

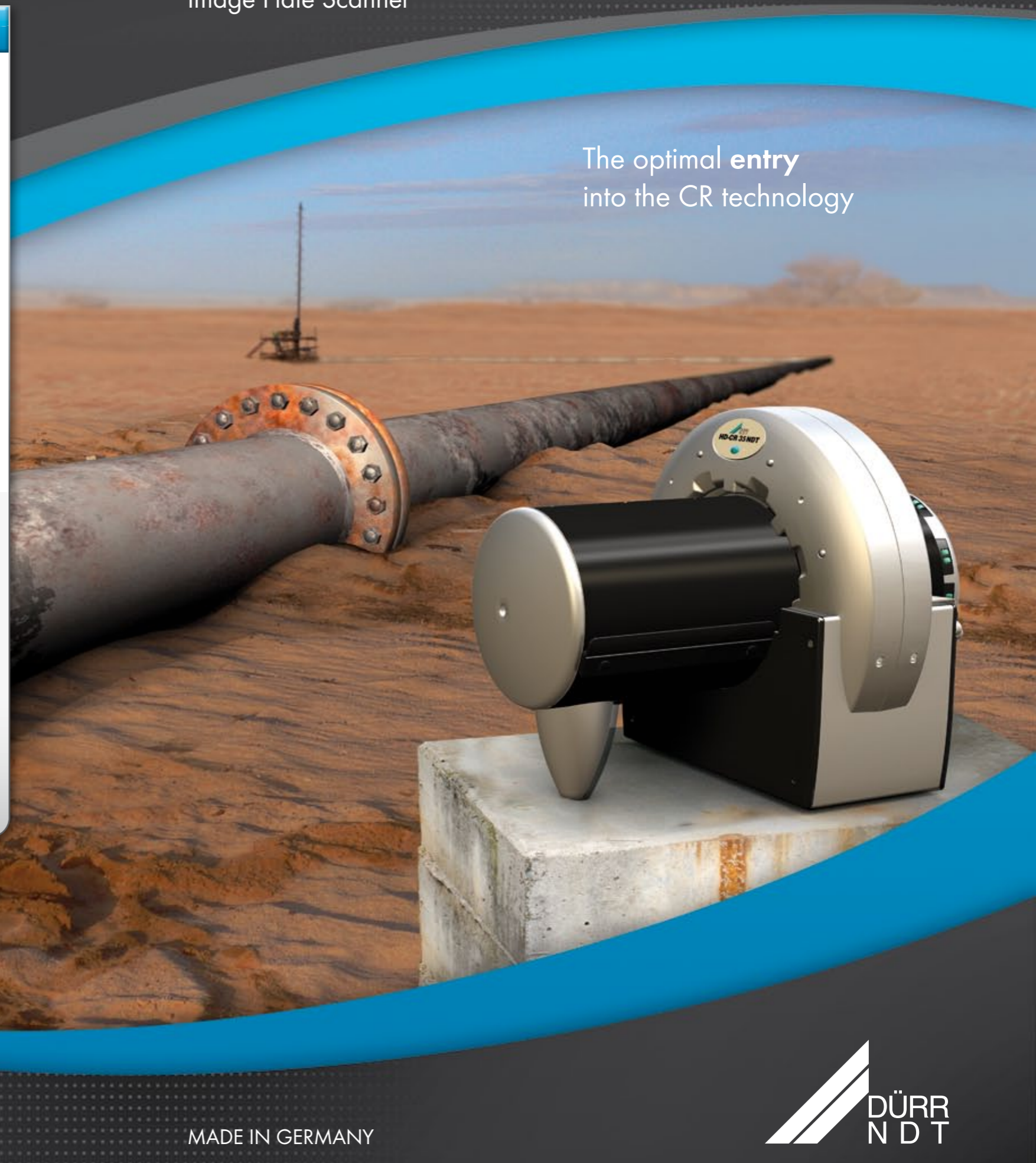
HD-CR 35 NDT • The optimal entry into the CR technology

