

Elliott Group C-10C Compressor Shell Distortion

PROJECT SCOPE

Elliott Group was performed a major overhaul on a 40-year-old C-10C compressor for Dow Chemical. The compressor had experienced shell distortion during its service life, resulting in undesirable loss of pressure. Elliot Turbo required metrology services to determine the flatness and bolt hole locations of the sealing end wall on the suction and discharge ends of the compressor.

ACQUIP'S SOLUTION

ACQUIP Services were contacted and immediately traveled to the site equipped with a FARO laser tracker system to assess the problem and shell condition. Acquip alignment Engineers analyzed the parallelism and orientation of the case end walls in order to calculate the needed machining to bring the end walls within tolerances. The bolt hole positions were measured and mapped out in order to compare them to the provided CAD drawings and determine whether they were within tolerances. Utilizing this split line data, Acquip's service engineers were able to help set up the mill for the machining of the horizontal joint.

PROJECT'S RESULTS

ACQUIP's experience and versatile laser tracker shortened the outage by quickly acquiring all the necessary data. The compressor was machined accordingly and heat treated to be placed back into service. ACQUIP was able to quickly respond and solve the problem, consequently saving time and resources during the outage process.

