framatome

Thimble Tube Cutting Tool

Challenge

Flux thimble tubes need to be replaced for a variety of reasons. The replacement process usually involves pulling the flux thimble through the core plate and cutting it underwater for disposal in a standard trash can.

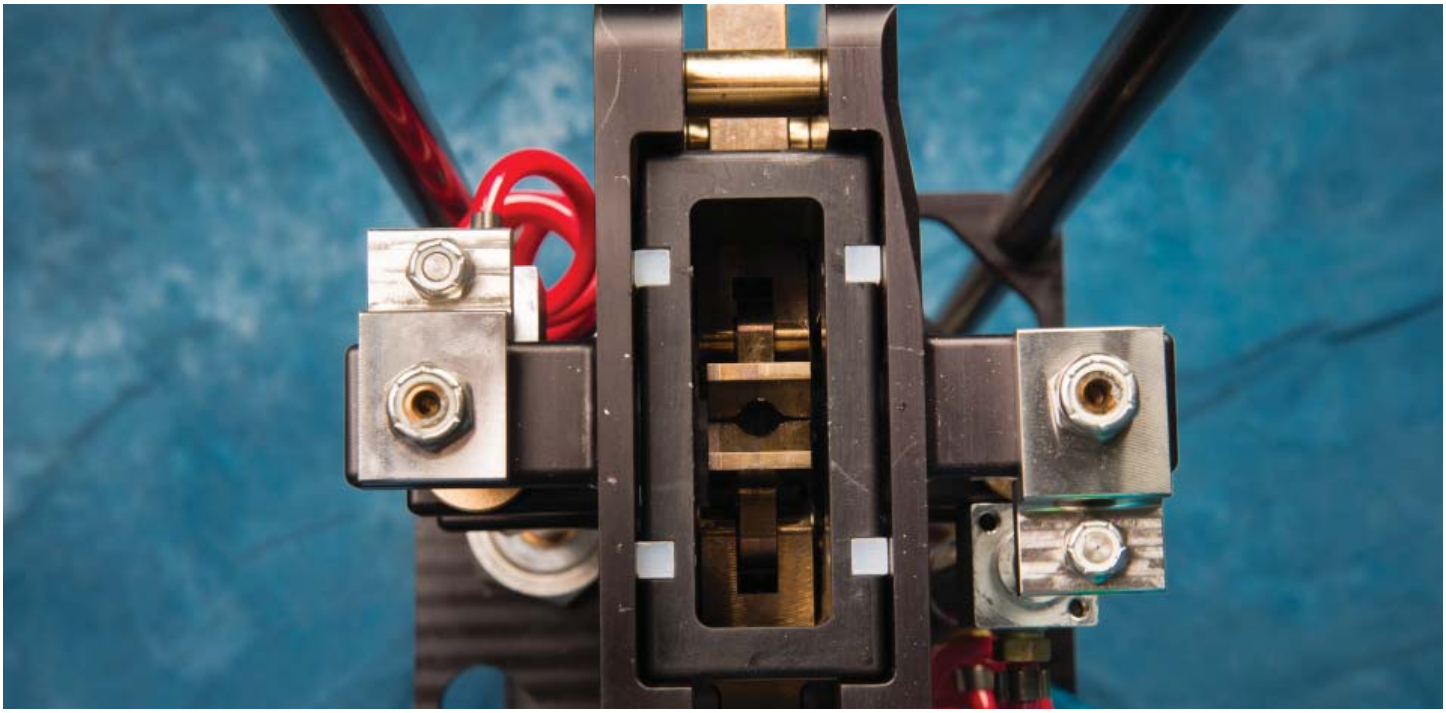
Solution

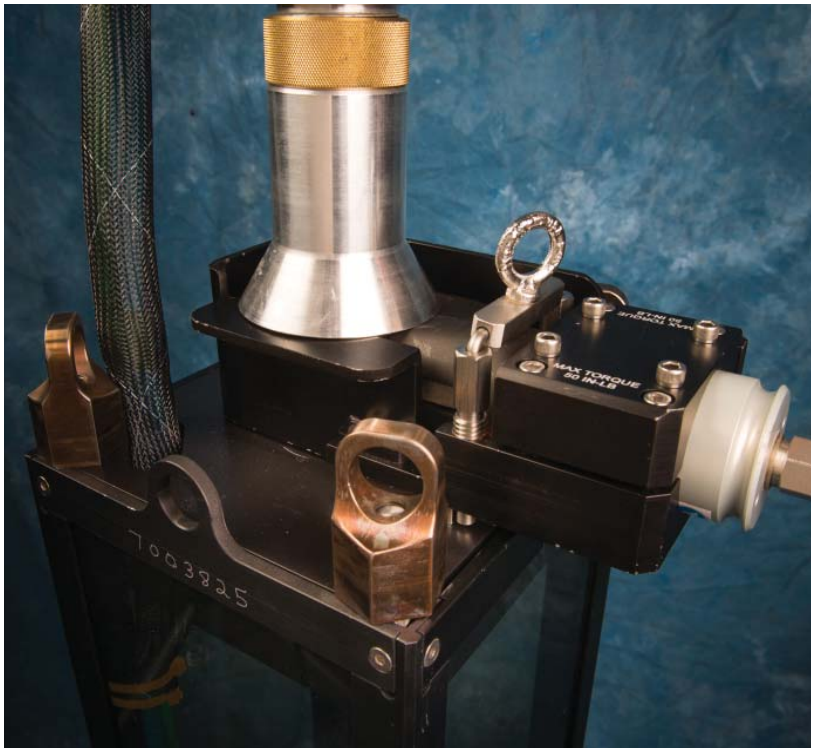
Framatome is fully prepared to address any needs for flux thimble tubes. Framatome has developed a thimble cutting tool that extracts and cuts the irradiated sections of flux thimbles for disposal. The tool is placed on the core plate directly over the thimble location selected for replacement. The flux thimble is pushed into the tool from the seal table room, then utilizing site air or nitrogen, the tool extracts the thimble. A transport pole is used to securely grip the thimble using a pneumatic bladder, then a hydraulic cutter cuts irradiated thimbles into segments. The transport pole is then used to securely move the section of cut flux thimble to a waiting trash can.

Customer benefits

- Critical path time savings — tool can be transferred to the spent fuel pool to be cleaned and released from critical path
- Reduces dose by minimizing the number of people required for flux thimble cut-up activities
- Diminishes the risk of personnel contamination events (PCE)
- Decreases the potential for thimble kinking or shatter when pulling
- Debris is contained if a thimble shatters
- Integrated system that eliminates need for multiple sets of underwater vice grips
- Indicator arm ensures cut segments are kept a minimum of 10’ underwater

Your performance
is **our** everyday **commitment**





Features

Thimble Tube Cutter Tool

- Removable hydraulic cutter
- Designed to fit into the transfer system upender
- Sits on the core plate like a fuel assembly
- Can be disassembled underwater
- Cut sections of flux thimble remain in vertical position for entire evolution

Transport Pole

- Cone shape lead-in for lowering onto protruding flux thimble
- Inflatable bladder to grip flux thimble segments
- Integrated indicator arm that shows operators exactly where the top of the irradiated segment of flux thimble is located

Contact: Ben Grambau • Tel: 434.832.3229
Ben.Grambau@Framatome.com • **www.framatome.com/us**

framatome