

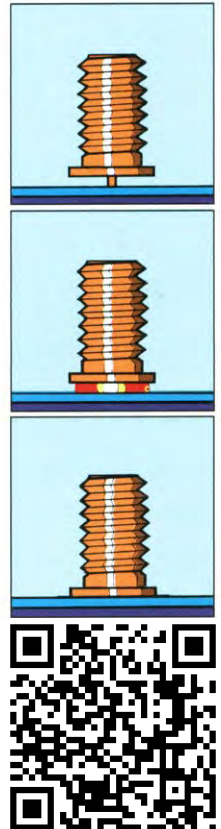
# TAYLOR STUDWELDING SYSTEMS LIMITED



## OPERATING GUIDE

FOR

## CD STUDWELDING PISTOLS TYPE C2 & LG2



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# GENERAL INFORMATION

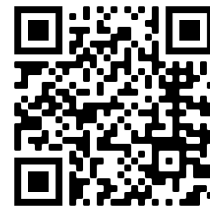
## MANUFACTURERS DETAILS

TAYLOR STUDWELDING SYSTEMS LIMITED  
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## PURPOSE AND CONTENT OF THIS GUIDE

This guide has been written for :

- ☞ The operator of the welding machine.
- ☞ Installation and maintenance personnel.
- ☞ Purchasing personnel.

This guide contains information on :

- ☞ Installation and connection
- ☞ Operation.
- ☞ Technical data.
- ☞ Spare parts and Accessories.

## FURTHER INFORMATION

Should you require additional technical information, please contact us directly (details above) or our local agent/distributor (details of agents etc. can be obtained from us).

This guide contains important information which is a pre-requisite for safe operation of the equipment. The operating personnel must be able to consult this guide. In the interests of safety, make this guide available to your personnel in good time.

If the equipment is sold / passed on, please hand over this guide to the new owner. Please immediately inform us of the name and address of the new owner, in case we need to contact him regarding the safety of the device.



***Please read this guide carefully before installation of the machine.***



***Please especially observe the safety instructions.***

# INTRODUCTION

## INTRODUCTION

Taylor Studwelding Systems Capacitor Discharge units are compact, portable Stud Welding equipment. The units are specifically designed to enable a small diameter range of ferrous and non-ferrous weld studs to be welded to light gauge, self-finish or pre-coated materials, in most cases with little or no reverse marking.

The equipment typically consists of a control unit, a welding pistol and the necessary interconnecting cables and accessories.

## THE PROCESS

Capacitor Discharge stud welding is a form of welding in which the energy required for the welding process is derived from a bank of charged capacitors. This stored energy is discharged across the gap between the two surfaces to be welded as they are propelled towards each other. The arc produced heats the two surfaces, melting a thin film of metal on each surface and the propelling force closes the gap between the two faces, thus forming a weld.

There are two sub-processes of this type of welding. One is known colloquially as contact, the other as gap or lift gap.

In contact welding the stud to be welded is forced by a strong spring in the pistol against the work piece. At this point the arc gap between the two components is maintained by a small pip on the welding face of the stud. On initiation of the high current pulse from the capacitors, this pip vaporises and an arc is drawn between the work piece and the stud. The heat from this arc melts the base of the stud and the area of the work piece directly beneath the stud, whilst the spring pressure from the pistol accelerates the weld stud towards the work piece. Within 3 to 4 milliseconds of initialisation the stud hits the work piece and the arc is extinguished. The kinetic energy contained in the moving stud and the remaining spring pressure, forge the molten parts together to form a weld.

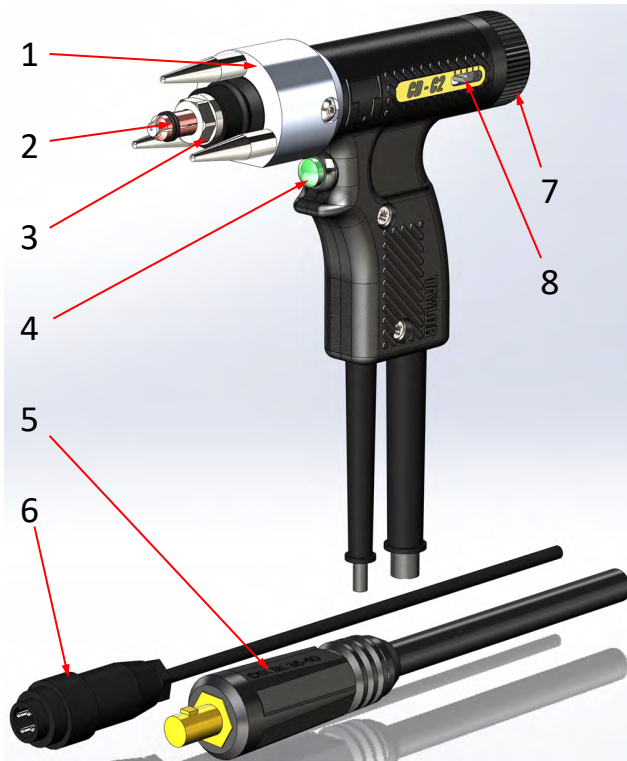
Lift gap or gap welding differs in that the spring in the pistol is much softer. This is specifically to allow the welding of softer non-ferrous materials where the stronger pistol spring may cause mechanical damage to the stud pip before the weld can be initialised. The softer spring however, does not have sufficient force to close the gap both quickly and forcefully enough. Therefore a lift gap pistol also contains an electrical solenoid lift coil. When the weld is initiated the lift coil briefly lifts the weld stud away from the work piece to an operator set height. As the coil releases, the high current pulse from the capacitors is initiated so that upon contact of the pip to the work piece the weld begins. As the pip vaporises, the momentum of the moving stud closes the gap quickly and forcefully enough to complete the weld. Usually in under 3 milliseconds. This faster weld is very important as most non-ferrous metals are much better thermal conductors and a faster weld ensures that the heat generated in the weld is not conducted away before the arc gap closes.

# EXTERNAL FEATURES

## C2 PISTOL

### COMPLETE PISTOL ORDER NUMBER

**99-100-010**

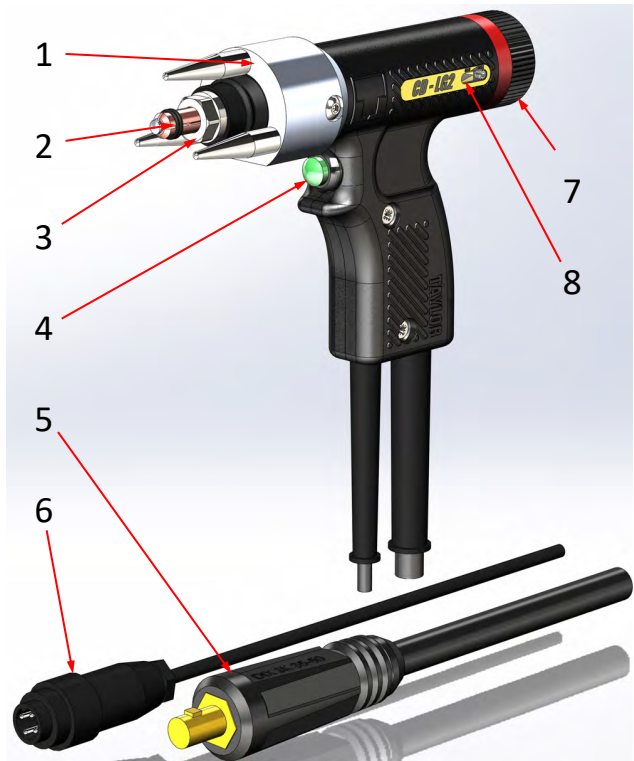


- 1 FRONT END CAP ASSEMBLY\*
- 2 CD CHUCK\*
- 3 CHUCK NUT
- 4 TRIGGER PUSHBUTTON
- 5 WELDING PLUG
- 6 CONTROL PLUG
- 7 SPRING PRESSURE ADJUSTER
- 8 SPRING PRESSURE INDICATOR

## LG2 PISTOL

### COMPLETE PISTOL ORDER NUMBER

**99-100-011**



- 1 FRONT END CAP ASSEMBLY\*
- 2 CD CHUCK\*
- 3 CHUCK NUT
- 4 TRIGGER PUSHBUTTON
- 5 WELDING PLUG
- 6 CONTROL PLUG
- 7 LIFT HEIGHT ADJUSTER
- 8 LIFT HEIGHT INDICATOR

\* An assortment of alternative front end cap assemblies and chucks are available for welding different sizes of stud and to assist with production fixtures and templates. These can be found in the ACCESSORIES section of this guide on page 26.

# SAFETY

## **PROTECT YOURSELF AND OTHERS !**

These welding pistols whilst unconnected are inert but once connected as part of a complete welding installation may present potential risks and dangers. Please read and understand these safety notices.

### **1. ELECTRICAL**

No portion of the outer cover of the welding controller should be removed by anyone other than suitably qualified personnel and never whilst mains power is connected.

