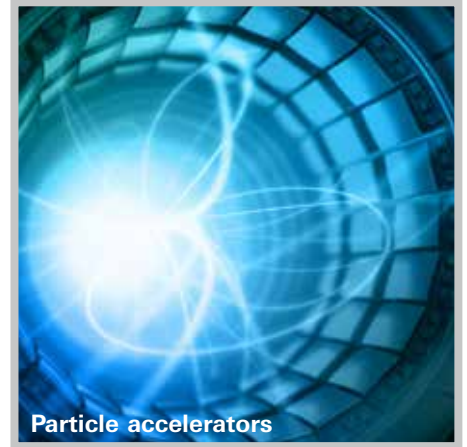


Semiconductor



Particle accelerators

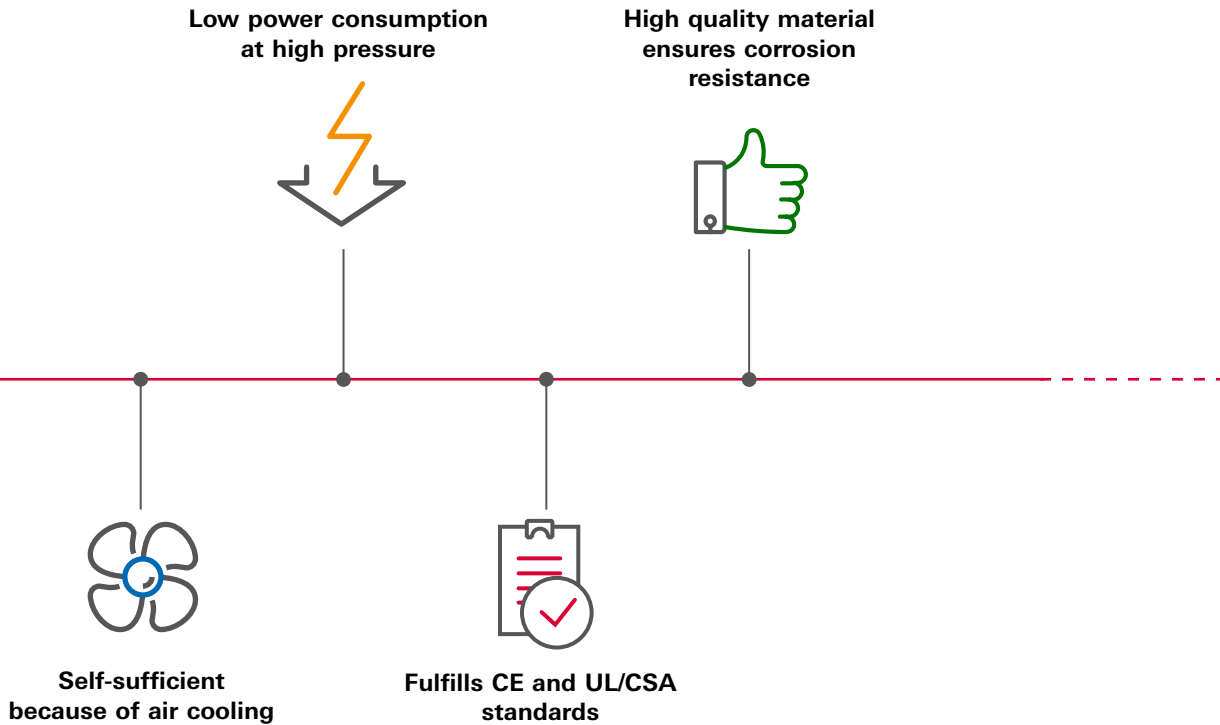


Plasma cleaning

## ACP 90

Multi-stage Roots pumps  
for oil- and particle free applications





### Low power consumption at high pressure

The ACP 90 is equipped with a high efficiency PM motor (permanent magnet motor) with premium efficiency IE4. This ensures low power consumption at high pressure. In addition, the air cooling system enables the pump to be self-sufficient. Therefore, no other connection like water pipes are needed.

### Two pump versions for your individual needs

The ACP 90 multi-stage Roots pumps are available in two versions. The SD version is dedicated to work with non corrosive gases. Thanks to its gas ballast it is capable to manage high flow of condensable gases. The ACP 90 G corresponds with corrosive gases. This version is equipped with a purge line with injection that protect both the low and high pressure bearings and to dilute the pumped gases in the pump cell. Both versions fulfill the CE and UL/CSA standards.

