PFEIFFER VACUUM



HiCube™
Turbo Pumping Stations

The complete Solution for High Vacuum Applications:
The modular Pumping Station for clean Vacuum.

HiCube™ Turbo Pumping Stations

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Flexible. Compact. Versatile.

With the HiCube turbopumping stations, we have developed the perfect vacuum solution for your applications in the fields of research and development, accelerators, analytics and surface physics, as well as vacuum process technology and general vacuum applications.

Thanks to the modular design principle, we can offer you never-before-seen versatility with the new HiCube series that satisfies the widest range of requirements in the pumping speed range from 35 l/s to 685 l/s. Turbopump and backing pump are matched perfectly to one another: “Plug and Play” the way you want it.

What is HiCube?

What’s so special about the HiCube vacuum solution: The combination of a turbopump from the HiPace series and a backing pump designed for the user’s specific application needs. We offer you the new HiCube in Pro and Classic versions; available with dry compressing or oil-sealed backing pump and an ultimate pressure of up to $5 \cdot 10^{-10}$ mbar.

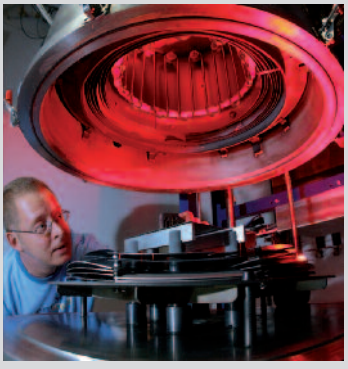
Thanks to their mobility, all HiCube pumping stations are the easiest way to generate high vacuum right where it’s needed. Its robust engineering and the ready-to-connect, fully automated pump unit assure the utmost in dependability.

Where are the advantages?

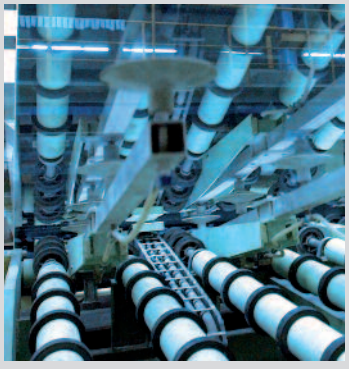
With HiPace, we offer you the latest turbopump technology in a compact pumping station. Your advantages include flexibility, high performance, long service life and trouble-free integration into your application. And with ISO-KF, ISO-K or CF-F options, we can offer you the matching flange versions.



Accelerators



Vacuum furnaces



Glass coater



Advantages at a glance

- Optimally inter-coordinated combination of turbopump and backing pump; for the widest range of applications
- Modular design affords simple customization for the application in question
- Service friendly, due to good accessibility of the individual components
- Integrated drive electronics; no additional control system needed
- “Plug and Play” – no installation or cabling required
- Robust engineering makes for long service life and high reliability
- Fore-vacuum safety valve (optional) prevents the recipient from venting in the event of a power failure
- Direct connection of vacuum gauges possible

HiCube™ Turbo Pumping Stations

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And for the most demanding requirements we can offer the HiCube Pro, a professional grade turbopumping station that is characterized by its fast pump-down times.

Are there additional advantages?

All connections are consolidated at the rear. In addition, the turbopump can easily be removed from the housing and connected to a chamber or system, as all of the individual components are easily accessible. And oil changes are simple to perform on the rotary vane pumps, without the need for any special tools or disassembly.

Moreover, with our rotary vane pumps PentaLine and the multi-stage Roots pumps ACP as well as the diaphragm pumps MVP we employ backing pumps that also afford you standby or interval mode operation. With this function, our pumping stations offer an energy-saving, quiet operation and a longer service life.

Last but not least!

The right solution for your application: The HiCube's modular concept stands for optimally inter-coordinated components and with the modular design principle we are able to satisfy even the most specific needs. Depending upon the application, all HiCube Classic and HiCube Pro pumping stations are also optionally available with water cooling and heating jacket.

Available as a version within the HiCube series that offers especially compact dimensions is the HiCube Eco with pumping speeds of 35 l/s to 67 l/s.

