

On-Line Oil Filtration for Load Tap Changer Compartments

The TP3TS was developed in response to the utility industry's desire to reduce operation and maintenance costs and increase system reliability. On-line filtration has proven to be an effective means of combating LTC problems. Tap changers retrofitted with a TP3TS enjoy the following:

- Consistent high oil dielectric strength when tested to ASTM D-1816
- Extended maintenance/inspection intervals
- Reduced contact wear and coking
- Extended oil life
- Reduced contact erosion via reduced re-strikes during tap changing

The Velcon TP3TS 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
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- Quality components and comprehensive design features have made the TP3TS an industry standard for on-line filtration. All components are fully enclosed in a NEMA 4 cabinet. Operation of the unit is unattended. A flow rate of 2.5 gpm keeps turbulence in the reservoir to a minimum and allows for maximum filter life.



FEATURES

Green Run Light

Green light illuminates on front door of enclosure when motor is running.

Change Filter Alarm

Amber alarm light illuminates on front door of enclosure when filter needs to be changed.

High Pressure Shut-Off

A pressure switch turns the system off when the filter is plugged and the red alarm light illuminates on the front door of the enclosure.

Oil Make-Up

LTC reservoir can be topped up by using 3-way make up port valve at inlet to system.

High Capacity Carbon Removal Filter

An oversized high capacity carbon removal filter provides up to 1 year between change-outs.



SPECIFICATIONS

Mechanical

Flow Rate:

2.5 gallons per minute

Cabinet:

NEMA 4 enclosure, painted grey acrylic, easy opening handle with 3-point latch and lock, with louvers and filters, UL/CSA approved.

Dimensions are: 43" x 30" x 12" (H-W-D)

Shipping Dimensions are: 47" x 34" x 21" (H-W-D),

Weight: 260 lbs

Pump:

Heavy duty, self priming, positive displacement gear pump with built-in pressure relief bypass.

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, epoxy coated internally and externally. No tools required for filter change.

Filter:

Velcon Model FO-718PL1/2 comes installed for removal of carbon contamination.

Electrical

Motor:

1/3 horsepower, 120 volt, 1 phase, 60 hertz, 1740 rpm TEFC

Control Box:

NEMA 12 with high pressure switch (2 ea), latching relay, time delay relay, control relay, and control circuit fuse

Wiring:

16 ga, XLPE grade, all terminal connections

Power Requirement:

120 volts, 1 phase, 60 hertz, 7 amps

Disconnect:

On-off disconnect switch, wired so unit restarts after power interruption

Remote Alarm Connection:

Terminal connections for user hook-up to remote alarm circuit

OPTIONS AND ACCESSORIES

- 031Y102** SD-718P3 **Superdri**® Cartridge for carbon particle and dissolved water removal, 0.3 micron, installed
- 031Y106** FO-718PLP3 carbon particle removal filter, 0.3 micron, installed
- 031Y105** AC-718P3 **Aquacon**® free water and carbon particle removal filter, 0.3 micron, installed
- 031Y104** AC-7181/2 **Aquacon** free water and carbon particle removal filter, 1/2 micron, installed

RECOMMENDED SPARES

- FO-718PL1/2** Standard 1/2 micron filter cartridge, box of 6 ea
- FO-718PLP3** 0.3 micron filter cartridge, box of 6 ea
- AC-7181/2** 1/2 micron **Aquacon** cartridge, box of 6 ea
- AC-718P3** 0.3 micron **Aquacon** cartridge, box of 6 ea
- SD-718P3** 0.3 micron **Superdri** cartridge, box of 6 ea
- G-1016** Filter housing lid gasket, buna, 1 ea



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