

BROCK TURBULATORS

For Cast Iron Sectional Boilers



BROCK TURBULATORS MAKE CAST IRON SECTIONAL BOILERS MORE EFFICIENT BY:

- * Breaking up hot core gases and eliminating cooler latent gases thereby directing more heat to flue walls
- * Allowing all flues to do equal work
- * Eliminating wasteful stack heat losses

THE RESULTS OF THIS IMPROVED EFFICIENCY ARE:

- * Reduction in fuel consumption
- * Lower heating costs
- * Reduced boiler maintenance costs
- * Extended boiler life



TURBULATORS MAKE HOT GASES WORK HARDER...

The large flames of a cast iron sectional boiler produces a high volume of hot gases in the boiler flues. These gases form a hot central core, causing the formation of a layer of cooler gases on the flue walls. These cooler gases in effect, create a layer of insulation, retarding heat transfer. The result of this is excessive stack temperature. Turbulators break up the inner core of hot gases, directs them to the flue walls where heat is transferred to the waterside, resulting in less heat being wasted up the stack.

PROOF THAT TURBULATORS WORK

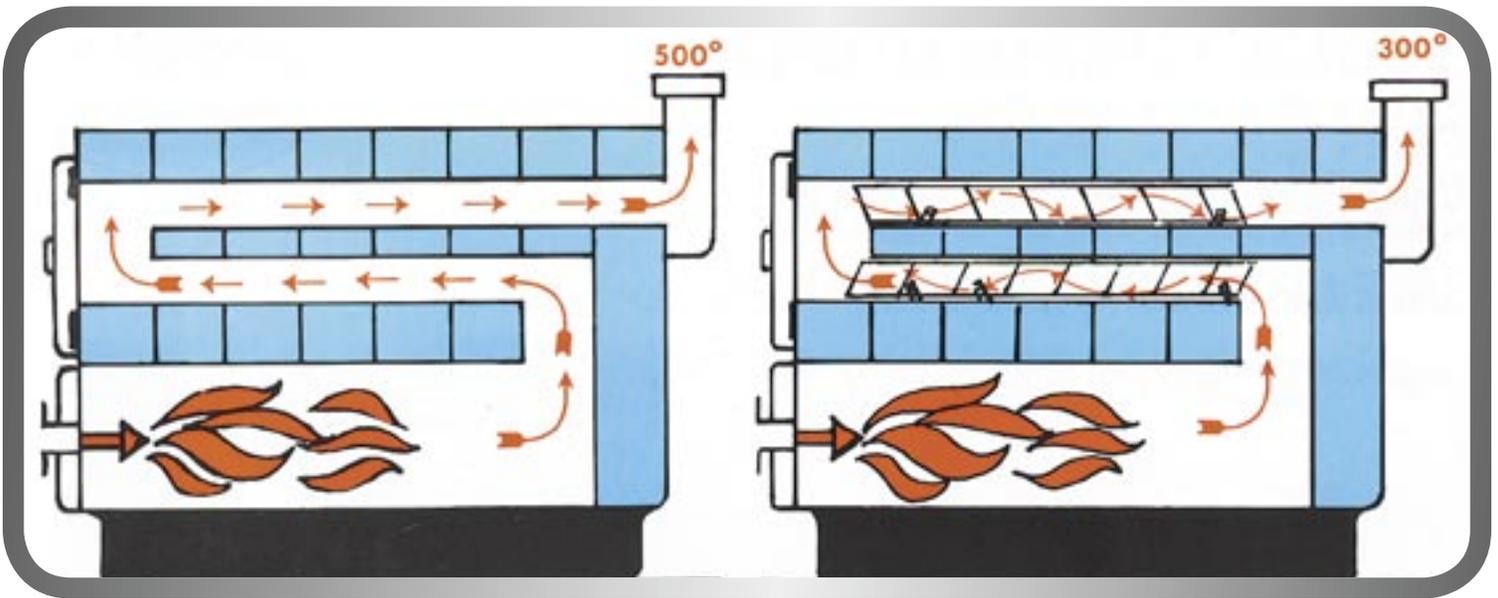
Savings of 16% to 20% have been reported in cast iron sectional boiler installations. Results were of a comparison to the same boilers before turbulator installations and were based on degree days. These savings were independent of burner adjustment which in itself could cause further increased efficiency and savings.