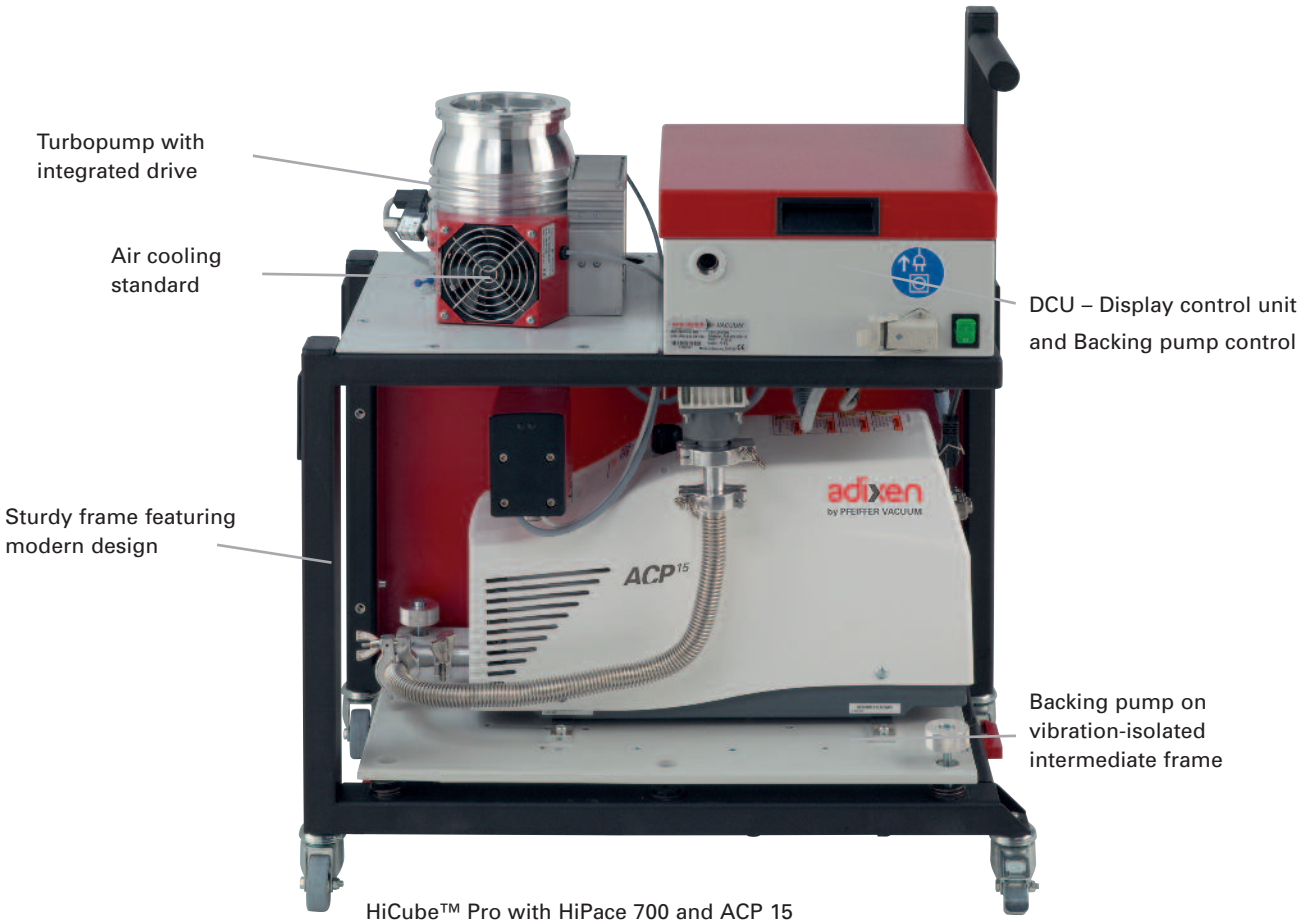
[1] Cable set and fore-vacuum line optionally available in 3, 5 and 10 m lengths



HiCube™ Classic



HiCube™ Pro



HiCube™ Pro with HiPace 700 and ACP 15

Scope of delivery

- Sturdy frame featuring modern design
- Turbopump with integrated drive
- Backing pump on vibration-isolated intermediate frame
- Modern worldwide power supply in accordance with applicable standards
- Backing pump control
- Electromagnetic venting valve
- DCU control unit
- Air cooling standard
- Oil filling (for rotary vane pumps)

HiCube™ Turbo pumping stations

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Comparison of pump-down times HiCube™ Classic

Pump-down time from 1,000 mbar to $1 \cdot 10^{-5}$ for vacuum chamber sizes of 10, 100 or 1,000 l.
(Calculated values at 50 Hz, run-up time not taken into account)

Turbopump	Backing pump	10 l	100 l	1,000 l
HiCube 80 Classic				
HiPace 80, DN 63	MVP 040	98 s	978 s	9,778 s
	MVP 070	59 s	594 s	5,941 s
	DUO 2.5	77 s	774 s	7,737 s
	DUO 5	43 s	426 s	4,257 s
HiCube 300 Classic				
HiPace 300	MVP 040	87 s	867 s	8,670 s
	MVP 070	50 s	499 s	4,992 s
	DUO 2.5	68 s	682 s	6,820 s
	DUO 5	35 s	350 s	3,500 s
HiCube 400 Classic				
HiPace 400	MVP 040	83 s	–	–
	MVP 070	48 s	485 s	4,847 s
	DUO 2.5	67 s	669 s	6,691 s
	DUO 5	34 s	342 s	3,416 s
HiCube 700 Classic				
HiPace 700	MVP 040	82 s	–	–
	MVP 070	47 s	474 s	4,743 s
	DUO 2.5	65 s	653 s	6,534 s
	DUO 5	33 s	332 s	3,317 s

