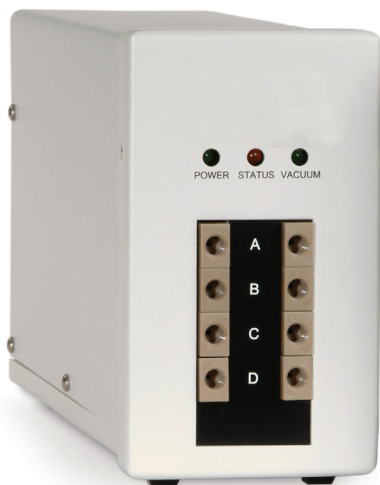


Chrom Tech Vacuum Degassers



- High efficiency degassing
- Continuous monitoring for leaks and errors
- Smallest footprint available
- Quiet, long-life operation
- Two and four channel models
- Designed for HPLC — No solvent compatibility issues

Chrom Tech HPLC Vacuum Degassing Systems are high-efficiency inline modules that quickly and conveniently remove dissolved gasses from HPLC eluents. The unique design of the modules assures reliable continuous operation and the highest level of continuous performance available, thus eliminating the need for helium degassing. Depending on the model, two to four solvent lines may be degassed simultaneously by one unit. Compared to PTFE degassing, the extremely low internal volume of the module's analytical-scale Teflon® AF channels provide quicker equilibration and shorter startup times.

Degassing Chamber and Membrane

The heart of Chrom Tech's Vacuum Degassing System is the Teflon AF degassing membrane. Within each vacuum chamber, there is a single, highly efficient and chemically inert hollow tube, which operably removes dissolved gas from the flowing eluent stream. As the HPLC mobile phase passes through the Teflon AF tubing, dissolved gas migrates under a concentration gradient through the fluid and tubing into the vacuum where it is exhausted to the atmosphere. Teflon AF degassers are a low flow restriction alternative to PTFE degassers.

Unique Vacuum Pump

Chrom Tech HPLC Degassing Systems use a two-stage, series, stepper motor driven vacuum pump with a unitary PTFE diaphragm designed specifically for the rigors of HPLC degassing. On power up, each model self-tests and validates its vacuum sensor. The pump runs continuously and is whisper quiet. The vacuum system is continuously vented.

Ten Year Life

The life expectancy of the vacuum pump is greater than 220 million cycles, or typically 10 years of average use.

Constant Vacuum Level

System Condition Responsive — Closed loop electronic control continuously monitors the system for faults and varies the vacuum pump speed (RPM) to quickly evacuate the vacuum chambers and sustain a constant vacuum level for optimal degassing conditions

Ease of Use

The “Ready-to-Run” degassing system equilibration time is three minutes or less. These units are easy to prime due to their low flow resistance and ultralow internal volumes. Absolute zero vacuum hysteresis means clean detector baselines

Validation Output

A 2-pin rear panel receptacle labeled “Validation” with mating screw-lock plug is provided to allow a validation signal from the control circuit to be sent to a computer or data system. This validation output indicates vacuum level.

Tubing Connections

We recommend Tefzel® tubing be used to limit regassing of mobile phase between the degasser and your pump. Tefzel is recommended due to its superior impermeability to gases (compared to Teflon®).

Specifications:

Volume/channel	480µL
Flow rate/channel	1.0mL/min (for 70% gas removed from MeOH) ¹
Pressure drop²	1.37mm Hg/mL/min
Flow path id	0.45" (1.14mm)
Wetted pathways	Metal-free, PEEK™ and Teflon®
Flow path connections	1/4-28 flat-bottom ports ³
Signal	5mVDC/1mm Hg absolute from 20 to 800mm Hg (0.100VDC at 20mm Hg; 4,000 VDC at 800mmHg)
Accuracy	Accuracy ±1.0% of reading ±0.010 VDC from 20 to 800mm Hg
Display	LED indicator lights
Power requirement	100 to 240 VAC (±10%), 1A, 50 to 60Hz (±3Hz), AC adapter included. Four interchangeable plugs are supplied with the AC adapter: North America/Japan, U.K., Continental Europe and Australia
CE certification	These products have been certified under the following CE testing standards: EN61326-1;EN55011;EN61300-3-2;EN61300-3-3 and EN61010-1.
Dimensions	2.87" W x 5.00" H x 9.81" D
Patents	Degasser technology protected by U.S. Patents 5,340,384; 6,248,157 and 6,494,938.
Technology license	Licensed by DuPont® to use Teflon® AF for degassing under U.S. Patent 5,006,382.00

¹Flow rate that will remove 70% of dissolved gas from a single channel of pure methanol.

²Estimated tubing pressure per unit change in flow assuming laminar flow with a viscosity of 1.0cp

³Fittings are not included with the unit. Accepts 1/4-28 flangeless fittings.

Chrom Tech Degasser Ordering Information*

Cat. No.	Description
VD-2101	2 Channel Model
VD-4101	4 Channel Model

Recommended Fittings (not included with unit):

P-300X	Flangeless ferrules for 1/8" OD tubing, 10/pk
P-301X	Flangeless nuts for 1/8" OD tubing, 10/pk
P-200X	Flangeless ferrules for 1/16" OD tubing, 10/pk
P-201X	Flangeless ferrules for 1/16" OD tubing, 10/pk

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