

Membrane Filtration System for education and research purposes

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Pretul estimativ:	120.000,00 EUR
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Descriere: Seinäjoki University of Applied Sciences' (SeAMK) school of Food and Agriculture seeks to procure a small, pilot scale Membrane Filtration System for education and research purposes. Please note that this document is not a Call for Tenders, tenders or application for participation are not asked with this notice. This document serves as a Prior Information Notice. All the information provided in this Prior Information Notice is preliminary and indicative prior information. In this case, the membrane filtration system refers to a system that uses membrane separation techniques for the processing of various food-grade applications within the food industry. The equipment is intended to be used in the "Future Frami Food Lab" demonstration and pilot environment at the School of Food and Agriculture of Seinäjoki University of Applied Sciences. The demonstration and pilot environment has been built as part of the "Future Frami Food Lab" project, which began in January 2023. The demonstration environment increases the awareness of technology opportunities among companies in the region and lowers the threshold for SMEs to introduce the latest food technology applications. The demonstration environment is utilized in SeAMK's corporate cooperation, and in the long term, it will also be used in a multidisciplinary manner in teaching, serving multiple educational programs. The main operator groups that will use the membrane filtration system are degree students, project workers, and researchers. The Membrane Filtration System will be introduced as part of the course outline in some of the courses (dairy and cereal technology). Additionally, it will serve local food sector SMEs, who are welcome to utilize the equipment and our expertise as a part of their product development. Furthermore, the membrane filtration system will be used by RDI-experts and research workers as a part of their projects and studies. Membrane Filtration System In this case, The Membrane Filtration System refers to a system that uses membrane separation techniques for the processing of various food-grade applications within the food industry. o Suitable for food applications and meets the requirements with food safety regulations and has CE-marking o Is suitable for microfiltration (MF), ultrafiltration (UF), nanofiltration (NF), reverse osmosis (RO) o Is suitable for purification and concentration of plant and animal-based products o Capacity: 50-1000 lit./ho must be capable of operating effectively with a minimum processing capacity in the range of 50-100 lit./ho Suitable for spiral wound membranes o Works with three-phase electric power supply described below o voltage: 400 V; frequency: 50 Hzo Has integrated control panel wherefrom the filtration unit is controlled and wherefrom data can be exported to PC or USB-stick The system should include all necessary equipment and instruments for filtration and process monitoring, including any necessary feed tanks, pumps, heat exchanger, control system, sensors for measuring parameters like pressure, temperature, and flow rate, and any other relevant components for ensuring efficient and effective filtration and process oversight.