Water Filtration
for Oil and Gas Water Injection / Water Flood

Our Experience

Eta Process Plant designs, provides, and installs complete customised water injection packages with process guarantees for onshore and offshore applications. With over 40 years of experience globally, Eta maintains project management and quality assurance standards that are in compliance with the leading engineering, procurement, construction, oil and gas company requirements.

Eta's optimised process design tailors height, weight, and power consumption to the specific application and location, while minimising capital, operating, and overall lifetime costs.

Comprehensive project management includes procurement, shipping, installation, and commissioning services. Fully skid-mounted heavy-duty packaged equipment is available for marine and offshore service.

Our Technologies

Eta offers the following filter media for onshore and offshore applications.

- **AUTO BACKWASH COARSE FILTERS**
  - Low maintenance wedge wire coarse filter packages from Eta help achieve continuous throughput of very large quantities of water. Backwash is initiated automatically on high differential pressure or by manual command.
  - Coarse filters often process the entire platform utility water streams and can filter down to 50 microns.
  - Water enters the filter vessel at the base, passing vertically upwards and radially outwards through the multiple wedge wire filter elements (1).
  - During a backwash cycle, selected filter elements are isolated by a rotating element (2). The flow is reversed to drain, flushing each element individually.

- **PRESSURISED DUAL MEDIA FINE FILTERS**
  - Eta Dual Media Pressure Filters use multiple layers of coarse and fine garnet and anthracite to provide the filtration substrate.
  - The units normally operate with two or more duty filters and one standby filter, but other operating modes can be discussed.
  - Backwash is initiated automatically on high differential pressure or by manual command.

- **FINE FILTER**
  - Water enters the filter at the top, passes vertically downwards though the filter media and achieves a filtration specification of up to 98% removal of particles 2 microns and larger. Filter aids may be used to increase efficiency.
Our Technologies

SYSTEM CONTROL

Local or remote PLC-based control systems and motor controls can be provided for a complete turnkey package.

Continuous Support & Service

Eta's engineers are closely involved in all aspects of your project starting with process evaluation, integration and optimisation, followed by detailed process and mechanical engineering, E&I and design through complete fabrication, assembly, inspection, testing, and commissioning as well as post-commissioning operations service.

References

Eta has extensive reference lists available upon request.