



A 200 L

Multi-stage Roots pump for light duty processes with the highest throughput in the integrated pump market



PFEIFFER  **VACUUM**

 **伯東**
Hakuto

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Top performance

The new A 200 L guarantees highest throughput for load lock applications thanks to a 200 m³/h peak pumping speed, a low base pressure and its suitability for heavy duty cycles. As an illustration: The A 200 L is compatible with a cycle rate of up to 300 pump downs per hour on a 20 liters load lock chamber, which is over three times the maximum cycle rate of the 100 m³/h class A 100 L.

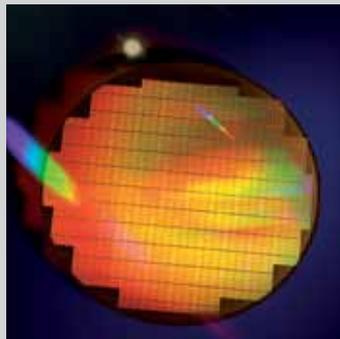
The A 200 L is also suitable for other light duty applications - from the use in transfer chambers over SEM and PVD processes up to preclean chambers.

Low cost of ownership

With its state of the art multi-stage Roots design and its highly efficient motor, the power consumption of the A 200 L is amongst the lowest of its class with only 0.7 kW at base pressure. Compared to the 100 m³/h class A 100 L, power consumption has been reduced by 55 % while pumping speed has been doubled. This leads to a reduction in operating costs and thereby to very low costs of ownership.

Easy integration: The most compact pump of its class

The A 200 L can easily be integrated into existing equipment or subfloors even if only small space is available. Its footprint of less than 0.17 m² makes it the most compact pump of its class. Furthermore, the inlet position can be flexibly adjusted to the requirements of particular applications. It can either be vertical or horizontal, depending on the best suitability for the given system.



Wafer



Physical vapor deposition (PVD)



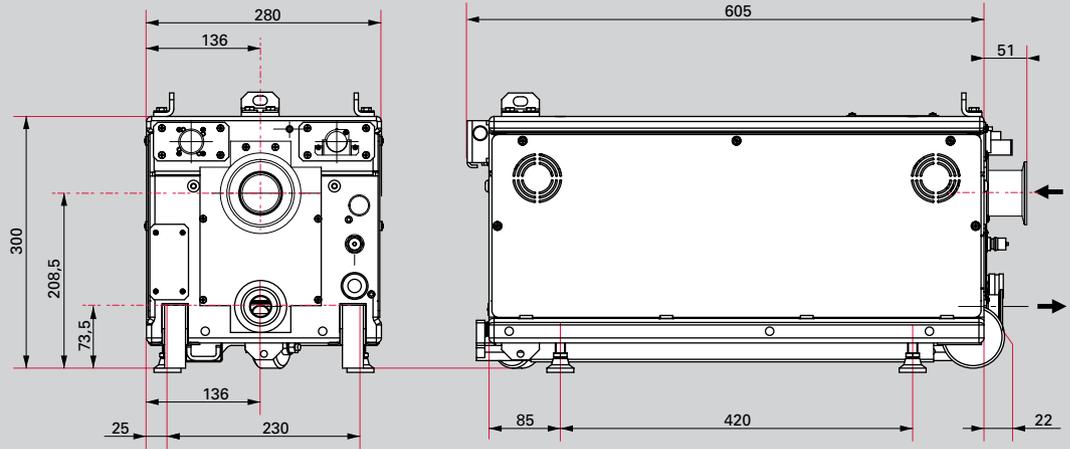
Cleanroom

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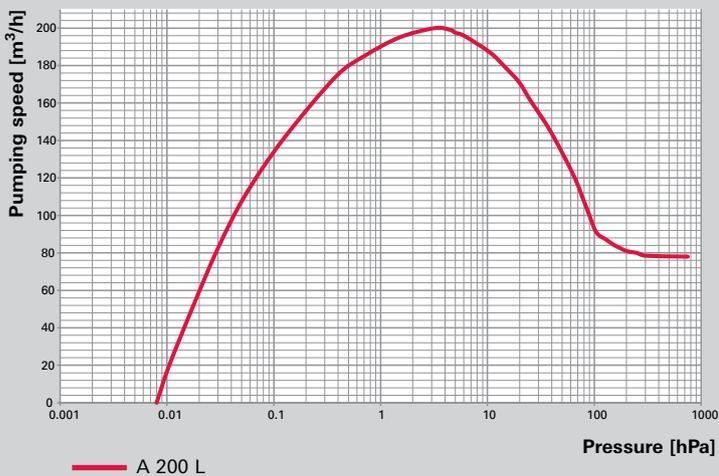
Dimensions

