



## ***Automatic, Permanent media, High flow systems for — Filtering Metal Finishing Process Solutions and Cleaners, and for Polishing Clarified Treated Waste Treatment Streams***



### **FEATURES**

- Produces sparkling clean solutions
- Automatic, microprocessor controlled —  
Markedly reduces operating and maintenance costs
- Permanent media — Eliminates media disposal and replacement
- High flows — 50 to 500 GPM
- Corrosion resistant — Chambers are PVC lined or hard rubber lined steel with PVC or CPVC piping and pumps for process solutions. Systems for non-corrosive solutions are suitably designed with high quality materials as well.
- **CE Conforming**

### **BENEFITS**

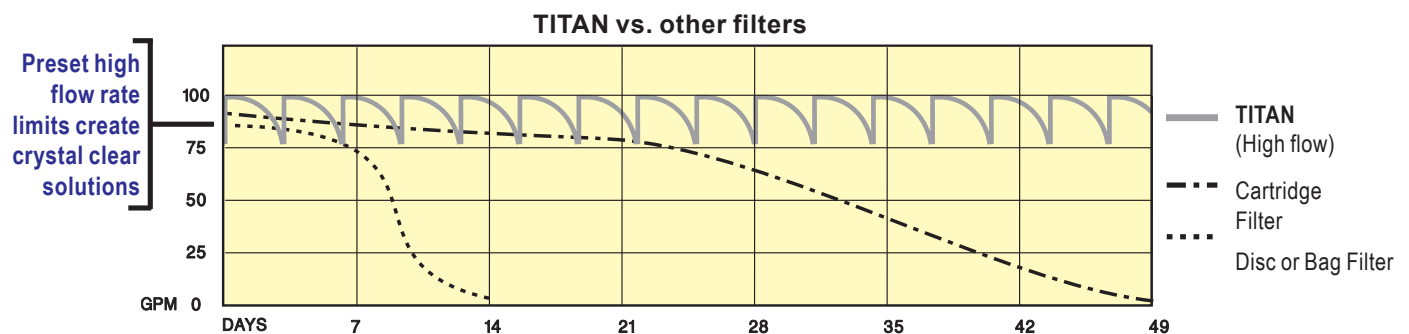
- Dramatically reduces media and disposal costs.
- Improves finished goods and process quality, significantly increases yields, practically eliminates scrap and rework.
- Reduces chemical consumption by maintaining solution quality.
- Minimizes solution maintenance with high flow, continuous particle removal.
- Satisfy regulatory requirements by polishing clarifier overflow.

Unique to any other filtration system available, the TITAN series is the result of SERFILCO's ongoing commitment to developing "up flow" and "down flow" permanent media filtration technology.

The combination of high flow permanent media, automatic operation and proven success makes the SERFILCO TITAN superior to any other filter available.

Easy to install and operate, manufactured with high quality corrosion resistant materials, TITAN systems will provide years of trouble-free operation.

Hundreds of customers around the world have achieved dramatic improvement in quality while reducing costs using the automatic permanent media TITAN.



**SERFILCO - worldwide leader in service, dependability and design for over 40 years.**



The **SERFILCO TITAN** is a series of automatic backwash systems which use permanent filter media of a specific size, shape and density that creates a filter bed through which contaminated solution is fed at controlled limits of flow and pressure. Microprocessor control automatically maintains constant design flow without compacting particles onto the media bed.

The automatic cycle, programmed for optimum use of backwash fluid, responds automatically to a preset minimum flow rate. Prior to the automatic backwash cycle, process solutions are purged from the system with low pressure air. During the backwash cycle, particles exit the chamber without media migration. The process occurs within minutes, resulting in an extremely efficient backwash for each filter cycle. Re-establishment of the filtration cycle returns the system to design flow.

TITAN systems are specifically designed for use with most aqueous process solutions including cleaners, plating and other metal finishing solutions, and treated final effluents. Each TITAN system incorporates a corrosion resistant filter chamber for use with permanent media and has electrically actuated valves, an efficient centrifugal pump, a digital elec-

tronic flow meter, pre-wired control panel and pre-programmed microprocessor. Automatic control components are housed in a NEMA 12 enclosure, factory wired and test cycled for all microprocessor programs.

