

			<b>Total Productive Maintenance</b>
<b>QMS</b> <b>PQ12</b>	<b>Rev</b> <b>A</b>	<b>Date</b> <b>09-01-17</b>	<b>Procedure Authority: General Manager</b>

**Purpose:** The purpose of this procedure is to establish a consistent manner by which we incorporate, catalog and maintain “Key Process Equipment”.

**Scope:** The scope of this procedure includes installation of Key Process Equipment, inclusion of equipment data into our Maintenance database and equipment Preventive and Predictive maintenance activities.

**Responsibility:** The General Manager is responsible to properly administer of this procedure.

**Definitions:**

Key Process Equipment = Equipment, designated by the General Manager, to have significant impact to our customers, productivity, and profitability.

Preventive Maintenance (PM) = Maintenance actions meant to ensure good working order and minimize future equipment failures.

Predictive Maintenance = Actions and observations made over time, which could lead to an awareness or predictions of future equipment problems. The resulting intervention is meant to minimize future failures.

**Reference Documents:**

**Procedure:**

1. Install new or used equipment and ensure desired function and capability.
2. Identify all “Key Process Equipment” with a unique number and enter this into the maintenance database.
3. As necessary, develop a Lock-Out Tag-Out (LOTO) procedure.
4. Determine PM elements and update the maintenance database, i.e., what maintenance is needed and at what frequency.
5. Begin production with the equipment and monitor performance.
6. As repairs are made, or other significant changes are incorporated, input the appropriate data into the maintenance database for tracking purposes.
7. On a monthly basis, a designee will use the database to generate PM work orders and distribute to the appropriate Maintenance Technician.

**Procedure Continued:**

- 8. The Maintenance technician must determine if resources are available to proceed with PM. For example, are man-hours available? Can PM be performed without disrupting production? Are supplies and/or PM equipment available?
- 9. If all resources are available, the Maintenance Tech. will perform the work in accordance with the PM work order. Once the work has been completed, an indication will be written on the work order and given back to the originator so the database can be updated.
- 10. If resources are not available, the Maintenance Tech. must notify the General Manager for a disposition on how to proceed; i.e., resources will be made available, or the work order can be rescheduled for a more convenient date.
- 11. If rescheduling is decided, an update to the database is required so a new work order will be generated for the rescheduled time frame.
- 12. In addition to Preventive Maintenance, Predictive Maintenance will be applied as appropriate. Examples of Predictive Maintenance may be oil or water analysis, vibration testing, infrared heat analysis, and any case of an attempt to predict wear, fatigue or failure of critical parts or assemblies.

***AMENDMENT RECORD***

<b>Revision</b>	<b>Date</b>	<b>Details</b>	<b>Authority</b>
A	09-01-17	Originated	E. Ide

# Equipment Maintenance Flow Diagram

(This model is to help illustrate the general process)