**ALWAYS !** disconnect the mains plug from the socket.

**BEWARE !** Capacitors store electrical energy. Check for residual charge before carrying out any internal maintenance.

**DO NOT !** use any fluids to clean electrical components as these may penetrate into the electrical system

Installation must be according to the setting up procedure detailed in the appropriate operating/installation guides for the equipment being used and must be in line with national, regional and local safety codes.

### **2. FIRE**

During welding small particles of very hot metal are expelled. Ensure that no combustible materials can be ignited by these.

### **3. PERSONNEL SAFETY**

Arc rays can burn your eyes and skin and noise can damage your hearing. Operators and personnel working in close proximity must wear suitable eye, ear and body protection.

Fumes and gases can seriously harm your health. Use the equipment only in a suitably ventilated area. If ventilation is inadequate, then appropriate fume extraction equipment must be used.

Hot metal spatter can cause fire and burns. Appropriate clothing must be worn. Clothing made from, or soiled with, combustible materials must NOT be worn. Have a fire extinguisher nearby and know how to use it.

Magnetic fields from high currents can affect heart pacemakers or other electronically controlled medical devices. It is imperative that all personnel likely to come into the vicinity of any welding plant are warned of the possible DANGER before entering the area.

To minimise the risks of exposure to electromagnetic radiation, operators should not drape the welding cables over their shoulders or wrap them around themselves in any way whilst using the equipment. It is also recommended that operators route the welding earth return cables away from themselves and do not stand between the two earth return cables during welding.

# SAFETY

## **4. MAINTENANCE**

All cables must be inspected regularly to ensure that no danger exists from worn or damaged insulation or from unsound electrical connections. Special note should be made of the cables close to the pistol, where maximum wear occurs.

As well as producing inconsistent welds, worn cables can overheat or spark, giving rise to the risk of fire.

## **5. TRAINING**

Use of the equipment must be limited to authorised personnel only who must be suitably trained and must have read and understood this and any other applicable documentation. This guide must be made available to all operators at all times and further hard copies of this guide may be purchased from the manufacturer or downloaded from our website. Measures must be taken to prevent the use of this equipment by unauthorised personnel. Please note that Taylor Studwelding Systems Ltd also offer, at an additional cost, personnel training packages, should a certificate of competency be required for operating/maintenance personnel.

## **6. INSTALLATION**

Ensure that the site chosen for the equipment is able to support the weight of the equipment and that it will not fall or cause a danger in the course of its normal operation. Do not hang connecting cables over sharp edges and do not install connecting cables near heat sources or via traffic routes where people may trip over them or they may be damaged by the passage of vehicles (forklifts etc.).

## **7. INTERFERENCE**

During welding operations, intense magnetic and electrical fields are unavoidably produced which may interfere with other sensitive Electronic equipment.

All Taylor Studwelding equipment is designed, manufactured and tested to conform the current appropriate European standards and directives regarding electromagnetic emissions and immunity and as such is safe to use in any normal environment

## **8. DISPOSAL**

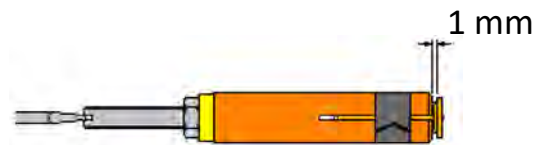
The equipment either wholly or any of its component parts may be disposed of as part of general industrial waste or passed to a scrap merchant. Non of the components used in the manufacture are toxic, carcinogenic or harmful to health. Please note that, in line with the WEEE directive, Taylor Studwelding Systems Ltd offers a return for disposal policy.

# SETTING UP & WELDING

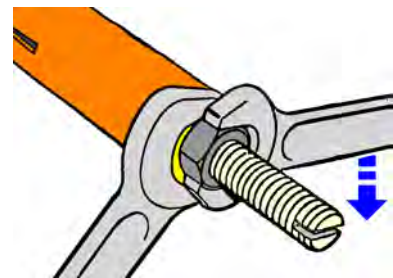
Select the required weld stud on the basis of diameter, length and material. See our separate catalogue entitled "Capacitor Discharge Stock list" which can be found by scanning the QR code below or alternatively is available from your local Taylor stockist.



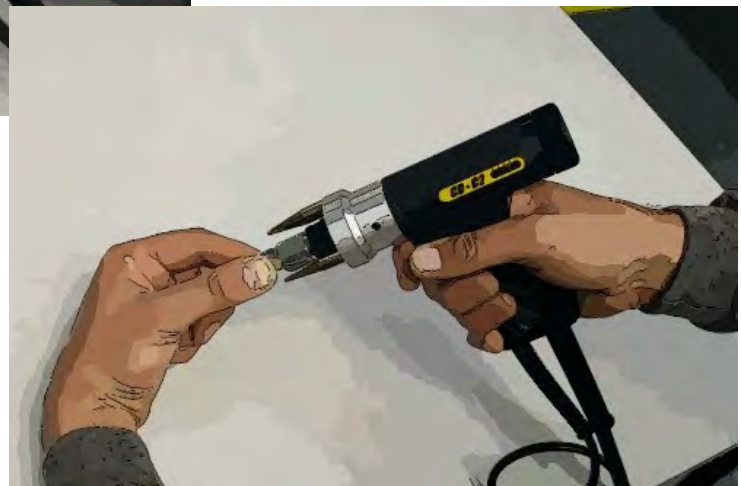
Select the required CD chuck for the chosen weld stud diameter (a list of available chucks is shown on page 30 of this guide), insert the stud to be welded into the chuck and set the stud protrusion to the dimension shown in the accompanying diagram by adjusting the backstop screw as shown.



Securely tighten the chuck backstop locking nut to maintain the required protrusion.



After setting the chuck, insert it into the pistol chuck holder and push firmly home until it comes to a rest.



Tighten the chuck locking nut with the box spanner provided. "Hand tight" is all that is required. Over tightening may result in damage to your pistol.



# SETTING UP & WELDING

At this point the pistol setting method differs dependent on the type of pistol being used:

## SETTING THE C2 TYPE PISTOL



Set the pistol spring pre-load to the appropriate setting for the stud/material to be welded. This is achieved by twisting the rear end cap adjuster.

The indicator window on the side of the pistol indicates the setting.



## SETTING THE LG2 TYPE PISTOL

The LG2 pistol features an electrical lift coil to give a user adjustable lift to the stud to be welded. The following steps need to be carried out to set the lift required.

Start by adjusting the lift to the maximum position. This is achieved by turning the rear end cap adjuster in an anti-clockwise direction until it reaches its end of travel.

Once this is done, you will need to find the Zero Lift Position.



# SETTING UP & WELDING



To do this place the pistol into the welding position, pressing down on the pistol until the stud is pressed back into the pistol and all three points of the tripod legs are firmly in contact with the work surface.

With the pistol held firmly in this position. Again turn the rear end cap adjuster, this time clockwise. Continue to turn the adjuster until it reaches the point in its travel where it would begin to force the points of the tripod legs away from the work surface. This is the zero lift position.



The required lift can now be set. This is achieved by once more turning the rear end cap adjuster in an anti-clockwise direction. The lift adjuster has a click detent which clicks every half turn. Each click (half turn) equates to a 0.5mm change in lift. Therefore a desired

lift of 3mm will be achieved by turning the adjuster anti-clockwise for 6 clicks.



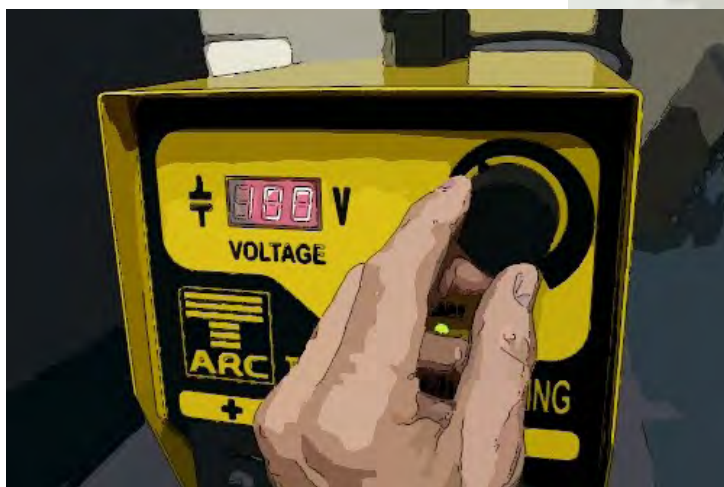
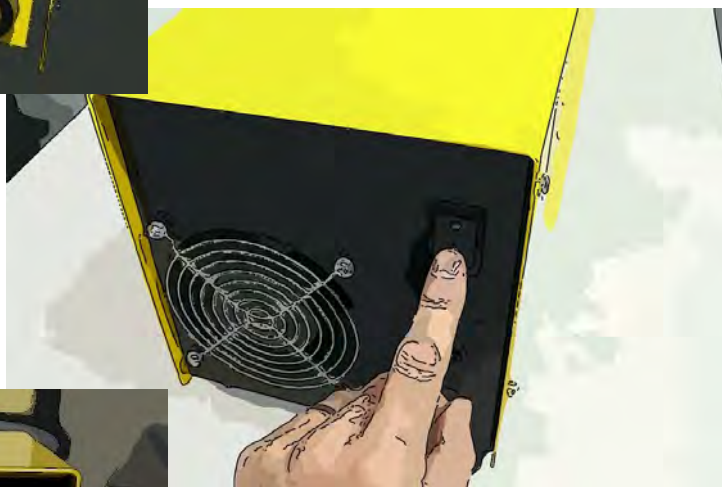
# SETTING UP & WELDING



Set up an appropriate controller for use with your pistol and connect and install it in line with its operating instructions.

