

# **CLAMP SWAGING PLIERS & FERRULES**

## **INSTRUCTIONS FOR USE**

**READ THIS BEFORE YOU BEGIN**

**▲ SAFETY WARNING:** Where human safety is a consideration all assemblies should be load tested (bearing in mind appropriate safety factors) prior to use to determine their suitability for the intended purpose.

### **INTRODUCTION**

Before commencing any swaging it is essential to consult the **Product Selector Sheet** overleaf to ensure that you have the correct match between cable diameter, CLAMP swaging pliers and CLAMP ferrules.

Failure to use correctly matched products will result in poor performance and/or possible damage to the swaging pliers.

### **PRESSING PROCEDURE – COPPER & ALUMINIUM FERRULES**

Feed the wire rope through the ferrule then around the thimble (use of correctly sized thimbles is recommended to protect the wire and ensure loading on the swaged ferrule is correctly proportioned) and back through the ferrule. Pull the wire up to the point that the thimble is retained – but not held tightly, and the tail of the wire protrudes by at least one diameter in length from the ferrule.

#### **Two Press Procedure**

1. Start the first press with the plier jaw placed at the back edge of the ferrule opposite the loop or eye end of the wire. Bring the plier handles together in a steady motion until the handle stops come together.
2. For the second press move the pliers to the remaining unswaged portion of the ferrule and repeat as above.
3. The finished swaged ferrule should now have “grown” in length to be holding the thimble snugly within the eye of the wire.

#### **Three Press Procedure**

1. Proceed as above with the first press.
2. The second press should be at the opposite end of the ferrule (eye end). Bring the plier handles together but do not fully close at this stage.
3. Turn the ferrule 180 degrees and positioning the pliers at the centre of the ferrule, bring the handles down to their stops to apply a full swage.
4. Reposition the plier jaw over the partial swage (performed at step 2.) and bring plier handles fully together to complete the swage.

#### **Note:**

When pressing **7, 8 and 10mm** ferrules start 2mm in from the end of the ferrule.

### **PRESSING PROCEDURE – ALUMINIUM STOP FERRULES**

Feed the wire through the ferrule to leave at least one wire diameter in length protruding from the ferrule.

Beginning at the tail end of the ferrule press along the length of the ferrule using the full width of the plier jaw.

Rotate the ferrule 180 degrees and repeat pressing surplus metal back into the ferrule.

Rotate back 180 degrees and repeat the process.

(See over for number of presses to be applied according to size of ferrule).

### **PLIER ADJUSTMENT**

CLAMP Swaging Pliers are able to be adjusted to compensate for wear in the jaw bolts in the event that this should occur.

1. Slacken-off both back nuts securing the jaw bolts.
2. Rotate each jaw bolt head inwards one or two notches. **Do not force!**
3. Check that the jaws are closed and the die cavity(s) is correctly aligned when the handles are brought together and the stops have a gap of 5 – 8mm between them.
4. Re-tighten the jaw bolt nuts.

### **DISCLAIMER**




Clamp Products Ltd makes no claims nor provides any warranties in respect of the applied performance or suitability for the user's purpose of any of its products. It is the entire responsibility of the user of CLAMP swaging pliers and ferrules to ensure the suitability and correct selection and use of tools and materials for the user's intended purpose.

## CLAMP PRODUCTS LTD

### Product Selector Sheet for CLAMP Swaging Pliers & Ferrules



#### Wire Rope

**Note:** Copper & nickel plated copper (P) ferrules are for use with stainless steel wire rope. Aluminium (A) ferrules are for use with galvanized steel wire rope.

Cable Diameter mm / inch		CLAMP Ferrule Product Code	CLAMP Plier Product Code	CLAMP Tool Number	Die Cavity	Presses per Ferrule	Tool / Ferrule Alignment	Appearance After Swaging
1.5	1/6	FR 105 / 105P / 105A	CP 731 or CP 763	1 or 3	1.5	2		
2.0	5/64	FR 120 / 120P	CP 731 or CP 763	1 or 3	2	2		
2.5	3/32	FR 125 / 125P / 125A	CP 731 or CP 763	1 or 3	2.5	2 or 3		
3.0	1/8	FR 130 / 130P / 130A	CP 763 or CP 774	3 or 4	3	2 or 3		
3.5	9/64	FR 135A	CP 774 or CP 775	4 or 5	4	2 or 3		
4.0	5/32	FR 140 / 140P / 140A	CP 774 or CP 775	4 or 5	4	2 or 3		
5.0	3/16	FR 150 / 150P / 150A	CP 775	5	5	2 or 3		
6.0	15/64	FR 160 / 160P / 160A	CP 776	6	6	3		
6.4	1/4	FR 164 / 164P / 164A	CP 776	6	6	3		
7.0	9/32	FR 170 / 170P	CP 777	7	7	3		
8.0	5/16	FR 180 / 180P	CP 778	8	8	3		
10	3/8	FR 199 / 199P	CP 799	10	10	3		


#### Fibre Rope & Braid

**Note:** For high load applications, two ferrules per splice should be employed. Rope ferrules can be successfully applied to a wider range of cable diameters than their wire counterparts. Pull testing is recommended to determine the suitability for purpose when operating outside the cable diameter given below.

Rope Diameter mm / inch		CLAMP Ferrule Product Code	CLAMP Plier Product Code	CLAMP Tool Number	Die Cavity	Presses per Ferrule	Tool / Ferrule Alignment	Appearance After Swaging
4.0	5/32	FR 140R	CP 763	3	2.5	1		
6.0	15/64	FR 160R	CP 774 or 775	4 or 5	4	1		
8.0	5/16	FR 180R	CP 775	5	5	1		
10	3/8	FR 199R	CP 779R	10R	10	1		
14	9/16	FR 144R	CP 144R	14R	14	1		

#### Aluminium Stop Ferrules

**Note:** These ferrules are for use on galvanized steel wire rope to effect a termination. Never use stop ferrules in lifting applications!

Cable Diameter mm / inch		CLAMP Ferrule Product Code	CLAMP Plier Product Code	CLAMP Tool Number	Die Cavity	Presses per Ferrule	Appearance After Swaging
3.0	1/8	FR 130AS	CP 731 or CP 763	1 or 3	2.5	9	
4.0	5/32	FR 140AS	CP 774 or CP 775	4 or 5	3	12	
5.0	3/16	FR 150AS	CP 775	5	4	12	
6.0	15/64	FR 160AS	CP 776	6	6	12	
8.0	5/16	FR 180AS	CP 778	8	8	12	
10	3/8	FR 199AS	CP 799	10	10	12	

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