

FLASH!

Leading Imaging Technology



**BAKER
HUGHES**
a GE company



FLASH!

Leading Imaging Technology

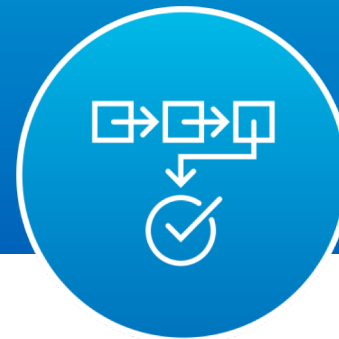
Intelligent image processing technology
that sets the standard for non-destructive testing



SHARP



SMART



SIMPLE

Classic image processing: downsides

- Conventional enhancement
(e.g. unsharp masking, edge enhancement)
can produce artifacts around higher-contrast objects.
- Over- and undershoots around high density material
- No visibility for high & low-density material together,
broad window/level required

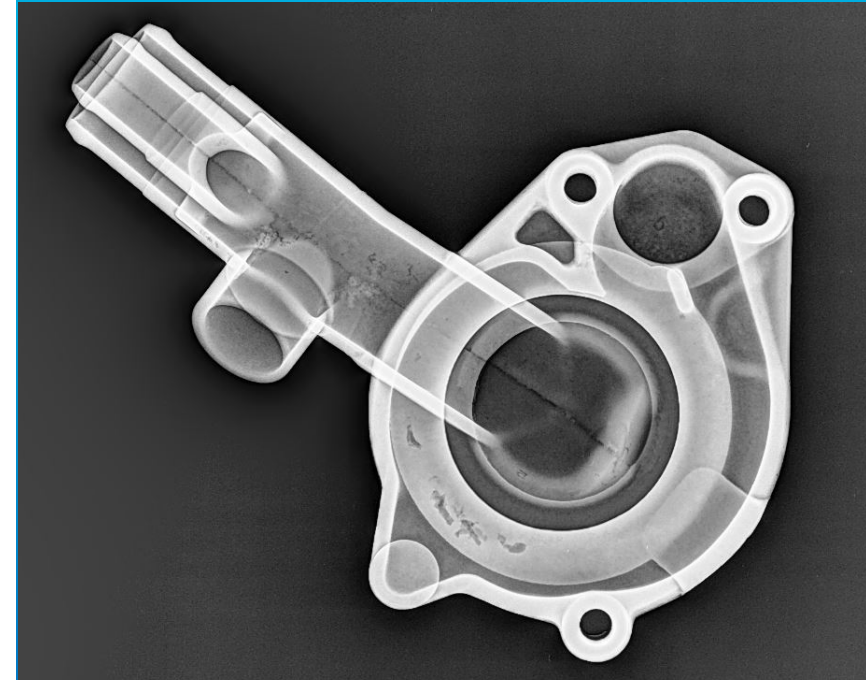


Intelligent Image Processing

- Revealing what might be important, without emphasizing the irrelevant (noise)
- No creation of indications, but originating from raw image, being the ultimate truth
- Enables fast reading without manipulation
- Full visibility in all densities

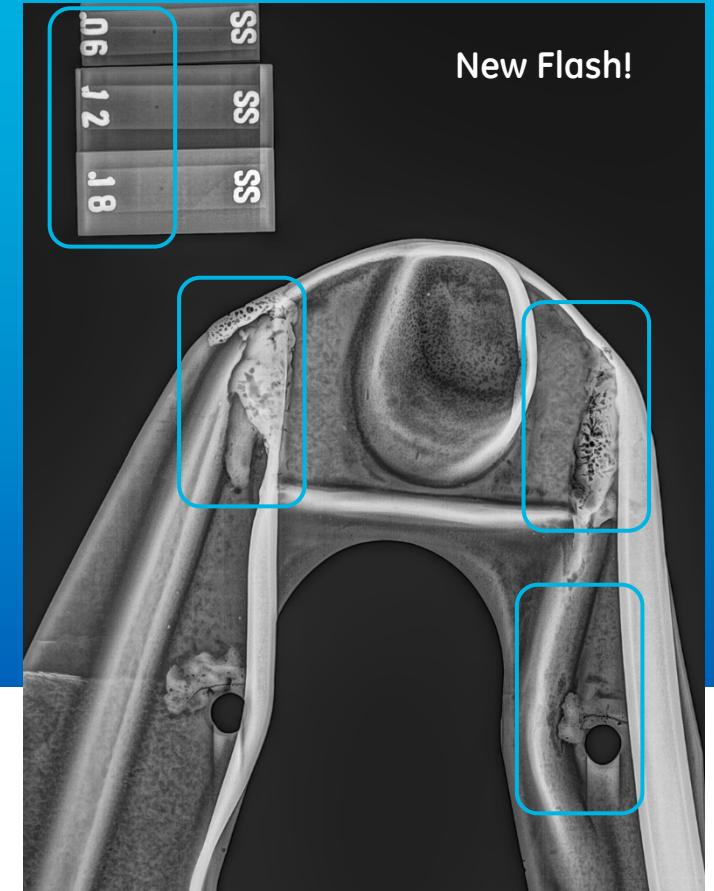
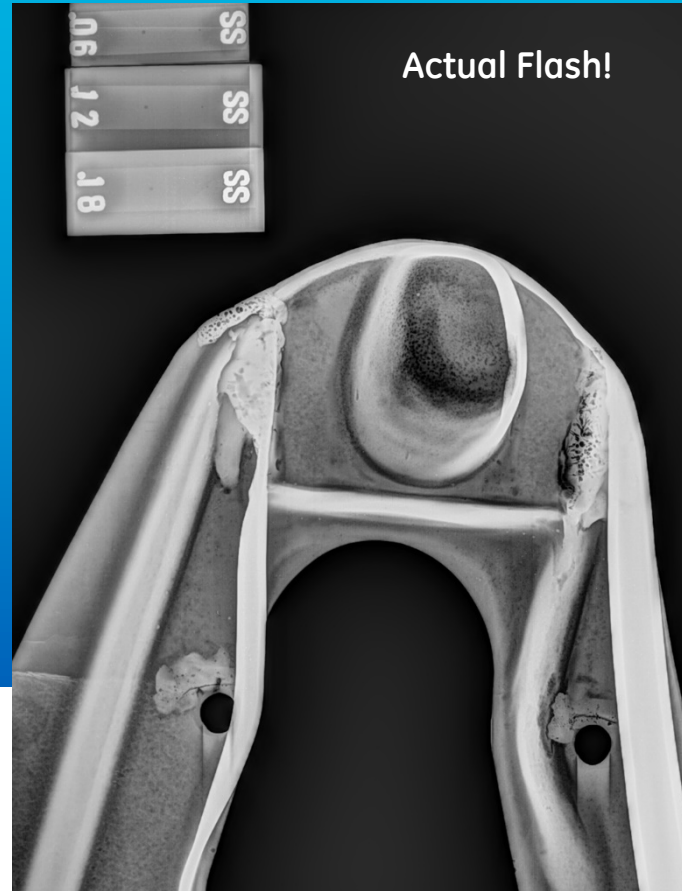
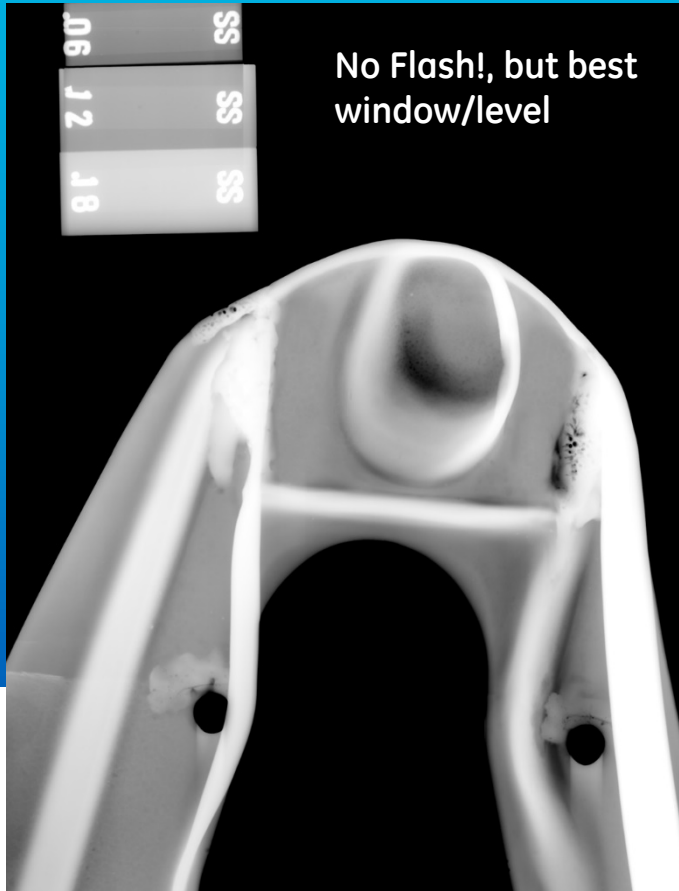
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FLASH! It's all in the details

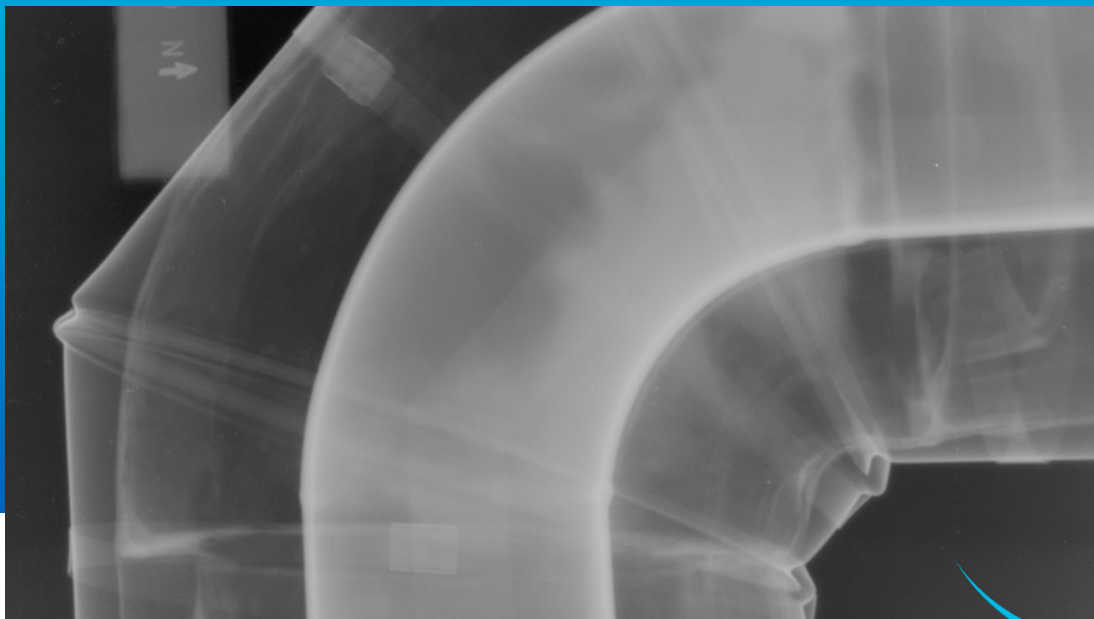
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FLASH! It's all in the details

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Standard



Flash!

