

MONARCH DEOILING HYDROCYCLONE SEPARATORS

**INTEGRATED DESIGN ENGINEERED AND
MANUFACTURED EXCLUSIVELY BY MONARCH
FOR BOTH OILFIELD AND INDUSTRIAL
DEOILING APPLICATIONS.**

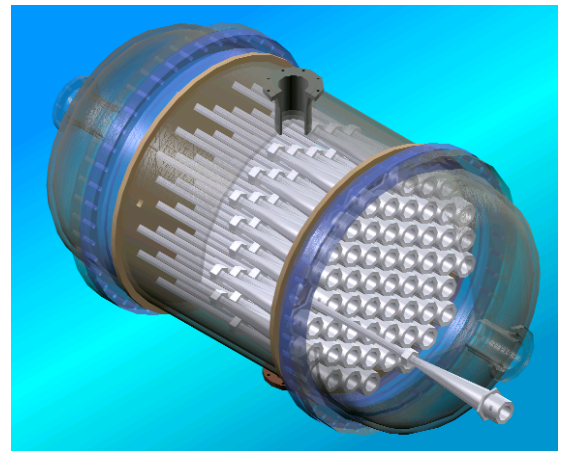
- *High Performance and Reliability*
- *No Moving Parts and Modular Construction*
- *Light Weight and Small Footprint*
- *Not Effected by Fluctuations in Motion*
- *Complete Skid Mounted Packages Available*

SIMPLICITY AND VALUE:

Great technological advancements share two common traits; simplicity and value. Monarch's Deoiling Hydrocyclone series uses centrifugal motion to cause two liquids having different specific gravities, such as oil and water, to separate in an efficient process. The advanced Monarch Deoiler Hydrocyclone separates significantly more oil from water than conventional oil and water separation equipment, allowing our customers to operate under more stringent environmental standards and regulations.

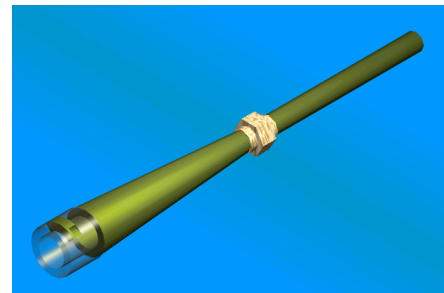
THE NEW STANDARD IN OIL/WATER SEPARATION:

Monarch's Deoiler Hydrocyclones are engineered and sized to cover a wide range of capacities and applications using standard designs to provide reliability, cost effectiveness, service accessibility and shortened delivery time. Designed to be highly efficient, compact, and durable oil water separators, Monarch's deoilers exceed the various demands of oilfield and industrial applications throughout the world. Monarch packages our hydrocyclones in vessels or manifolds to specific engineering and manufacturing specifications.



APPLICATIONS:

- ✓ Oil/Water Separation in Petroleum Refineries
- ✓ Oil/Produced Water Separation on Platforms
- ✓ Treating Ship/Terminal Bilge & Ballast Water
- ✓ Oil Separation from Industrial Wastewaters
- ✓ Oil/Water Separation in Chemical Plants
- ✓ Oil Removal From Environmental Remediation



Monarch's Deoiler Hydrocyclone Liner

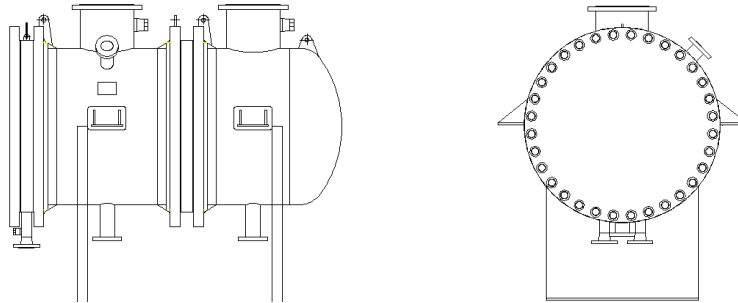
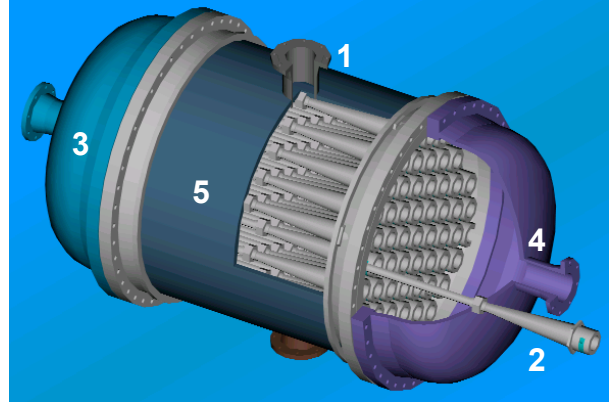
Catch us on the internet at:

www.monarchseparators.com

sales@monarchseparators.com

OPERATION OF THE MONARCH HYDROCYCLONE:

Operation of the Monarch Hydrocyclone is simple and efficient. (1) Liquid flow is introduced tangentially into the Monarch hydrocyclone at a specific pressure, creating a centrifugal motion within the hydrocyclone liner(s). (2) The centrifugal motion causes the lighter liquid or oil to separate to the center of the hydrocyclone liner's separation chamber where it tends to coalesce and form a small oil core. (3) The denser liquid or water migrates toward the hydrocyclone liner's outer edges and travels in the opposite direction of the oil toward the hydrocyclone's underflow section. (4) The lighter liquid or oil flows in reverse flow in relation to the denser liquid or water and discharges via the hydrocyclone's overflow. (5) Individual liners are housed in a pressure vessel, which is designed to all industrial codes and incorporates advanced features such as a unique packaging design to enhance space and maintainability, long lasting materials of construction to extend the life of the system, and a flexible design providing an array of sizes, connections, and ancillary choices to meet individual client needs and requirements.



GENERAL SPECIFICATIONS

FUNCTIONAL:

SERVICE

- Oil Production
- Refining
- Chemical Processing
- Wastewater Treatment
- Hazardous Waste Remediation

DESIGN TEMPERATURES

- Standard
- Up to 200F (93C)
 - Custom Available

DESIGN FLOW RATES

- Standard
- Call Monarch for Details

PHYSICAL:

MATERIAL OF CONSTRUCTION

- Vessel
- SA 106 Gr,B or 516 Gr. 70
 - 304 or 316 SS
 - Custom Available
- Liners
- 304 or 316 SS
 - Duplex Stainless
 - Custom Available
- Gasket
- Neoprene
 - Viton
 - Custom Available
- Hardware
- 304 or 316 SS
 - Teflon Coated

OPTIONS:

PACKAGED SYSTEMS

- Monarch HydroSep Vessel
- Designed to Enhance Hydrocyclone Performance and Operation
 - Various Materials of Construction
- PLC Based Control System
- Complete System Functionality
 - Remote DCS or Local Control
- Turndown System
- Turndown Capabilities
 - Integral Design
- Pumping System
- Various Designs and Capabilities
 - Automated Process



DATED: DEC. 01

CONTACT INFORMATION FOR MONARCH PRODUCTS:
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