### Applications

#### ■ Industry

- Drying
- Freeze drying
- Vacuum oven
- Plasma cleaning
- Load/Locks
- Coatings

#### ■ Semiconductor

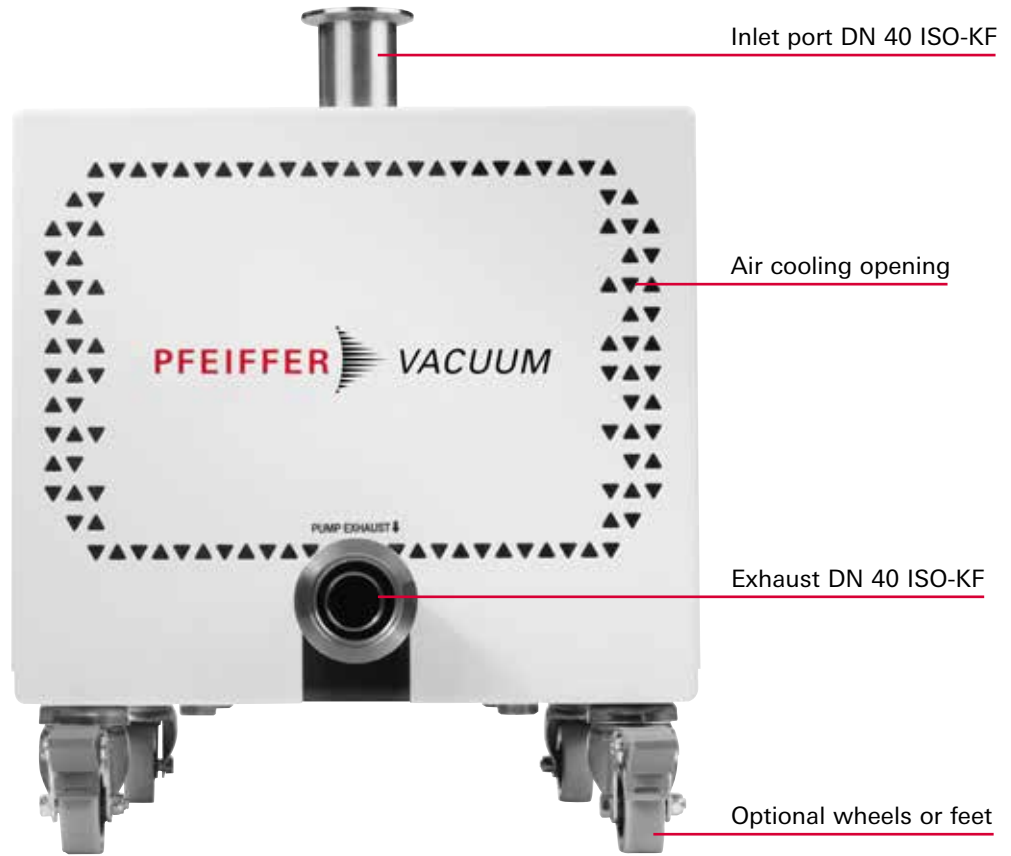
- Front end
- Back end
- Wafer cleaning

#### ■ R&D

- Particle accelerators and other large volume experiments:
  - Maintenance group
  - Cryo magnet insulation volume
  - Pumping of large volume

