

## Choose Welch Vacuum . . . ProBoost™



Model  
1392

- High vacuum to  $10^{-5}$  torr
- Use with high vacuum & Schlenk lines
- Employs air cooled diffusion pump
- Easy attachment to backing pump

**Figure 1:** ProBoost connected to a CRVpro 8 rotary vane-vacuum pump configured with optional pump connection kit (cat. no. 1392K-01) and high vacuum valve (cat. no. 704523) for <10 liter chamber volumes

Welch's ProBoost is an air cooled gas jet pump (commonly called a diffusion pump). The gas jet is formed by directing boiling silicone vapors through a hollow cone. No internal moving parts. The pumping action commences when the vacuum pressure in the still (ie wiped film) goes below 0.2 Torr (200 millitorr). On an empty, leak free still, ProBoost backed by a rotary vane pump lowers the vacuum pressure to 0.00002 Torr (20x lower in pressure than a 2-stage rotary vane vacuum pump can do alone).

ProBoost backed by a rotary vane vacuum pump will lower vacuum pressure to below 0.0001 torr in high vacuum and Schlenk lines. This high vacuum is invaluable to improve the results from reactions using air-sensitive compounds such as organometallics, metal amides, and hydrides.

ProBoost has a built-in control board for fan and heater. When you turn on ProBoost, the fan and heater both turn on. When you turn off ProBoost, the heater turns off immediately and the fan runs for another 20 minutes to cool the pump.

### ProBoost Technical Specifications\*

Specifications	Model 1392
Maximum Pumping Speed, Air	80 liters/sec
Ultimate Vacuum Pressure	0.00002 torr
Minimum Backing Pump FAD@60Hz	2.8 CFM
Maximum Discharge Pressure	0.2 torr
Ambient environmental temp	10 to 35 deg C
Heat-up time	7 minutes
Inlet Connection	NW50
Discharge Connection	NW25
Silicone Oil Capacity*	Approximately 30 ml
Cool down time	20 minutes
Pump dimensions: L x W x H	5.5 x 5.4 x 7.5 in
ProBoost weight lbs (kg)	5.6 lbs (2.5 kg)
Ordering Information	
115V 60Hz 1Ph with N.American plug	1392B-01
230V 50Hz 1Ph with Schuko plug	1392C-02

\*ProBoost comes with NW50 clamp, NW50 centering ring, NW25 clamp, NW25 centering ring, line cord, cooling fan, switch, and 100 ml of Welch ProBoost Silicone Oil, Cat. No. 1391K. Pump connection kit is required to connect a ProBooster to a rotary vane pump.

Usage	Description	Consists Of	Cat No.
Connects ProBoost to CRVpro 4,6,8, 16, 24 and 30 <10 Liter volume	Components needed to connect to rotary vane pump and neck ProBoost inlet to NW25	(1)180 deg NW25 elbow, (2) SS NW25 centering ring assemblies, (2) NW 25 hinge clamps; (1) conical reducer NW25 to NW50	1392K-01
Closes off ProBoost prior to releasing vacuum to still	Stainless Steel High vacuum butterfly valve	Very high conductance NW25 valve with quick open and close	704523
Alternative to rubber hose**	Flexible metal hose, 19.7	Accordion metal tubing with NW25 flanges to connect ProBoost to vacuum chamber or still	710762

\*\*To achieve maximum performance with ProBoost with your still, Welch recommends NW flange connections and metal hose plumbing. For >10 liter volume or still, a by-pass plumbing configuration is used. Consult with your Welch sales rep on vacuum system design.