Comparison of pump-down times HiCube™ Pro

Pump-down time from 1,000 mbar to $1 \cdot 10^{-5}$ for vacuum chamber sizes of 10, 100 or 1,000 l.
(Calculated values at 50 Hz, run-up time not taken into account)

Turbopump	Backing pump	10 l	100 l	1,000 l
HiCube 80 Pro				
HiPace 80, DN 63	ACP 15	21 s	208 s	2,079 s
	ACP 28	12 s	116 s	1,161 s
	Penta 20	13 s	134 s	1,339 s
	Penta 35	10 s	99 s	990 s
HiCube 300 Pro				
HiPace 300	ACP 15	18 s	178 s	1,780 s
	ACP 28	9 s	91 s	913 s
	Penta 20	9 s	93 s	934 s
	Penta 35	7 s	66 s	663 s
HiCube 400 Pro				
HiPace 400	ACP 15	18 s	175 s	1,751 s
	ACP 28	9 s	89 s	892 s
	Penta 20	9 s	90 s	898 s
	Penta 35	6 s	64 s	644 s
HiCube 700 Pro				
HiPace 700	ACP 15	17 s	169 s	1,692 s
	ACP 28	8 s	84 s	836 s
	Penta 20	8 s	84 s	838 s
	Penta 35	6 s	58 s	582 s

HiCube™ Classic

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Technical data

Pumping station			HiCube 80 Classic	
Flange (in)		DN 40 ISO-KF	DN 63 ISO-K	DN 63 CF-F
Pumping speed for Nitrogen N_2	l/s	35	67	67
Ultimate pressure				
with Rotary vane pump DuoLine	mbar	$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$
with Diaphragm pump MVP	mbar	$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-8}$
Pumping speed backing pump at 50 Hz				
Diaphragm pump MVP 040	m³/h	2.3	2.3	2.3
Diaphragm pump MVP 070	m³/h	3.8	3.8	3.8
Rotary vane pump Duo 2.5	m³/h	2.5	2.5	2.5
Rotary vane pump Duo 5 M	m³/h	5	5	5
Weight pumping station:[1)]				
with Diaphragm pump MVP 040	kg	36.4	36.4	37.8
with Diaphragm pump MVP 070	kg	41.4	41.4	42.8
with Rotary vane pump Duo 2.5	kg	35.5	35.5	36.9
with Rotary vane pump Duo 5 M	kg	44.0	44.0	45.4
Power consumption				
with Diaphragm pump MVP 040	W	290	290	290
with Diaphragm pump MVP 070	W	360	360	360
with Rotary vane pump Duo 2.5	W	270	270	270
with Rotary vane pump Duo 5 M	W	360	360	360

Ultimate pressure in a measuring dome 48 hours after bake-out, can be attained only with metallic seal of the high vacuum flange. (Ultimate pressure with elastomer seal (standard, not bakeable): $< 1 \cdot 10^{-7}$ mbar.)

[1)] without fore-vacuum safety valve

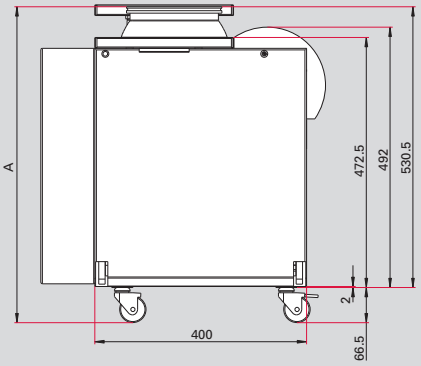


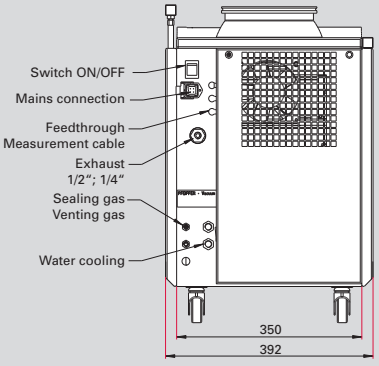
HiCube 300 Classic		HiCube 400 Classic		HiCube 700 Classic	
DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-K	DN 100 CF-F	DN 160 ISO-K	DN 160 CF-F
260	260	355	355	685	685
$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$
$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-8}$	$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-8}$	$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-8}$
2.3	2.3	–	–	–	–
3.8	3.8	3.8	3.8	3.8	3.8
2.5	2.5	2.5	2.5	2.5	2.5
5	5	5	5	5	5
41.2	43.2	–	–	–	–
46.2	48.2	51.6	57.5	52.0	57.9
40.3	42.3	45.7	51.6	46.1	52.0
48.8	50.8	54.2	60.1	54.6	60.5
480	480	–	–	–	–
550	550	670	670	670	670
460	460	580	580	580	580
550	550	670	670	670	670

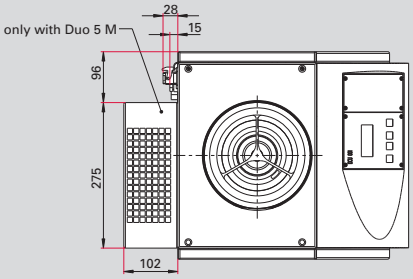
HiCube™ Classic

The complete Solution for High Vacuum Applications:
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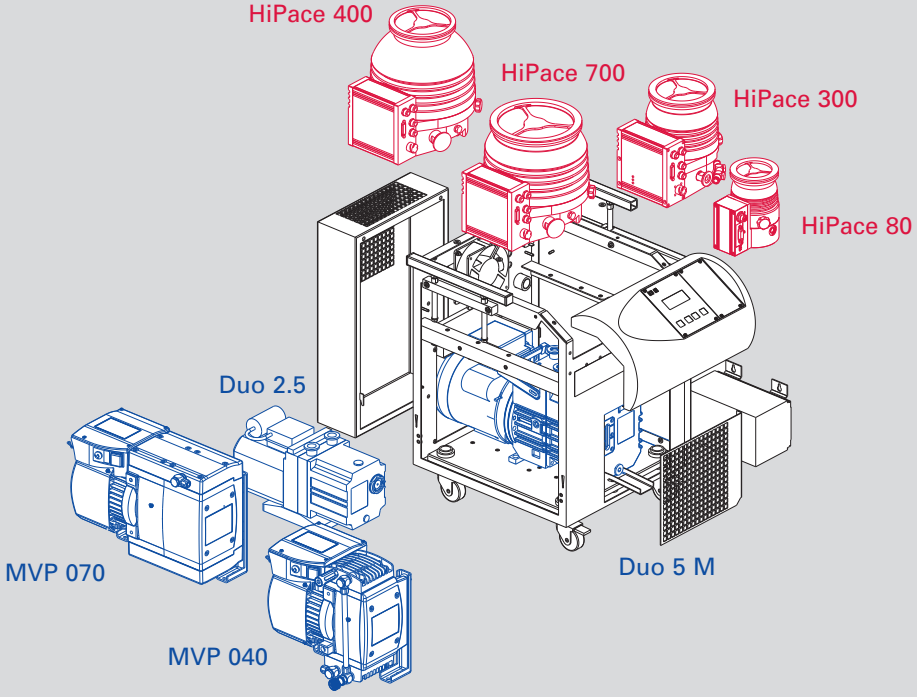
Dimensions







Turbopump	A
HiPace 80 DN 40 ISO-KF	590
HiPace 80 DN 63 ISO-K	581
HiPace 80 DN 63 CF-F	587
HiPace 300 DN 100 ISO-KF	580
HiPace 300 DN 100 CF-F	592
HiPace 400 DN 100 ISO-KF	624
HiPace 400 DN 100 CF-F	624
HiPace 700 DN 160 ISO-KF	597
HiPace 700 DN 160 CF-F	609



Order matrix HiCube Classic

Order number
PM S aa bb c d e

						aa
Trubopump	TC 110	HiPace 80	DN 40 ISO-KF			20
		HiPace 80	DN 63 ISO-K			21
		HiPace 80	DN 63 CF-F			22
	TC 400	HiPace 300	DN 100 ISO-K			23
		HiPace 300	DN 100 CF-F			24
		HiPace 400	DN 100 ISO-K			25
		HiPace 400	DN 100 CF-F			26
		HiPace 700	DN 160 ISO-K			27
		HiPace 700	DN 160 CF-F			28

					bb
Diaphragm pump	MVP 040	110 V AC	60 Hz		22
	MVP 040	230 V AC	50/60 Hz		23
	MVP 070	110 V AC	60 Hz		24
	MVP 070	230 V AC	50/60 Hz		25
	MVP 040	110 V AC	60 Hz	with TVV 001[1)]	28
	MVP 040	230 V AC	50/60 Hz	with TVV 001[1)]	29
	MVP 070	110 V AC	60 Hz	with TVV 001[1)]	30
	MVP 070	230 V AC	50/60 Hz	with TVV 001[1)]	31
Rotary vane pump	Duo 2.5	110 V AC	50/60 Hz		32
	Duo 2.5	230 V AC	50/60 Hz		33
	Duo 5 M	110 V AC	50/60 Hz		34
	Duo 5 M	230 V AC	50/60 Hz		35
	Duo 2.5	110 V AC	50/60 Hz	with AVC 016[1)]	36
	Duo 2.5	230 V AC	50/60 Hz	with AVC 016[1)]	37
	Duo 5 M	110 V AC	50/60 Hz	with AVC 016[1)]	38
	Duo 5 M	230 V AC	50/60 Hz	with AVC 016[1)]	39

