 l/s	250 l/s	250 l/s	250 l/s	250 l/s
125 l/s	125 l/s	125 l/s	125 l/s	125 l/s
220 l/s	220 l/s	220 l/s	220 l/s	220 l/s
245 l/s	245 l/s	245 l/s	245 l/s	245 l/s
$> 1 \cdot 10^7$	$> 1 \cdot 10^7$	$> 1 \cdot 10^7$	$> 1 \cdot 10^7$	$> 1 \cdot 10^7$
$3 \cdot 10^2$	$3 \cdot 10^2$	$3 \cdot 10^2$	$3 \cdot 10^2$	$3 \cdot 10^2$
$2 \cdot 10^3$	$2 \cdot 10^3$	$2.2 \cdot 10^3$	$2.2 \cdot 10^3$	$2.2 \cdot 10^3$
$> 1 \cdot 10^6$	$> 1 \cdot 10^6$	$> 1 \cdot 10^6$	$> 1 \cdot 10^6$	$> 1 \cdot 10^6$
1 hPa	1 hPa	1 hPa	1 hPa	1 hPa
2.9 hPa l/s	2.9 hPa l/s	4.4 hPa l/s	4.4 hPa l/s	4.4 hPa l/s
> 20 hPa l/s	> 20 hPa l/s	> 50 hPa l/s	> 50 hPa l/s	> 50 hPa l/s
> 10 hPa l/s	> 10 hPa l/s	> 20 hPa l/s	> 20 hPa l/s	> 20 hPa l/s
14 hPa l/s	14 hPa l/s	17 hPa l/s	17 hPa l/s	17 hPa l/s
with TC 400	with TC 400	with TC 400	with TC 400	with TC 400
24 (± 5 %) V DC	24 (± 5 %) V DC	24 (± 5 %) V DC	24 (± 5 %) V DC	24 (± 5 %) V DC
60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹
35-100 %	35-100 %	35-100 %	35-100 %	35-100 %
in any orientation	in any orientation	Standard (0°-90°)	Standard (0°-90°)	Standard (0°-90°)
$< 5 \cdot 10^{-10}$ hPa	$< 1 \cdot 10^{-7}$ hPa	$< 1 \cdot 10^{-7}$ hPa	$< 5 \cdot 10^{-10}$ hPa	$< 1 \cdot 10^{-7}$ hPa
8.4 kg	6.7 kg	6.4 kg	8.4 kg	6.7 kg
1.2 min	1.2 min	1.2 min	1.2 min	1.2 min
		YES	YES	YES
Air	Air	Air	Air	Air
Water	Water	Water	Water	Water
15-35 °C	15-35 °C	15-35 °C	15-35 °C	15-35 °C
50 l/h	50 l/h	50 l/h	50 l/h	50 l/h
Hybrid	Hybrid	Hybrid	Hybrid	Hybrid
YES	YES	YES	YES	YES
≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)
RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote
IP 54	IP 54	IP 54	IP 54	IP 54
5.5 mT	5.5 mT	5.5 mT	5.5 mT	5.5 mT
PM P04 711	PM P04 712	PM P03 906	PM P03 996	PM P03 907

Accessories	HiPace® 300 with TC 400, DN 100 ISO-K	HiPace® 300 with TC 400, DN 100 CF-F	HiPace® 300 with TC 400, DN 100 ISO-F	HiPace® 300 P with TC 400, DN 100 ISO-K	
Order number pump Pumpe	PM P03 900	PM P03 901	PM P03 902	PM P04 710	
Power supplies/power					
DCU - power supply with display control unit	PM C01 822	PM C01 822	PM C01 822	PM C01 822	
TPS - mains pack for wall/standard rail fitting	PM 061 342 -T	PM 061 342 -T	PM 061 342 -T	PM 061 342 -T	
TPS - mains pack 19" rack module 3 RU	PM 061 346 -T	PM 061 346 -T	PM 061 346 -T	PM 061 346 -T	
Control units					
DCU - Display Control Unit	PM 061 348 -T	PM 061 348 -T	PM 061 348 -T	PM 061 348 -T	
HPU - Handheld Programming Unit	PM 051 510 -T	PM 051 510 -T	PM 051 510 -T	PM 051 510 -T	
Accessories for HPU	PM 061 005 -T	PM 061 005 -T	PM 061 005 -T	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	P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA	
115 V AC mains cable with UL plug	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	
208 V AC mains cable with UL plug	P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF	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					
Connection cable for HiPace with TC 110 to power supply TPS/DCU 110/111/180/181					
Connection cable for HiPace with TC 400/TM 700 to power supply TPS/DCU 310/311/400/401	PM 061 352 -T	PM 061 352 -T	PM 061 352 -T	PM 061 352 -T	
