

Since 1943

Houston, Texas

ISO 9001:2000 CERTIFIED

.... Leading the way



**MANUFACTURING • SALES • SERVICE** 

# APPROVED

## O'DRILL . MCM INDUSTRY LEADER!

## MCM 250 Series Pump

Toughest ...

The "Extra Heavy" duty MCM **250 series** pump has been designed for the toughest jobs in drilling, production, well servicing and other industrial applications.



250 Series Pumps feature a 21st shaft, replaceable shaft sleeve and stuffing box and a thicker concentric housing. This series is available in eight sizes (2x3x13, 3x4x13, 4x5x14, 5x6x11, 5x6x14, 6x8x11,6x8x14 and 8x10x14).

## MCM 178 Series Pump

Tougher...

178 Series Pumps have a 1% shaft and a two piece concentric housing which can be reversed for either right or left hand rotation. This series is available in five sizes (2x3, 3 x 4, 4x5, 5x6 and 6x8).





MCM 118 Series Pump

Tough...

118 Series Pumps feature a 1% \* shaft and a one piece concentric housing. It is available in four sizes for right or left hand rotation. (1x1%, 16x2, 2x3, and 3x4).



## **MCM** Mud Master

The MCM Mud Master is a compact version of our MCM 250 Series pump. It's designed to be a space saver. Applications include fractrucks, blending and pump charging services. The MCM Mud Masters variable hydorulic drive make it a good choice for water well drilling services.



**Direct Applications** 

- · Cement & Blender
- Water well drilling



#### **Direct Applications**

- · Pulp and Paper
- · Chemical Process Industry
- Sewage Treatment

## MCM Cyclone Pump (vortex type)

The main frame of the MCM Cyclone Pump is the same as MCM 250 however the housing is extended by a special concentric tube to accommodate its special straight vane impeller. The MCM straight vane impeller produces a certain dynamic vacuum which causes a certain whirl-wind effect allowing the fluids and slurries to circulate in the housing without actually passing through the impeller. Fibers such as pulp and solid pass through the discharge without getting clogged.





...a pump for every application.



## 178 Centrifugal Pump Features

#### MCM Pedestal

MCM's Beefed-Up frame design is stronger and more rigid in all wear areas. It gives a larger work area to facilitate packing the pump, which cuts repacking time.



It also has a large pollution bowl for holding any fluid leakage and making a cleaner, safer operation.

#### MCM Housing & Face

MCM's two piece concentric housing design gives the versatility of either right hand or left hand operation, plus easy access to the impeller, it reduces turbulence within the pump to minimize cavitation, shaft deflection, and excessive wear. This results in a smoother operating and a longer running pump.





#### MCM Impeller

MCM's semi open impeller is designed to handle water or heavy slurries with equal efficiency. The pronounced back vanes of the impeller are designed to reduce the pressure on the stuffing box, thus, increasing the life of the packing and decreasing the wear on the shaft.



# 9

#### MCM Wear Plate

MCM's replaceable wear plate protects the pedestal from wear and corrosion caused by fluids being pumped, therefore, extending the life of the pump.

#### MCM Bearings

MCM's **Weavey-Ducky** bearings are well protected by spring type oil seals and a water slinger designed to keep fluid and dirt out of the bearing cavity. Eccentric locks are used so the shaft can be easily removed without special tools. This makes for easy adjustment of impeller clearance.



MCM takes pride in carrying one of the finest mechanical seek on the market.

#### MCM Graphite Packing

MCM Graphite consists of five graphite rings and one lantern ring.



#### MCM Shaft

The MCM 178 shaft is manufactured from the highest quality 416 stainless steel. Designed to transmitt maximum torque with minimum shaft deflection.





# 118 Centrifugal Pump Features

#### MCM Pedestal

MCM's Beefed-Up frame design is stronger and more rigid in all wear areas. It gives a larger work area to facilitate packing the pump, which outs repacking time.



It also has a large pollution bowl for holding any fluid leakage and making a cleaner, safer operation.

