

# RECP Best Practices Catalogue

*Process Optimisation through batch size  
increase*

*Developed within the framework of MED TEST II*



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



The SwitchMed Programme is  
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# Best Practice - Process Optimisation through batch size increase

<b>SECTOR:</b>	Chemical and Pharmaceutical
<b>Branch:</b>	Manufacture of basic pharmaceutical products
<b>CATEGORY</b>	Process control or modification
<b>APPLICABILITY</b>	Process

<b>COMPANY SIZE</b>	500
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TEST Training kit

# Best Practice - Process Optimisation through batch size increase

## Description of the Problem (Base Scenario):

For some products, overall production performances in 2015 were of 94.345% and in 2016 they were of 92.5%. During industrial production, there is a 3% loss during the wet granulation stage. At the compression stage, there is a 2% loss. Production batches weigh 50 kg.

## Description of the Solution

It is suggested to increase batches size in order to reduce losses. To improve industrial production, it is suggested to:

- Increase batches size. Switch from a 50 kg batch weight to 150 kg.
- Use of the current technology modified by adding a pressurized discharge (homogenisation of the granules size).

The savings will mainly be achieved through the reduction of losses, reduction in the time of machine utilisation and reduction of the manufacturing time for a single batch whereas before this, manufacturing time was higher during the production of several batches. It is also worth noting that there is a reduction in the time required for equipment and production stations cleaning, when the number of batches produced is reduced.



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<b>Economic Gains</b>	€ 750 savings per 150 kg batch.
<b>Environmental Gains</b>	Savings of 5% in raw materials
<b>Health and Safety Impact</b>	Reduced amount of hazardous pharmaceutical waste.



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<b>Capital Investments &amp; Financial Indicators</b>	Using of a company's existing mixer Time for Return on Investment: Immediate
<b>Supplier Information</b>	-
<b>Other Aspects</b>	-
<b>Implementation</b>	Measure carried out,



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