

ELAIA MARK-1 MAX system is a unique technological development that performs high-quality purification of any oils and refractory liquids up to 6 purity class. ELAIA MARK-1 MAX provides a significant extension of the operation of oils, significantly reduces operating costs and, it is important to emphasize, makes a significant contribution to global environmental improvement. The system is an interesting and effective solution for the energy sector, in particular for nuclear power plants, thermal power plants, hydroelectric power plants and power distribution networks. By means of recirculation in the main oil tank, ELAIA MARK-1 MAX system will provide oil purification without stopping the turbo unit or draining the oil to the "no" water state, and ensure the correction of the acid number of mineral and synthetic oils to the specified parameters.



ELAIA MARK-1 MAX system allows cost-effectively maintain the required cleanliness of industrial and hydraulic oils in the equipment and hydraulic systems of industrial equipment, as well as prevent industrial emergencies in advance.

The system combines unique technologies that allow multi-stage continuous processing of all types of oils, both mineral and synthetic, to the desired parameters of the purity and acidity class without stopping the main production.

#### **Features**

- Unique electrostatic purifying method with regenerative filter;
- Purifying of all types of oils on running equipment to the specified purity parameters;
- Draining the oil to the "no" water state;
- Removal of mechanical impurities up to 0.1 microns in size;
- Flushing of systems with removal of aging products of oils;
- Reducing the acid number of the oil to the specified parameters;
- Improving the lubricating properties of the oil;
- Extending the service life of oils at least twice, provided that oil-generating complexes are constantly used;
- Energy-efficient operation;
- Full automation of processes;
- Modular mobile layout;
- Use of materials that are resistant to corrosion;
- Uninterrupted operation period of at least 10 years;
- CE Certified. Compliance with European quality and safety standards.



### ELAIA MARK-1 Turbo – Electrostatic purifying module with turbine dryer



### Areas of application

- A backup for the regular oil purification station in the system of lubrication and regulation of the turbo unit at the nuclear power plants, thermal power plants, hydroelectric power plants;
- Monitoring and maintaining the cleanliness of working fluids in the lubrication and regulation system of turbine units at pumping stations of main gas and oil pipelines;
- Purifying and draining of hydraulic oils on operating equipment of industrial enterprises;
- Purifying and draining of hydraulic oils on offshore drilling platforms;
- Fine final purifying of base oils at the refinery.

### **Technical specifications**

Performance	4800 L / h.
Degree of purifying in one cycle	more than 50%
Maximum achievable cleanliness class	6
Water concentration after purifying	no more than 8 g / t
Operating pressure	up to 3 Bar
Operating temperature of the inlet liquid	15-80 °C
Supply voltage	3 Ph, 380 V, 50 Hz
Power consumption	up to 4 kW
Noise level	up to 80 dB (A)
Purifying coefficient with no limit on fractions per pass	up to 50%



### ELAIA MARK - 1 VAC - Electrostatic purifying module with vacuum dryer



- A backup for the regular oil purification station in the system of lubrication and regulation of the turbo unit at the nuclear power plants, thermal power plants, hydroelectric power plants;
- Purification and regeneration (correction of the acid number) of energy oils and refractory liquids of the OMTI type during the PPR of turbine units at nuclear power plants, thermal power plants, hydroelectric power plants;
- Purifying and regeneration of transformer oils;
- Monitoring and maintaining the cleanliness of working fluids in the lubrication and regulation system of turbine units at pumping stations of main gas and oil pipelines;
- Purifying and regeneration of hydraulic oils on operating equipment of industrial enterprises and offshore drilling platforms;
- Purifying and regeneration of vacuum oils.

### **Technical specifications**

Areas of application

Performance	4800 L / h.
Degree of purifying in one cycle	more than 50%
Maximum achievable cleanliness class	6
Water concentration after purifying	no more than 8 g / t
Operating pressure	up to 3 Bar
Operating temperature of the inlet liquid	15-80 °C
Supply voltage	3 Ph, 380 V, 50 Hz
Power consumption	up to 4 kW
Noise level	up to 80 dB (A)
Purifying coefficient with no limit on fractions per pass	up to 50%



ELAIA MARK-1 ION – Electrostatic purifying module with ion exchange module and vacuum dryer



### Areas of application

- If it is necessary to reduce the acid number of oils, an ion exchange module is deployed.
- Cartridges with ion-exchange resin and a vacuum dryer are used to effectively correct the acid number in the oil being purified.

### **Technical specifications**

Performance	4800 L / h.
Degree of purifying in one cycle	more than 50%
Maximum achievable cleanliness class	6
Water concentration after purifying	no more than 8 g / t
Operating pressure	up to 3 Bar
Operating temperature of the inlet liquid	15-80 °C
Supply voltage	3 Ph, 380 V, 50 Hz
Power consumption	up to 4 kW
Noise level	up to 80 dB (A)
Purifying coefficient with no limit on fractions per pass	up to 50%



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