Turbine Casing Refurbishment Case Study

**Requirement 1**

Develop a product to machine the steam seal faces on turbine casings.

**Solution**

Mirage developed a product to enabled the steam sealing faces of a turbine case to be machined whilst bolted together.

The machine was designed to allow the machining of both High Pressure and Low Pressure sections of the turbine in just one setting. It also allows machining of welded stainless steel seats in situations where complete refurbishment of the sealing face is a client requirement.

**Requirement 2**

To develop a product to machine the steam seal faces on turbine casings.

**Solution**

With our Gantry Mill and Milling Rail Systems, the customer was able to machine the casing split lines back to the original specification of within 0.05mm (0.002”) of flatness over the whole split line.

The machines were aligned using laser technology and then the welded areas were machined back to the original faces.

Above: The boring machine used for machining the steam sealing faces assembled in one half of the turbine casing.

Above: Mounting a Gantry Mill onto the casing - to enable split lines to be machined.