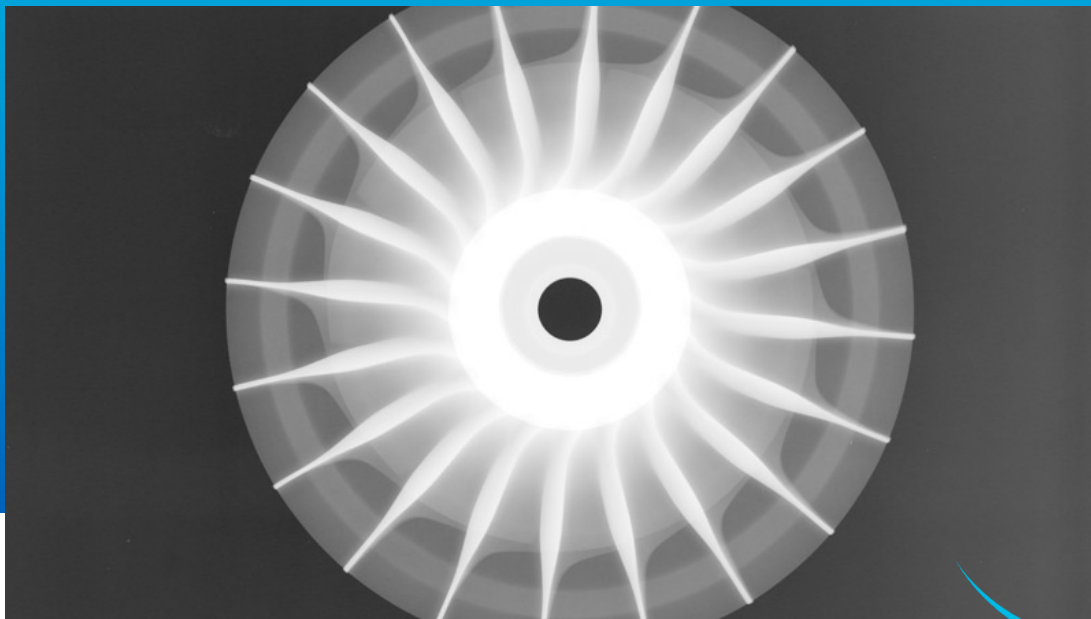


One click

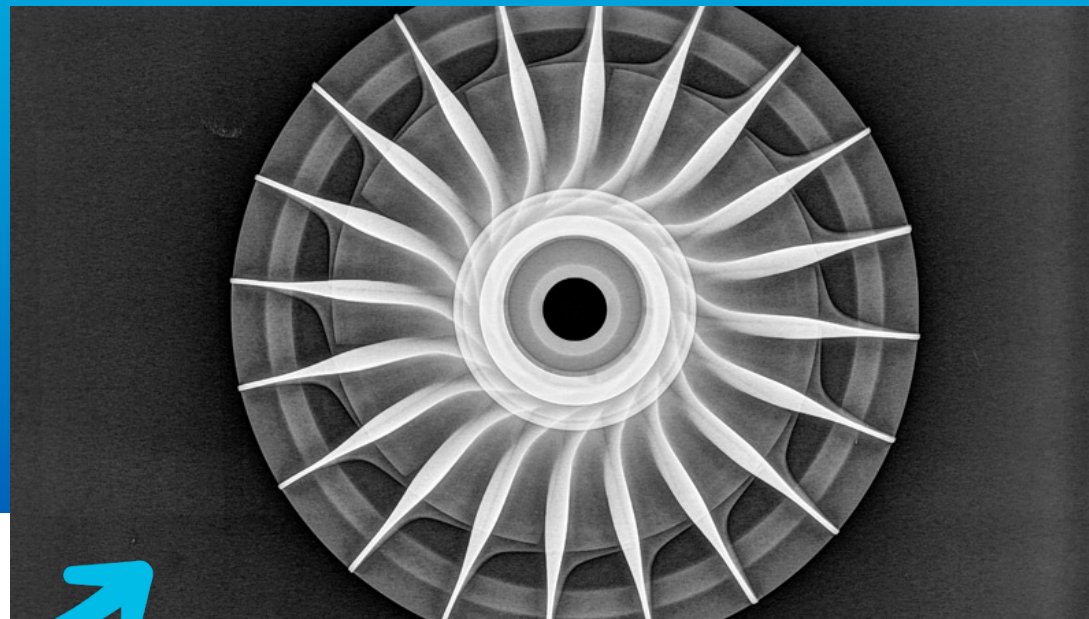
FLASH! It's all in the details

Leading Imaging Technology

Standard



Flash!



One click

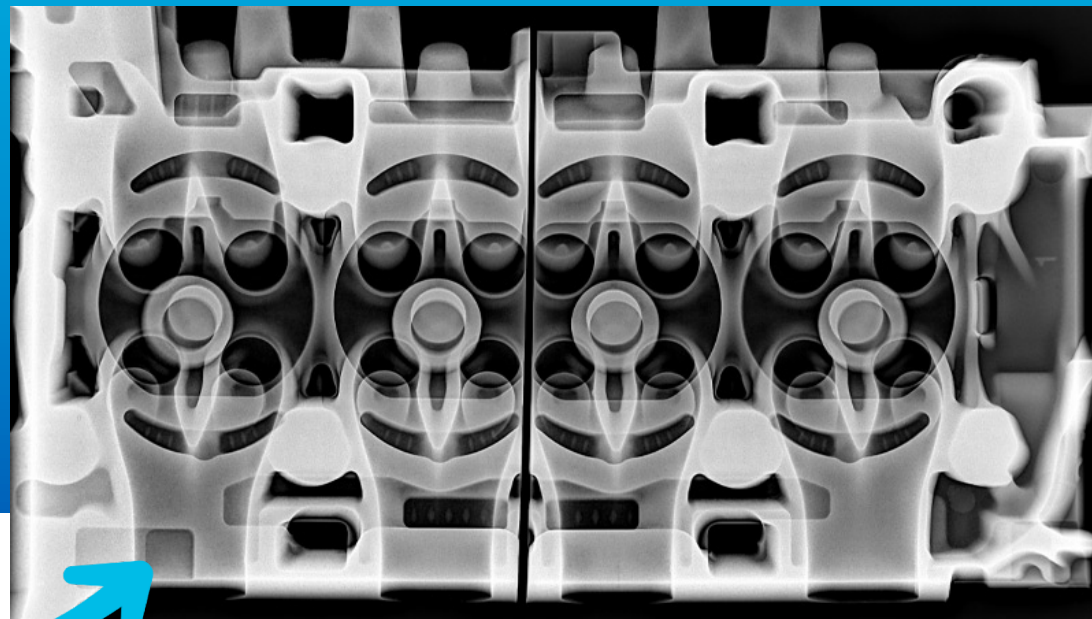
FLASH! It's all in the details

Leading Imaging Technology

Standard



Flash!



