

ESAB 21008

ESAB Model 21008 30-40 Amp Air/Nitrogen Cutting Tip User Manual

For PT-31, PT-31XL, and PT-31XLPC Plasma Torches

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the ESAB Model 21008 30-40 Amp Air/Nitrogen Cutting Tip. Adhering to these instructions will ensure optimal performance and extend the lifespan of your cutting tip. Please read this manual thoroughly before using the product.

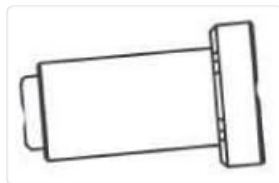


Figure 1: An illustration of the ESAB Model 21008 plasma cutting tip, designed for 30-40 Amp air/nitrogen plasma torches.

2. PRODUCT FEATURES

The ESAB Model 21008 cutting tip is a high-quality consumable designed for efficient plasma cutting operations. Key features include:

- Plasma Torch Cutting Tip
- Designed for 30-40 Amp cutting applications
- Compatible with PT-31, PT-31XL, and PT-31XLPC torch models
- Supplied in a package of 5 tips

3. SETUP AND INSTALLATION

Proper installation of the cutting tip is crucial for safe and effective plasma cutting. Always ensure the plasma torch is disconnected from the power source before performing any maintenance or part replacement.

3.1 Compatibility

This cutting tip is specifically designed for use with ESAB PT-31, PT-31XL, and PT-31XLPC plasma torch models.

3.2 Installation Steps

1. Ensure the plasma cutter is turned off and disconnected from the power supply.
2. Carefully unscrew and remove the torch's retaining cap.
3. Remove the old cutting tip and any other worn consumables (e.g., electrode, swirl ring, shield cup).
4. Inspect the torch head for any debris or damage. Clean if necessary.
5. Insert the new ESAB Model 21008 cutting tip into its designated position. Ensure it seats correctly.
6. Reassemble the other consumables (electrode, swirl ring, shield cup) in the correct order.
7. Screw the retaining cap back onto the torch, ensuring it is hand-tightened securely. Do not overtighten.
8. Reconnect the plasma cutter to the power supply.

4. OPERATING INSTRUCTIONS

The ESAB Model 21008 cutting tip is designed for optimal performance within the 30-40 Amp range. Always refer to your plasma cutter's main instruction manual for specific operating procedures and safety guidelines.

4.1 General Operation

- **Safety First:** Always wear appropriate personal protective equipment (PPE), including welding helmet, gloves, and protective clothing. Ensure proper ventilation.
- **Power Settings:** Set your plasma cutter to the appropriate amperage within the 30-40 Amp range, as recommended for your material thickness and desired cut quality.
- **Air Pressure:** Verify that the air pressure supplied to the plasma torch is within the manufacturer's recommended range for your specific plasma cutter model.
- **Cutting Technique:** Maintain a consistent torch height and travel speed for clean and efficient cuts.

5. MAINTENANCE

Regular inspection and maintenance of your cutting tip and other consumables will ensure consistent cut quality and prolong the life of your plasma torch.

5.1 Inspection

- Before each use, inspect the cutting tip for signs of wear, such as a widened orifice, pitting, or excessive discoloration.
- Check for any signs of damage to the tip, such as cracks or deformation.

5.2 Cleaning and Replacement

- If the tip shows significant wear or damage, replace it immediately with a new ESAB Model 21008 tip.
- Do not attempt to clean or repair severely worn tips, as this can negatively impact cut quality and torch performance.
- Periodically clean the torch head and other consumables to remove slag and debris buildup.

6. TROUBLESHOOTING

If you experience issues with your plasma cutting, consider the following common troubleshooting steps related to the cutting tip:

- **Poor Cut Quality / Excessive Dross:**
 - Check if the cutting tip is worn out and needs replacement.
 - Verify correct amperage and air pressure settings for the material being cut.
 - Ensure proper torch height and travel speed.
- **Short Tip Life:**
 - Ensure the cutting tip is not being used at amperage settings exceeding its 30-40 Amp rating.
 - Check for proper air flow and quality (e.g., moisture, oil in air supply).
 - Avoid dragging the tip excessively on the workpiece.
- **No Arc / Intermittent Arc:**
 - Inspect the cutting tip and electrode for proper installation and wear. Replace if necessary.
 - Ensure all consumables are correctly seated and tightened.

7. SPECIFICATIONS






Technical specifications for the ESAB Model 21008 Cutting Tip:

Specification	Detail
Brand	ESAB
Model Number	21008
Amperage Range	30-40 Amp
Gas Type	Air/Nitrogen
Compatibility	PT-31, PT-31XL, PT-31XLPC Plasma Torches
Package Quantity	5 per pack
Manufacturer Part Number	21008
ASIN	B01MAWXTYT

8. WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance regarding the ESAB Model 21008 cutting tip, please contact ESAB directly or refer to the documentation provided with your original plasma cutting equipment. Specific warranty terms may vary by region and purchase date. You may also visit the official ESAB website for product information and support resources.

Related Documents - 21008

 <p>CUTMASTER® A120 AUTOMATED PLASMA CUTTING SYSTEM</p> <p>Operating Manual</p> <p>esab.eu</p>	<p>ESAB CUTMASTER® A120 Automated Plasma Cutting System Operating Manual</p> <p>Comprehensive operating manual for the ESAB CUTMASTER® A120 Automated Plasma Cutting System. Covers safety precautions, system and torch introductions, installation, operation, service, and parts lists for efficient and safe use.</p>
 <p>TRACFINDER WHEEL</p> <p>Driftsinstruktioner</p>	<p>ESAB TRACFINDER WHEEL: Betjeningsvejledning og Teknisk Information</p> <p>Denne betjeningsvejledning giver detaljerede instruktioner til installation, drift, vedligeholdelse og fejlfinding af ESAB TRACFINDER WHEEL svejsetraktor. Lær om tekniske specifikationer, sikkerhedsprocedurer og tilbehør.</p>
 <p>Renegade VOLT ES 200i</p> <p>Quick Start Guide</p>	<p>ESAB Renegade VOLT ES 200i Quick Start Guide</p> <p>Concise quick start guide for the ESAB Renegade VOLT ES 200i welding machine, detailing setup, MMA, Live TIG, Battery Mode, and AMP+ Hybrid Mode operations.</p>
 <p>ESAB Cutmaster 100, ESAB Cutmaster 120</p> <p>Spare parts list</p>	<p>ESAB Cutmaster 100 & 120 Spare Parts List</p> <p>Comprehensive spare parts list for ESAB Cutmaster 100 and ESAB Cutmaster 120 plasma cutting machines, including part numbers, denominations, and detailed descriptions of components.</p>
 <p>LAF 1001 / LAF 1001M</p> <p>Instruction manual</p>	<p>ESAB LAF 1001 / LAF 1001M Instruction Manual - Welding Power Source Guide</p> <p>Comprehensive instruction manual for the ESAB LAF 1001 and LAF 1001M remote-controlled 3-phase welding power sources, covering installation, operation, maintenance, and safety for mechanised arc welding applications.</p>



[ESAB CarryVac 3 Portable Welding Fume Extractor with AST - Technical Data](#)

Discover the ESAB CarryVac 3, a portable welding fume extractor featuring Auto Start Technology (AST) for efficient and healthy work environments in light-duty welding applications. View specifications, parts, and accessories.