HD-CR 35 NDT / CR 35 NDT

Image Plate Scanner

Technical Data	Image Plate Scanner	HD-CR 35 NDT	CR 35 NDT
BSR (Basic Spatial Resolution)	dependent on plate (BAM-certified)	40 µm	100 µm
Laser	focal spot on plate surface	12,5 µm	30 µm
Dimensions (H x W x D)	39 x 38 x 52 cm	•	•
Weight	21 kg without transport case	•	•
Electrical	100-240 V / 50-60 Hz, 140 W	•	•
Grey level resolution	16 bit, 65.536 Grey levels	•	•
Max. Plate size	35 cm wide, Length virtually unlimited	•	•
Storage Temperature	-20 to 60° C	•	•
Operating Temperature	10 to 35° C	•	•
Noise Level	< 49 dB(A)	•	•
PC connection	USB 2.0	•	•
Laser Class	I (EN60825.1)	•	•
Software	DÜRR NDT D-Tect	•	•
IT-Requirements	For Requirements refer to www.duerr-ndt.de	•	•
Accessories	Transport case, Battery option, Imaging plates, Cassettes, Guides for narrow, long IPs)	•	•

The optimal entry into the CR technology



Transport Case

Lightweight case for scanner transport



Battery Pack

For greater flexibility and site independence, we offer an external battery option



CR 43 NDT

The stationary fully automatic scanner for high throughput and use with plates in rigid cassettes



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MADE IN GERMANY



What is CR? How does it work?

Computed Radiography (CR) provides the digital equivalent of the conventional X-ray film while simultaneously providing the enormous advantages that consumables are virtually eliminated and the time to image is reduced considerably.

In addition the digital images can easily be archived and shared freely with other users. We emphasize the easy work flow and the ability to optimize the images by means of image software, thereby assuring improved analyses.

The CR technology consists of a 3-step process.

The Image (storage) Plate (IP) is exposed with X-ray or Gamma radiation, which causes the IP phosphor layer in the plate to store the X-ray image.

During the reading process of the plate in the scanner, a focused laser beam triggers the release of the stored X-ray image data in the form of visible light.

The emitted light is captured and detected, then converted into electrical signals which are digitized and finally displayed as digital images on the monitor of the associated computer.

The internal in-line eraser purges the residual data from the IP, which is then ready for the next exposure.

What is important in deciding to use CR?

Basically the CR technology is understood to be the digital replacement for film. In conventional X-ray film, different resolutions due to the film and in part by differing exposure times are achieved. In the CR technology, however not only the IP's,

the film replacements, play an important role, but also the scanner and its resolution is of high importance.

High definition Computed Radiography

DÜRR NDT is the first worldwide company that has developed a 12,5µm laser spot scanner that, with correspondingly high resolution phosphor storage imaging plates, has met all of the stringent requirements of EN 14784 and ASTM 2446.

The combination of high resolution image plates and this HD-CR device achieves the unique Basic Spatial Resolution of 40µm over all system classes for the first time.

With the purchase of a HD-CR 35 NDT you decide for a perfect device for weld seam inspection.

Furthermore, the HD-CR 35 NDT with its stepless adjustable laser reading resolution, is the perfect companion for those applications requiring lesser resolution capability.

▶ Cost Reduction

▶ Improved handling

▶ Increased efficiency

Why CR-Technology of DÜRR NDT

DÜRR NDT has made a commitment to deliver to the customer products tailored perfectly to the needs of the market.

Through the continuous optimization of existing products and development of new solutions, DÜRR NDT has become one of the market leaders in non-destructive testing within short time.

