

Agilent TPS-compact



A portable, fully integrated, and hydrocarbon-free pumping system, powered by the TwisTorr 74 FS and 305 FS turbo pumps, has the fastest pump down in the market.

Backed by the unique Agilent 60 L/min IDP-3 dry scroll primary pump, the TPS-compact is a one-switch operation, ready-to-use dry pumping solution with large pressure display, active gauge reading option, worldwide voltage, CE/CSA certification.

It is ideal for medium size chambers in university laboratories, industrial applications, and medical applications.

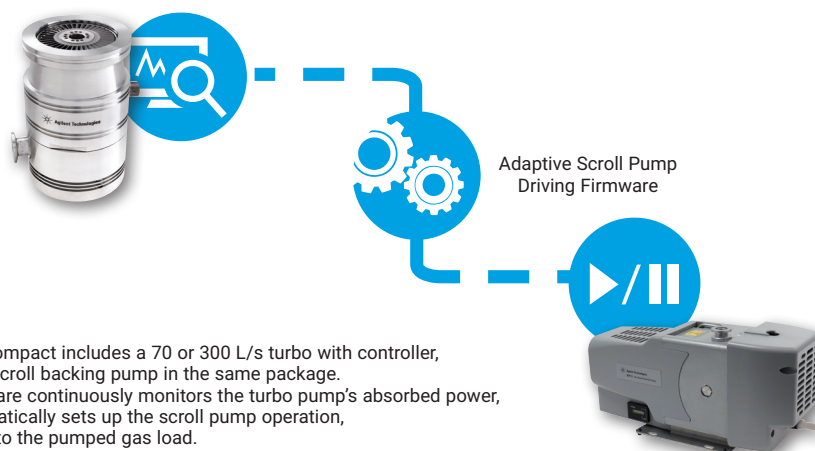
New Gas Ballast Feature

In high-humidity conditions, condensation may form inside the scroll pump. In addition, when appreciable amounts of water are being pumped, the performance of the system could be impaired.

A dedicated gas ballast kit is included with the TPS-compact. When installed, it allows the user to reduce the amount of humidity, optimizing system performance.

New Adaptive Scroll Pump Driving Firmware

The TPS-compact is now equipped with the Adaptive Scroll Pump Driving firmware, enabling smart management of scroll pump operation time to ensure the longest tip-seal lifetime. The firmware continuously monitors the turbo pump's absorbed power to automatically set up the scroll backing pump operation according to the pumped gas load. The new feature reduces the overall scroll pump operation time up to 80%, resulting in a much longer scroll pump tip-seal lifetime.



The TPS-compact includes a 70 or 300 L/s turbo with controller, and a dry scroll backing pump in the same package. The Firmware continuously monitors the turbo pump's absorbed power, and automatically sets up the scroll pump operation, according to the pumped gas load.

Technical Specifications

	Equipped with TwisTorr 74 FS	Equipped with TwisTorr 305 FS
Pumping speed	N ₂ : 48 L/s (ISO 63, with inlet screen)*	N ₂ : 180 L/s (with inlet screen)*
Base Pressure**	1 x 10 ⁻⁹ mbar [CFF Flanges]	<1 x 10 ⁻⁹ mbar [CFF Flanges]
Pumpdown Time (15 L volume)	46 sec (100 mbar); 104 sec (1 mbar); 160 sec (1x10 ⁻⁴ mbar); 210 sec (5 x 10 ⁻⁵ mbar); 400 sec (1.3 x 10 ⁻⁵ mbar)	80 sec (17 mbar); 110 sec (3 mbar); 155 sec (5.3 x 10 ⁻⁴ mbar); 200 sec (7.3 x 10 ⁻⁵ mbar)
Turbo pump rotational speed	70.000 RPM	60600 RPM
Start-up Time	144 sec	350 sec
Operating Ambient Temperature	5°C to 35°C	5°C to 35°C
Input Voltage and Frequency	115 Vac 60 Hz or 220-240 Vac 50/60 Hz or 100 Vac 50/60 Hz	115 Vac 60 Hz or 220-240 Vac 50/60 Hz or 100 Vac 50/60 Hz
Maximum Input Power	260 VA	650 VA
Bakeout Temperature	120°C at inlet [CFF Flanges] 80°C at inlet [KF/ISO Flanges]	100°C at inlet [CFF Flanges] 75°C at inlet [ISO Flanges]
Communication	RS-232 - Analogical I/O	RS-232 - Analogical I/O
Weight	16.7 Kg [36.8 lbs]	20.1 Kg [44.3 lbs]

