



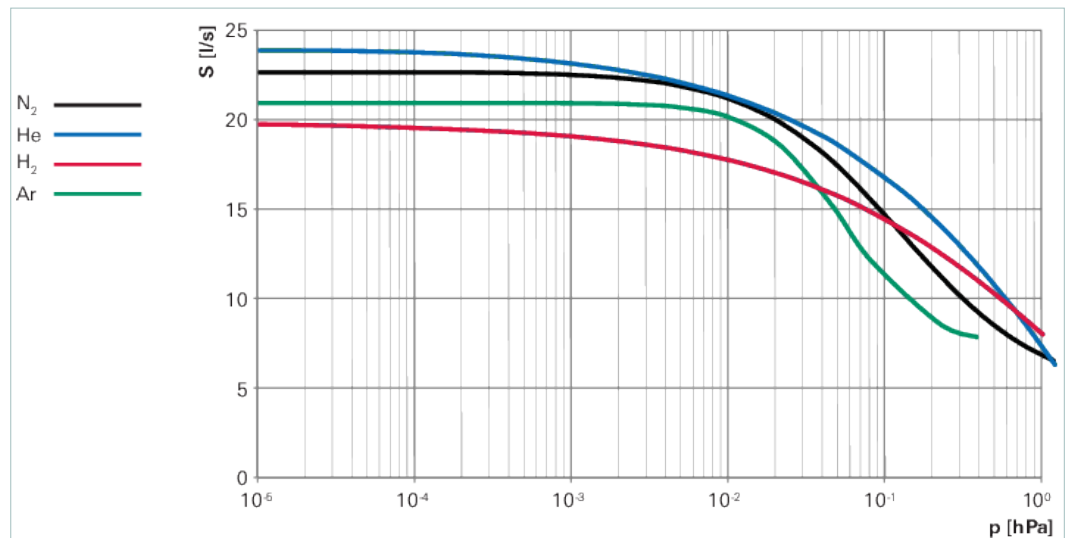
# HiPace<sup>®</sup> 30 with TC 110



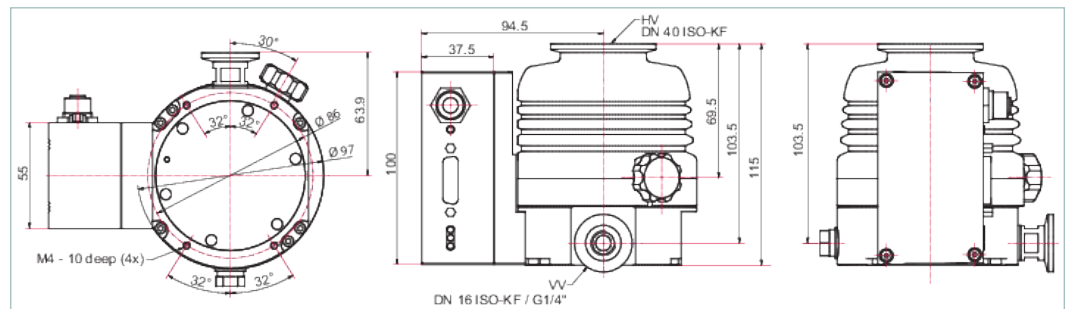
Similar Image

## HiPace® 30 with TC 110, DN 40 ISO-KF

- Small yet powerful turbopump with a pumping speed of up to 32 l/s for N<sub>2</sub>
- Highest compression in this pumping speed class
- Simple integration into small analytical systems
- Low weight, ideal for portable applications
- Long maintenance intervals for a long life cycle
- For installation in any orientation
- Integrated TC 110 drive electronics
- Extensive accessories expand the range of applications



### Dimensions



Technical Data	HiPace® 30 with TC 110, DN 40 ISO-KF
Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H <sub>2</sub>	$3 \cdot 10^5$
Compression ratio for He	$3 \cdot 10^7$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^{11}$
Cooling method, optional	Air/Water
Cooling method, standard	Convection
Cooling water flow	75 l/h
Cooling water flow, max	75 l/h
Cooling water flow, min	75 l/h
Cooling water temperature	5-25 °C   41-77 °F   278-298 K
Current max.	5 A
Electronic drive unit	TC 110

