



# Teconnex

TOOLING & AUTOMATION

UK BASED  
**TOOLING & AUTOMATION**  
SPECIALISTS





Teconnex

TOOLING & AUTOMATION

# Contents

Our Capabilities.....	04 - 05
Design: Concept to assembly .....	06 - 07
Tooling .....	08 - 09
Automation .....	10 - 11
Meet the Team .....	12-13
In House.....	14
Quality Assurance and Testing.....	15
What we do: Our process .....	16 - 17
Contact Us .....	18 - 19

# TOOLING & AUTOMATION

## OUR CAPABILITIES

The UK based team in our Tooling & Automation department is built up of qualified engineers and highly skilled toolmakers.

Our team help forge our processes and manufacturing capabilities to bring you machinery and tools to provide solutions.



**CONTROL SYSTEM DESIGN  
& MANUFACTURE**



**BESPOKE PROCESS  
AUTOMATION SOLUTIONS**



**AUTOMATED ROLLING  
MACHINES**



**AUTOMATION INTEGRATION**



**SEMI AUTOMATIC SOLUTIONS**



**CONCEPT AND DETAIL DESIGN**



**PROGRESSIVE  
FORMING**



**TOOLING JIGS, FIXTURES  
AND LOADERS**

# CORE AREAS OF EXPERTISE

- **Metal manipulation** – Forming, product rolling systems, pressing solutions, integrated welding cells, capping process and control
- **Material handling and transfer** – conveyor feed systems, bowl fed systems, product orientation in process
- **Hydraulic control** for product movement, forming, positioning, lifting, pushing
- **Pneumatic control** for product movement, gripping, transfer, safety, positioning
- **Electrical control systems** – PLC control, HMI, Control upgrades, Safety and interlocking, Servo drives and rotation
- Guarding systems and equipment access
- **Sensing or vision packages** orientation, dimensional confirmation, product movement or transfer
- **Stage tooling** – Blank, Crop, Form, Pierce,
- Progressive die press tooling
- Full Tooling Design service
- Ability to work to customer tooling drawings
- Tooling repair and remanufacture
- Automatic and semi-automatic systems

## DESIGN

# CONCEPT TO ASSEMBLY

Teconnex employs a core team of skilled tooling and bespoke machine solution designers.

To ensure the design meets your requirements, we work in close collaboration with our customers to discuss in detail your specifications for bespoke machinery or tooling.

Teconnex has 50 years of experience designing, manufacturing and repairing tooling for our own in-house needs.

The tooling team can expertly manufacture to a customer drawing or can design around specific component dimensions.

With regards to your machinery solutions, we aim to make every machine as user friendly as possible and ensure it meets all regulatory requirements.

Through consultation with the customer, we assess the potential area of the machinery, required production amount and specify orientations, as well as taking into account your budget for the project.

Once we have taken these into account, our designers create a drawing of your machine before developing the concept into a 3D model.

We can take a process idea straight to concept design very quickly, allowing our customers to visualise and further discuss a solution at the very early stages of a project.





“The whole team work tirelessly to come up with innovative design solutions tailored specifically to our customers needs. Our experience as being both an end user and a manufacturer, is a key factor in choosing Teconnex for all your tooling and automation needs.”

Steve Pollard, Director of Teconnex

## TOOLING

# MADE WITH PRECISION

The art of tool making is an increasingly rare commodity, but we consider it a valuable asset to our business.

We combine the latest design and manufacturing techniques with a team of highly skilled toolmakers and engineers.

Our experience is based around press tools, offering single stage tooling solutions (blank, crop, form, and pierce) to fully progressive die press tooling for high volume applications.

We have an impressive portfolio of forming all austenitic and martensitic stainless steels and other commonly pressed metallics.

When manufacturing the tool, we carry our full-dimensional evaluation, so all dimensions and tolerances are met.





