FOURTH INTERNATIONAL CONFERENCE ON LEAN SIX SIGMA

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CONTEXT: This project is developed in a Peruvian manufacture company of electrodes for welding. Currently, there are four packaging lines with 100% of utilization on pick seasonal demands. There is a gap of 22.6% in the productivity with respect to the ideal value.

SCOPE: In the packaging line n°1 focus on 3/4 types of electrode diameters. It represents 80% of total production.

OBJECTIVE: Identify improvements to reduce the gap in the productivity to 14% (i.e. from 9 to 10 bags/min).

IMPACT: This improvement would give to the company an estimate of $0.25M per year.

1. DEFINE

Cpk: -0.83 Process not centered
Cp: 0.66 Process not capable

2. MEASURE

3. ANALYZE

4. IMPROVE

POKA YOKE

5. CONTROL

The variability of the bag weight affects productivity. $R^2 = 89\%$

The type of material affects productivity. $R^2 = 0\%$

It was achieved to reduce the gap to 14% and obtain a productivity of 10 bags/min

From the VSM it was determined that the productivity of the process is given by packaging operation, 9 bags/min

74% of the failure modes exceed the accepted level of risk (100). The process is unstable.

The control chart allows to monitor the external causes of variation and statistical statistics.