TCP 350 - HiPace					
Venting accessories					
Venting valve	PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291	
Air drier TTV 001	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	
Cooling accessories					
Air cooling	PM Z01 302	PM Z01 302	PM Z01 302	PM Z01 302	
Water cooling					
Heating accessories					
Heating jacket 230 V AC, Euro-style safety plug		PM 061 366 -T			
Heating jacket 208 V AC, UL plug		PM 061 367 -T			
Heating jacket 115 V AC, UL plug		PM 061 368 -T			
Backing pump control					
Backing pump relay box, shielded, 1-phase 20 A	PM 061 375 -T	PM 061 375 -T	PM 061 375 -T	PM 061 375 -T	
Backing pump relay box, shielded, 1-phase 7 A	PM 071 284 -X	PM 071 284 -X	PM 071 284 -X	PM 071 284 -X	
Control cable for pumping stations 0.7 m	PM 061 675 -T	PM 061 675 -T	PM 061 675 -T	PM 061 675 -T	
TVV 001 backing pump safety valve, 230 V AC	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	
TVV 001 backing pump safety valve, 115 V AC	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	
TCS 15 for controlling backing pumps					
HiPace-ACP connection cable	PM 071 142 -X	PM 071 142 -X	PM 071 142 -X	PM 071 142 -X	

HiPace® 300 P with TC 400, DN 100 CF-F	HiPace® 300 P with TC 400, DN 100 ISO-F	HiPace® 300 C with TC 400, DN 100 ISO-K	HiPace® 300 C with TC 400, DN 100 CF-F	HiPace® 300 C with TC 400, DN 100 ISO-F
PM P04 711	PM P04 712	PM P03 906	PM P03 996	PM P03 907
PM C01 822	PM C01 822	PM C01 822	PM C01 822	PM C01 822
PM 061 342 -T	PM 061 342 -T	PM 061 342 -T	PM 061 342 -T	PM 061 342 -T
PM 061 346 -T	PM 061 346 -T	PM 061 346 -T	PM 061 346 -T	PM 061 346 -T
PM 061 348 -T	PM 061 348 -T	PM 061 348 -T	PM 061 348 -T	PM 061 348 -T
PM 051 510 -T	PM 051 510 -T	PM 051 510 -T	PM 051 510 -T	PM 051 510 -T
PM 061 005 -T	PM 061 005 -T	PM 061 005 -T	PM 061 005 -T	PM 061 005 -T
P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA
P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE
P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF
PM 061 352 -T	PM 061 352 -T	PM 061 352 -T	PM 061 352 -T	PM 061 352 -T
PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291	PM Z01 291
PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121
PM Z01 302	PM Z01 302	PM Z01 302	PM Z01 302	PM Z01 302
PM 061 366 -T			PM 061 366 -T	
PM 061 367 -T			PM 061 367 -T	
PM 061 368 -T			PM 061 368 -T	
PM 061 375 -T	PM 061 375 -T	PM 061 375 -T	PM 061 375 -T	PM 061 375 -T
PM 071 284 -X	PM 071 284 -X	PM 071 284 -X	PM 071 284 -X	PM 071 284 -X
PM 061 675 -T	PM 061 675 -T	PM 061 675 -T	PM 061 675 -T	PM 061 675 -T
PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205
PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206
PM 071 142 -X	PM 071 142 -X	PM 071 142 -X	PM 071 142 -X	PM 071 142 -X

Accessories	HiPace® 300 with TC 400, DN 100 ISO-K	HiPace® 300 with TC 400, DN 100 CF-F	HiPace® 300 with TC 400, DN 100 ISO-F	HiPace® 300 P with TC 400, DN 100 ISO-K	
Order number pump Pumpe	PM P03 900	PM P03 901	PM P03 902	PM P04 710	
General accessories					
