

*Unlocking automation with data archiving in zenon*

# Pressure Design saves engineering time, money and paper with zenon

Traceability, data logging and graphical displays are in high demand in the modern hydraulics environment. As customers' requirements become more complex, the machine builder and hydraulic control experts at Pressure Design focus on increasing their automated solutions offering, with the support of COPA-DATA's HMI/SCADA software, zenon.



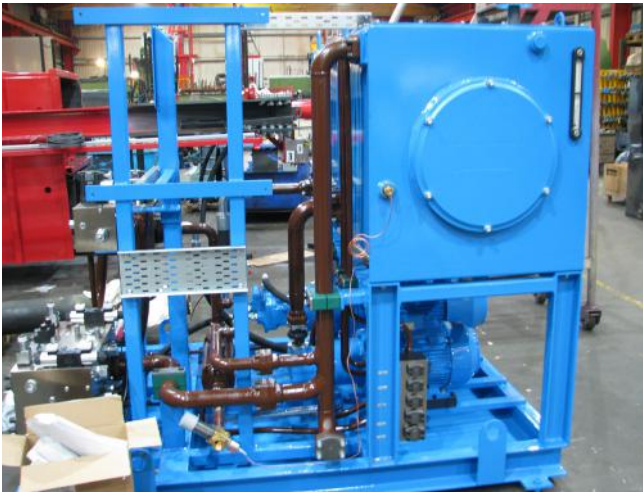
Pressure Design offer a bespoke, fully inclusive service, satisfying all fluid power requirements, from the factory floor to the HMI. The company's head office in Goldthorpe has over 20,000 square feet of workshop and office space and hosts a team of qualified engineers boasting over 100 years of combined experience within the fluid power industry.

Established in 1974, the company serves the hydraulic requirements of a wide range of primary and secondary manufacturing facilities. As manufacturers have begun to

adjust in order to meet today's highly automated, intelligent and connected landscape, the requirements of hydraulic projects are changing.

## REACHING NEW HEIGHTS FOR AEROSPACE

Pressure Design's initial full HMI/SCADA project was undertaken on behalf of a customer who supplies fundamental parts to the aerospace industry.



Bespoke hydraulics machine made to fit customers spec.

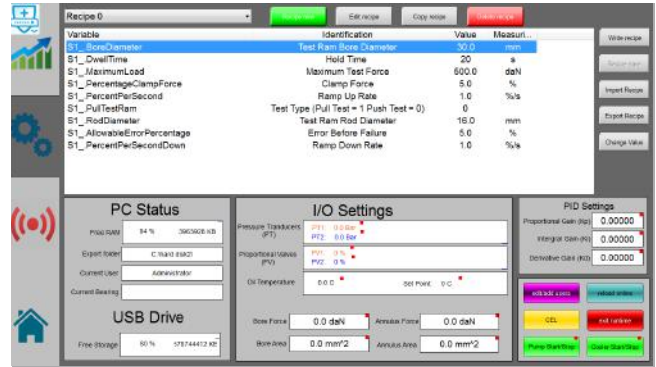
In the highly regulated and data-heavy aerospace industry, it's a requirement that parts manufactured for use in aerospace applications have an accurate production data trail and an easily accessible data archive in case of product failure. Previously, the customer used paper-based audit trails for production data, which required the space of an entire floor of the factory. With the help of zenon, Pressure Design were able to implement a fully-automated data recording and visualization solution for some of the company's ring mill, roller and press.

**COMPATIBLE AND ADAPTABLE**

Pressure Design were originally commissioned to fix a small fault on the ring mill for the aerospace manufacturer. As the ring mill had no previous data management system, the hydraulics specialist suggested adding a computer to the network to record and store production data in a more efficient way.

It soon became evident that the customer needed a company-wide solution to its data handling issues and, although HMI/SCADA software was the obvious answer, finding a fully flexible software solution compatible with the company's infrastructure and varying models of PLCs (Beckhoff, Mitsubishi and Siemens) was no simple task.

Formerly, the HMI software or basic controls in place varied as the Original Equipment Manufacturers (OEMs) often provided a basic proprietary solution, with limited functionality. zenon has more than 300 native drivers and communication protocols and thus, its hardware independency meant the solution is fully compatible with the existing PLCs on site.



Screenshot of a customer project displaying zenon's design capabilities.

Pressure Design set out to provide a simple way to accurately record data and to keep this data securely on file for upwards of ten years. Adding value and functionality to existing and new infrastructure, zenon played a crucial role in providing this complete solution to the customer.

Since the initial installation, the Hydraulic Expert has built a further two ring mills for its customer, both of which are now part of the same network established initially.

**BESPOKE FEATURES**

Pressure Design have found zenon's advanced visualization capabilities particularly useful when getting hydraulic projects commissioned, especially when it comes to off-site fault finding. zenon provides the complete status of a particular piece of equipment and can pinpoint and identify prospective problems that may occur.

zenon's chronological events list (CEL) has become more than just a safety feature for Pressure Design. Generally, the CEL allows operators to log on and see who has done what, when and where, providing a reliable trail of investigation, should a problem be encountered on the factory floor. For testing, this feature not only highlights the cause of the problem, but also enables the end customers to find out why a problem has occurred and rectify the issue more quickly and efficiently.

The rich features and skins provided by zenon have been very useful when proposing projects to end customers, who were looking for varying functions from their HMI/SCADA

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JAMES PENTY, ENGINEER AT PRESSURE DESIGN

software. The inclusive ready-made templates can be easily adapted to perfectly fit the customer's needs. For example, some prefer a scrollable list with a basic delete function, while others require templates that are more complex. The high level of customization in zenon makes these preferences easily achievable, and has allowed Pressure Design to create several, ready-to-use templates each with varying levels of complexity depending on screen size.

### SAVING MONEY, SAVING TIME

The benefits of zenon do not end with the end customer. Since collaborating with COPA-DATA, Pressure Design has reaped the rewards of a more knowledgeable workforce. Prior to working with zenon, James Penty, a Pressure Design Engineer, had limited experience in automation, with zenon this is not a problem.

“If anything, my confidence with zenon is a testament to its usability,” explained Penty, who attended a zenon training course and has since received a personal certification of completion. “The beauty of zenon is that even with limited programming experience and just three days of basic zenon training, I have been able to complete full-scale projects confidently.

“I've been impressed with the simple format of zenon, particularly the ability to view archives, display graphs and whole trends, all by using tick boxes. zenon installation has proved to be a quick and simple procedure, ultimately, saving time for ourselves and money for our customers.”

### WHY CHOOSE ZENON?

- ▶ Ergonomic and intuitive user interface
- ▶ Hardware independency
- ▶ Library of templates
- ▶ Extended trend reporting functionalities
- ▶ Clear visualisation for user interaction
- ▶ Simple usability and design
- ▶ Trending to test product limits
- ▶ Secure historian for traceability