One click

FLASH! It's all in the details

Leading Imaging Technology

Flash! and Cast!

300 calculations / pixel

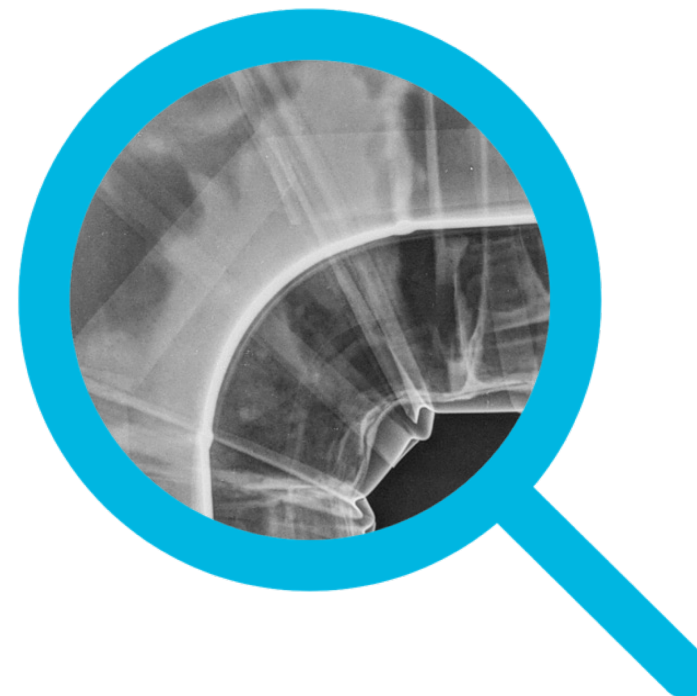
18,000,000,000 calculations / image*



Flash! and Flash!WT

1,000 calculations / pixel

60,000,000,000 calculations / image*



* For a 14x17" image @ 50micron

Flash! versus Flash! 2nd Generation

Flash! next generation was developed and finetuned in collaboration with:

- 40+ inspectors (L2-3),
- 20 companies in EU and US,
- reviewing 1.800+ images

Outcome:

- Flash! covering all applications (weld, castings, ...)
- improvement required for O&G images (wall loss, pitting, CUI, ...): Flash! OG

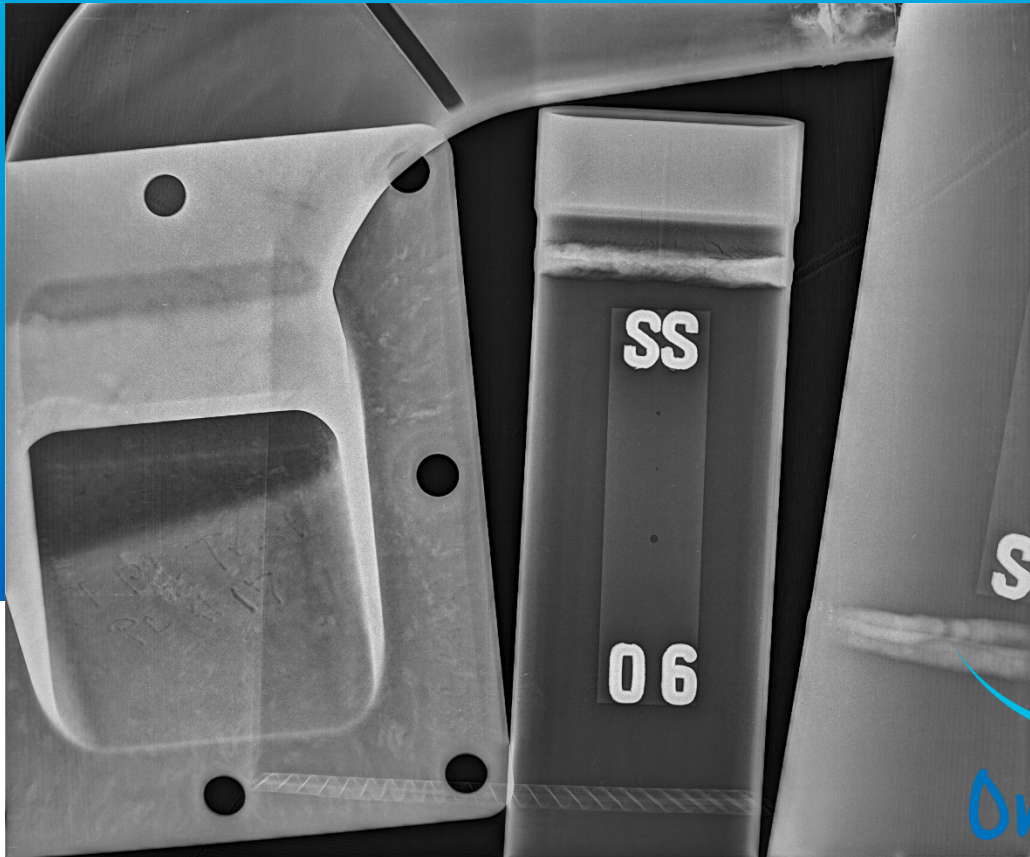
94% reviewers having strong to moderate preference for the new Flash!*

