Our Technologies

Water injection is used to enhance oil recovery by injecting very large volumes of treated water taken from the ocean or waterways into the oil reservoir to boost reservoir pressure.

Eta offers the following complete and customised skid-packaged units to provide total treatment for injection water.

Filtration

- **Coarse Filters**
  Auto backflushing filters for coarse filtration of raw water down to 50 microns.

- **Fine Filters**
  Dual media pressure filters with automated backwash and conditioning sequences for fine filtration down to 2 microns.

- **Ultrafiltration**
  Membrane filtration to remove all particles down to specified limits.

Deaeration

- **Vacuum Deaerators**
  Continuous water deaeration to 10 ppb residual dissolved oxygen. Lower residual oxygen may be achieved by chemical scavenging.

- **Gas Strip Deaeration**
  Use of oxygen-free stripping gas (nitrogen, natural gas, etc.) for deaeration.
Our Technologies

**WATER TREATMENT**

- **CHEMICAL INJECTION**
  Storage and dosing equipment for filtration aids, such as scavengers and biocides.

- **NANOFILTRATION**
  Removes sulphates to prevent scale formation.

- **ELECTROCHLORINATION**
  Skid-mounted systems to generate sodium hypochlorite by continuous electrolysis of seawater.

- **PUMPING SYSTEMS**
  Design and supply of packages to suit the platform requirements.

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

**Benefits**

- Complete scope of supply including process guarantees.
- Compact skid packages ideal for offshore applications
- Easy operation and low maintenance
- High efficiency removal
- Reduced on-site time
- Customised design and ongoing support throughout the life of the equipment
- Design and supply of full PLC control systems and motor controls with user interface via HMI

Applications

Eta's water injection systems can be used for any seawater, river water, lake, or aquifer application. Due to Eta’s optimised and compact designs, they are ideal for offshore enhanced oil recovery projects (fixed platforms, FPSOs, and TLPs).

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

With over 400 related packages installed across the globe, Eta has extensive reference lists available upon request.