

# Impact of Minor Stoppage on your Profit

## *It's the little things in life that cause most of the problems!*

Got a call from a former client. He needed to increase his output to accommodate a new contract but did not have additional space to install more machines. Good consultant that I am, I went to the most important place where it all happens-the shop floor. While wandering around the factory I was told that a particular line was experiencing great difficulty producing to demand. Indeed this line had more overtime than any line in the building. Some folks believed it was limiting the entire operation.

The operator was working very hard and seemed perpetually in motion. Further observation showed why. She was constantly moving from the output end to a machine in the middle that was empty due to a blockage in a small vibrating feeder. I watched as she picked up an odd looking device shaped like a wire hanger stretched out. She manipulated this device to clear the jam and went back to the end of the line to pack product. It was not long, however, until she was back at the blocked machine to clear another jam. It took about 5 seconds to clear the jam and about 15 seconds to notice the starved machine and to walk back and forth. In the 30 minutes of observation, this happened 6 or 7 times. By extrapolation this results in 4 minutes of lost time every hour. Also, it means 32 minutes of lost output every 8 hour shift. There were a few other lines in the factory with similar problems but none to extent of this line.

At lunch time I managed to sit with this operator and ask a few questions. She admitted that the constant walking was tiring especially since the recent increase to mandatory overtime of 2 hours every day but she needed the job so she did not complain. I asked if she had told supervision about the jam ups and again she said she did not like to complain. As she left the cafeteria, I asked if she remembered how long ago the stoppages began. She said she did not know because the situation was present when she started two years ago. The previous operator, who trained this lady, was leaving to be with family.

Then, after she left, I took out my handy-dandy MOD-1 calculator and recording device, aka a pencil and paper and did some quick and dirty figuring. I estimated the direct cost of this apparently trivial line stoppage as follows: 32 minutes per 8 hour day of lost time; 160 minutes lost time every week; 8,000 minutes of lost time per year. The direct labor cost is about \$0.20 per minute resulting in \$1600 lost every year. A new feeder was estimated to cost less than \$1000. Payback time, considering only these direct costs, appears to be approximately 6 months.

The lost output is another matter entirely. The line produces 4 units per minute. At 8,000 lost minutes that is an additional 32,000 units. I was unable to get the profit for this device but I know it was significant. This would positively impact the bottom line of the company with approximately \$1,000 investment. In addition it would reduce overtime

and perhaps reduce the stress on this operator. Eventually addressing this and other "minor" issues resulted in a significant increase in total factory capacity and therefore output.

The most interesting thing about the situation above was that not one person was measuring this drain on the company's resources. Of further interest was that trained and experienced local supervision was completely unaware that there was an issue.

Therefore we can conclude that it is often critically important to address the seemingly trivial, unimportant "little" things in our factories.

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