True Downtime Cost Analysis

The Best Way to Discover and Justify Removing All Manufacturing Waste and Manufacturing Loss from Every Manufacturing Business!

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Introduction to True Downtime Costs (TDC)

True Downtime Cost (TDC) is a method of recording and analyzing all the costs associated with equipment downtime in a production, processing or manufacturing facility. It provides a way to assign time and/or monetary value to stoppages in a complete, thorough and true way that reflects the direct, indirect and opportunity costs lost because of plant and equipment outages.

TDC includes downtime factors commonly overlooked, or previously considered “non-tangible”, to arrive at a more accurate value for the real cost of downtime. Downtime costs include more than the simply the direct costs usually quoted to managers. The true downtime cost includes a vast array of wasted business support costs and lost business opportunity costs because resources were needed to rectify a downtime incident that probably did not need to happen.

An on-line Internet survey conducted by Business Industrial Network provided incite into the vast amounts of money and productivity lost to downtime incidents. Figure ‘A’ shows the estimated annual downtime hours lost in a number of industries. These figures reflect continuously operating plant availabilities ranging from a bad 92% (29 days, or 4 weeks a year, of lost production) to a barely passable 98% (6 days a year lost production). Each availability percentage point below 100% represents millions of dollars of lost production.

Further evidence of the terrible misunderstanding in industry over the incredibly high hidden cost of downtime is highlighted in Figure ‘B’. This figure shows the annual cost spent in various industries on services provided by the original equipment manufacturer (OEM). The figures
Don Fitchett from the Business Industrial Network says, “I can offer you a little insight into losses in the manufacturing industry. For a long time cost savings opportunities have been hidden by the use of standard "overhead". The greatest opportunity available to boost the manufacturing bottom line is to throw out the overhead bucket and start looking at cost individually. Until recent years this was just too complicated with all the cost metrics involved in manufacturing. So instead of looking closely at the make-up of manufacturing costs the trend was to cut inventory, lay off workers, implement a methodology (TPM, PM, TQM, etc.).”

He continues, “The truth of the matter is the cost savings these reactions offer are only a small fraction of the savings that can be realized by monitoring all the cost metrics in manufacturing - or what is called ‘The True Cost of Downtime’. With today’s computers, and manufacturing technology evolving so that machines, people and management are linked together, the time has come for manufacturing to realize the "TRUE" cost of production downtime. Only then will they be able to find the areas of greatest cost savings opportunity. And as the story goes ... reduced manufacturing cost leads to reduced retail product cost, and a strong economy.”

There are many factors affected by downtime and each one contributes financial loss in a downtime incident. Figure ‘D’ indicates what these factors are in a manufacturing operation and groups them under three categories – equipment, labour overhead, production downtime.

![Figure D The Effects of Manufacturing Downtime](image-url)
10. Action Plan

Overview of the Action Plan

When introducing TDC into an organisation it is necessary to get both senior management and shopfloor buy-in. This requires careful planning to be sure you communicate the necessary information needed by each group for its support of the TDC initiative. A well-structured plan and timeline showing the sequential steps involved in the project, the necessary resources and costs needs to be developed and explained to all parties.

Steps along the Way

Top Down:

For change to succeed, you must start from the top, down. Start by asking your plant manager or corporate manager to review a copy of this book. Let the manager know you would like to put together a team to create an action plan best suited for your facilities situation. Also mention you would like the manager’s input and welcome their involvement.

Select a Team:

If you are an individual company, select a team size that is right for your particular situation. It is well known in world class-establishments you want at least a machine operator, a maintenance person and someone from management.

If you are a corporation implementing this action plan, you will need “a reasonable sample” of employees from the companies under you. You should start your plan and team building with one of your companies as test.

Before taking it corporation-wide have a corporate team analyze the process of implementing TDC, the results and refine the investigation Standard Operating Procedure. You would then implement the new action plan on all companies within your corporation.

Set a Goal: