



## 302-ANO-0000X: Install Anode Collar Work Instruction

Recommended No. Operators: 1

Recommended Batch Quantity: xx

Estimated Time to Complete Work: 2h (drying time not included)



**This process includes <Safety recommendation>**

**Form Energy**

[www.formenergy.com](http://www.formenergy.com)

**Version: 1.0 [WHERE IS THE DATE GOING TO BE RECORDED FOR POSTERITY?]**

|                                                                                  |                                                                               |               |
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## Purpose

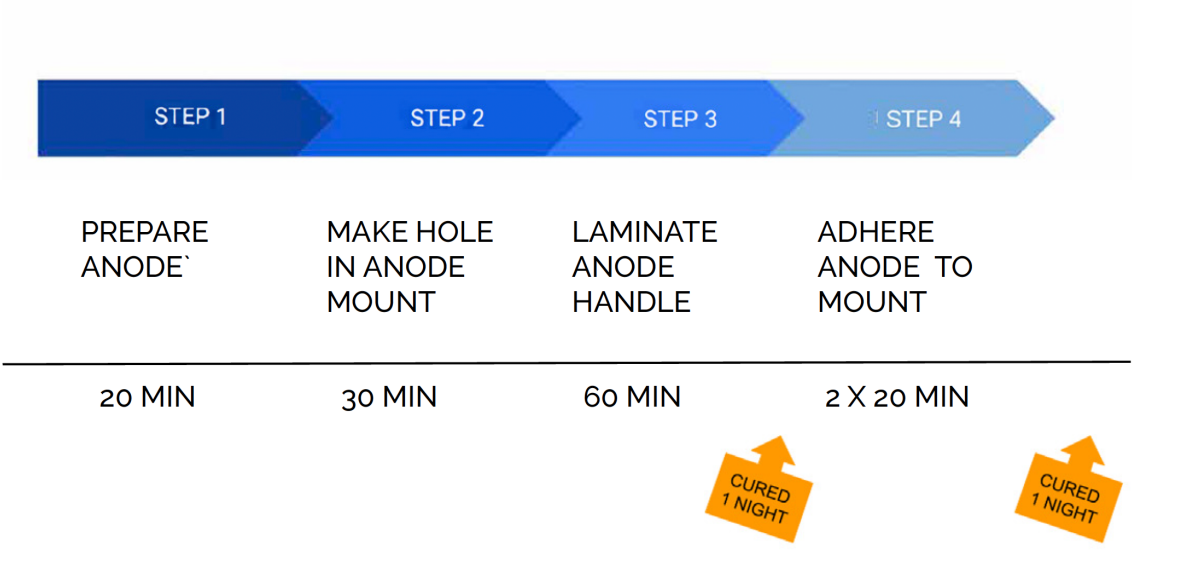
This document provides anode collar assembly instructions. The anode collar is installed [WHERE? WHAT WORKSTATION?].

[IMAGE OF CAD DRAWING OF ANODE COLLAR HIGHLIGHTED ON THE ANODE HERE]

# Procedure Overview

This procedure applies to Form Energy operators tasked with completing the Anode Collar Assembly (ASSY). Operators are responsible for delivering anode collar assemblies to the [PHYSICAL WORKBENCH LOCATION?] assembly area. The flowchart summarizes the components and order of operations to complete each step of the Anode Collar Assembly:

## ANODE ASSEMBLY PROCESS (BATCH OF 4)



|                                                                                  |                                             |               |
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## Acronyms, Terms & Definitions

| Acronym             | Definition                            |
|---------------------|---------------------------------------|
| ASSY-CELL-ANO-001   | Anode                                 |
| ASSY-CELL-ANO-002   | Anode Collar                          |
| ASSY-CELL-ANO-003   | ...                                   |
| ...                 | ...                                   |
| ASSY-CELL-BENCH-00x | Bench dedicated for ASSY-CELL-ANO-001 |

## Prerequisites

Operators should be familiar with:

- [\[List appropriate skills here\]](#)
- Form Energy Safety Overview

## Responsibilities

| Role                    | Responsibility                                                                                                                                                                                                                                                                                              |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Cell Technician | <ul style="list-style-type: none"> <li>- Maintain a clean work station</li> <li>- Maintaining upkeep of provided tools</li> <li>- Maintaining set organization system</li> <li>- Monitor part and consumables stock in work station</li> <li>- Direct problems or inconsistencies to the manager</li> </ul> |

|                                                                                  |                                                                               |  |               |
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## Tools, Parts, Equipment & Consumables & PPE

| TOOL/FIXTURE                              | Parts                   | Tools                                                                    | Consumable                                      | PPE                                                                     |
|-------------------------------------------|-------------------------|--------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------|
| ASSY-CELL-ANO-001<br>[Anode image]        | Anode<br>[Image]        | Plastic mixing tray                                                      | Sand paper grit 400                             | Nitrile Gloves                                                          |
| ASSY-CELL-ANO-002<br>[Anode Collar image] | Anode Collar<br>[Image] | Popsicle stick<br>Vise grip<br>Collar install tool<br>Paintbrush (size?) | Araldite<br>Weldon<br>Popsicle Stick<br>Rag (?) | Safety glasses<br><br>Respirator w/organic vapor and particulate filter |

## Material and/or Kit Required

| Araldite for x?                                          | Weldon for x?                                                                                                                                           |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Name of material:</b><br>(+/- 45) ###mm x ###mm - 1pc | <b>Recipe?:</b><br>Weldon - ### grams<br>Weldon - hardener medium<br>Weldon hardener fast - 10%<br><br><b>Recipe: (2 batch of 2)</b><br>[Name]: 2 x ##g |

|                                                                                  |                                             |  |               |
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## Preparation

| Step                            | Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Image                                                                                                                                                                                                                   |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b><br><br>Quality Control | <b>Prepare Anode Collar</b><br><br>Should be resolved at which step? Any potential notes of consequence should go here.<br><br>a) How much Weldon should be applied to the outer surface of the Anode Collar?<br><br>b) Lightly (What does this mean?) and all metal surfaces with grit 400 sandpaper.<br><br>c) Use the Collar Install Tool to mark/draw a line where the collar will sit.<br><br>d) Using a popsicle stick, mix approximately ½ of a cartridge of Araldite into a (plastic?) mixing tray. | <b>Work in the [LOCATION]</b><br><br><b>[IMAGE of Weldon being applied here]</b><br><br><b>[IMAGE of sanded surface here]</b><br><br><b>[IMAGE of drawn line/mark]</b><br><br><b>[IMAGE of ½ cartridge of Araldite]</b> |

## Anode Collar Assembly

| Step | Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Image                                                                                                                                                                                                                                                                                                                      |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2    | <p><b>Secure Anode Collar</b></p> <p>(QTY ##)</p> <ul style="list-style-type: none"><li>a) <b>Protect the table with protective covering?</b></li><li>b) Liberally apply Araldite to the anode tabs. [How many? 4?] Ensuring Araldite fills the gaps between the tabs and collar area.</li><li>c) Attach a vise grip to close to the anode tabs as close as possible to the cage to secure them tightly.</li><li>d) Insert Collar Install Tool.</li><li>e) Remove the vise grip.</li><li>f) Liberally apply Araldite to the collar side closest to the anode cage. Wait 20 minutes for Araldite to fully dry. [What should it feel like when it's completely dry? ]</li></ul> | <p><b>Work on ASSY-ANO-BENCH-001</b></p> <p><b>[IMAGE of Araldite applied to a tab with an arrow/marker highlighting the gap location]</b></p> <p><b>[IMAGE of vise grips close to anode tabs]</b></p> <p><b>[IMAGE of Collar Install Tool inserted]</b></p> <p><b>[IMAGE of Araldite application on anode collar]</b></p> |

|                                                                                  |                                             |  |               |
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|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 3 | <b>Leaks Check</b> <ol style="list-style-type: none"> <li>Stand anode vertically.</li> <li>Fill inside of anode collar with water using a syringe.</li> <li>When test is completed, pour out water. <a href="#">[Where?]</a></li> <li>Blow anode collar with compressed air. <a href="#">[What force? And for how long? Until what qualitative feedback is achieved?]</a></li> </ol> | <b>Work on ASSY-ANO-BENCH-001</b><br><br><b>[IMAGE of Anode Collar in vertical position]</b><br><br><b>[VIDEO of water test]</b> |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|

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# Documents & References

[Linked references here]

# Document History

This document is approved for use at Form Energy.

| Rev | History/Change Description | Originator | Approver | Approver | Date             |
|-----|----------------------------|------------|----------|----------|------------------|
| 1.0 | First release              | Hira       | Hira     | Hira     | Not yet approved |

# Acknowledgment Form

To acknowledge that you have read this document, please complete [this form](#).