

May
2010

Qualimations

In the last 1-year we have placed several candidates (Mostly in the field of NDT) in the Gulf/Singapore and India. Qualimations is involved with Training/Auditing/Inspection and Services in the field of NDT/Welding/Metallurgy. Qualimations training ensures you have the through knowledge before you are sent to the field. We also continuously support all our candidates on the field and also for their Re-Certification programmes.

Qualimations is not only about NDT training and certification, it gives you up to date information on NDT and also supports on codes and standards. In this news letter you will be able to understand some of the functions that Qualimations support.

Jaya Krishnan

Consultant
Qualimations

Read the following articles in NDT Resource center by clicking "Join Now" at www.qualimations.com.

NDT Jobs growing.
Statistical Techniques for Evaluation of Non-Destructive Testing Data.
AUT/NDT weld testing and inspection.
What is Metallurgical Failure Analysis?
Heat Exchanger Tube Bundles Inspection using UT.
Materials Testing and Non Destructive Tests.
Aerospace NDT - Non-Destructive Testing.
Types & Features Of Arc Welders, Tig Welders, Mig Welders, & Plasma Cutters
NDT Applications.
Ultrasonic Testing.
Different Aspects Of Material Analysis.
Finding the difference between reverse and straight polarity.
Military Materials Testing Centres in XXI Century

Non Destructive Testing in Welder Qualification Reference: ASME Sec IX



QW-191 Radiographic Examination

QW-191.1 Method. The radiographic examination in QW-142 for welders and in QW-143 for welding operators shall meet the requirements of Article 2, Section V, except as follows:

QW-191.2 Radiographic Acceptance Criteria

QW-191.2.1 Terminology

QW-191.2.2 Acceptance Standards. Welder and welding operator performance tests by radiography of

QW-191.2.3 Production Welds. The acceptance standard for welding operators who qualify on production

Down load the complete document at <http://www.qualimations.com/codes.doc>

AUT/NDT weld testing and inspection system

The field of Non-Destructive Testing (NDT) in weld testing and inspection is advancing rapidly through the innovations of Automated Ultrasonic Testing (AUT) technology. The AUT technology has replaced radiographic inspection techniques as the NDT industry standard system for the testing especially in pipelines, in power stations and on chemical plants. Auto UT setups are slightly complicated, with lots of belts, cogs, pulleys and motors. As AUT Technology has evolved, it has created an industry desire for its more reliable, time-effective, cost-lessening and better weld defect detecting results. Its reliance on the software is quite high, hence the chance of error is minimised.

Automated Ultrasonic Testing (AUT) is recognized as the most reliable and beneficial weld testing method. AUT is a highly reliable methods as it focuses on the method and interpreting and managing the acquired data as well. The phased arrays used in AUT systems such as UT Scan offer additional improvements over conventional multiprobe ultrasonics and radiography, both for onshore and offshore use. AUT offers the important advantage of process control, as welds can be inspected much more quickly and data feedback is also supplied in this manner.

AUT is particularly useful in the construction industry as it saves significantly on construction costs by process control and the use of Engineering Critical Assessment to minimize the reject rate. In AUT of pipeline girth welds a number of separate fixed angle probes or a pair of phased array probes are mounted on a band strapped around the pipe and are positioned each side of the weld and driven around the pipe's circumference. As the probes travel around the pipe, ultrasonic data are collected from the weld and the software calculates flaw sizes and positions for display. Very fast circumferential speeds (~100mm/s) are called for, since, to keep pace with construction, it is necessary to complete a weld inspection every 2-4 minutes. AUT is replacing radiography for pipeline girth weld inspections worldwide.

The advantages of conventional AUT over radiography are: -

- * No radiation hazard.
- * Better process control of welding through rapid feedback, giving lower reject rates.
- * Improved defect evaluation by using Engineering Critical Assessment (ECA) criteria.
- * Faster inspections.
- * Rapid and reliable data interpretation from specialised output display.



Qualimations has been continuously giving onsite support for the past 1 year. This is possible through our expertise of 17 years on the Job and continuous consultancy programmes of varying nature and situations. Our support ranges from Marine, Power, oil, Fabrication and other areas. All your onsite email queries will be answered in 24hrs.

You can contact the consultant at

Email : jk@qualimations.com
Phone: 00919895093119

[Update your resume and apply to all NDT/Welding and Metallurgy jobs at http://www.qualimations.com/login.php](http://www.qualimations.com/login.php)