



# Igniter for Exothermic Torch Rod

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## Situational Summary

- The Naval Surface Warfare Center's Crane Division has created a torch rod igniter for heavy metals and materials cutting applications.
- The technology has a small market and due to funding limitations by the federal government, the technology marketing strategy has been delayed.
- The igniter has been used within the Navy as well as other military factions for tactical applications, and is market ready.
- This igniter is of particular importance because it provides a quicker, more reliable method of ignition for exothermic cutting.

## Applications

**Military, FBI, & Police**  
Tactical breaching or demolition tasks





**Metals Manufacturing**  
Steel mills



**Demolition, Construction, & Renovation**  
Salvage work, scrap cleanup, railroads and shipyards, underwater contractors

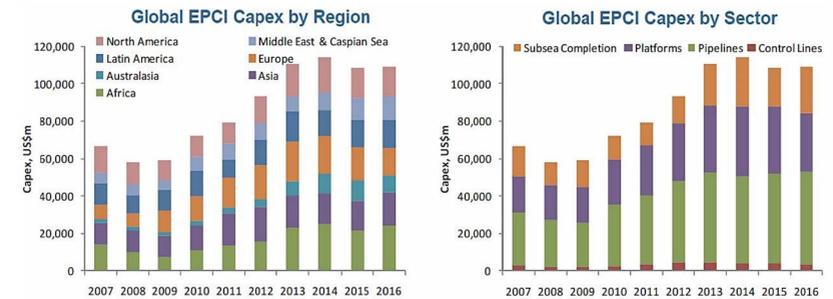




**Fire & Rescue**  
Car wreck extraction, Heavy metal debris clearing



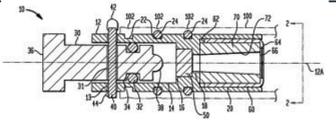

## Market Opportunity



- Market potential is worldwide
- Investments in engineering & construction will increase significantly
- By 2014, global market will reach almost \$120 billion
- Nearly \$450 billion is expected over the next 5 yrs.

## Technology Synopsis

- Exothermic torch rods are used for cutting, piercing, or gouging almost any heavy metal material
- Typical Ignition methods: 12 V battery and striker plate
- This technology uses pyrotechnic material
- Complete torch rod system: \$35 Igniter alone: \$10-15
- A need for quicker, more reliable, and effective ignition methods for exothermic cutting is a burning issue that this technology can solve



## Competition

Company Product and Description/Features	
<p><b>RapidFire Cutting Rod Igniter</b></p> <ul style="list-style-type: none"> <li>Near-instantaneous</li> <li>Non-electric ignition</li> <li>Can be used underwater</li> </ul> 	<p><b>Symex Hot-Rod Torch</b></p> <ul style="list-style-type: none"> <li>Requires striker plate</li> <li>Requires 12-volt battery</li> </ul> 
<p><b>Arcair Slice Cordless Striker Pack</b></p> <ul style="list-style-type: none"> <li>Uses 2 small batteries</li> <li>Striker plate is used for ignition</li> </ul> 	<p><b>X-Cut Igniter Tube</b></p> <ul style="list-style-type: none"> <li>Ignites without electrical power</li> <li>Replaces need for striker plate</li> </ul> 
<p><b>Caldo Mini Cutting Torch System</b></p> <ul style="list-style-type: none"> <li>Eliminates the need for 12-volt battery</li> <li>Requires a match / small flame for ignition</li> </ul> 	

## Keys to Commercialization

- Pursue existing discussions with Oxylance, Inc.
- Pinpoint businesses that have energetics experience and can legally produce the igniter
- Integrate into the torch rod product line for military & police applications
- Pursue alternative agreements with other potential licensees