▶ ISO 9001 certified

▶ BAM certified

▶ EN und ASTM compliant

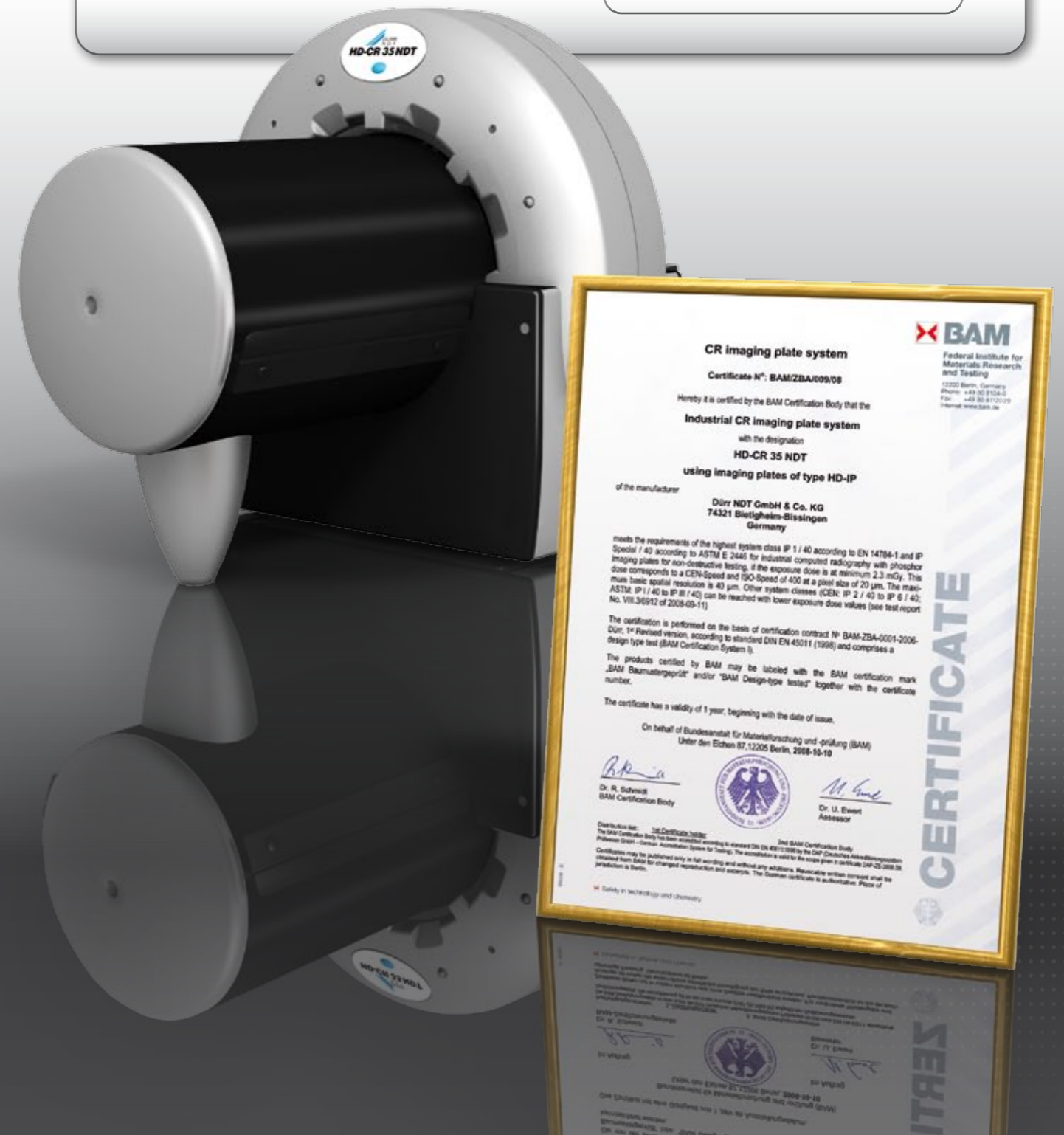


