

**DESIGN AND CONSTRUCTION OF AN
EDUCATIONAL MODEL OF A
CENTRAL HEATING SYSTEM**

by

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Project Report

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SUMMARY

The objective of this project was to design and construct a Central Heating System model that will be used for educational purposes.

The design of the steel frame as well as a design having the heating elements installed on the steel frame was handed to us in advance for our convenience.

The educational model employs a hot water boiler and it is a low pressure hot water heating system. All equipment and materials were provided.

The system consists of an automatic hot water boiler (NXR1 CXSeries By CHAPEE), an oil burner (CHAPEE), a stainless steel chimney, a heat exchanger (plate from Tasapro Co.), a cylinder heat exchanger, a fan coil unit (Teklima Co), a steel radiator, an aluminium alloy radiator (VIVAL), a towel radiator (ACOVA), two expansion tanks and a floor heating system that was installed by professionals (WIRSBO). The model also contains four circulating pumps (WILO), an air separator, air-releasers, valves, check valves, bends, pipes, fittings, thermometers and pressure gauges as well as thermostats and relief valves.

The project describes what each equipment used job is as well as its type. It also describes how the educational model was constructed and what the operation of the educational model is.

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