Technical Data	HiPace® 30 with TC 110, DN 40 ISO-KF
Flange (in)	DN 40 ISO-KF
Flange (out)	DN 16 ISO-KF/G ¼"
Fore-vacuum max. for N <sub>2</sub>	24 hPa   18 Torr   24 mbar
Gas throughput at full rotational speed for Ar	0.22 hPa·l/s
Gas throughput at full rotational speed for H <sub>2</sub>	10 hPa·l/s
Gas throughput at full rotational speed for He	1.84 hPa·l/s
Gas throughput at full rotational speed for N <sub>2</sub>	0.66 hPa·l/s
I/O interfaces	RS-485, Remote
Mounting orientation	Any
Permissible radial magnetic field max.	3 mT
Power consumption max.	80 W
Protection category	IP54
Pumping speed for Ar	20 l/s
Pumping speed for H <sub>2</sub>	19 l/s
Pumping speed for He	23 l/s
Pumping speed for N <sub>2</sub>	22 l/s
Rotation speed ± 2 %	90,000 rpm   90,000 min <sup>-1</sup>
Rotation speed variable	50 – 100 %
Run-up time	1.7 min
Sound pressure level	≤48 dB(A)
Ultimate pressure without gas ballast	< 1 · 10 <sup>-7</sup> hPa   < 7.5 · 10 <sup>-8</sup> Torr   < 1 · 10 <sup>-7</sup> mbar
Venting connection	G 1/8"
Weight	2 kg   4.41 lb

