

YOUR A to Z GUIDE TO STUDWELDING



COURTESY OF TAYLOR STUDWELDING SYSTEMS LIMITED

FROM THE MARKET LEADERS YOUR GUIDE TO TAYLOR MADE STUDWELDING

Taylor Studwelding Systems Limited with over 35 years in the industry has, by blending professional experience with extensive resources, built up an enviable reputation exporting products worldwide. Simultaneously Taylor Studwelding Systems Limited has developed its position as the UK's leading supplier, designer and manufacturer of studwelding equipment and studs from handheld, lightweight units to fully automated CNC and robotic studwelding systems.

At our purpose built computerised office and factory complex our service is fast and efficient and, with over 10,000,000 items constantly in stock, no order is too complex to fulfil.

“ WHAT IS STUDWELDING? ”

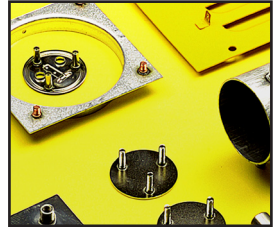
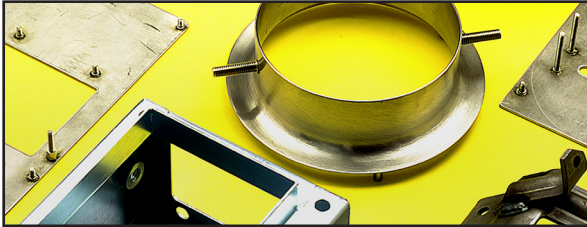
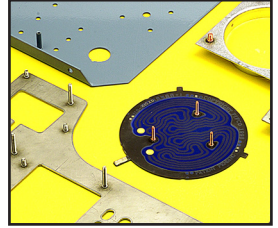
A method of applying a single side fastening to a metal component ”



A

APPLICATIONS

Taylor Studwelding Systems Limited offers you complete versatility, so whatever your needs they can be simply and effectively completed. No need for nuts and bolts, rivets, resistance welding, silver soldering and brazing. Taylor Studwelding Systems Limited has the answer and solution to every fixing job.



ACCURACY

Automated CNC welding of studs is the most accurate and consistent way of fastening studs to metal.



ACCESSORIES

There are a number of accessories available to suit particular applications or for when accessibility or proximity is an issue. Check out photographs in this leaflet for various examples.



B

BENEFITS

No drilling, punching, thread cutting, bonding, riveting is required to fix the fastening element. No re-working of the non-welded side of the component is required, even on painted, enamelled, electro-plated or plastic coated surfaces. Welds are liquid tight gas tight and the coating is not disturbed.

BEST PROCESS

It is important to select the best process for your application and the team at Taylor Studwelding Systems Ltd can advise you on this.

