

TPS-flexy

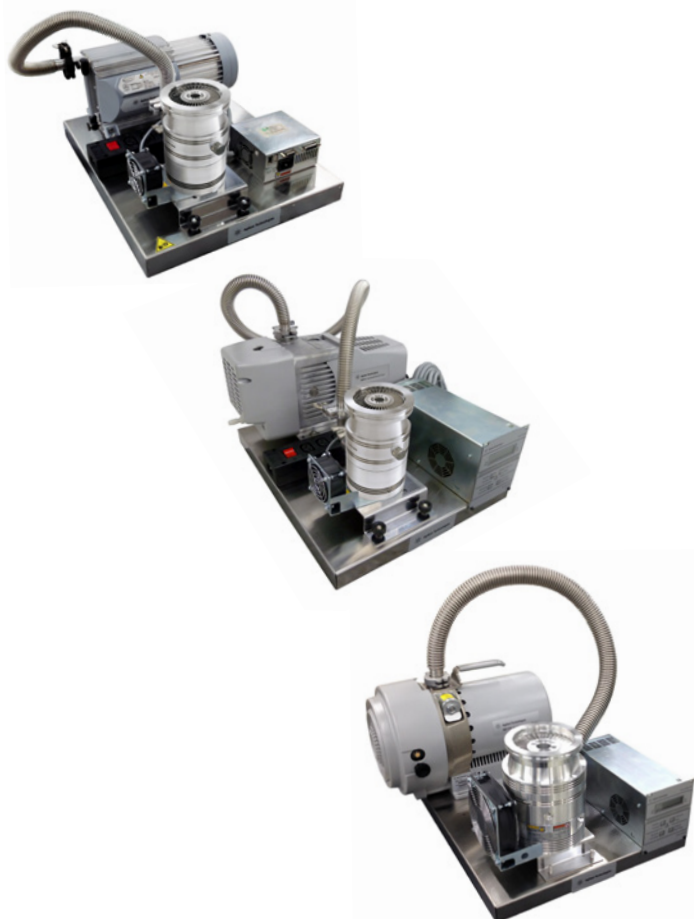
Data sheet

TPS-flexy: Do-It-Yourself Vacuum!

Create your integrated turbo pumping system with Twis torr 84 FS and 304 FS Turbo Pump, Onboard or Rack Controller, IDP-3 and SH-110 Dry Scroll Pumps or MD1 Diaphragm Pump.

Order the TPS-flexy package, follow easy assembling instructions plus video tutorial and get your system up and running in a few minutes!

