

# IPE

*“It’s not enough for PPE to simply meet basic standards - it must be maintained and fit for purpose at all times to ensure worker safety”*

BSIF Viewpoint 54

INDUSTRIAL PLANT & EQUIPMENT

WWW.IPESEARCH.COM

JANUARY / FEBRUARY 2025



**CytroBox**

**Future starts now**

Unlock the potential of your factory with CytroBox. This medium-size hydraulic power unit delivers unmatched efficiency, intelligent connectivity, and a future-proof design.



[www.boschrexroth.com/cytrobox](http://www.boschrexroth.com/cytrobox)

**rexroth**  
A Bosch Company

## 16

### MANUFACTURING AND ENGINEERING TECHNOLOGY

Set to host an estimated 30,000 attendees, MACH 2026 will spotlight the latest technologies, industry partnerships, and new initiatives

## 20

### PLANT, PROCESS AND CONTROL

Digital calibration tools offer a faster, more accurate alternative to traditional manual calibration methods

## 30

### EFFICIENT MAINTENANCE

Digital spare parts could offer the solution to downtime challenges for industrial businesses

## 40

### ENERGY MANAGEMENT AND SUSTAINABILITY

The Clean Energy Systems Partner Alliance aims to boost onshoring manufacturing

## 42

### HANDLING AND STORING

Gardiner Brothers partnered with CKF for its new automated intralogistics system

## 48

### PEOPLE, SAFETY AND PREMISES

With firms facing a 31.7% turnover rate, employee retention is an important issue for UK manufacturing

**EXCELLENCE IN INDUSTRIAL EFFICIENCY**

# Reducing DOWNTIME AND COSTS *with digital spare parts*

Downtime continues to be a costly challenge for industrial businesses, while traditional spare parts management only compounds the issue, often leading to overstocked inventories or leaving firms facing lengthy lead times. But digital spare parts could offer the solution

**D**OWNTIME REMAINS a critical issue for many industrial businesses. Whether for maintenance engineers or industrial SMEs, this single word represents a range of challenges, including lost productivity, eroded customer satisfaction, and a substantial financial impact.

Yet, in many industries, downtime is exacerbated by a fundamental issue: spare parts management.

Traditional approaches to spare parts inventory can result in overstocked warehouses and inflated costs. Yet, paradoxically, they still fail to address the critical moments when a component is unavailable, causing operations to grind to a halt.

Enter AddParts, whose innovative digital spare parts solution promises to transform how businesses manage their inventories while significantly reducing downtime and operational costs.

"By creating a digital storeroom for your critical components we can provide instant access to your inventory 24/7," explained AddParts director Tom Fripp.

"When you need a spare part, we can quickly manufacture it on-demand, eliminating the hassle of lengthy lead times and reducing the risks when

unexpected downtime happens without needing to stock-up on expensive spare parts."

## THE HIGH COST OF DOWNTIME

Studies show that over 50% of downtime is caused by part failures, with 55% attributable to parts availability and ageing equipment. In unplanned downtime scenarios, the costs can be ten times higher than planned outages.

Clifford Mann, head of technical operations and engineering at Ethypharm UK, underscores the severity of this issue: "As machines get older, the issue of parts availability becomes increasingly challenging," he notes. "It's impractical to stock every part required for every machine. But if I don't have a part available, I'm faced with lead times of 12 to 16 weeks, especially for those components sourced from Europe."

Brexit, COVID-19, and global supply chain disruptions have compounded these challenges, with many engineers reporting significant price increases for certain components, together with longer lead times.

## REVOLUTIONISING SPARE PARTS MANAGEMENT

AddParts offers a forward-thinking alternative to traditional spare parts inventory management. Through its digital storeroom, businesses gain

*"Studies show that over 50% of downtime is caused by part failures, with 55% attributable to parts availability and ageing equipment"*



*“As machines get older, the issue of parts availability becomes increasingly challenging”*

instant, on-demand access to critical components, eliminating the need for overstocking and reducing reliance on unpredictable supply chains.

#### HOW IT WORKS

- 1 Data Collection:** AddParts begins by visiting client sites during planned maintenance shutdowns, using advanced 3D scanning technology to create high-resolution digital duplicates of critical components.
- 2 Comprehensive Data Logging:** Each part is logged with essential details, including materials, cleaning protocols, operational context, and maintenance requirements. This ensures that components are reproduced with precision and consistency.
- 3 CAD Creation and Validation:** AddParts converts the scanned data into production-ready designs. The components undergo rigorous validation to ensure they meet or exceed the performance of the original.

**4 24/7 Digital Access:** Businesses can access their digital storeroom via desktop or mobile, enabling seamless ordering of validated components whenever needed.

#### TRANSFORMATIVE BENEFITS

Adopting a digital spare parts solution like AddParts delivers measurable benefits:

**Optimised Inventory:** By reducing excess stock, businesses free up valuable storage space and working capital.

**Accelerated Lead Times:** Manufacturing parts on demand drastically reduces wait times, ensuring faster recovery from unplanned downtime.

**Extended Equipment Life:** With access to components for obsolete machines, companies can prolong the operational life of ageing assets.

**Improved Reliability:** Ensuring critical components are always available minimizes the risk of unplanned outages and enhances production stability.

**Enhanced ROI:** AddParts' built-in ROI calculator quantifies the cost of downtime against the price of components, providing a clear justification for investment.

"The cost of a part is often a fraction of the overall downtime cost," Fripp continued. "Each page in the AddParts digital storeroom has a section at the bottom which allows you to calculate your ROI for each part.

"This helps clients see the bigger picture and understand how minimising downtime can have a profound impact on profitability."

#### HARNESSING TECHNOLOGY TO DRIVE QUALITY AND EFFICIENCY

AddParts continues to invest in the innovative technology needed to ensure that digital spare parts meet the demands of some of the most highly regulated industries in the UK.

The team at AddParts have been working with AMT's Post Pro vapour



smoothing technology for the last 18 months and after proving the value of this cutting edge technology felt the time was right to bring the smoothing process in-house giving greater access to higher quality parts for AddParts customers.

#### ENSURING ENHANCED SURFACE FINISH

The smoothing process ensures that key parts supplied by AddParts have a smoother surface finish with reduced friction and surface roughness (by up to 420%), a 3-x improvement in the mechanical properties and a 100% sealed surface. The upshot of this is that AddParts can offer parts with extended part lifecycle and tensile strength, significantly less liquid absorption, parts which are easier to clean and maintain high levels of hygiene and which resist scratching and breakage. Not only that but the materials and the process meet the same FDA approvals as AddParts' standard materials when it comes to food contact meaning that the service can add significantly enhanced value in key markets which include food and drink, pharmaceutical and nutritional supplement manufacturing.

#### REVOLUTIONISING FOOD CONTACT SAFETY

The upgraded parts show similar levels of chemical resistance to Stainless Steel but are significantly more accessible through AddParts Professional digital storerooms. The solvent used in the process has been a key development as its fully green, FDA-approved chemistry is both biocompatible and biodegradable, enabling parts to be made that are food contact safe which is critical to many AddParts Professional

***"By reducing excess stock, businesses free up valuable storage space and working capital"***

customers. The team at AddParts have also successfully transferred their knowledge of food contact safe blue dyeing into the process too, meaning that parts can be food safe, easy to clean, full sealed and an easy to identify blue colour.

"Our AddParts customers rely on us to produce high quality parts with a quick turnaround to enable them to keep their production lines running smoothly and reduce their downtime costs," Fripp concluded.

"We have worked closely with the team at AMT as we validated the Post Pro SFX into our quality management system to meet the extremely high standards required by our food and pharma manufacturing customers." •

If you'd like to hear Tom discussing how on-demand digital spare parts are reshaping inventory management in further detail, why not check out our webinar on the subject, available by scanning the **QR code** or visiting: [tinyurl.com/42zsxz8x](http://tinyurl.com/42zsxz8x)



**For more information:**  
[addparts.co.uk](http://addparts.co.uk)  
 Tel: 0114 269 3869