



ESSENTIAL Elements

EBARA TECHNOLOGIES INC.

New & Views • May 2010 • Vol. 12 Issue 2

Meeting Today's Electrical Regulatory Requirements



TODAY'S MANUFACTURERS FACE many regulatory requirements and code compliances. From selecting the equipment through completing the installation and qualifying the process, the equipment selection process must take into consideration all local, regional, national as well industry safety standards to ensure complete safety and code compliance. EBARA's industry leading experience in vacuum pumping systems can make this process easy for our customers. For vacuum pumps systems, the primary areas of concern are overcurrent protection, lockout/tagout, emergency off and short circuit current rating. At EABARA, we apply three primary safety criteria: NFPA 70 National Electrical Code (NEC), SEMI S2-03-0706b Environmental, Health & Safety (aka "SEMI S2") and Marking by a Nationally Recognized Testing Laboratory (NRTL).



Marking is the practice of applying labels bearing the trademark symbol of NRTL. An NRTL inspector may "field label" individual pieces of equipment; however, the more common practice is the granting of an Authorization to Mark to a manufacturer, who then places a Label on individual units at his factory. The NRTL tests the equipment and inspects its documentation against a standard and, for dry pumps, writes a "Listing Report". After resolution of any discrepancies noted in the Report, the NRTL grants the Authorization to Mark. The NRTL also performs quarterly follow-up inspections of the manufacturing location(s) to ensure that the manufacturer continues to build equipment per the Listing Report and observe the test and record requirements of the standard. Only a few jurisdictions (e.g. Oregon, Oregon-Washington Tri-counties, and Research Triangle, North Carolina) require Marking as a matter of law; certain customers, primarily tool manufacturers ("OEM's") insist on it.



At EBARA Technologies we have been working with closely with our customers and their local inspectors to quickly review and evaluate any and all code requirements that may come up during an installation. EBARA has a long history delivering vacuum systems that meet and exceed the local, regional and national regulations in regards to safety. Working on a pump project? **Contact EBARA today!**



The National Electrical Code is the primary standard for local building inspectors. For most jurisdictions in the U.S., it has statutory authority. For equipment, local building inspectors usually require compliance only to the nameplate, over current protection and disconnect requirements



SEMI S2 is an industry guideline, which, in most jurisdictions, equipment users have the discretion to adopt or ignore, in part or in total. There is no label, mark or certification associated with SEMI. However, users may request a third-party assessment report to ensure the equipment meets the minimum industry standard for safety.



The New Green is EBARA Blue. Global Service/Local Providers

Small Vacuum Pumps for Light Gas Applications

EBARA's Portable Dry Vacuum (PDV) Series Dry Vacuum Pumps provides a clean, reliable vacuum for today's high tech manufacturing, semiconductor, thin film, photovoltaic, biomedical and pharmaceutical industries. The new Gas Ballast (GB) feature provides more efficient pumping for lighter gases such as Helium or Hydrogen.

The PDV-GB Dry Vacuum Pumps offers a lower cost, oil free, energy efficient vacuum pumping solution for clean applications. The PDV-GB Series Dry Vacuum Pumps require no annual maintenance, offers a low cost of ownership and high return on investment. EBARA offers PDV250-GB, 7 CFM and PDV500-GB, 15 CFM models both pumps have an ultimate pressure of 15 mTorr with nitrogen purge. The PDV-GB Series are air cooled, low vibration, quite running with serial communications that allows remote control and monitoring. The PDV-GB Series are suitable for applications requiring clean reliable vacuum processing which typical use scroll and wet pumps.



EBARA Technologies, Inc.
Service and Sales presence:

Headquarters
51 Main Ave.
Sacramento, CA 95838
1-800-535-5376

San Jose, CA	Newburyport, MA
Portland, OR	South Portland, MA
Manassas, VA	East Fishkill, NY
Austin, TX	Essex Junction, VT
Wake Forest, NC	Yorktown, NY

Did you know Ebara Technologies can service all makes and models of vacuum pumps?

EBARA Technologies Inc. provides unsurpassed service to our customers in a wide range of industries that rely on vacuum technology. Our customers can't afford any downtime. They rely on us for fast, dependable service. Our Service Staff with many years of experience and is eagerly awaiting their next remanufacturing project.

EBARA's remanufacturing capabilities are centralized in Sacramento, CA with additional Quick Response Centers strategically located throughout North America for fast response. Our website, www.ebaratech.com allows you to track where your products are anywhere in the service process. Repair and remanufacturing services include: disassembly, decontamination and

cleaning, module assembly, system assembly, leak check, and performance test, pump replacement.

Ebara can supply standard repair and return, advanced exchange and upgrade programs to contribute to our customer's maintenance programs. EBARA Technologies, Inc can assist you with the servicing of:

- Rough Vacuum Pumps – wet & dry
- High Vacuum Pumps – Turbo & Cryo
- Point of Use Abatement Systems
- Chillers
- RF Power Supplies
- Mass Flow Controllers
- Parts Cleaning

Come See Us at:

New Mexico AVS Show
Albuquerque, NM
May 25, 2010

New England AVS Show
Burlington, MA
June 9, 2010



www.ebaratech.com
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