

 Quality By Vision

 INDUSTRIAL
PHYSICS



SEAMetal 6.x

Food

Introduction to software + saw + gauges

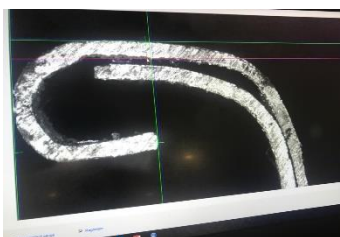
SEAMetal HD

Automatic, Double Seam Analyzer for food cans (optional with SPC Software)

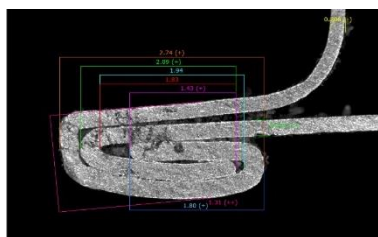
- Automatic Double Seam Analyzer with Sample table for Food Cans
- Version 6.x software compatible with Win 7, or 10
- Standard Definition optical unit with USB camera
- **New!** Seam Doctor Software, *Automatic troubleshooting for seam defects* and suggests solutions (see next page, and so far only on double seam software)
- All measurements done instantly from the seam image
- Customizable HTML and Excel reporting system
- Database saves measurements & double seam images
- Automatic email alerts when bad seams are detected
- Remote access to measurement data and statistics over the network
- Software can integrate with digital gauges such as seam thickness, material thickness, etc. (sold separately)
- Includes calibration gauge (certified by Quality By Vision)
- Manuals in English
- Suitable for double seam, triple seam, clinch seam, and composite seams (see below)
- For info and demo movie <https://industrialphysics.com/product/seametal-hd-double-seam-inspection-for-food-cans/>



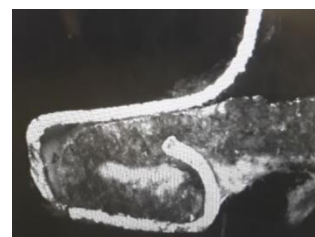
Triple seam



Clinch seam



Double seam

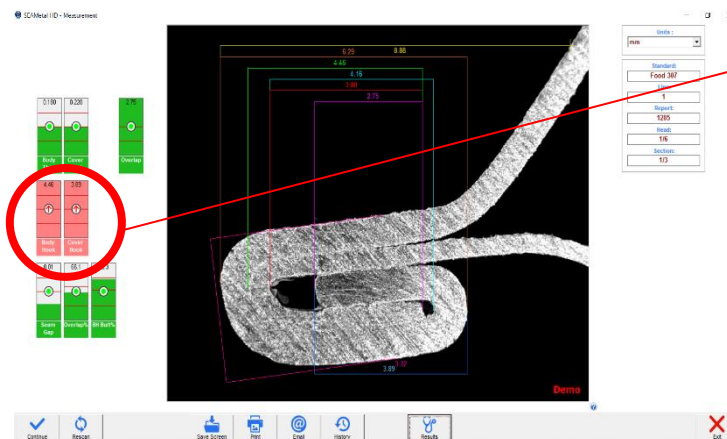


Composite seam

For info and quotations please visit
Or email directly to:

<https://www.quality4food.com/contact>
info@quality4food.com

SEAMetal measurement and result analysis:



Results

Results	
Body Thick.	0.180
Cover Thick.	0.220
Seam Thickness	3.32
Overlap	2.75
Body Hook	4.46
Cover Hook	3.89
Seam Length	8.29
Countersink	8.88
Seam Gap	0.01
Dim A	3.88
Dim B	4.16
Tightness	0

Calculated results

Overlap %	96.1%
BH BUTT.	93.3%

Free Space

Disclaimer: The text below is presented for informational purposes only. We make no claims or guarantees regarding the accuracy of the information and assume no responsibility for damage incurred from its use. Please contact us for information.

- 1st op Roll may be too loose
- 2nd op Roll may be too tight
- Check Pin Height
- 1st op Roll may be too tight
- 1st op Roll may be set too high
- 2nd op Roll may be too loose
- 2nd op Roll may be set too high
- Check lifter plate pressure - it may be too low
- Check lifter plate pressure - it may be too high

7/13/2017 Long Cover Hook (End Hook) | Seam School - Craft Seaming - Double Seams Explained

Latest: High Seam Gap

SEAM SCHOOL

DOUBLE SEAMS EXPLAINED

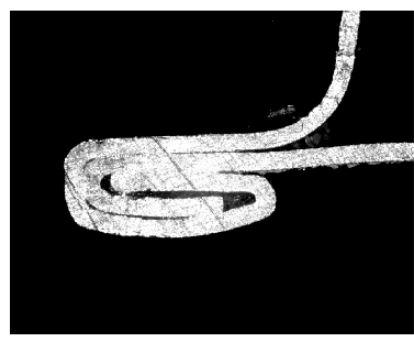
OVERVIEW SEAM MEASUREMENTS SEAM DEFECTS TERMINOLOGY HOW TO? Q

SEAM CALCULATOR QUESTIONS?

Defects

Long Cover Hook (End Hook)

More information about cover hook.



All Pages

- Defects (36)
- How to? (15)
- Measurements (44)
- Overview (9)
- Terminology (28)

Recent

file:///C:/SEAMetal/seamschool.com/long-cover-hook/index.html

7/13/2017 Long Cover Hook (End Hook) | Seam School - Craft Seaming - Double Seams Explained

Possible causes for Long Cover Hook:

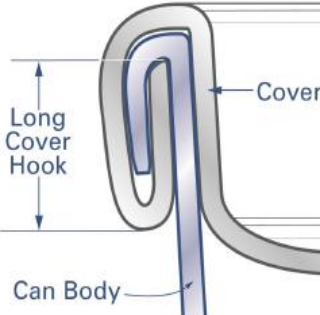
Split Seam

How to ensure Rolls are undamaged and are safe to use?

Low Free Space

High Free Space

High Seam Gap



- Tight 1st operation roll
- Short Body Hook
- Countersink is too shallow (not deep enough)
- Over-curved end
- Incorrect 1st or 2nd operation setup

Long Body Hook Short Cover Hook (End Hook)

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file:///C:/SEAMetal/seamschool.com/long-cover-hook/index.html

In above images, you see how the SEAMetal 6 software not only performs a measurement of the seam, there is also an SEAM analyse option. This option analyses the seam, and if somethings are out of specification, it provides information on what can be adjusted in the seamer.

This is a unique and patented feature only by Quality by Vision

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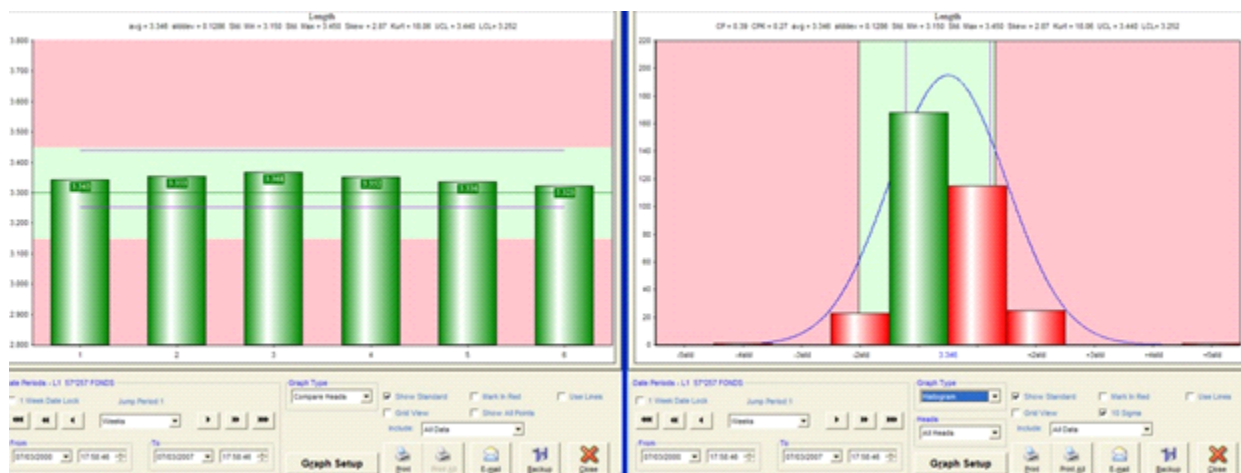
The Quality by Vision SEAMetal system is available in 3 different versions:

1. The SEAMetal HD LT is a basic plug and play system with minimal setup for small (craft) breweries and canneries. Can integrate with Seam Thickness and Countersink Gauges only.
2. The SEAMetal HD without SPC is a comprehensive seam inspection system with advanced capabilities. The software includes customizable reports, optional email alerts, and access and monitoring of seam data over the network. The software can also integrate with external gauges with customizable measurements.
3. The SEAMetal HD PRO includes all of the above as well as SPC software with advanced data mining and drill down capabilities

See below the differences between all versions:

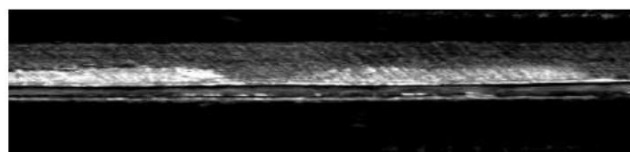
SEAMetal Features Available	SEAMetal HD LT	SEAMetal HD without SPC	SEAMetal HD PRO
Instrument Connectivity Connect to external Seam Thickness and Countersink Gauges	✓	✓	✓
Instrument Connectivity Connect to digital gauges and testers, as well as keyboard for inspection data entry		✓	✓
Diagnosing Capabilities Seam Dr. Software diagnoses seam issues and suggests solutions	✓	✓	✓
External Assistance Includes integration with and full offline copy of www.SeamSchool.com	✓	✓	✓
Full SPC software Graphing software with advanced data mining and drill down capabilities			✓
Additional Inspection Capabilities SEAM-explorer™ allows to inspect any radius, angle, distance or area within the double seam		✓	✓
Seam Images Stores captured seam images with associated data. Displays images onscreen during inspections and prints on reports	✓	✓	✓
Headlines Custom fields (Product Code, Can Code, Can Manufacturer, End Code, End Manufacturer and V-jet Can Code) to add important data to your inspections	✓	✓	✓
Passwords and Permissions Four different optional permission levels controlled by passwords.		✓	✓
Recheck Capability Perform rechecks for all or only out of spec measurements		✓	✓
Views Fully customizable measurement reports in HTML and Excel		✓	✓
Assessment Digitally sign off on inspections will lock them down to conform with the FDA's 21 CFR Part 11 for maintaining digital records		✓	✓
Networking Database can reside on local PC and is backed up automatically to server. Access data from non-workstation PCs using Database Management License.		✓	✓
Scheduled Tasks Schedule repeating events for importing, exporting and archiving data, along with automatic report printing.		✓	✓
E-mailed Alerts Alerts auto generate and email when bad seams are detected with or without seam image.		✓	✓
Custom Serial Protocol (Instruments) Accepts data from most non-Quality By Vision gauge outputs		✓	✓
Custom File Protocol (Instruments) Imports data files from most non-Quality By Vision gauge software		✓	✓
Read Only License Included	✓	✓	✓

Optional SPC for SEAMetal HD



Multi diameter Seam Stripper for beverage & food cans

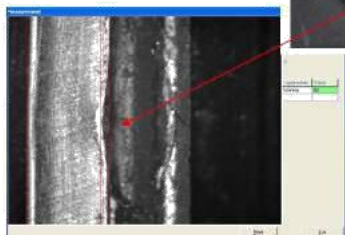
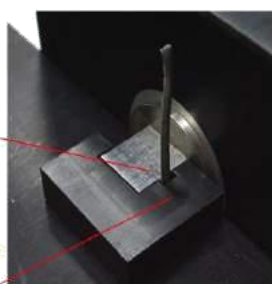
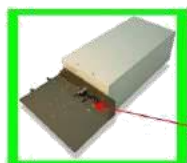
- Designed to separate/strop cover hook/seam from food cans of “cut” cans.
- “Cut” cans; allows you to use same can for destructive seam inspection and wrinkle/tightness measurement!
- For round can diameters ranging from 50mm up to 153mm
- Each can diameter requires a special “end-fit” (change part) *)
- “End-fits” can be quickly exchanged to switch to other can diameters.
- Equipped with momentary on switch for safe operation and polycarbonate cover for protection
- With proximity switch for operator protection (only cutting if sensing can).
- Info & movie: <https://industrialphysics.com/product/seam-stripper-food-cans/>



Above can-seam stripper for food cans; top right “end-fit” different can diameters & right stripped seam for evaluation

Wrinkle rating attachment to SEAMetal optical unit – included

For info: <https://www.youtube.com/watch?v=xsCla65pj7w>



SEAMetal software allows operator to select for tightness/wrinkle measurement parameter:

- “none” or operator does not perform tightness/wrinkle measurement at all.
- “keyboard” or operator judges visually the wrinkles and types the value which he/she thinks is correct, which is done in most cases.
- “external video” or operator places stripped seam for SEAMetal optical unit (see image below) and measures in below screen with 3x measurement lines the deepest wrinkle of seam perimeter, which value will automatically appear in the measurement report.

