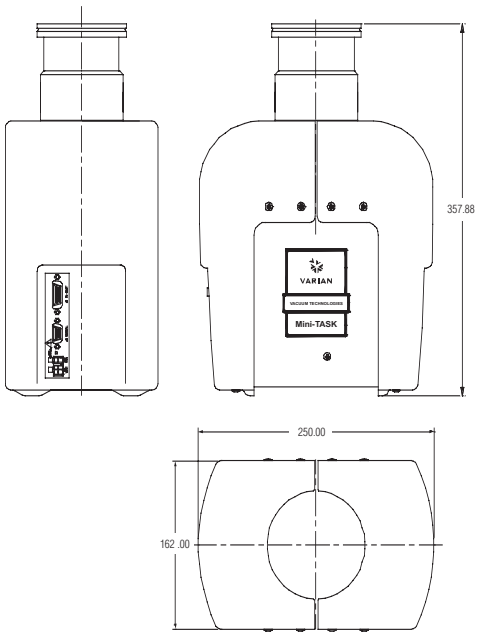


Very compact, oil-free, economical pumping systems incorporating a diaphragm backing pump.

The TASK is a compact bench top turbo pumping system mounted in a handsome console utilizing the SH-100 Scroll Pump and the V70LP turbo molecular pump.

Outline Drawing inches (mm)



Flange	A Height
KF-40	366 (14.4 in.)
ISO-63	356 (14.0 in.)
4.5 in. CFF	355 (13.97 in.)

Benefits

- Compact
- Dry, Clean System
- Portable (7.5 kg)
- Ease of Use. Simply Plug & Pump.

Applications

- Load lock chambers
- Gauge calibration
- Electron microscope column maintenance
- Rough pumping of lab and small systems
- Portable vacuum systems

Technical Specifications

Base Pressure
KF40/ISO63 2 x 10^{-7} mbar
4½ in. CF 5 x 10^{-8} mbar*
Pumpdown Time (1 liter volume)
60 sec. to 24 mbar
120 sec. to 1 x 10^{-4} mbar
160 sec to 7 x 10^{-5} mbar
Rotational Speed
75 Krpm
Start-up Time
< 2 minutes
Operating Position
Any

Operating Ambient Temperature
5 °C to 35 °C
Input Voltage/Frequency
90 – 240 Vac/50-60 Hz
Maximum Input Power
220 W
Bakeout Temperature
120 °C at Inlet (CF)
80 °C at Inlet (KF, ISO)
Serial Communications
RS232 cable, 9-pin D-type male, 9-pin D-type female connector, Navigator™ software

*__NOTE:__ According to standard DN 28 428, the base pressure is that measured in a leak-free test dome, 48 hours after the completion of test dome bake-out, with a Turbopump fitted with a ConFlat Flange

Ordering Information

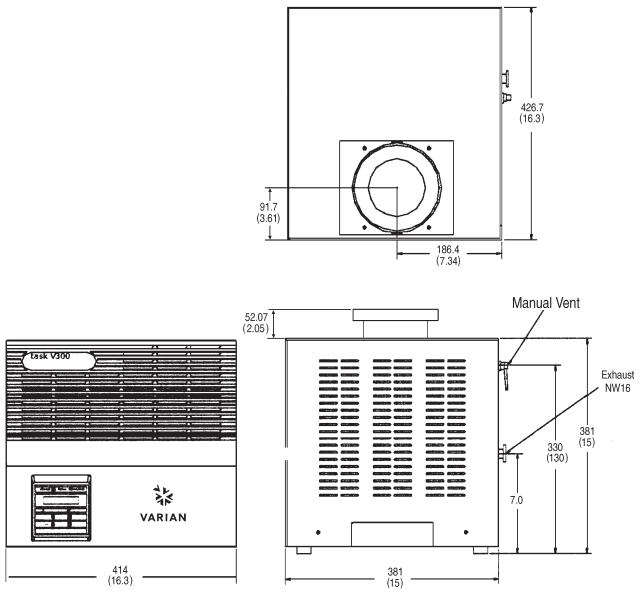
Turbo Pump	Backing Pump	Inlet Flange	Pumping Speed (l/s)			Part Number	Shipping Weight lbs. (kg)
			N_2	H_2	He		
Turbo-V70LP	MD10	NW40	40	36	45	9699170	16.4 (7.5)
	MD10	ISO 63	60	40	55	9699171	16.4 (7.5)
	MD10	CFF 4.5 in.	60	40	55	9699172	18.3 (8.3)



Compact, oil-free, economical, scroll-backed turbo pumping systems.