Image Quality

Digital Radiography,
equal to Film



Increased Profits

Fewer
consumables



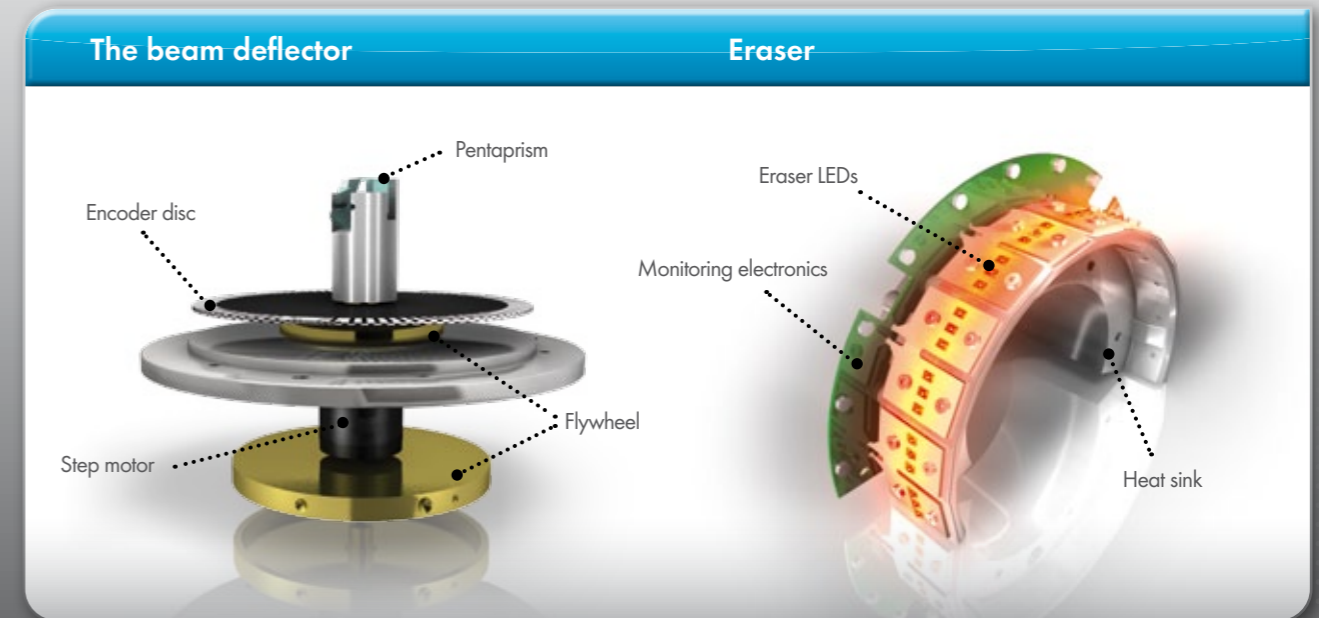