The Taylor Studwelding Systems pistols outlined in this operating guide are designed to operate across

a range of CD controllers, including but not exclusive to those manufactured by Taylor Studwelding Systems Ltd.



The type C2 pistol is a contact pistol and will work with most controllers given an appropriate connection profile whilst the type LG2 pistol is

a lift gap pistol and must be paired with a suitable lift gap controller.

Having selected, connected and set up your controller, pistol, work piece etc. It is now time to weld.



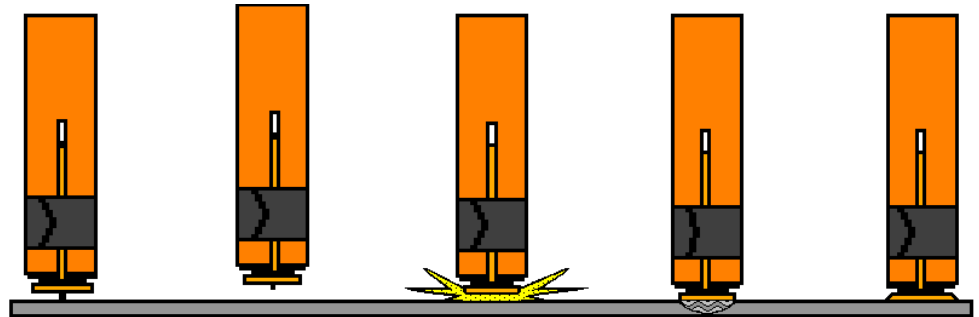
# SETTING UP & WELDING



Ensuring that a stud has been loaded, position the stud at the location on the work piece where it is to be welded. Press down firmly on the pistol until all three points of the tripod (or the face of the nose cone if using instead) are firmly in contact with the work piece. Do not drape or wrap the pistol cables over or around yourself whilst operating the equipment. Allow the cables to trail naturally to the floor.

Press the trigger.

The welding process is :-



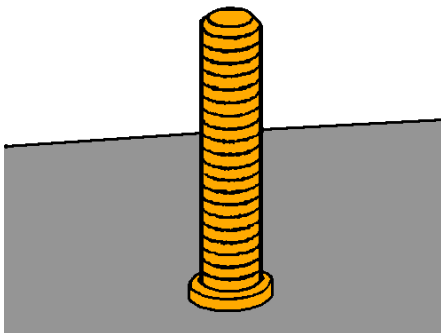
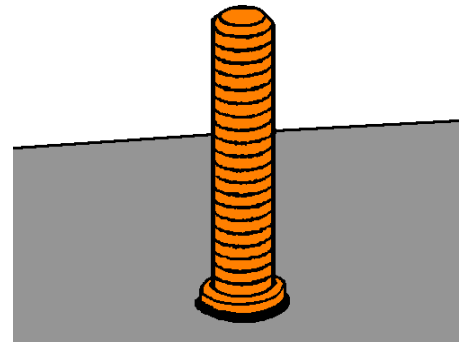
	INITIAL PRESSURE	LIFT & RELEASE	STRIKE ARC	FUSION & IMMERSION	COMPLETED WELD
LIFT GAP PROCESS, TIME TAKEN (s) - LG2	0.000	0.0005	0.001	0.0015	0.002
CONTACT PROCESS, TIME TAKEN (s) - C2	0.000	⇒	0.001	0.002	0.003



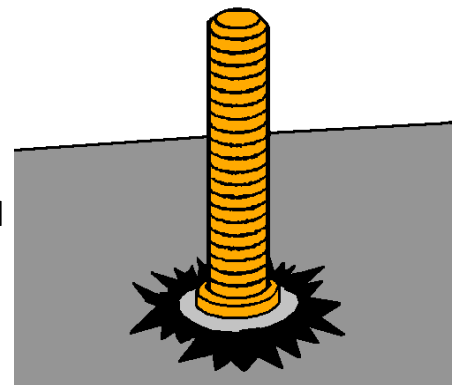
Once welding has taken place. Draw the pistol off the welded stud. Always lift the welding pistol vertically from the welded stud. Failure to do this may cause damage to the chuck, which will result in the chuck and stud arcing together during subsequent welds and thereby reducing the working life of the chuck.

# SETTING UP & WELDING

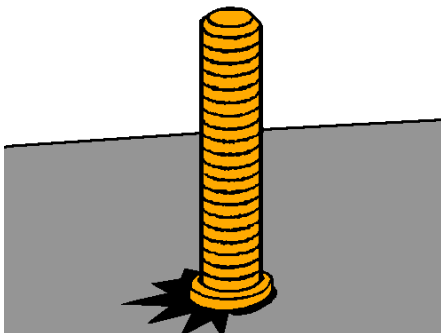
Visually inspect the weld. A good weld will result in an all round weld with a small visible witness of spatter surrounding the flange of the stud.



A cold stud weld is noticeable by undercutting of the flange and lack of / minimal formation of spatter. A cold weld is usually caused by too little energy and / or too high spring pressure.



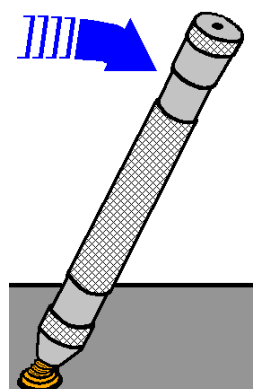
A hot stud weld is noticeable by excessive spatter formation and partial melting of the flange. A hot weld is usually by too much energy and / or too little spring pressure.



A one sided stud weld (arc blow) is usually caused by incorrect earthing of the work piece. This may be corrected by placing the welding earths opposite each other across the area where the weld is to occur.

Finished studs may be subjected to a bending test to ascertain the strength of the weld. This may be achieved by placing a bending bar assembly, fitted with the correct nozzle, over the stud and bending the stud through 30° and then back to the vertical. This test follows the specification of BS EN ISO 14555:2014.

A simpler test may be achieved by bending the stud over 30° using a hide mallet.



# WELD ASSESSMENT/TESTING

Visual examination of weld quality can, even with limited experience, provide a useful quality assessment. In such a check the presence of a small even witness of weld material around the base of the stud flange after welding should be ensured. Poor welds are indicated by excess metal on one side of the welded flange and/or the presence of an undercut or non-fused area between the stud flange and the parent sheet or plate. Incorrect settings, adverse magnetic effects etc. such as those at edge welding positions or with unbalanced earths and studs welded to the work piece at an angle, the controller and pistol should be examined with a view to correcting such defects.

## MECHANICAL TESTS :

### BENDING.

The most easily applied method of testing the quality of welded fasteners considered here, involves the use of a bending bar. This bending bar (available from your supplier, see the accessories section of this manual) fitted with the correct size of nozzle for the stud to be tested is used to bend over the stud in accordance with the BS EN ISO 14555:2014 specification .

### TORSION.

A torsion test provides useful information for threaded fasteners. This involves tightening a nut on the stud against a spacer, suitably relieved to cater for the flange and weld spatter. For quantitative assessments a suitably calibrated torque wrench may be used, but at its simplest, a spanner will suffice.

In the above tests the performance of the welded joint should be considered in relation to the thickness of the material to which the stud is welded. On thicker materials, a full strength weld is denoted by deformation or failure of the stud shank. On lighter gauge material, severe "dimpling" or "dishing" at the reverse to the weld side normally indicates sufficient strength, whilst in most cases, the tearing of a slug of material from the parent sheet will occur.

# METHODS OF STUD LOCATION

Economic stud location may be obtained using any one of the following methods, depending on the type of work involved :-

- Tripod leg assembly.
- Nose cone assembly.
- Extended leg assembly.

## **TRIPOD LEG ASSEMBLY.**

This is generally used for low volume production and one off components. The spacing of the tripod legs allow for ease of stud placement onto a scribed or pencilled mark. Centre punch indentations must not be used (see note below).

## **NOSE CONE ASSEMBLY.**

This is generally used for high volume and repetitive work, or where a greater level of accuracy is required. Simple jigs made from Tufnol (a thermo-setting plastic) or sheet metal can easily be made, allowing for speedy and accurate production. Advice on jig manufacture can be obtained from your sales representative.

## **EXTENDED LEG ASSEMBLY.**

This is used where a requirement for welding very long studs is necessary. The extended leg assembly allows studs up to 200 mm long to be welded.



### **IMPORTANT NOTE !**

*Manual centre punch indentations must NOT be used for stud location as this will have the same effect as shortening the pip on the weld stud and could adversely affect the weld quality.*

If practical considerations compel the use of indentations, then we would suggest the use of either an automatic centre punch or a punch press set only to produce the shallowest of indents consistent with the ease of stud location.

The setting chart parameters may have to be altered to achieve the optimum conditions detailed in the setting up and welding procedure.

If in any doubt, please seek the advice of your local technical representative.

# COMPONENT EXPLOSION AND PARTS LISTING

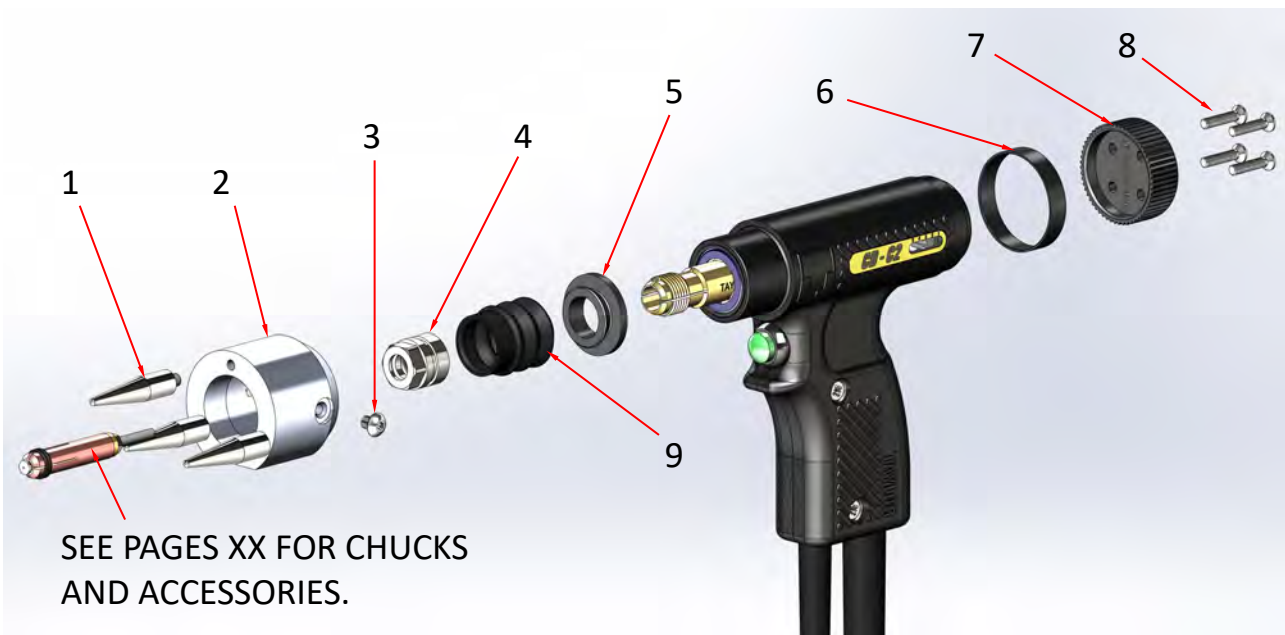
PISTOL TYPE  
**C2**



ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-030	CONTROL PLUG
2	3.5	71-300-010	CONTROL CABLE (per metre)
3	1	81-101-051	WELD PLUG
4	3	71-300-002	WELD CABLE (per metre)
5	6	71-101-032	CABLE CLIP (NOT SHOWN)



## COMPONENT EXPLOSION AND PARTS LISTING



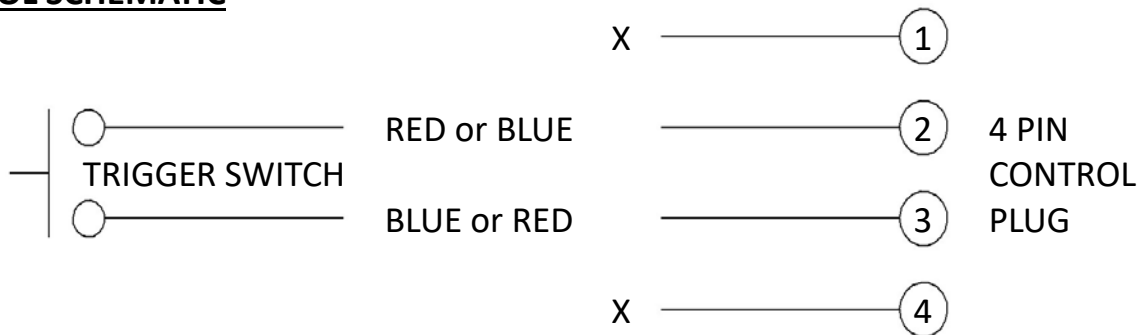
ITEM	QTY	PART No.	DESCRIPTION
1	3	79-101-052	TRIPOD LEG
2	1	79-101-051	FRONT END CAP
3	2	Z115-05-006	SCREW
4	1	71-101-002	CHUCK NUT
5	1	71-101-004	BELLOWS RETAINING RING
6	1	71-101-202	BODY RING
7	1	71-101-203	REAR END CAP
8	4	Z120-04-020	SCREW
9	1	71-101-003	BELLOWS

# COMPONENT EXPLOSION AND PARTS LISTING

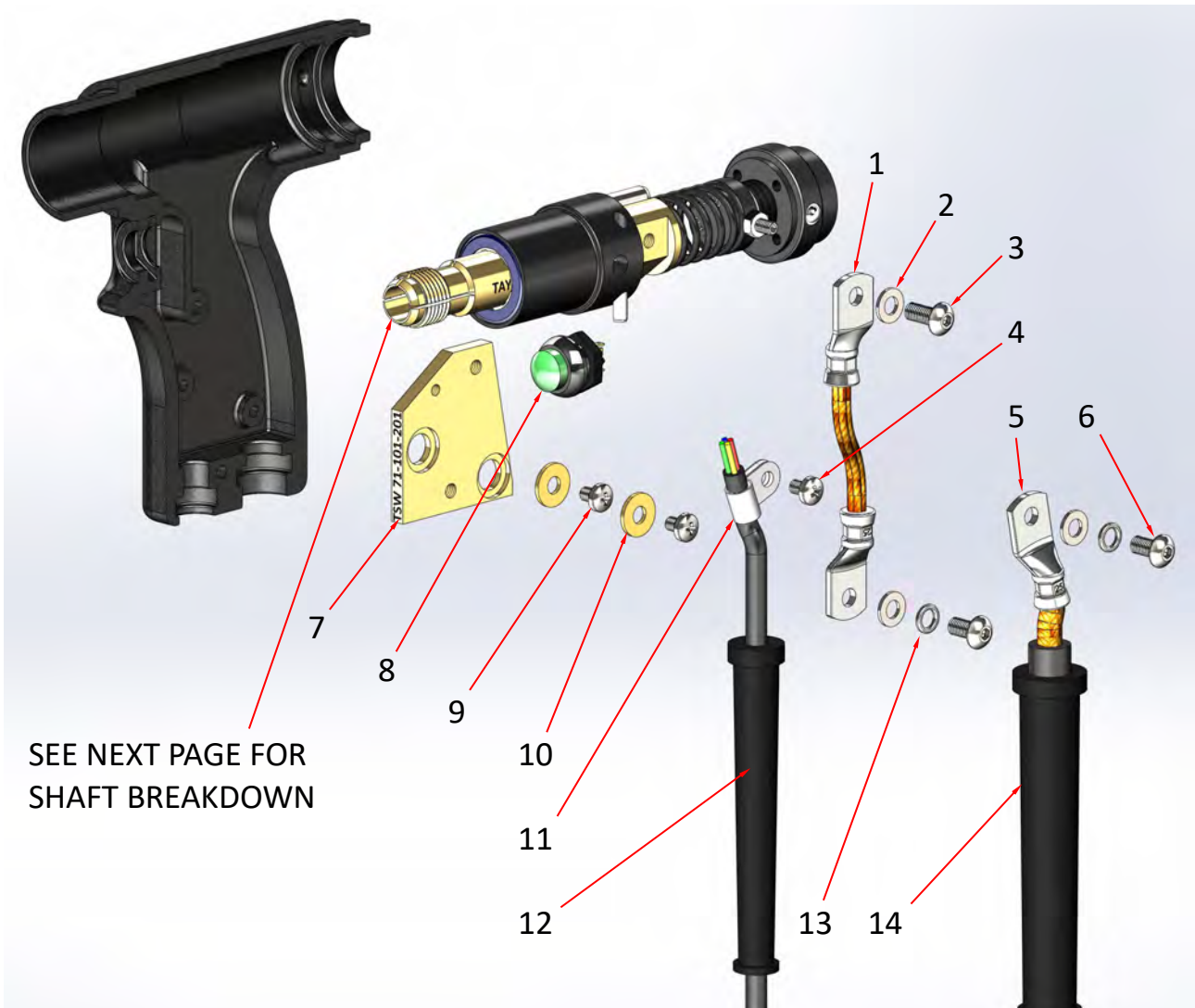


ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-200	PISTOL BODY MOULDING PAIR
2	1	71-101-217	DECAL STICKER
3	2	Z250-10-019	SCREW

