

Working together in manufacturing



Smarter technology solutions

Manufacturing is changing and competition is fierce. Factories are becoming smarter, supply chains are becoming shorter, and production is driven by speed to market and customisation. Epson technologies are designed to help you adapt to a smarter future at your own pace.

Our flexible solutions will support your evolution as you become more customer-focused through personalisation, more efficient through automation, and more agile through augmented reality.

Increase operational flexibility

Be more responsive by automating every stage of the manufacturing process. Automate the tasks that slow you down, take advantage of the latest innovations, and increase efficiency throughout your business functions.

- **Ensure repetitive tasks are more efficient** with Epson's industrial robotic arms, which can take on multiple tasks and be integrated into existing assembly lines
- **Speed up production and increase accuracy** with hands-free assistance from Epson's Moverio smart glasses – giving workers clear guidance on precise assembly
- **Get paper processes under control** with efficient document management from Epson's WorkForce Pro scanners and multifunction devices; route information to the right departments at the point of capture, and put insight at the centre of everything
- **Improve quality control** with the Epson Expression 12000XL scanner; scan swatches and samples to gain approvals at concept stage, cross-check the electronic PCB boards at component level and use high quality software tools to maintain QC standards³
- **Adapt to changing needs** by printing high-quality customised labels quickly and easily with Epson ColorWorks

Invest in the future

To reach the lean status that today's industry requires, you need to invest wisely. Cutting out business-wide inefficiencies and saving steps in the value chain can reduce time and costs, while improving quality.

- **Optimise your resources** with Epson's range of robotic arms, which provide a high output over a much smaller footprint, for maximum efficiency and reduced station times
- **Remotely support staff** with expert advice using Epson's Moverio smart glasses; share what workers see with the powerful HD camera and provide live feedback and advice to aid staff training
- **Expand your range** with Epson's SureColor and SureLab professional printers; offer customisable versions of fine art, cards and invitations on a wide range of media
- **Make your products stand out** with Epson's SurePress label press, which offers precise colour matching, accurate reproduction and lifelike shades for high-end, eye-catching product labels

Discover how much you could save on printing by switching to Epson

Use our total cost of ownership calculator at:
www.epson.eu/tco



“As a company, Epson is dedicated to facilitating a positive technological shift by developing solutions that will make workforces more efficient and more productive.”

Mr Usui, President, Seiko Epson Corporation

Expect smarter results

Putting people at the centre of everything leads to a more effective workplace and happier customers. Combine the flexibility, creativity and instinct of your workforce with the versatility and on-demand qualities of new technologies to drive engagement and results.

- **Advance your workforce** by using Epson's robotic arms to increase productivity and precision, with very low risk of error
- **See productivity in action** by speeding up your entire workflow using Epson WorkForce Pro RIPS A4 and A3 printers, which offer low running costs, fast print speeds, and minimal intervention
- **Work with absolute precision** using Epson's Moverio smart glasses; superimpose virtual guides and blueprints over the physical environment to aid worker education
- **Accelerate the training process** with Epson's interactive displays; encourage self-discovery by annotating over displayed content using finger-touch and dual pen interactivity



Start your evolution



Automate routine operations

Integrate Epson's reliable range of robotic arms into your existing assembly lines, working as 'cobots' alongside your skilled workers. Our industrial robots operate non-stop to increase load capacity, speed and precision while performing repetitive, manual or unsafe tasks.



Personalise labels, tags and inventory

Designed for high quality, customisable operation on a large scale, Epson ColorWorks label makers are the perfect tool to provide clearly visible labeling for inventory management, or to draw attention to important information such as use by dates or shipping information.



Simplify collaboration and training

Train new workers without having to type up notes, and collaborate with suppliers by communicating and sharing files in real-time – without leaving the workplace – using our interactive displays.

Discover short run inkjet label presses

Print high quality labels across a wide range of substrates and applications with our SurePress Label presses. Using AQ or UV inks, they are efficient and easy to set up and use, allowing users to expand their service offering.





Provide visual assistance

Make the most of augmented reality to shorten development cycles and increase accuracy. Epson's Moverio smart glasses superimpose images on the working environment, for hands-free guidance on planning, design, assembly, and maintenance operations.



Reduce printing costs

Our WorkForce Pro printer range helps you spend less money on consumables and less time on maintenance – whilst also reducing environmental impact by producing up to 99% less waste and using 96% less energy than comparable laser printers.¹



A range of print and textiles

Guarantee productivity for garment printing, be it high-volume sports apparel printing, stand-out quality fashion and home decor, or custom design T-shirts, the SureColor SC-F range can reliably provide unbeatable results.



Boost workflow processes

Digitise your documents to keep important plans secure. Minimise errors by scanning directly to Sharepoint which will overwrite old versions of documents - ensuring that all stakeholders are working to the latest set of plans.

Take steps towards smarter manufacturing



Boost efficiency with a mix of humans and robots

Get the best out of your skilled workers by introducing robots into your workforce. Epson's robotic arms work to complete time-consuming tasks autonomously on the assembly line. Extremely compact, versatile, manoeuvrable and scalable, they take care of non-skilled manual labour – leaving your skilled staff to focus on intelligent production and business growth.



Connect your workforce to information

Epson's Moverio smart glasses make carrying out complex tasks in demanding industrial environments quicker, easier and more intuitive. Hands-free visual and remote guidance make Moverio the perfect solution for testing, training, assembly, and maintenance operations.³



Eliminate delays and disruption

If you're not being efficient throughout your business functions, it's going to have an effect on your people, suppliers and customers. Epson's range of printing and scanning solutions are designed to eliminate delays, disruption, waste and inconvenience. You can expect seamless logistics, product identification, invoice automation and inventory management. And that ultimately means easier supplier relationships and enhanced customer service.³

70% of the European workforce say robots or cobots will take on more complex tasks that would take humans longer to master⁴

By 2020,
OEMs
will transform
into lean companies⁵

Discover more
manufacturing solutions

www.epson.eu/manufacturing

JMACS reduces downtime with Epson smart headset

In fast-paced and highly competitive manufacturing industries, the role of the supervisor in a factory is critical to prevent machine downtime from affecting the business. "When the machinery has trouble, or there are issues with the machinery producing defective products, the production line stops," says Mr. Masahiro Matsumoto at JMACS, who adds that unless the team can recover the situation quickly, production costs can spiral out of control.

For a company that creates products often on short runs and at very short notice, that's a huge problem. "When the skilled supervisors were at a remote location, we had issues with the recovery time of machinery," adds Mr. Matsumoto, who calculated that the total production downtime over a year was as much as 60 hours. This was costing JMACS about ¥15 million (£112,000/€132,000) per year.

Moverio allows remote monitoring

To solve the problem of skilled supervisors not always being on the factory floor to fix machinery – particularly during the nightshift – JMACS turned to the Moverio Pro BT-2000 industrial smart headset. The company's goal was to use this augmented reality device to create a remote monitoring service so that supervisors could see the machinery from afar, diagnose the issue, and give advice to colleagues on how to fix the problem. All without stepping foot on the factory floor. That's exactly what is now happening at JMACS.

Moverio offers hands-free working

The Moverio Pro BT-2000 has some unique characteristics that make it perfect for remote support systems in industrial environments. It's one of the few products of its type that offers binocular vision, which means accurate depth perception. Also, the wearer can overlay data onto reality, with the transparent

display allowing them to also see what's in front of them. As well as putting a hands-free instruction manual into the field of vision of an on-site engineer, a supervisor in a remote location can see exactly what is in front of that engineer.

Moverio is a superb teaching tool

It's also helping the company with training, with the Moverio Pro BT-2000's video output quickly revealing the differences between skilled and unskilled workers. Supervisors can see on a PC monitor exactly what that member of staff is looking at, which is proving a great teaching and assessment tool.

Moverio has industrial-grade features

When it comes to industrial environments, the BT-2000 has three major advantages over rival products. "Its high-resolution camera creates a really clear image, so much so that you can read written characters at work sites on its high brightness display," says Mr. Seiichi Urai at JMACS. He praises the Moverio Pro BT-2000's flip-up lenses, and the fact that they can be worn by wearers of regular glasses, while its durable touchpad controller, which can be operated while wearing gloves, also meets with his approval.

Moverio can create new revenue streams

Such has been the success of implementing the Moverio Pro BT-2000 across its own factory that JMACS is now planning to provide remote monitoring services to its customers' factories that handle JMACS' wiring and cabling. Not only will the JMACS factory become a model for this expansion of the business, but JMACS even expects to use a fleet of Moverio Pro BT-2000 headsets to launch a factory overseas, which should drastically cut down on expensive business trips.



Protect the planet's future

We understand the importance of supporting a greener planet for future generations, which is why we develop our print solutions to be as environmentally considerate as possible.

Meet your environmental targets with up to 99% less waste from the WorkForce Pro Replaceable Ink Pack System (RIPS); use up to 96% less energy with WorkForce Pro printers³; and double your print speed at half the power consumption with the WorkForce Enterprise series²

Save electricity and CO₂ with WorkForce Pro models, which use up to 96% less energy than lasers and laser copiers¹

Cut power consumption with eco-mode on your interactive display solutions and extend lamp life

Reduce your carbon footprint using scanners with no warm-up time, and reduce power usage with built-in ReadyScan technology

See what you could save with the WorkForce Pro Printers

Calculate the electricity and CO₂ savings a WorkForce Pro printer could achieve in your manufacturing environment with our calculator.

www.epson.eu/eco-saving



up to
92%

less CO₂
than lasers⁶



96%

less energy
than lasers¹



94%

less waste
than lasers¹



3.5x

faster
than lasers¹



Green technology
No ozone gas

¹ As tested by BLI, over two months to Feb 2017, against a selection of competing machines, as commissioned by Epson.

For more information visit www.epson.eu/inkjetsaving

² Typically 45-55ppm laser printers use 1500W, the WorkForce Enterprise has a low power consumption of 180W – 320W and prints up to 100ppm.

For more information visit www.epson.eu/pageyield

³ Additional software and hardware required

⁴ Exceed Your Vision: Epson research into the future opportunities and challenges of technology through the eyes of 17 global industry experts and over 7,000 Europeans in work

⁵ Smart machines and tools, Internet of Things, European Commission

⁶ To understand these savings and how they can benefit your business please visit www.epson.eu/maketheswitch

For further information please contact your local Epson office or visit www.epson-europe.com

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