It is interesting to note that 98% of the thousands of turbulator installations in the United States have reported

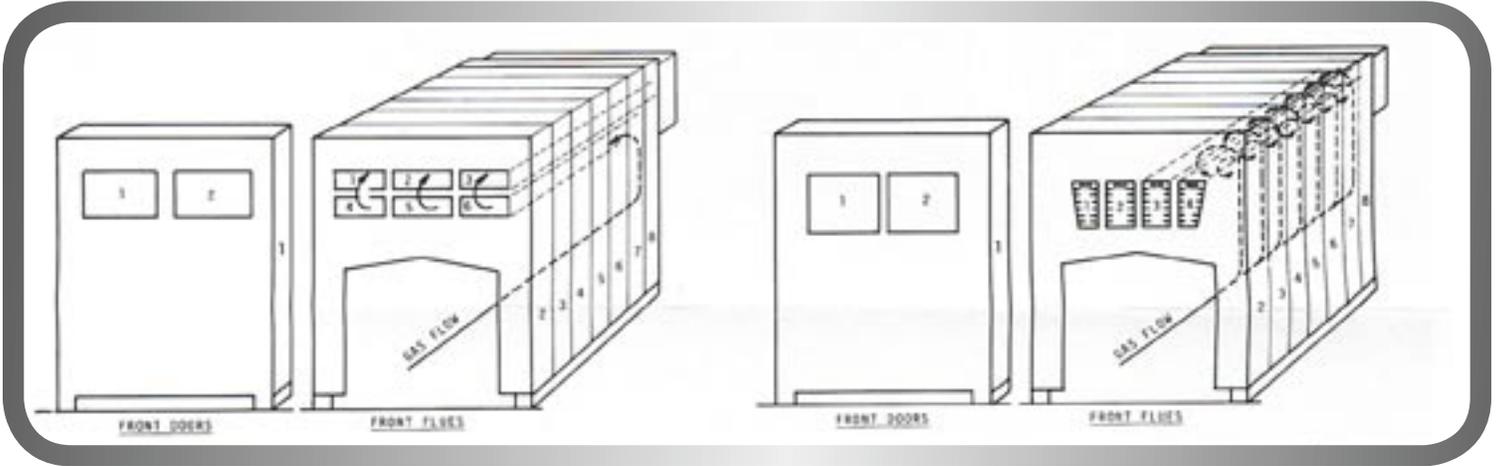
significant savings. Typical installations include schools, hospitals, municipal buildings, manufacturing plants, hotels, office buildings and practically any other buildings where cast iron sectional boilers are used for heating.

LOW COST, FAST PAYBACK

Turbulator costs are modest compared to the fuel savings they offer. Generally, turbulators pay for themselves in less than one heating season. And, these savings keep piling up year after year because turbulators last the lifetime of the boiler.



In a boiler without turbulators, hot gases contract and slide along in an inner core, losing contact with the flue walls and causing heat to be wasted up the stack. With turbulators installed, hot gases are directed toward the flue walls resulting in more intimate contact. Stack temperatures are reduced, flue efficiency increases.



The turbulators shown below are representative of the types used in the style of cast iron sectional boiler under which they appear. A turbulator installed in each flue pass.



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Easy Installation, Harmless to Boilers

Turbulators are shipped ready for dealer installation. The average installation takes a short time and in most cases can be done without loss of heat or steam pressure. Installation includes checking CO₂, stack temperature and draft to assure the highest efficiency for each boiler design and fuel used. Because turbulators disperse hot and cool gases, they prevent hot and cold spots in the flue. In doing so, they eliminate the primary cause of thermal stress in boilers. As a result, boilers last longer, perform more efficiently.

More

For more information on turbulators for cast iron sectional boilers, and other fuel savings products, write or call Fuel Efficiency today to contact your local boiler equipment dealer.