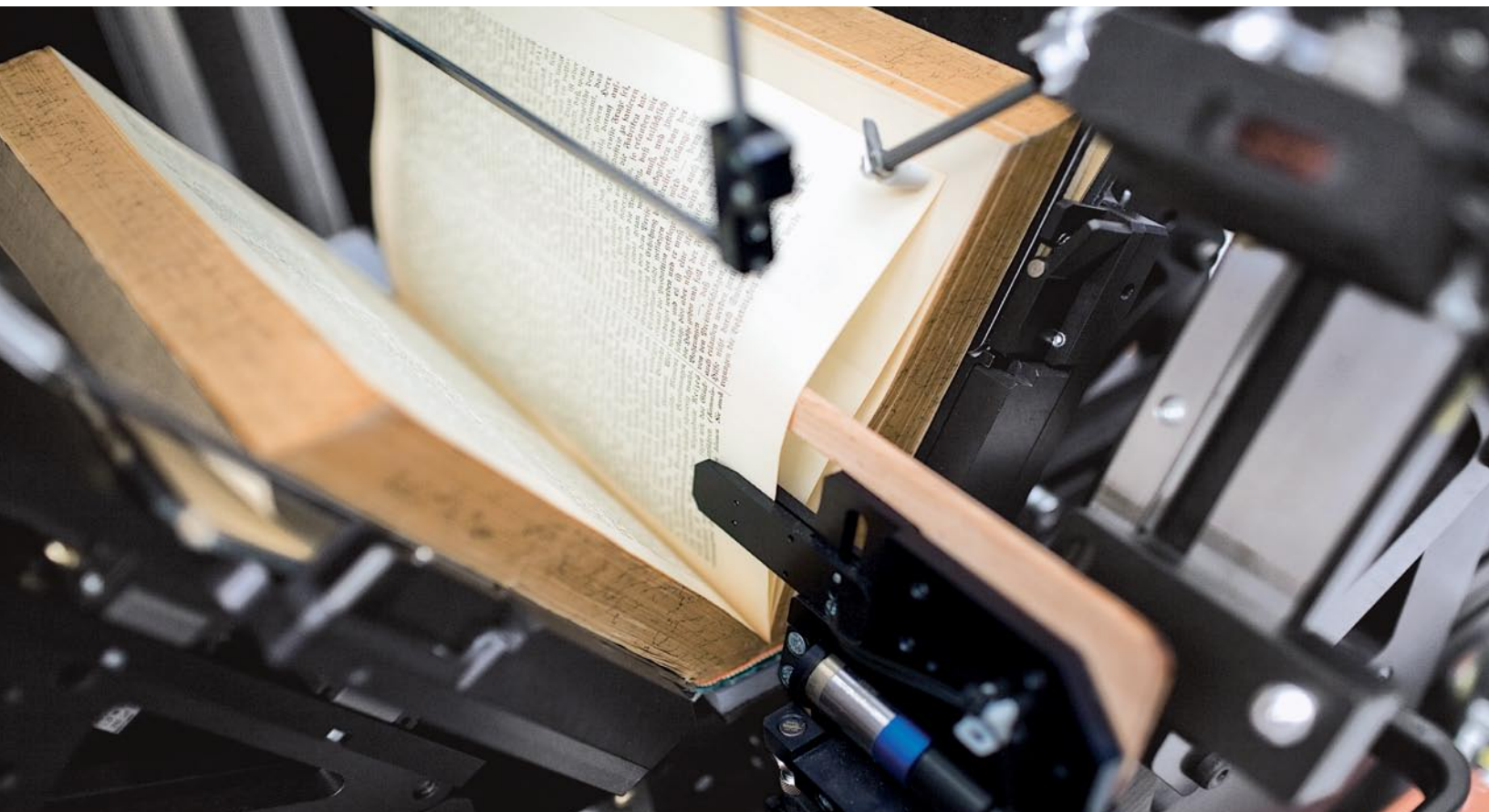



QIDENUS
RoboticBookScanner (RBS)



Preserving The Past For The Future



QIDENUS TECHNOLOGIES

www.roboticbookscan.com

Evolution Of Bookscanning

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Manual Bookscanner



- manual page-turning
- throughput per hour: **400 pages**
- 1 operator needed for 1 scanner

