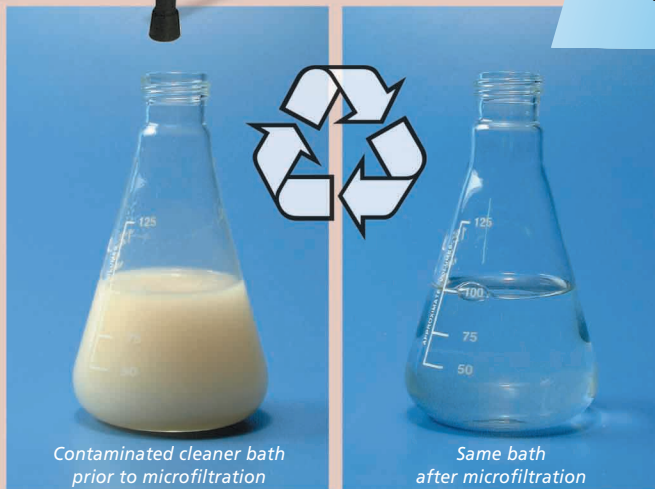
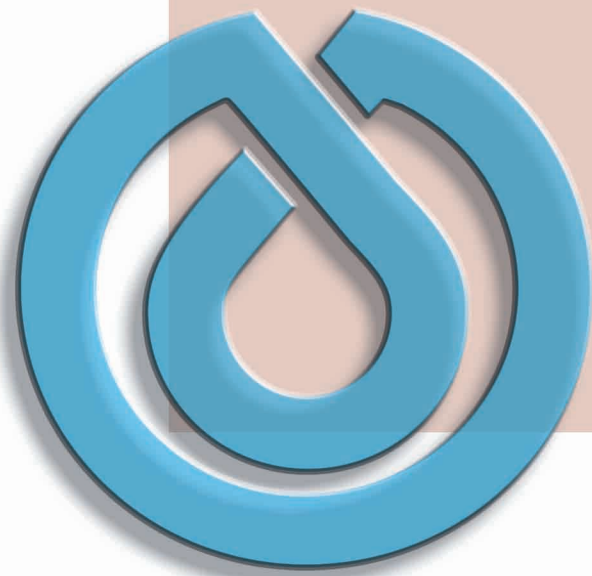


**XYBEX® MEMBRANE
MICROFILTRATION
RECYCLING SYSTEM**



*durable, portable
microfiltration*



*Contaminated cleaner bath
prior to microfiltration*

*Same bath
after microfiltration*

master CHEMICAL CORPORATION
SYSTEMS EQUIPMENT DIVISION

Products Increasing Productivity

XYBEX® MEMBRANE MICROFILTRATION RECYCLING SYSTEM

durable, portable microfiltration

FEATURES

- Constructed entirely of stainless steel for the ultimate in durability
- Thermally bonded titanium dioxide membrane provides 0.1 micron nominal filtration with no disposable media
- Filtration modules will last five to ten years in normal usage
- Adjustable T μ F™ controller allows for virtually unattended operation
- Small physical size/footprint
- Completely portable
- Minimal utility requirements (110 VAC, 60 Hz)

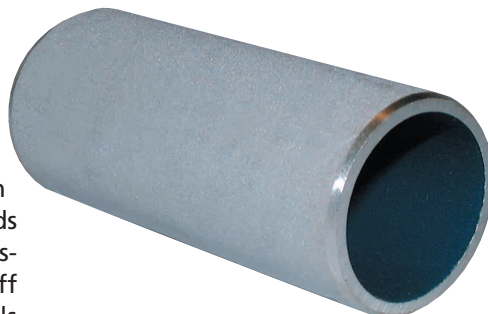
CAPABILITIES

- Removes particulate and emulsified oils as fine as 0.1 micron
- Handles fluid streams from 1 to 14 pH
- Purifies synthetic coolants, cleaners, parts washing baths, and even mop water for re-use
- Flow rates to 45 GPH¹
- Suitable for high temperature operation (230°F Max)

OPERATION

The portable XYBEX® Membrane Microfilter uses patented technology to remove solids as fine as 0.1 micron, and other contaminants such as emulsified oils from process fluids without the use of additional processing tanks to purify the solution off line. The unique T μ F™ controller pulls fluid into the equipment automatically. The patented controlling device then provides automatic purification of the process fluid while periodically providing a self-cleaning cycle. The durable membranes can be easily cleaned to restore nearly "first day performance" throughout the entire lifetime of the microfilter.

The heart of the filter is a sintered stainless steel tube, coated on the interior diameter with titanium dioxide, then fired at high temperature. This combination of substrates provides the ultimate in durable, rugged, and dependable microfiltration. The filter membrane will last at least five to ten years in normal usage.

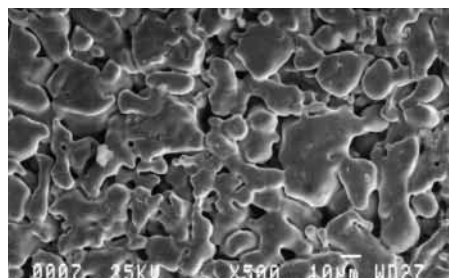


The Microfilter is a sintered stainless steel tube coated on the interior with a fired titanium dioxide membrane.

During filtration, the fluid flows through the tube, and migrates, perpendicular to the center axis of the tube, through the sintered stainless steel tube and titanium dioxide coating. The electron micrographs below show the fine porosity of the coated surface. As the fluid is purified, the clean, filtered fluid permeates the tube and is collected in the tank for re-use.

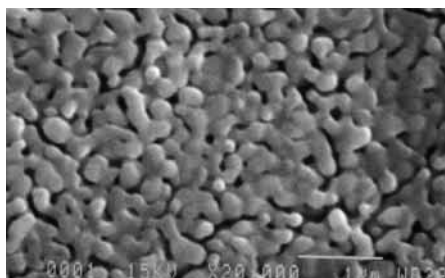
The filtered contaminants are concentrated inside the tube. The controller opens a valve and purges the concentrated contaminants out of the tube for collection and disposal.

The microfilter not only removes fine particulates, but can also remove emulsified oils from process fluids such as parts washing baths. Removal of these types of contaminants allows for virtually indefinite re-use of suitable process fluids. Just think – no more filters to throw away, and better still – less waste fluids picked up for disposal.



Electron micrograph of sintered stainless steel tube (500X magnification)

Photographs courtesy of Graver Technologies.



Electron micrograph of titanium dioxide membrane coating (20,000X magnification)

¹ Flow rate dependent on fluid viscosity, chemistry, and temperature

For prices or additional information on special units or special applications, contact your Master Chemical Corporation Distributor:



master chemical corporation

Systems Equipment Division

1300 Flagship Drive

P.O. Box 361

Perrysburg, OH 43552-0361 USA

Phone: 419-874-7902

Fax: 419-872-9206



Visit our website: www.xybex.com

Systems Equipment Division is a QS 9000

Tooling & Equipment Supplement certified facility.

©2001 Master Chemical Corporation

TRIM® and XYBEX® are registered trademarks of Master Chemical Corporation.

TWIN-CHANNEL™ Microfilter™ and T μ F™ are trademarks of

T μ F Technologies, Inc. of Worthington, Ohio, USA.

1-2001