

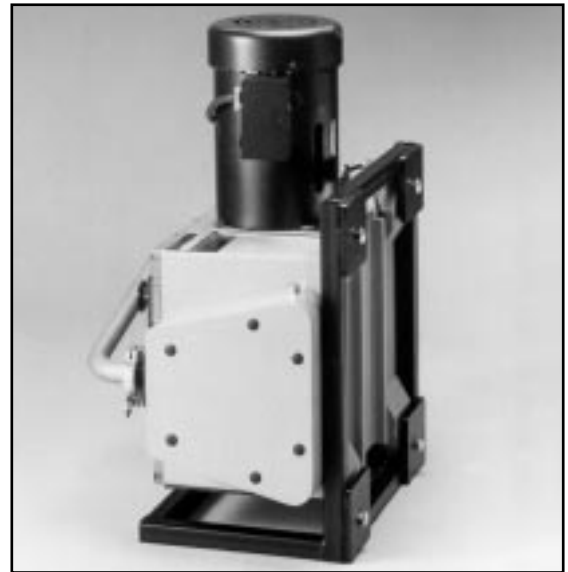
# Portable Dry Pumps

Now your VRL Dry Roughing Pump can be easily rolled from one system to another on heavy duty rubber tire casters. The handle and casters kit is available on any new VRL Dry Pump and can also be installed easily and quickly on any model pump you already have. The casters have 4 inch diameter wheels with rubber tires and a locking brake for each wheel. The rigid push-pull handle is fabricated of heavy wall tubing and MIG welded for maximum strength. It is 32 inches long and can be easily removed and reattached to the pump.



VRL Model 2 By 6 Series Dry Pump. This photo also shows the optional soft start speed control.

# Horizontal or Vertical



VRL Dry Pumps can be installed in any orientation and can be mounted on floor, ceiling, or wall. Vertical mounting with this simple frame reduces the footprint to 1.4 ft<sup>2</sup> (0.12 m<sup>2</sup>) approximately 10" x 20" x 27" high, P/N: 4699-5022 .....\$290.

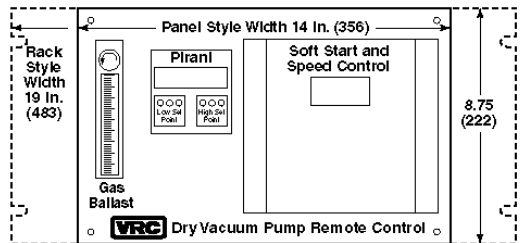
## Ordering Information

Complete kit including: push-pull handle, 4 locking casters with 4 inch diameter wheels, and all mounting hardware, P/N: 4699-5020 . . .\$590.  
Casters only. 4 locking casters with 4 inch diameter wheels and mounting hardware, P/N: 4699-5021 .....\$205.

# Locate Controls Up To 300 Feet From Pump

To optimize conductance for shortest evacuation or crossover times best practice dictates installing the pump as close as possible to the chamber, tool, or beam line. In such circumstances you may want to consider remote controls for your Dry Vacuum Pump so that the operator can easily monitor or change pumping conditions without leaving the control station. The VRL Remote Control packages are prewired and tested prior to shipment and only a few connections are required for installation.

When this optional Dry Pump Remote Control is specified the Soft Start, Speed Control, Gas Ballast, and Digital Pirani Gauge are all installed on a single panel that can be located wherever is most convenient for the operator. The 1 to 2000 mTorr Pirani Gauge has a large digital display, linear analog output and two adjustable setpoints. These setpoints can be adjusted by the user to reduce the Dry Pump speed and capacity when roughing is complete, or in conjunction with other process functions, such as the start of substrate heating.



## Ordering Information

**For Series and Smart Dry Pumps™.** System for remote control of VRL Dry Pump including Soft Start and Speed Control with Power On/Off switch, Gas Ballast Flow Control, and Digital Pirani Gauge with range of 1 to 2000 mTorr, two adjustable set points, 0 to 2 VDC analog output, and 10 foot motor and gauge tube cables. P/N: 4699-5023 add "Rack" or "Panel" suffix; no change in price .....\$1450.\*

**For Single Stage and Parallel Dry Pumps.** System for remote control of VRL Dry Pump including Soft Start and Speed Control with Power On/Off switch, Gas Ballast Flow Control, and Digital Diaphragm Gauge with range of 1 to 1500 Torr, two adjustable set points, 0 to 1.5 VDC analog output, and 10 foot motor and gauge tube cables. P/N: 4699-5024 add "Rack" or "Panel" suffix; no change in price .....\$1510.\*

\*These prices include 10 feet (3m) of power cable for pump motor and 10 feet (3m) of gauge tube cable. You may specify cables up to 300 feet (90 m) at \$2.00 per ft. Add cable length as a suffix to P/N.