

RETROFITTING EXISTING VACUUM SYSTEMS WITH ON-BOARD CRYOPUMPS

Vacuum users who currently have non-**On-Board** cryopump-equipped vacuum systems can now retrofit those systems with **On-Board** cryopumps. System retrofits yield important benefits:

- ▶ *Integrated, centrally accessible pump monitoring/control.* All of the functions of each individual pump are easily controlled from a pump- or rack-mounted keypad/display, or from your host computer.
- ▶ *Central control of entire cryopump networks.* Every function of every pump in a large network of pumps is easily accessible from your host computer — temperature and pressure control, roughing and purge valves, relays, even rapid regeneration. The necessity to enter a clean room to regenerate a cryopump no longer exists.
- ▶ *Integrated diagnostics.* The **On-Board** system shows you how much up-time you're getting between regenerations, and gives you similarly detailed readouts on cooldown time, warmup time, and much more. You'll know far in advance about even the slightest tendency toward performance degradation.
- ▶ *Enhanced process control.* **On-Board** cryopump system control software can be tuned exactly to the parameters of your vacuum process, giving you unmatched productivity and performance. And the **On-Board** system's standard first-stage temperature control gives you superior performance in such processes as sputtering.
- ▶ *Faster, more thorough regeneration.* **On-Board** 8 cryopumps typically regenerate in less than 2½ hours. **On-Board** 10 cryopumps, in a little over an hour and a half. Moreover, because of regeneration technology developed for **On-Board** systems exclusively, regeneration is more thorough than ever before. The result of rapid regeneration is increased system up-time.



- ▶ *Backed by GUTS (Guaranteed Up-Time Support).* As always, if you ever have a question or need help, call 1-800-FOR-GUTS (1-800-367-4887) 24 hours a day, 365 days a year. A vacuum expert will always be there for you.



DESCRIPTION

On-Board cryopump retrofit kits are available in a variety of sizes to enable vacuum users to convert their systems quickly and easily to **On-Board** pump configuration. Kits include the pump, an electrical controller designed to interface your **On-Board** cryopump with your present compressor, and any other hardware necessary for installation.

(**On-Board** pumps feature factory-integrated roughing and purge valves, rapid regeneration capabilities, integrated communications and diagnostic capabilities, and much more. For complete details on any **On-Board** cryopump, request **On-Board** pump-specific data sheets.)

Users of Cryo-Torr 8, 8F, 10, or 400 cryopumps can upgrade to **On-Board** cryopump systems by taking advantage of trade-in allowances which are offered regardless of the age of the traded CTI pumps.

Users of non-CTI cryopumps, or of oil diffusion or turbomolecular pumps, should contact CTI to determine whether their systems can be adapted to use **On-Board** cryopump systems.

CTI-CRYOGENICS also offers specialized kits for custom retrofits. For example, if your **On-Board** pump will be used in a Varian* 3180 or 3190 system, special pump hardware is required. It is included in the retrofit price and supplied as an integral part of the kit.

CTI-CRYOGENICS offers extensive applications engineering and technical support, to make your conversion to **On-Board** systems as smooth as possible.

RETROFIT PROCEDURE

Contact your nearest CTI-CRYOGENICS representative or any CTI office to be certain your current system can be upgraded to **On-Board** pump functionality.

To take advantage of the trade-in allowance, users of Cryo-Torr cryopumps issue a purchase order for the full value of the **On-Board** pump, which is billed when shipped. The serial number of the Cryo-Torr pump to be traded must be included on the purchase order for the **On-Board** pump. Your account is credited for the traded pump as soon as it has been received in Mansfield.

If your Cryo-Torr pump needs an overhaul, it may be especially advantageous to consider retrofitting your system to an **On-Board** pump instead. Not only would you save the cost of an overhaul, but your current, un-overhauled CTI pump still qualifies for a trade-in allowance toward a new **On-Board** pump.

Because so many variations exist in individual systems — flange types, cable lengths, etc. — it is impractical to list part numbers here for every possible **On-Board** retrofit kit configuration. For specifics, call our Customer Service representatives in Waltham or Santa Clara, or any CTI representative. Their telephone numbers are listed below.

CONCLUSION

On-Board cryopump systems can bring you unprecedented up-time, productivity, performance, and ease-of-use. Because they can be regenerated so fast and so thoroughly, **On-Board** pumps spend more time running, giving you unmatched productivity. Because they're built by CTI-CRYOGENICS, you know they'll keep on running. And because we spent years working with scores of users throughout the design and development of **On-Board** systems, you know they're practically effortless to use.

For more information on retrofitting your vacuum system with **On-Board** cryopump systems, call your CTI representative or your nearest CTI-CRYOGENICS office.

CTI-CRYOGENICS

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