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Manual Saw for 3-piece cans – TBS-4M

- Made of stainless steel
- Uses HSS blades that rotate at a speed of RPM<800.
- Can cut round food cans with diameters of 50mm to 220mm.
- Special saw table for special forms (oval, rectangular) at extra costs.
- The can is clamped on the table by special mechanism.
- By pulling handle (right side of saw) blades are move upward for cutting.
- When pulling handle at the right speed the cut will be perfect (and safe).
- With proximity switch for operator protection (only cutting if sensing can).
- Net weight: 35 kg.

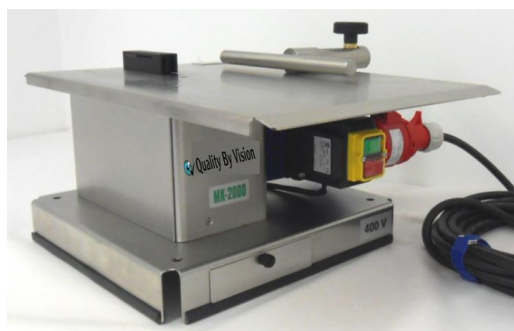
For info & demo-movie: <https://industrialphysics.com/product/tbs-4m-manual-saw-food-cans/>



Image of special gripping device for cutting soft rectangular cans (bottom view, under surface cutting table).

Manual Saw for 3-piece cans – MK-2000

Heavy duty for 3-piece cans, pails, drums, aerosol cans or oil filters



- Dimensions 380 x 350 x 215 mm (LxWxH)
- Working table 500 x 350 mm
- Weight 15,0 kg
- **Motor 400 V three phase current**
- Consumption 250 W
- Saw blade 100 x 22 x 0,5mm HSS NIT
- Speed approx. 1130 rpm
- Cable 1,5 mm²

Automatic saw for 3-piece cans – TBS-4A

- Made of stainless steel
- Uses HSS blades that rotate at a speed of RPM<800.
- Can cut round food cans with diameters of 50mm to 220mm.
- Special saw table for special forms (oval, rectangular) at extra costs.
- The can is clamped on the table by special mechanism.
- Compared to TBS-4M, blades are moved automatically at pre-set speed.
- Pre-set speed can be adapted for various can body & cover combinations.
- This allows optimizing cut quality independent of operator who is cutting.
- Additionally, it will also improve the life time of the HSS saw blades.
- With proximity switch for operator protection (only cutting if sensing can).
- Net weight: 35 kg.
- For info & demo-movie: <https://industrialphysics.com/product/tbs-4a-automatic-saw-food-cans/tbs-4a/>



Left of special noise reducer case (NRC) only for TBS-4A saws. Reducing noise from 105dB to ± 80 dB.



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Seam thickness gauge/variable angle / Mitutoyo

- Resolution 10 micron
- Designed to measure seam thickness always 160mm under right chuck wall angle.
- For normal can/seam diameters between 50 - (see photo below left)
- For aerosol can/seam diameters between 50 -73mm (see 2x photos below right)
- Can be used as “stand-alone” or with communication to PC.
- “Connected via Mitutoyo clock and multiplexer to USB port (SEAMetal) PC
- Prices “+ comm” include Mitutoyo gauge, cable and multiplexer.
- For info regular cans: <https://industrialphysics.com/product/seam-thickness-gauge-food-cans/>



On request:

Fixed angle seam thickness gauge for large cans and drums.



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Material thickness gauge/Mitutoyo

- Resolution 1 micron.
- Designed to measure body & cover material thickness.
- Can be used as “stand-alone” or with communication to PC.
- Connected via Mitutoyo clock & multiplexer to USB port PC (Not Included)
- For info: <https://industrialphysics.com/product/plate-thickness-gauge/>



Countersink gauge/Mitutoyo

- Resolution 10 micron
- For can diameters 50 -120mm
- Easy positioning, digital indication
- Short length for beverage cans, longer length for food cans.
- Can be used as “stand-alone” or with communication to PC.
- Connected via Mitutoyo clock & multiplexer to USB port PC (Not Included)
- For info: <https://industrialphysics.com/product/countersink-gauge-food-cans/>
-



Can height gauge/Mitutoyo

- Resolution 10 micron & digital indication
- Can height 280mm range (lowest and highest height)
- Manually controlled
- Equipped with heavy granite base
- Connected via Mitutoyo clock & multiplexer to USB port PC
- For info: <https://industrialphysics.com/product/can-height-gauge-for-food-cans/>



Flange width gauge / Mitutoyo

- Resolution 10 micron
- Designed to measure flange width values of non-seamed cans.
- For can seam diameters between 47-154mm and max flange width values 5mm
- Can be used as “stand-alone” or with communication to PC.
- Connected via Mitutoyo clock & multiplexer to USB port PC
- For info: <https://industrialphysics.com/product/flange-width-gauge/>