* Based upon 1,800+ reviewed images

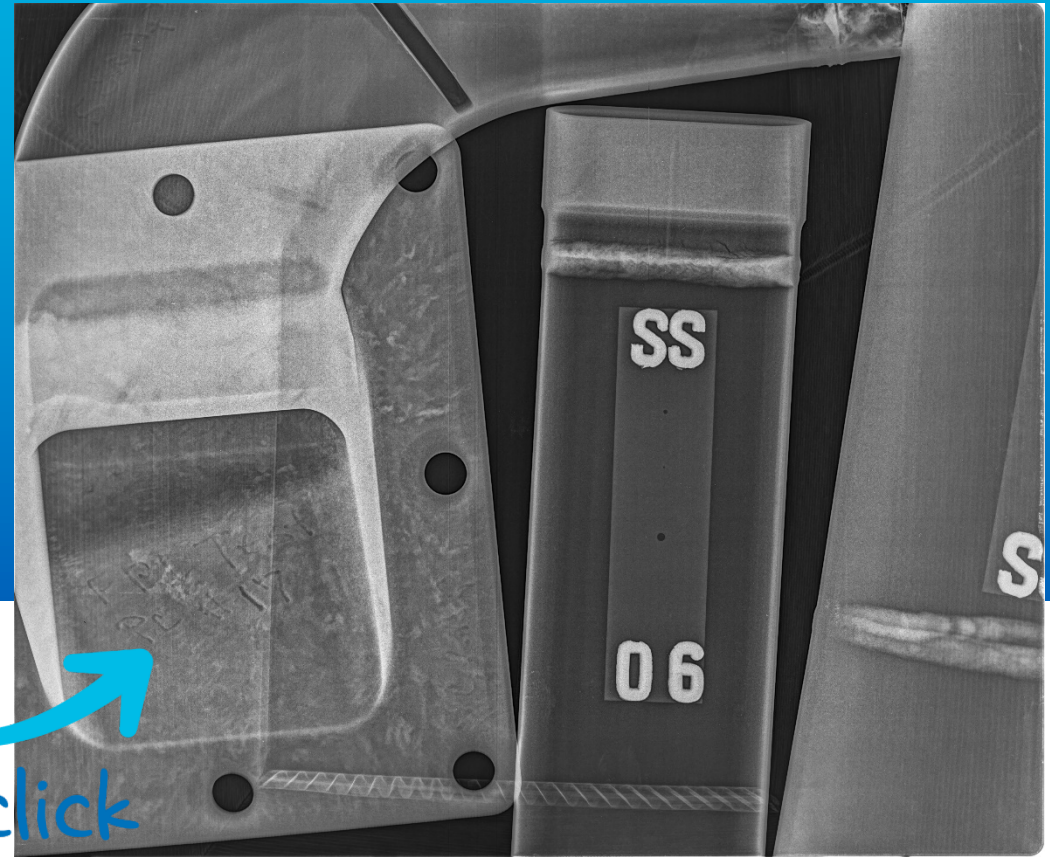
FLASH! 2nd Generation

Leading Imaging Technology

Flash!



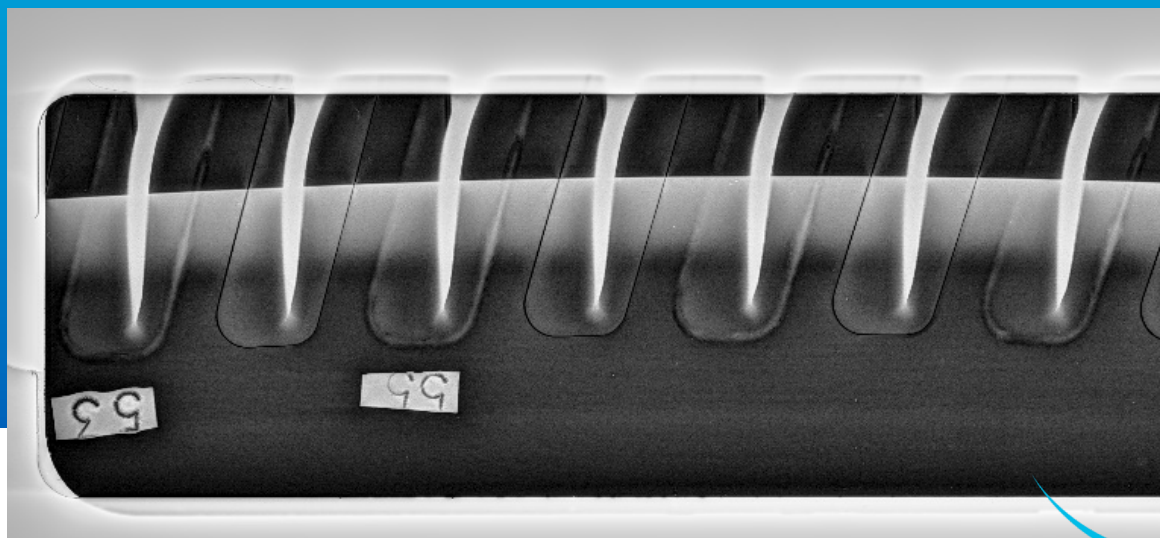
Flash! 2nd Generation



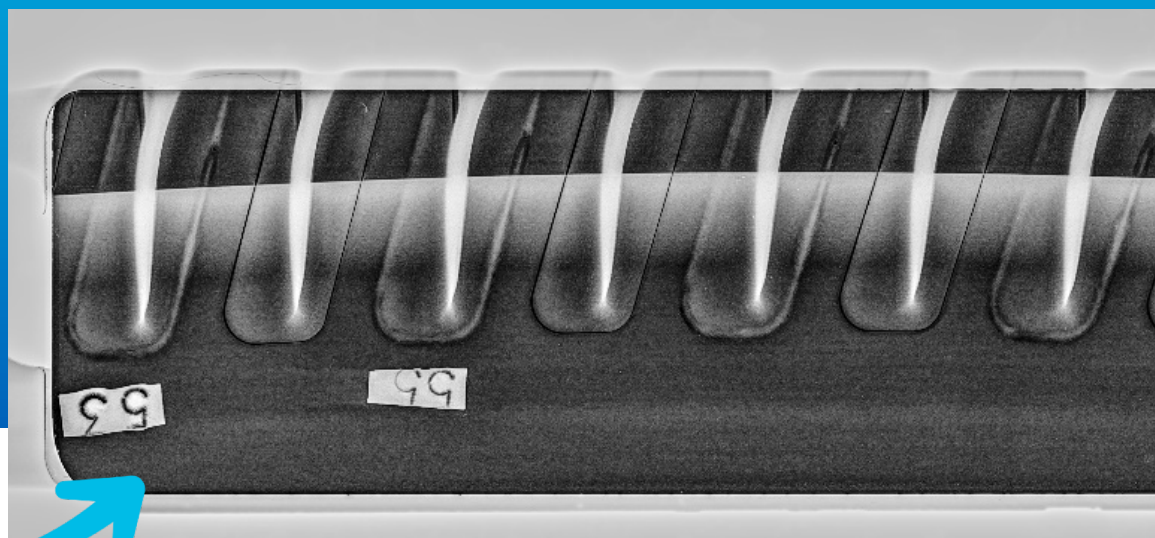
FLASH! 2nd Generation

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Flash!