## PISTOL SCHEMATIC



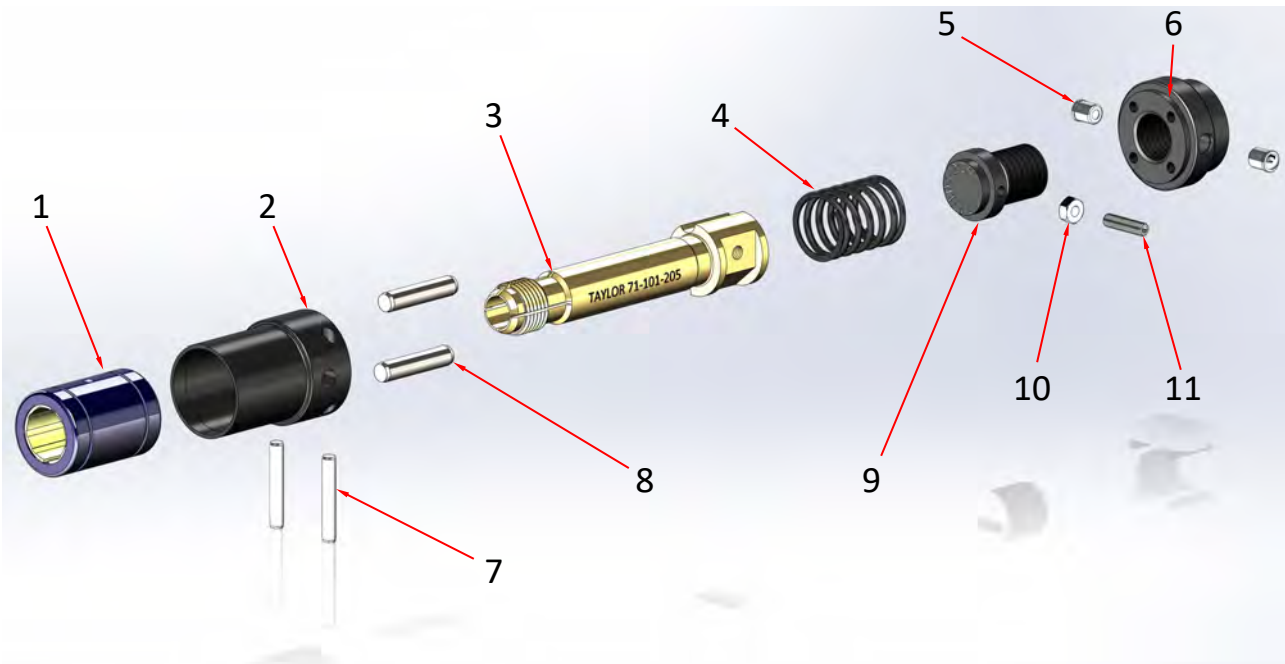
# COMPONENT EXPLOSION AND PARTS LISTING



SEE NEXT PAGE FOR  
SHAFT BREAKDOWN

ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-220	FLEXI-BRAID ASSEMBLY
2	3	Z600-05-000	WASHER
3	1	Z115-05-012	SCREW
4	1	Z200-04-006	SCREW
5	1	Z700-05-022	TERMINAL
6	2	Z115-05-008	SCREW
7	1	71-101-201	TERMINAL PLATE
8	1	81-101-279	PUSHBUTTON SWITCH
9	2	Z225-08-914	SCREW
10	2	Z605-05-999	WASHER
11	1	71-101-214	CABLE CLIP
12	1	71-101-033	CABLE SLEEVE
13	3	Z615-05-000	WASHER
14	1	71-101-034	CABLE SLEEVE

## COMPONENT EXPLOSION AND PARTS LISTING



ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-215	BEARING
2	1	71-101-204	BEARING HOUSING
3	1	71-101-205	SHAFT
4	1	71-101-014	SPRING
5	2	71-101-213	DETENT
6	1	71-101-207	ADJUSTER DRIVER
7	2	Z800-04-026	BHAR PIN
8	2	Z800-06-028	SAR PIN
9	1	71-101-206	PRE-LOAD ADJUSTER
10	1	Z505-04-000	NUT
11	1	Z400-04-016	SCREW

# COMPONENT EXPLOSION AND PARTS LISTING

PISTOL TYPE  
**LG2**



ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-030	CONTROL PLUG
2	3.5	71-300-009	CONTROL CABLE (per metre)
3	1	81-101-051	WELD PLUG
4	3	71-300-002	WELD CABLE (per metre)
5	6	71-101-032	CABLE CLIP (NOT SHOWN)

## COMPONENT EXPLOSION AND PARTS LISTING



ITEM	QTY	PART No.	DESCRIPTION
1	3	79-101-052	TRIPOD LEG
2	1	79-101-051	FRONT END CAP
3	2	Z115-05-006	SCREW
4	1	71-101-002	CHUCK NUT
5	1	71-101-004	BELLOWS RETAINING RING
6	1	71-101-232	BODY RING
7	1	71-101-203	REAR END CAP
8	4	Z120-04-020	SCREW
9	1	71-101-003	BELLOWS

# COMPONENT EXPLOSION AND PARTS LISTING

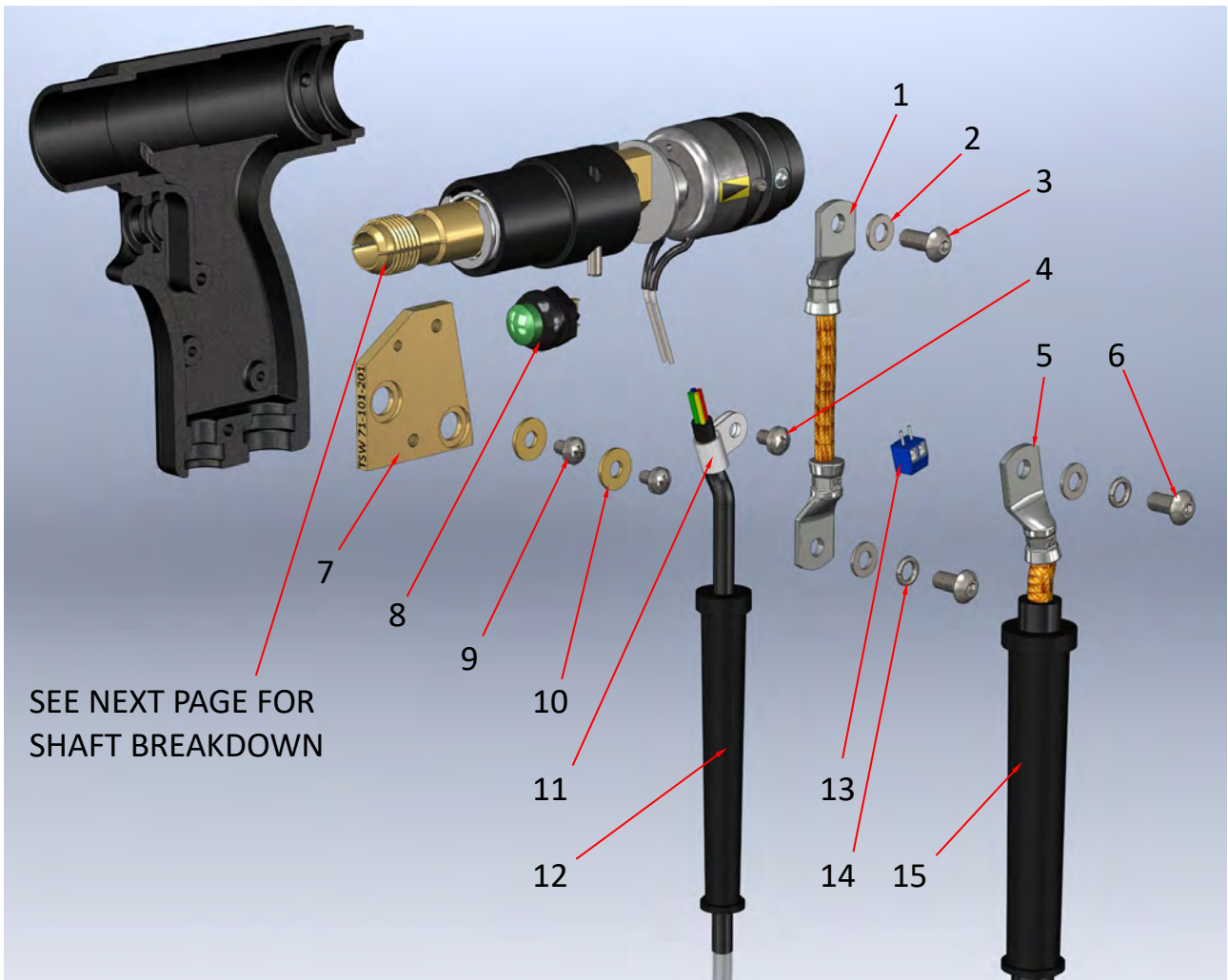


ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-200	PISTOL BODY MOULDING PAIR
2	1	71-101-218	DECAL STICKER
3	2	Z250-10-019	SCREW