## CORE AREAS OF EXPERTISE:

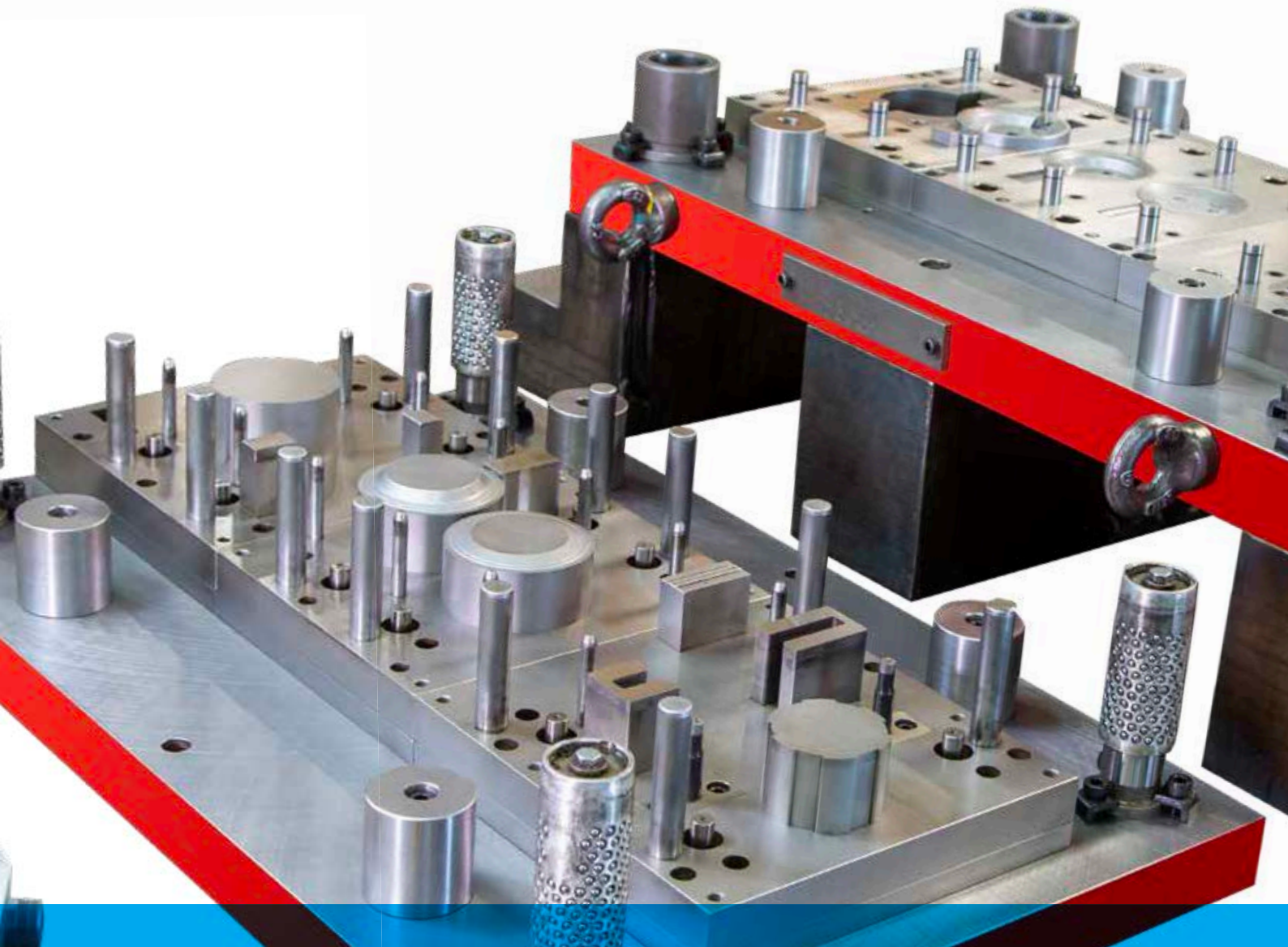
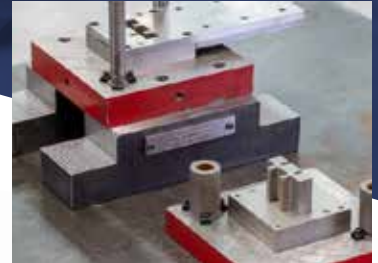
- Ability to work to customer tooling drawings
- Tooling repair and remanufacture
- Stage tooling – Blank, Crop, Form, Pierce
- Progressive die press tooling
- Full Tooling Design service

On completion, we can provide product trials while the tool is still on-site at our purpose-built facility.

Historically, we have manufactured tooling components for major blue-chip companies such as Ford, Airbus, DAF Trucks and McLaren.

Our toolmakers also have the ability to modify or repair your existing tooling equipment.

All manufacturing is completed within the guidelines of the ISO 9000 quality system.



**AUTOMATION**

# BESPOKE MACHINERY SOLUTIONS

Our bespoke machinery team can manufacture both semi and fully automatic machinery.