# ACP 90

Dimensional drawing  
and pumping speed



Frequency converter  
communication interface

RJ 45 connector for  
RS interface

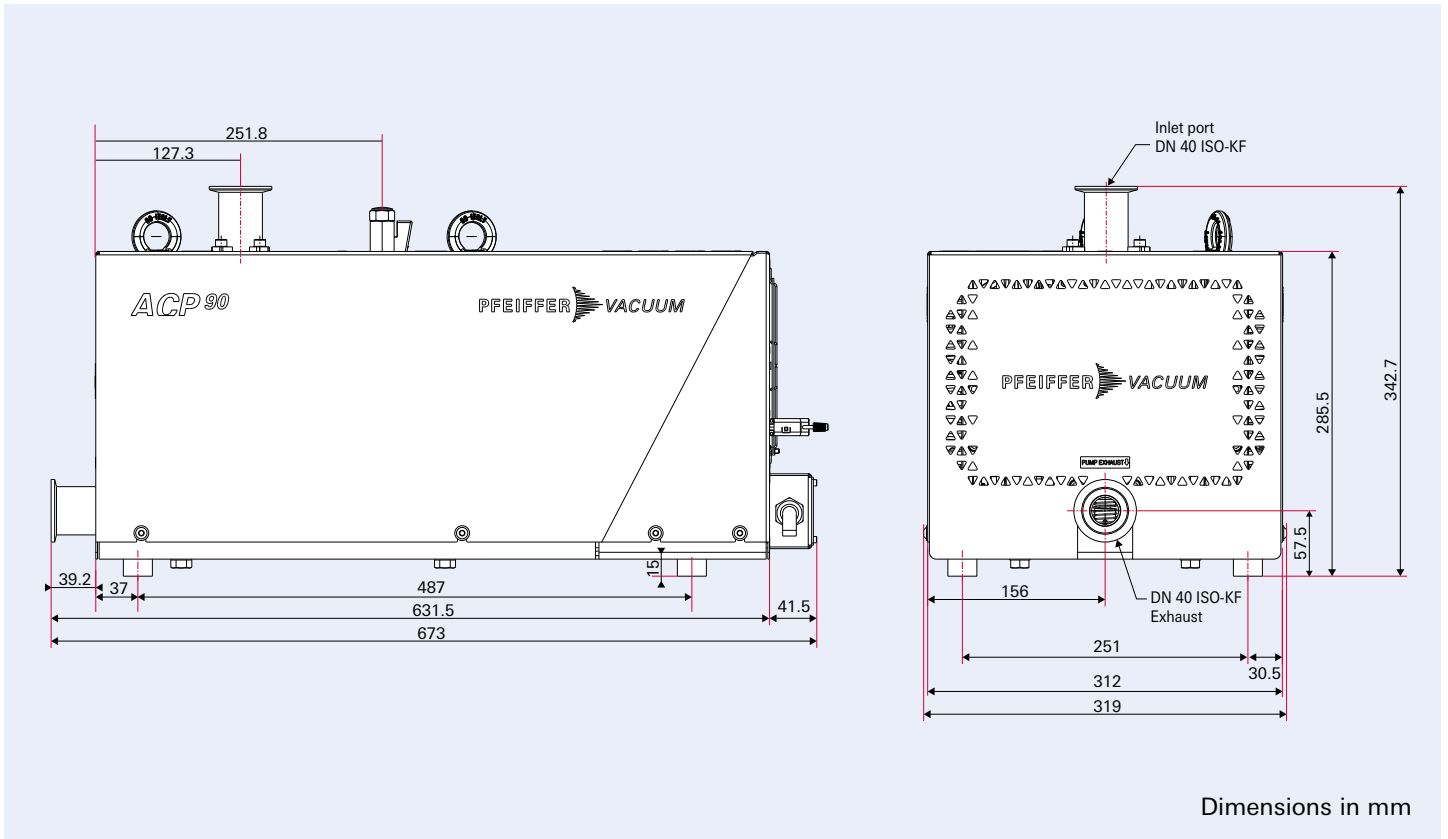
Sub'd connector for  
remote interface

Led for maintenance

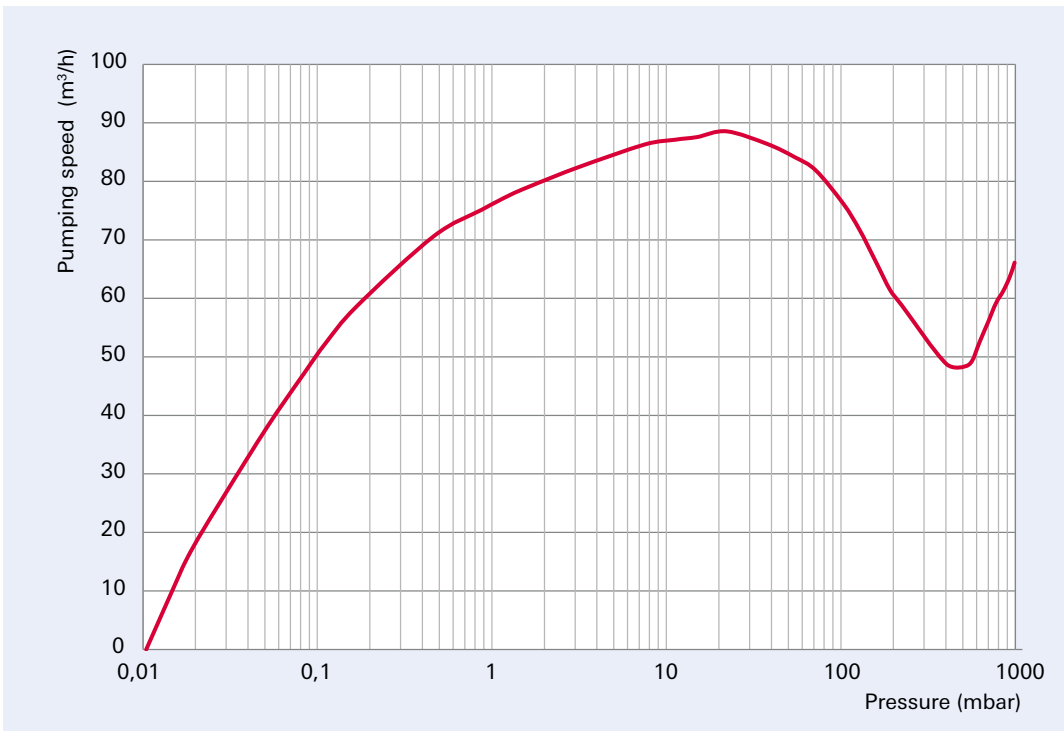
Mains power supply  
connector



Dimensional drawing



Pumping speed



# ACP 90

Technical data,  
order number matrix

## Technical data

		ACP 90
Pumping speed max.		88 m <sup>3</sup> /h
		52 cfm
Ultimate pressure without purge (max.)		3 · 10 <sup>-2</sup> mbar
		2.2 · 10 <sup>-2</sup> Torr
Ultimate pressure (max.) with gas ballast for SD version		1 · 10 <sup>-1</sup> mbar
		7.5 · 10 <sup>-2</sup> Torr
Ultimate pressure (max.) with gas purge for G version		5 · 10 <sup>-2</sup> mbar
		3.8 · 10 <sup>-2</sup> Torr
Maximum continuous inlet pressure		1013 mbar
		760 Torr
Max. pure water tolerance with open gas ballast		2.4 Kg/h
Voltage supply <sup>1)</sup>		
1-phase		230 V +/- 10%, 50/60 Hz
3-phase		200-240 VAC or 380-480 VAC, 50/60 Hz
Power consumption <sup>2)</sup>		
At ultimate pressure		1,280 W
At atmospheric pressure		1,800–2,000 W
Ambient temperature		12 to 40 °C
		54 to 104 °F
Flange in		40 ISO-KF
Flange out		40 ISO-KF
Max. Helium leak rate		< 5 · 10 <sup>-6</sup> mbar · l/s
Weight		75 Kg
		166 lbs
Overall dimensions (L · W · H)		673 · 319 · 286 mm
		26.5 · 12.6 · 11.3 inches

<sup>1)</sup> In accordance with IEC/UL/CSA regulations, the pumps can withstand a voltage variation of ± 10 %.

<sup>2)</sup> Typical values obtained after minimum 1 hour of pump warm up time

ACP 90

88 m<sup>3</sup>/h

Nominal pumping speed

3 · 10<sup>-2</sup> mbar

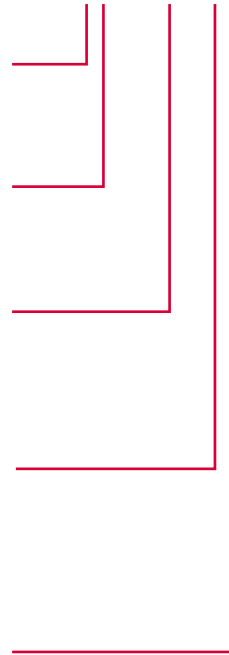
Ultimate pressure



**Order number matrix ACP 90**

<b>Version</b>	<b>a</b>
Standard (SD Version)	SA
With purge gas (G version)	GA