## PISTOL SCHEMATIC



# COMPONENT EXPLOSION AND PARTS LISTING

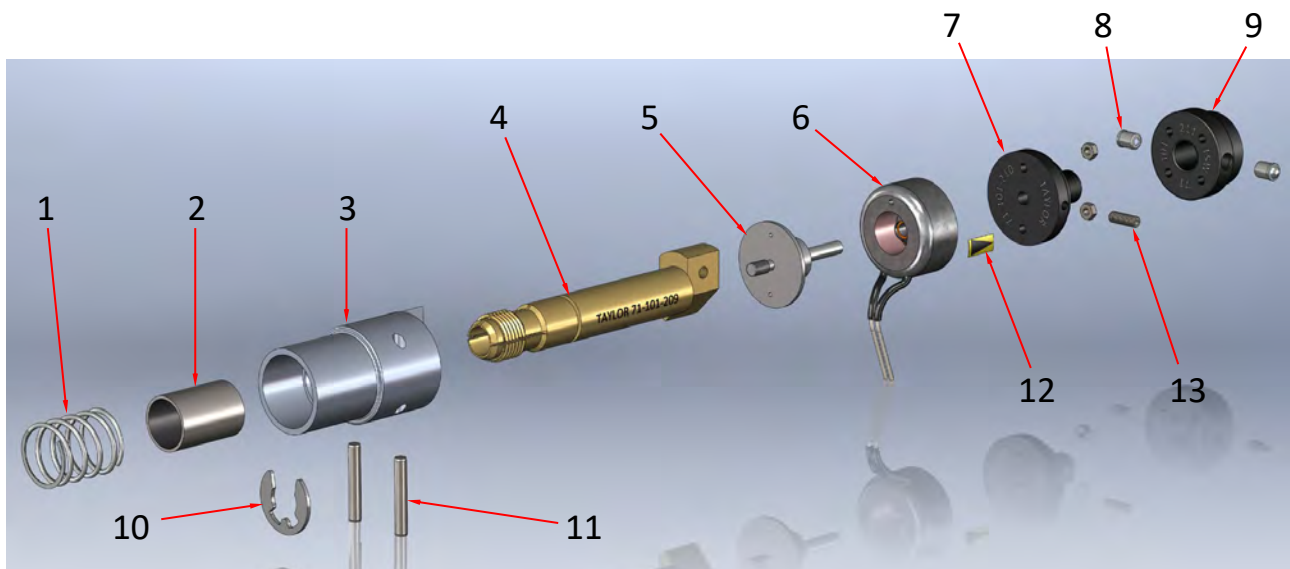


SEE NEXT PAGE FOR  
SHAFT BREAKDOWN

ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-220	FLEXI-BRAID ASSEMBLY
2	3	Z600-05-000	WASHER
3	1	Z115-05-012	SCREW
4	1	Z200-04-006	SCREW
5	1	Z700-05-022	TERMINAL
6	2	Z115-05-008	SCREW
7	1	71-101-201	TERMINAL PLATE
8	1	81-101-279	PUSHBUTTON SWITCH
9	2	Z225-08-914	SCREW
10	2	Z605-05-999	WASHER
11	1	71-101-214	CABLE CLIP
12	1	71-101-033	CABLE SLEEVE
13	1	71-101-252	HEADER
14	3	Z615-05-000	WASHER
15	1	71-101-034	CABLE SLEEVE



## COMPONENT EXPLOSION AND PARTS LISTING



ITEM	QTY	PART No.	DESCRIPTION
1	1	71-101-230	SPRING
2	1	71-102-071	BEARING
3	1	71-101-208	BEARING HOUSING
4	1	71-101-209	SHAFT
5	1	72-103-042	POLE PIECE
6	1	72-103-042	COIL
7	1	71-101-210	COIL MOUNT
8	2	71-101-213	DETENT
9	1	71-101-211	COIL MOVER
10	1	71-101-011	CIRCLIP
11	2	Z800-04-026	DOWEL PIN
12	1	71-101-219	INDICATOR LABEL
13	1	Z400-04-012	SCREW

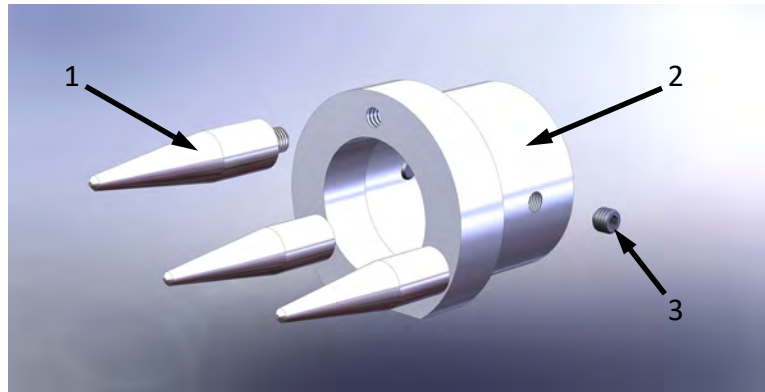
**]** NOTE! THESE COMPONENTS ARE NOT AVAILABLE SEPERATELY.

# ACCESSORIES

## STANDARD TRIPOD LEG ASSEMBLY

COMPLETE ASSEMBLY  
AVAILABLE UNDER PART  
NUMBER : 79-101-050 (STANDARD)

NOTE #  
LONG LEGS ARE USED WHEN WELDING  
STUD LENGTHS BETWEEN 35 AND 50,  
OR WHEN WELDING M10 STUDS.

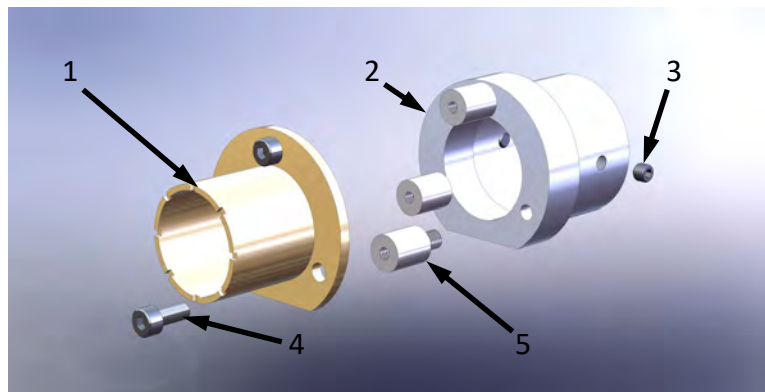


ITEM	QTY	DESCRIPTION	PART No.
1	3	TRIPOD LEG (STANDARD)	79-101-052
or	3	TRIPOD LEG (LONG. SEE NOTE #)	79-101-054
2	1	FRONT END CAP	79-101-051
3	2	GRUB SCREW	Z400-05-004

## STANDARD NOSE CONE ASSEMBLY

COMPLETE ASSEMBLY  
AVAILABLE UNDER PART  
NUMBERS :

Ø30 mm ASSY : 79-101-070  
Ø25.4 mm (1") ASSY : 79-101-069  
Ø22 mm ASSY : 79-101-068



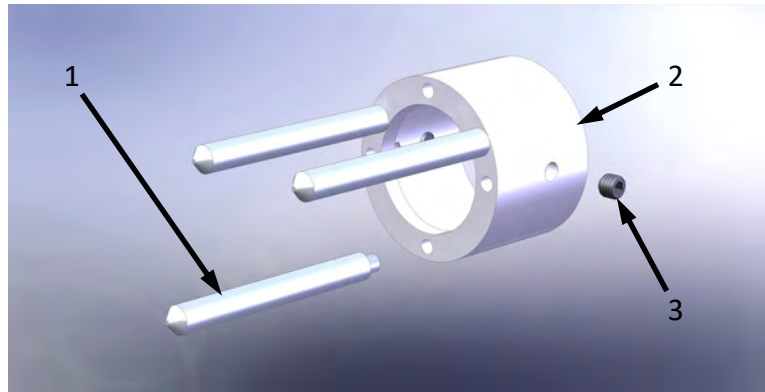
ITEM	QTY	DESCRIPTION	PART No.
1	1	Ø30 mm NOSE CONE	79-101-072
or	1	Ø22 mm NOSE CONE	79-101-078
or	1	Ø25.4 mm NOSE CONE	79-101-077
2	1	FRONT END CAP	79-101-051
3	2	GRUB SCREW	Z400-05-004
4	3	SOCKET CAP SCREW	Z100-04-010
5	3	12 mm SPACER (Ø30 NOSE CONE)	79-101-071
or	3	25 mm SPACER (Ø25.4 & Ø22 NOSE CONE)	79-101-076

# ACCESSORIES

## SLIMLINE TRIPOD LEG ASSEMBLY

COMPLETE ASSEMBLY  
AVAILABLE UNDER PART  
NUMBER : 79-101-060 (STANDARD)

NOTE #  
LONG LEGS ARE USED WHEN WELDING  
STUD LENGTHS BETWEEN 35 AND 50,  
OR WHEN WELDING M10 STUDS.

