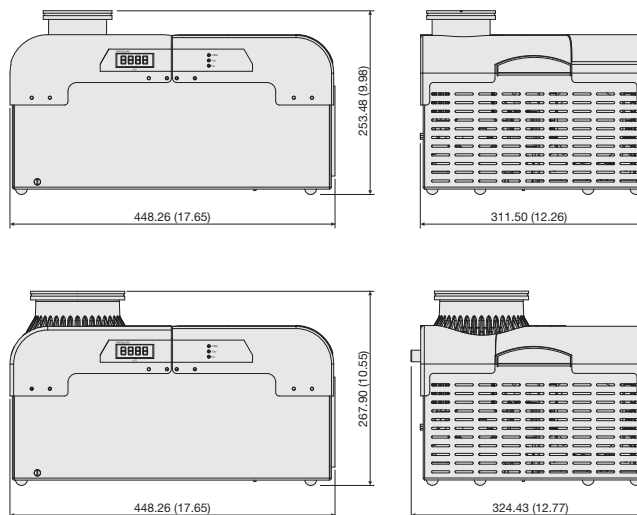


# Agilent TPS Turbo Pumping Systems Models

## Agilent TPS-compact



Dimensions: millimeters (inches)

A portable, fully Integrated, hydrocarbon-free pumping system powered by the Turbo-V 81 MacroTorr or Turbo-V 301 Navigator pumps, backed by the unique Agilent 60 l/min IDP-3 Dry Scroll, new generation primary pump. A cost-effective pumping solution with large pressure display, Active Gauge capability, voltage 110-220 V, CE/CSA certified.

### Features

- New generation Turbomolecular Pump Turbo-V 81-M and TV301 Navigator
- Compact, light, dry, clean and robust system
- Voltage (110-220) - CE/CSA certified
- RS-232 or analogical communication
- High vacuum gauge driving card
- Large pressure data display
- Pressure driven set point, analog set point
- IDP-3 Dry Scroll backing pump
- This product can be offered with wheels

### Benefits

- Designed for demanding applications
- Cost-effective pumping solution
- Can be used world-wide
- Easy to use: plug and play system
- Complies with world-wide safety standards
- Easy system pressure measurement
- Easy Tip-seal replacement (10 min)
- Excellent base pressure up to  $10^{-9}$  mbar
- Easy to be moved in small space
- Highest compression ratio for  $H_2/He$

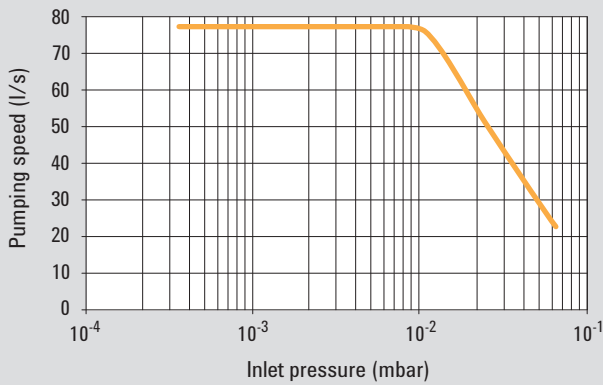
### Technical Specifications

	Equipped with TV81M	Equipped with TV301
<b>Pumping speed</b>	$N_2$ : 77 l/s	$N_2$ : 250 l/s
<b>Base pressure</b>	$1 \times 10^{-9}$ mbar* (CFF flanges) - $1 \times 10^{-8}$ mbar (ISO flanges)	$1 \times 10^{-9}$ mbar* (CFF flanges) - $1 \times 10^{-8}$ mbar (ISO flanges)
<b>Pumpdown time</b> (14 lt volume)	80 sec (100 mbar); 110 sec (1 mbar); 155 sec ( $1^{-4}$ mbar); 400 sec ( $1^{-5}$ mbar)	80 sec (100 mbar); 110 sec (1 mbar); 155 sec ( $1^{-4}$ mbar); 230 sec ( $1^{-5}$ mbar)
<b>Turbo pump rotational speed</b>	80,000 RPM	56,000 RPM
<b>Start-up time</b>	15 sec.	15 sec.
<b>Operating ambient temperature</b>	5 °C to 35 °C	5 °C to 35 °C
<b>Input Voltage and frequency</b>	115 Vac 60 Hz or 220-240 Vac 50/60 Hz	115 Vac 60 Hz or 220-240 Vac 50/60 Hz
<b>Maximum input power</b>	260 VA	310 VA
<b>Bakeout temperature</b>	120 °C at inlet (CFF flanges) - 80 °C at inlet (KF/ISO flanges)	120 °C at inlet (CFF flanges) - 80 °C at inlet (ISO flanges)
<b>Communication</b>	RS232 - Analogical I/O	RS232 - Analogical I/O
<b>Weight</b>	16.7 kg (36.8 lbs)	19.1 kg (42.1 lbs)

