



| April 2022



COMPANY OVERVIEW

- Designed, Developed & Manufactured in Ireland
- Direct sales in Ireland, UK & France
- Global distribution partners in 35 countries
- Multiple innovation awards
- Over 12,000 solutions deployed at customers sites worldwide



CUSTOMER PROFILE

Johnson & Johnson



BOSCH

Medtronic

FOXCONN

CUSTOMER VALUE PROPOSITION

Customer driven insights delivering innovative solutions for challenging inspection applications.



PARTNER VALUE PROPOSITION

A unique opportunity to partner with a leader in the field of advanced inspection technology.



SMART DIGITAL INSPECTION PRODUCT OVERVIEW



		INSPEX 3	OMNI 3
Digital Inspection		✓	✓
Digital Measurement	Advanced		✓
	Simple	✓	
Optional Software Applications			✓

APPLICATION OVERVIEW

ASH Inspex 3 and Omni 3 are used across a wide range of industries and applications globally including:

1. Medical Devices - Stent, Catheter, Balloon
2. Pharmaceuticals – Syringes, Needle, Vial Inspection, Fill/finish caps, Microbiological monitoring
3. Precision Engineering – Watches
4. Automotive – Gear inspection
5. Aviation – Turbine blade inspection
6. Electronics – PCB Inspection

A man and a woman are in a laboratory or office setting, looking at a device. The man is on the left, wearing a blue shirt, and the woman is on the right, wearing a white lab coat. They are both looking at a device on the right side of the frame. The device is a dark, cylindrical object with a circular lens or display in the center. The lens has the text "INSPEX 3" on it. Above the lens, there is a small logo that looks like a stylized "e" or "i". Below the lens, there is a power button icon. The background is dark and out of focus, showing some vertical lines and a grid of small, glowing orange circles. A blue, wireframe-like structure is overlaid on the image, connecting several points. The overall color scheme is dark blue and black, with some orange and white highlights.

INSPEX 3



INSPEX3 | COMES WITH AN IMPRESSIVE ARRAY OF FEATURES AS STANDARD

Full HD camera with no video delay

Up to 1000x magnification

Integrated lighting

Network connectivity

User privilege settings

Advanced camera settings

Factory calibrated (AshCal™)

Real Time Lens Distortion Correction (RTLDC™)

2D Measurement & Graticules

Spot focus TM

Image Stacking

Super Fast Auto-Focus™

For more information please check out www.ashvision.com

INSPEX 3



INSPEX 3



OMNI 3



OMNI 3 | A DIGITAL MICROSCOPE SUITABLE FOR INSPECTION AND MEASUREMENT APPLICATIONS

Advanced measurement functionality. A flexible platform that can be tailored with a range of advanced software applications to build a unique solution to specific requirements. The system is factory calibrated.

Z Height Measurement App

2D Measurement & Graticules App

Object Counting App

Colour Analysis App

DXF Import & Export App

Image Stacking App

Image Comparator Side-by-Side App

Image Comparator Overlay App

For more information please check out www.ashvision.com

OMNI 3

ASH
OMNI 3





ACUMEN AI

Acumen AI utilises next generation, deep learning video analysis. Automatically identify, detect, classify, measure and count a wide range of part defects. Implementing the power of Acumen AI will significantly increase production efficiency, eliminate human error and increase production throughput.



ACUMEN AI

Acumen AI excels at performing repetitive inspection tasks with more accuracy than a human can accomplish, through utilizing deep learning algorithms.

TYPES OF DEEP LEARNING MODELS

Object Detection for detecting and localizing defects on parts in real-time

Segmentation for detecting and localizing complicated shaped objects for pixel-level detail

Classification for classifying an entire part into specified classes of defects or normal parts

Anomaly Detection for detection of anomalies when the prevalence of defective parts is very low

Combination used when 2D measurement and traditional computer vision methods are required to be assembled into a single optimized, robust, and highly accurate solution

ACUMEN AI BUILDS HIGH-PERFORMANCE MODELS FOR A MORE ACCURATE, RELIABLE, AND EFFICIENT QUALITY CONTROL PROCESS.

DEEP LEARNING MODEL DEVELOPMENT



Good Quality Data

is crucial for training deep learning models.

Labelling Data

is a simple process, ensuring high quality data is used to train and build the deep learning model.

Data Augmentation

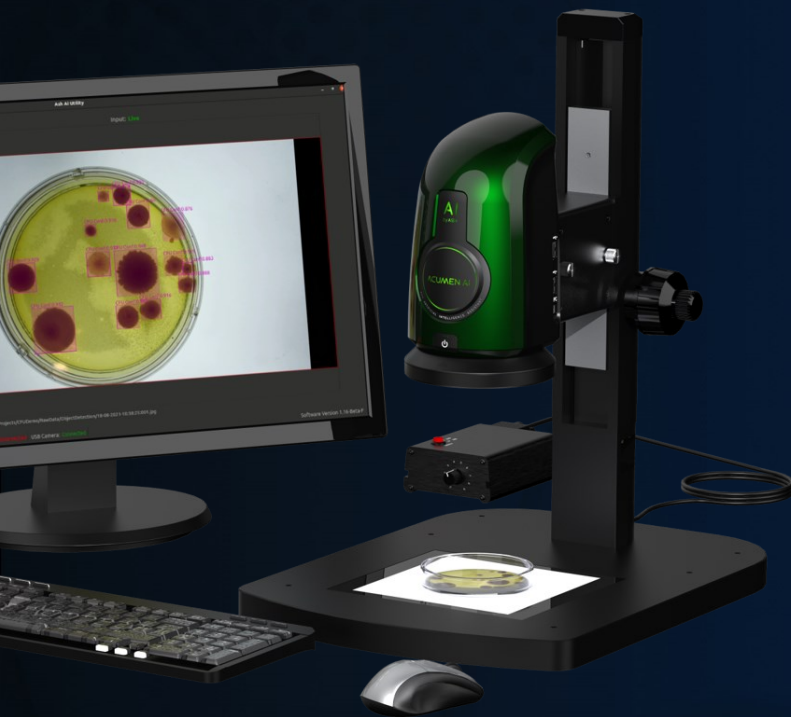
enhances the dataset size and variation.

