



# VACUUM BOOSTER PUMPS

Atlas Copco

ZRS 1200



## FEATURES AND BENEFITS

- Suitable for applications where high pumping speeds are required in the pressure region of 0.01 to 50 mbar/0.0075 to 37.5 Torr.
- Operating at relatively low pressures makes it highly reliable.
- The ZRS pumps have a high quality, oil-free pumping mechanism. This offers:
  - Quiet, vibration free operation.
  - Rugged and corrosion resistant.
  - Advanced shaft-seal technology with no oil contamination of the process chamber.
- The proven shaft-seal arrangement ensures that no oil enters the pumping stator, and the absence of internal and external by-pass lines and valves which may corrode or stick minimizes maintenance requirements.
- The design of the shaft seals is optimized to ensure that no lubricants can migrate into the pumping mechanism. This maintains booster pump performance in applications which demand the highest standard of cleanliness. In addition, this prevents the build-up of trapped particles on the rotor lobes and end-faces which have very close tolerances.
- The dynamically balanced rotors and precision ground gears contribute to the smooth, quiet operation of the pumps, as demanded by manufacturers of advanced technology equipment.

## TECHNICAL SPECIFICATIONS ZRS 1200

|   | 50 Hz  | 60 Hz   |
|---|--|---|
| Displacement (swept volume)                       | 1195 m <sup>3</sup> h <sup>-1</sup> / 715 cfm        | 1435 m <sup>3</sup> h <sup>-1</sup> / 845 cfm |
| Effective pumping speed with backing pump GVD 80  | 840 m <sup>3</sup> h <sup>-1</sup> / 495 cfm @ 50 Hz |   |
| Effective pumping speed with backing pump GVD 175 | 930 m <sup>3</sup> h <sup>-1</sup> / 548 cfm @ 50 Hz |   |
| Pressure differential across pump                 | 0-90 mbar / 0-68 Torr                                | 0-75 mbar / 0-56 Torr                         |
| Inlet connection                                  | ISO160   |   |
| Outlet connection                                 | ISO100   |   |
| Rotational speed                                  | 0-2900 rpm   | 0-3500 rpm                                    |
| Operating continuous inlet pressure               | 0-1000 mbar / 0-760 Torr                             |   |
| Maximum outlet pressure                           | 1000 mbar / 760 Torr                                 |   |
| Motor power                                       | 3 kW / 4 hp  |   |
| Ambient temperature range (operating)             | 5 to 40°C / 40 to 104°F                              |   |
| Maximum operating humidity                        | 90% RH   |   |
| Oil capacity (coupling cover)                     | 2.4 litre / 2.5 qt                                   |   |
| Oil capacity (shaft seal reservoir)               | 0.125 litre / 0.25 qt                                |   |
| Weight  | 149 kg / 327.8 lb                                    |   |

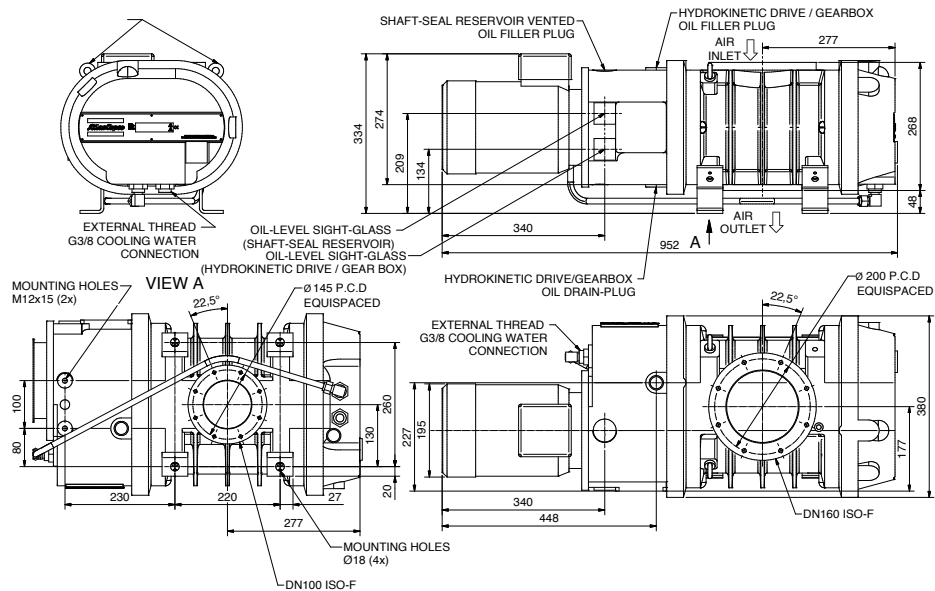
Water cooling needed for hydrokinetic drive.  
Motors conform to EN 60034 and are energy efficient.



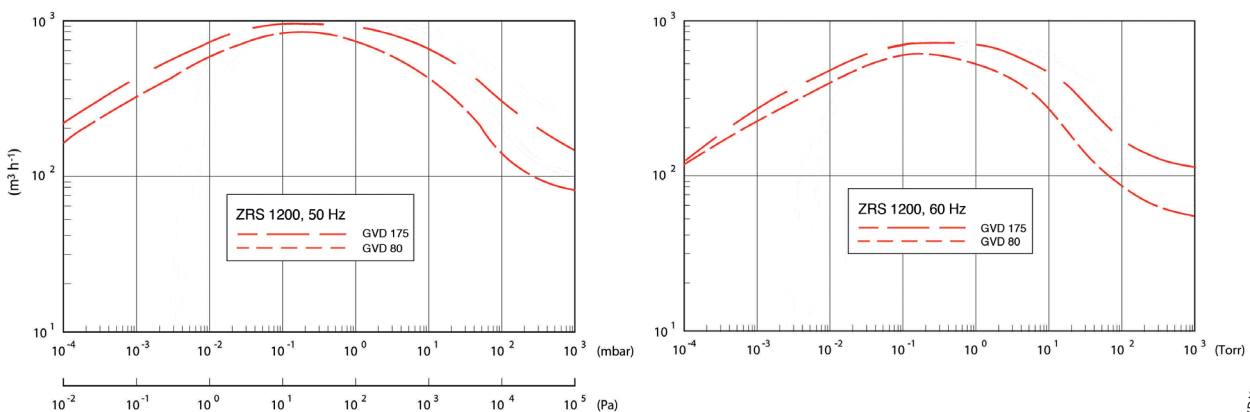
# APPLICATIONS

- Vacuum packaging
- Drying and de-gassing
- Vacuum metallurgy
- Vacuum distillation
- Thin film coating
- Low density wind tunnels
- Space simulation
- Vacuum impregnation
- Freeze drying

# DIMENSIONS



# PERFORMANCE CURVES



Available motor voltages:

- 400 V 50 Hz
- 460 V 60 Hz
- 200/380 V 50 Hz
- 200/380 V 60 Hz

