



# A 200 L

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### Top performance

The new A 200 L guarantees highest throughput for load lock applications thanks to a 200 m<sup>3</sup>/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 m<sup>3</sup>/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. He also can meet gas recirculation requirements such as the ones met in cryogenics gas recovery on laser systems applications.

### 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 among the lowest of its class with only 0.7 kW at base pressure. Compared to the 100 m<sup>3</sup>/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 m<sup>2</sup> makes it is 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.

### 100% interchangeability

The A 200 L is 100 % interchangeable with the 100 m<sup>3</sup>/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.

### Applications

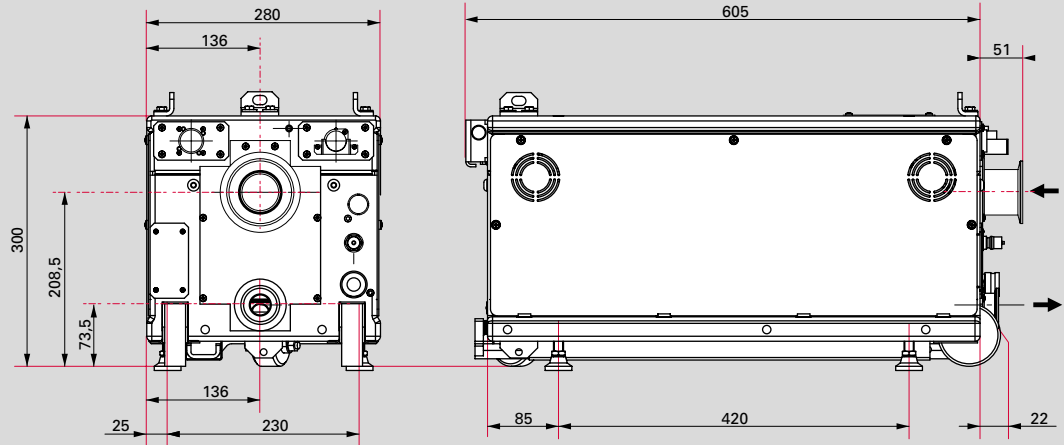
- Wafer
- Physical vapor deposition (PVD)
- Cleanroom

### 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

## Dimensions

A 200 L

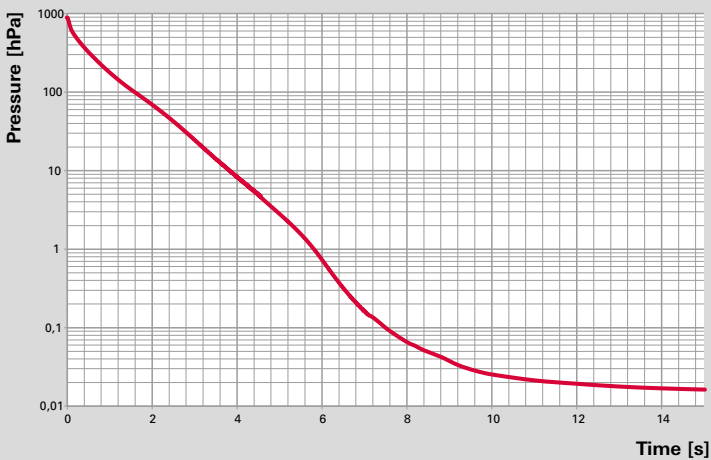


Dimensions in mm

## Pumping speed



## Pump down curves on 20 liters



## Technical data

| A 200 L  |  |
|--|--|
| Peak pumping speed                                     | 200 m <sup>3</sup> /h  |
| Typical pump down time to 300 mTorr, 20 liters chamber | 6.0 s  |
| Max. ultimate pressure                                 | 1 · 10 <sup>-2</sup> torr / 1.3 · 10 <sup>-2</sup> hPa             |
| Power supply voltages                                  | 200 – 230 V, 3 phases, 50/60 Hz<br>380 – 480 V, 3 phases, 50/60 Hz |
| Power consumption                                      | 0.7 <sup>1)</sup> kW   |
| 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 <sup>2)</sup> 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 <sup>3)</sup>  |

<sup>1)</sup> Ultimate pressure

<sup>2)</sup> Cycle dependent

<sup>3)</sup> Horizontal inlet only

## Order numbers

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

| A 200 L with RS-232/RS-485 interface |             |             |
|--------------------------------------|-------------|-------------|
| Tool interface                       | 16 pins I/O | 19 pins I/O |
| Order number                         | A200L1225   | A200L1235   |

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