



## PREVENTATIVE MAINTENANCE & BEST PRACTICE PROTOCOL

Applicable to All MDM Pump Models (Genesys®, Advance®, Sequence®, Colossus®, and all related product families). This protocol provides a standardized approach to daily inspection, seal maintenance, motor assessment, and operating best practices to ensure maximum pump reliability, service life, and performance.

### 1. DAILY PUMP-END & MECHANICAL SEAL INSPECTION CHECKLIST

#### **A) Perform these steps once per day on every pump in service:**

- Locate the mechanical seal viewpoints: rear of the pump end and area where the motor shaft enters the pump cavity.
- Use a flashlight and standard 1" telescoping inspection mirror.
- Inspect the mechanical seal area for any sign of moisture, drip, or leakage.
- If any drip or leak is present, replace the mechanical seal immediately.
- \* If pump requires being shutdown, safely follow site lockout/tagout procedures.

#### **B) Seal Replacement Instructions:**

- Navigate to [www.mdminc.com](http://www.mdminc.com)
- Click Resources in main navigation menu --> Then click Operator Resources.
- Login using **LssOps#2026**
- Download the Sequence and Advance Seal Replacement Guide.

### 2. MOTOR NOISE, BEARING HEALTH & MECHANICAL CONDITION

#### **A) Note and document any change in mechanical noise.**

#### **B) If noise increases, inspect the motor.**

#### **C) dB thresholds:**

- 1800 RPM: 50-60 dB
- 3600 RPM: 80-90 dB

#### **D) If above thresholds, break down pump and motor to inspect bearings.**

### 3. TEMPERATURE MONITORING & OVERLOAD VALIDATION

#### **A) Use a thermal laser gun or pyrometer.**

#### **B) Measure at front and rear bearing locations.**

#### **C) NEMA rating: 40°C above ambient.**

#### **D) Example: 75°F ambient, 147°F shell = upper allowable limit.**

#### **E) Validate overload by comparing RMS current to nameplate FLA.**

### 4. BEARING LIFE & CONTRIBUTING FACTORS

#### **A) NEMA bearings rated ~50,000 hours Meantime Between Failure (MTBF).**

#### **B) Premature failure may indicate hydraulic or electrical imbalance.**

### 5. MOTOR FAN, SHROUD & AIRFLOW INSPECTION

#### **A) Inspect fan, cooling fins, shroud for debris.**

#### **B) Clean and reinstall components.**

### 6. BEST GENERAL PRACTICES

#### **A) Install pumps per MDM instructions.**

#### **B) Ensure proper hydraulic balance.**

#### **C) Maintain clean suction lines.**

#### **D) Document all inspections and actions.**

#### **E) Train staff on seal failure indicators and overload symptoms.**