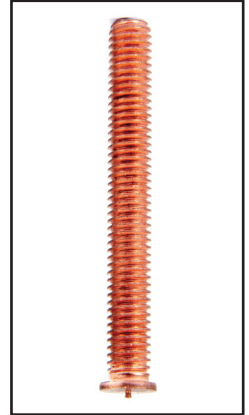
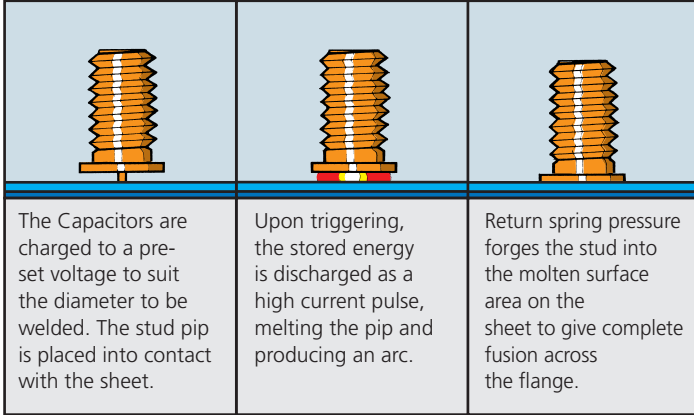
PROCESS	STUD/MATERIAL/POWER	ADVANTAGES
Capacitor Discharge "CD" Designed specifically for thin gauge materials where reverse marking must be minimal. Sheet surface should be clean and flat. Stud has a weld pip.	Stud Diameter 1mm – M10	Low cost equipment, low cost studs, fast to load and weld, easy to jig and automate, small light equipment, no ferrules or shrouding gas required, good weld results with aluminium or brass in addition to mild and stainless steel. Weld is clean and requires no finishing.
	Material Thickness 0.7mm & above	
	Power Requirements Single Phase 240/110 Volt	
Drawn Arc "DA" Very strong penetrative welds are achieved with this process. Ferrules required to contain and shape molten metal. Weld end of stud is fluxed.	Stud Diameter 3mm to 30mm	Burns through parent material laminations, tolerates surface curvature and imperfections e.g. light rust, scale, grease and some coatings. Gives neat and controlled weld fillet. The only method of Studwelding large diameters. This process also lends itself to multi-gun applications.
	Material Thickness 2mm & above	
	Power Requirements Three Phase 415 Volt	
Short Cycle "SC" More penetrative welds than "CD" and is suitable for hot rolled/coated materials.	Stud Diameter M3 to M8	This process is more tolerant than CD of uneven or dirty surfaces. Can be easily automated and can utilise low cost "CD" studs. Ferrules are not required however shrouding gas improves weld spatter.
	Material Thickness 1.5mm & above	
	Power Requirements Three Phase 415 Volt	



C

CAPACITOR DISCHARGE STUDWELDING

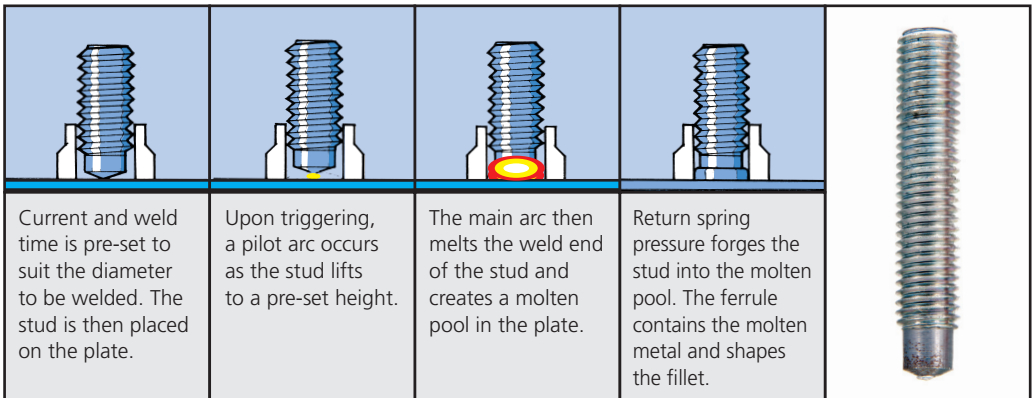
Taylor CNC Studwelding equipment can be designed to meet specific turn key production requirements. Anything up to 5 axes is available.



COST SAVINGS = Studwelding.

D

DRAWN ARC STUDWELDING



DESIGN IMPROVEMENTS

Can be made by invisible fixing.

E

EQUIPMENT RANGE

Our equipment ranges from small handheld units through to fully automated CNC systems designed to meet specific production requirements.



EXPERIENCE

Taylor Studwelding systems have over 35 years experience in the industry.

EASY TO USE

All machines are simple to operate.

**F**

FAST & ACCURATE

The studwelding process is completed in a matter of milliseconds.

G

GAUGE

Thinner material can be used when studwelding, leading to significant cost saving.



GLOBAL

We have a worldwide network of distributors and agents.

H

HIRE

If cost is an issue or if you only have a small job to complete, why not **“Try before you buy”** and hire a Taylor Studwelding machine now!

