#### **RECP Best Practices Catalogue**

#### Installation of a filter press at the phosphating process level Developed within the framework of MED TEST II







SECTOR:	Metal, electrical and motor vehicle parts
Branch:	Manufacture of other fabricated metal products
CATEGORY	Process control or modification
APPLICABILITY	Process

COMPANY SIZE 200	
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Description of the Problem (Base Scenario):	The steel wires require a phosphate layer for wire drawing, but the current treatment generates a lot of sludge that needs to be eliminated and causes an overconsumption of phosphate.
Description of the Solution	The filter press at the phosphatation bath makes it possible to perform continuous filtration by eliminating the sludge in the bath and consequently reduces both the consumption of water and of phosphate.







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Economic Gains	€ 4,205:
	•Savings in water consumption: in the initial situation, the phosphatation bath (9,000 L) is renewed every 3 months, which produces annual water losses estimated at 10 m <sup>3</sup> , with an associated cost of about $\in$ 8.00.
	•Savings in productivity and energy: the time required to clean the bath is estimated to be about 100 hours per year, and if we include the energy consumption associated with the cleaning, we get an associated cost of around $\notin$ 4,000.00 per year.
	<ul> <li>Savings on phosphates consumption: the consumption per m<sup>3</sup> of a bath is 720 kg/year, and every year, 36 m<sup>3</sup> of bathes are renewed, which implies an associated charge of approximately € 200.00/year</li> </ul>
Environmental Gains	•Reduction of 10 m <sup>3</sup> /year of water, or 0.015% •Reduction of 26 tons/year of phosphate, or 54% •Reduction of 25 tons of $CO_2$ , which is 0.27% of the yearly amount of $CO_2$ emissions
Health and Safety Impact	Improvement of work conditions







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Capital Investments & Financial Indicators	€ 10,000 Time for Return on Investment: 2.4 years
Suppliers Information	Imported
Other Aspects	Improvement of productivity and quality
Implementation	Carried out







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