Sealing gas valve	PM Z01 312	PM Z01 312	PM Z01 312	PM Z01 312	
Sealing gas throttle	PM Z01 317	PM Z01 317	PM Z01 317	PM Z01 317	
Centering ring coated	PM 016 210 -U		PM 016 210 -U	PM 016 210 -U	
Centering ring coated with protection screen	PM 016 212 -U		PM 016 212 -U	PM 016 212 -U	
Centering ring coated with splinter shield	PM 016 211 -U		PM 016 211 -U	PM 016 211 -U	
Protection screen		PM 016 336			
Splinter shield		PM 016 315			
Vibration dampers	PM 006 459 -X	PM 006 488 -X		PM 006 459 -X	
Vibration isolator					
USB/RS-485-Converter	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	
Interface cable 3 m	PM 061 283 -T	PM 061 283 -T	PM 061 283 -T	PM 061 283 -T	
Y-connector M12 for RS-485	P 4723 010	P 4723 010	P 4723 010	P 4723 010	
Y-connector M12 for accessories	P 4723 013	P 4723 013	P 4723 013		
TCS 11, adapter for TC 110 with interface RS-485					
TCS 12, adapter for TC 110 with interface RS-485, 4 accessory ports					
Mounting materials					
Centering ring coated, bracket screws	PM 016 365 -T			PM 016 365 -T	
Centering ring coated with protection screen, bracket screws	PM 016 367 -T			PM 016 367 -T	
Centering ring coated with splinter shield, bracket screws	PM 016 366 -T			PM 016 366 -T	
Centering ring coated with hexagon bolts			PM 016 450 -T		
Centering ring coated with protection screen, hexagon bolts			PM 016 452 -T		
Centering ring coated with splinter shield, hexagon bolts			PM 016 451 -T		
Centering ring coated with stud screws			PM 016 455 -T		
Centering ring coated with protection screen with stud screws			PM 016 457 -T		
Centering ring coated with splinter shield with stud screws			PM 016 456 -T		
Set of hexagon screws for trough hole (CF-F)		PM 016 690 -T			
Set of stud screws for tapped hole (CF-F)		PM 016 692 -T			
Set of stud screws for trough hole (CF)		PM 016 734 -T			

HiPace® 300 P with TC 400, DN 100 CF-F	HiPace® 300 P with TC 400, DN 100 ISO-F	HiPace® 300 C with TC 400, DN 100 ISO-K	HiPace® 300 C with TC 400, DN 100 CF-F	HiPace® 300 C with TC 400, DN 100 ISO-F
PM P04 711	PM P04 712	PM P03 906	PM P03 996	PM P03 907
PM Z01 312	PM Z01 312	PM Z01 312	PM Z01 312	PM Z01 312
PM Z01 317	PM Z01 317	PM Z01 317	PM Z01 317	PM Z01 317
	PM 016 210 -U	PM 016 210 -U		PM 016 210 -U
	PM 016 212 -U	PM 016 212 -U		PM 016 212 -U
	PM 016 211 -U	PM 016 211 -U		PM 016 211 -U
PM 016 336			PM 016 336	
PM 016 315			PM 016 315	
PM 006 488 -X		PM 006 459 -X	PM 006 488 -X	
PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T
PM 061 283 -T	PM 061 283 -T	PM 061 283 -T	PM 061 283 -T	PM 061 283 -T
P 4723 010	P 4723 010	P 4723 010	P 4723 010	P 4723 010
		P 4723 013	P 4723 013	P 4723 013
		PM 016 365 -T		
		PM 016 367 -T		
		PM 016 366 -T		
	PM 016 450 -T			PM 016 450 -T
	PM 016 452 -T			PM 016 452 -T
	PM 016 451 -T			PM 016 451 -T
	PM 016 455 -T			PM 016 455 -T
	PM 016 457 -T			PM 016 457 -T
	PM 016 456 -T			PM 016 456 -T
PM 016 690 -T			PM 016 690 -T	
PM 016 692 -T			PM 016 692 -T	
PM 016 734 -T			PM 016 734 -T	

