We list below and in no particular order of importance the innovations we feel we have brought about in developing our business:

1. We were the first cleaning company to invest in a DOFF superheated steam generator in Yorkshire in 2005. We now own four super-heated steam generators.



- 2. IN 2007 WE FIRST COMBINED ACID SPRAYING WITH A SUPER-HEATED STEAM WASH OFF, FORMING WHAT WE CALL THE STEAMACC PROCESS TO REMOVE CARBON STAINING ON OLDER BUILDINGS. WITH THIS METHOD WE WERE ABLE TO BOTH REDUCE ACID CONCENTRATIONS AS WELL AS DWELL TIMES. THE PROCESS IS "PROGRESSIVE" AND WE CAN READILY MATCH THE COLOUR OF OLDER BUILDINGS WITH NEWER EXTENSIONS. IN 2010 WE ASKED LEEDS University Department of Civil Engineering to investigate the amount OF "DAMAGE" CAUSED BY THIS PROCESS TO THE MASONRY SUBSTRATE. USING A SCANNING ELECTRON MICROSCOPE (EVERY BUILDING SITE SHOULD HAVE ONE!) THEY DETERMINED THAT THE DAMAGE CAUSE WAS IN THE RANGE O-100 MICRONS. (N.B. THERE ARE 1000 MICRONS TO THE MILLIMETRE). AS ANOTHER MEASURE, IF WE CLEANED A GIVEN STONE BUILDING EVERY 5 YEARS WITH A STONE BLOCK THICKNESS OF 200MM, WE WOULD ULTIMATELY WASH THE BUILDING AWAY IN JUST UNDER 7000 YEARS. TO THE BEST OF OUR KNOWLEDGE STEAMACC IS THE ONLY MASONRY CLEANING PROCESS AVAILABLE IN THE UK MARKET THAT HAS BEEN SCIENTIFICALLY VERIFIED.
- 3. Over the last three years we have been working with the University of Leeds, Department of Polymer and Colour Chemistry to develop a more certain, electronic way of matching colours of lime repair mortars. We have now developed a fairly accurate data-base, that coupled with our own modern Spectral Photometer, will allow us to quickly colour match any piece of stone or brickwork. We believe this to be the first time this has been down with powders in the UK and possibly Europe.