Semi-Automatic Book Scanner



- semi-automatic page-turning
- throughput per hour: **900 pages**
- 1 operator needed for 1 scanner

Robotic Bookscanner



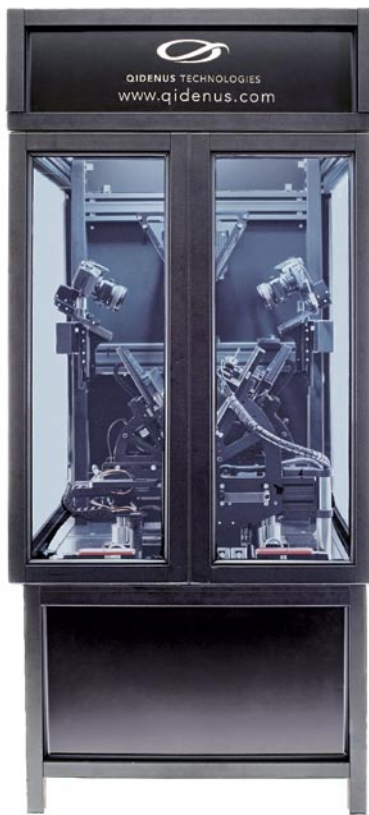
- fully-automatic page-turning
- throughput per hour: **2000 pages**
- 1 operator able to run 4 scanners simultaneously

Professional Advising Along Every Step Of Your Digitization Project



Robotic Book Scanner Pro

customized fully-automatic robot



variable bookcradle

Specifications:

page throughput/hour	maximum: 2500 average: 1500
high range book sizes	minimum: 08 x 12 x 01 cm maximum: 23 x 34 cm [A4]
image quality	350 – 600 dpi (depending on camera system)
extensive software package	supporting all standard formats (e.g.: XML, OCR, GIF, TIFF, RAW) PDF/A with/without OCR OCR for gothic print avoids downtime by use of central database management post-processes manually and/or automatically integrates simply into industrial workflows

Facts:

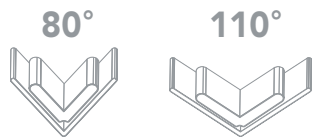
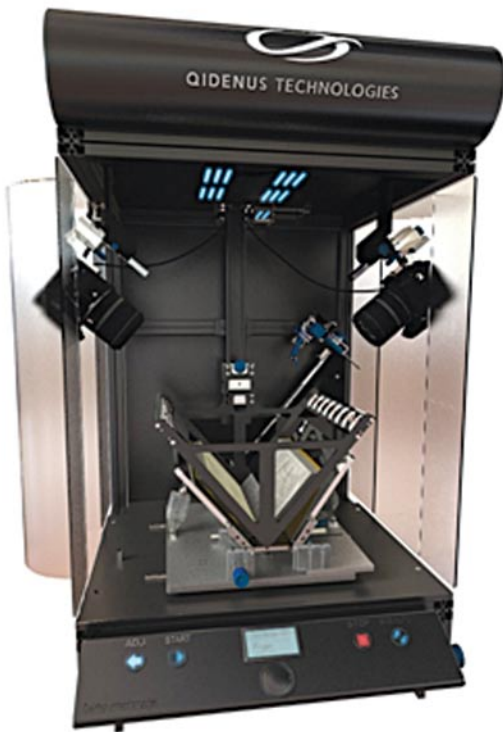
- secure and gentle page-turning
- automatic double-page control
- different bookcradles (60, 70, and 90 degree)
- intelligent adaption to diverse paper qualities
- each robot customized to specific requirements



Request a demonstration or quotation:
hardware@thecrowleycompany.com
240-215-0224

Robotic Book Scanner Pro TableTop

fully-automatic robot built for quality, economy and efficiency



variable bookcradle

Specifications:

page throughput/hour	2000 (fully-automatic mode) 900 (manual mode)
compatible book sizes	minimum: 08 x 12 x 0.05 cm maximum: 25 x 37 x 10 cm
high image quality	300-400 dpi optical resolution (depending on camera system)
formats	a.o.: JPEG, JPEG2000, TIFF, TIFF G4, GIF, PDF, PDF layered OCR, XML, RAW
tone	24-bit color; 8-bit grayscale; 1-bit b/w

