

Agilent Turbo-V 3K-G System



Product description

The Agilent Turbo-V 3K-G high-throughput turbomolecular pump is a dedicated vacuum pumping system, designed specifically as a turbo pump for thin film deposition equipment. Its pumping stages, and the entire pump structure, are optimized to work with very high flows of argon under high temperature load.

This robust turbo pump is suitable for harsh manufacturing environments because of its rugged design. Typical industrial vacuum coating applications include solar and flat panel display manufacturing. The pump's robust design and its advanced integrated electronics make the Turbo-V 3K-G the optimum pumping solution for the vacuum coating industry.

Features and benefits

The only truly “integrated” system in the market

The Turbo-V 3K-G: an advanced solution for thin film applications

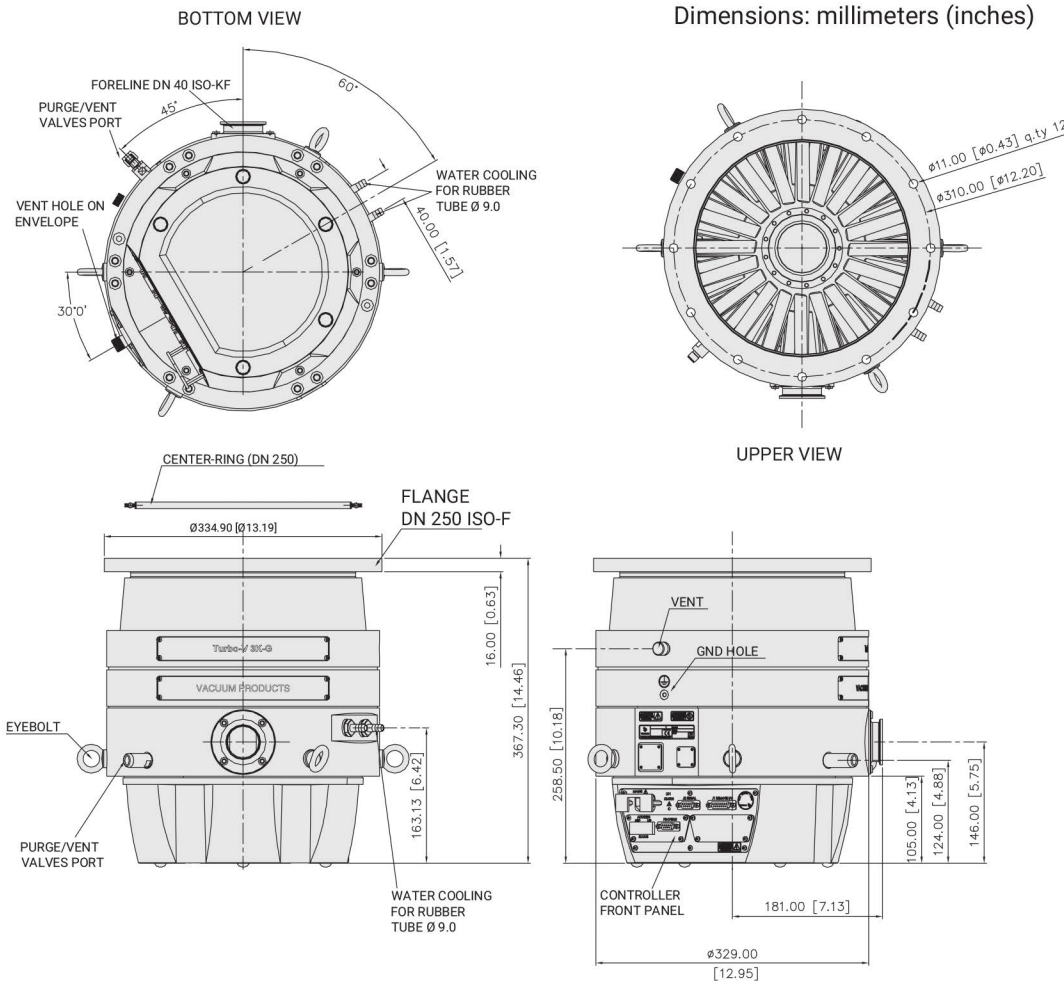
- Fully integrated system with on board waterproof power supply
- Vent/purge valves control capability
- Integrated diagnostics
- Multiple interfaced capability
- Lowest power absorption

Best footprint-to-performance ratio

- The highest argon pumping speed (2,050 L/s) for its size allows uniform deposition rates at high substrate throughput
- Highest pumping speed in its class: 2,200 L/s for nitrogen
- Throughput: over 1,400 sccm for nitrogen
- The all-turbo, more compact rotor design delivers highest performance with the smallest footprint