Ordering Information



Part Numbers	Description	Weight (Kg)	(lbs)
X1699-64020	TwisTorr84FS ISO63; IDP3; 240V; onboard C/U	19.3	42.5
X1699-64040	TwisTorr84FS ISO63; IDP3; 240V; Rack C/U	20.7	45.6
X1699-64021	TwisTorr84FS KF40; IDP3; 240V; onboard C/U	19.2	42.3
X1699-64022	TwisTorr84FS KF40; IDP3; 240V; Rack C/U	20.6	45.3
X1699-64023	TwisTorr84FS CFF4.5; IDP3; 240V; onboard C/U	20.3	44.8
X1699-64041	TwisTorr84FS CFF4.5; IDP3; 240V; Rack C/U	21.7	47.8
X1699-64024	TwisTorr84FS ISO63; IDP3; 120V; onboard C/U	19.3	42.5
X1699-64042	TwisTorr84FS ISO63; IDP3; 120V; Rack C/U	20.7	45.6
X1699-64025	TwisTorr84FS KF40; IDP3; 120V; onboard C/U	19.2	42.3
X1699-64026	TwisTorr84FS KF40; IDP3; 120V; Rack C/U	20.6	45.3
X1699-64054	TwisTorr84FS CFF2.75; IDP3; 240V; onboard C/U	20.1	44.4
X1699-64055	TwisTorr84FS CFF2.75; MD1; 240V; onboard C/U	17.1	37.8
X1699-64027	TwisTorr84FS CFF4.5; IDP3; 120V; onboard C/U	20.3	44.8
X1699-64043	TwisTorr84FS CFF4.5; IDP3; 120V; Rack C/U	21.7	47.8
X1699-64048	TwisTorr84FS CFF4.5; SH110; Rack C/U	31.2	68.8
X1699-64028	TwisTorr84FS ISO63; MD1; 120-240V; onboard C/U	16.3	35.9
X1699-64044	TwisTorr84FS ISO63; MD1; 120-240V; Rack C/U	17.7	39.0
X1699-64029	TwisTorr84FS KF40; MD1; 120-240V; onboard C/U	16.2	35.6
X1699-64030	TwisTorr84FS KF40; MD1; 120-240V; Rack C/U	17.6	38.7
X1699-64031	TwisTorr84FS CFF4.5; MD1; 120-240V; onboard C/U	17.3	38.1
X1699-64045	TwisTorr84FS CFF4.5; MD1; 120-240V; Rack C/U	18.7	41.2
X1699-64032	TwisTorr304FS; ISO100; SH110; 120-240V; onboard C/U	31.8	70.1
X1699-64033	TwisTorr304FS; ISO100; SH110; 120-240V; Rack C/U	33.2	73.2
X1699-64034	TwisTorr304FS; CFF6; SH110; 120-240V; onboard C/U	33.8	74.5
X1699-64046	TwisTorr304FS; CFF6; SH110; 120-240V; Rack C/U	35.2	77.6
X1699-64035	TwisTorr304FS ISO100; IDP3; 240V; onboard C/U	22.3	49.2
X1699-64036	TwisTorr304FS ISO100; IDP3; 240V; Rack C/U	23.7	52.2
X1699-64037	TwisTorr304FS CFF6; IDP3; 240V; onboard C/U	24.3	53.6
X1699-64047	TwisTorr304FS CFF6; IDP3; 240V; Rack C/U	25.7	56.7

Orderable accessories

9699958	Mains cable NEMA Plug, 3 m long
9699957	Mains cable European Plug, 3 m long
FRG700KF25	Active Gauge FRG-700 Pirani/IMG Combination Gauge, KF25
FRG700CF35	Active Gauge FRG-700 Pirani/IMG Combination Gauge, DN40 CF
FRG702KF25	Active Gauge FRG-702 Pirani/IMG Combination Gauge, KF25 All metal - bakeable
FRG702CF35	Active Gauge FRG-702 Pirani/IMG Combination Gauge, DN40 CF All metal - bakeable
9699960	Gauge connection cable to AG rack controller - 3 m
9699961	Gauge connection cable to AG rack controller - 5 m
SR03741796	Power strip

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This information is subject to change without notice.

