



Globe Valve – Fire Fighting Equipment

Solving long lead time issues for critical parts.

Background

The leading cause of vessel loss is fires aboard ships. To mitigate this risk, fire fighting outlets are strategically positioned throughout the ship, enabling the crew to effectively combat fires. If these outlets are non-functional or damaged, the crew’s ability to safely control fires is compromised, thereby diminishing the vessel’s operational effectiveness.

The Challenge

Sourcing casting parts domestically has become more challenging recently due to a decrease in casting houses and limited production of specific maritime alloys like Nickel Aluminum Bronze. This situation has led to restricted logistical supply chains that are finding it difficult to meet current demand. This challenge is decreased capability in the maritime sector.

The Solution

SPEE3D’s CSAM (Cold Spray Additive Manufacturing) technology can 3D print metal replacement parts in unique marine materials from design to deployment in less than 1.5 days.

The Value

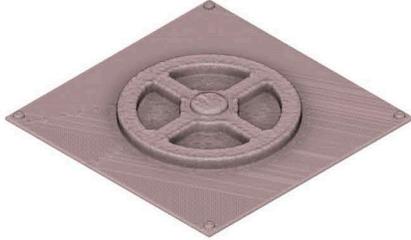
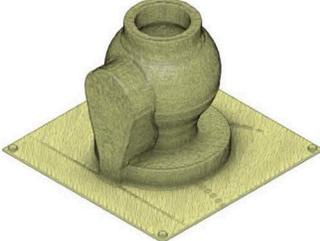
Keeping equipment running is essential in critical environments for any industry. Whether it’s a ship on the ocean, a piece of mining equipment in a remote area, or a valve on an oil rig in the ocean, without the correct spare parts equipment can sit idle and unable to be used. Often the cost of the replacement parts is not the issue, it’s the time it takes to receive them. With CSAM technology customers can reduce the wait time for critical spare parts from weeks to less than a day.

Value Summary

Small batch manufacturing of hard to obtain parts can be costly with long wait times. Produce the same parts, as needed, on-site in less than 31.5 hours.

Production Method	Production Time
Manufacturing (Casting or Machining)	6-8 weeks
SPEE3D CSAM NAB	31.5 hours

From design to deployment in 31.5 hours

		
Print: 36 minutes	+	
		
Print: 1.1 hours	+	
		
Print: 5 hours	Cook: 19.5 hours	Cut: 5 hours
Nickel Aluminum Bronze, 41kgs of combined material	Heat treated in a standard air furnace	Critical surfaces machined on CNC

About The Equipment

Naval fleets rely on onboard firefighting capabilities to protect the vessels and their crew from fire whilst operational, this is true from the smallest patrol craft all the way through to the largest Aircraft Carrier.

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