

Let there be light...



And there is CIT

Manufacturer's of World's Most Advanced Digital Computed Radiography Imaging Technology



PRODUCT SHEET

DR1400 UHR Digital Radiography System

Traditional film radiography for thin wall pipework, turbine blades, and aerospace components inspection can now be replaced with ultra high-resolution digital radiography technology. This quality control inspection method enables cost savings with advanced method of electronic measurements, lifetime quality archiving, with reporting. The high-resolution radiographic images are captured with the CR-DR system and displayed on high-resolution high brightness monitors.

Performance

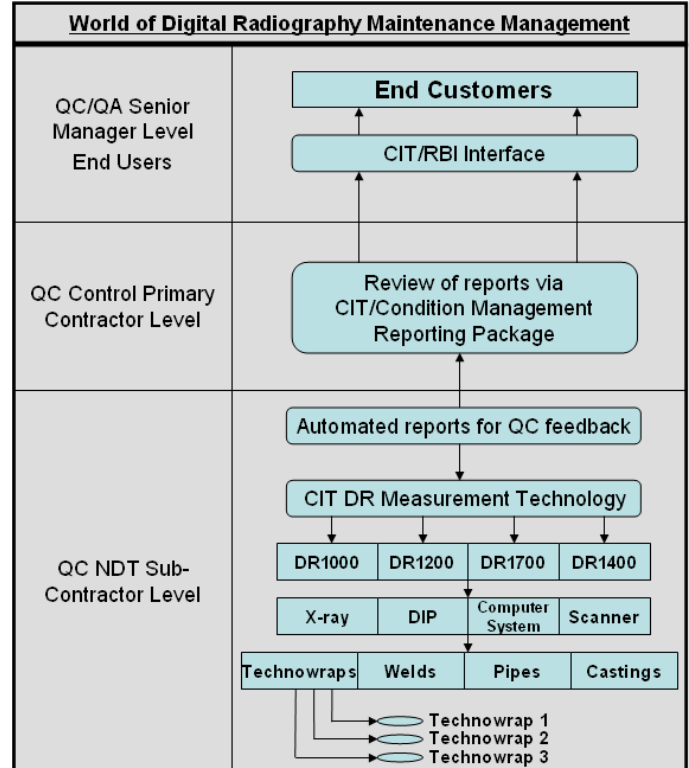
- Supported radiographic resolution
- 12.5, 20, 40, 60, 80 and 100 microns. Resolution is scalable. Other resolutions can be customised
- 13th line pair of EN-462-5 duplex IQI
- Measurements accurate to +20 Microns
- User friendly penetrated wall thickness measurement
- Results within 1-2 minutes; dependent upon length of DIP
- IP3050 imaging plate category (CEN)
- IP1039 imaging plate category (CEN)
- Largest plate 30 cm x 43cm or 35cm x 43cm- up-to 1.0 meter
- Works with X-rays, Ir-192, Se-75 and Yb-169.
- Pulsed X ray 300kV, Betatron, Linatron-Lin AC

Products Inspected

- Turbine blades INCANOL materials
- Petrochemical refineries, Pipe lines & pipe works
- Carbon composite low density inspection
- Aircraft / aerospace components inspection
- Rail, Automobile, Manufacturing
- EOC, & Nuclear Power Plants

Benefits

- Reduced exposure time
- Reduced radiation source activity
- Eliminates chemicals, films and dark rooms, storage
- Minimises the storage space
- Increased productivity
- Electronic data archiving with on-stream management
- Retains the current radiographic set-ups and sources
- Enables plant integrity assessment
- Sharing same information at same time by different peoples anywhere in world.
- Adaptable to future upgrades and advance applications
- Hardware and Software can be customised



Technical Specifications

1. Meets the following standards

- ASME V Article II on digitised radiograph films
- ASME V Article VIII on phosphor imaging retrieval of digital radiographs
- NUREG 1452 radiograph digitisation retrieval
- Nuclear NAS 160/AES 6001/BS2633, CEN 1435
- CEN 472/473 radiographic training system requirements
- API1104 ASNT and ASTM 7002, 2033, 7020 technical working and practice inspection data
- Flexible radiation shielding (*Contact CIT*)
- Portable battery powered CP120kv /CP 160kv X-ray

2. Digital Radiography Scanner Options

- Laser Spot Size: 12.5µm; OR 30µm
- Spatial Resolution: from 12.5 20, 30, 40, 50, 60, 70, 100 & 150 microns
- Handles various sizes of plates from
- Width 0.5” to 14”; Length up-to 1m
- Integrated erasure unit

3. Radiograph Computer Processor

- Industrial Standard High Performance Computer System with 4GB DDR2, 2T HD, BluRay Drive

4. CIT Digital Radiographic Application Software

A dedicated digital computed radiography software is provided that enables acquisition, storage, and analysis to be carried out. The information is saved as permanent archiving in the customised product profile, radiographic technique and authorisation process.

Options of software

- Basic Software
- Advanced Radiograph Image Analysis

5. Radiograph Display Options

View in monitors, High Brightness, Mono corm, with calibration software, Gradation display – 12-bit, contrast ration 600:1

- 2 MP - 19.6” – 1600 x 1200 resolution
- 3MP - 20.8” - 2048 x 1536 resolution
- 5MP - 21.3” - 2560 x 2048, resolution

6. Software Optional Modules:

- Corrosion & Condition Management
- Flaw Depth Measurement
- End Customer/user software from different workstation
 - CIT/DR Basic Viewer Software
 - CIT/DR Basic Viewer/Analysis Software
 - CIT/DR Advance Viewer/Analysis Software
- **aRTist or Moderato:** To simulate the radiographic process and generate the radiographic technique or use for the radiographic training

