COMMERCIAL

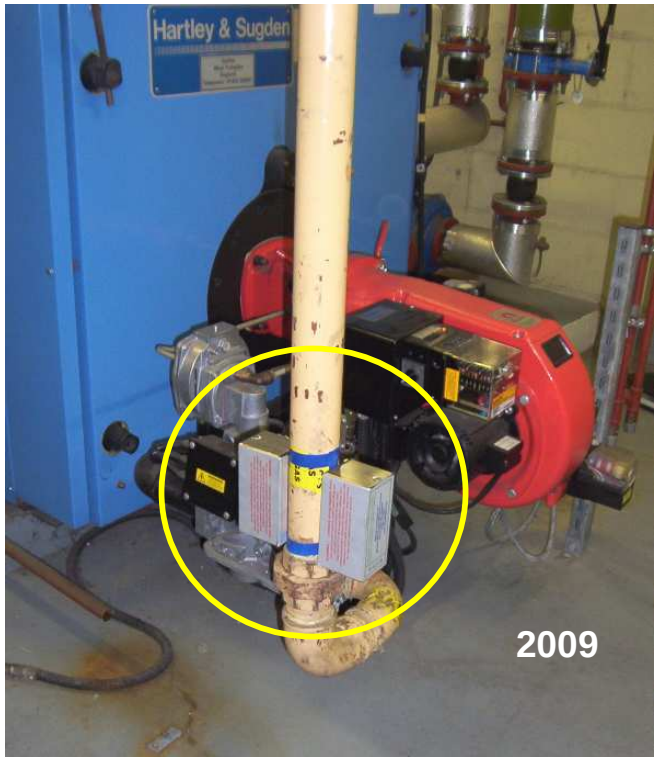
MTC product range - MAJOR UK INSURANCE COMPANY

MT- C75 magnetic fuel conditioners were fitted onto the natural gas supply pipes to the CH/HW boilers in the offices of a major UK Insurance company, in March 2009.

The client monitored gas consumption for 30 days prior to fitting the fuel conditioners, and for 36 days after fitting.

The result from the pilot scheme shows an overall reduction in fuel consumption of 23.3% between the two periods.

The primary result was adjusted by the application of the UK Government's Degree Days Formula (to compensate for changes in the external ambient temperature) producing a final **net fuel saving of 10.6%.**



More Heat – Less Fuel – Reduced Emissions

A pair of **MT-C75** fuel conditioners was fitted to the (2.5" diameter) steel fuel pipe supplying natural gas to each of two **Hartley & Sugden boilers** (input rating - 472 kWh).

The two boilers are used for the central heating in the main office block, one of three on the site totalling 100,000 square feet. They also provide hot water used in the kitchens and the various restrooms.

The **MT-C75** fuel conditioners are simply placed onto the fuel pipes. No cutting or alteration of the fuel pipes or boilers is required. There is no requirement to shut down the boilers during installation.

The units do not require any supporting power, fuel, chemicals, or other input.
The units do not require maintenance, inspection, or attention of any kind.
The units do not produce any emissions or waste.

INSTALLATION

Great care is needed to line the units up properly, and to avoid trapping your fingers during installation of these **very** powerful units!

We recommend that you only remove each unit from its packaging when you are ready to install it.

We first of all put some tape around the pipe to act as a guide when installing the units - it is important to line them up opposite each other, accurately.

We then installed the units - always fit the more awkward first.

We used a piece of wooden dowelling when placing each unit, moving the dowelling along the pipe so that the unit gradually came into contact with the pipe.

Following on from the satisfactory outcome from the pilot scheme, the company has now ordered **MT-C50** units for the smaller boilers supplying the other two buildings on the site. These will be installed in November 2009.

Ideal Concord, Super 350-600VH - 2 off
Model 350 404.6kWh input rating
40mm external dia steel supply pipe

Ideal Concord, Super 50-300VH
Model 200 231kWh input rating
40mm external dia steel supply pipe

FINANCIAL BENEFITS

The current cost of gas used in the three buildings at the site is approximately £35,000 p.a. (July 2009 prices)

A net saving of 10.6% repeated across the three buildings on the site would therefore provide annual cost savings of £3,710.

The one- off cost of supplying and installing the units in the boiler rooms of all three buildings is less than £2,000.

The products should last indefinitely, and are guaranteed for 10 years.

ENVIRONMENTAL BENEFITS

Consumption of natural gas in the three buildings, for the 12 months preceding the trial was approximately 25,000 units (hundreds of cu.ft).

The combustion of 25,000 units of natural gas will generate 142,500 Kgs of CO_2 (approximately).