The TASK is a compact bench top turbo pumping system mounted in a handsome console utilizing the SH-100 Scroll Pump and the V70LP or V301 turbo molecular pumps.

Outline Drawing mm (inches)



Applications

- Great variety of HV, UHV, research and industrial applications
- UHV system roughing

Features

- Oil free
- Incorporates the high throughput SH-100 scroll backing pump
- One button operation
- 68 to 280 liter/second (N_2) pumping capability
- Available in 120/220 VAC (50/60 Hz)
- KF, ISO or ConFlat flanges
- Manual turbo vent valve
- NW16 exhaust connection
- Compact console
  - Vented case
  - Lifting hand holds
  - Rubber feet
- CE and CUL approvals

Benefits Over Diaphragm Pumping Systems

- Faster rough down times
- Higher throughput at higher pressures
- No catastrophic rough pump failures
- Longer maintenance intervals
- Less vibration
- Lower ultimate pressures
- Greater turbo pump life

Benefits Over Rotary Vane Pumping Systems

- Oil free, no oil contamination
- No oil purchase or disposal expense
- No oil traps and mist eliminators

Technical Specifications

Base Pressure

Turbo-V70LP	KF40/ISO63	4×10^{-8} mbar
	2.75/4.5 in. CF	4×10^{-9} mbar
Turbo-V301	ISO100/160	1×10^{-8} mbar
	6.0 in./8.0 in. CF	$<1 \times 10^{-9}$ mbar

Rotational Speed
56 Krpm
Start-up Time
< 2.5 minutes
Operating Position
Vertical
Operating Ambient Temperature
5 °C to 35 °C
Input Voltage/Frequency
90 – 240 VAC/50-60 Hz
Maximum Input Power
736 W/486 W
Bakeout Temperature
120 °C at Inlet (CF)
80 °C at Inlet (KF, ISO)
Serial Communications
RS232/485 – cable with 9-pin D-type

The TASK series Dry Turbo Pumping Systems produce oil-free high vacuum in a compact, self-contained unit. TASK systems utilize the SH-100 scroll backing pump for higher throughput and greater longevity than diaphragm pumps. The TASK systems are operated with one button, making operation very simple and foolproof. Inlet valves, instruments and vacuum hardware are also available as accessories. Please see the table of accessories, pages 18-19.

TASK Configurations

Turbo Pump	Backing Pump	Inlet Flange	Pumping Speed (l/s)			Part Number 120 V 60Hz	Part Number 220 V 50 Hz	Shipping Weight lbs (kg)
			N_2	H_2	He			
Turbo-V70LP	SH-100	KF40	46	42	52	MSPS7111	MSPS7112	105.7 (47.9)
	SH-100	2.75 in. CFF	46	42	52	MSPS7121	MSPS7122	108.8 (49.4)
	SH-100	ISO63	68	45	60	MSPS7131	MSPS7132	105.7 (47.9)
	SH-100	4.5 in. CFF	68	45	60	MSPS7141	MSPS7142	108.8 (49.4)
Turbo-V301	SH-100	ISO100	250	200	220	MSPS3011	MSPS3012	109.7 (49.8)
	SH-100	6 in. CFF	250	200	220	MSPS3021	MSPS3022	117.3 (53.2)
	SH-100	ISO160	280	210	230	MSPS3031	MSPS3032	109.7 (49.8)
	SH-100	8 in. CFF	280	210	230	MSPS3041	MSPS3042	117.3 (53.2)