A 200 L

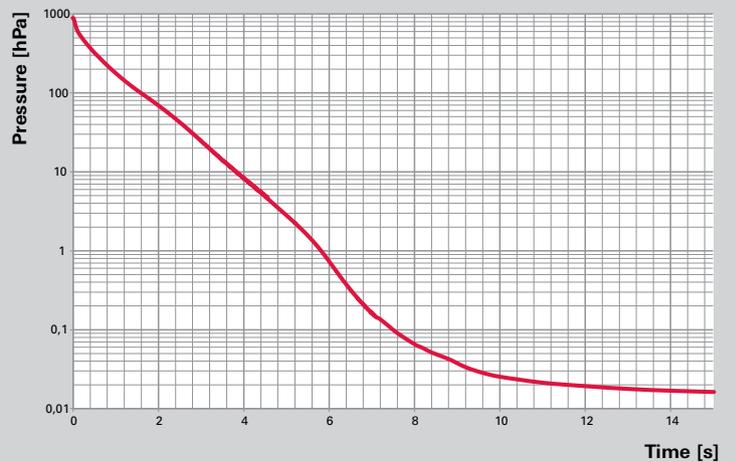


Dimensions in mm

Pumping speed



Pump down curves on 20 liters



Technical data

	A 200 L
Rotational speed	5,400 rpm
Peak pumping speed	200 m ³ /h
Typical pump down time to 300 mTorr, 20 liters chamber	6.0 s
Max. ultimate pressure	1 · 10 ⁻² torr / 1.3 · 10 ⁻² hPa
Typical ultimate pressure	6 · 10 ⁻³ torr / 8 · 10 ⁻³ hPa
Power supply voltage	200 – 230 V, 3 phases, 50/60 Hz
Power consumption	0.7 ¹⁾ kW
Max. volume size	1 m ³
Max. cycling frequency (20 l volume)	300 cycle/hour
Max. continuous inlet flow	25 SLM
Max noise level at full speed	< 58 dB (A)
Typical vibration level at inlet flange 10 – 1,000 Hz	< 0.14 g
Cooling water	100 to 200 ²⁾ l/h
Cooling water connection	1/4 NPT Quick connectors
Dimensions l x w x h	600 x 280 x 300 mm
Weight	100 kg
Ambient temperature	5 to 40 °C
Inlet/exhaust size	NW 50 / NW 25
Tool interface	16 or 19 pins I/O
RS-232/485 interface	optional
Variable speed	20 to 100 % max speed
Stackable	Yes ³⁾
Interchangeable & backward compatible with A 100 L	Yes

¹⁾ Ultimate pressure

²⁾ Cycle dependent

³⁾ Horizontal inlet only

Order numbers

A 200 L	without RS-232/RS-485 interface		with RS-232/RS-485 interface	
Tool interface	16 pins I/O	19 pins I/O	16 pins I/O	19 pins I/O
Order number	A200L1125	A200L1135	A200L1225	A200L1235

100% interchangeability

The A 200 L is 100 % interchangeable with the 100 m³/h class A 100 L. Thanks to the same dimensions as well as to the identical electrical and water cooling connections, the A 200 L can easily replace the A 100 L if higher performance is needed. There is no need to invest in equipment modifications.



Customer benefits

- Top performance and unrivaled throughput
- The lowest footprint of its class and dual inlet position allow for easy system integration
- Energy-efficient and cost-saving
- High cleanroom compatibility thanks to low noise and vibration levels
- Integrated self-monitoring system
- High reliability, no on-site preventive maintenance required
- Thanks to 100% interchangeability with A 100 L, process performance can easily be increased by replacing the A 100 L with the A 200 L