



# Snap-On Clamp 30

Application, Removal, and Inspection &  
Maintenance Procedure

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|--------------------|-----------------|
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## **1. Introduction**

This document describes the correct method for applying, removing, inspecting, and maintaining the Betacom Earthing Snap-On Clamp 30 when used with the Betacom Earthing applicator tool. The procedure is designed to ensure safe, consistent, and standards-aligned operation in portable earthing applications. Notwithstanding these recommendations - will be Service providers own procedures.

## **2. Pre-Use Safety Steps**

- Open the carry bag at the worksite. Normally the phase to phase assembly will be in the lower compartment.

- Visually inspect the components - Snap-On Clamp 30, ground clamp, leads, crimps, and insulation for any damage or contamination.



- *Snap-On Clamp 30*

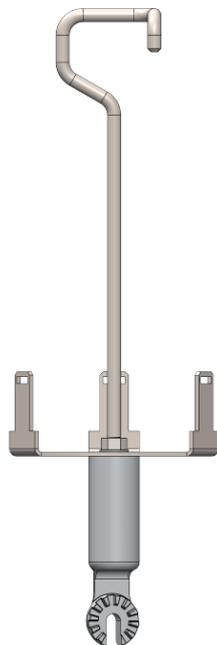
### 3. General Safety Rules

- Do not leave the Snap-On Clamp 30 cocked when not in use.
- **When cocked, do not place hands or fingers inside the mouth of the clamp in case it accidentally triggers.**
- Keep clear of the moveable jaw during cocking, mounting, application, and removal.
- Do not apply or remove clamps during adverse weather conditions that may affect conductor movement, visibility, or operator stability.
- Ensure the applicator tool is fully engaged on the operating stick before lifting clamps toward overhead conductors.
- Do not use the Snap-On Clamp 30 if any component shows signs of wear, deformation, corrosion, or mechanical damage.
- Never strike, lever, or force the clamp onto a conductor; the clamp must snap shut under its own spring action.
- Do not exceed the rated conductor diameter or the clamp's mechanical and electrical ratings.
- Maintain a stable stance and secure footing when applying or removing clamps from elevated positions.

- Keep the working area clear of unnecessary personnel during application and removal.
- Store clamps in the un-cocked position and in a dry, clean environment to prevent contamination or corrosion.
- Do not modify, or alter the clamp mechanism; only approved maintenance procedures may be used.
- **When applying a three-phase shorting set, first apply the earth line to the earth spike and apply the earth line Snap-On Clamp 30 to one of the conductors BEFORE applying the bonding assembly.**
- Always follow the correct sequence when applying multi-phase earthing sets to avoid mechanical interference between clamps.

#### 4. Application Procedure

- Prove the conductors are deenergised using an approved voltage detector before applying earths.



*Applicator Tool*

#### Step A — Prepare the Applicator

- Fit the Betacom Earthing applicator tool to the end of the operating handle and ensure it is securely fastened.



- Ensure the applicator platform is clean and free of debris so clamps seat correctly.

### Step B — Earth Connection

- Attach the ground clamp to the driven earth stake or approved earth point and tighten firmly.



*Clamps mounted on the Applicator*

### Step C — Mount Snap-On 30 Clamps on the Applicator Tool

- Cock a Snap-On 30 clamp for loading. i.e. rotate the moveable jaw against the spring torque until it clips into place.
- **Warning: Keep fingers/hands clear of the clamp mouth while latched**
- Mount the clamp onto one of the tags on the applicator platform –with opening jaw facing outwards.
- Ensure the clamp is fully seated and facing outward
- Cock the clamp by placing two thumbs under the movable jaw protruding at the back of the clamp.



- Push the jaw upward until the jaw “clicks”
- If mounting multiple clamps, repeat for the next clamp

### Step D — Apply Clamps to the Conductor

- Position the applicator above the conductor using the operating handle.
- Ensure that the clamp to be applied to the conductor is the correct one – i.e. generally the earthing conductor clamp is applied first followed by the phase to phase connecting clamps
- Align the first clamp with the conductor and apply a smooth downward motion until it triggers and snaps shut, releasing automatically from the platform.
- Repeat for the remaining clamps without removing the applicator tool from the handle.



### Step F — Apply Multi Phase Sets

- Then mount all three clamps on the applicator.
- Apply in sequence:
  1. To the phase conductor that has already been earthed
  2. Centre phase
  3. Outer phases