A 10.6% reduction in fuel consumption will therefore reduce CO_2 output by 15,105 Kgs per annum.

More Heat – Less Fuel – Reduced Emissions

MONITORING

Monitoring consumption was undertaken by the client on a “daily” basis -not all days were recorded.

The heating system did not operate at weekends or public holidays.

The “room” thermostats were set at 22 oC.

DEGREE DAY INFORMATION

The information used to carry out the degree adjustments was obtained from www.degreedays.net

This site contains access to information from around the world.

You can adjust the degree -day report to reflect the **actual thermostat setting in the particular building** that you are dealing with. This is a very important point.

Daily readings are available, or you can have them weekly, monthly etc.

Any start and end dates can be set (not just weekly, monthly).

They have readings for thousands of UK weather stations, so you are bound to find one near to the client.

DATE	TIME	METER READING		GAS USED	total in period	Average Fuel per day	working days in period	Fuel per working day	Heating Degree days 22c	TOTAL degree days	TOTAL degree days in period	Fuel per degree day
17/2/09	12.00		381441									
18/2/09	12.00	381441	381561	120					13.1			
19/2/09	12.00	381561	381660	99					14.8			
20/2/09	12.00	381660	381761	101					14.8			
SAT/SUN												
23/2/09	12.00	381761	381906	145	465	116	4		13.7	**56.4**		
24/2/09	12.00			0					13.1			
25/2/09	12.00	381906	382145	239					13.7			
26/2/09	12.00	382145	382272	127					14.8			
27/2/09	not read								13.1			
SAT/SUN												
2/3/09	12.00	382272	382529	257	623	125	5		17.0	**71.7**		
3/3/09	1.30	382529	382668	139					14.2			
4/3/09	12.00	382668	382805	137					18.1			
5/3/09	12.00	382805	382955	150					19.2			
6/3/09	12.00	382955	383140	185					18.7			
SAT/SUN				0								
9/3/09	12.00	383140	383232	92	703	141	5		15.9	**86.1**		
10/3/09	12.00	383232	383385	153					14.2			
11/3/09	not read		12:00:00 AM						14.8			
12/3/09	not read			0					12.0			
13/3/09	not read			0					13.1			
SAT/SUN				0								
16/3/09	12.00	383385	383863	478	631	126	5		13.7	**67.8**		
					2422							
less other than space heating 19 days @48 =912					**1510**	**net**	**19**	**79.47**			**282**	**5.3546**
17/3/09	not read								14.2			
Magnets fitted												
18/3/09	12.00	383863	384089	226					14.2			
19/3/09	not read								15.9			
20/3/09	not read								15.3			

Space heating is only operating during working days (excludes weekends and public holidays).

Other than frost protection

Average daily allowance for non-space heating = 48 units (00's cuft) based on july figures

Info provided by client

More Heat – Less Fuel – Reduced Emissions

SAT/SUN											
23/3/09	not read								15.3	**74.9**	
24/3/09	not read								14.2		
25/3/09	not read								13.1		
26/3/09	12.00	384089	384769	680					13.7		
27/3/09	12.00	384769	384869	100					15.9		
SAT/SUN				0							
30/3/09	12.00	384869	385068	199	1205	121	10		14.8	**71.7**	
31/3/09	12.00	385068	385190	122					12.0		
1/4/09	not read								18.1		
2/4/09	not read								12.0		
3/4/09	not read								14.8		
SAT/SUN											
6/4/09	12.00	385190	385587	397	519	104	5		12.6	**69.5**	
7/4/09	12.00	385587	385630	43					12.3		
8/4/09	12.00	385630	385710	80					12.3		
9/4/09	12.00	385710	385780	70					12.3		
10/4/09	holiday			0							
SAT/SUN				0							
13/4/09	holiday			0							
14/4/09	12.00	385780	385980	200					8.7		
15/4/09	12.00	385980	386150	170					7.6		
16/4/09	12.00	386150	386210	60					9.2		
17/4/09	12.00	386210	386350	140					12.6		
SAT/SUN				0							
20/4/09	12.00	386350	386492	142					10.9		
21/4/09	12.00	386492	386530	38					9.8		
22/4/09	12.00	386488	386597	109					9.8		
23/4/09	12.00	386597	386695	98	1108	100.1	11		9.2	**114.7**	
				0	**2832**						
less other than space heating 26 days @ 48 =1248					**1584**	**net**	**26**	**60.92**		**330.8**	**4.788**
Average daily allowance for non-space heating = 48 units (00's cu ft) based on july figures				0							
INFO provided by client											

23.3% reduction per working day

10.60% fuel saving per degree day

More Heat – Less Fuel – Reduced Emissions