Before we design the new machine, we consult with our customers to understand their processes and automation challenges.

Whether it is an issue with handling, manipulating, forming, cropping or shaping, we look at their requirements and develop a concept design to fit into their overall process.

Thanks to our custom-built area within our 90,000 sq ft facility, our dedicated team can design and create machinery varying in size and weight.





In many cases, designing solutions to speed up existing processes drastically improves product quality and reduces manufacturing costs.

We can provide Automation for a wide range of different industry sectors and applications with each machine put through rigorous testing, prior to customer acceptance.

Many of our current machines create component parts for ABB, Daimler, Kia Motor Company, Hyundai and Cummins.

All the machinery we produce also comes with an operation and maintenance manual to aid you both now and in the future.

On-site training can be conducted at our facility prior to installation or we can organise for our team to train your staff on-site.

Our equipment is designed and manufactured in line with all relevant manufacturing standards and legislation.

## CORE AREAS OF EXPERTISE:

- Metal manipulation
- Material handling and transfer
- Hydraulic control
- Pneumatic control
- Electrical control systems
- Guarding systems
- Sensing or vision packages

# MEET THE TEAM

## ABOUT US

After several years of manufacturing our own machinery to establish our global sites, we decided to utilise the engineering skillset within Teconnex UK to benefit our customers.

Our engineering and manufacturing teams came together to bring knowledge of processes to develop new ways to speed up on material handling, improving quality and delivering higher throughput.

The experience we have gained over time has enabled us to offer semi-automatic and fully automatic bespoke machinery and tooling to our customer base.

While working to ISO 14001, IATF 16949 and AS 9001 standards, we have a dedicated team using a custom-built area dedicated to tooling manufacturing and bespoke machinery projects within our 90,000 sq ft.

### MANUFACTURING TEAM...



#### **STEVE POLLARD** **DIRECTOR**

Steve has vast experience in manufacturing environments having spent 42 years in the industry. He joined Teconnex Ltd in 2008 as Operations Director and has been a key decision-maker in the growth and Global expansion of the Teconnex's clamp technologies.

Steve has dedicated much of his time focusing on establishing and ongoing development of our overseas sites. Today, Steve is responsible for driving the growth of the Teconnex Product Diversification Programme, overseeing all sectors of the business away from clamping products.



#### **DEBBIE BROADBENT** **MANAGER**

Debbie has had a long career with Teconnex (then Smith & Johnson) having started work with the company 29 years ago in 1991 as an apprentice toolmaker and mechanical engineer.

Her knowledge and dedication to the business has seen her gain several promotions within the Tooling department and she now heads up the manufacturing team as Tooling & Automation Manager.



## DESIGN AND DEVELOPMENT TEAM...



### **RICKY NOON** **OPERATIONS SUPERVISOR**

As a member of our team for over 18 years, Ricky is in charge of overseeing the manufacturing team for Automation machinery and Tooling. Once the concept design has been agreed, Ricky organises the team on the shop floor and oversees the manufacturing and build.



### **SIMON HAYLOR** **DESIGN ENGINEER**

From your specification brief and an initial discussion, Simon creates a concept design for your Automation machinery or Tooling that will later be broken down into component parts for the manufacturing team. He will be on hand throughout the project to ensure the machinery meets the client's requirements.



### **CHRIS PHIMISTER** **ELECTRICAL DESIGNER**

Working in close collaboration with our mechanical design engineer, Chris develops the control system, hardware and software to ensure the machine operates as intended. He is also in charge of our remote source diagnostics which helps detect any issues with WIFI-connected machinery.



## IN-HOUSE BUILT UNDER ONE ROOF



Our UK facility handles all our bespoke machinery and tooling solutions from start to finish.

The designs we create are assembled and manufactured in-house allowing us to resolve necessary changes, and iron out any problems that arise prior to delivery.

By having all areas of the process in-house, we eliminate any delays most machinery manufacturers have with third-party suppliers and can completely tailor the machinery to your specifications.

We are proud to supply UK businesses from a UK based premises. Contact a member of our team to learn about Automation and Tooling on a global scale.



## QUALITY ASSURANCE AND TESTING

# ENSURING OUR STANDARDS

Our team pride ourselves in the quality of the machines we produce, which is why we have an in-house testing facility to ensure every machine meets our standards.

Every machine and tool we produce is put through extensive testing before it leaves our facility.