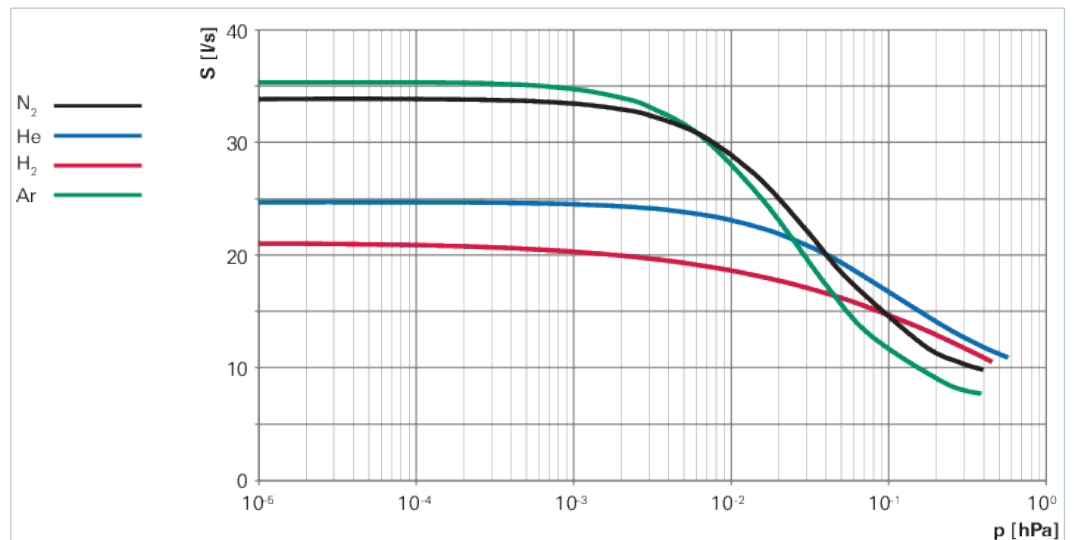
Order number	
HiPace® 30	PM P05 282



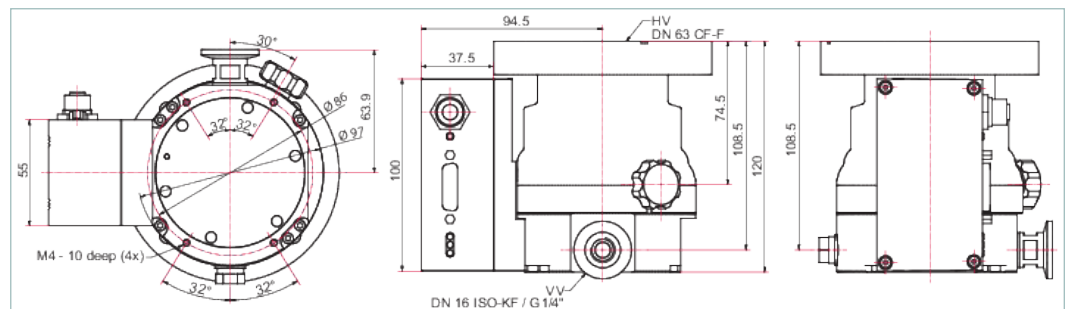
Similar Image

## HiPace® 30 with TC 110, DN 63 CF-F

- Small yet powerful turbopump with a pumping speed of up to 32 l/s for N<sub>2</sub>
- Highest compression in this pumping speed class
- Simple integration into small analytical systems
- Low weight, ideal for portable applications
- Long maintenance intervals for a long life cycle
- For installation in any orientation
- Integrated TC 110 drive electronics
- Extensive accessories expand the range of applications



### Dimensions



Technical Data	HiPace® 30 with TC 110, DN 63 CF-F
Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H <sub>2</sub>	$3 \cdot 10^5$
Compression ratio for He	$3 \cdot 10^7$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^{11}$
Cooling method, optional	Air/Water
Cooling method, standard	Convection
Cooling water flow	75 l/h
Cooling water flow, max	75 l/h
Cooling water flow, min	75 l/h
Cooling water temperature	5-25 °C   41-77 °F   278-298 K
Current max.	5 A
Electronic drive unit	TC 110

Technical Data	HiPace® 30 with TC 110, DN 63 CF-F
Flange (in)	DN 63 CF-F
Flange (out)	DN 16 ISO-KF/G ¼"
Fore-vacuum max. for N <sub>2</sub>	24 hPa   18 Torr   24 mbar
Gas throughput at full rotational speed for Ar	0.22 hPa·l/s
Gas throughput at full rotational speed for H <sub>2</sub>	10 hPa·l/s
Gas throughput at full rotational speed for He	1.84 hPa·l/s
Gas throughput at full rotational speed for N <sub>2</sub>	0.66 hPa·l/s
I/O interfaces	RS-485, Remote
Mounting orientation	Any
Permissible radial magnetic field max.	3 mT
Power consumption max.	80 W
Protection category	IP54
Pumping speed for Ar	32 l/s
Pumping speed for H <sub>2</sub>	20 l/s
Pumping speed for He	24 l/s
Pumping speed for N <sub>2</sub>	32 l/s
Rotation speed ± 2 %	90,000 rpm   90,000 min <sup>-1</sup>
Rotation speed variable	50 – 100 %
Run-up time	1.7 min
Sound pressure level	≤48 dB(A)
Ultimate pressure without gas ballast	< 5 · 10 <sup>-10</sup> hPa   < 3.75 · 10 <sup>-10</sup> Torr   < 5 · 10 <sup>-10</sup> mbar
Venting connection	G 1/8"
Weight	3.2 kg   7.05 lb