[1)] Fore-vacuum safety valve

			c/d/e
Options	General	Standard, on rubber feet	0
		On rollers, 4 guiding rollers, 2 brakes	1
		Air drier TTV 001, with connectin to the venting valve	2
		On rollers + air drier TTV 001	3
	Cable	Standard (without cable set for external use)	0
		Cable set and fore-vacuum line 3 m (for external use of the turbopump)	1
		Cable set and fore-vacuum line 5 m (for external use of the turbopump)	2
		Cable set and fore-vacuum line 10 m (for external use of the turbopump)	3
	Cooling	Standard, air cooling	0
		Water cooling	1
		Water cooling + heating jacket	2

HiCube™ Classic

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Order numbers

Backing pump	Turbopump	HiPace 80		
		DN 40 ISO-KF	DN 63 ISO-K	DN 63 CF-F
MVP 040; 110 V AC, 60 Hz	PM S	20 22 000	21 22 000	22 22 000
MVP 040; 230 V AC, 50/60 Hz	PM S	20 23 000	21 23 000	22 23 000
MVP 070; 110 V AC, 60 Hz	PM S	20 24 000	21 24 000	22 24 000
MVP 070; 230 V AC, 50/60 Hz	PM S	20 25 000	21 25 000	22 25 000
MVP 040; with TVV 001; 110 V AC, 60 Hz	PM S	20 28 000	21 28 000	22 28 000
MVP 040; with TVV 001; 230 V AC, 50/60 Hz	PM S	20 29 000	21 29 000	22 29 000
MVP 070; with TVV 001; 110 V AC, 60 Hz	PM S	20 30 000	21 30 000	22 30 000
MVP 070; with TVV 001; 230 V AC, 50/60 Hz	PM S	20 31 000	21 31 000	22 31 000
Duo 2.5; 110 V AC, 50/60 Hz	PM S	20 32 000	21 32 000	22 32 000
Duo 2.5; 230 V AC, 50/60 Hz	PM S	20 33 000	21 33 000	22 33 000
Duo 5 M; 110 V AC, 50/60 Hz	PM S	20 34 000	21 34 000	22 34 000
Duo 5 M; 230 V AC, 50/60 Hz	PM S	20 35 000	21 35 000	22 35 000
Duo 2.5; with AVC 016 MA; 110 V AC, 50/60 Hz	PM S	20 36 000	21 36 000	22 36 000
Duo 2.5; with AVC 016 MA; 230 V AC, 50/60 Hz	PM S	20 37 000	21 37 000	22 37 000
Duo 5 M; with AVC 016 MA; 110 V AC, 50/60 Hz	PM S	20 38 000	21 38 000	22 38 000
Duo 5 M; with AVC 016 MA; 230 V AC, 50/60 Hz	PM S	20 39 000	21 39 000	22 39 000

Options	Order numbers
Standard, on rubber feet	PM S aa bb 0de
On rollers, 4 guiding rollers, 2 brakes	PM S aa bb 1de
Air drier TTV 001, with connectin to the venting valve	PM S aa bb 2de
On rollers + air drier TTV 001	PM S aa bb 3de
Standard (without cable set for external use)	PM S aa bb c0e
Cable set and fore-vacuum line 3 m (for external use of the turbopump)	PM S aa bb c1e
Cable set and fore-vacuum line 5 m (for external use of the turbopump)	PM S aa bb c2e
Cable set and fore-vacuum line 10 m (for external use of the turbopump)	PM S aa bb c3e
Standard, air cooling	PM S aa bb cd0
Water cooling	PM S aa bb cd1
Water cooling + heating jacket	PM S aa bb cd2

HiPace 300		HiPace 400		HiPace 700	
DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-K	DN 100 CF-F	DN 160 ISO-K	DN 160 CF-F
23 22 000	24 22 000	–	–	–	–
23 23 000	24 23 000	–	–	–	–
23 24 000	24 24 000	25 24 000	26 24 000	27 24 000	28 24 000
23 25 000	24 25 000	25 25 000	26 25 000	27 25 000	28 25 000
23 28 000	24 28 000	–	–	–	–
23 29 000	24 29 000	–	–	–	–
23 30 000	24 30 000	25 30 000	26 30 000	27 30 000	28 30 000
23 31 000	24 31 000	25 31 000	26 31 000	27 31 000	28 31 000
23 32 000	24 32 000	25 32 000	26 32 000	27 32 000	28 32 000
23 33 000	24 33 000	25 33 000	26 33 000	27 33 000	28 33 000
23 34 000	24 34 000	25 34 000	26 34 000	27 34 000	28 34 000
23 35 000	24 35 000	25 35 000	26 35 000	27 35 000	28 35 000
23 36 000	24 36 000	25 36 000	26 36 000	27 36 000	28 36 000
23 37 000	24 37 000	25 37 000	26 37 000	27 37 000	28 37 000
23 38 000	24 38 000	25 38 000	26 38 000	27 38 000	28 38 000
23 39 000	24 39 000	25 39 000	26 39 000	27 39 000	28 39 000

