

Technical Paper

From June 2002 Onwards, New at Sulzer Hickham USA: Steam Turbine and Compressor Blade Manufacturing

For almost 30 years Sulzer Hickham USA and its Sulzer STS colleagues have led the industry in the repair, refurbishment, and modernization of a wide variety of turbomachinery, including gas turbines, steam turbines, axial, radial and screw-type compressors as well as hot gas expanders. Sulzer Hickham USA not only repairs, but also manufactures complete replacement and redesigned rotors for steam turbines and compressors, and does it in record time.

To further control our manufacturing quality, pricing and deliveries, Sulzer Hickham USA has made a major commitment in technology for 2002. By June 2002, Sulzer Hickham USA will be tooled up and ready to manufacture steam turbine and compressor blades in our new manufacturing bay. To succeed in this endeavor, we have invested in state-of-the-art machinery and software, while assigning three of our degreed engineers for full time operational support.

On the manufacturing side, the heart of the process will be two high-speed 5-axis blade milling machines (with a third machine being added in 2003), procured from Starrag-Heckert of Switzerland. With 15000 rpm spindle speeds, these machines are capable of producing blades in a third of the time it takes on conventional machines, with little-to-no polishing requirements. Several 4-axis support spindles have also been procured, including one from

Starrag-Heckert with a geared spindle for heavy cutting processes with extremely close tolerances.

With this level of investment, Sulzer Hickham USA will be able to reverse-engineer and manufacture any possible geometry of steam turbine and

compressor blades up to 27" (69 cm) in length. Continuing in the Sulzer STS tradition, it is our goal to be in the forefront of the blade manufacturing business, and provide our customers with world-class quality, quick deliveries, and competitive pricing.



High speed 5-axis milling machine

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