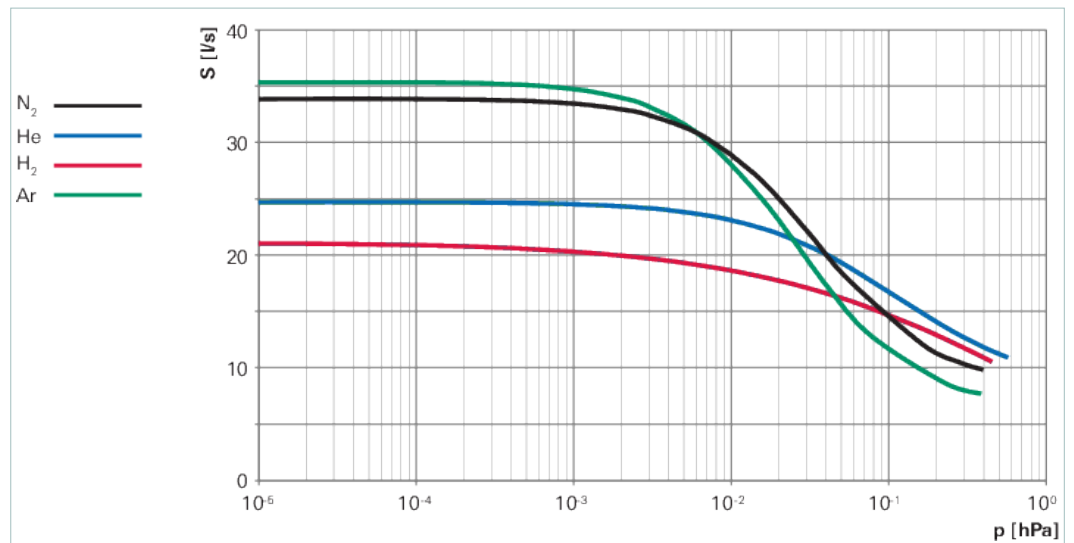
Order number	
HiPace® 30	PM P05 281



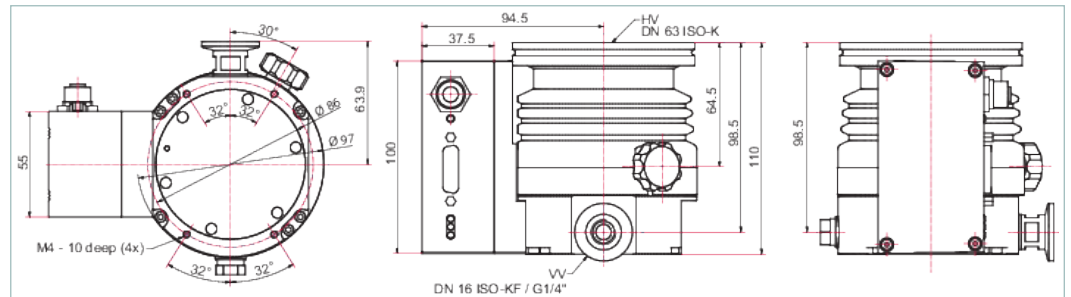
Similar Image

## HiPace® 30 with TC 110, DN 63 ISO-K

- Small yet powerful turbopump with a pumping speed of up to 32 l/s for N<sub>2</sub>
- Highest compression in this pumping speed class
- Simple integration into small analytical systems
- Low weight, ideal for portable applications
- Long maintenance intervals for a long life cycle
- For installation in any orientation
- Integrated TC 110 drive electronics
- Extensive accessories expand the range of applications



### Dimensions



### Technical Data

Technical Data	HiPace® 30 with TC 110, DN 63 ISO-K
Bearing	Hybrid
Compression ratio for Ar	$> 1 \cdot 10^{11}$
Compression ratio for H <sub>2</sub>	$3 \cdot 10^5$
Compression ratio for He	$3 \cdot 10^7$
Compression ratio for N <sub>2</sub>	$> 1 \cdot 10^{11}$
Cooling method, optional	Air/Water
Cooling method, standard	Convection
Cooling water flow	75 l/h
Cooling water flow, max	75 l/h
Cooling water flow, min	75 l/h
Cooling water temperature	5-25 °C   41-77 °F   278-298 K
Current max.	5 A
Electronic drive unit	TC 110

Technical Data	HiPace® 30 with TC 110, DN 63 ISO-K
Flange (in)	DN 63 ISO-K
Flange (out)	DN 16 ISO-KF/G ¼"
Fore-vacuum max. for N <sub>2</sub>	24 hPa   18 Torr   24 mbar
Gas throughput at full rotational speed for Ar	0.22 hPa·l/s
Gas throughput at full rotational speed for H <sub>2</sub>	10 hPa·l/s
Gas throughput at full rotational speed for He	1.84 hPa·l/s
Gas throughput at full rotational speed for N <sub>2</sub>	0.66 hPa·l/s
I/O interfaces	RS-485, Remote
Mounting orientation	Any
Permissible radial magnetic field max.	3 mT
Power consumption max.	80 W
Protection category	IP54
Pumping speed for Ar	32 l/s
Pumping speed for H <sub>2</sub>	20 l/s
Pumping speed for He	24 l/s
Pumping speed for N <sub>2</sub>	32 l/s
Rotation speed ± 2 %	90,000 rpm   90,000 min <sup>-1</sup>
Rotation speed variable	50 – 100 %
Run-up time	1.7 min
Sound pressure level	≤48 dB(A)
Ultimate pressure without gas ballast	< 1 · 10 <sup>-7</sup> hPa   < 7.5 · 10 <sup>-8</sup> Torr   < 1 · 10 <sup>-7</sup> mbar
Venting connection	G 1/8"
Weight	2 kg   4.41 lb

