

MEMPAC™ - R (RENTAL)



The MEMPAC-R is Cloacina's rental Membrane Bioreactor (MBR) for both municipal and industrial clients in all 50 states and Canada who need immediate wastewater treatment solutions. **Every second counts** in an emergency and the MEMPAC-R deploys and installs quickly.

Designed by MBR experts, Cloacina's MEMPAC-R is optimized for hassle-free installation, efficiency and streamlined operations and maintenance. If your staff can operate a clarifier, they can operate the MEMPAC-R! The system is automated and requires minimal operator involvement. The MEMPAC-R can also meet stringent discharge and re-use requirements. Manage your MEMPAC-R through the system's integration with Cloacina's cloud-based remote monitoring platform. Receive alerts and manage operations from your preferred mobile device – a phone, tablet or computer.

With its compact design, the MEMPAC-R is the perfect choice for projects with limited footprints or remote locations. Flexible rental periods and the option to purchase the rented system are available. Multiple MEMPAC-Rs can be installed together to meet higher flow ranges. Cloacina can also provide turn-key installation, operations, maintenance and demobilization services.

TYPICAL APPLICATIONS

- Plant expansion or seasonal capacity upgrades
- Housing development interim treatment solution
- Resort wastewater
- Planned and emergency outages
- System repairs and upgrades
- Natural disaster response

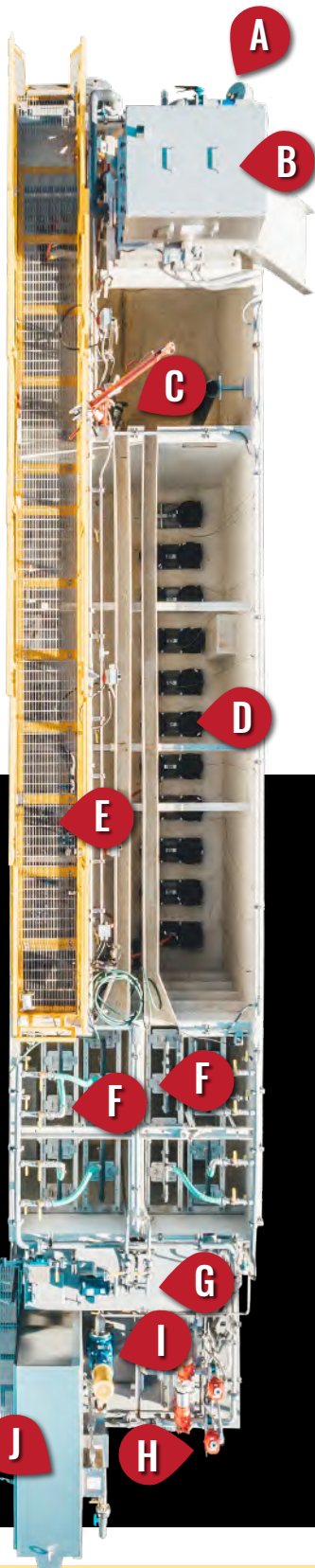
SPECIFICATIONS

- Treats flows up to 65,000 GPD per unit
- Title 22 reuse quality treated effluent
- Footprint of 60' x 10'
- Requires 460/3/60 power
- DOT approved design for all 50 states – no transit permits required

OPTIONAL FEATURES

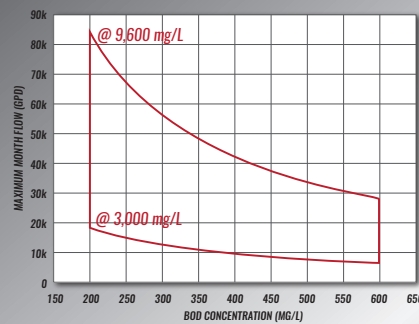
- Chemicals and consumables
- Solids dewatering press
- Operations and maintenance (24/7/365 staffing available)

PRODUCT DESCRIPTION



- A:** Aeration and membrane blowers
- B:** Drum screen with 2 mm perforated plate
- C:** Submersible anoxic mixer
- D:** Modular fine bubble diffusers
- E:** Forward Activated Sludge (FAS) transfer pumps
- F:** Fully redundant membrane trains
- G:** Clearwell
- H:** Permeate pump system with automated (Clean-in-Place) CIP
- I:** Effluent pump
- J:** NEMA 4X control panel
- K:** Hydraulic lift system

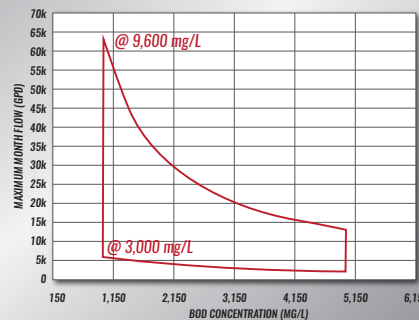
MEMPAC-R BOD LOADING RANGE (DOMESTIC WASTEWATER)



DOMESTIC DESIGN CONSIDERATIONS

- Water temperature: 15°C
- Flow capacities subject to membrane design flux rates
- Design min SRT: 14.0 days
- Flow capacities subject to effluent nutrient requirements
- Design min F/M: 0.11 d⁻¹
- Based on maximum month flow
- Flow capacities are based on full plant water surface level
- Design MLSS concentration ranges from 3,000 - 9,600 mg/L

MEMPAC-R BOD LOADING RANGE (INDUSTRIAL) WASTEWATER



INDUSTRIAL DESIGN CONSIDERATIONS

- Water temperature: 15°C
- Flow capacities subject to membrane design flux rates
- Design min SRT: 3.4 days
- Designed for BOD reduction only
- Design Min F/M: 0.32 d⁻¹
- Based on maximum month flow
- Flow capacities are based on full plant water surface level
- Design MLSS concentration ranges from 3,000 - 9,600 mg/L

RENTAL MEMBRANE BIOREACTOR DESIGNED FOR QUICK DEPLOYMENT AND EASY OPERATIONS AND MAINTENANCE