## Power Engineering and Energy Efficiency

# **UPGRADE OF TVG-8 AND TVG-8M BOILERS**



#### **Areas of Application**

The technology is to be used in public utilities engineering for upgrading the facilities in order to increase their efficiency and to reduce natural gas consumption

### Stage of Development. Suggestions for Commercialization

IRL8, TRL8 Manufacture, supply, installation, commissioning, warranty service, and staff training, upon request

#### **IPR Protection**

IPR3

MPIG-3 bottom burner of new generation



▲ Installation of convective surface made of Ø32×3 mm pipe instead of original Ø28×3 mm one in TVG-8M boiler

#### **Specification**

The upgrade provides for installing new burners having a capacity of 3 MW, a control factor of 5,  $NO_x$  concentration of  $\leq 180 \text{ mg/Nm}^3$ ; CO concentration of  $\leq 100 \text{mg/Nm}^3$  at 3%  $O_2$ ; convective section made of  $\emptyset 32 \times 3 \text{ mm}$  pipe, and flue gas temperature at the outlet of  $\leq 120 \text{ °C}$ 

#### **Advantages**

The upgrade technology has the lowest payback period of 1 year among alternative options for raising efficiency of 4-10 MW gas-fired boilers as compared with new domestic or imported boilers. The boilers can be upgraded during repair works. The upgrade results in efficiency increasing from 89-90% to 94-96% and enables saving 172 thousand m<sup>3</sup>/year natural gas using TVG-8 boiler

#### **Contact Information**

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