

RECP Best Practices Catalogue

Protein recovery from press water

Developed within the framework of MED TEST II



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



The SwitchMed Programme is
funded by the European Union

Best Practice - Protein recovery from press water

SECTOR:	Food & Beverage
BRANCH:	Processing and preserving of fish, crustaceans and molluscs
Products:	Canned and semi-preserved fish
CATEGORY	Technology upgrade/Eco-innovation
APPLICABILITY	Process
COMPANY SIZE	455 (326 seasonal)



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Description of the Problem (Base Scenario):

Before the fish meal is dried, the raw materials are pressed to recover oil and to reduce the amount of water, which facilitates the drying process. This quantity of water, called press water, is highly loaded with soluble proteins. The water analyses have shown the presence of 98 g of soluble protein/L. This water loaded with protein is estimated at 173 m³/year. It is discharged directly into the WWTP and therefore requires its decluttering.

Description of the Solution

This measure proposes to recover the proteins present in the press water through nano filtration technology with a capacity < 100 L/h. This will reduce the amount of BOD by 18 tons and, as a result, the purified water discharged into the pipeline will improve the performance of the WWTP. In addition, the company estimates the addition of at least 30% concentrated protein which will allow the production of high quality fish meal.



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Economic Gains	No economic gains
Environmental Gains	Pollution reduction: 18 tons BOD/year (3%)
Health and Safety Impact	No impact



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Capital Investments & Financial Indicators	Investment: € 80,000 Time for Return on Investment: -
Supplier Information	Local suppliers
Other Aspects	Productivity enhancement
Implementation	Planned



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