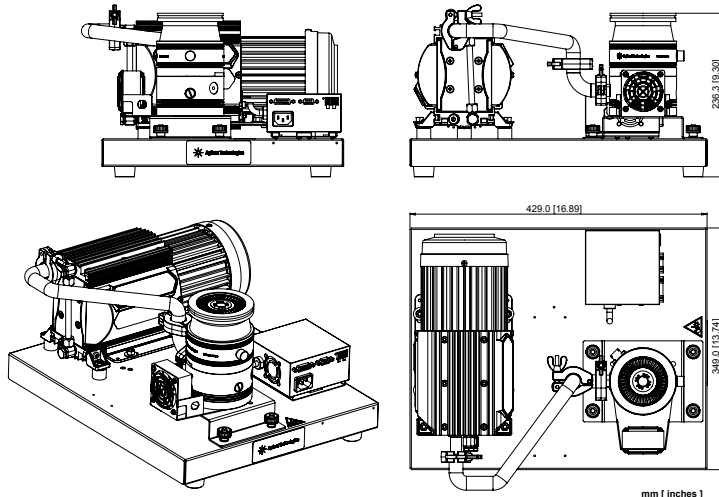
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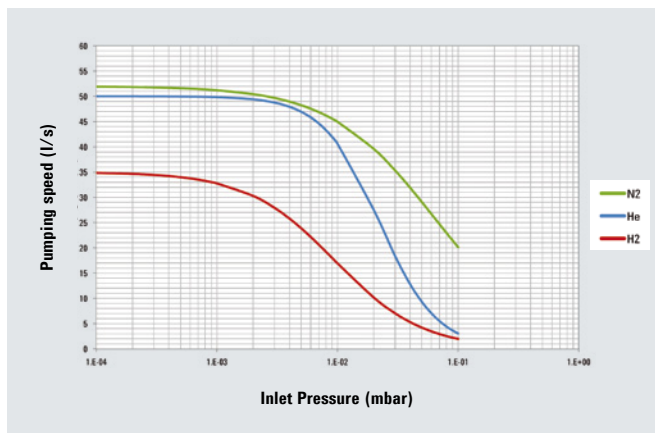
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TPS-flexy with TV84FS and MD-1

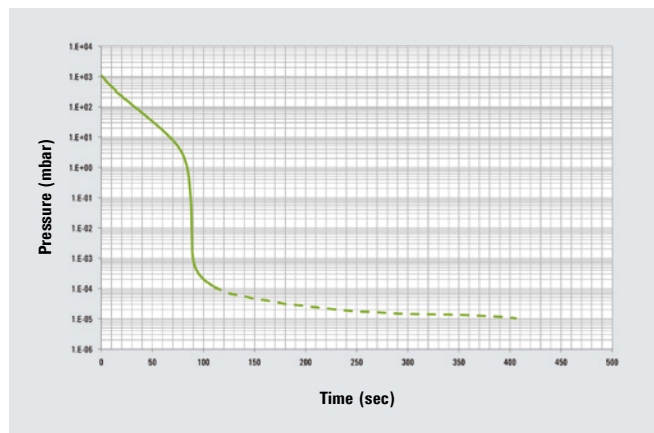
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Pumping Speed vs Inlet Pressure



Pressure vs Time (with a pump down vol. of 1 lt.)

