

FACT SHEET

LSWRO 400000GPD - TURBO - C

REF: LSWRO-0400C

LOW PWR CONSUMPTION

We use the most efficient energy recovery unit with average power consumption of 10-14 Kwh/1000 gallons.

NETWORK READY

We provide an Ethernet port in our PLC so you can connect and pull all the information you need. VPN wireless hub for remote control and monitoring functions.

LOW NOISE

We use low rpm motor for the RO pump. This substantially reduces the noise level making the system surrounds a much better place to work.

CONTAINERIZED:

The system is built inside the standard ISO 40 feet acoustic and thermal isolated container. This provides a robust and reliable housing for the delicate equipment inside, substantially expediting the deployment and commissioning of the system.



DESCRIPTION:

Single pass, single stage, fourteen pressure vessels total. Each pressure vessel contains 7 thin-film composite elements in series for a total of 98. The system produces 1500 m3/day (400000 GPD or 278 gpm) of product water at 45% recovery.

OPERATING PARAMETERS:

- TDS..... 37,000-45,000 mg/l (as NaCl)
- SDI15..... < 3.0
- Temperature..... 25 to 35°C (77 to 95°F)
- Recovery 40 to 45%
- Nominal Rejection >98%
- Incoming Power.....480/380Hz 60/50Hz
- Power Consumption.....10-14 KwHr/KGal

Note: Required 3bar (45psi) minimum customer supplied pressure to high pressure RO Feed Pump. Temperatures and high salinities will reduce system productivity

- This specification defines the integrated design requirements for the SW-C line of containerized systems for the industrial, power and municipal markets.
- All necessary equipment required for independent operation is provided given the necessary pretreatment precautions are taken.
- Design basis includes containerized systems with a duplex centrifugal pump as well as a containerized media filter and cartridge filter system.
- Optional configurations are available based on market needs.

COMPONENTS:

- Container designed for overseas transportation
- High Pressure Centrifugal RO Feed Pump w/ 400/460V 3 phase 50/60 Hz TEFC motor
- Energy Recovery Device Turbo Charger
- VFD for RO Pump & RO Feed Pump
- Digital flowmeters
- PLC
- Pressure switches: High and low
- Isolation butterfly valves
- Integral permeate flush and CIP system

CONTROL AND POWER:

- PLC with Ethernet card and spare cards
- 6-inch HMI
- Remote start/stop & alarm capabilities
- Zero recovery flush on shutdown
- Power: 400/460V, 3 phase, 50/60Hz

Service Features and Benefits

TECHNICAL SUPPORT

Commissioning, Start-up, operators training, maintenance training, retrofits and modernization are available.

ZERO DOWNTIME

We supply all the basic two-year critical spare parts with our units. Also, we use very well-known and proven components in all of our systems.

TURNKEY SOLUTIONS

We can provide the basic RO systems plus all pretreatment and post treatment such us:

- Chemical injection systems
- Multimedia systems.
- Calcite contact tanks
- Ozono generators
- UV disinfection
- H2S removal

For more information on any of our products or services please visit us on the Web at:
www.advancees.com



MEMBRANE AND HOUSINGS

- Multi Ported FRP pressure vessel design, 1000psi rated
- Spiral wound thin film composite membranes 98% nominal salt rejection.

MATERIALS OF CONSTRUCTION

- Power Distribution PanelsNEMA 12
- Control Enclosure NEMA 12
- High pressure pipingSuper Duplex SS
- Low pressure pipingPVC Sch 80
- Low Pressure Tubing..... Polyethylene
- High Pressure Tubing.....Parflex
- Pressure vessel rack.....Marine- anodize- Aluminum
- PVC Sample Valves on each vessel, feed, permeate and reject
- Multimedia FiltersFRP

OPTIONALS

- ASME Code stamped pressure vessels
- Post-treatment degasifier
- 400 V, 3 Ph, 50 Hz fuse, A/C, Lighting kit
- pH meter and H2SO4 chemical feed
- NaOCl pretreatment chemical feed
- SBS chemical feed
- Installation and commissioning
- Supervision/services are available

INSTRUMENTS:

- Conductivity..... Permeate, Final product.
- Flow meters digital..... Feed and Permeate.
- Pressure switch.....RO Feed and discharge pump
- Pressure gauges.....Liquid filled for high and low pressures

ALARMS:

- Low pump suction pressure
- High pump pressure discharge
- Permeate water quality
- Low permeate flow
- High permeate flow
- Low reject flow
- Low/high voltage
- Phase protection
- Pump motor overload
- High membrane feed pressure
- Chemical tank protection level
- Flush storage tank level protection

PHYSICAL DATA & DIMENSIONS:

- Dry Weight:
Container #1 26500 lbs.
Container #2 18500 lbs.
- Dimension Containers
Each 4800" x 96" x 96".
- Piping Connections:
Feed 6"
Permeate 4"
Reject 4"