

Number: 2007/04

## THE CUTTING EDGE, SHEFFIELD .....THE FINAL POLISH



The Cutting Edge, an 80 metre long stainless steel sculpture symbolising a knife blade, being forged from a round bar was commissioned by Sheffield City Council as major public art element of the Sheffield Station Gateway Project.

Designed by local sculptors SI Applied, manufactured and installed by Jordan Manufacturing Ltd, polished by Sillavan Metal Polishers and pre commission cleaned by Vecom Stainless Finishers, the sculpture serves as an iconic welcome to the City whose reputation was built on stainless steel cutlery.

The sculpture was erected in June 2006 and stood, still covered by the coating, through the long hot summer while other building work continued well into the winter.

In December Vecom were asked to advise on the cleaning of the stainless bright polished panels. During the inspection it was noted that although the protective coating had remained mostly intact and little to no damage had occurred to the surface, the hot sun had dried out the coating so that the adhesive had all but evaporated leaving the plastic coating firmly stuck to the surface of the steel.



Cleaning with chemicals proved very time consuming and labour intensive, so dry ice was used to remove the old dried on coating. The dry ice is delivered by compressed air to a gun which is directed onto the surface. The cleaning works by a combination of three actions: first the dry ice pellets are propelled out of the gun accelerated by the compressed air and impact on the contaminants; secondly there is a micro thermal shock as the very



cold ice (-79 degrees C) hits the contaminants and causes them to crack; and finally, as the ice pellet warms, it expands and converts to a gas. This rapid expansion of about 700 times in volume forces off the contaminants.

After the protective coating has been removed, the dried up adhesive had to be removed by cleaning chemicals. Finally, any water marks and staining were cleaned off and the whole sculpture buffed up to a glorious shine.



Vecom supply cleaning products to Sheffield City Council and local engineering companies in order to maintain the stainless steel water features and street furniture.

Vecom provide stainless steel restoration service nationwide. This sometimes involves pre handover cleaning, removal of "tea staining" from seafront furniture and balustrades and construction site damage remediation.

Vecom Stainless Finishers Ltd, Barnsley, Sheffield & Bury, Manchester [www.vecom.co.uk](http://www.vecom.co.uk)

Author: J. Aylott (Director Vecom UK)  
Reactions and/or questions: e-mail: [tb@vecom.nl](mailto:tb@vecom.nl)  
[www.vecom-group.com](http://www.vecom-group.com)