* Pump nominal speed: TwisTorr 74 FS N₂: 60 L/s; Twistorr 305 FS N₂: 250 L/s

** According to standard DIN 28 428

Ordering Information

TPS-compact	TwisTorr 74 FS KF40	TwisTorr 74 FS CFF 2.75"	TwisTorr 74 FS ISO 63	TwisTorr 74 FS CFF 4.5"
115 V	X3583-64000	X3583-64001	X3583-64002	X3583-64003
230 V	X3583-64004	X3583-64005	X3583-64006	X3583-64007
100 V	X3583-64008	X3583-64009	X3583-64010	X3583-64011
Accessories				
Gauge Kit*	9699190	9699199	9699192	9699193
Inlet Screen	9699309	9699328	9699300	9699300

NOTE Special Vent Valve available on request

* The DIY Full Range Gauge Kit can be ordered separately, and includes Full Range Gauge FRG-700, Cable for gauge connection, Vacuum Tee and Connecting Hardware (Flanges according to the System inlet flange)

TPS-compact	TwisTorr 305 FS ISO 100	TwisTorr 305 FS CFF 6"	TwisTorr 305 FS ISO 160	TwisTorr 305 FS CFF 8"
115 V	X3582-64000	X3582-64001	X3582-64002	X3582-64003
230 V	X3582-64004	X3582-64005	X3582-64006	X3582-64007
100 V	X3582-64008	X3582-64009	X3582-64010	X3582-64011
Accessories				
Gauge Kit*	9699194	9699201	9699195	9699202
Inlet Screen	X3500-68000	9699302	X3500-68001	9699304

NOTE Special Vent Valve available on request

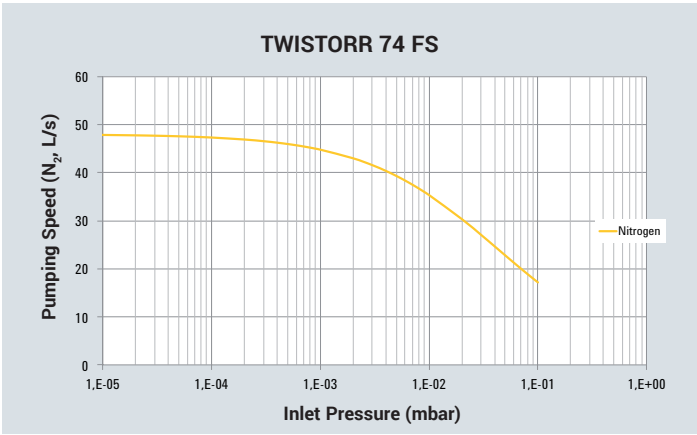
* The DIY Full Range Gauge Kit can be ordered separately, and includes Full Range Gauge FRG-700, Cable for gauge connection, Vacuum Tee and Connecting Hardware (Flanges according to the System inlet flange)