<b>Inlet / Exhaust port</b>	<b>b</b>
without inlet port / DN 40 ISO-KF	A
DN 40 ISO-KF / DN 40 ISO-KF	B
<b>Voltage</b>	<b>c</b>
1 phase HV	A
3 phase LV	B
3 phase HV	C
<b>Gas ballast port</b>	<b>d</b>
Permanent off	B
Permanent on	F
Gas fitting (for G version only)	R
Manual on/off	M
<b>Options</b>	<b>e</b>
Foot	F
Wheels	R

**V9 abS cZde01**



**Service and support:**

**ACP 90 service is declined in different possibilities:**

**Preventive Maintenance**

To preserve pumping performances, Pfeiffer Vacuum recommends a preventive maintenance packages based on the age of your pump or the number of hours of pump use.

In the case of ACP pumps, fluids, bearings, seals and screws are among the aging parts that must be replaced regularly. Some parts failure can lead to critical pump damage. Irreparable failures can be avoided with preventive maintenance. Decrease of tool downtime is also another benefit of planned maintenance.

With the Pfeiffer Vacuum's service, you have something that others don't have: access to the people who developed and manufactured your pump – 100 % manufacturer expertise.<sup>1)</sup>

**Repair**

Get your vacuum pump back and running as quickly as possible without compromising in repair quality. Nothing can therefore replace the technical knowledge of our experts to achieve a perfect repair of your product.<sup>1)</sup>

<sup>1)</sup> The service package will be confirmed upon receipt in our premises

## Your Success. Our Passion.

We give our best for you every day –  
worldwide!

Are you looking for an  
optimal vacuum solution?  
Please contact us:

**Pfeiffer Vacuum GmbH**  
Germany  
Phone +49 6441 802-0



Errors excepted. All data subject to change without prior notice. PM 0011 PEN (July 2022/PoD)

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