

Master Thesis Brief Description

Thesis Title	Industrial Steam Generation & Distribution System
Programme of Studies	MSc in Sustainable Energy Systems
Course	SES 701 Maser Thesis I + II
Area of Study	Sustainable Energy Technologies
Student's Name	Theofanis Christou
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Supervisor	Dr.-Ing. Paris A. Fokaides, V. Lecturer, Frederick University
Supervisory Committee	Dr. Constantinos Hadjiyiannis, Frederick University Dr. George Karagiorgis, Assoc. Professor, Frederick University
Semester	Spring Semester 2023
Short Description	This thesis explores the steam generation system within a pharmaceutical company situated in Limassol, Cyprus. Focusing on energy enhancement, the study elucidates the operational principles of steam boilers and heat exchangers, elucidating their role in heat transfer for equipment. The essential applications requiring steam production are outlined, alongside an examination of the utilized steam boilers. Additionally, the investigation delves into the distribution loop of steam. Through on-site inspections and the application of learned concepts from the master's program, the thesis aims to optimize energy utilization in the steam production and distribution system. The conclusion presents insightful proposals for heightening system energy efficiency. This research not only facilitates a comprehensive comprehension of the steam generation process but also endeavors to contribute to the sustainable energy advancement of pharmaceutical facilities.