Other Accessories

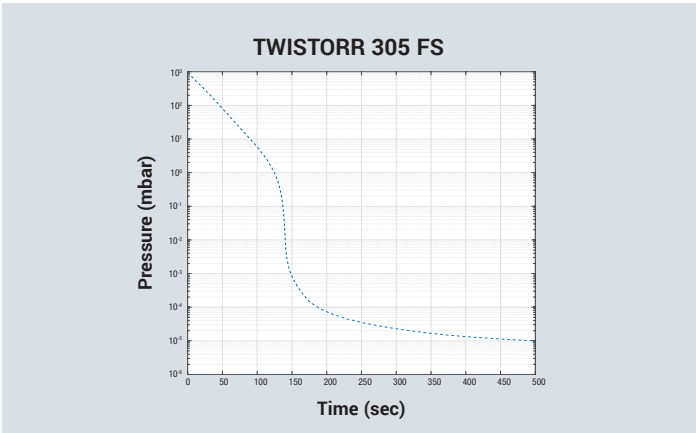
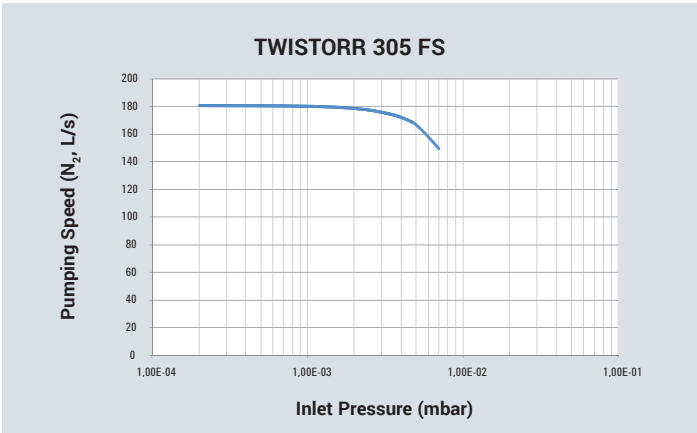
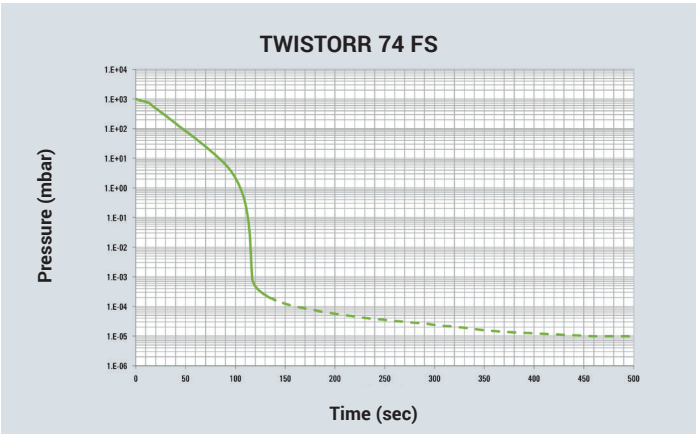
Wheels accessory kit	9698233	Mains cable NEMA plug**, 3 meters	9699958
Mains cable EU plug**, 3 meters	9699957	Serial cable for A-Plus software	9699883
Breather vent with adapter	IDP3GBKIT		

** Power cord to be ordered separately

Pumping Speed vs Inlet Pressure

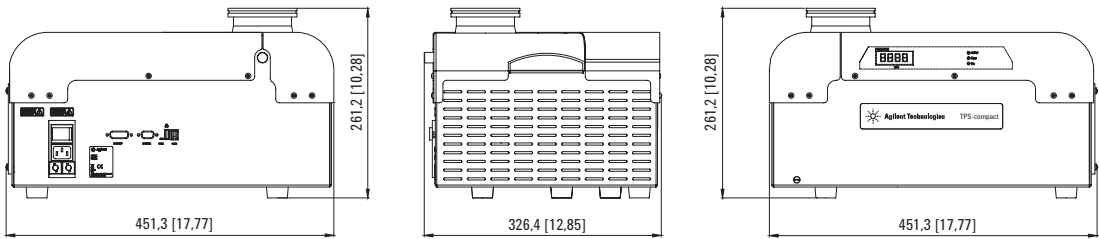


Pressure vs Time (with a pump down vol. of 15 L)

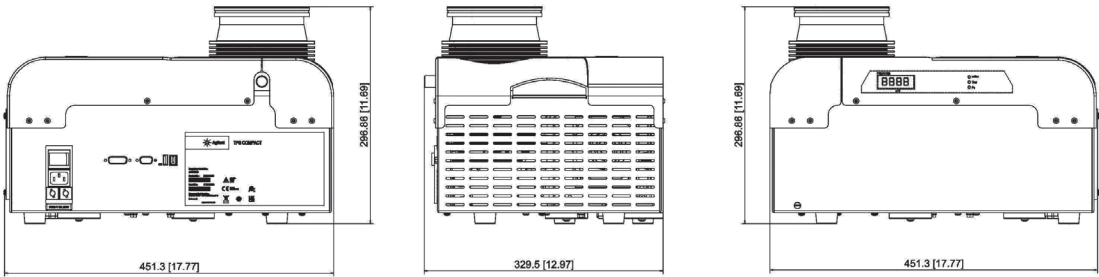


Outline Drawings

TPS-compact with
TwisTorr 74 FS
ISO 63



TPS-compact with
TwisTorr 305 FS
ISO 100



Dimensions: millimeters [inches]

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DE44509.4429166667

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Published in the USA, January 27, 2022
5994-0537EN