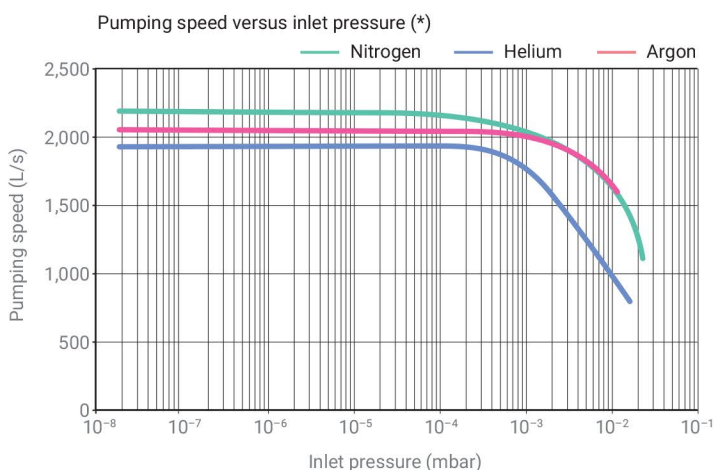
Dimensions: millimeters (inches)



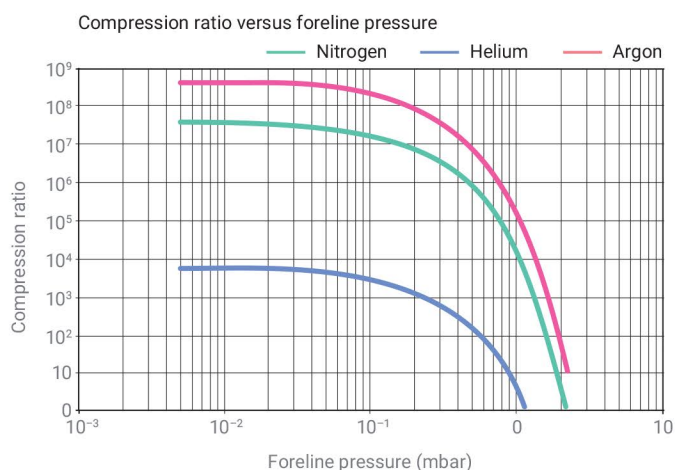
Technical specifications

| | |
|--|--|
| Pumping Speed | N ₂ : 2,200 L/s He: 1,900 L/s Ar: 2,050 L/s |
| Compression Ratio | N ₂ : >1 × 10 ⁷ He: 6 × 10 ³ Ar: >1 × 10 ⁸ |
| Base Pressure* (with Recommended Forepump) | <1 × 10 ⁻⁸ mbar |
| Inlet Flange | DN 250 ISO-F |
| Foreline Flange | DN 40 ISO-KF |
| Nominal Rotational Speed | 31,800 rpm |
| Start-Up Time without Gas Load and with the Recommended Forepump | <6 minutes |
| Foreline Pressure | <0.5 mbar |
| Minimum Recommended Forepump | >60 m ³ /h (depending on gasflow requirements) |
| Operating Position | Any |
| Cooling Water Requirements | Recommended flow: 200 L/h (0.89 GPM) Temperature: +15 °C to +30 °C Pressure: 3 to 5 bar (45 to 75 psi) |
| Weight | 52 kg (114.63 lb) |
| Communications Interface | RS232 cable with a 9-pin D type male connector and a 9-pin D type female connector, Profibus optional |

* According to standard DIN 28 428.



(*) Measured with a 60 m³/h forepump.



Ordering information

| Description | Part Number |
|-----------------------------------|-------------|
| Pumping Systems (*) | |
| Turbo-V 3K-G system | 9698888 |
| Turbo-V 3K-G system with Profibus | 9698889 |

(*) Pumping systems include pump with 230 V integrated electronics, water hose connection, inlet screen with center-ring and pre-installed IP54 mating connectors. 120 Vac units available on request.

| Accessories | |
|--|---------|
| Mains Cable NEMA Plug, 3 m Long | 9699958 |
| Mains Cable European Plug, 3 m Long | 9699957 |
| RS232 – Serial Cable | 9699883 |
| Water Cooling Kit for 6 × 8 mm (id × od) Flexible Hose | 9699348 |
| Water Cooling Kit for 3/8 in. id Flexible Hose | 9699338 |
| Water Cooling Kit for 9 mm id Flexible Hose | 9699825 |
| Turbo-V Remote Cable, 5 m Long | 9699945 |
| Turbo-V Remote Display Panel | 9698850 |
| Spare Parts | |
| IP54 Proof DB15 Mating Connectors | 9698960 |
| Inlet Screen DN 250 with Center Ring | 9699138 |

www.agilent.com/en/product/vacuum-technologies/turbo-pumps-controllers/turbo-pumps/turbo-v-3k-g-pump

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