

## On-Line Oil Filtration for Load Tap Changer Compartments

The TP3 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 TP3 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 TP3 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 TP3 an industry standard for on-line filtration. All components are fully enclosed in a NEMA 4 cabinet. Operation of the unit is unattended (and controlled by a mechanical timer). A flow rate of 3 gpm keeps turbulence in the 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:**

NEMA 4 enclosure, painted grey acrylic, easy-opening handle with lock and 3-point latch, with louvers and filters, UL/CSA approved. Dimensions are: 43" x 30" x 12" (H-W-D)

**Pump:**

Heavy-duty, self-priming, positive displacement gear pump with built-in pressure relief valve and mechanical seal.

**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.

**Sight Glass:**

150 psi maximum working pressure for oil flow indication.

### Electrical

**Motor:**

1/2 hp, 120V, 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

**Power requirements:**

120 vac, single-phase, 10 amps

## ORDERING INFORMATION

Specify model number as shown below. Units are shipped with cartridge installed.

**System Part Number:** TP3-1 (120V, 1ph, 60Hz)

Also Available: 3-phase power, 50 Hz power (contact factory)

**Weight:** 250 pounds

**Shipping Weight:** 325 pounds

**Crated Dimensions:** 47" x 34" x 21"

## OPTIONS & ACCESSORIES

643Y051	Door Mounted View Window
241X051	3/4" JIC Port Connections (2 ea required)
723Y005	No-Flow Shut-Off Switch
552Y025	Stainless Steel Valve Upgrade
605Y020	Timed Run Via Remote Start Signal From Tap Changer
031Y104	0.5 micron AC-7181/2 Cartridge for particle and free water removal
031Y105	0.3 micron AC-718P3 Cartridge for particle and free water removal
031Y106	0.3 micron FO-718PLP3 Cartridge for particle removal
031Y102	0.3 micron SD-718P3 <b>Superdri</b> ® Cartridge for particle and dissolved water removal

## RECOMMENDED SPARES

FO-718PL1/2	Filter Cartridge, box of 6 ea (or:)
FO-718PLP3	Filter Cartridge, box of 6 ea (or:)
AC-7181/2	<b>Aquacon</b> ® Cartridge, box of 6 ea (or:)
AC-718P3	<b>Aquacon</b> Cartridge, box of 6 ea (or:)
SD-718P3	<b>Superdri</b> Cartridge, box of 6 ea
G-1016	Filter Housing Lid Gasket, 1 ea



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

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