

TECH 4398

## Appendix I: Senior Design Project Abstract

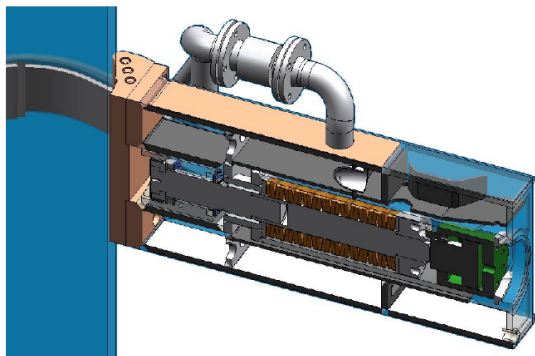
### *Electrode Mandrel Removal Tool*

#### **Product Description:**

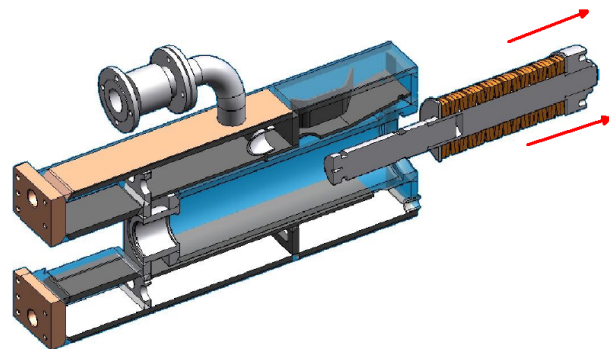
Develop a tool to extract the mandrel from the electrode arm that incorporates worker safety, does not damage the arm or mandrel, and is relatively simple to use.

#### **Abstract: (less than 350 words)**

Using the drawings and pictures provided, design and build a tool that can be used to remove the mandrel from the electrode arm, specifications for any motorized or hydraulic equipment that is required to operate the tool, and write instructions on how to use the tool safely and effectively.



**Fully Assembled Arm with Mandrel Inside**



**Mandrel Removed from Arm**

**Safety:** Design shall not introduce or expose the operator to any hazards in excess of the current process.

**Ergonomics:** Using the tool shall not induce fatigue in excess of the current process

**Equipment Protection:** Using the tool shall not result in damage to the arm or mandrel.

#### **Project Customer:**

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