Mohr Separations Research, Inc.

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MSR-11 NON-METALLIC OIL-WATER SEPARATORS FOR MULTIPLE USES

The new MSR-11 Oil-Water separator is constructed of pure polypropylene for best resistance to corrosion. Its all-welded construction is both light and strong and its design is meant to provide the best possible separation of oil and water.

MSR-11 NON-METALLIC OIL-WATER SEPARATORS FOR MULTIPLE USES

Introducing the new MSR-11 Separator

The new MSR-11 Separator is the latest in light weight high efficiency designs from Mohr Separations Research. Light enough for a man to carry easily when empty, it is strong enough to stand on. Designed for removal of oil droplets down to levels suitable for disposal, the MSR-11 can be used in any situation where it is necessary to remove oil from water. The maximum flow rate is 20 US gallons per minute*, and larger sizes are available for greater flow rates. Mohr Separations Research, Inc. MSR-11 Series coalescing separators are designed to receive oily water on either recirculating or once-through basis, and utilizing either gravity flow or pumped influent water.

The MSR-11 Separator is readily portable and useful for permanent and temporary installations where a small and inexpensive separator is required.

Oil-Water Separation Technology

The MSR-11 Separator operates utilizing the buoyancy of oil droplets in the inlet water by providing a coalescing module made of oleophilic (oil-loving) Polypropylene. Oil droplets enter the plate module and float up, meeting the undersides of the coalescing plates where they are captured. More droplets are eventually captured and form a layer on the underside of the plates. This layer disengages into large drops and rises to the surface of the water where it is decanted through the vee-notch oil overflow weirs into the oil tank. A further discussion of the operations of coalescing plate separators may be found in MSR Brochure: “Modular Coalescing Plate Separator Systems – How they Work and Why they are Useful.”

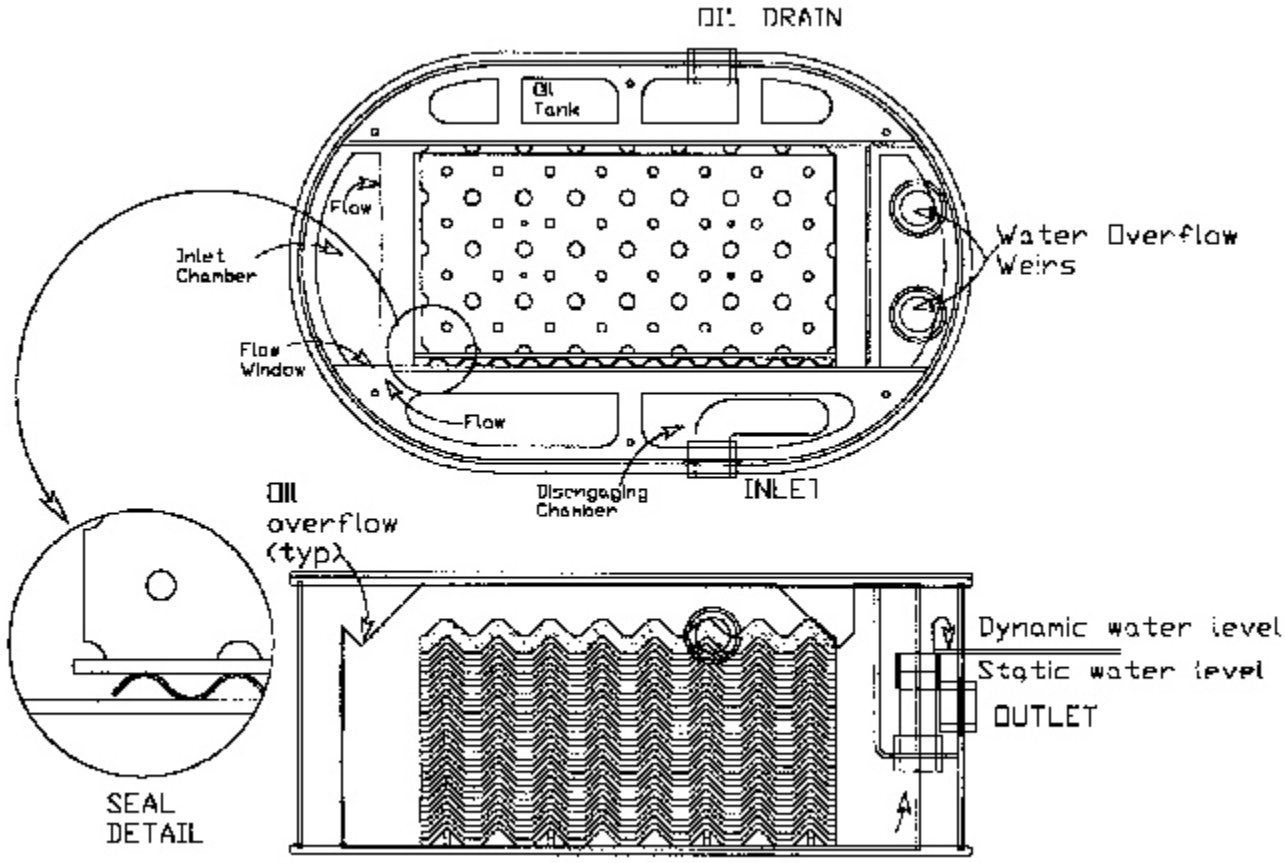
Standard Engineering Specifications

The MSR-11 series separator features all welded construction without any gasketed bulkhead-type fittings which can come loose and leak. No gaskets are required. All materials are non-metallic or stainless steel.

