PRODUCT DATASHEET

Fire-Resistant (EH) Oil Purification Unit

Keeps turbine EH fluid clean and dry





DETAIL – ACID-REMOVAL AND DEHYDRATION VESSELS

OVERVIEW

The Tech Inc. Fire-Resistant (EH) Oil Purification Unit keeps the phosphate-ester fire-resistant fluid in steam turbine electro-hydraulic (EH) control systems within limits. It removes acid, water and fine particles, which are the causes of servo valve sticking, varnish and fluid replacement. It runs in a kidney loop on the EH reservoir while the turbine is in service.

MODELS AND CONFIGURATIONS

- **Acid-removal unit** – resin vessels with fine filtration.
- **Combined unit** – acid removal, vacuum dehydration and fine filtration together.
- **Mobile trolley** – one unit shared between several turbines.
- **Fixed installation** – permanently piped to the EH reservoir.

TYPICAL DESIGN DATA

Fluid	Phosphate-ester fire-resistant fluid
Flow	Sized to the reservoir volume
Media	Ion-exchange resin or activated alumina
Wetted materials	Materials compatible with phosphate-ester fluid
Electrical	To client specification, including hazardous-area versions

APPLICATIONS

Steam turbine EH control systems in thermal, nuclear and combined-cycle power plants, and other fire-resistant hydraulic systems.

KEY ADVANTAGES

- **Longer fluid life** – acid and water removed before the fluid degrades
- **Fewer servo faults** – fine filtration keeps valves free of particles and varnish
- **Runs on line** – kidney-loop operation with the turbine in service
- **Media and elements supplied** – replacement resin and filter elements from one supplier

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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