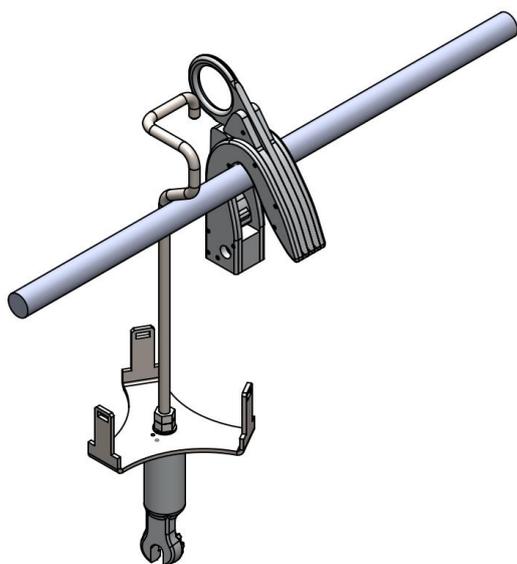
## 5. Removal Procedure

*(Integrated into the same applicator tool — no separate adaptor required)*

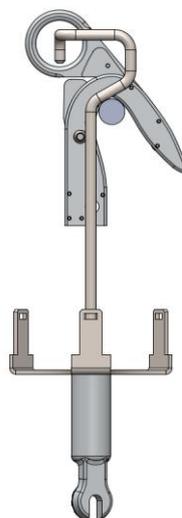
### Step A — Prepare the Applicator for Removal of the Snap-On 30 clamps

- Ensure the applicator tool is securely attached to the operating handle.
- Confirm the removal hook on the applicator is unobstructed.





Rest the applicator on the conductor and slide left



When the applicator is rested on the conductor the applicator is automatically aligned with the removal ring



## Step B — Engage and removal of Each Clamp

- Rest the applicator to the right of the clamp on the conductor. This aligns the applicator hook with the removal eye of the clamp.
- Slide the applicator into the removal eye and then twist to engage the applicator with the clamp. Twist until the applicator is fully inside the eye.
- Apply a steady upward or downward pull (depending on conductor orientation) until the clamp rotates free of the conductor and disengages.
- When pulling down, pull to rotate the clamp until it is nearly upside down before applying full pressure to disengage the clamp from the conductor
- Allow the clamp to slide down the applicator shaft to the base of the applicator.
- Repeat for the remaining clamps. Up to three clamps may be removed sequentially without detaching the applicator.



### **Step C — Remove the Clamps**

- Lower the pole without dropping the clamps to the ground
- Remove the clamps gently from the applicator
- When no longer required, remove the applicator from the pole and store all the equipment in the storage bag

## **6. Maintenance and Inspection Requirements**

### **6.1 Purpose**

This section defines the maintenance, inspection, and replacement requirements for the Snap-On Clamp 30. The clamp is a non-serviceable, replace-on-condition device. No internal adjustments, or disassembly are required .

### **6.2 General Maintenance Principles**

Maintain the Snap-On 30 clamps in a clean, dry condition and store them uncocked when not in use.

- The clamp mechanism must operate solely under its own spring force.
- Any clamp that fails inspection must be removed from service immediately.
- Only Betacom Earthing approved components may be used in the portable earthing assembly.

### **6.3 Inspection Frequency**

- Pre-Use: Visual and functional check before every use.
- Post-Use: Inspect after removal from the conductor.
- Periodic:
  - Formal inspection at least every 12 months, or more frequently if required.
  - Formal inspection and electrical resistance testing every three years

### **6.4 Pre-Use Inspection Requirements**

Inspect for:

- Cracks, deformation, or distortion of the clamp body.
- Smooth operation and secure latching of the moveable jaw.
- No binding or weakness in the spring mechanism.
- Straight, undamaged steel tag interface.
- No arcing, pitting, or burn marks on contact surfaces.
- No corrosion on metallic components.
- Cleanliness and absence of contamination.
- Secure cable terminations.
- Proper mounting and release from the applicator tool.

### **6.5 Functional Check**

- Cock the clamp and confirm the moveable jaw latches securely.
- Trigger the clamp (keeping fingers clear) to confirm smooth snap action.
- Remove from service if the clamp does not latch or snap shut with full spring force.
- The moveable jaw should swing freely, application of grease to lubricate the joint may be required.

### **6.6 Post-Use Inspection**

- Check for deformation or damage.
- Inspect contact surfaces for arcing or mechanical wear.
- Confirm the removal eye has not been distorted.
- Inspect cable lugs and crimps for movement or damage.

### **6.7 Cleaning Requirements**

- Clean with a dry cloth or soft brush.

- Mild detergent and water may be used if necessary; dry thoroughly.
- Do not use solvents, oils, lubricants, or pressure washing.
- Do not immerse the clamp.
- After cleaning use a light lubricating oil on the spring joint.

### **6.8 Prohibited Maintenance Actions**

- Disassembly or spring removal.
- Filing, grinding, or reshaping contact surfaces.
- Heating, bending, or straightening components.
- Modifying the clamp or applicator interface.
- Applying coatings or corrosion inhibitors to contact surfaces.

### **6.9 Replacement Criteria**

Replace the clamp if any of the following are observed:

- Cracks, deformation, or distortion.
- Weak or inconsistent spring action.
- Wear or elongation of the removal eye.
- Damage to the steel tag interface.
- Arcing or burning on contact surfaces.
- Corrosion that cannot be removed by cleaning.
- Failure to latch or snap shut during testing.
- Components should be discarded if they have been subjected to a fault current.

### **6.10 Storage Requirements**

- The bag has an internal flap designed to keep the bonding assembly separate from the earth lead. This

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helps prevent the two cable assemblies becoming entangled.

- Store clamps uncocked.
- Keep in a dry, clean environment.
- Protect from impact, vibration, and mechanical stress.