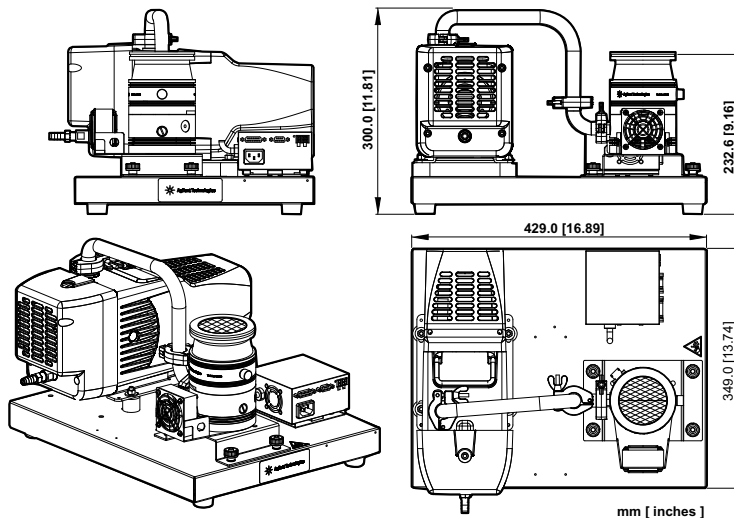


Technical Specifications

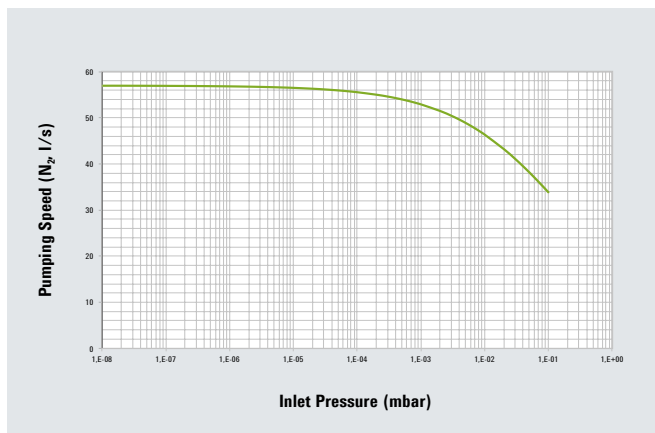
		KF 40	ISO 63	CFF 4.5 in.
Pumping Speed (l/s) (with inlet screen)	N ₂	38	52	52
	He	30	50	50
	H ₂	24	35	35
Base pressure*		2 x 10 ⁻⁷ mbar	2 x 10 ⁻⁷ mbar	5 x 10 ⁻⁸ mbar
Bakeout temperature		80 °C at inlet	80 °C at inlet	120 °C at inlet
Pumpdown time (1 liter volume)		60 sec. to 17 mbar; 114 sec. to 1 x 10 ⁻⁴ mbar; 140 sec. to 5 x 10 ⁻⁵ mbar		
Turbo pump rotational speed		81.000 rpm		
Start-up time		122 sec.		
Operating ambient temperature		5 °C to 35 °C / 32 °F to 122 °F		
Input Voltage and Frequency		90V to 240V AC; 50 Hz / 60 Hz		
Serial communications		RS-232 cable, 9-pin D-type male, 9-pin D-type female, T-Plus Navigator Software		

TPS-flexy with TV84FS and IDP-3

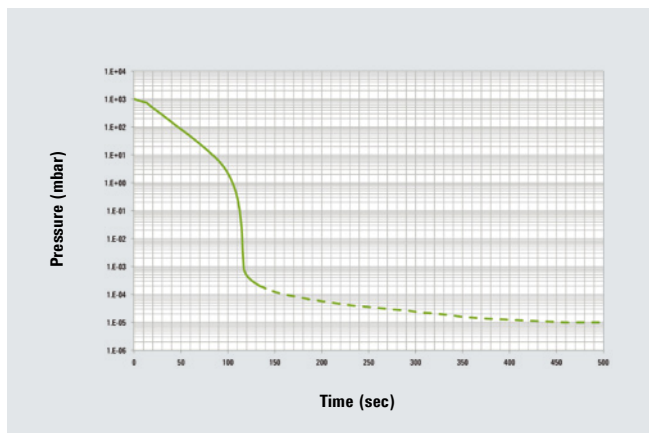
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Pumping Speed vs Inlet Pressure