At our facility we are capable of running test batches off the new tool to confirm parts meet the specification.

We are also happy to invite your operators to the facility for training and to see the machine in action.

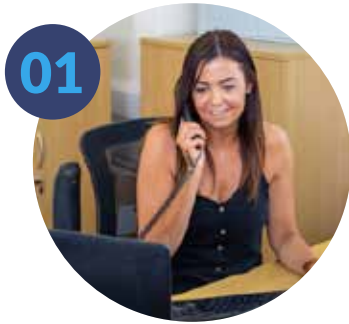
With every machine we produce, you can rest assured that it meets all requirements and regulations, including those specific to your industry.

### RELEVANT STANDARDS WE WORK TO:

- CE Marking
- 2006/42/EC Machinery Equipment directive
- BS EN ISO 14120:2015 Safety of machinery. Guards
- BS EN ISO 13849-1:2015 - TC Safety of machinery  
Safety-related parts of control systems
- BS EN ISO 4413:2010 Hydraulic fluid power
- BS EN ISO 4414:2010 Pneumatic fluid power
- BS EN ISO 12100:2010 Safety of machinery  
General principles for design
- BS EN ISO 14119:2013 Safety of machinery  
Interlocking devices associated with guards
- BS EN 60204-1:2018 Safety of machinery  
Electrical equipment of machines
- BS 7671:2018 Requirements for Electrical  
Installations
- Low Voltage Directive 2014/35/EU
- IET Wiring Regulations

# WHAT WE DO

## OUR PROCESS



01

### FIRST CONTACT

Your first point of contact is with our sales team. They will listen to your automation or tooling requirements and guide you through what specifications we need to get started. This would also include the planned positioning of the machine at your premises.



02

### DESIGN CONCEPT

Our design team will be briefed on your requirements and specifications and come up with a design concept. They may also speak to you during this process to check over details or run an improved solution. You will then get to see the machine in the form of a 3D model.



03

### MANUFACTURING

The design team have now had the model approved and passed the details onto the team on the shop floor. Here is where materials are bought and manufactured to fit the machine's specifications.



04

### ASSEMBLY

Once all the components have been created, we now put your new machinery together and ensure the quality of material meets our high standards. Checks would also be carried out on the user-friendly software and other electrical-based parts of the machine.



05

### IN-HOUSE TESTING AND CUSTOMER SIGN OFF

Here is when your machine is up and running for the very first time. We will now carry out rigorous testing, running several batches of your product to ensure they meet your requirements.



06

### ON-SITE INSTALLATION AND COMMISSIONING

Once the machine passes our testing process, we then box it up, ready to be delivered for installation. Our experienced installation team will safely and securely set up the machine on your premises.



07

### TRAINING

On every bespoke machine we supply, we offer a training program designed specifically for that equipment. We can train people at various levels, from an administrator looking to set up programs to the operators who will be working with it daily. Customers are also provided with a comprehensive operation and maintenance manual.



## SERVICING & MAINTENANCE

We like to be with you for the long-term, which is why we offer additional services to carry out regular servicing and maintenance of your machinery.

You are never on your own with a dedicated UK team being just a phone call away. Our dedicated team of technicians can react at short notice to any issues that may arise.

Our machinery is supplied with a full 12 month warranty.

We can also add remote diagnostics on any WIFI connected machinery which can identify an issue without the need for an engineer to come out and assess it beforehand.

Remote diagnostics allow issues to be identified before an engineer visits helping to pinpoint the specific problem prior to our attending site (if necessary) therefore saving both time and money.

### Services we provide:

- Service contracts/breakdown response
- Spare parts lists
- Remote support
- Tooling Repair service



“We are committed to helping our customers long-term with all completed machinery projects. Our team is always on hand to help.”

Chris Phimister, Electrical Designer

**INTERESTED?**

# GET IN TOUCH

If you require a tooling or machinery solution, our sales team of Andrew and Nigel have years of experience in the sector and would be more than happy to have a consultation with you.

They can advise you on the best course of action to kick start the process to your solution being found.

**NIGEL HUDSON**  
**SALES**

**T:** 01663 898259  
**E:** [nigel.hudson@teconnex.com](mailto:nigel.hudson@teconnex.com)  
**www.teconnex.com**

**ANDREW LEATT**  
**SALES**

**T:** 01535 613985  
**E:** [andrew.leatt@teconnex.com](mailto:andrew.leatt@teconnex.com)  
**www.teconnex.com**

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