Flash! 2nd Generation

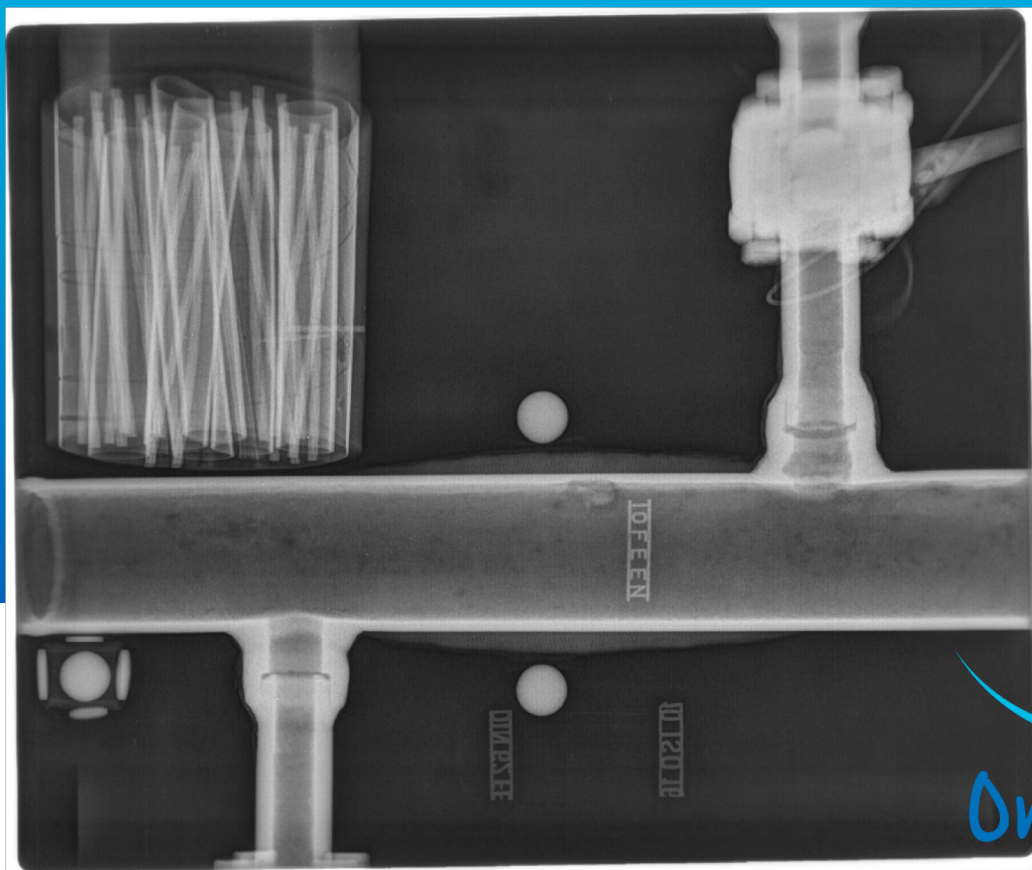


One click

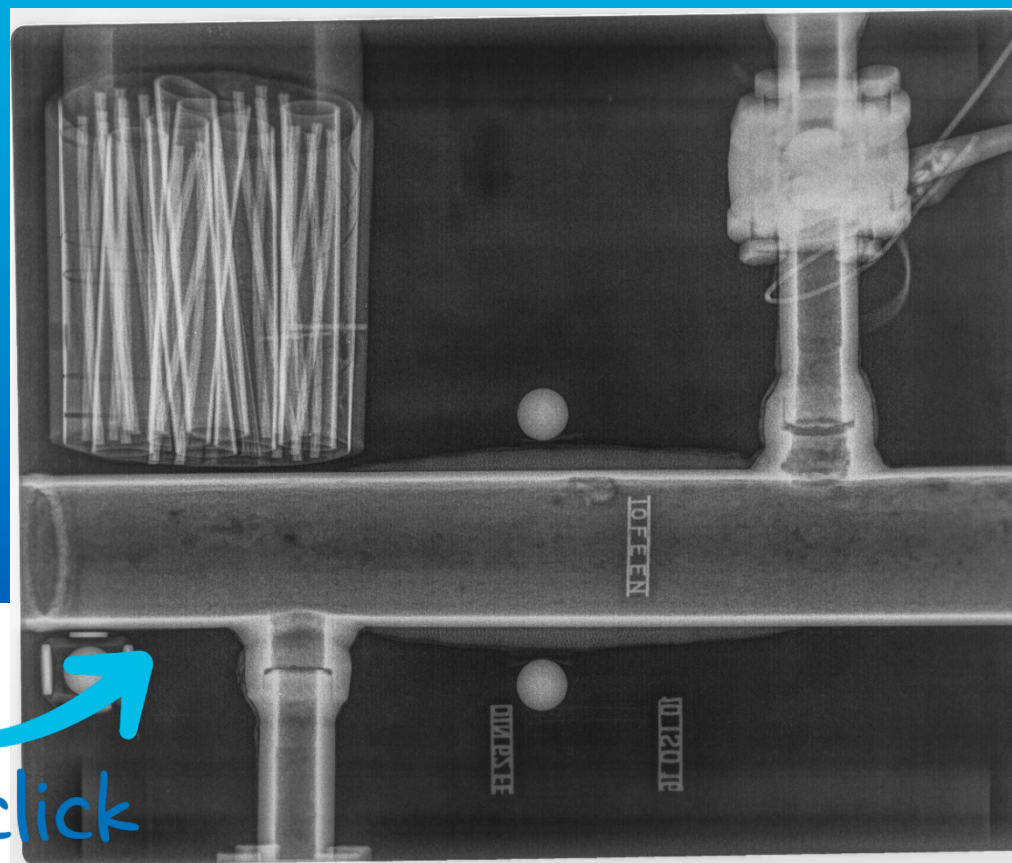
FLASH! 2nd Generation

Leading Imaging Technology

Flash!



