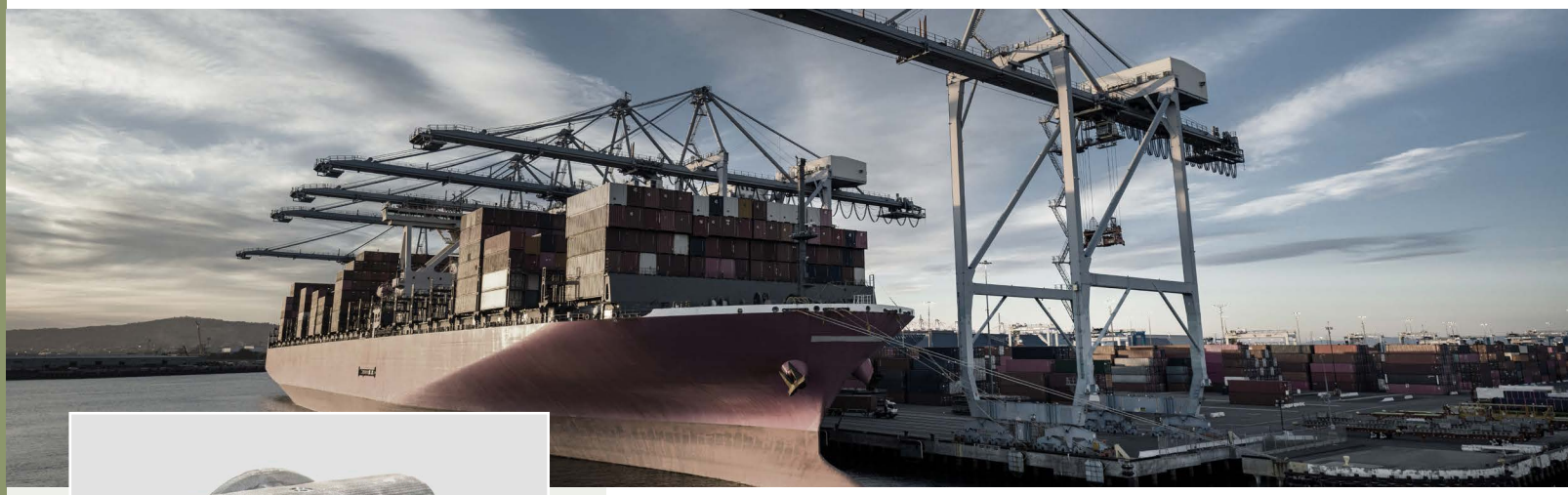


Marine Bilge Pump Body

Solving the long lead time issues for parts no longer in production.

Value Summary

Small batch manufacturing of obsolete parts can be costly with long wait times. Produce the same parts, as needed, in less than 17 hours.

Production Method	Production Time
Manufacturing (Casting or Machining)	6-8 weeks
SPEE3D CSAM Aluminum 6061	17 hours

Background
Marine bilge pumps are used to remove water from a vessel. They are important for keeping areas such as the engine bay free of water. Water entering these areas can damage the propulsion system, potentially causing the vessel to become immobile.

The Challenge
Parts obsolescence can make sourcing assemblies for older systems difficult, leaving two options – costly small-scale production runs, with long lead times, or modifying the system to accommodate newer parts. Neither of these are generally cost or time effective.

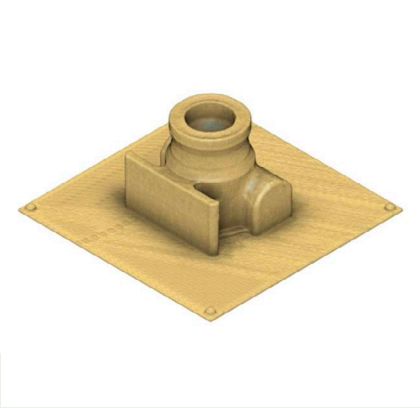
The Solution
SPEE3D's CSAM (Cold Spray Additive Manufacturing) technology can 3D print metal replacement parts from design to deployment in under 24 hours.

The Value
The bilge is a critical component in many areas of a ship. Larger ships can have several pumps abord. Keeping these operational is essential and carrying enough spares on board may not be feasible. Often the cost of the replacement parts is not the issue, it's the time it takes to receive them. With CSAM technology ships can have a spare produced at a local port and picked up in less than a day.

Design to deployment in 17 hours

Print: 1.9 hours

Aluminum 6061, 2.3kgs of material



Cook: 12 hours

Heat treated in a standard air furnace

Cut: 3 hours

Critical surfaces machined on CNC

About The Equipment

Marine bilge pumps are used to remove water from the hull of a vessel. They are vital to keep critical areas like the engine bay free of water, where ingress of water may cause damage to the propulsion system causing the vessel to become dead in the water. Replacement of seals and internal components can be conducted with standard seals and kits, but if the body becomes damaged or worn there is no way to refurbish the pump. By having the ability to reproduce the body quickly and cost effectively the lifespan of the pump can be extended.

SPEE3D

SPEE3D.COM

World headquarters,
Melbourne, Victoria, Australia

Research & development,
Darwin, NT, Australia
Phone: +61 (03) 8759 1464

North America,
Wilmington, Delaware, USA
Phone: +1 877-908-9369

UK/Europe,
Berlin, Germany
Phone (UK): 0808 196-2931
Phone (EU): +44 (808) 196-2931

Learn more today

Ready to bring your metal additive manufacturing application to life?
Visit us at www.spee3d.com/contact/