

Cutting edge wind tunnel to open in '08

By Eric C. Deines

edeines@independenttribune.com

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Jeff Bordner, site manager at the Windshear Rolling-Road Wind Tunnel, shows off the room where cars are tested in 180 mph winds.

James Nix / jnix@independenttribune.com

CONCORD - Early testing of equipment is under way at a \$40 million automotive wind tunnel being built by Windshear Inc., a sister company of Haas CNC Racing, near Concord Regional Airport.

The wind tunnel's "rolling-road" component, which gives the facility the honor of being the first of its kind in North America, is ready. And some of the larger pieces of the wind tunnel, which includes a 5,100-horsepower fan, are being laid into place.

With the two components combined, the commercial wind tunnel can create 180 mph conditions and slightly rotate to mimic moves made by cars during actual races.

The facility should open up for customers in April, said Peter Zierhurn, business manager of the wind tunnel.

"We're still months away from opening to customers," said Zierhurn, adding that the tunnel must undergo very stringent tests to insure it is spot-on in its own testing.

The 40,000-square-foot facility at Ivey Cline Road will be a key tool for race teams, and maybe car manufacturers, as they perform aerodynamic tests on cars.

Jeff Bordner is site manager for the wind tunnel. His company, Jacobs Engineering Group, was contracted by Windshear to build and operate the facility.

Bordner said race teams will use the wind tunnel to test drag, downforce and side-force.

During testing, sensors in the belt test the downforce of each car tire.

Bordner said the two other rolling-road wind tunnels of similar size exist in Europe. One is owned by BMW, said Zierhurn, and the other is owned by a Formula One team that is secretive about its identity.

The high-tech rolling road will be 10.5-feet wide by 29.5-feet long and be able to accelerate from zero to 180 mph in less than one minute.

The rolling-road is actually a continuous stainless steel belt, just one-millimeter thick and designed to last up to 5,000 operational hours.

A press package from Windshear said that if a vehicle remained on the belt for the whole of those 5,000 hours, it would travel 186,000-240,000 miles.

A backup rolling-road unit is on-hand if the first needs to be changed out.

Four preparation garages are at the site, each secured from the other, so that competing race teams are able to use the facility at the same time, Bordner said.

To bring the project into the community, Cabarrus County agreed to provide a three-year, \$626,668 tax incentive grant. And Concord is building a \$4 million investment toward the electrical substation near the site that will serve the facility.

- Contact Eric C. Deines: 704-789-9141