Validation Dataset

is used to test the algorithm to ensure optimal performance of the deep learning model.

Test Data

is a dataset that has not been used for training or validation. This creates a model that performs well on unknown data.



ACUMEN AI IS DESIGNED TO MEET A WIDE RANGE OF APPLICATIONS AND MEET MANUFACTURERS EVER GROWING NEEDS.

Easy Setup - Simple GUI that enables non-experts to set-up, train and run inspection algorithms in a short period of time without programming expertise.

Powered by AI - Latest advancements in computer vision techniques and deep learning to better classify, segment, and detect anomalies in real-time.

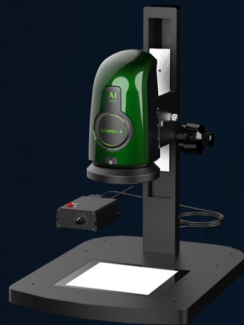
Traceable Results - Multiple export file formats available. Secure reports can be output in CSV or PDF format and images can be exported in JPEG, PNG and BMP format.

21CFR Part 11 Compliant - Manages permissions using role-based access control, handles data integrity and logs all user actions.

ACUMEN AI

Acumen AI can interface with robots, cobots, PLC machines, conveyor systems and any type of automated test equipment. This enables the Acumen to be easily deployed and integrated into an existing cell, module or manufacturing line.

STANDARD
SET-UP



AUTOMATED COBOT
INSPECTION



FULLY AUTOMATED
ROBOTIC CELL









ASH

**Acumen AI
Defect Detection
& Part M .**



ACUMEN AI

DELIVERS ROBUST QUALITY CONTROL PROCESSES THAT ARE ESSENTIAL FOR PRODUCTIVE OPERATIONS.

Improves Quality & Reduces Waste

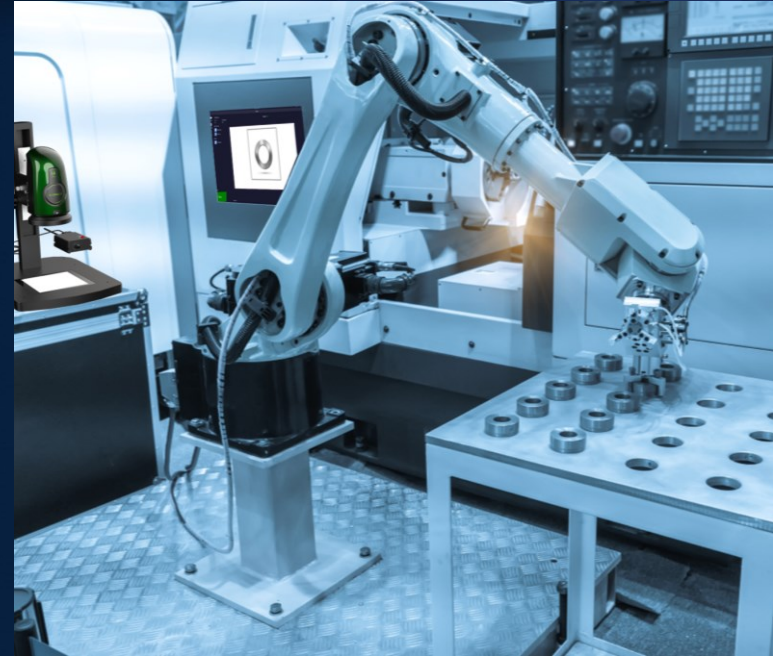
Deep learning brings accuracy and reproducibility to visual inspection, ensuring less false rejections, better detection rates, avoidance of product recalls and protection of company reputation.

Removes Subjectivity

Deep learning algorithms do not tire or lose concentration, enabling the Acumen AI to overcome the cognitive load experienced by operators.

Increases Efficiency

The Acumen AI can be trained to automatically detect an array of defects on multiple sample parts at one time and API integration with robotics and conveyor systems to operate on a 24-7 basis.



ACUMEN AI

Options for Product Demonstration

DEMO WITH PRE-TRAINED MODELS & PARTS

- 5 pre-trained models and demonstration kit parts
- Demo kit covers all model types
- Best to use a sample from the demo kit that is the closest fit to the customers product.

DEMO WITH CUSTOMER PARTS

- Request sample of customers parts
- Build a preliminary model with customer parts to demonstrate proof of concept



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