

**Welch®**  
**Laboratory Vacuum Catalog**  
**2005-2006**

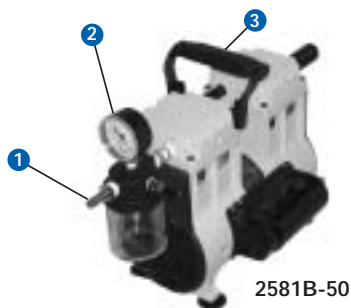
**Glove Box**  
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# Glove Box

## Oil-Free Evacuation of Glove Box and Transfer Chamber



2581B-50

"Did you know that the dial vacuum gauge on the transfer chamber gives a vacuum reading relative to atmospheric?"

- 1 High flow - 100 L/min, and vacuum to 5 Torr(29.8" Hg)
- 2 Gauge to monitor vacuum level
- 3 Lightweight, compact pump

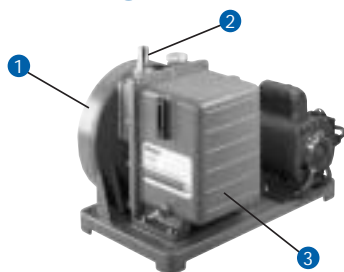
### Standard Duty Dry Vacuum Pump

Oil-Free Vacuum Pump provides continuous, reliable vacuum that your glove box application requires. Suited for evacuating the transfer chamber during the purge fill cycle and purging a glove box up to 30 cubic feet(0.84 cubic meters). Added accessories simplify use, lower noise level, and extend service life.

Cat. No.	Description <sup>1</sup>
2581B-50	100 L/min, 29.8" Hg, 115V, 60Hz with N. American 115V plug
2581C-50	83L/min @ 50/60Hz, 6.7 mbar, 230V 50Hz with IEC connector and detachable Schuko line cord, CE

Note: 1. See pages 20-21 for more details.

## High Vacuum For Stainless Steel/Glass Glove Boxes



1402B-01

- 1 High flow - 160 L/min, and vacuum to <0.001 Torr
- 2 Low pump RPM for long service life
- 3 High contamination tolerance for regeneration

### DUOSEAL® Vacuum Pump

DUOSEAL Vacuum Pumps are known for their ruggedness world-wide. These pumps have large oil reservoirs for their pumping capacity to dilute contaminants that pass through the dry ice trap used during regeneration. Pump can be ordered with optional exhaust filter (cat. no. 1417A) to control exhaust oil mist.

Cat. No.	Description <sup>2</sup>
1402B-01	160 L/min, 115/230V, 60Hz 1 Ph with N. American 115V plug
1402C-02	Same as 1402B-01, except 230V, 50Hz with IEC connector and detachable Schuko line cord, CE

Note: 2. See pages 26-27 for more details.

### Application Note on Glove Boxes

Glove boxes are commonly used for transferring air sensitive compounds, containment of hazardous materials, and performing experiments under controlled conditions. Standard glove boxes and transfer chambers aren't normally evacuated much below 25 Torr(29" Hg) due to plastic material limitations - Both acrylic and polycarbonate which are used in standard glove boxes are not suited for deep vacuum (1 Torr operation).

High end glove boxes capable of deeper vacuum normally are constructed of stainless steel & heavy glass plates. These glove boxes include continuous gas purification of the main glove box chamber using a circulating fan or pump. After about 6 months, the purifier canister is regenerated by passing inert gas over the unit while it is heated followed by a few hours of full vacuum. Glove box manufacturers vary in their recommendation of the depth of vacuum needed in this final step to regenerate their purification canister.