

A PRE-EMPTIVE STRIKE AGAINST MACHINERY BREAKDOWNS

In what might be a quiet period in your business it would be pertinent to take this 'extra time to think' to your advantage.

Perhaps you could implement strategies to ensure your truss plant equipment will be reliable in the busy periods that will inevitably follow.

Here is a list of ideas for a 'pre-emptive strike' against machinery breakdowns, aimed at both preventing breakdowns and minimising downtime when they occur.

- Ensure housekeeping standards are maintained. Thoroughly clean and lubricate machines, check for sawdust in electrical cabinets, clean filter pads on electrical cabinet vents and fan grills, replace hazy polycarbonate viewing windows, etc.
- Include a list of daily maintenance checks in the standard operating procedures at each workstation.
- Ensure you have backups of all the software on your machines. Check, and replace if necessary, all of the memory backup batteries on PLCs (programmable logic controllers) and programmable relays.
- Implement a system of periodic inspections for all equipment and replace worn or damaged components. Use a checklist to assess the functionality of all aspects of each machine, particularly safety related items such as machine guards, pull-chord emergency stops, gate latches, etc.
- Make sure that all compressed air lines are free of water and debris. Trace and fix all air leaks (when the factory is idle) and ensure you have a maintenance schedule in place for your plant air compressor.
- Check that you have an operation manual, and an electrical, hydraulic, and pneumatic circuit schematic drawing on hand for each machine.
- Arrange annual maintenance visits

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- Remind operators of the importance of reporting damaged, ineffective or missing parts and tooling at their workstations, and the potential negative impact of a breakdown on their productivity and perhaps their incentive scheme bonus.
- Investigate the implications of continuing to operate obsolescent equipment, e.g. failure of an old



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computer. If an old PC must be replaced it may require a new PC operating system and therefore an updated machine program. Is such software available?

- Consider replacing old equipment. Review historical and planned maintenance costs, productivity

levels, and downtime in comparison with the cost of acquisition of new machinery that has potentially higher output.

- Buy a digital camera, preferably with video capability, for breakdown analysis. It is often more effective to email a photograph or video to a serviceperson than describe the fault over the phone.
- Configure 'remote connections' for fault analysis on automated machines. Most modern PC and PLC controlled devices allow technicians to connect their PC remotely via the internet or a dial-up connection for remote fault analysis.
- Install pot plants to prevent equipment damage by forklifts. Let me explain. Bollards may protect truss plant equipment from damage but are perceived by drivers to be 'indestructible' and often incur severe damage. Place a large pot plant in the zone to be protected. This 'delicate' item will be actively avoided by drivers and provide some visual relief from an otherwise stark working environment.
- Check your spare parts inventory. For regular wear and tear items ensure you have few on the shelf and for more expensive 'mission critical' items check that that your machine supplier carries adequate safety stock.

Many of these items are simple and easy to implement and may save many lost hours or even days of downtime during critical periods.

In addition, many of the suggestions above will have direct flow-on effects for safety and productivity in your plant.

So embrace the opportunity to be active in tackling potential breakdowns and lost productivity, and in the future busy times you will reap the rewards of reliable machines when you need them the most. **TTT**