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Breakdown maintenance replacement of equipment

What is Breakdown Maintenance

Breakdown maintenance, sometimes called run-to-failure maintenance, occurs when an asset completely breaks down and needs repair to resume operation.

In many cases, breakdown maintenance is the default maintenance strategy, particularly for organizations that rely on reactive maintenance.

Breakdown maintenance, also referred to as corrective maintenance, is a strategy that performs maintenance tasks only *after* an asset fails. Maintenance tasks are only performed when they become urgent.

For example, repairing or replacing a Equipment after it has broken down.

Types of Breakdown Maintenance

Breakdown maintenance is also referred to as run-to-failure maintenance. As the name suggests, it involves performing maintenance tasks *after* an asset has failed. It's most often used when preventing failure is impossible or not economically feasible. There are two types of breakdown maintenance:

- **Planned Breakdown Maintenance:** In this instance, an organization *anticipates* a specific type of equipment malfunction in the near future. However, since the issue will neither disrupt productivity nor pose a safety threat, management decides to run the equipment to failure.
- **Unplanned Breakdown Maintenance:** Every facility on the planet is familiar with unplanned downtime. Unfortunately, equipment sometimes fails at inconvenient, unexpected, and costly times. Most facilities budget for unexpected maintenance expenses since all machinery is fallible.

It's worth mentioning that breakdown maintenance is often confused with *corrective maintenance*. Though the terms appear similar, they aren't the same.

Breakdown Maintenance Examples

Planned breakdown maintenance is most often used on inexpensive and nonessential equipment parts. As long as breakdowns don't compromise health and safety, organizations are free to consciously choose run-to-failure.

The following situations are ideal for breakdown maintenance:

• **Short-Life Assets** (e.g. batteries, high-flow pumps)



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- Non-Critical Equipment (e.g. hand tools)
- Unrepairable Machinery (i.e. not designed for repairs)
- Inexpensive/Disposable Items (e.g. light bulbs)

| | Preventive Maintenance (PM) | Breakdown Maintenance (BM) |
|---------------------|---|--|
| Definition | Scheduled maintenance work (PMs) based on suggested period of time. | Maintenance work is only performed when asset breaks down or experiences downtime. |
| Trigger | Time | Occurrence of downtime |
| Cost | Minimal | Minimal |
| Cost savings | Between 12% and 18% | Depends on asset and breakdown maintenance plan |
| Suggested Resources | CMMS software PM checklists Maintenance scheduler (applicable only for larger organizations | • Necessary spare parts |
| • Pros | Extended asset lifespan Optimizes organizational resources and maintenance planning | Reduces maintenance costs for non-critical assets Reduces spending on PM for nonessential assets |
| Cons | • Might seem more expensive getting started. | Only applicable to limited number of assets Requires careful planning and execution to avoid losses |



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| | PMs include work orders | | |
|----------|-------------------------|-------------|---------------------------|
| | for | inspection, | |
| | lubrication, | and | |
| | replacement | of filters | |
| | and parts | based on | A facility technician |
| | manufacturer | | replaces light bulb after |
| Use Case | recommendat | tions. | it burns out. |

*CMM -COMPUTERIZED MAINTANENECE MANAGEMENT SYSTEM