

On-Line Oil Filtration for Load Tap Changer Compartments

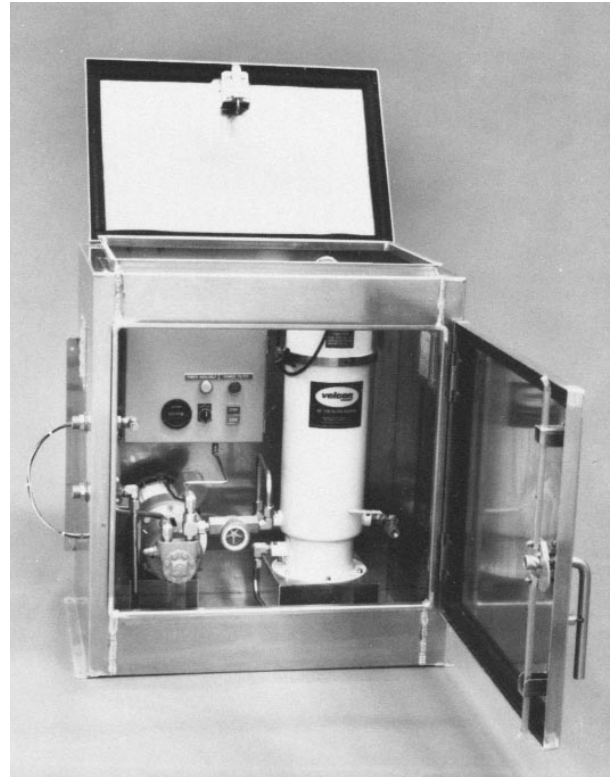
The TP3AD was developed in response to the utility industry's desire to reduce operation and maintenance costs and increase system reliability. On-line oil filtration has proven to be an effective means of combating LTC problems. Tap changers retrofitted with a TP3AD enjoy the following:

- Consistent high oil dielectric strength
- Extended maintenance/inspection intervals
- Reduced contact wear and coking
- Extended oil life
- Reduced contact erosion via reduced restrikes during tap changing

The Velcon TP3AD is recommended for installation on tap changers that:

- Perform a high number of operations
- Exhibit consistent sludging conditions
- Have a high tap-to-tap voltage difference
- Require frequent attention

Quality components and comprehensive design features have made the TP3AD an industry standard for on-line filtration. All components are fully enclosed in a weatherproof cabinet. Operation of the unit is unattended (and controlled by a mechanical timer). A flow rate of 3 gpm keeps turbulence in the LTC reservoir to a minimum and allows for maximum filter life.



FEATURES

Automatic Shut-Off

Pressure switch turns the system off when filter is plugged. Relay can be wired to remote alarm or indicator light.

Oil Make-Up

LTC reservoir can be topped off using 3-way valve oil make-up port.

Hour Meter

Records run time of system to assure user of consistent operation.

Timer

24-hour mechanical timer can be set for hours of daily operation.

SPECIFICATIONS

Mechanical

Flow Rate:

3 gallons per minute

Cabinet:

Heavy gauge weatherproof enclosure; aluminum construction, lockable door with quick opening latch handle, hinged top for easy cartridge change-out, reservoir sump contains up to 15 gallons of oil. Complete with base mounting brackets. Dimensions are: 35" x 32" x 24" (H-W-D)

Pump:

Tuthill® heavy duty self-priming positive displacement pump with built in pressure relief valve and proprietary mechanical seal designed for long leak-free service life.

Piping:

Stainless steel tubing, JIC hydraulic fittings. External connections are 1/2" female NPT.

Filter Vessel:

Velcon Model VF-71E with manual vent and static pressure gauge is epoxy coated internally and externally. No tools required for filter changeout.

Filter:

Velcon Model FO-718PL1/2 comes installed for removal of carbon contamination. AC-7181/2, Velcon **Aquacon**® with carbon and free water removal, and SD-718P3 **Superdri**® dissolved water removal filter cartridge are also available.

Sight Glass:

Paddle wheel type sight glass, 150 psi maximum working pressure for oil flow indication.

Electrical

Motor:

1/2 hp, 115V, 1-phase, 1740 rpm, TEFC

Control Box:

NEMA 12 with high pressure switch, latching relay, magnetic contactor, hour meter, and manual starter/disconnect with 10 amp heater overload.

Wiring:

16 ga., XLPE grade, all terminal connections. Wire lists and full electrical documentation provided with each system.

Power Requirements:

120 vac, single-phase, 10 amps.

240 vac, single-phase optional.

ORDERING INFORMATION

System Part Number: TP3AD

Weight: 165 lbs

Shipping Weight: 195 lbs

OPTIONS

- **Viewing window** – door mounted, allows monitoring of system functions without opening door.
- **Flow meter/totalizer** – indicates flow rate, total flow volume, resettable batch volume, battery powered.
- **Cabinet heater** – 40 watts, adjustable thermostat control to maintain cabinet temperature.
- **Cabinet oil level switch** – shuts off system if oil leaks into cabinet, can activate remote alarm.

RECOMMENDED SPARES

- (6) FO-718PL1/2 Filter Cartridge
(Carbon removal only)
- (1) G-1016 Filter Vessel Gasket
- (6) AC-7181/2 **Aquacon** Cartridge
(Carbon and free water removal)
- (6) SD-718P3 **Superdri** Cartridge
(Carbon and dissolved water removal)



Velcon products are sold and serviced by a world-wide representative network. To order, contact Headquarters or your **LOCAL REPRESENTATIVE:**

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