For equipment hire, sales and repair, call **+44 (0)1924 452 123** or email sales@taylor-studwelding.com



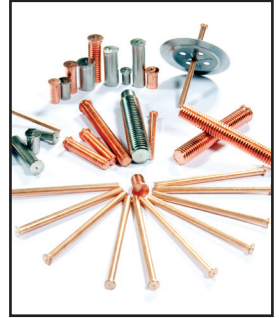
I

INSULATION

Fixing insulation weather thermal, acoustic or fire proofing all can be achieved using Studwelding.

INVISIBLE

Studwelding is an invisible method of making a fastening from the non weld side.

**J**

JOINING

At speed using a CNC Multi Headed Systems can increase your production and lower your costs.



K

KNOWLEDGE

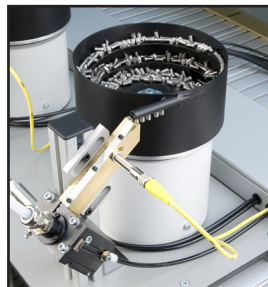
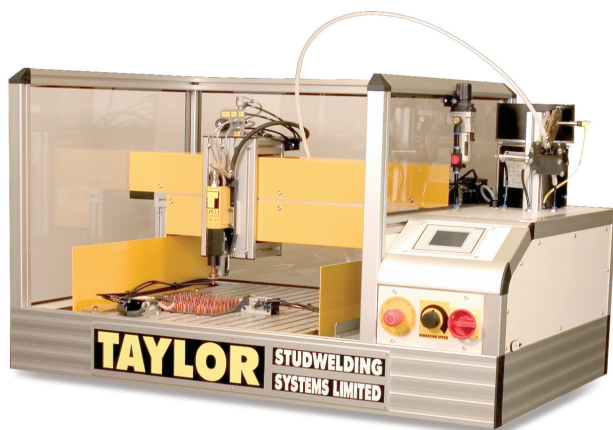
If you have a new application in mind or you need assistance with your current manufacturing process, ask the experts at Taylor Studwelding Systems Limited for advice and unrivalled knowledge.

**L**

LABOUR SAVING

Reduction in labour is a direct cost saving from using Studwelding in your manufacturing process.

REDUCTION IN LABOUR TIME = cost savings.

**M**

MATERIALS

All fasteners are stocked in Mild Steel, Stainless Steel, Aluminium Alloy and Brass to match whatever weldable material you are working with.

MADE IN THE UK

All of our equipments are made in our factory in the United Kingdom.

N

NO NONSENSE

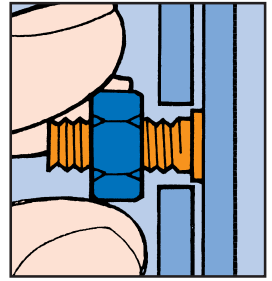
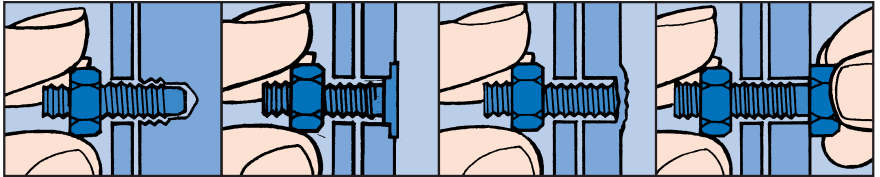
Ordering with Taylor Studwelding Systems Limited, from start to finish we give the customer exactly what they have ordered and when they want it!



O

ONE SIDE PROCESS

Fast attachment. No reverse marking. The welded joint is stronger than the parent material or the stud. Access is only required from one side. No holes hence no leaking or weakening of the sheet. Tamperproof. Pre-coated or painted materials can be welded. The equipment is portable and easily jugged. In fact, Studwelding overcomes all of the disadvantages of the processes below.

**DRILLING & TAPPING****INSERTS****BACK WELDING****THROUGH BOLTING**

OFFICIALLY

The UK's only designer and manufacturer of Studwelding equipment.