HiCube™ Pro

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Technical data

Pumping station			HiCube 80 Pro	
Flange (in)		DN 40 ISO-KF	DN 63 ISO-K	DN 63 CF-F
Pumping speed for Nitrogen N_2	l/s	35	67	67
Ultimate pressure				
with Multi-stage Roots pump ACP	mbar	$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$
with Rotary vane pump PentaLine	mbar	$< 1 \cdot 10^{-7}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$
Pumping speed backing pump at 50 Hz				
Multi-stage Roots pump ACP 15	m³/h	14	14	14
Multi-stage Roots pump ACP 28	m³/h	27	27	27
Rotary vane pump Penta 20	m³/h	22	22	22
Rotary vane pump Penta 35	m³/h	34	34	34
Weight pumping station:[1)]				
with Multi-stage Roots pump ACP 15	kg	60.2	60.2	61.6
with Multi-stage Roots pump ACP 28	kg	69.2	69.2	70.6
with Rotary vane pump Penta 20	kg	82.2	82.2	83.6
with Rotary vane pump Penta 35	kg	84.2	84.2	85.6
Power consumption				
with Multi-stage Roots pump ACP 15	W	660	660	660
with Multi-stage Roots pump ACP 28	W	1,160	1,160	1,160
with Rotary vane pump Penta 20	W	1,100	1,100	1,100
with Rotary vane pump Penta 35	W	1,585	1,585	1,585

Ultimate pressure in a measuring dome 48 hours after bake-out, can be attained only with metallic seal of the high vacuum flange. (Ultimate pressure with elastomer seal (standard, not bakeable): $< 1 \cdot 10^{-7}$ mbar.)

[1)] without fore-vacuum safety valve

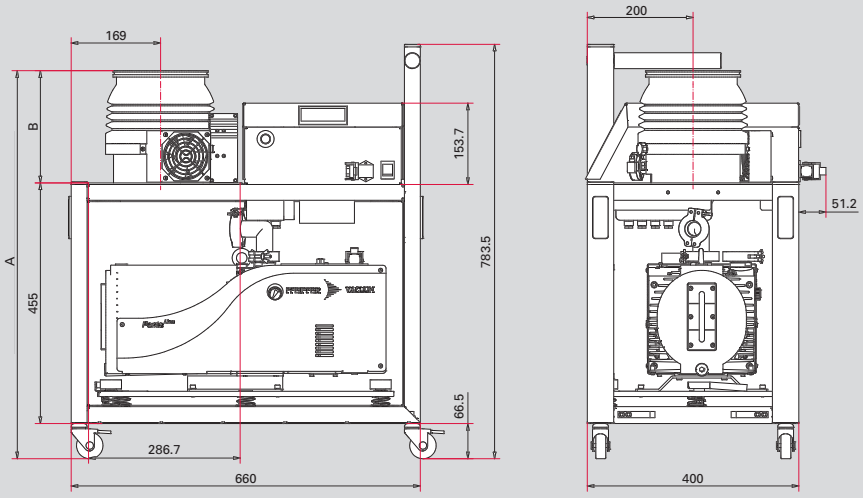


HiCube 300 Pro		HiCube 400 Pro		HiCube 700 Pro	
DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-K	DN 100 CF-F	DN 160 ISO-K	DN 160 CF-F
260	260	355	355	685	685
$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$
$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$	$< 1 \cdot 10^{-7}$	$< 5 \cdot 10^{-10}$
14	14	14	14	14	14
27	27	27	27	27	27
22	22	22	22	22	22
34	34	34	34	34	34
65.0	67.0	70.4	76.3	70.8	76.7
74.0	76.0	79.4	85.3	79.8	85.7
87.0	89.0	92.4	98.3	92.8	98.7
89.0	91.0	94.4	100.3	94.8	100.7
850	850	970	970	970	970
1,350	1,350	1,910	1,910	1,910	1,910
1,290	1,290	1,410	1,410	1,410	1,410
1,775	1,775	1,895	1,895	1,895	1,895

