



TEMPERATURE CONTROLLERS... PORTABLE CHILLERS... CENTRAL CHILLERS... PUMP TANK STATIONS... TOWER SYSTEMS...

SUBJECT: AUTOMATIC TURBO DISC FILTER

#7-A-251

10/22/2001

The automatic Turbo-Disc sets the new standard for side-stream cooling water filtration. Available in a single-pod model as well as multiple pod models, the Turbo-Disc uses a fraction of the flush water used by traditional sand filters. The Turbo-Disc is effective in removing particulate (sand, sediment, etc.) as well as light airborne contaminants (cottonwood seed, algae, etc.), both of which are commonly found in cooling water.

BENEFITS OF THE TURBO-DISC SYSTEM:

- Improves heat transfer resulting in a reduction in energy cost.
- Cuts maintenance costs dramatically by decreasing downtime for cleaning and repair.
- Complements chemical treatment program therefore reduces the cost of water treatment.
- Increases lifespan of downstream equipment such as heat exchangers, process equipment, ect.

COMPLETE SYSTEMS INCLUDE:

- Automatic filters/disc cartridges
- Stainless steel inlet/outlet manifolds
- Automatic backflush valves/solenoids
- Backwash controller
- Stainless steel leg assembly
- Pump and motor starter relay
- Pressure-sustaining valves (on multiple pod systems only)
- Skid assembly (stainless steel or plastic)
- Air-override feature (air enhances backflush efficiency)

OPTIONAL FEATURES:

- Isolation valves
- Pump pre-strainer (with perforated screen)
- Air compressor (if compressed air in not available)



Model #ATD(1)X2-130mCW-A
System is rated @ 100 GPM max. Single-pod requires city water for back-flush (40 GPM @ 50 PSI min) Pump and skid not shown.



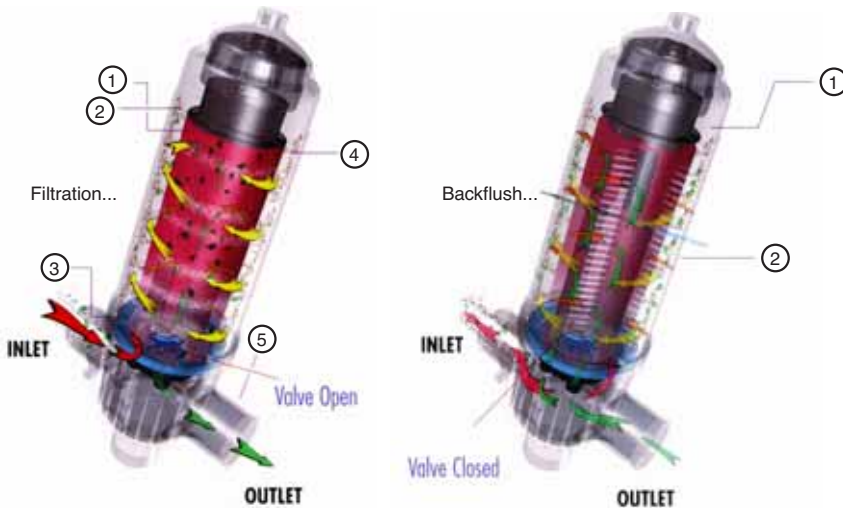
Model #ATD(4)X6-130m-P500-S6-ACW-A
System is rated @ 500 GPM max. System backflushes with source water.

FILTRATION PROCESS:

1. Water enters the inlet and is filtered through the disc stack from the outside to the inside. 2. The discs are compressed by the disc cap on top of the disc stack. 3. The turbo-element at the base of the cartridge spins the incoming water keeping heavier particulate in suspension and minimizing backflush frequency. 4. Filter debris collects on the exterior of the disc stack and across the depth of the discs. 5. Filtered water exits through the outlet, either in-line or 90 degrees to the inlet.

BACKFLUSH PROCESS:

1. The disc cap lifts hydraulically to decompress the disc stack. 2. A uniform backflush is then applied through the molded spray nozzles centrifugally spinning and spraying the discs clean. Purge water and debris exit through the inlet. When the backflush cycle is complete, the disc cap re-compresses the disc stack and normal filtration is resumed.



TECHNICAL DATA:

FLOW RATES FOR A SINGLE AUTOMATIC FILTER POD: multiple pods are manifolded for higher flow rates - 2"/100-GPM max per filter pod; 3"/125-GPM max for filter pod (flow rates vary greatly depending on water quality and solids loading).

MICRON SIZES AVAILABLE: 100 micron (150-mesh); 130 micron (120-mesh); 200 micron (80-mesh) (centrifugal spinning action increases micron efficiency to 50 micron - results will vary depending on specific gravity of particulate).

PRESSURE RATING: all skid systems are rated to 150 PSI.

MATERIALS OF CONSTRUCTION: Filter Housing - polyamide; filter disc - polypropylene; Inlet/Outlet manifolds and filter leg assembly - type 304 stainless steel; Backwash Valves - bronze or cast iron epoxy coated; Solenoids - brass/stainless steel or plastic (12V/DC or 24 V/AC); Backwash controller - 120 V/AC; Backwash Controller Options - pressure differential, elapsed time, manual override; Pump and Motor Starter Relay - 120/220/440 (depending on pump size horsepower, single phase and three phase available); Pressure-Sustaining Valve - cast iron epoxy coated (multiple pod systems only); Skid Assembly - type 304 stainless steel or plastic; Backflush Enhancing Air-Override Features - 1/4" NPT air connection for compressed air (compressor is optional if compressed air is not available).

