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Bone Reject FAQ

Why is there a bone in the good product?

Bones within the specification are found is accepted product

SensorX Related Issues

A	Registration and Phantom Calibration	SensorX fails to detect due to bad or outdated calibrations.
B	Gain calibration	SensorX fails to detect due to bad or outdated gain calibration.
C	Missing signal	SensorX fails to detect due to missing scan signal. Check if correct type of USB cable is used between x-ray sensor and computer.
D	Program Configuration	SensorX fails to detect due to bad or missing program configurations.
E	Out Of Bound	The out of bound component is not activated and pieces/bones outside scan area are not detected.
F	Software	SensorX fails to detect or reject due to old software version, update to newest released software update. Other causes for software and computer to fail is e.g. memory error, failing USB or CF-card memory, failing computer components, etc.
G	I/O Unit MCS816	SensorX fail to reject due to firmware issue in I/O unit MCS816 with firmware version 01.06 or earlier. Update or replace with MCS816 with newer firmware than 01.06. Typical behavior is that reject is stuck in either open or closed position.
H	I/O Unit MCV8S8	SensorX fail to reject due to firmware issue in I/O unit MCV8S8 with firmware version 01.01. Update or replace with MCV8S8 with newer firmware than 01.01. Typical behavior is strange behavior on the CAN network e.g. causing conveyors to stop and reject not firing.
I	Loose bones	The detected bone is not attached solid to the product and e.g. been separated from the product during reject.
J	Other	The bone is one of 1-4% of what the machine can miss of various reasons and according to the detection specifications.

Reject Mechanism Related Issues

A	Reject Timing	Reject timing is incorrect regarding to length from scanline to reject.
B	Reject Configuration Incorrect	If the infeed of product is such that the machine is constantly switching between piece and flow based operation, then be sure that the reject configuration for both flows are set.
C	Reject Air Supply	Air supply to the reject is missing or has too low or unstable air pressure. Accumulation of water in the air-supply can cause the reject valves to get slow or even not to respond.
D	Product Sliding	Product is sliding / rolling on the outfeed slope and passes the reject before it opens.
E	Loose bones	A detected bone is not attached solid to the product and e.g. been separated from the product during reject.

Operational Related Issues

A	Product bypass	Product has been manually inspected / reworked but not rescanned.
B	Bad Infeed / Outfeed	Pieces are sliding and rolling on the infeed and outfeed causing pieces missing reject position or not been fully within the scanning area.

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Why can't I find the bones

Bones not found at rework station

SensorX Related Issues

A	Water in the x-ray path is disturbing the signal.	Excess water on the upper and lower windows outside or inside causing false bone signals.
B	False Signal A	False positive signal due to program settings.
C	False Signal B	False signal generated by bad pixel or weak line. Red line appears on the product several time in same spot

System Related Issues

A	Bad tracking of the return- and elevating conveyors.	Unstable encoders, inconsistent reject thrust, incorrect conveyor length configuration, non-working RP-sensors or slipping product in the elevating conveyor. Two or more rejected pieces are too close and only one of them has bone.
B	Loose bones	A detected bone is not attached solid to the product and e.g. been separated from the product during reject.

Operational Related Issues

A	The bone has been removed from the product before it reaches the QC	Bone has been removed from the product and it has been replaced back on the system (return or elevating conveyor).