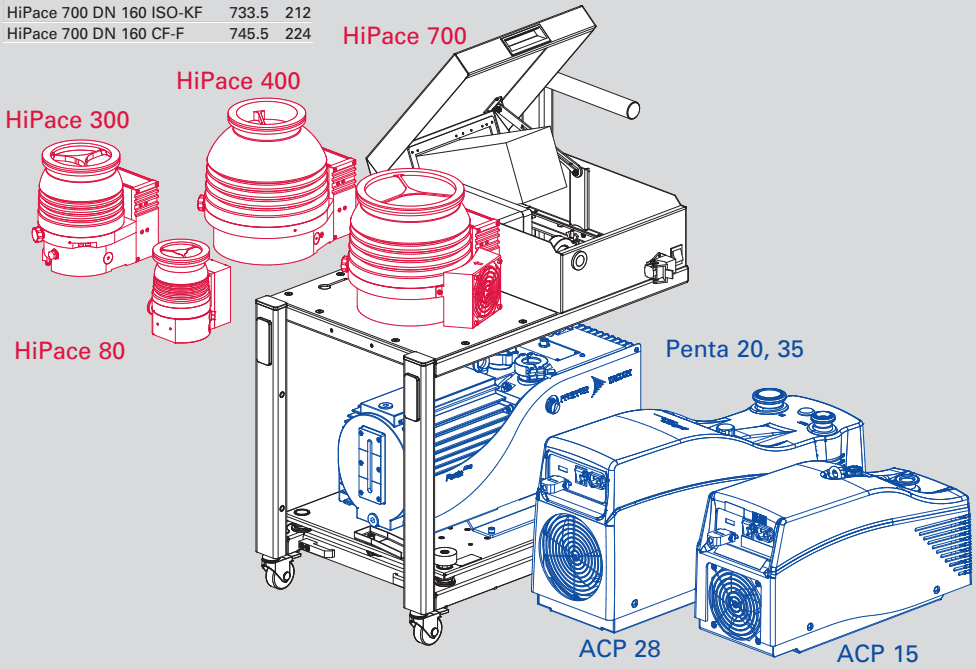
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Dimensions



Turbopump	A	B
HiPace 80 DN 40 ISO-KF	679.5	158
HiPace 80 DN 63 ISO-K	670.5	149
HiPace 80 DN 63 CF-F	676.5	155
HiPace 300 DN 100 ISO-KF	716.5	195
HiPace 300 DN 100 CF-F	728.5	207
HiPace 400 DN 100 ISO-KF	760.5	239
HiPace 400 DN 100 CF-F	760.5	239
HiPace 700 DN 160 ISO-KF	733.5	212
HiPace 700 DN 160 CF-F	745.5	224



Order matrix HiCube Pro

Order number
PM S aa bb c d e

						aa
Trubopump	TC 110	HiPace 80	DN 40 ISO-KF			40
		HiPace 80	DN 63 ISO-K			41
		HiPace 80	DN 63 CF-F			42
	TC 400	HiPace 300	DN 100 ISO-K			43
		HiPace 300	DN 100 CF-F			44
		HiPace 400	DN 100 ISO-K			45
		HiPace 400	DN 100 CF-F			46
		HiPace 700	DN 160 ISO-K			47
		HiPace 700	DN 160 CF-F			48

					bb
Rotary vane pump	Penta 20	110 V AC	50/60 Hz		48
	Penta 20	230 V AC	50/60 Hz		49
	Penta 35	110 V AC	50/60 Hz		50
	Penta 35	230 V AC	50/60 Hz		51
	Penta 20	110 V AC	50/60 Hz	with AVC 025 MA[1)]	54
	Penta 20	230 V AC	50/60 Hz	with AVC 025 MA[1)]	55
	Penta 35	110 V AC	50/60 Hz	with AVC 025 MA[1)]	56
	Penta 35	230 V AC	50/60 Hz	with AVC 025 MA[1)]	57
Multi-stage Roots pump	ACP 15	230 V AC	50/60 Hz	with AVC 025 MA[1)]	58
	ACP 15	110 V AC	50/60 Hz	with AVC 025 MA[1)]	59
	ACP 28	230 V AC	50/60 Hz	with AVC 025 MA[1)]	60
	ACP 28	110 V AC	50/60 Hz	with AVC 025 MA[1)]	61

[1)] Fore-vacuum safety valve

			c/d/e
Options	General	Standard, 4 rollers	0
		4 rollers, venting valve	1
		4 rollers, venting valve, air drier TTV 001, with connection to the venting valve	2
		4 rollers, oil mit filter (ONF)	3
		4 rollers, venting valve, oil mist filter (ONF)	4
		4 rollers, venting valve, air drier TTV 001, with connection to the venting valve, oil mist filter (ONF)	5
	Cable	Standard (without cable set for external use)	0
		Cable set and fore-vacuum line 3 m (for external use of the turbopump)	1
		Cable set and fore-vacuum line 5 m (for external use of the turbopump)	2
		Cable set and fore-vacuum line 10 m (for external use of the turbopump)	3
	Cooling	Standard, air cooling	0
		Water cooling	1
		Water cooling + heating jacket	2

HiCube™ Pro

The complete Solution for High Vacuum Applications:
The modular Pumping Station for clean Vacuum.