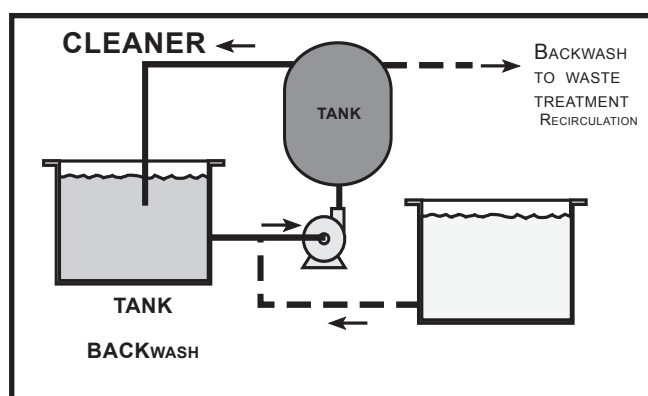
Cleaner models have a steel chamber, piping and valves and a cast iron single seal pump. Metal finishing models have PVC lined or hard rubber lined steel chambers with PVC piping and valves. Models designated ALK have single seal cast iron pumps; models designated AC have double seal CPVC pumps. Treated waste models have PVC lined steel chambers with PVC piping and valves. Models W-50, W-100, W-150 have double seal CPVC pumps. Models W-200 and larger have single seal cast iron pumps.

All units are skid-mounted, though large sizes have the chamber located separately. External metallic surfaces are painted with two coats of a two-part epoxy enamel. All fasteners are stainless steel. Prior to shipment, all units are wet tested to insure piping integrity, flow rate and complete system operation. Media is purchased and shipped separately. If required, backwash and recirculation tanks are also available from SERFILCO.

## FILTRATION SYSTEMS FOR CLEANERS

Designed specifically for cleaners and parts washers.

- **AQUEOUS SOLUTIONS and CLEANERS to 190°F**  
Extend cleaner life almost indefinitely  
Drastically decrease costly dumps



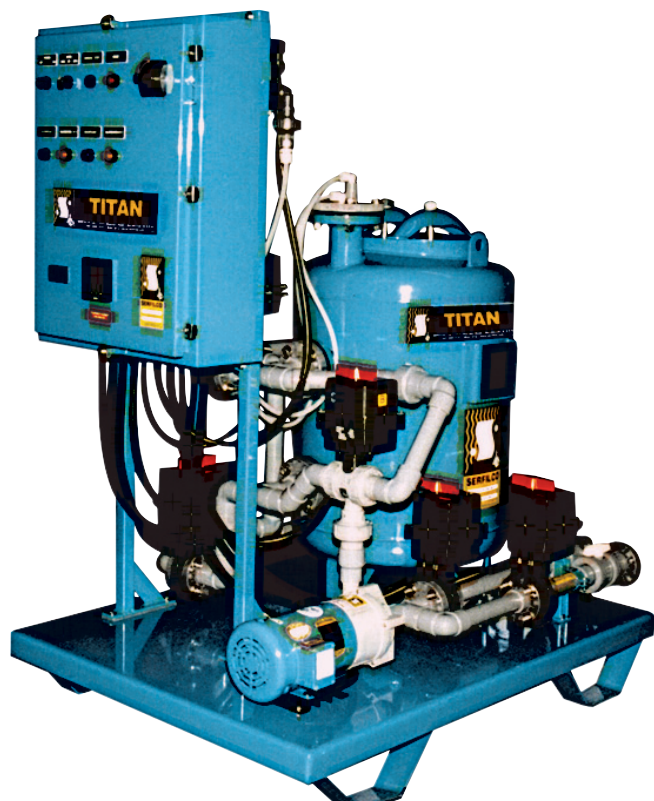
### SEQUENCE OF OPERATION

- Filtration**
- Air purge solution back to cleaner tank**
- Backwash with clean water**
- Air purge backwash to waste treatment**

| MODEL<br>MAX. | FLOW*<br>GPM | HP  | SYSTEM DIMENSIONS (In.) |                | CONNS.<br>IN & OUT<br>(NPT) | SHIP.<br>WT.<br>(Lbs.) | PRICE<br>CODE NO. |
|---------------|--------------|-----|-------------------------|----------------|-----------------------------|------------------------|-------------------|
|               |              |     | L x W x H               | FILTER DIA. ** |                             |                        |                   |
| CLN50         | 50           | 1.0 | 42 x 54 x 78            | 24             | 1½"                         | 950                    | S-2934 1          |
| CLN100        | 100          | 3.0 | 48 x 64 x 78            | 36             |                             | 1250                   | S-2934 2          |