P

PROFIT

Studwelding is a cost effective method of making a fastening.

PRODUCTIVITY

Can be substantially increased using Studwelding particularly when automated.

**Q**

QUALITY

Quality of the stud is important when purchasing and where they will be used.

These are manufactured to the highest standards.



QUICK

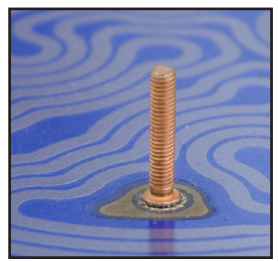
Studwelding is quick, a typical weld can take any where from 2 milliseconds in the case of CD and up to 3 seconds in the case of DA (actual weld process time) and low in cost per fix (when compared to other methods of fixing e.g. Drilling and Tapping).



R

RELIABILITY

Studwelding is a reliable method of making a strong fastening.

**S**

SHORT CYCLE STUDWELDING

This process is the same as for Drawn Arc "DA" but operates over a much shorter time period—up to 100 milliseconds. Ceramic arc shields (ferrules) are not required with this process but shrouding with gas can improve weld fillet formation especially when welding stainless steel studs. Capacitor Discharge studs may be used.

STUDS

It is important to use good quality studs and with over 10 million always held in stock, Taylor Studwelding Systems Limited can always deliver.

SUCCESS

Our equipment plus our studs = SUCCESS.

**T**

TAYLOR STUDWELDING SYSTEMS LIMITED

The UK's only designer and manufacturer of studwelding equipment and studs. Within our range of British built equipment we will have the system to suit your requirements.

TURNKEY SOLUTIONS

We can design and manufacture a turnkey system to meet your specific production requirements.

TRAINING

We train your staff to succeed.

U

UK MANUFACTURER

Taylor Studwelding Systems Limited is the sole UK designer and manufacturer of Studwelding equipment.

**V**

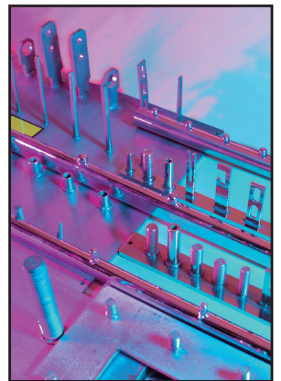
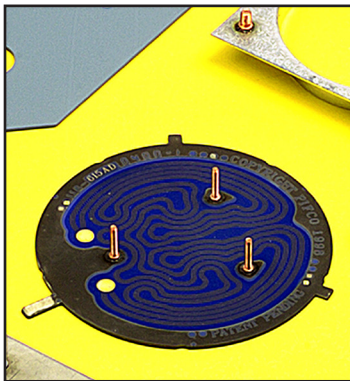
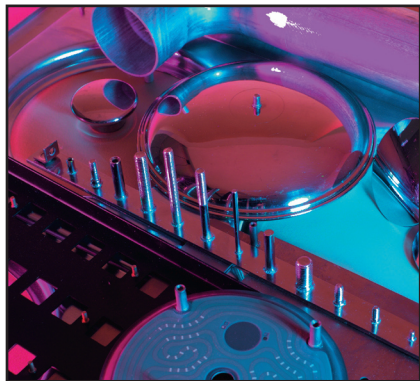
VALUE ADDED

The process is much faster than conventional fixings, therefore giving added value to your production cost.

**W**

WELDING

Studwelding is clean, simple to operate and gives the best results time after time on any component you need fastening to.



X

'X'PERTS

Taylor Studwelding Systems Limited are experts in their field. With over 100 years experience within the company, from designers to the sales team.

X-Y

CNC control systems can be designed to meet specific production requirement.

Y

YELLOW

Look for the yellow livery of Taylor Studwelding Systems Limited machines!



Z

ZOOM

We pride ourselves in fast delivery, just ask one of the team for a quote and we will supply it there and then, or something more complicated we will give you a cost inside the working day/week.

CONTACT US

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