Flash! 2nd Generation

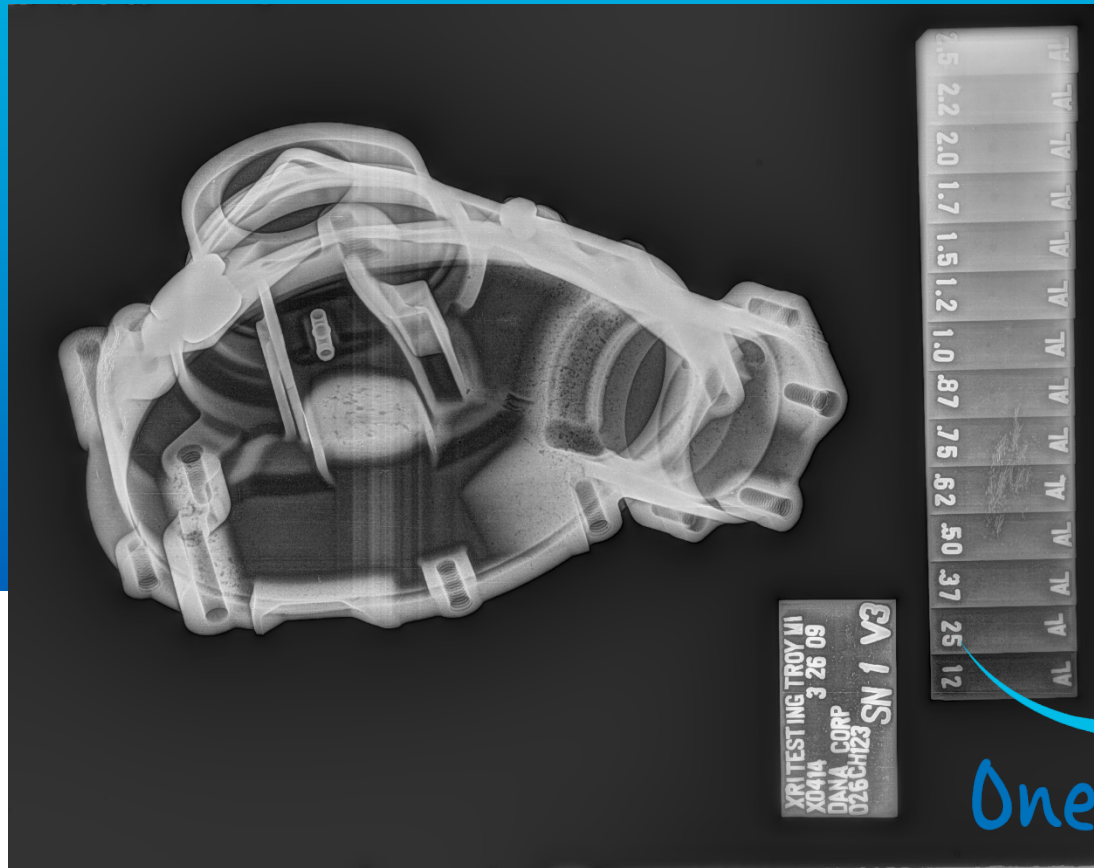


One click

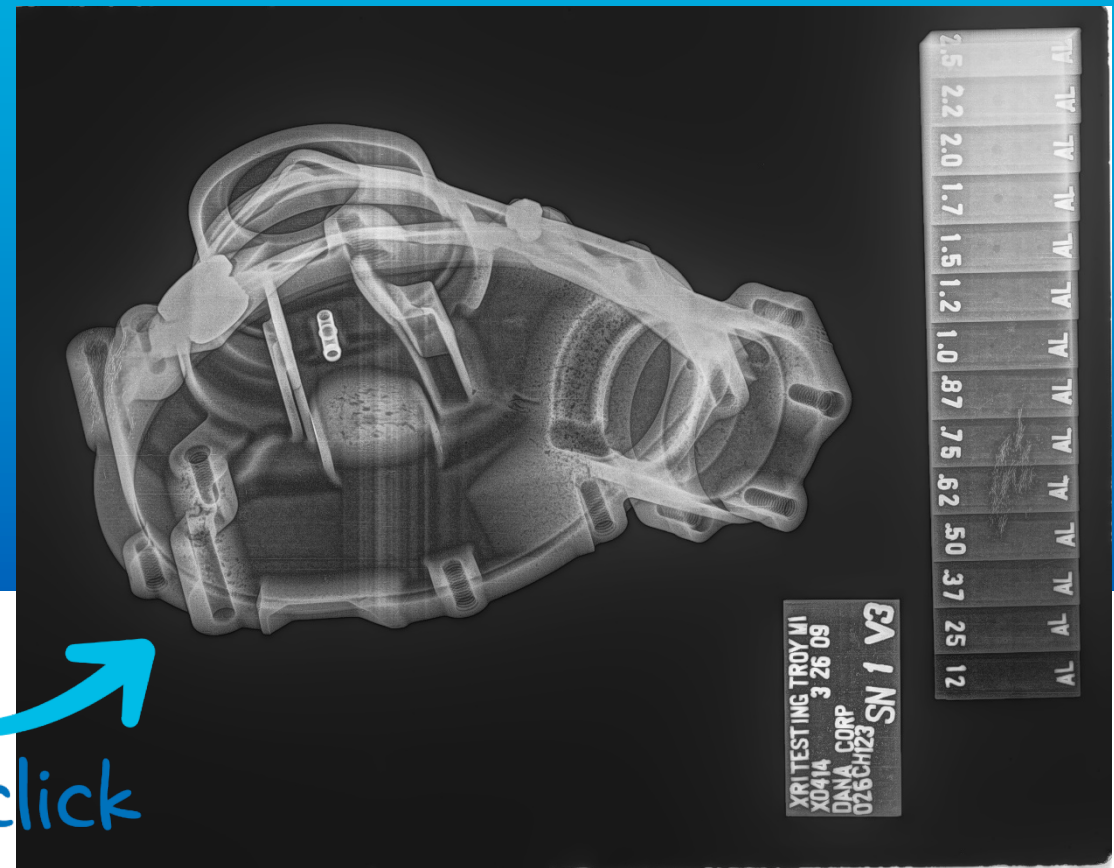
FLASH! 3th Generation

Leading Imaging Technology

Flash!



