

# WIND TURBINE WELD INSPECTION

Application Brief

## Ultrasonic Testing (UT) Inspections for Wind Turbine Tower Circumferential Welds

MISTRAS Group was successful in tendering for Nondestructive Testing (NDT) inspection services of the wind turbine tower circumferential welds for an onshore wind farm located in Turkey for a parts manufacturer to a large OEM.

### Problem

MISTRAS' client suspected chevron cracking on wind turbine tower butt welds.

The surface of the towers are protected with an Epoxy coating, yet this protective coating reduces the sensitivity of UT.

### Solution/Process

MISTRAS worked with the client to develop a method of in-service testing of the suspect welds, using specially manufactured reference blocks for the inspection procedure.

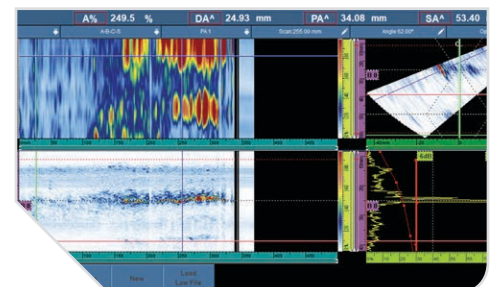
The selected inspection team was given additional training, paying attention to the specific procedure of the developed project,

transfer correction, and setting sensitivity using the Time Corrected Gain (TCG) method.

### Results

The scope of work was delivered within the client's inspection weather window using a 3 man multi-disciplined rope access team. The team performed detailed inspections and delivered reports.

These NDT inspections allow the client to assess the structural condition of the wind turbine. The results effectively provide the client with the evidence to justify continued, safe operations, or identify any significant defects that require repair and/or monitoring.



# WIND TURBINE WELD INSPECTION



## WORLDWIDE HEADQUARTERS

195 Clarksville Rd • Princeton Junction, NJ 08550  
+1.609.716.4000  
+1.609.716.0706  
sales@mistrasgroup.com

Visit our website for an office near you  
[mistrasgroup.com](http://mistrasgroup.com)



One Source for  
Asset Protection  
Solutions

Specifications subject to change without notice.  
Copyright © 2019 MISTRAS Group, Inc. All Rights Reserved.

#300A-19107-01