DynaLift™
OUT-OF-BASIN MEMBRANE BIOREACTORS
LOW PRESSURE
LOW COST
LOW CARE
DYNAtec SYSTEMS, INC.
Dynatec Systems has built on its water treatment experience that began in the 1970's, using membranes with rugged industrial reliability to produce an MBR system with extremely low operating costs. Wrapped in a compact package, DynaLift™ MBR Systems are easy to install and maintain.

**Key Benefits**
A DynaLift™ MBR System delivers the best performance with the lowest energy and operating costs for any bioreactor system produced today. Combining durable technology with innovative engineering, DynaLift™ MBRs provide:
- Out-of-basin flexibility
- Rugged long service life
- Industrial-grade membranes
- Lower operating costs
- Easy installations and retrofits
- Better performance
- Safe and healthy environment
- Easy accessibility

**Out-of-Basin Flexibility**
Completely sealed within tough, protective vessels, DynaLift™ membranes do not require immersion tanks.
- Great flexibility in plant layout
- Installs in available spaces
- Easy access to membranes
- No concerns with access to existing tanks and basins
- Easy, safe maintenance
- Expands easily for more capacity or performance
- No crane, lifts or hoists required
- Simplified construction

**Low Cost of Ownership**
DynaLift™ MBR Systems lowers the total cost of operation:
- Low mixed liquor circulation rates reduce energy costs.
- Modular equipment lowers installation costs.
- Less cleaning chemicals lowers costs
- Compact out-of-basin design needs less space
- No cleaning hoists or cranes
- Long membrane lifespans reduces replacement costs
- Automatic cleaning processes require less operator time

**Better Performance**
Air liquid mixture scours and cleans the membrane:
- 0.03 micron pore size removes bacteria and viruses.
- Produces high quality permeate under variable loads.
- High turbulence scour membranes clean.
SOLIDS RECIRCULATED
Activated sludge is recycled to the anoxic tank for denitrification, when necessary.

RECIRCULATION PUMP
Passes mixed liquor to the membranes at very low pressure for the lowest energy cost.

OUT OF BASIN MEMBRANES
Never moved, never opened and mounted out-of-basin for easy maintenance.

PERMEATE
Free of bacteria and viruses and suitable for reuse applications.

BLOWER
Low pressure air is added to create a scouring mixture, keeping the membranes clean.

AIRLIFT LOWERS PUMPING COSTS
The airlift concept has been used for many years as an energy-efficient means of lifting high volumes of liquid at low pressures. Now this concept has been applied to the same workhorse membranes that have been used in ultrafiltration systems since the 1970’s. Low pressure air provides a pumping effect to move mixed liquor vertically through the membrane tubes, and provides a scouring effect that maintains the membrane surface in a clean condition.

• Uses 100% of the membrane surface for best performance.
• Sealed backwash system removes deposits from membrane surfaces.

Safe & Healthy Environment
Completely sealed within tough, protective vessels, DynaLift™ membranes never move.
• Permanently sealed design
• Rigidly supported tubular membrane prevents breakage.
• Automatic cleaning systems
• No odors or smells
• No exposure to waste or mixed liquor above open tanks

Easy System Access
Operators inspect and maintain membranes in a safe, clean and dry work environment.
• High and dry access
• No disassembly of equipment
• No membrane breakages from handling or use
• No winches or hoists

DYNALIFT™ INSTALLATION
Photo of membrane rack with reactor behind.

MEMBRANE DETAIL
Each DynaLift™ element is packed with tough high-capacity membrane tubes.
EXPANDING THE CAPACITY of an existing bioreactor or MBR system is as simple as adding High Density DynaLift™ 6- and 12-packs. These membrane modules handle high capacities of both industrial and sanitary wastewater within a limited footprint.

FLEXIBLE RETROFITS
The out-of-basin membranes allow for easy retrofit to any bio-reactor configuration (circular, rectangular, above or below ground), since the membranes are installed outside the reactor. Frequently, the existing infrastructure and building space can be reused with little or no changes.

HANDLING HIGH VOLUMES
The membrane system is easy to expand, since the out-of-basin configuration allows for simple addition of more membranes. High-density 6- and 12-pack configurations allow for a number of modules to process high volumes of waste within a limited space.

DISCREET & LOW IMPACT
Safe, sealed and odor-free, DynaLift™ MBR Systems are ideal for locations where the installation need to have a low impact on the local area.

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