5 - S55 CALC Hole

Description

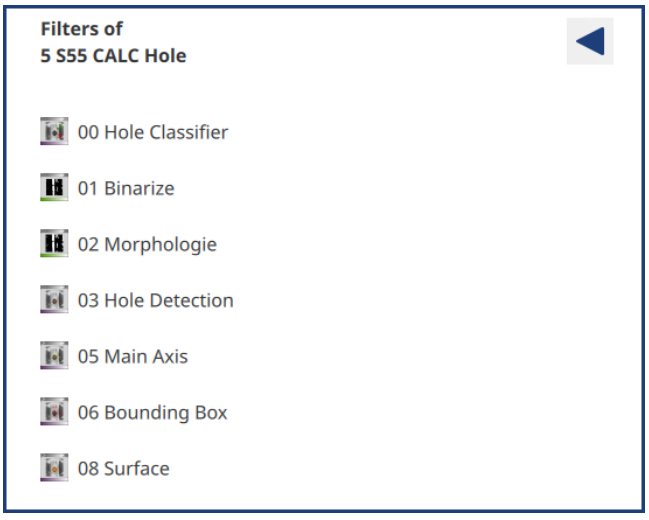
In the found seam area the holes characteristics will be calculated and classified.

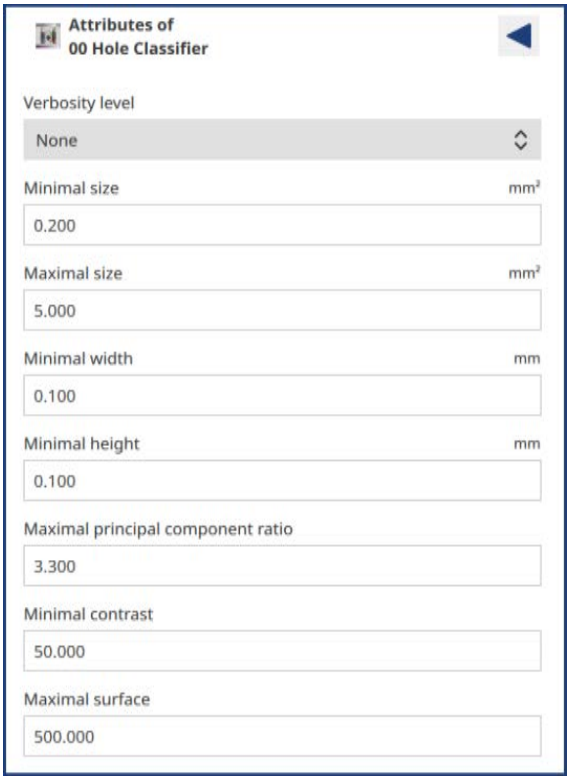
Icon

5 S55 CALC Hole

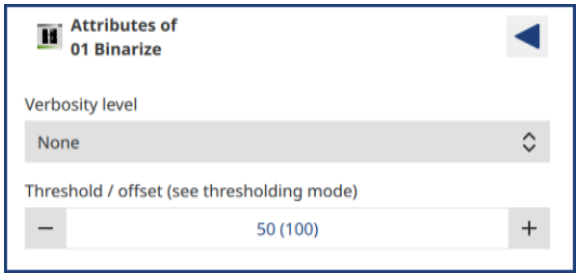
Calculate and classify the characteristics of the holes

Parameters

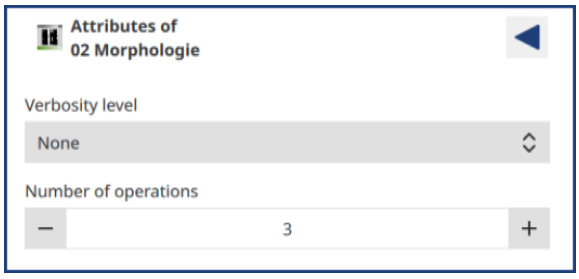




Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.
Minimal size	Minimum hole area. All smaller areas are for sure no hole. [mm^2]
Maximal size	Maximum hole area. All bigger areas are for sure no hole. [mm^2]
Minimal width	Min. necessary horizontal dimension for a hole. [mm]
Minimal height	Min. necessary vertical dimension for a hole. [mm]
Maximal principal component ratio	Maximum hole shape. The shape is defined by the length ratio of the main axis to the side axis of a hole. With a circle, the length ratio equals 1:1 and results in a value 1. The longitudinaler the shape of the hole, the higher is this value.
Minimal contrast	Minimum brightness difference in the area of a hole compared with the outside area. The darker a hole is, compared with the weld seam, the higher is the contrast value. [Greylevel]
Maximal surface	Maximum brightness variation inside a hole. The uniform the color of a hole, i.e. the less different grey scale values inside the hole, the smaller this value can be selected. [Greylevel]



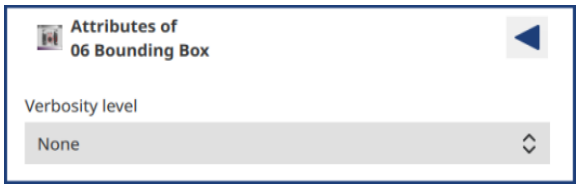
Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.
Threshold / offset	Binarizing is a dimensioning for the grey scale value of a hole. The higher this value is set, the darker a hole must be, compared to the weld seam. The smaller the value is set, the more hole candidates are extracted from the image. [Greylevel]



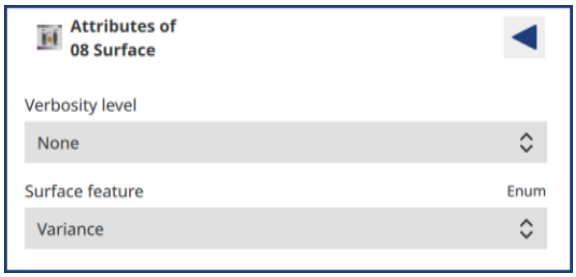
Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.
Number of operations	Parameter for filtering/smoothing the binarized image.

Parameter	Comment
Minimal blob size	Minimal hole size, which is found. [µm]

Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.



Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.



Parameter	Comment
Verbosity level	Selection of verbosity level. Larger verbosity levels offer more overlay information.
Surface feature	Which value is calculated for "Surface": • Variance • Min-max-distance • Gradient X • Gradient Y • Mean intensity

Measured values for plotter

722	0 … xxx	Hole Size
723	0 … xxx	Hole Count

Subgraphs interface

IN bridges **OUT bridges**

image	ROI seam		
value	ROI grey valid		

Graph block diagram