Flash! 2nd Generation

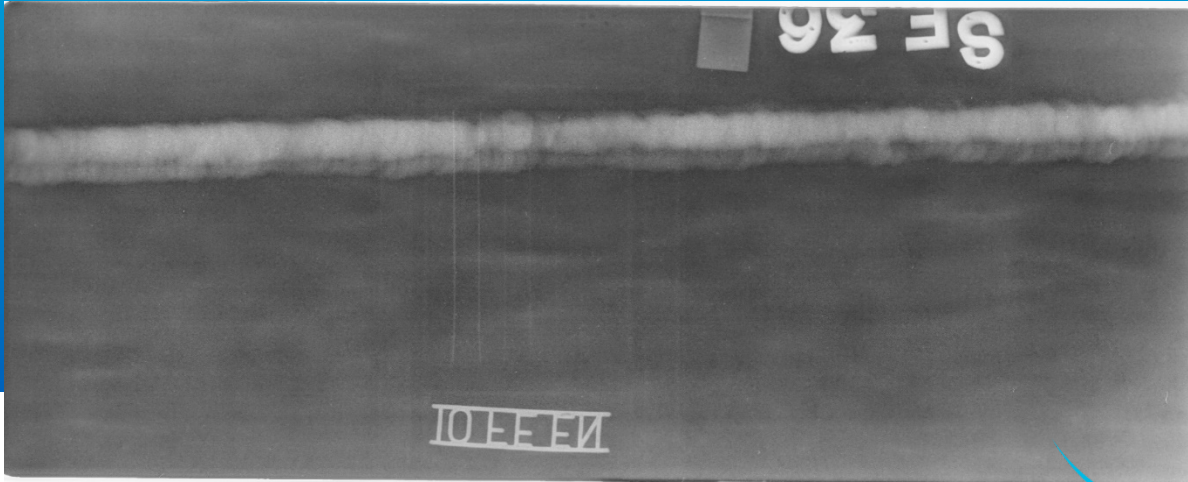


One click

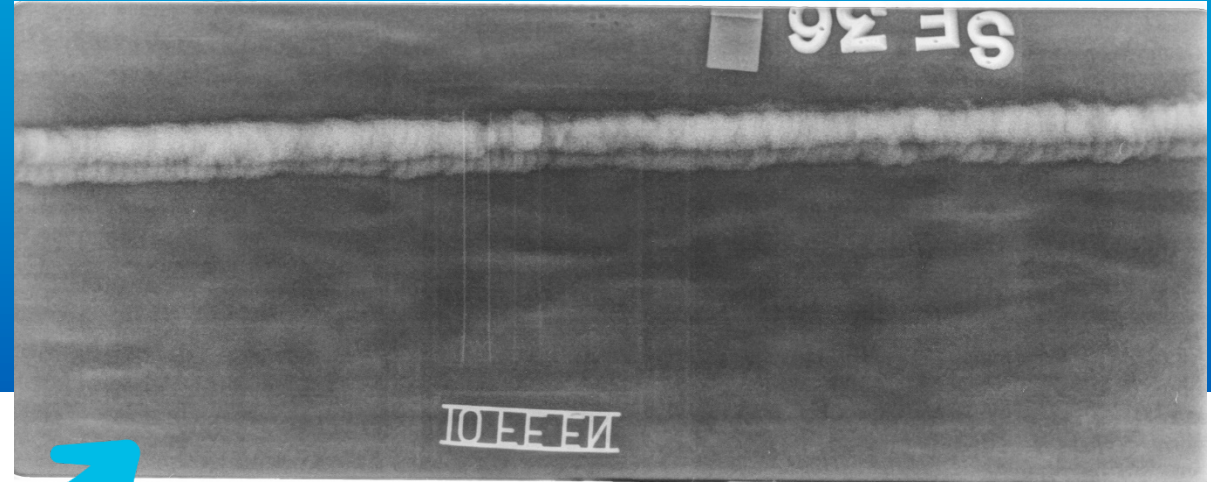
FLASH! 3th Generation

Leading Imaging Technology

Flash!



Flash! 2nd Generation



One click

FLASH!

Leading Imaging Technology

Ultimate goal:

Best Intelligence

Outstanding workflow & productivity

Operator independent

Flash! & Flash!OG - Leading Imaging Technology



- Consistently highest image quality, across FS - CR - DR platforms
- Operator independent, manual window-level adjustment no longer required
- Self adapting: consistent & robust against variations (density, geometry, radiation quality, exposure settings, ...)
- Ideal rendering of all relevant data in the image, adapted to human eye's sensitivity
- Enhancing workflow for operators and Level 2/3
- Flash!OG: optimized for Oil & Gas images (CUI, WT, ISI)

History

2010

first release, visualizing the existing but hidden, easing inspectors life.

2 versions: Flash! and Cast!

Based upon 20+ years experience & patents

Huge success, with +1600 installations globally, main differentiator vs. competition

2019

new technology, improved algorithms → improved version

Setting again the NDT image standard, bringing quality to cutting-edge level

2 versions: Flash! and Flash!OG

Flash! what customers say ...

94%

“We visited 20 companies and more than 40 Level 2/3 reviewers, asking their input on 1.800 images improved with the new Flash!

With 94%, they clearly indicated their preference for the new version.

They were all convinced that having Flash! is no longer a 'nice to have', but became 'need to have’”

Steven Wissels

Global Product Manager Field Radiography, BHGE

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March 23, 2020