

DIAGNOSIS OF A DOMESTIC HOT WATER PREPARATION SYSTEM CONSISTING OF A 24 KW WALL MOUNTED BOILER AND AN 80 L WATER TANK

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ABSTRACT

The study is an important stage in the development of a Hot Water Preparation System consisting of a 24 kW conventional (non – condensing) gas fired combination boiler and an 80 l water tank.

The testing phase revealed that boiler operates intermittently (short On / Off cycles consecutively repeated) as long as the water tank requires heat (the thermal charging phase), in absence of the Domestic Hot Water consumption. This operation mode of the water preparation system is inefficient and completely defective. The aim of this study was to establish the cause of this defective operation and, obviously, to find the solution.

The paper presents the testing method applied to the system, the results of the study, the interpretation of the results and the solution adopted.

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