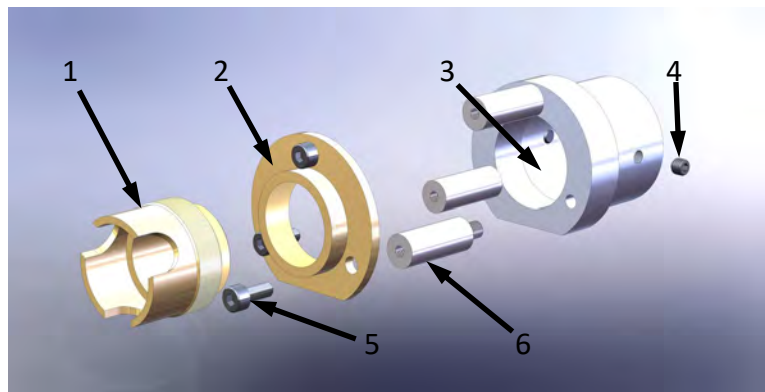


ITEM	QTY	DESCRIPTION	PART No.
1	3	TRIPOD LEG (STANDARD)	79-101-062
or	3	TRIPOD LEG (LONG. SEE NOTE #)	79-101-064
2	1	FRONT END CAP	79-101-061
3	2	GRUB SCREW	Z400-05-004

## SCREW-IN NOSE CONE ASSEMBLY

COMPLETE ASSEMBLY  
AVAILABLE UNDER PART  
NUMBERS :

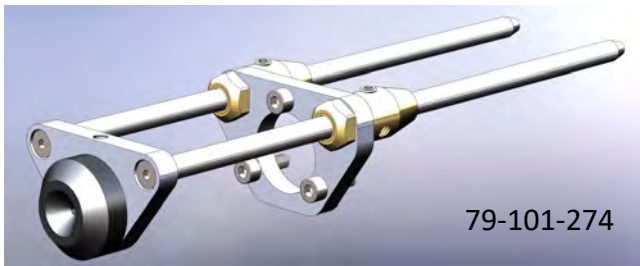
Ø30 mm ASSY : 79-101-082  
Ø25.4 mm (1") ASSY : 79-101-081  
Ø22 mm ASSY : 79-101-080



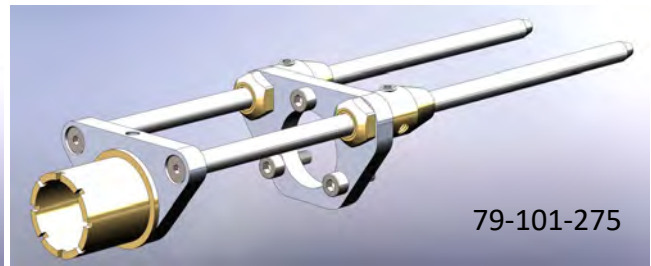
ITEM	QTY	DESCRIPTION	PART No.
1	1	Ø30 mm NOSE CONE	79-101-086
or	1	Ø22 mm NOSE CONE	79-101-084
or	1	Ø25.4 mm NOSE CONE	79-101-085
2	1	SCREW-IN BACKPLATE	79-101-083
3	1	FRONT END CAP	79-101-051
4	2	GRUB SCREW	Z400-05-004
5	3	SOCKET CAP SCREW	Z100-04-010
or	3	25 mm SPACER (Ø25.4 & Ø22 NOSE CONE)	79-101-076

NOTE : When using this assembly, chucks must be fitted with extended backstop 79-101-090 & 2 locking nuts.

# ACCESSORIES



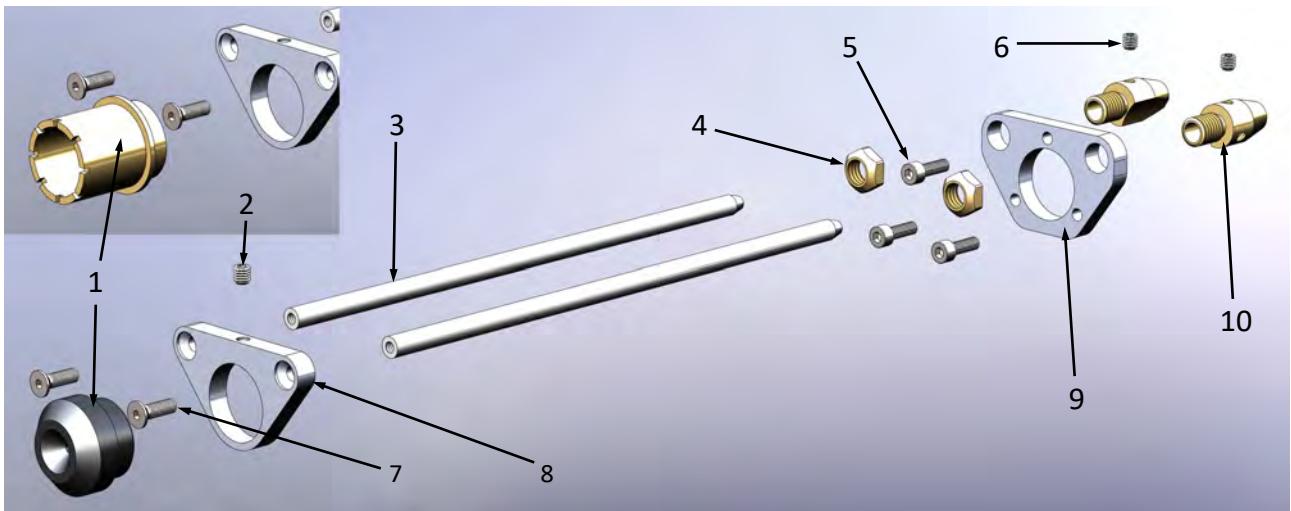
79-101-274



79-101-275

## EXTENDED LEG ASSEMBLY - MOUNTS ON STANDARD FRONT END CAP

COMPLETE ASSEMBLIES AVAILABLE UNDER PART NUMBERS ABOVE



THE STANDARD ASSEMBLIES (SEE TOP OF PAGE) HAVE EITHER THE PIN GUIDE OR THE NOSE CONE (ITEM 1) FITTED. IF BOTH ITEMS ARE REQUIRED THE ADDITIONAL PART MUST BE ORDERED SEPERATELY AS BOTH ITEMS ARE NOT SUPPLIED WITH AN ASSEMBLY AS STANDARD.

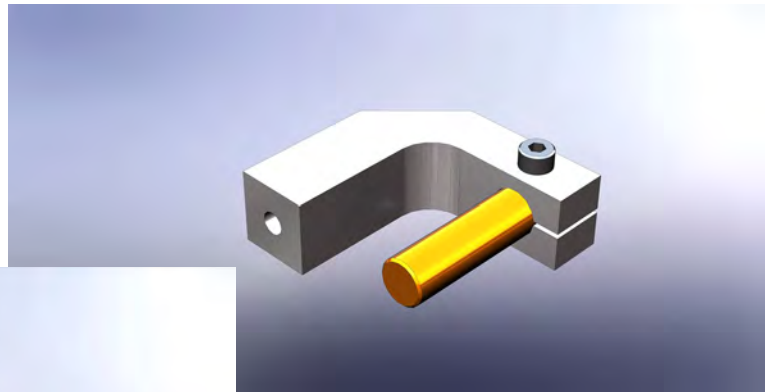
LONGER LEGS ARE ALSO AVAILABLE AS SEPARATE ITEMS IF REQUIRED. PART NUMBER 81-101-081 WILL INCREASE THE MANAGEABLE STUD LENGTH OF THE ASSEMBLY BY 100 mm.