MSR’s Modular coalescing system is the latest in coalescing technology, utilizing specially molded and textured polypropylene plates made into a single strong module for ease of installation and service. No heavy rods or supports are required.

Material of Construction: All-welded Polypropylene Construction
Connections: 2” NPT
Coalescing System: Polypropylene multiple-angle design, one module
Two plate type spring-loaded seal to ensure all flow is through the module
Built in oil tank
Adjustable water overflow weirs
Lightweight one piece cover secured by easy-open stainless steel wingnuts
Hydrostatically tested for 1 hour

Actual flow rate will be based on your inlet conditions. MSR will be pleased to calculate the best flow rate for your custom application.



Flow Schematic

How the MSR-11 Separator Works:

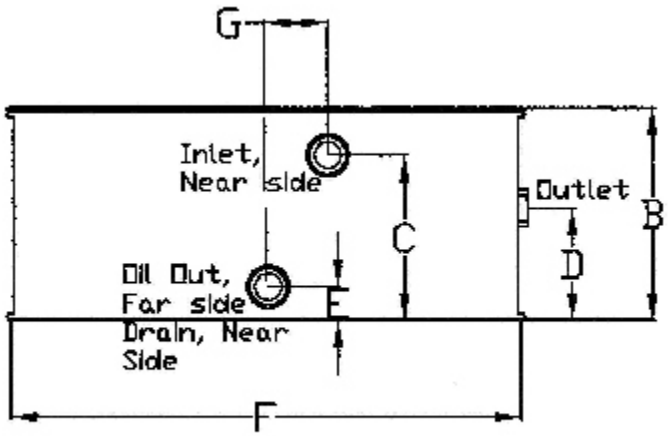
The flow is introduced into the separator through the inlet on the side of the separator. The water then is directed down through the inlet distributor into the disengaging chamber. It flows through the disengaging chamber (from right to left in the diagram above). In the disengaging chamber some bulk oil is removed to the surface. From the disengaging chamber, the water flows into the inlet chamber where more bulk oil is disengaged and the flow is distributed across the face of the coalescing system. The water flows through the coalescing system module, and oil is separated by the module. The cleaned water then flows out of the MSR-11 through the underflow-overflow weirs (two provided) and out of the system. Because there must be a small head to operate the weirs, the dynamic or flowing water level is somewhat higher than the static or non-flowing water level. A spring-loaded multiple seal as shown in the detail above ensures that all the water must be processed through the system and none may bypass. Captured oil overflows the vee-notch overflow weirs (two provided) into the oil tank.

Applications:

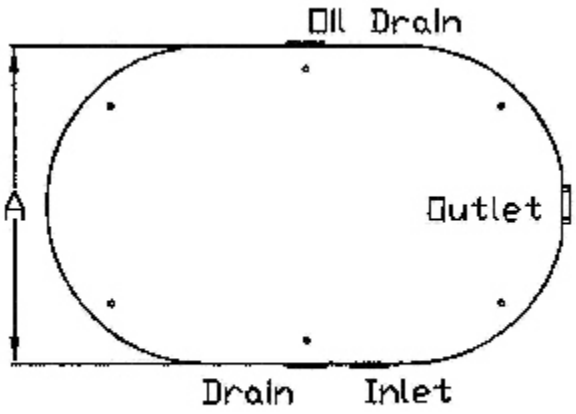
Rainwater Runoff
Groundwater Remediation
Machine tool coolant recycling
Effluent water from Manufacturing Facilities
General Industrial Applications

Options:

Pump and control packages for both water pump in and pump out.
Larger size separators are available on request.



Side View



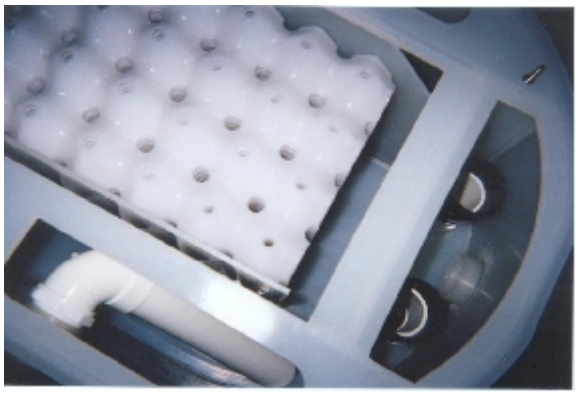
Top View

Legend	A	B	C	D	E	F	G
mm	603	406	317	203	76	978	63
Inches	23.75	16	12.5	8	3	38.5	2.5

Weight	Kilograms	Pounds
Shipping	40	80
Operating	152	335

Capacities	Water volume	Oil tank
Liters	113	18
US gallons	30	4.7

Inlet end showing plate pack, flow window and sealing plates



Outlet end showing inlet distributor, oil weir plate pack, and adjustable water level overflows

Mohr Separations Research, Inc.
128 E. 119th Street
Jenks, OK 74037 USA
email: kirby@mohrseparations.com

Tel: 918-299-9290
Fax: 918-296-9290

Represented in Canada by: