



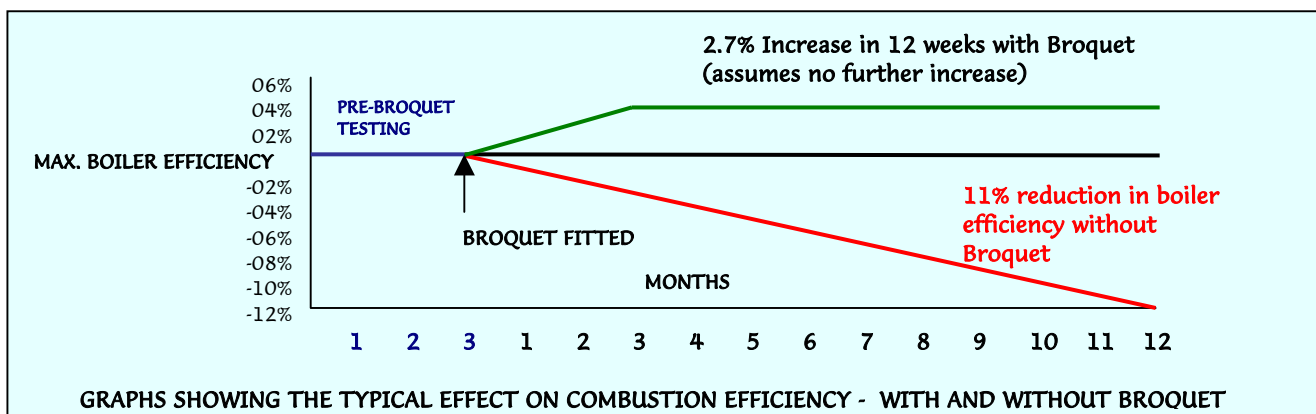
## BOILER/BURNER APPLICATIONS

The Broquet fuel treatment in-line unit consists of a specially designed container enclosing the unique Broquet catalyst in pellet form. When introduced into the fuel system of a boiler/burner using oil or diesel, the catalyst causes an improvement in combustion efficiency - with less air, giving higher flue gas temperatures and improved heat transfer. It will also remove, and then inhibit, the build-up of fireside carbon deposits that would otherwise form. This results in (a) fuel saving, (b) maintenance of boiler efficiency and (c) less maintenance.

(a) **FUEL SAVING** - Annual fuel saving following the fitting of the Broquet Unit would be expected to be in the range 5%-12%, although higher figures are not unusual.

(b) **MAINTENANCE OF BOILER EFFICIENCY** - It is accepted within the industry that boiler efficiency when using 35 second oil, reduces by approximately 1%/month due mainly to the carbon build-up on the fire walls which reduces heat transfer (this loss of efficiency could be greater if burning heavier fuel oils) If the boiler is cleaned, and combustion optimised, once per annum, the potential loss of efficiency is approximately 11%.

In one boiler trial, *average* fuel consumption was reduced by 2.7% over a 12 week period. At this stage no further readings were taken. When the boiler was opened for inspection, it was noted the fireside was dusted with a fine deposit that could easily be removed by rubbing by hand (see below). Cleaning of the firetubes and retarders was accomplished by water-jetting .



It is very probable that at the end of the 12 week trial, *actual* savings had exceeded the 2.7% quoted. Further, inhibition of carbon build up by Broquet ensured that boiler efficiency did not fall off due to fireside fouling as had been the case in the past.

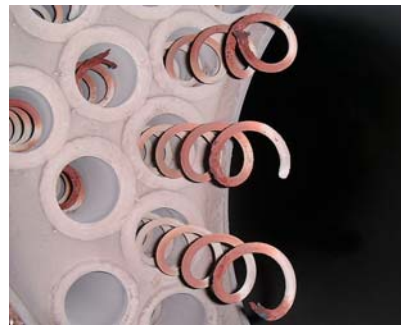
### BOILER NO. 1

TYPICAL VIEW OF BOILER CONDITION WITHOUT THE BROQUET TREATMENT



### BOILER NO. 2

TYPICAL VIEW OF BOILER CONDITION AFTER BEING TREATED WITH BROQUET FOR 12 WEEKS



(c) **LESS MAINTENANCE** - As carbon deposits on the firewalls are practically eliminated following the use of Broquet, then the labour associated with their cleaning, and boiler down time, are significantly reduced. This gives further cost savings.