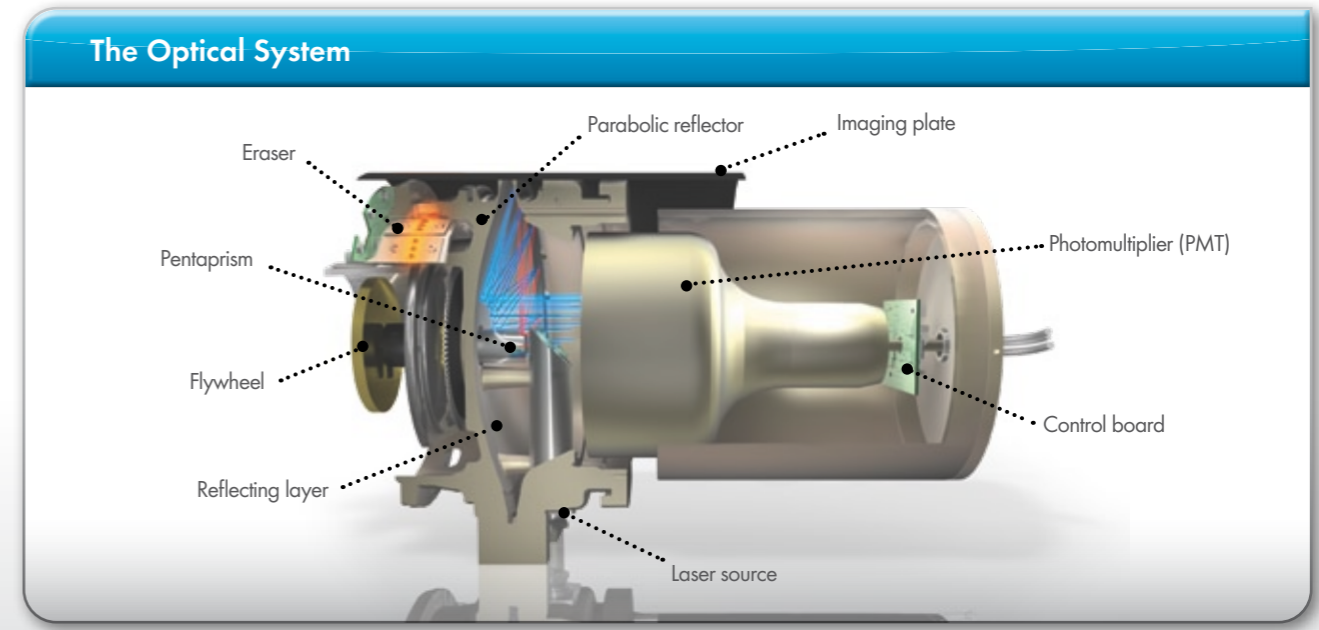
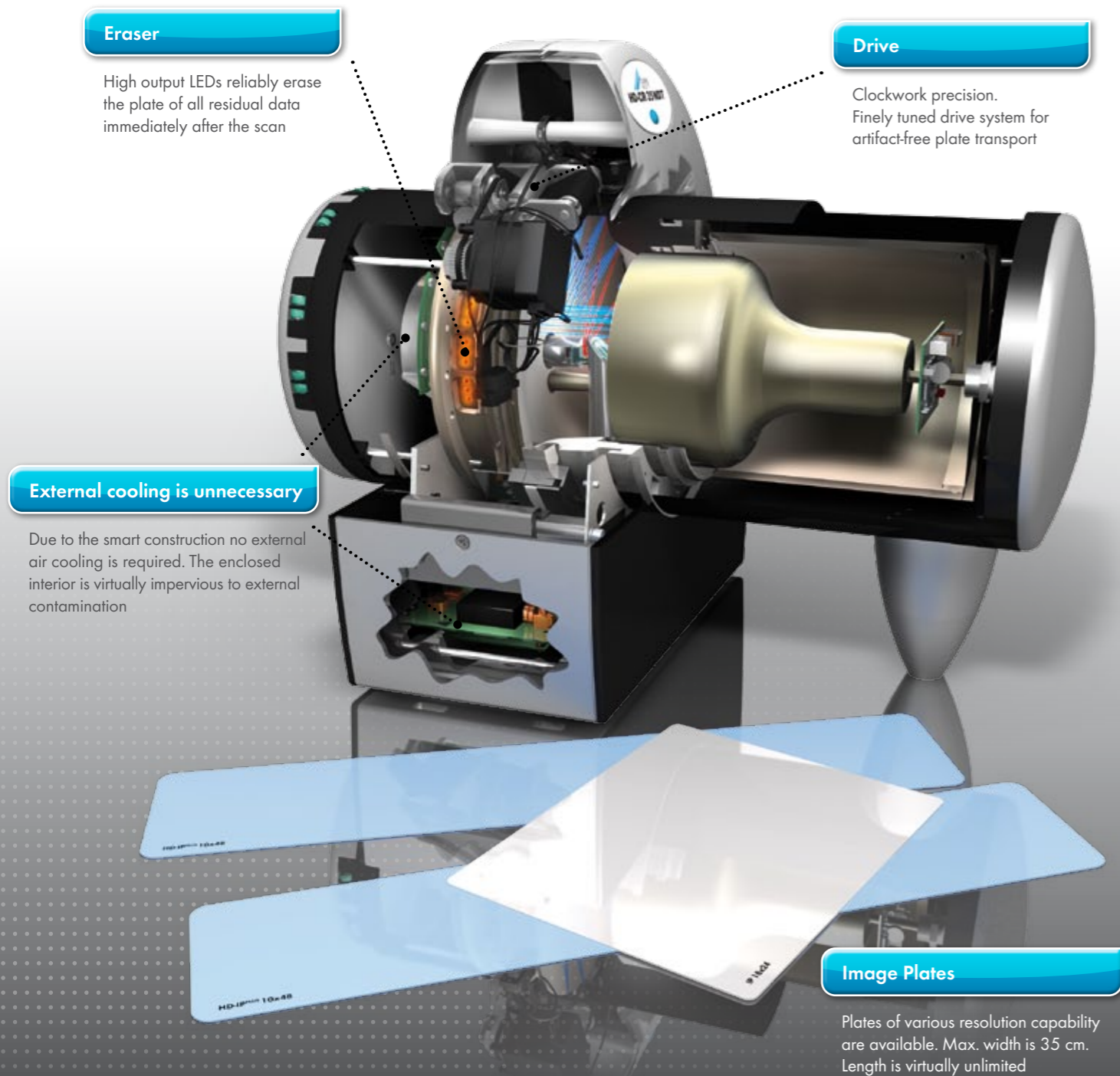
Experience