Facts:

- **2 in 1 machine: fully-automatic and manual system in one device**
- **Extensive book protection due to innovative technology**
- **Efficient double-page control and self-centering book cradle**
- **QiSoft Suite: extended software package including image processing, format conversion, workflow guidance, OCR and metadata**
- **Tabletop model: compact, portable, highly economic**

For more information:

*thecrowleycompany.com/scanning-equipment/qidenus/
or hardware@thecrowleycompany.com*

QIDENUS Technologies

Conservation



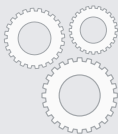
- highest protection due to gentle bionic page-turning
- variable bookcradle with optimum aperture angles
- suction- and touch-free digitizing

Economy



- intelligent workflow and software management
- high-end production line → minimum maintenance
- operating efficiency → 1 operator handles up to 4 robots

Technology



- the bionic finger – patented self-learning turning mechanism
- completely modular and customizable construction
- integrated quality control and process management
→ never miss a page

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*Provider Of High Quality
Book Scanning Solutions*



Competitive Advantages

Qidenus Robotic Book Scanning Technology

Revolutionary page-turning intelligence

The RBS Pro is the only true fully-automatic bookscanner on the market featuring a page-turning intelligence. This revolutionary technology is capable of automatically re-adjusting the page-turning process within the book based on the electronic feedback of the double-page control, ensuring that the Qidenus is truly capable of turning a book from front to back without operator interaction.

Intuitive page-turning mechanism

The RBS Pro uses a solely mechanical page-turning mechanism, offering several advantages:

- no congestion of the page-turning mechanism due to dirt (a known problem in competitive scanners)
- simple and easy integration of technology with different products and environments
- an independence from blowing/vacuum mechanisms for easier maintenance
- the ability of the "bionic finger" to perfectly adjust to customer/book needs

Variable optic system

The RBS Pro uses a variable optic system consisting of different Canon DSLR's. Unlike the competitors, the Qidenus also offers integration with other camera systems, making the system more versatile to customer needs (i.e.: industrial cameras and the very high-definition Hasselblad camera).

Intelligent glass plate

The RBS Pro uses an automatic glass plate that is shaped in the same degree as the book cradle. This ensures flat images with no curvature while

applying no pressure to the book spine. Robots without a glass plate do not produce completely flat images.

High-efficiency throughput and workflow system

Qidenus has developed an ingenious software workflow system that allows industrial scale digitization of books through sequencing of the different work steps, considerably minimizing the stop-times between book-loading. Operating on an SQL database system, the Qidenus can allocate batch processing, loading parameters and external post-processing at different locations, thereby ensuring that all processing does not need to be performed directly on the robot, but can be outsourced to an IT system for continuous scanning of unlimited books without the need to stop for post-processing.

Switch operation modes with a single touch

Recognizing that not every book can be scanned automatically from beginning to end, the RBS Pro allows for an operator to switch between the manual and automatic modes with a single touch. This offers the flexibility to scan foldouts, book covers and difficult pages all within the same machine, quickening the production process and eliminating potential post-production errors.

Reduced labor costs

The RBS Pro page-turning intelligence and work system combine to create an operator/

machine ratio of 1:3 (conservatively) to 1:5. Based on extensive testing with the RBS Pro, a single operator is capable of operating up to five machines at the same time, while competitive units require 1:1 operator interaction for their page-turning and digitization processes.

Unprecedented customization

The Qidenus industrial approach of building high-efficiency, individual robotic systems allows for an unprecedented ability to configure a scanner to the exact specifications of the customers. Offerings include:

- variable book aperture angles
- a variety of optic systems
- security features
- implementation into existing or new IT workflow

Low maintenance

The RBS Pro was built by a team of renowned engineers known for designing high-efficiency production lines for Siemens and BMW. All components and security features are of the highest quality and are made for high industrial throughput and low maintenance. The complete robot is made of custom-designed, cnc-drilled aluminum parts for maximum durability. All spare parts are available internationally on 24-hour notice.

NOTE: In over 12 months of prototype scanning production, Qidenus did not experience a single incident of equipment/parts failure.

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