#### MCM Housing

MCM's concentric housing design is available in right hand or left hand

operation. It reduces turbulence within the pump to minimize cavitation, shaft deflection, and excessive wear. This results in a smoother operating and a longer running pump.

## MCM Impeller

MCM's semi open impeller is designed to handle water or heavy slurries with equal efficiency. The pronounced back vanes of the impeller are designed to reduce the pressure on the stuffing box, thus, increasing the life of the packing and decreasing the wear on the shaft.



## MCM Wear Plate

MCM's replaceable wear plate protects the pedestal from wear and comosion caused by fluids being pumped, therefore, extending the life of the pump.





#### MCM Bearings

MCM's **Weavy-Duty** bearings are well protected by spring type oil seals and a water slinger designed to keep fluid and dirt out of the bearing cavity. Eccentric locks are used so the shaft can be easily removed without special tools. This makes for easy adjustment of im-peller clearance.

#### MCM Mechanical Seal (Optional)

MCM takes pride in carrying one of the finest mechanical seals on the market.

### MCM Graphite Packing

MCM Graphite consists of five graphite rings and one lantern ring.



#### MCM Shaft

The MCM 118 shaft is manufactured from the highest quality 416 stainless steel. Designed to transmit maximum torque with minimum shaft deflection.







## **250** Centrifugal Pump Features

#### MCM Heavy Duty Pedestal

MCM prides itself in manufacturing a heavy-duty frame to withstand high piping loads. The frame is manufactured from cast iron for high strength and durability.



#### MCM Casing

The MCM pump housing has been beefed up in critical wear areas for extra life. The concentric housing eliminates vibration, turbulence and cavitation and reduces bearing load and shaft deflection.



#### MCM Impeller (Open Vane Design)

MCM Open Vane Impeller Design is engineered to reduce turbulence, eliminate recirculation, lower radial and thrust loads and provide a smooth flow of fluid through the pump.



#### MCM Impeller (Semi-Open Vane)

MCM also carries semi-open vane impellers in the 5 x 6, 6 x 8 and 8 x 10 sizes.



#### MCM Wear Pads

The MCM housing comes with replaceable wear pads in sizes from 3 x 4 x 13 inches thru 8 x 10 x 14 inches. This feature reduces the maintenance costs of housing replacement by merely replacing the wear pads.



MCM offers a shearing ring option to convert a regular 250 series pump to a shearing pump for mud applications.



#### MCM Mechanical Seals

MCM takes pride in carrying one of the finest mechanical seals on the market, whether it be tungsten-tungsten,



tungsten-silicone or silicone-carbide. They come with a highly polished sealing face and with viton bellows and stainless steel springs

#### MCM Pump Bearings

MCM uses nothing but the best and the finest american SKF bearings in its pumps. The outboard bearing assembly consist of a pair of angular contact bearings with high thrust load ratings and zero end play. The heavy duty inboard bearings is a double row ball bearing with high radial load ratings to compensate for the larger size impellers and heavy duty applications.



#### MCM Labyrinth Seals (Optional)

MCM installs labyrinth seals by customer request in all its pumps to isolate the bearings from harmful contaminants while keeping bearing lubricated.



#### MCM Shaft

The MCM shaft is manufactured from the highest quality alloy steel. Designed to transmit the maximum torque with minimum shaft deflection.



#### MCM Shaft Sleeve

The MCM shaft sleeve is manufactured from 416 stainless steel and ceramic coated for extra life. The sleeve is designed to protect the shaft from abrasive fluids.

#### MCM Stuffing Box

MCM Stuffing Box cover is designed to combine the functions of the wear plate and stuffing box of conventional pumps into one piece replaceable unit. The stuffing box cover is

replaceable unit. The stuffing box cover is available in two styles: for mechanical seals or for regular packing.





# O'Drill MCM Driller's Choice Products!

## Starters



## **Electric Motors**

O'Drill MCM carries a huge inventory of starters & motors from 1-200 hp all UL rated made in the USA.











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ISO 9001 Registered

# **MCM Diesel Engine Packages**

Engineered for High Performance





SAVER!