Order number	
HiPace® 30	PM P05 280

<b>Accessories</b>	
<b>Adapters (electrical) Remote</b>	
Enclosure for plug, spraywater-protected, 15-pole, D-Sub	<b>P 0998 016</b>
TCS 11, adapter for TC 110/120 with RS-485 interface	<b>PM 061 636 -U</b>
TCS 12, adapter for TC 110/120 with interface RS-485, 4 accessory ports and coupling set	<b>PM 061 638 -U</b>
TCS 13, adapter for TC 110/120 with interface RS-485, 2 accessory ports and coupling set	<b>PM 061 856 -U</b>
TCS 17 for control of backing pumps	<b>PM 071 093 -U</b>
<b>Adapters (electrical) RS-232/485</b>	
Y-Connector M12 to RS-485	<b>P 4723 010</b>
USB converter to RS-485 interface	<b>PM 061 207 -T</b>
Coupling M12 for RS-485	<b>PM 061 270 -X</b>
Termination resistor for RS-485	<b>PT 348 105 -T</b>
Power separator for RS-485	<b>PT 348 132 -T</b>
<b>Cables Backing pump control cables</b>	
Control cable for valve	<b>PM 061 687 -T</b>
HiPace – ACP connection cable	<b>PM 071 142 -X</b>
<b>Cables Connection cables</b>	
Connection cable with RS-485 interface for TC 110/120 to power supply pack	<b>PM 061 350 -T</b>
Connection cable with RS-485 interface and 2 accessory ports for TC110/120 to power supply pack	<b>PM 061 351 -T</b>
Connection cable TPS 180 - MVP 006-4 with HiPace 80/HiPace 10, 2 x 0.5 m	<b>PM 061 399 -T</b>
Connection cable with RS-485 interface and 3 accessory ports for TC110/120 to power supply pack	<b>PM 061 512 -T</b>
Connection cable for HiPace with TC 110/120	<b>PM 061 543 -T</b>
Connection cable incl. 2 accessory ports for TC 110/120 to power supply pack	<b>PM 061 552 -T</b>
<b>Cables Extension cables</b>	
Extension cable M8 on M8	<b>PM 061 783 -T</b>
<b>Cables Mains cables / Power cords</b>	
Mains cable 230 V AC, CEE 7/7 to C13, 3 m	<b>P 4564 309 ZA</b>
Mains cable 115 V AC, NEMA 5-15 to C13, 3 m	<b>P 4564 309 ZE</b>
Mains cable 208 V AC, NEMA 6-15 to C13, 3 m	<b>P 4564 309 ZF</b>
<b>Cables RS-485 Interface cables</b>	
Interface cable, M12 m straight/M12 m straight, 3 m	<b>PM 061 283 -T</b>
Interface cable, M12 m straight/ M12 m angled, 0.7 m	<b>PM 061 791 -T</b>
<b>Connections Coupling Sets for TC 110/TCS 12/13</b>	
Coupling set	<b>PM 061 682 -X</b>
<b>Control Devices Backing pump</b>	
Relay box for backing pumps, 1-phase 20 A for TC 110/120 and TCP 350, plug M8	<b>PM 061 373 -T</b>
Relay box, shielded, for backing pumps, 1-phase 7A for TC 110/120 and TCP 350, plug M8	<b>PM 071 282 -X</b>



