

This web posting is designed to provide all the information needed for you to choose the right replacement pump / motor assembly, motor, pump, or seal kit for the four areas on your machine which may utilize cooling pumps and motors. These areas are:

- Reducer (Gearbox)
- Barrel
- AC Eddy Current Clutch
- Molds

The heart of this product offering is the chart. The notes which support the information found on the chart begin the discussion.

## **NOTES**

### 1. **Seal Types**

The chart is broken horizontally into two sections:

**Section 1**, at the top, contains pumps which have Carbon / Ceramic seals (except for the Sherwood pump as noted on the chart). These are the standard seals.

**Section 2**, at the bottom, contains pumps which have Silicon Carbide seals. These seals are rated as severe duty.

The severe duty seals are considerably more expensive but offer approximately twice the service life of the standard seals. When you consider the maintenance and downtime costs associated with changing these units out, you may find that in the long run, the severe duty offers you a more cost effective solution. Please note from the chart that not all pumps are offered with severe duty seals.

### 2. **Voltage**

Under each type of cooling application, the components are segregated by voltage. This voltage figure refers to the electrical voltage being supplied to your machine. Please note that some motors are configured for a voltage range rather than for a specific voltage

### 3. **Reducer Cooling Pump Choices**

In all areas except for reducer cooling we utilize MP pumps exclusively. We have found that these MP pumps seal well, are easy to service, and work well in all of our applications. Our reducer cooling application is unique from the other three cooling areas because:

\* Oil is being pumped instead of water or a water based fluid, and oil has a higher viscosity than water.

\* The reducer experiences the highest temperature fluctuation between when the machine is being started up and when it is running.

\* To reach the reducer, the oil has to be pumped a considerable vertical distance.

Due to these issues, we offer the Viking pump in addition to the MP for this application. If your requirements dictate that your machine has to be started and stopped often, then the conditions listed above will be exaggerated, and the Viking will protect your gearbox the best.

**Your choices for reducer cooling are:**



### **MP Series 30**

The MP pumps are available, as noted on the chart, with either the standard or severe duty seals. The stationary sealing components have interference fits on both the outside diameter of the shaft and the inside diameter of the seal housing which leads to good sealing. The seal is installed on a replaceable shaft sleeve and is accessible via a "back pull out design" which means that the housing can be left in place during seal changes. All MP impellers are dynamically balanced.

The MP pump is a Centrifugal type.



### **Viking FH456MRH**

The Viking pump is a Positive Displacement type as opposed to the other two brands. The advantage to using a positive displacement pump is that the amount of liquid being pumped is not effected by temperature fluctuation, viscosity changes, or restrictions to flow. This is because the liquid being pumped is mechanically forced out as opposed to being spun out by the movement of an impeller. The end result of this positive displacement is that regardless of whether the machine is just starting

up, or has been running for a long time, the same amount of oil is being pumped and therefore lubricating and cooling your reducer.



4. **Clutch Cooling and Barrel Cooling Options**

For machines which have been retrofitted with AC Variable Frequency Drives and Air Barrel Cooling, the Clutch and Barrel respectively no longer require liquid cooling.



5. **Mold Cooling**

Before the development of the Recip 2000, Uniloy machines were produced without a mold cooling booster pump. The pumping arrangement as described in the chart can be retrofitted to your existing machine. This retrofit is included in the web posting entitled "Mold Cooling" Please consult your local Uniloy Parts Sales Representative for the additional retrofit components required as well as pricing and delivery.

6. **Seal Kits**

The seal kits described in the chart typically include both a shaft seal as well as a gasket. Please note that the Carbon / Ceramic and Silicon Carbide seals (when offered) are physically interchangeable.

## Cooling Motors And Pumps - Part Numbers

Voltage	Pump & Motor Assemblies Part #	Motors Part #	Pumps		Pump Seal Kits Part #
			Model	Part #	

<b>Section 1: With Carbon / Ceramic Pump Seals</b> (Note: The Sherwood seal is actually a Type 6A commercial)
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Reducer Cooling					
460	11010414	11010275	MP Series 30	10409078	10409061
415	10504545	10783957	MP Series 30	10409078	10409061
380	11010417	10783957	MP Series 30	10409078	10409061
380-460	10409104	10419144	MP Series 30	10409078	10409061
380-460	10409084	10846205	Viking FH456MRH	10416049	10409088
460	Obsolete	Obsolete	Sherwood 221-K	Obsolete	10409080

Note: The obsolete Sherwood pump is replaced by 10409104 MP Series 30 pump.

Clutch Cooling					
460	11010419	10410014	MP Series 110 Vertical	10409072	10409062
415	10416249	11010278	MP Series 110 Vertical	10409072	10409062
380	11010420	11010291	MP Series 110 Vertical	10409072	10409062

Barrel Cooling					
460	10408829	10707233	MP Series 30 Vertical	10409070	10409062
415	10409065	10524581	MP Series 30 Vertical	10409070	10409062
380	10504548	10524581	MP Series 30 Vertical	10409070	10409062

Mold Cooling					
380-460	10413835	11010292	MP Series 120	10507300	10417312

<b>Section 2: With Silicon Carbide Pump Seals</b>
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Reducer Cooling					
460	11010421	11010275	MP Series 30	11010443	11010448
415	10413127	10783957	MP Series 30	11010443	11010448
380	11010438	10783957	MP Series 30	11010443	11010448

Barrel Cooling					
460	10504552	10707233	MP Series 30 Vertical	11010445	11010449
415	11010440	10524581	MP Series 30 Vertical	11010445	11010449
380	11010441	10524581	MP Series 30 Vertical	11010445	11010449

Mold Cooling					
380-460	11010442	11010292	MP Series 120	11010447	10446831

## Sales and Service

For more information on this product offering or any other machine upgrade, please contact your local Uniloy Parts Sales Representative. Trained Uniloy Service Representatives are available to assist in the installation of these packages at your facility.