

MORS with Z4-D

PHB's Three Phase Mobile Oil Separation System (MORS Z4D) is developed and constructed by PHB especially for the separation of Hydrocarbon sludge and slop oil.

The MORS Z4D uses a high-speed centrifuge for the separation of the liquids and the solids.

This MORS Z4D is PHB's medium size version of the Mobile Oil Separation Systems; making it ideally suitable for the separation of oily sludge during tank cleaning.

The liquids are collected in the Oil / Water tanks below the centrifuge.

The correct adjustment of the centrifuge requires PHB's skilled and experience operator's full attention due to the often-continuous changing conditions of the sludge. In most cases the viscosity, density and even nature of the sludge will change as the job progresses. This will require fine-tuning of the weir, bowl and scroll speed.



TECHNICAL SPECIFICATIONS

Centrifuge: 3 phase Flottweg centrifuge. Model Z4D
 Max Bowl Speed: 4000 Rpm Capacity: 15 M3/Hr
 Bowl diameter: 450 mm Oil Sludge: 4 - 8 M3/Hr

Centrifuge Drive: Viscotherm electric hydraulic drive for both the scroll and the bowl (Hybrid drive). This allows the operator to adjust bowl and scroll speed individually.

Max scroll speed: 38 rpm

Electrical power: 3 Phase, 415 V, 50 Hz
 Centrifuge: 33 KW
 Pumps: 7 KW
 Total power requirement: 40 KW

Pre-conditioning Tank: Need to be separately installed, to pre-condition the feed flow. Unit is usually installed on top of the Oil / Water tank.

Injection of Chemicals: Tanks are made of carbon steel and not chemical resistant.

Grounding: All systems are grounded and any hoses used are so called "Continuous".

Lifting arrangements: All equipment is fitted with certified lifting lugs and clearly marked (Size & weight).

SPECIAL FEATURES

This unit allows the separation of oil, water and sediments as individual components. Capacity depends on viscosity, density and solid loading.

The unit is fully Ex-Proof.

The Bowl and parts in contact with the product are constructed from Stainless steel S-316

The unit comes together with a skid with pumps and the tanks for the collection of the oil and water.

A screw conveyor transports to sediments to a skid.

The process tank is equipped with steam coils and agitator. This will allow the breaking of the emulsions and the reduction of viscosity.

PHB can provide a coated pre-processing tank and stainless heating coils if products are corrosive.

The adjustable weir allows the separation of water / oil phase. The operator will have to make a choice to which site the intermediate (emulsion) layer goes if present.

PHB has a well-developed Routine Maintenance and Inspection system. A pre-job inspection check-list has to be completed before the system can be started.