



## ***PRESS RELEASE***

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### **Busch Successfully Presents Vacuum Solutions for Steel Industry at AIST 2016**

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Busch USA recently presented vacuum solutions for the steel industry at the Association for Iron and Steel Technology (AIST) trade Show, held at the David L. Lawrence Convention Center in Pittsburgh, Pennsylvania. The focus of Busch's presence at the AIST show was steel degassing, particularly using the COBRA NC 2500 B screw vacuum pump. COBRA NC screw vacuum pumps are high-performance and robust vacuum generators for process technology.

The steel market in the US is currently going through a period of transformation, with a shift towards higher grades of steel in addition to focusing on volume of production. The key processes to produce high-grade steel take place in secondary metallurgy processes, such as degassing.

Representatives from the American steelmaking industry expressed enormous interest in the solutions available from Busch for steel degassing using dry mechanical vacuum systems. Traditionally, steam ejectors have been widely used in degassing due to their high pumping speed and low investment in the short term. Steel manufacturers are now turning to dry mechanical vacuum systems for steel degassing. There are several very good reasons for doing so.

One reason is operating costs. Although the initial investment on a mechanical vacuum system for steel

degassing is generally higher than that for ejection systems (without taking into account auxiliary plants), operating costs for mechanical vacuum systems are significantly lower, while achieving the same high pumping speed. Once operating costs are factored in, the return on investment is therefore higher with a dry vacuum system.

Another consideration is auxiliary plant costs. Steam ejection systems demand various auxiliary facilities, such as a boiler, water make-up plant (to prepare the water for use), and water make-up plants for waste water, all of which need to be maintained. These add to operating and investment costs.

Environmental sustainability is another consideration. As the term suggests, steam ejection systems work by using motive steam to create the necessary vacuum for the degassing process. As a consequence, the process gas is mixed with steam and the condenser water. The mixture of dust, process gases and steam produces slurry that must be disposed of in accordance with local environmental standards. As steel manufacturers know, it is easier and less expensive to safely dispose of dust than it is slurry. Mechanical vacuum systems for degassing are dry systems and therefore have the advantage of doing away with costly slurries.

Energy consumption and carbon footprint are further advantages of dry mechanical vacuum systems over steam ejection. Steel plants are high energy consumers. Boilers for steam ejector systems usually need to be kept running constantly, even when steel is not being degassed. Mechanical vacuum systems are a push-button alternative, operating and consuming energy only during degassing. With America and other countries working hard to reduce CO<sub>2</sub> emissions and improve the quality of air in their cities and regions, mechanical vacuum systems for steel manufacturing offer the potential to improve air quality through a reduced carbon footprint and a more efficient use of energy.

"We're very pleased with the outcome of our activities at this year's AIST trade show", said a spokesperson from Busch USA. "One of our aims has been to raise the awareness of the reduced cost and increased environmental safety of our mechanical vacuum systems for steel degassing, and obviously these are important industry considerations, not just for current generations but for the prosperity of future generations in the US and elsewhere in the world."

For more information, visit: <http://www.buschvacuum.com/us/en/products/cobra+industry/cobra+nc+2500+b>.