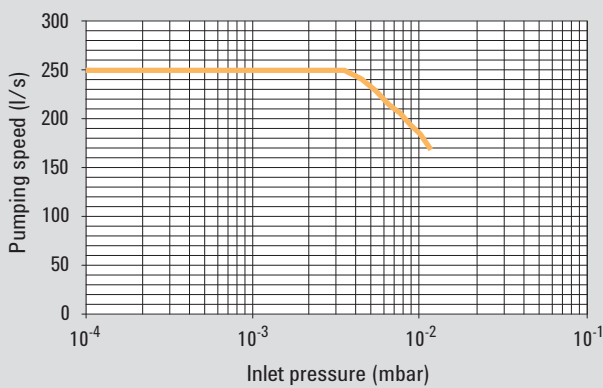
\* According to standard DIN 28 428.

# TPS Turbo Pumping Systems

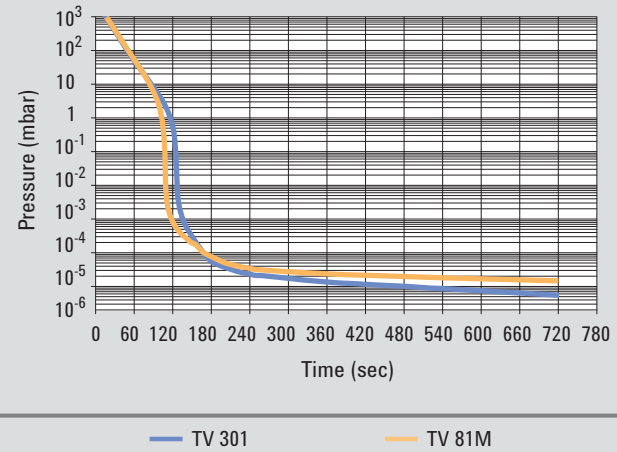
**Pumping Speed vs Inlet Pressure - TV 81M (DN 63)**



**Pumping Speed vs Inlet Pressure - TV 301 (DN 100)**



**Pressure vs Time (with a pump down vol. of 14 lt.)**



## Ordering Information

Wheels accessory kit	9698233
EU Power cable (2 m)	9499396
US Power cable (2 m)	9499397
UK Power cable (2 m)	9499398
EU Power Cord (5 m)	9698450
US Power Cord (5 m)	9698452
UK Power Cord (5 m)	9698451
Serial Cable and T-Plus Navigator Software	9699883

## Applications

- Electron Microscopy and Mass Spectrometry**  
 The new TPS-compact Integrated Turbo Pumping System is the perfect tool to keep the column of an electron microscope under vacuum while performing maintenance or repair on the device.  
 The oil-free nature of the system guarantees freedom from contamination of the column.
- Industrial Applications**  
 The TPS-compact Turbo Pumping System can create and maintain the required vacuum level in separate chamber of an industrial system during maintenance or repair.

- Semiconductor Manufacturing**  
 The TPS-compact is particularly well suited for evacuating load-lock chambers. Its oil-free design ensures the purity of the process.  
 The TPS-compact may be mounted in any position, making it suitable for most system configurations.
- High Energy Physics and Research Centers**  
 This new Turbo Pumping System may be used in any laboratory where there is a need to create high vacuum and ultra high vacuum in chambers quickly and easily.  
 The new generation electronics and the pressure display ensure the accuracy of the process.

## Ordering Information

TPS-compact	TV81M KF40	TV81M CFF 2.75"	TV81M ISO 63	TV81M CFF 4.5"	TV301 ISO 100	TV301 CFF 6"	TV301 ISO 160	TV301 CFF 8"
120 V	9698217	9698218	9698219	9698220	9698221	9698222	9698223	9698224
220 V	9698225	9698226	9698227	9698228	9698229	9698230	9698231	9698232

### Accessories

DIY Full Range Gauge Kit*	9699190	9699199	9699192	9699193	9699194	9699201	9699195	9699202
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**NOTE** Special Vent Valve available on request

\* The DIY 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)