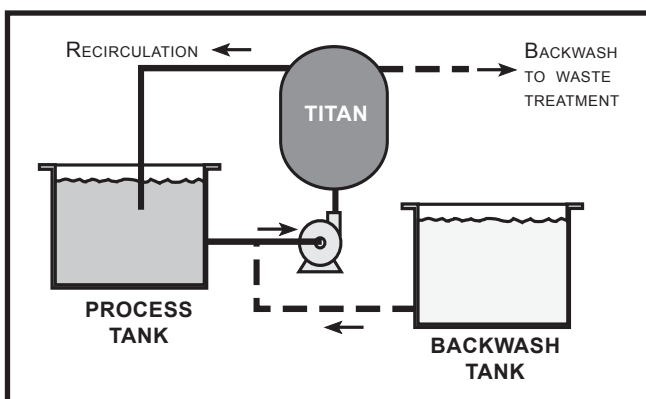
\* Full flow, flooded suction, no discharge restriction (U.S. GPM @ 60 Hz)

\*\* Chamber is mounted on system base.



- **FOR ACID OR ALKALINE SOLUTIONS –**  
acid or alkaline zinc, and bright nickel plating solutions, anodizing and phosphating solutions
- **OPTIONAL CARBON PURIFICATION**

Designed specifically for metal finishing solutions. Improve finished goods quality, minimize scrap and rework, reduce chemical consumption and maintain a crystal clear bath, with high flow, automatic, permanent media TITAN systems.



## SEQUENCE OF OPERATION

- Filtration**
- Air purge solution back to process tank**
- Backwash with clean water**
- Air purge backwash to waste treatment**

| MODEL<br>MAX.       | FLOW*<br>GPM | HP<br>SYS- | TEM DIMENSIONS (Inches) |             | CONNS.<br>IN & OUT<br>(NPT) | SHIP.<br>WT.<br>(Lbs.) | PRICE<br>CODE NO.      |
|---------------------|--------------|------------|-------------------------|-------------|-----------------------------|------------------------|------------------------|
|                     |              |            | L x W x H               | FILTER DIA. |                             |                        |                        |
| P50 AC<br>P50 ALK   | 50           | 1.5        | 42 x 54 x 78            | 24 **       | 1½"                         | 900                    | S-2926 1<br>S-2926 2   |
| P70 AC<br>P70 ALK   | 70           | 3.0        | 48 x 64 x 78            | 36 **       | 2"                          | 1250                   | S-2933 1<br>S-2933 2   |
| P150 AC<br>P150 ALK | 150          | 5.0        | 48 x 64 x 78            | 42 ***      | 3"                          | 1650                   | S-2930 1<br>S-2930 2   |
| P200 AC<br>P200 ALK | 200          | 7.5        | 48 x 64 x 78            | 48 ***      | 3"                          | 1900                   | S-2931 1<br>S-2931 2   |
| P300 AC<br>P300 ALK | 300          | 10.0       | 48 x 64 x 78            | 60 ***      | 4"                          | 2800                   | Consult<br>Sales Dept. |

\* Full flow, flooded suction, no discharge restriction (U.S. GPM @ 60 Hz)

