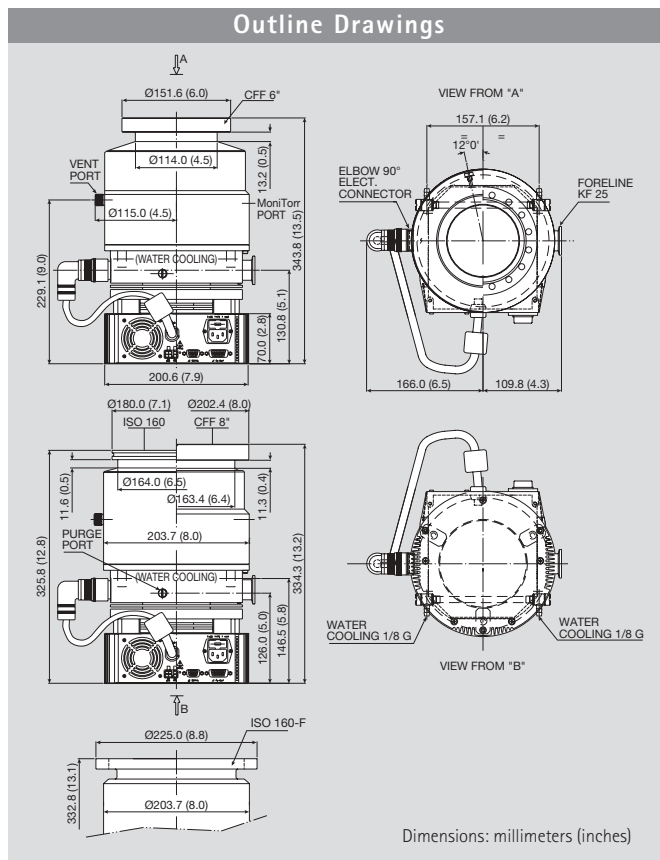


Turbo-V 551 Navigator



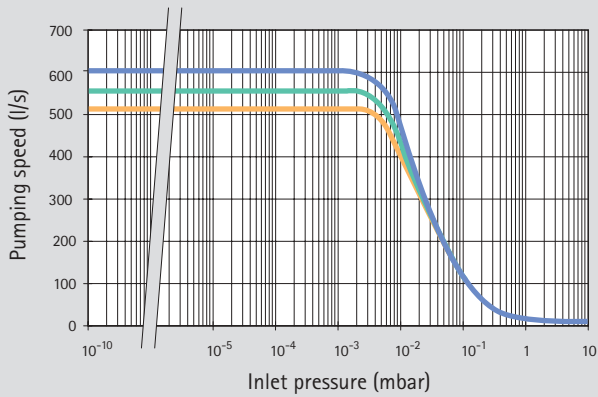
Technical Specifications

| | | | |
|--|---|-------------------------|--------------------------------------|
| Pumping speed | | | |
| CF 6": | N ₂ : 350 l/s | He: 450 l/s | H ₂ : 450 l/s |
| CF 8" or ISO 160: | N ₂ : 550 l/s | He: 600 l/s | H ₂ : 510 l/s |
| Compression ratio | N ₂ : 1 x 10 ⁹ | He: 1 x 10 ⁷ | H ₂ : 1 x 10 ⁶ |
| Base pressure *(with minimum recommended forepump) | < 1 x 10 ⁻¹⁰ mbar (< 1 x 10 ⁻¹⁰ Torr) | | |
| Inlet flange | CF 6" | ISO 160 | |
| | CF 8" | ISO 160-F bolted | |
| Foreline flange | KF 25 | | |
| Rotational speed | 42,000 rpm | | |
| Start-up time | < 5 minutes | | |
| Recommended forepump | Mechanical: Varian DS 302 Dry scroll: Varian TS300 | | |
| Operating position | Any | | |
| Cooling requirements | Natural air convection Water optional (use water with electrical conductivity ≤ 500 μS/cm) | | |
| Bakeout temperature | 120 °C at inlet flange max. (CF flange) 80 °C at inlet flange max. (ISO flange) | | |
| Vibration level (displacement) | < 0.01 μm at inlet flange | | |
| Weight kg (lbs) | ISO flange 19.4 (43.0) CF flange 23.4 (51.6) CF and ISO bolted flange 23.4 (51.6) | | |

* According to standard DIN 28 428.