Technical data	HiPace® 300 Plus with TC 110, DN 100 ISO-K	HiPace® 300 Plus with TC 110, DN 100 CF-F	HiPace® 300 Plus with TC 110, DN 100 ISO-F	HiPace® 300 with TC 110, DN 100 ISO-K
Connection nominal diameter				
Flange (out)	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"
Flange (in)	DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-F	DN 100 ISO-K
Venting connection	G 1/8"	G 1/8"	G 1/8"	G 1/8"
Pumping speed				
Pumping speed for Ar	255 l/s	255 l/s	255 l/s	255 l/s
Pumping speed for H ₂	220 l/s	220 l/s	220 l/s	220 l/s
Pumping speed for He	255 l/s	255 l/s	255 l/s	255 l/s
Pumping speed for N ₂	260 l/s	260 l/s	260 l/s	260 l/s
Compression				
Compression ratio for Ar	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹
Compression ratio for H ₂	9 · 10 ⁵	9 · 10 ⁵	9 · 10 ⁵	9 · 10 ⁵
Compression ratio for He	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸
Compression ratio for N ₂	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹
Fore-vacuum max. for N₂				
	15 hPa	15 hPa	15 hPa	15 hPa
Gas throughput				
Gas throughput at full rotational speed for Ar	2 hPa l/s	2 hPa l/s	2 hPa l/s	2 hPa l/s
Gas throughput at full rotational speed for H ₂	> 14 hPa l/s	> 14 hPa l/s	> 14 hPa l/s	> 14 hPa l/s
Gas throughput at full rotational speed for He	8 hPa l/s	8 hPa l/s	8 hPa l/s	8 hPa l/s
Gas throughput at full rotational speed for N ₂	5 hPa l/s	5 hPa l/s	5 hPa l/s	5 hPa l/s
Electronic drive unit	with TC 110	with TC 110	with TC 110	with TC 110
Separate electronic drive unit				
Operating voltage	24 (± 5 %) V DC	24 (± 5 %) V DC	24 (± 5 %) V DC	24 (± 5 %) V DC
Rotation speed ± 2 %	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹
Rotation speed variable	35-100 %	35-100 %	35-100 %	35-100 %
Mounting orientation	vertical, flange up	vertical, flange up	vertical, flange up	in any orientation
Ultimate pressure*	< 1 · 10 ⁻⁷ hPa	< 5 · 10 ⁻¹⁰ hPa	< 1 · 10 ⁻⁷ hPa	< 1 · 10 ⁻⁷ hPa
Weight	5.8 kg	7.8 kg	6.1 kg	6.2 kg
Run-up time	3.5 min	3.5 min	3.5 min	3.5 min
Corrosive gas version				
Cooling method, optional	Water	Water	Water	Water
Cooling method, standard	Air	Air	Air	Air
Cooling water temperature	15-35 °C	15-35 °C	15-35 °C	15-35 °C
Cooling water consumption	50 l/h	50 l/h	50 l/h	50 l/h
Bearing	Hybrid	Hybrid	Hybrid	Hybrid
Particulate matter				
Sound pressure level	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)
Interfaces	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote
Protection category	IP 54	IP 54	IP 54	IP 54
Low vibrations	YES	YES	YES	
Permissible magnetic field max.	5.5 mT	5.5 mT	5.5 mT	5.5 mT
Order number pump	PM P03 980	PM P03 981	PM P03 982	PM P03 990

*Ultimate pressure please find description on page 272

HiPace® 300 with TC 110, DN 100 CF-F	HiPace® 300 with TC 110, DN 100 ISO-F	HiPace® 300 for TCP 350, DN 100 ISO-K	HiPace® 300 for TCP 350, DN 100 CF-F	HiPace® 300 for TCP 350, DN 100 ISO-F
DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"	DN 16 ISO-KF / G 1/4"
DN 100 CF-F	DN 100 ISO-F	DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-F
G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"
255 l/s	255 l/s	255 l/s	255 l/s	255 l/s