\*\* Filter chamber mounted on system base

\*\*\* Free standing chamber



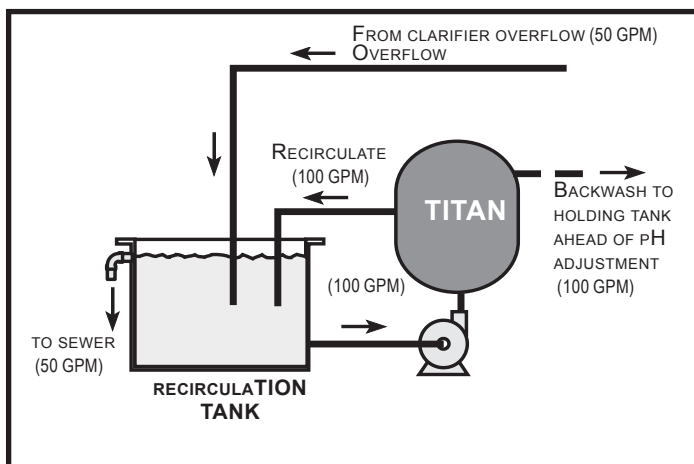
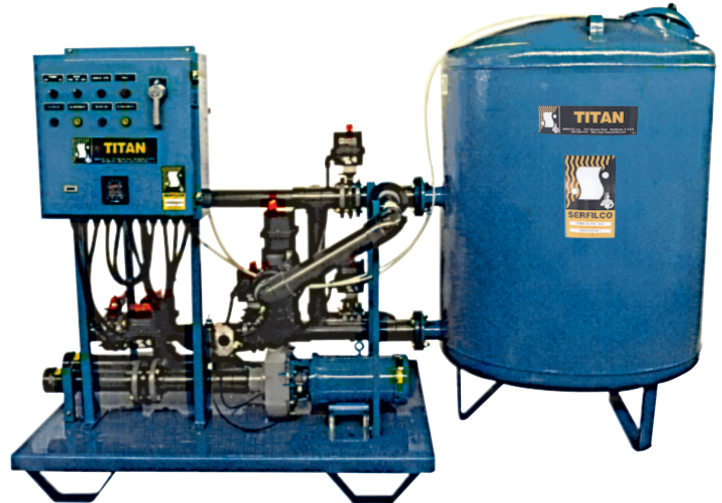
- **TREATED WASTE**

- Flow rates to 500 GPM**

- Capture low ppm suspended solids exiting in clarifier overflow.

- **OPTIONAL CARBON PURIFICATION**

Designed specifically for aqueous and treated waste applications. Satisfy regulatory requirements easily and economically with flow rates to 500 GPM. A TITAN filtration system continuously recirculating clarifier overflow will capture escaping solids and can achieve 0.5 ppm with proper recirculation. In fact, polished water can be re-used in non-critical rinses.



## SEQUENCE OF OPERATION

- Filtration
- Air scrub
- Backwash to waste treat with polished water from recirculation tank

| MODEL | MAX. FLOW* GPM | FLOW FROM CLARIFIER (GPM) | HP   | SYSTEM DIMENSIONS (In.) |             | CONNS. IN & OUT | SHIP. WT. (Lbs.) | PRICE CODE NO. |
|-------|----------------|---------------------------|------|-------------------------|-------------|-----------------|------------------|----------------|
|       |                |                           |      | L x W x H               | FILTER DIA. |                 |                  |                |
| W50   | 50             | 10 - 25                   | 1.5  | 42 x 54 x 78            | 24 **       | 1½" NPT         | 850              | S-2920         |
| W100  | 100            | 26 - 50                   | 3.0  | 48 x 64 x 78            | 36 **       | 2" NPT          | 1150             | S-2921         |
| W150  | 150            | 51 - 75                   | 5.0  | 48 x 64 x 78            | 42 ***      | 3" NPT          | 1600             | S-2931         |
| W200  | 200            | 76 - 100                  | 5.0  | 48 x 64 x 78            | 48 ***      | 3" NPT          | 1850             | S-2922         |
| W300  | 300            | 101 - 150                 | 7.5  | 48 x 64 x 78            | 60 ***      | 4" Flange†      | 2400             | S-2923         |
| W400  | 400            | 151 - 200                 | 10.0 | 48 x 64 x 78            | 66 ***      | 4" Flange†      | 2800             | S-2924         |
| W500  | 500            | 201 - 250                 | 15.0 | 48 x 64 x 78            | 72 ***      | 6" Flange       | 3300             | S-2925         |

\* Full flow, flooded suction, no discharge restriction (U.S. GPM @ 60 Hz)

\*\* Filter chamber mounted on system base

\*\*\* Free standing filter chamber

† 4" flanges also have interior 4" NPT threads.