<b>Accessories</b>	
<b>Control Devices Power supplies and control displays</b>	
HPU 001, Handheld programming unit	PM 051 510 -T
Accessories package for HPU 001/PC	PM 061 005 -T
TPS 110, power supply pack for wall/standard rail fitting	PM 061 340 -T
TPS 180, power supply pack for wall/standard rail fitting	PM 061 341 -T
TPS 111, power supply pack 3HU 19" rack module	PM 061 344 -T
TPS 181, power supply pack 19" rack module 3HU	PM 061 345 -T
DCU 002, Display Control Unit	PM 061 348 AT
Front panel kit for TPS 111	PM 061 393 -T
Front panel kit for TPS 181	PM 061 394 -T
DCU 110, Display control unit with power supply pack	PM C01 820
DCU 180, Display control unit incl. power supply pack 19"	PM C01 821
<b>Cooling Air cooling</b>	
Air cooling for HiPace 30 with TC 110	PM Z01 348
<b>FKM cut from sheet material</b>	
Elastomer seal, FKM, DN 63 CF	402DFL063-S2
<b>FKM with centering lip; heat-molded</b>	
Elastomer seal, FKM, DN 63 CF	402DFL063-Z
<b>Monitoring Pressure Sensors</b>	
RPT 010, Digital Piezo/Pirani Sensor	PT R71 100
IKT 010, Digital cold cathode sensor, low current	PT R72 100
IKT 011, Digital cold cathode sensor, high current	PT R73 100
<b>Mounting Wall rail fittings</b>	
Wall rail fitting for TPS 110/180/310/400	PM 061 392 -T
<b>OFHC Copper (Oxygen Free)</b>	
Copper Gasket, OFHC-copper, DN 63 CF	490DFL063-S10
<b>OFHC Copper (Oxygen Free), Silver-plated</b>	
Copper Gasket, Silver-Plated, DN 63 CF	490DFL063-S-S5
<b>OFHC Copper (Oxygen Free), Silver-plated, Vacuum-annealed</b>	
Copper Gasket, Silver-plated, Vacuum-Annealed, DN 63 CF	490DFL063-S-G-S5
<b>OFHC Copper (Oxygen Free), Vacuum-annealed</b>	
Copper Gasket, Vacuum-annealed, DN 63 CF	490DFL063-G-S5
<b>Other</b>	
TIC 010, Adapter for two sensors	PT R70 000
Water cooling for HiPace 30   HiPace 80 mini with push-in fitting, 8 mm	PM 016 847 -T
<b>Protection CF-F, splinter shields, protection screens</b>	
Splinter shield for Pfeiffer Vacuum turbopumps	PM 016 312
Protection screen for DN 63 CF-F	PM 016 333
<b>Protection Sealing gas throttles</b>	
Sealing gas throttle for HiPace 30/60/80	PM Z01 316
<b>Valves Fore-vacuum safety valves</b>	
TVV 001, fore-vacuum safety valve, 230 V AC	PM Z01 205
TVV 001, fore-vacuum safety valve, 115 V AC	PM Z01 206

<b>Accessories</b>	
<b>Valves Sealing gas valves, shielded (normally closed)</b>	
Sealing gas valve, shielded for HiPace 30/60/80 with TC 110	<b>PM Z01 310</b>
<b>Venting Power failure venting units (normally open)</b>	
Shielded power failure venting unit, 24 V DC, G 1/8", for connection to TC 110/120	<b>PM Z01 330</b>
<b>Venting Venting accessories</b>	
Screw-on flange, DN 16 ISO-KF, G 1/8"	<b>PM 016 780 -T</b>
Push-in fitting for 6 mm tube, G 1/8"	<b>PM 016 781 -T</b>
Push-in fitting for 8 mm tube, G 1/8"	<b>PM 016 782 -T</b>
Hose nozzle for 9 mm hose, G 1/8"	<b>PM 016 783 -T</b>
Banjo fitting	<b>PM 016 787 -T</b>
Screw-in flange, DN 10 ISO-KF, G 1/8"	<b>PM 033 737 -T</b>
Banjo fitting, small	<b>PM 143 877 -T</b>
TTV 001, Drier for Venting Turbopumps	<b>PM Z00 121</b>
<b>Venting Venting valves (normally closed)</b>	
Venting valve, shielded, 24 V DC, G 1/8", for connection to TC 110/120	<b>PM Z01 290</b>
Venting valve, 24 V DC, G 1/8" without cable	<b>PM Z01 293</b>
<b>Vibration Reduction Vibration dampers</b>	
Vibration damper for HiPace 60/80, DN 63 CF-F	<b>PM 006 801 -X</b>

## **VACUUM SOLUTIONS FROM A SINGLE SOURCE**

Pfeiffer Vacuum stands for innovative and custom vacuum solutions worldwide, technological perfection, competent advice and reliable service.

## **COMPLETE RANGE OF PRODUCTS**

From a single component to complex systems:

We are the only supplier of vacuum technology that provides a complete product portfolio.

## **COMPETENCE IN THEORY AND PRACTICE**

Benefit from our know-how and our portfolio of training opportunities!

We support you with your plant layout and provide first-class on-site service worldwide.

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

**Pfeiffer Vacuum GmbH**  
Headquarters · Germany  
T +49 6441 802-0  
info@pfeiffer-vacuum.de

[www.pfeiffer-vacuum.com](http://www.pfeiffer-vacuum.com)

All data subject to change without prior notice.

**PFEIFFER**  **VACUUM**