220 l/s	220 l/s	220 l/s	220 l/s	220 l/s
255 l/s	255 l/s	255 l/s	255 l/s	255 l/s
260 l/s	260 l/s	260 l/s	260 l/s	260 l/s
> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹
9 · 10 ⁵	9 · 10 ⁵	9 · 10 ⁵	9 · 10 ⁵	9 · 10 ⁵
> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸	> 1 · 10 ⁸
> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹	> 1 · 10 ¹¹
15 hPa	15 hPa	17 hPa	17 hPa	17 hPa
2 hPa l/s	2 hPa l/s	4 hPa l/s	4 hPa l/s	4 hPa l/s
> 14 hPa l/s	> 14 hPa l/s	> 14 hPa l/s	> 14 hPa l/s	> 14 hPa l/s
8 hPa l/s	8 hPa l/s	11 hPa l/s	11 hPa l/s	11 hPa l/s
5 hPa l/s	5 hPa l/s	7 hPa l/s	7 hPa l/s	7 hPa l/s
with TC 110	with TC 110	for TCP 350	for TCP 350	for TCP 350
		YES	YES	YES
24 (± 5 %) V DC	24 (± 5 %) V DC			
60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹	60000 min ⁻¹
35-100 %	35-100 %	35-100 %	35-100 %	35-100 %
in any orientation	in any orientation	in any orientation	in any orientation	in any orientation
< 5 · 10 ⁻¹⁰ hPa	< 1 · 10 ⁻⁷ hPa	< 1 · 10 ⁻⁷ hPa	< 5 · 10 ⁻¹⁰ hPa	< 1 · 10 ⁻⁷ hPa
8.2 kg	6.5 kg	5.8 kg	7.8 kg	6.1 kg
3.5 min	3.5 min	2.5 min	2.5 min	2.5 min
Water	Water	Air	Air	Air
Air	Air	Water	Water	Water
15-35 °C	15-35 °C	15-35 °C	15-35 °C	15-35 °C
50 l/h	50 l/h	50 l/h	50 l/h	50 l/h
Hybrid	Hybrid	Hybrid	Hybrid	Hybrid
≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)	≤ 50 dB (A)
RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote	RS-485, Remote
IP 54	IP 54	IP 54	IP 54	IP 54
5.5 mT	5.5 mT	5.5 mT	5.5 mT	5.5 mT
PM P03 991	PM P03 992	PM P03 993	PM P03 994	PM P03 995

Accessories	HiPace® 300 Plus with TC 110, DN 100 ISO-K	HiPace® 300 Plus with TC 110, DN 100 CF-F	HiPace® 300 Plus with TC 110, DN 100 ISO-F	HiPace® 300 with TC 110, DN 100 ISO-K	
Order number pump Pumpe	PM P03 980	PM P03 981	PM P03 982	PM P03 990	
Power supplies/power					
DCU - power supply with display control unit	PM C01 821	PM C01 821	PM C01 821	PM C01 821	
TPS - mains pack for wall/standard rail fitting	PM 061 341 -T	PM 061 341 -T	PM 061 341 -T	PM 061 341 -T	
TPS - mains pack 19" rack module 3 RU	PM 061 345 -T	PM 061 345 -T	PM 061 345 -T	PM 061 345 -T	
Control units					
DCU - Display Control Unit	PM 061 348 -T	PM 061 348 -T	PM 061 348 -T	PM 061 348 -T	
HPU - Handheld Programming Unit	PM 051 510 -T	PM 051 510 -T	PM 051 510 -T	PM 051 510 -T	
Accessories for HPU	PM 061 005 -T	PM 061 005 -T	PM 061 005 -T	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	P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA	
115 V AC mains cable with UL plug	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	
208 V AC mains cable with UL plug	P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF	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	PM 061 351 -T	PM 061 351 -T	PM 061 351 -T	
Connection cable for HiPace with TC 110 to power supply TPS/DCU 110/111/180/181	PM 061 350 -T	PM 061 350 -T	PM 061 350 -T	PM 061 350 -T	
Connection cable for HiPace with TC 400/TM 700 to power supply TPS/DCU 310/311/400/401					
TCP 350 - HiPace					
External drive units					
TCP 350					
TCP 350 PB - Profibus					
TCP 350 DN - DeviceNet					
