

STW Series Vacuum Pumping Stations

Features:

- Self-contained, turnkey system
- Turbomolecular pump
- 110VAC or 220VAC air cooled
- Portable
- Clean room compatible
- Single button operation



Pulse Instruments' STW Series of Vacuum Pumping Stations are selfcontained, turnkey, clean room compatible, high vacuum pumping systems.

A mechanical two-stage, direct-drive, rotary vane backing pump allows you to rough the systems directly through the turbomolecular pumping system. A rechargeable assimilation foreline trap and mechanical valves within the mechanical pump protect the high vacuum components from backstreaming.

Optional sizes of turbomolecular pumps provide a high compression ratio and high pumping speed for hydrogen, so high vacuum is easily obtained.

Operation is fully automatic, from atmospheric pressure to high vacuum. And, if an unexpected rise in pressure occurs, the pump rotating speed is automatically reduced. Precision balanced, the turbo pump operates at extremely low vibration and noise levels. The pump is air cooled and can be run in an ambient temperature of up to 35

The vacuum gauge controller measures pressures from atmosphere to less than 1×10^{-9} Torr by use of a single ionization gauge and two Convectron gauges.

Pressure readout via digital front panel display and resistance heating degas is standard. An interlock only allows degas when the gauge tube has been on and displayed pressure is below 5×10^{-5} Torr.

Pulse Instruments can design custom vacuum pumping stations that meet specific customer requirements.

Possibilities include:

- Varying cabinet and working surface sizes and configurations
- Different pumping types, such as compound molecular, helicalgrooved, and magnetic-suspended turbomolecular pumps
- Vacuum-controlled smart pumping stations

deg. C.

A stainless steel manifold has four available 1.5-in. conflat ports for access. Each port can contain a 1.5-in. bellows sealed manifold valve, 6-in. long, flexible bellows with a 0.50-in. diameter quick-connect type manifold.

The manifold is designed to support an optional cold trapping system, while the manifold view port allows observation of ion gauge operation and insight into the vacuum manifold.

- **Custom manifold configurations**
- **Light weight, man-portable pumping stations**
- **Oil-less pumping stations**

Please [contact Pulse Instruments](#) to discuss your specific requirements.

STW Series Vacuum Pumping Stations

Among the features of the STW Series are fast pumping times, compact design and ease of maintenance. It is a rugged, dependable system with portability that allows flexibility for offsite and remote use.

Ordering Information			
Specs.	STW-160	STW-310	STW-520
Volume Flow Rate			
N2	160	310	520
He	150	330	540
H2	140	320	490
Max. Compression Ratio			
N2	2.0×10^7	1.0×10^3	1.0×10^8
He	8.0×10^4	1.0×10^3	1.0×10^5
H2	3.0×10^3	7.8×10^3	7.0×10^3
Rotor Speed (RPM)	48K	30K	24K
Start-up Time (Min.)	5	10	10
Base Vacuum Pressure (Torr)	5.0×10^{-7}	1.0×10^{-8}	1.0×10^{-8}

Accessories	
Model MTW-15 Manifold Valve Kit <ul style="list-style-type: none"> This field installable kit includes a 1-1/2" bellows manual valve, 6" flexible bellows, and a .5" diameter quick vacuum adapter. 	Model CTW-4 Cold Trap <ul style="list-style-type: none"> This 4" cold trap has LN2 pour fill that reduces base pressure to 10^{-8} Torr for the STW160
Model CTW-6 Cold Trap <ul style="list-style-type: none"> This 6" cold trap has LN2 pour fill that reduces base pressure to 10^{-9} Torr for the STW310 and STW520 	Model RGA-10 Residual Gas Analyzer <ul style="list-style-type: none"> This gas analyzer and leak detection device has a quadra-pole mass analyzer head and three main menu modes: vacuum scan, bar chart and leak check