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



Technical Specifications

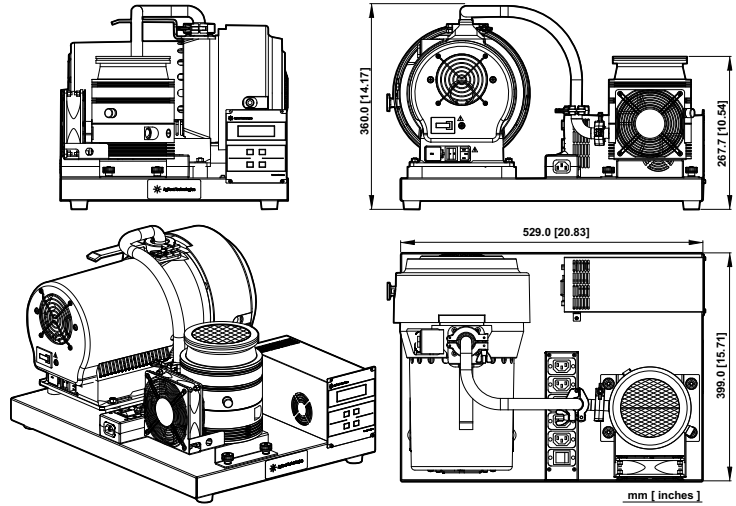
Pumping speed	N ₂ : 57 l/s (ISO 63, with inlet screen)*
Base Pressure**	1 x 10 ⁻⁹ mbar [CFF Flanges] - 1 x 10 ⁻⁸ mbar [ISO Flanges]
Pumpdown Time (15 lt volume)	46 sec (100 mbar); 104 sec (1 mbar); 160 sec (1x10 ⁻⁴ mbar); 210 sec (5x10 ⁻⁵ mbar); 400 sec (1.3 x 10 ⁻⁵ mbar)
Turbo pump rotational speed	81.000 RPM
Start-up Time	144 sec.
Operating Ambient Temperature	5°C to 35°C
Input Voltage and Frequency	115 Vac 60Hz or 220-240 Vac 50/60 hz
Bakeout Temperature	120°C at inlet [CFF Flanges] - 80°C at inlet [KF/ISO Flanges]
Communication	RS232 - Analogical I/O

* Pump nominal speed: TwisTorr 84FS

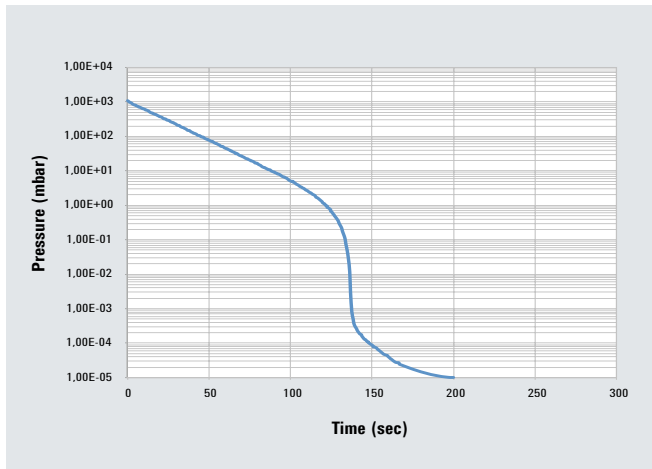
** According to standard DIN 28 428

TPS-flexy with TV304FS and SH-110

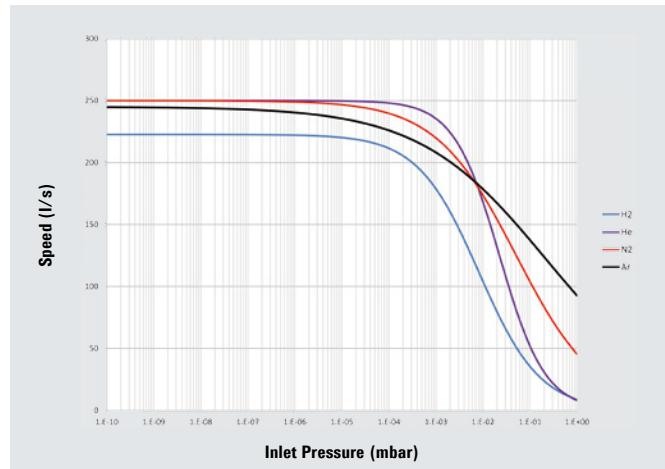
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Pressure vs Time (with a pump down vol. of 15 lt.)



Pumping Speed



Technical Specifications

Pumping speed	ISO 100 / CF 6"
N ₂	250 l/s
He	255 l/s
H ₂	220 l/s
Ar	250 l/s
Rotational speed	60000 rpm (1010 Hz driving frequency)
Start-up time	< 3 minutes
Operating ambient temperature	+5 °C to +35 °C
Relative humidity of air	0 - 90 % (not condensing)
Bakeout temperature	80 °C at inlet flange max (ISO flange)