

# Catalytic Box Oven for Under £10K

**T**hermo Catalytic Systems Ltd. are about to launch their latest model (patent pending) 'Catbox' oven. It will be available in their demonstration and test centre at Cheadle Staffordshire for 'no obligation' customer trials for less than £10,000.

Similar to their existing catalytic box ovens, (the first of which was installed as long ago as 1995), the 'Catbox' oven is a 3-m cube made from polished stainless steel and fitted out with two flameless gas catalytic heaters and coupled with gentle air re-circulation. However, the latest generation 'Catbox' incorporates unique features which maximise the advantages of the technology.

The 'Catbox' oven is ideal for curing coatings applied onto wood and wood-based products such as pine furniture or M.D.F. For example, acid catalysed coatings can be cured in 10 to 20 minutes while some pre-catalysed lacquers can be cured in 10 minutes. This alleviates the bottleneck at the drying stage and frees up racks, trolleys and valuable floor-space. The 'Catbox' starts at £9,975 excluding works which means that it soon pays for itself



The Catbox oven is available for £9,975 ex. works

through the increased production it makes possible.

One of the new features is the ability to cure coatings without any need for flash-off, even when 2 or 3 heavy coats are applied wet on wet. Once the coating has flowed out it can go into the oven for immediate curing. The advantages are threefold.

- Firstly it saves time.
- Secondly it improves the finish because the longer the products spend waiting to enter the oven the more vulnerable they are to dust inclusions and similar contamination.
- Thirdly it reduces solvent emissions to the work area and atmosphere.

T.C.S. have been making catalytic ovens for wood-finishing since 1998, including bespoke ovens, using the Catbox principle, to any size required. They have supplied such companies as Fireplace Gallery, Prentice Furniture, Swift Horsman and Corndell Furniture to name but a few. T.C.S. launched the all-stainless steel version of the Catbox at Woodmex 2002.

The Cheadle based company also supply individual catalytic heaters for wall mounting or on mobile stands.

According to Miller: "We are so confident in the heaters that we often simply ship them to potential customers on approval. So far, in every case, they bought the heater."

T.C.S. use the Kansas manufactured 'Bruest' catalytic heater for which they are the European agent. It is manufactured entirely in stainless steel to prevent corrosion, the catalyst pad is guaranteed for 5 years and the electrical fittings on it are all to Zone 1 standard. The Bruest heater is ATEX compliant and is the only catalytic heater to have been specifically marketed by British Gas.

Bill Miller says that he personally pioneered the industrial application of the catalytic drying boxes in the UK and Ireland and remembers when gas catalytic ovens were a little known and often mistrusted technology: "During the 1980s British Gas were reluctant even to connect gas to them, This was not entirely without reason, it was because of the history of poor combustion efficiency and fire safety issues with which had been identified by British Gas and the Health & Safety Executive in the 1970s.

Unfortunately, all catalytic heaters had been tarred with the same brush."

Miller insisted that British Gas re-examine the technology in the form of the "Bruest" heater which already had a 30 year pedigree in the U.S. This long and expensive process involving extensive trials and negotiations took several years. However, it ultimately resulted in British Gas actually helping to promote the Bruest heater, which they declared to be "the very best system".

T.C.S. sell only 'Bruest' heaters, which they import from Kansas. They have been recognized for their process-time reductions, energy savings and environmental advantages winning the British Gas Energy Management Award in 1993 and the Manweb G. E. M. Award in 1995. In 2003 T.C.S. won a BAe Systems Innovation Award for a system used on the Eurofighter.

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