Order numbers

Backing pump	Turbopump	HiPace 80		
		DN 40 ISO-KF	DN 63 ISO-K	DN 63 CF-F
Penta 20; 110 V AC, 50/60 Hz	PM S	40 48 000	41 48 000	42 48 000
Penta 20; 230 V AC, 50/60 Hz	PM S	40 49 000	41 49 000	42 49 000
Penta 35; 110 V AC, 50/60 Hz	PM S	40 50 000	41 50 000	42 50 000
Penta 35; 230 V AC, 50/60 Hz	PM S	40 51 000	41 51 000	42 51 000
Penta 20; with AVC 025 MA; 110 V AC, 50/60 Hz	PM S	40 54 000	41 54 000	42 54 000
Penta 20; with AVC 025 MA; 230 V AC, 50/60 Hz	PM S	40 55 000	41 55 000	42 55 000
Penta 35; with AVC 025 MA; 110 V AC, 50/60 Hz	PM S	40 56 000	41 56 000	42 56 000
Penta 35; with AVC 025 MA; 230 V AC, 50/60 Hz	PM S	40 57 000	41 57 000	42 57 000
ACP 15; with AVC 025 MA; 230 V AC, 50/60 Hz	PM S	40 58 000	41 58 000	42 58 000
ACP 15; with AVC 025 MA; 110 V AC, 50/60 Hz	PM S	40 59 000	41 59 000	42 59 000
ACP 28; with AVC 025 MA; 230 V AC, 50/60 Hz	PM S	40 60 000	41 60 000	42 60 000
ACP 28; with AVC 025 MA; 110 V AC, 50/60 Hz	PM S	40 61 000	41 61 000	42 61 000

Options	Order numbers
Standard, 4 rollers	PM S aa bb 0de
4 rollers, venting valve	PM S aa bb 1de
4 rollers, venting valve, air drier TTV 001, with connection to the venting valve	PM S aa bb 2de
4 rollers, oil mist filter (ONF)	PM S aa bb 3de
4 rollers, venting valve, oil mist filter (ONF)	PM S aa bb 4de
4 rollers, venting valve, air drier TTV 001, with connection to the venting valve, oil mist filter (ONF)	PM S aa bb 5de
Standard (without cable set for external use)	PM S aa bb c0e
Cable set and fore-vacuum line 3 m (for external use of the turbopump)	PM S aa bb c1e
Cable set and fore-vacuum line 5 m (for external use of the turbopump)	PM S aa bb c2e
Cable set and fore-vacuum line 10 m (for external use of the turbopump)	PM S aa bb c3e
Standard, air cooling	PM S aa bb cd0
Water cooling	PM S aa bb cd1
Water cooling + heating jacket	PM S aa bb cd2

HiPace 300		HiPace 400		HiPace 700	
DN 100 ISO-K	DN 100 CF-F	DN 100 ISO-K	DN 100 CF-F	DN 160 ISO-K	DN 160 CF-F
43 48 000	44 48 000	45 48 000	46 48 000	47 48 000	48 48 000
43 49 000	44 49 000	45 49 000	46 49 000	47 49 000	48 49 000
43 50 000	44 50 000	45 50 000	46 50 000	47 50 000	48 50 000
43 51 000	44 51 000	45 51 000	46 51 000	47 51 000	48 51 000
43 54 000	44 54 000	45 54 000	46 54 000	47 54 000	48 54 000
43 55 000	44 55 000	45 55 000	46 55 000	47 55 000	48 55 000
43 56 000	44 56 000	45 56 000	46 56 000	47 56 000	48 56 000
43 57 000	44 57 000	45 57 000	46 57 000	47 57 000	48 57 000
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43 59 000	44 59 000	45 59 000	46 59 000	47 59 000	48 59 000
43 60 000	44 60 000	45 60 000	46 60 000	47 60 000	48 60 000
43 61 000	44 61 000	45 61 000	46 61 000	47 61 000	48 61 000

PFEIFFER VACUUM

Leading. Dependable. Customer Friendly.

Pfeiffer Vacuum stands for innovative and custom vacuum solutions worldwide, for German engineering art, competent advice and reliable service.

Ever since the invention of the turbopump, we've been setting standards in our industry and this claim to leadership will continue to drive us in the future.

Are you looking for a perfect vacuum solution? Please contact us:

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All data subject to change without prior notice. PT 0130 PE (September 2011/20)