## **Technical Specifications:**

- Complete units to provide flows from 100 gpm to 3500 gpm.
  - Discharge pressures to 200psi.
    - 10 hp. to 250 hp. Diesel engines available by Kubota, Deutz, John Deere, and Caterpillar.
      - Units include fuel tanks and electrics ready for use.

One Tough Skid Package ...for less!!

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Toll Free: 1-800-255-6263



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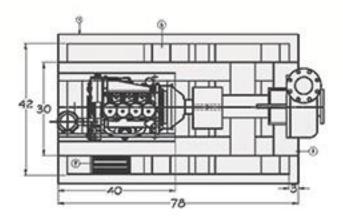
# MCM Diesel Engine Packages

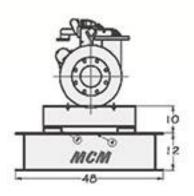
All MCM pumps are built using only the highest quality U.S. components including, SKF high precision bearings, 4140HT shaft, Tungsten Carbide mechanical seal with a cage assembly machined from solid 316SS bar stock, aluminum bronze labyrinth bearing seals, and replaceable casing wear pad. All MCM pumps and parts are 100% identical in all dimensions to Mission®, Halco®, Baker® & others, with all parts completely interchangeable.

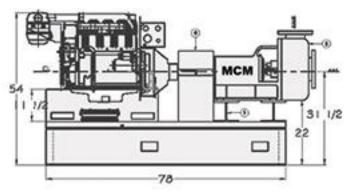
#### **SPECIAL FEATURES**



- Heavy duty compact oilfield base
- OSHA type coupling guard
- Base contains space-saver fuel tank, lines, batteries, cables, keystarter, gauges and instrumentation including safety shut off switches
- Pump & base primed with carbo zinc and painted with two part gloss acrylic urethane paint







We sell for less ...

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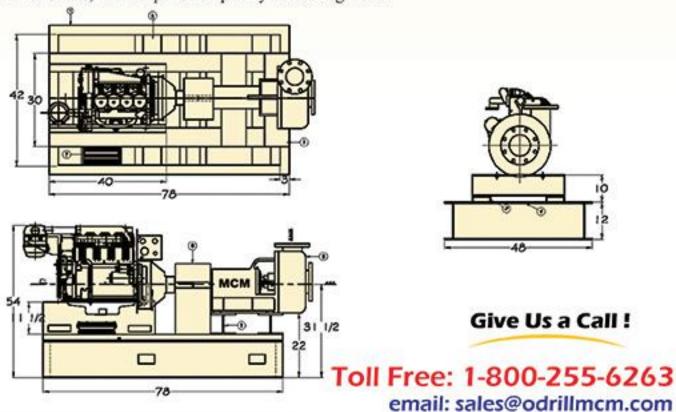
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## MCM Diesel Engine Packages

In O'Drill/MCM's Diesel Engine Pump Package, it is Equipped witth a 250 series pump with a hard iron fluid end, casing with a replaceable wear pad, impeller, SKF premium bearings, SS shaft sleeve, Al. Bz. Labyrinth bearing seals, and Tungsten/Silicon Carbide mechanical seal for no leakage at the stuffing box. All mounted on a MCM heavy duty Compact Oil field base with a dodge coupling, OSHA type coupling guard and up to 250 HP diesel engine with a lever operated PTO. The base contains built in fuel tank and lines, batteries and cables, key start, gauges and instrumentation including safety shut off switches. Pump and base are primed with carbo zinc and painted with two part gloss acrylic urethane.

All MCM pumps are build using only the highest quality U.S. components including, SKF high precision bearings, 4140HT shaft, Tungsten Carbide mechanical seal with a cage assembly machined from solid 316SS bar stock, Al. Bz. Labyrinth bearing seals, and replaceable casing wear pad. All MCM pumps and parts are 100% identical in all dimensions to Mission®, Halco®, Baker® & others, with all parts completely interchangeable.



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## MCM Diesel Fuel Filter Packages

available for applications from 15 gpm to 60 gpm

- Solids and particulate removal to 2 micron, water removal to 99.99995%.
- Complete packages available with explosion - proof starters, ready to use.
- Call for pricing and information.





