**Industry Application Examples**

**Combined Cycle Power Plants**
- Liquid Fuel
- Gas and Steam Turbine Lube Oil
- Jacking Systems/Control Fluids
- Seal Oil

**Gas Power Plants**
- Liquid Fuel
- Gas Turbine Lube Oil
- Jacking Systems/Control Fluids

**Nuclear Power Plants**
- Diesel Generator
- Steam Turbine Lube Oil
- Jacking Systems/Control Fluids
- Seal Oil

**Hydroelectric Power Plants**
- Jacking Systems/Control Fluids
- Turbine Lubrications

**Wind Power Plants**
- Windmill Gearbox
- Lubrication System

**Industrial Turbines**
- Steam Turbine Lube Oil
- Gas Turbine Lube Oil
- Jacking Systems/Control Fluids

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**Special Requirements of the Industry**
The industry of power plants and energy technology has very special requirements for the hydraulic and lubricating oil system:

- **Maximum machine availability and safety** to ensure basic and peak load supply
- **Effective and sustainable fluid care** to achieve long maintenance intervals
- **Low maintenance costs**
- **Operation often in explosive atmospheres (ATEX)**
- **ASME approval** partially required

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**Electrostatic Discharges**
**Dangers from discharges**

- **Burned filter elements**
- **Plugging of filter elements**
- **Discharges outside of the system**
- **Interference of electronic components**
- **Increased formation of oil degradation products (varnish)**
- **Deflagrations in the tank, burned breather filters**

**A safety concern for equipment operators and system components**

If discharges should occur external of the system, arcing can occur in open space which presents a health hazard to system operators as described in the "Technische Regel für Gefahrstoffe" (TRGS 727) Guidelines.

For example, when static electricity results in discharges on the order of 12 mm in length (energy >350 mJ) a hazard for employees exists as described in TRGS document.

Our solution eliminates static electricity at the source thereby preventing serious safety hazards to equipment operators and system components.

**Safety of the working environment is jeopardized!**

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**Solution ➔ Stat-X®**

By using the innovative Stat-X® element technology, you can demonstrably reduce electrostatic discharges and high oil charges even in extremely critical systems with excellent fine filtration.

**This results in:**

- **Maximum safety** for employees and machine due to proven reduction of electrostatic arcing
- **Reduction of oil degradation products (Varnish)** and longer oil service intervals
- **Longer service life of bearings and prevention of bearing corrosion**
- **Safe operation in explosive atmosphere**
- **Reduction of unplanned downtimes**
- **Reduction of maintenance costs** and longer maintenance intervals

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**Example**

**Turbine lubrication**

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