Venting accessories					
Venting valve	PM Z01 290	PM Z01 290	PM Z01 290	PM Z01 290	
Air drier TTV 001	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	
Cooling accessories					
Air cooling	PM Z01 301	PM Z01 301	PM Z01 301	PM Z01 301	
Water cooling	PM 016 624 -T	PM 016 624 -T	PM 016 624 -T	PM 016 624 -T	
Heating accessories					
Heating jacket 230 V AC, Euro-style safety plug		PM 061 363 -T			
Heating jacket 208 V AC, UL plug		PM 061 364 -T			
Heating jacket 115 V AC, UL plug		PM 061 365 -T			
Backing pump control					
Backing pump relay box, shielded, 1-phase 20 A	PM 061 373 -T	PM 061 373 -T	PM 061 373 -T	PM 061 373 -T	
Backing pump relay box, shielded, 1-phase 7 A	PM 071 282 -X	PM 071 282 -X	PM 071 282 -X	PM 071 282 -X	
Control cable for pumping stations 0.7 m					
TVV 001 backing pump safety valve, 230 V AC	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	
TVV 001 backing pump safety valve, 115 V AC	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	
TCS 15 for controlling backing pumps	PM 061 685 -X	PM 061 685 -X	PM 061 685 -X	PM 061 685 -X	
HiPace-ACP connection cable	PM 071 142 -X	PM 071 142 -X	PM 071 142 -X	PM 071 142 -X	

HiPace® 300 with TC 110, DN 100 CF-F	HiPace® 300 with TC 110, DN 100 ISO-F	HiPace® 300 for TCP 350, DN 100 ISO-K	HiPace® 300 for TCP 350, DN 100 CF-F	HiPace® 300 for TCP 350, DN 100 ISO-F
PM P03 991	PM P03 992	PM P03 993	PM P03 994	PM P03 995
PM C01 821	PM C01 821			
PM 061 341 -T	PM 061 341 -T			
PM 061 345 -T	PM 061 345 -T			
PM 061 348 -T	PM 061 348 -T			
PM 051 510 -T	PM 051 510 -T			
PM 061 005 -T	PM 061 005 -T			
P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA	P 4564 309 ZA
P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE	P 4564 309 ZE
P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF	P 4564 309 ZF
PM 061 351 -T	PM 061 351 -T			
PM 061 350 -T	PM 061 350 -T			
		PM 061 356 -T	PM 061 356 -T	PM 061 356 -T
		PM C01 740	PM C01 740	PM C01 740
		PM C01 741	PM C01 741	PM C01 741
		PM C01 742	PM C01 742	PM C01 742
PM Z01 290	PM Z01 290	PM Z01 291	PM Z01 291	PM Z01 291
PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121	PM Z00 121
PM Z01 301	PM Z01 301	PM Z01 302	PM Z01 302	PM Z01 302
PM 016 624 -T	PM 016 624 -T			
PM 061 363 -T			PM 061 366 -T	
PM 061 364 -T			PM 061 367 -T	
PM 061 365 -T			PM 061 368 -T	
PM 061 373 -T	PM 061 373 -T	PM 061 375 -T	PM 061 375 -T	PM 061 375 -T
PM 071 282 -X	PM 071 282 -X	PM 071 284 -X	PM 071 284 -X	PM 071 284 -X
PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205	PM Z01 205
PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206	PM Z01 206
PM 061 685 -X	PM 061 685 -X			
PM 071 142 -X	PM 071 142 -X			

Accessories	HiPace® 300 Plus with TC 110, DN 100 ISO-K	HiPace® 300 Plus with TC 110, DN 100 CF-F	HiPace® 300 Plus with TC 110, DN 100 ISO-F	HiPace® 300 with TC 110, DN 100 ISO-K	
Order number pump Pumpe	PM P03 980	PM P03 981	PM P03 982	PM P03 990	
General accessories					
Sealing gas valve	PM Z01 311	PM Z01 311	PM Z01 311	PM Z01 311	
Sealing gas throttle	PM Z01 317	PM Z01 317	PM Z01 317	PM Z01 317	
