Value Summary

Small batch manufacturing of parts can be costly with long wait times. Produce the same parts, as needed, on-site in less than 30 hours. Avoid downtime issues at sea.

Production Method	Production Time
Manufacturing (Casting or Machining)	6-8 weeks
SPEE3D CSAM NAB	29.5 hours

DN25 Flanged Type Ball Valve

Solving the long lead time issues for difficult to source parts.

Background
Modern naval vessels have extensive pipework supporting essential onboard systems. Failure to isolate sections for maintenance can reduce operational efficiency or require the vessel to be stood down for repairs.

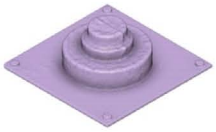
The Challenge
Sourcing casting parts domestically has become more challenging recently due to a decrease in casting houses and limited production of specific maritime alloys like Nickel Aluminum Bronze. This situation has led to restricted logistical supply chains that are finding it difficult to meet current demand, resulting in 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 30 hours.

The Value
Keeping equipment running is essential in critical enviorments for any industry. Whether it's a tank on a battlefield, a piece of mining equipment in a remote area, or a valve on a cargo ship, 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.

From design to deployment in less than 30 hours

Print: 26 minutes



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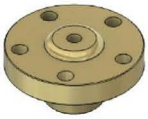
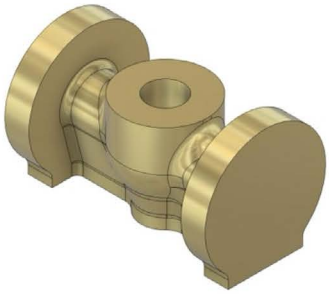
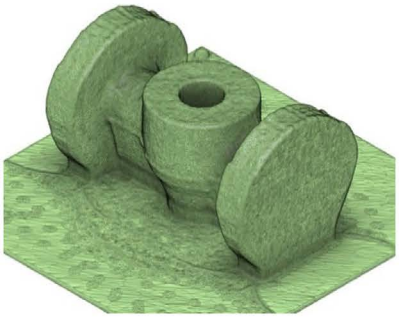




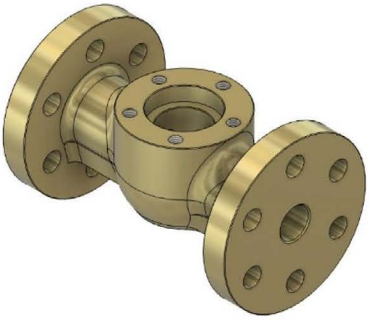
Print: 3.6 hours

Nickel Aluminum Bronze,
2.6kgs & 22.3kgs of material



Cook: 19.5 hours

Heat treated in a standard
air furnace



Cut: 4 hours

Critical surfaces machined
on CNC

About The Equipment

Controlling the flow is vital to maintenance and repair of onboard ships systems, this is achieved through isolating flow using valves. A DN25 flanged ball valve is a type of flow control device. It uses a rotating ball with a hole to control fluid flow by opening or closing the flow path. Its flanged ends allow for easy connection to pipes.

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