

'Rising' Sculpture Rejuvenated After Cleaning

HISTORICAL RESTORATION CASE STUDY

Dry ice used to successfully clean delicate and expensive work of art

COMPANY

EcoJet Inc. Dry Ice Blasting

APPLICATION

General Maintenance,
Sculpture Cleaning

COLD JET SYSTEM

Aero Series

BENEFITS

Dry ice used to successfully
clean delicate and expensive
sculpture



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THE SITUATION

One of China's most influential contemporary artists, Zhang Huan, advocates protection for the environment through much of his work and 'Rising', the famous sculpture on University Avenue in Toronto, is no different. The polished stainless steel sculpture is comprised of countless doves – the international symbol of world peace – and a twisted tree branch that resembles the body of a dragon, thus drawing an analogy to the fragile conditions facing the planet. The large-scale, outdoor piece of art measures about 20 meters by 20 meters and weighs approximately 22 tons.

The sculpture was installed approximately one year ago and the city dust and airborne pollutants have taken their toll on the original shine of the exterior. The sidewalk dust, exhaust soot, brake dust, tire rubber and acid rain of Toronto's busy University Avenue have collected on the sculpture and also on the 40 foot glass wall that sits directly above the sculpture. When it rains, all of these contaminants are washed down on top of the sculpture, leaving behind unsightly streaks. 'Rising' was in desperate need of cleaning and it was important to

find a cleaning method that would neither damage the \$5 million dollar piece of art nor leave behind any streaking or debris residue.

THE PROBLEM

The site developers considered having the sculpture cleaned by hand but this would mean that workers would have to climb on the sculpture in order to effectively clean every area and, when considering the delicacy and value of the sculpture, this was a risk they were not willing to take. They also considered power washing but knew that the water would only displace the dirt and leave behind a residue. They decided that dry ice cleaning would be the best option to effectively clean the sculpture.

THE SOLUTION

EcoJet Inc. Dry Ice Blasting is a dry ice cleaning contractor based in the greater Toronto area, serving the province of Ontario and beyond and specializes in restoration and

BEFORE



AFTER



remediation as well as cleaning in the general manufacturing, food processing, aircraft, foundry, marine and power generation industries. Mike McGraw, owner of EcoJet Inc. Dry Ice Blasting, suggested using Cold Jet dry ice cleaning equipment to clean the sculpture.

Cold Jet's dry ice cleaning systems use non-abrasive media in the form of recycled CO₂ pellets that won't damage surfaces. The combination of dry ice cleaning's kinetic energy and thermal effects break the connection between the dirt and surface, lifting away contaminants. Unlike blasting with other media, dry ice cleaning does not leave behind any secondary waste, because the dry ice particles sublime on impact – converting from a solid to a gas. Dry ice cleaning is safe and non-toxic, does not create downstream contamination and reduces exposure to dangerous chemical cleaning agents.

"The applications, industries and possibilities are endless with dry ice cleaning," said McGraw. "And Cold Jet products are not only the best in the business, but their customer support has been indispensable to us."

EcoJet Inc. Dry Ice Blasting used a Cold Jet Aero 40 HP with a variety of nozzle types and lengths to successfully clean the sculpture. The dry ice cleaning easily lifted contaminants without leaving behind any secondary waste or residue. A 5E0175, 312V2 and modified 312V2 nozzle were all used and it took approximately 5 days and 3,200 pounds of dry ice to clean the sculpture. In addition to dry ice, a polishing solution was also used in order to remove all of the staining and oxidation.

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Rising has been brought back to 'like new' condition and EcoJet Inc. Dry Ice Blasting has signed on to perform biannual cleanings of the sculpture.