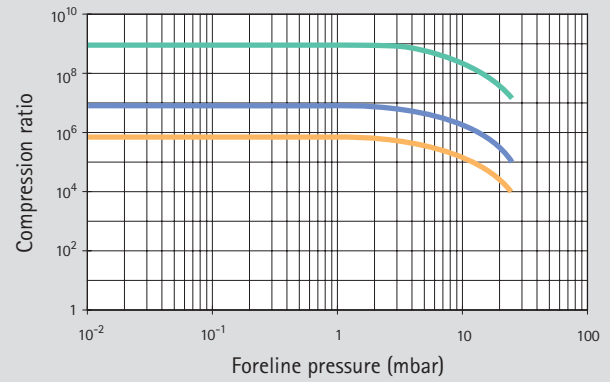
SEM version available on request

Pumping Speed vs Inlet Pressure (DN 160 only)



— Nitrogen — Helium — Hydrogen

Compression Ratio vs Foreline Pressure



— Nitrogen — Helium — Hydrogen

Ordering Information

| Description | Weight kg (lbs) | Part Number |
|--|-----------------|-------------|
| Complete Systems | | |
| Turbo-V 551 Navigator complete system, ISO 160 flange | 19.4 (43.0) | 9698832 |
| Turbo-V 551 Navigator complete system, ISO 160-F bolted flange | 23.4 (51.6) | 9698842 |
| Turbo-V 551 Navigator complete system, 6" CF flange | 23.4 (51.6) | 9698835 |
| Turbo-V 551 Navigator complete system, 8" CF flange | 23.4 (51.6) | 9698833 |
| <i>Complete system includes: Pump, Inlet screen, Controller mounted on the bottom, 2 Mains cables (NEMA plug and European plug).</i> | | |
| Pumps | | |
| Turbo-V 551 Navigator pump, ISO 160 flange | 16.0 (35.0) | 9698922 |
| Turbo-V 551 Navigator pump, ISO 160-F bolted flange | 22.0 (49.0) | 9698944 |
| Turbo-V 551 Navigator pump, 6" CF flange | 22.0 (49.0) | 9698925 |
| Turbo-V 551 Navigator pump, 8" CF flange | 22.0 (49.0) | 9698923 |
| Controllers | | |
| Turbo-V 551 Navigator controller 120/220 V - 50/60 Hz | 3.0 (6.0) | 9698976 |
| Turbo-V 550 Rack controller, 220 V | 15.7 (35.0) | 9699444 |
| Turbo-V 550 Rack controller, 110 V | 15.7 (35.0) | 9699544 |

| Description | Weight kg (lbs) | Part Number |
|---|-----------------|-------------|
| Pump Accessories | | |
| Mains cable NEMA plug, 3 m long | 0.5 (1.0) | 9699958 |
| Mains cable European plug, 3 m long | 0.5 (1.0) | 9699957 |
| Serial cable and T-plus Software | 0.5 (1.0) | 9699883 |
| <i>(previous release Navigator 2.2 included in the CD)</i> | | |
| Inlet screen DN 100 | 0.5 (1.0) | 9699302 |
| Inlet screen DN 160 | 0.5 (1.0) | 9699304 |
| Heater band, 220 V | 1.0 (2.0) | 9699807 |
| Heater band, 120 V | 1.0 (2.0) | 9699808 |
| Water cooling kit | 0.5 (1.0) | 9699337 |
| Plastic water cooling kit | 0.5 (1.0) | 9699347 |
| Air cooling kit for use with Navigator controller | 4.5 (10.0) | 9699339 |
| Air cooling kit for use with standard rack controller | 3.0 (7.0) | 9699314 |
| Bracket for Navigator controller side mouting | 2.0 (4.0) | 9699349 |
| Vibration damper CF 6" | 3.0 (7.0) | 9699334 |
| Vibration damper ISO 160 | 4.0 (9.0) | 9699345 |
| Vibration damper CF 8" | 4.0 (9.0) | 9699335 |
| Vent flange, NW 10 KF / M8 | 0.5 (1.0) | 9699108 |
| Vent device with adjustable delay time for standard rack controller | 2.0 (4.0) | 9699831 |
| Vent valve for standard rack controller | 2.0 (4.0) | 9699843 |
| Vent valve for Navigator controller | 2.0 (4.0) | 9699834 |
| Purge valve 10 SCCM NW16KF - M12 | 0.2 (0.5) | 9699239 |
| Purge valve 10 SCCM 1/4 Swagelok - M12 | 0.2 (0.5) | 9699240 |

Turbo Pumps