Centering ring coated	PM 016 210 -U		PM 016 210 -U	PM 016 210 -U	
Centering ring coated with protection screen	PM 016 212 -U		PM 016 212 -U	PM 016 212 -U	
Centering ring coated with splinter shield	PM 016 211 -U		PM 016 211 -U	PM 016 211 -U	
Protection screen		PM 016 336			
Splinter shield		PM 016 315			
Vibration dampers	PM 006 459 -X	PM 006 488 -X		PM 006 459 -X	
Vibration isolator	PM 016 600 -U	PM 016 715 -U	PM 016 600 -U		
USB/RS-485-Converter	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	
Interface cable 3 m	PM 061 283 -T	PM 061 283 -T	PM 061 283 -T	PM 061 283 -T	
Y-connector M12 for RS-485	P 4723 010	P 4723 010	P 4723 010	P 4723 010	
Y-connector M12 for accessories					
Connection cable RJ 45 on M 12					
TCS 11, adapter for TC 110 with interface RS-485	PM 061 636 -U	PM 061 636 -U	PM 061 636 -U	PM 061 636 -U	
TCS 12, adapter for TC 110 with interface RS-485, 4 accessory ports	PM 061 638 -U	PM 061 638 -U	PM 061 638 -U	PM 061 638 -U	
Mounting materials					
Centering ring coated, bracket screws	PM 016 365 -T			PM 016 365 -T	
Centering ring coated with protection screen, bracket screws	PM 016 367 -T			PM 016 367 -T	
Centering ring coated with splinter shield, bracket screws	PM 016 366 -T			PM 016 366 -T	
Centering ring coated with hexagon bolts			PM 016 450 -T		
Centering ring coated with protection screen, hexagon bolts			PM 016 452 -T		
Centering ring coated with splinter shield, hexagon bolts			PM 016 451 -T		
Centering ring coated with stud screws			PM 016 455 -T		
Centering ring coated with protection screen with stud screws			PM 016 457 -T		
Centering ring coated with splinter shield with stud screws			PM 016 456 -T		
Set of hexagon screws for trough hole (CF-F)		PM 016 690 -T			
Set of stud screws for tapped hole (CF-F)		PM 016 692 -T			
Set of stud screws for trough hole (CF)		PM 016 734 -T			

HiPace® 300 with TC 110, DN 100 CF-F	HiPace® 300 with TC 110, DN 100 ISO-F	HiPace® 300 for TCP 350, DN 100 ISO-K	HiPace® 300 for TCP 350, DN 100 CF-F	HiPace® 300 for TCP 350, DN 100 ISO-F
PM P03 991	PM P03 992	PM P03 993	PM P03 994	PM P03 995
PM Z01 311	PM Z01 311	PM Z01 311 PM Z01 312	PM Z01 311 PM Z01 312	PM Z01 311 PM Z01 312
PM Z01 317	PM Z01 317	PM Z01 317	PM Z01 317	PM Z01 317
	PM 016 210 -U	PM 016 210 -U		PM 016 210 -U
	PM 016 212 -U	PM 016 212 -U		PM 016 212 -U
	PM 016 211 -U	PM 016 211 -U		PM 016 211 -U
PM 016 336			PM 016 336	
PM 016 315			PM 016 315	
PM 006 488 -X		PM 006 459 -X	PM 006 488 -X	
PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T	PM 061 207 -T
PM 061 283 -T	PM 061 283 -T			
P 4723 010	P 4723 010			
		PM 051 726 -T	PM 051 726 -T	PM 051 726 -T
PM 061 636 -U	PM 061 636 -U			
PM 061 638 -U	PM 061 638 -U			
		PM 016 365 -T		
		PM 016 367 -T		
		PM 016 366 -T		
	PM 016 450 -T			PM 016 450 -T
	PM 016 452 -T			PM 016 452 -T
	PM 016 451 -T			PM 016 451 -T
	PM 016 455 -T			PM 016 455 -T
	PM 016 457 -T			PM 016 457 -T
	PM 016 456 -T			PM 016 456 -T
PM 016 690 -T			PM 016 690 -T	
PM 016 692 -T			PM 016 692 -T	
PM 016 734 -T			PM 016 734 -T	