

RECP Best Practices Catalogue

Reduction of end-of-line rejects

Developed within the framework of MED TEST II



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



The SwitchMed Programme is
funded by the European Union

Best Practice - Reduction of end-of-line rejects

SECTOR:	Metal, electrical and motor vehicle parts
SUBSECTOR:	Manufacture of tubes, pipes, hollow profiles and related fittings, of steel
PRODUCTS	Manufacture of pipes and profiles, metal and mechanical construction, stamping, cutting, forming, threading, sleeving, hot-dip galvanising
CATEGORY	Process control or modification
APPLICABILITY	Process

COMPANY SIZE	80
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TEST Training kit

Best Practice - Reduction of end-of-line rejects

Description of the Problem (Base Scenario):

The non-compliant pipes at the end of the line represent 2.27% by weight for hot rolled steel, and 1.62% for cold rolled steel.

A large part of the losses are due to the adjustment of machines during the change of sets, the rest comes from planing and also from training the operators on the techniques of quick and reliable adjustments of the machines. Further analysis must be conducted by Quality Assurance to define the % of each malfunction.

Description of the Solution

We propose reducing this waste by changing the culture and the type of management within the company and by setting up a lean manufacturing project or KAIZEN on the end of lines. This action can be broken down into three areas of improvement:

- Personnel training
- Modifications and minor improvements on the production lines
- An internal communication campaign on actions and achievements

The target objective was to lower the amount of scrap by 50% for hot rolled steel and 30% for cold rolled steel.



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Economic Gain	The potential gain is 41,000 kg for hot rolled steel and 184,000 kg for cold rolled steel over 6 months. At the hot rolled steel price of € 0.47/kg and the cold rolled steel at € 0.48/kg, the annual gain will be € 215,000/year
Environmental Gain	Less material waste generated that can be estimated at 450 tons/year
Health and Safety Impact	None



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Investment & Financial Indicators	The investment can be broken down into: Training: 10 days at € 1,000/day (maximum) or € 10,000 Communication, Displays: € 5,000 Small investments on the line: € 20,000 Or a total of € 35,000 (Time for Return on Investment: about 2 months)
Suppliers	Attached offices to set up a Lean system
Other aspects	Reduction of scrap which leads to improvement in quality
Implementation and new indicator	Scheduled for the end of 2018-2019