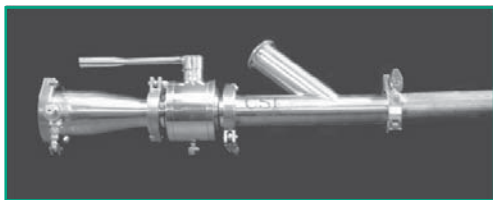




Swash™ Sanitary Pipe Recovery and Cleaning System

APPLICATION

The Swash™ Sanitary Pipe Recovery and Cleaning System, 16500, was developed by Swash Sanitizing Equipment in an effort to provide a cost effective means of recovering valuable product from sanitary piping of all standard sizes, and at the same time, cleaning the piping to sanitary or even sterilization specifications. The system is available in standard configurations for 1, 1.5, 2, 3 and 4 inch sanitary piping. Any facility that utilizes sanitary piping will find the system to be efficient and easy to use. It will push product out of the piping at the end of a run while cleaning the piping at the same time. Fittings are included to facilitate propulsion with gases or liquids and a steam input line is available to achieve sterilizing conditions. Typical industries that could benefit from the system include wineries and other beverage firms, pharmaceutical, nutraceutical and cosmetics firms, food companies, dairies and any other companies that transport liquids, semi-liquids or soft solids through sanitary piping.

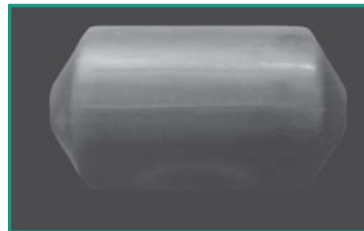


Swash™ Launcher

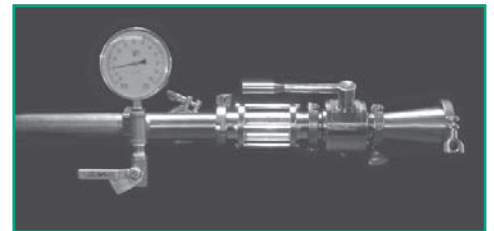
PRINCIPLES OF OPERATION

The fundamental methodology is based on a very tight fitting silicone "bullet" referred to in industry as a "pig". The pig is introduced into the sanitary piping system via a launcher which provides a means for the pig entering the pipeline. A "Y" connector allows the process piping to enter the launcher after which the material is directed into the facility process piping.

At the end of a production run, the pig is launched by closing a process piping valve upstream of the launcher and opening the launcher valve. Pressurized air, nitrogen, water or steam at approximately 100psi is used to propel the pig out of the launcher and down the process pipe line, pushing the product down the line. At the end of the line, a retriever is utilized to capture the pig. A valve in the retriever permits relief of pressure in the line, after which the pig is manually retrieved from the receiver. A variety of accessories facilitate the process and permit sterilization of the process piping.



Swash™ Pig



Swash™ Retriever

Interference Fit -

- Removes virtually all of process product.
- Eliminates nearly all water usage when using gas as a propellant.
- Cleans inside surfaces uniformly and effectively.
- Allows product line change over of compatible products (e.g. Merlot to Cabernet Sauvignon or chocolate ice cream to a chocolate ice cream with chips).
- Prevents dilution of process product compared to pushing out residual product with water.
- Prevents process product from contact with oxygen and the prospect of dissolved oxygen in the product.
- **Manual operation** - highly cost effective and easy to use. No electrical power required to operate the launcher or receiver.
- **Available in standard sanitary piping sizes** - easily incorporated into existing sanitary piping lines.
- **FDA grade silicon pig** - durable, long lasting and approved for use with food contact.
- **Separate steam input connection included** - permits steam sanitization or even sterilization in-place (SIP) without removing the launcher or retriever.
- **Sanitary component construction** - can be easily customized for unique installations.