ITEM	QTY	DESCRIPTION	PART No.
1	1	PIN GUIDE	89-101-344
or	1	Ø30 NOSE CONE	79-101-276
2	1	GRUB SCREW	Z400-06-006
3	2	STANDARD LEG	81-101-004
4	2	LOCKNUT	79-101-271
5	3	SCREW	Z105-05-016
6	2	GRUB SCREW	Z400-06-006
7	2	SCREW	Z125-05-016
8	1	FOOTPLATE	79-101-272
9	1	FACEPLATE	79-101-269
10	2	LEG GUIDE	79-101-270

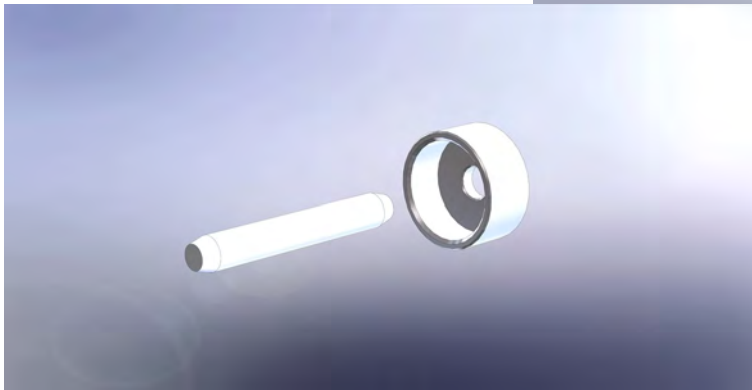
# ACCESSORIES

## OFFSET CHUCK ADAPTOR

COMPLETE ASSEMBLY AVAILABLE  
UNDER PART NUMBER : 79-101-110



## NOSE CONE CENTERING DEVICE



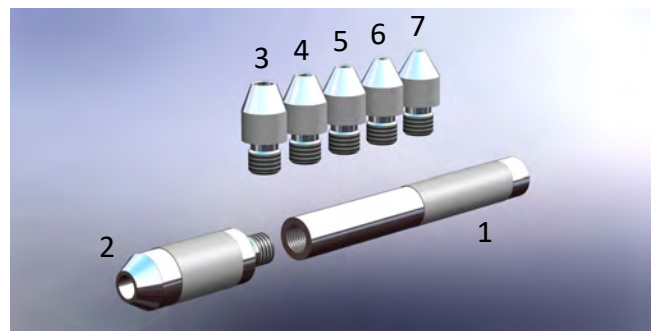
COMPLETE ASSEMBLIES AVAILABLE  
UNDER PART NUMBERS :

Ø22 CUP & ROD            79-101-112  
Ø25.4 (1") CUP & ROD 79-101-113  
Ø30 CUP & ROD            79-101-114

ITEM	QTY	DESCRIPTION	PART No.
1	1	Ø30 mm CENTRING CUP	79-101-118
or	1	Ø25.4 mm (1") CENTRING CUP	79-101-117
or	1	Ø22 mm CENTRING CUP	79-101-116
2	1	CENTRING ROD	79-101-115

## BENDING BAR ASSEMBLY

COMPLETE ASSEMBLY AVAILABLE UNDER PART  
NUMBER : 79-101-120



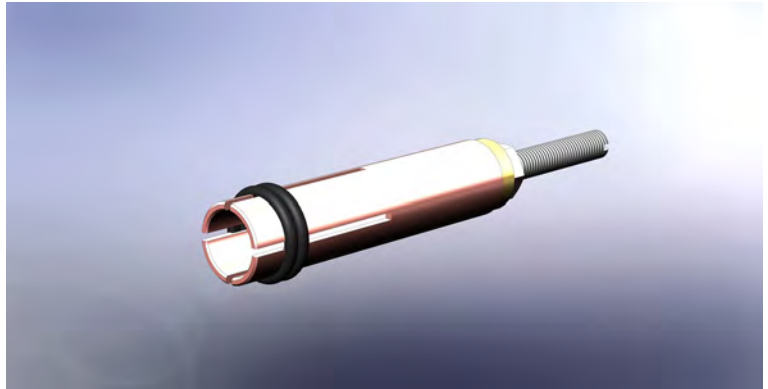
ITEM	QTY	DESCRIPTION	PART No.
1	1	BENDING BAR	79-101-121
2	1	M10 NOZZLE	79-101-128
3	1	M8 NOZZLE	79-101-127
4	1	M6 NOZZLE	79-101-126
5	1	M5 NOZZLE	79-101-125
6	1	M4 NOZZLE	79-101-124
7	1	M3 NOZZLE	79-101-123

# ACCESSORIES

## STANDARD CD CHUCK C/W BACKSTOP

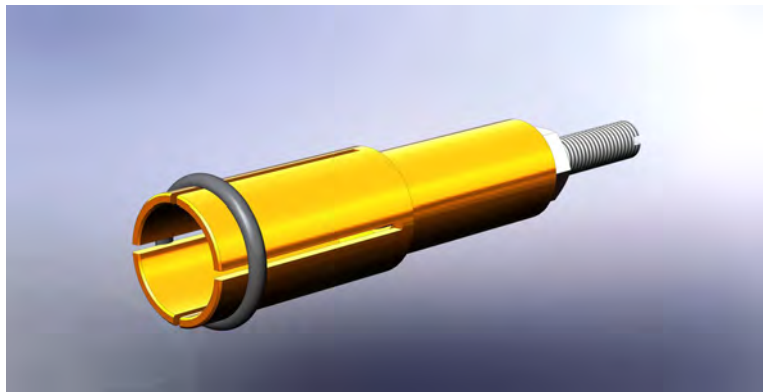
PART NUMBERS :

M2.5	79-101-002
M3	79-101-003
M4	79-101-004
M5	79-101-005
M6	79-101-006
M7.1	79-101-007
M8	79-101-008



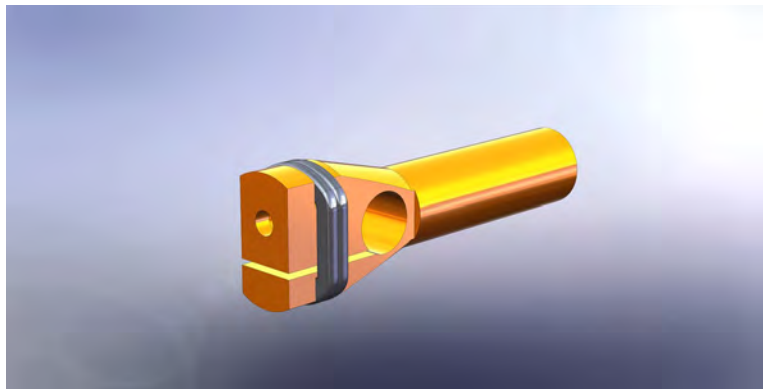
## STANDARD M10 CHUCK C/W BACKSTOP

PART NUMBER : 79-101-010



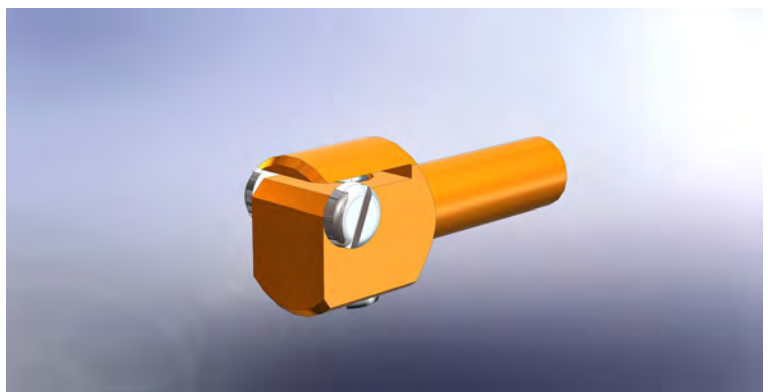
## EARTH TAG CHUCK

PART NUMBER : 79-101-019



## LARGE BRACKET CHUCK

PART NUMBER : 79-101-022



# EU DECLARATION OF CONFORMITY



Responsible Party Name : Taylor Studwelding Systems Ltd  
Address : Commercial Road  
Dewsbury  
West Yorkshire  
WF13 2BD  
UK

Designation of Product : Studwelding equipment CDM series types CDM8, CDM9, CDM10  
Studwelding gun series C1, C2, LG1, LG2

The above mentioned equipment complies with the requirements of the following directives :

<b>93/68/EEC</b>	<b>The CE Marking Directive</b>
<b>2014/35/EU</b>	<b>The Low Voltage Directive</b>
<b>2014/30/EU</b>	<b>The Electromagnetic Compatibility Directive</b>

The above mentioned products conform to the following European standards :

<b>EN 60974-1:2012</b>	<b>ARC WELDING EQUIPMENT - PART 1 : WELDING POWER SOURCES</b>
<b>EN 60974-10:2014</b>	<b>ARC WELDING EQUIPMENT - PART 10 : ELECTROMAGNETIC COMPATIBILITY (EMC) REQUIREMENTS</b>

I hereby declare that the above mentioned equipment has been designed to comply with the relevant sections of the above referenced standards. The equipment complies with all applicable essential requirements of the above mentioned directives.

Signed.

David Taylor  
Managing Director



Authorised European Representative : **J D PEARMAN**  
**GLENN MILLERWEG 36**  
**1311 RT ALMERE**  
**NETHERLANDS**