

A&D Solutions d.o.o. Belgrade, Serbia, achieve 9.87% fuel consumption saving using the Magnatech Fuel Efficiency System.

Magnatech™ supports responsible organisations in the challenge of meeting energy efficiency targets by delivering a cost-effective solution to lower fuel costs and reduce environmental impact.

Site details

At the Stari Most location in Sremska Mitrovica (state property), one of the two boilers was selected (the other is a backup) and Magnatech™ magnetic modules were installed on it to save gas. The boiler provides hot water for heating a part of residential buildings in the Sremska Mitrovica settlement. Testing of the Magnatech™ system, in real conditions of exploitation, is a joint project of JKP "Toplifikacija" and the representative of the Magnatech™ system, A&D Solutions, with the aim of obtaining relevant results of fuel consumption, to order to determine the realistic possibility of applying this system. The magnetic fuel conditioning units were installed to the gas inlet pipe.

The system on which the pilot project has been installed consists of:

- Burner: Weishaupt WM G30/2-A, Monarch, maximum energy of 3800kW
- Boiler TK 2500 energy of 2500kW manufacturer "Topling grejanje" produced in 2014.
- SCAD system Wonderware,
- · Gas line diameter of DN 65,
- Energy source is natural gas.

Monitoring Equipment

Fuel consumption and thermal energy production are monitored by Wonderware, SCAD system. Wonderware is a SCADA solution that is being used by many different industries, some of which include infrastructure, oil/gas, chemical and more.

Energy Calculations

In the season 2021/22 in the boiler room "Stari most" for the production of 1MWh spent 102.955 Sm³ of natural gas.

In the 2022/23 season the mentioned boiler room, is for a period of four months, starting from 17.10.2022. year, consumed 92,795 Sm3 for the production of 1 MWh of thermal energy.

Conclusion:

From everything mentioned above, it is concluded that the saving of 9,87% has been accomplished, which has been recorded and confirmed on SCAD system.





