

MELD SCAN

Weld Penetration System



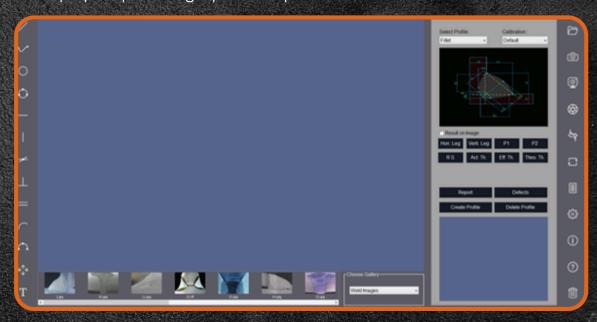


INTRODUCTION OF WELD SCAN

WELD SCAN is a new generation image analysis software, meant for welding inspectors, metallurgist and material scientist for analyzing weld dimensions. It is a single Window based system

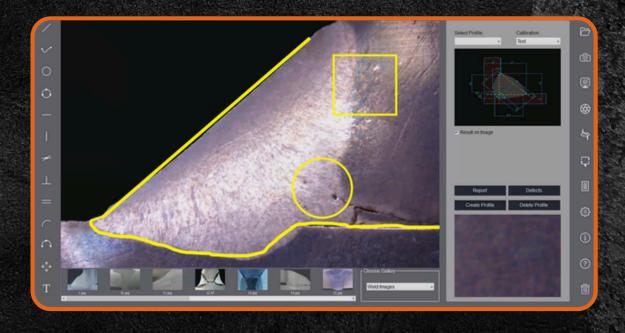
Some components involve large numbers of welding joints. WELD SCAN tool is used to record all the necessary testing procedures in measurement profiles represented in different colors.

The WELD SCAN software can handle both grey monochrome (8bit) and color (24bit) image. Multiple images of any size can be opened and displayed on the screen for analysis or comparison. The software supports the most common formats like BMP, JPEG, TIFF, PNG, GIF, and PSD. Live images also can be observed and captured on the same platform. Since the system is in a Window environment, graphs and charts displayed on the monitor can be quickly transferred into other Windows based programs such as, MS Word, MS Excel or any other commercial Windows based software for the purpose producing reports and presentations.



ANNOTATION

Annotation features allows quick and easy Documentation of your image tools. The available tools are: line between two points, horizontal line, vertical line, freehand line, two parallel lines, perpendicular lines, Square, Circle, Text, Arrow, Grid, Cross lines from center, scale bar, highlighter. The text color & Thickness of line can be designated.



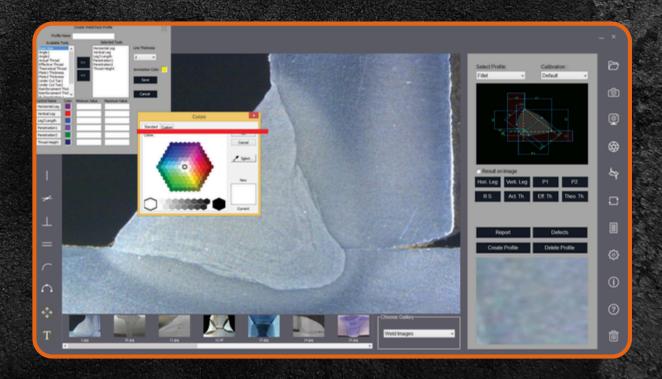
CAPTURE CAMERA

One can select different display/capture sizes along with other setting like white balance, brightness, contrast, Hue, Saturation can be changed on live displayed image. Once all setting are done, image can be captured in appropriate folder for appropriate analysis.



CALIBRATION

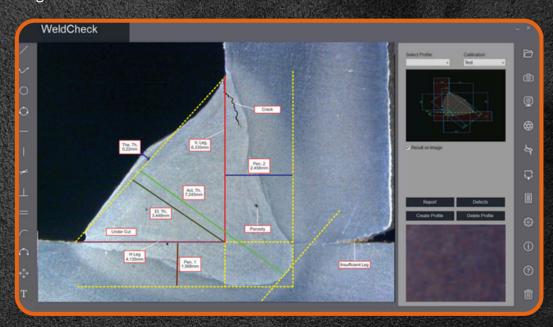
Calibration should be performed on all the objectives of the microscope, where Digital Camera is installed. Calibration should be performed only when all hardwares are finally fixed. In case of readjustments or replacement of any part, calibration should be done again.



FILLET MEASUREMENT

All dimensional measurements.

- Programmable (Automatic) measurement
- Supports all weld quality parameters like depth/penetration, %penetration, leg lengths, throat lengths, root penetration etc.
- Can define Component and its parameters to be measured
- Can measure length, area, angle, diameter, radius, circumference in addition to weld penetration measurement
- Can set expected values and tolerances for each parameter
- Automatic edge detection



WELD DEFECTS

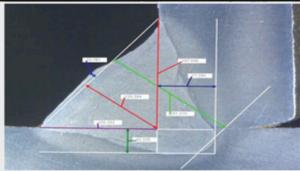
Weld defects such as cracking and porosity have a great effect on the performance of the weld bead. Samples taken after the LSM process, with different manufacturing parameters, were checked to verify the occurrence of porosity and cracking. shows a typical solidification crack and porosity in the weld bead. show the relationship between LSM parameters and porosity and cracking defects, respectively.



WELD PENETRATION REPORT

WELD PENETRATION ANALYSIS

Mfg.Location		Techician Name					
Date:	2019-12-03-11-59-08	Department					
Company:		Units					
Part Number	fdg	Weld Location/Number					
Line Number:		Section Number					
Specification:		Type of Weld (Automatic/Manual)					
Revision Level:		Welder					



Color	SL. No.	Parameter	Result	Min	Max	Status	
	1	Horizontal Leg	155.332				
	2	Vertical Leg	197.546				
	3	Actual Throat	191.31				
	4	Theoratical Throat	120.394				
	5	Effective Throat	10.181				
	6	Penetration 1	42.225				
	7	Penetration 2	77.29				
Remarks:							



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