

Underwater Explosive Casings: EcoCut

A specialty screw machine shop is manufacturing underwater explosive casings made from aluminum bar stock for the U.S. Navy. These products must meet very strict tolerances. They use an EMCO multispindle lathe (four spindles per machine) with a water soluble coolant through the tool.

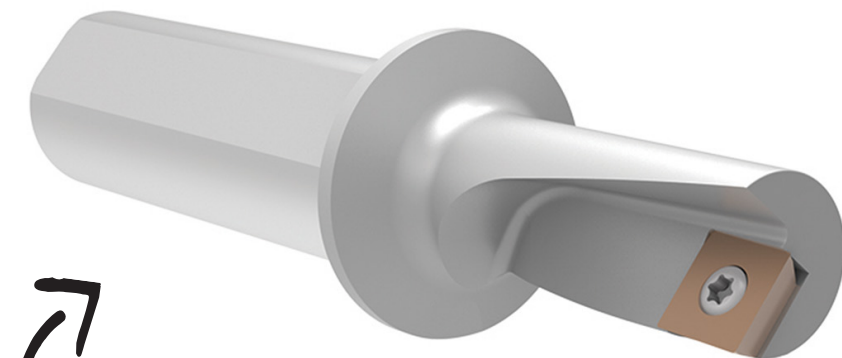
The customer needed to reduce the cycle time, reduce the amount of tooling, and reduce costs.

The **EcoCut** successfully decreased cycle time while eliminating 3 tools from the process.



		Measure	Previous Tooling	EcoCut
Product:	EcoCut			
Objective:	Decrease cycle time			
Industry:	Firearms			
Part:	Underwater explosive casings			
Material:	Aluminum bar stock			
			4 Tool Process <ul style="list-style-type: none"> • Drill • Small boring bar (0.375") • Large boring bar (0.750") • Facing tool 	<ul style="list-style-type: none"> • 600 SFM • 1024 RPM • 1.126 IPM (drill) • 2.048 IPM (counter bore) • 5.120 IPM (finish bore)
		Cycle Time	2 min	1 min 38 sec

► EcoCut
Insert: XCET 10T308FN-27P grade H216-T
Holder: EC 20R-1.5D 10E



18% cycle time decrease

The EcoCut provided:

✓ Increased tool life

✓ Decreased cycle time