

3m³ Box Top Flange

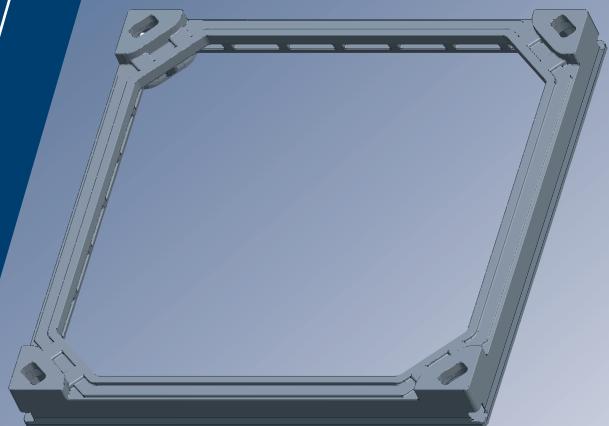
– Innovative Manufacturing Approach

Overview

Machining of the box top flange results in 80 % high-grade material loss. Casting of the flanges improves material yield and sustainability while being cost competitive. A study performed by AMRC Castings proved the feasibility of cast lid flanges.

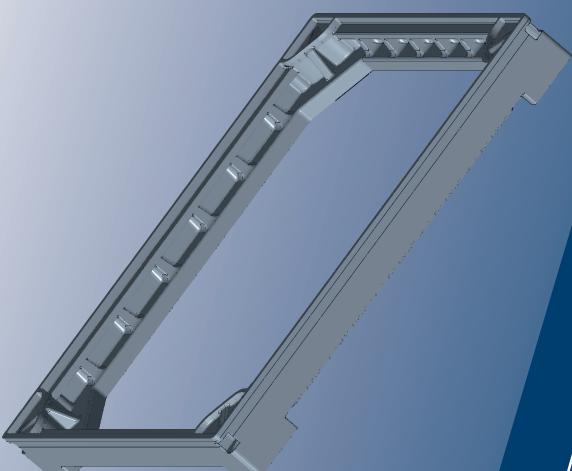
William Cook - Capabilities

Based on the lessons learned from the feasibility study, William Cook is proposing a high-volume sand-casting manufacturing approach for the box top flange. Our innovative ideas and approach in the manufacturing section focus on chemistry, melting practice and post cast technologies. Initial prototyping supports the development of volume production and determines additional investment.



Innovative Manufacturing Approach - Benefits

- Material waste rate is reduced to the machining tolerance, increasing the machining cost-effectiveness and improving the material sustainability aspects
- Castings in a range of corrosion resistant alloys
- Corner twist lock elements and other design features can be incorporated into the casting
- Reduced distortion after machining
- Full in-house service from development to finished machined part, taking control of both quality and delivery
- Cast box top flanges help to diversify the waste box supply chain



Company Information

William Cook companies design, manufacture and overhaul components and systems for applications where safety and reliability are critical. The company has a long history of supplying parts for the civil and naval nuclear markets.



Quality Management

William Cook holds relevant national and international certifications, including ISO 9001, ISO 14001 and ISO 45001. The company is an ISO19443 certified supplier and has been granted Fit4Nuclear status.



Recent Investments

Continuous investment guarantees William Cook's role as the most trusted manufacturer of specialist steel castings. A £5.5m capital investment plan for 2022/2023 includes a new radiography facility (4 & 9 MeV linear accelerator digital radiography), an extended ISO 17025 metallurgy laboratory, a new AOD unit and a dedicated nuclear project team.

ACCREDITATIONS AND APPROVALS

- ✓ ISO 9001
- ✓ ISO 14001
- ✓ ISO 45001
- ✓ ISO 19443
- ✓ Lloyds Register of Shipping
- ✓ EN10340 Construction Product Regulations
- ✓ EN15085 EU Pressure Equipment Directive

- ✓ American Bureau of Shipping
- ✓ DNV GL offshore standards
- ✓ NORSO M650 4A 5A 6A
(sand and investment castings)
- ✓ JOSCAR
- ✓ Fit4Nuclear
- ✓ ISO 17025 (in progress)

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