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## MCM Diesel Fuel Filter Packages

Even top quality carefully handled fuel carries harmful solids and contaminants. If solids are not removed such as fine dust and rust, it can damage the engine. These solids result in contamination of fuel during processing, handling and transferring of tanks.

Water is also extremely harmful to an engine. Water exists in delivered fuel and can be introduced by condensation in the storage tank. Condensation is likely to occur in the above ground storage tanks due to a temperature change that happens from day to night. Algae and bacteria can grow at the fuel and water which are very harmful agents, but can easily be removed through filtration.

Centrifuge systems remove droplets of water but miss more of the emulsified water under 20 microns. Filter systems are able to remove emulsified water and provide higher quality fuel. A coalescer-separator system removes a much higher percentage of dissolved or emulsified water than a centrifuge system.

Standard fuel filters are not able to remove all contaminants. Some rigs have single filter tanks that filter dirt or coalescers to remove water, but simple filters do not remove water. If coalescers are present, they will remove both solids and water. However, coalescers range about 5 times more expensive than filters; therefore maintenance cost increases and prefilters are not utilized. O'Drill/MCM, Inc. offers diesel filter packages equipped with a prefilter tank to remove solids down to 5 micron before entering the coalescer. The coalescer removes 99.99995% of emulsified water and removes solids down to 2 microns. The coalescer tank also is equipped with a float valve to drain remaining water automatically.

The fuel filtration systems are available with the prefilter, coalescer-separator, transfer pumps and piping all mounted on a common base. O'Drill/MCM's fuel filtration system is equipped with gauges on each side of the filtration tanks to indicate when the filters need to be changed.

#### PREFILTER:

The prefilter tank contains a quantity of 3 pleated paper fifter elements each rated to remove solids to 5 microns. The 3 elements will hold approximately 20 Lbs of dirt before it is necessary to change the elements.

The purpose of the prefilter is to trap solids or dirt before they can reach the coalescer water.

#### COALESCER-SEPERATOR:

The coalescer tank contains a quantity of two coalescer elements and two separator elements. The coalescer element separates the water from the fuel by converting emulsified water into droplets that will fall out of the fuel by gravity, the separator element repels any droplets that do not fall out of the fuel. The coalescer tank is equipped with an automatic drain valve to let the separated water out. This is what is commonly referred to as two stage separation, it is important to remember that even though the coalescer and separator elements will remove dirt, Their primary function is to remove.

It is rated to remove water to 5 parts per million.

#### PIPING:

The piping is designed to allow fuel flow through fifter canisters or the valves can be positioned bypass the filtration canisters. The bypass feature has been included to allow bulk transfer of fuel or by pass to occur during filter maintenance.

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Check out our website



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## **MCM XL Pump**

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ENGINEERED FOR HIGH PERFORMANCE!



Sizes:

10 x 12 x 23 & 12 x 14 x 22

## **Technical Specifications:**

Widely Used on Frac Trucks!

The MCM XL is designed for continuous operation and requires minimal maintenance. The low stuffing box pressure and extra-heavy shaft design are engineered to provide maximum seal life. The unique casing flow divider on the 10 x 12 x 23 and 12 x 14 x 22 cut the radial load in half, which can double the bearing life. The heavy-duty bearings are permanently lubricated to minimize maintenance.

In stock!



### Give Us a Call!

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## ISO 9001 REGISTERED

## MCM 250 Series MUD Master

Engineered for High Performance

We've got'em In Stock! ... & Sell'em for less!!!

## 10 x 8 x 14 Pump ... Now in Stock!

- Available on short frame pedestal with hydraulic adapter to allow direct coupling to the end of the pump with a hydraulic motor with SAE B or C flanges.
- Compact design allows for complete unit with hydraulic motor requiring minimum space for installation.
- Sizes Range from 3 X 2 to 10 X 8.
- ·Big \$\$\$ \$avings!







Toll Free: 1-800-255-6263





# MCM XL Pump

Engineered for High Performance



REGISTERED SIZES

The Very Best For Less!

When you want...

Extra High Volume!

Give Us a Call!

10 x 12 x 23

8

12 x 14 x 22