More than 20.000
similar units produced



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Development and
production in Germany



Precise

Hi-tech mechanics for artifact-free plate transport



Laser Spot

Smallest laser spot for highest resolution



Exposure time

Reduced by up to 80% as compared to film



Plate shapes

Available in any format, upon request



Resolution

Laser reading pixel adjustable from 12,5µm to 200µm



PCS-Technology

Patented Photon Collection System – always achieves superior image quality



Always fits

Highest quality slim design



Plate Sizes

Virtually unlimited varieties, only the width is restricted

Wall thickness measurements

Radiation exposure reductions are possible

Weld seam inspection

Certified according to EN 14784 and ASTM 2446

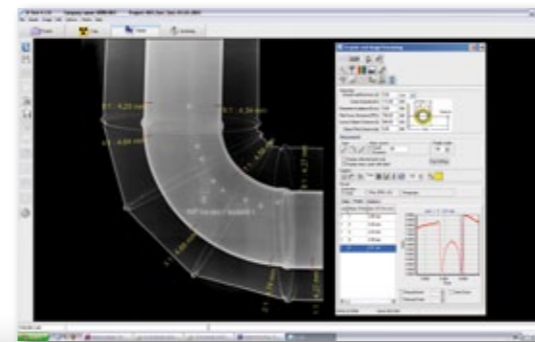
Casings

Precise results even for thick wall sections

Aerospace

Film quality - and better

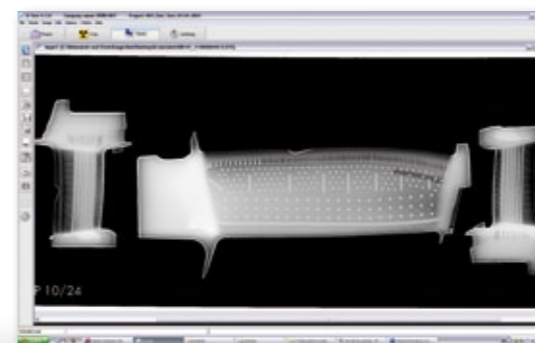
For every application the right filters and measuring tools



Automatic wall thickness measuring

With use of the optionally available wall thickness measuring tools, the definition of remaining wall thickness becomes quite simple.

The measuring tool takes into account whether manual calibration data is input or whether exposure parameters have been recorded, as required by the technique of radiographic projection.



Histogram Equalization

Equalization of the grey values in the histogram enables the simultaneous optical evaluation of different density materials.

High contrast filter

This filter allows to optimize the contrast ratio of the image. The original data always remains unchanged.



Fine Structure-Filter

The Fine Structure-Filter is particularly helpful for weld seams. Small defects are readily enhanced and contrast becomes optimized. The original image data is always preserved.

Manual measurements

The size of inclusions or cracks can be revealed by use of the manual tools.



Battery Pack

Battery solution for autonomous scanner operation is available



Data security

Simplified Archiving



Wall thickness measurements

Tools for automatic measurements of wall thickness



Network/Stand-alone

Connectivity ready via USB to computer



Logical

Easy and fast use through intuitive operating concepts



Intelligent

Adjustable to your liking



Individual

Concept specific software solutions are implementable



Software D-Tect

Please also refer to our special D-Tect information