



M-MFC

Steatite Modular Multifunction Console (M-MFC)

Overview

The Steatite Modular Multifunction Console (**M-MFC**) has been designed to simplify console deployments in naval applications. The modular design streamlines customisation to suit specific use-cases, saving time and money, and reducing risk. All aspects of the Steatite M-MFC have been designed in house by Steatite engineers, giving us significant flexibility to customise the console to suit specific applications.

Assembly is carried out at Steatite's new purpose-built secure facility in Gloucestershire by our well trained and experienced production engineers. Detailed build documentation, high quality standards, and strict inspection criteria strict ensure each console is delivered to spec and in perfect condition first time.

Key Features

- Customisable COTS design for rapid deployment.
- 1, 2, or 3 high resolution screens. Vertical or horizontal layout.
- Integrated compute, thin client, zero client, and KVM options.
- Rugged, lightweight construction with optional pedestal.
- Designed to Naval DEFSTANs and MIL-STDs for EMC, shock, vibration, temperature.
- Interface strip for buttons, indicators, I/O, and CO2 injection.

Applications

- Combat management system.
- RADAR / SONAR display console.
- Integrated bridge system.
- Communications station.
- Platform management system.
- Command & control system.

Engineering & Support Services

- Human factors.
- Technical publications.
- Obsolescence management.
- Hazard logs.
- Integrated logistics support (ILS).
- And more...

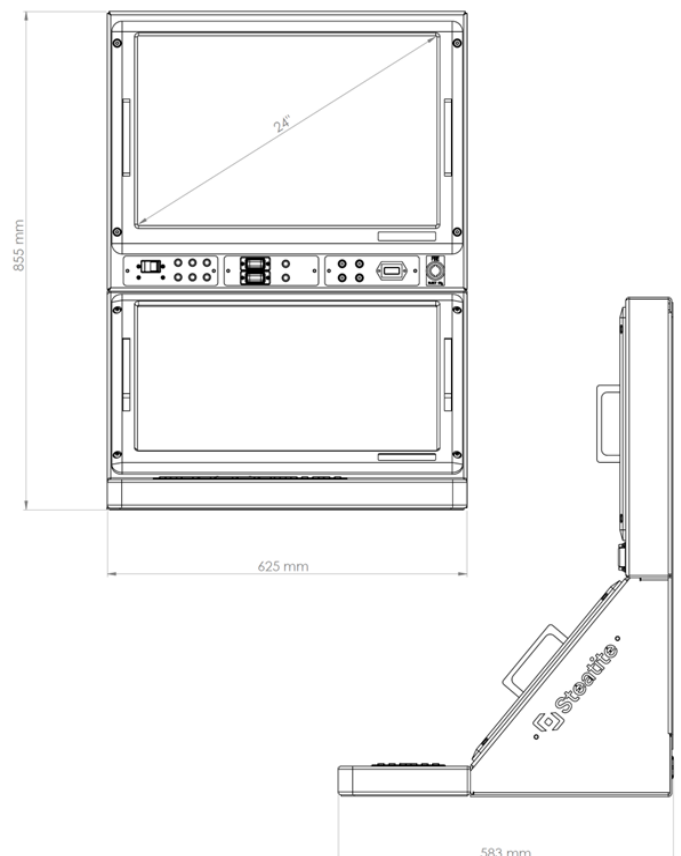
Specifications

Construction

Light weight, fully welded aluminium alloy enclosure providing the necessary EMC/EMI and environmental integrity for naval applications.

Available as a standalone unit or mounted on a pedestal with integrated footrest, offering the capacity for additional built-in processing, networking, or other specialist hardware.

Restricted maintenance and connectivity access, using interlocks and CPNI approved locks. The console can be easily broken down into small, lightweight sections, making it is easier to move around and install on the boat, ship, or sub.



EMC

The M-MFC meets the demanding requirements of Def Stan 59-411 and MIL-STD 461, and can optionally meet TEMPEST SDIP-27 Level B.

Environmental

The M-MFC is designed to meet the following environmental conditions:

-  Def Stan 00-35 / MIL-STD 810 Shock/Vibration.
-  0°C to +50°C Operating temperature.
-  95% RH Operating humidity.
-  -20°C to +65°C Storage temperature.
-  Up to IP54 (BS EN 60529) Ingress protection.
-  Operational when displaced from vertical axis, roll and pitch conditions.

Safety

All Steatite consoles comply with BS EN 62368 as part of the overarching CE marking. Consideration of other safety related factors include:

-  Low Smoke Zero Low Halogen (LSZH) compliant insulation.
-  COTS items are BS EN 62368-1 (EN 60950-1) compliant.
-  Overcurrent protection for all power circuits.
-  Provision for CO2 inlet socket.
-  Electrical Safety Type testing in accordance with BS EN 62368 and BS EN 62911.

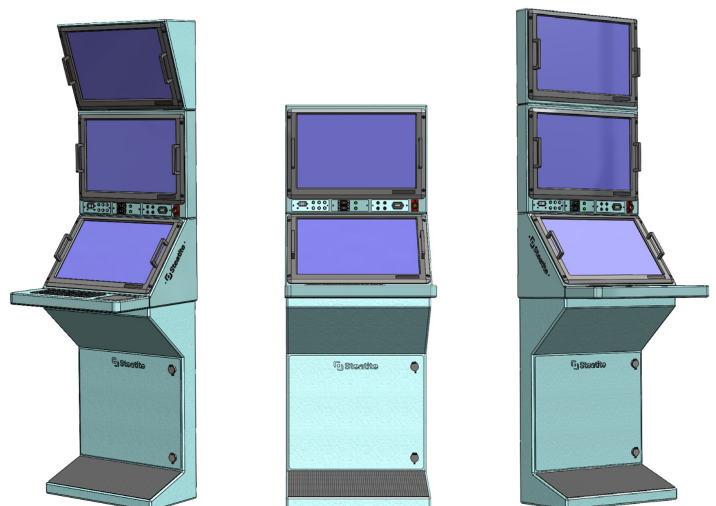
Input Power

The Steatite M-MFC is available with an AC or a DC power input that can be supplemented with a UPS in the case where supply voltage can be temperamental.

Configuration Options

The Steatite Modular Multifunction Console can be configured to suit a wide range of applications and installation environments.

To help simplify the maintenance of the consoles, they are made up of individual LRUs that can be replaced in the field by suitably trained and security-cleared personnel.



Display

The M-MFC design can incorporate rugged displays up to 55". Our defence-grade displays are designed to withstand extreme conditions and offer the highest level of performance and reliability:

-  4K (**Resolution 3840 x 2160**).
-  Integrated light sensor for automatic brightness adjustment.
-  Optional touchscreen.
-  Anti-glare and anti-reflection coating.
-  Up to 3 independent displays in horizontal or vertical configuration.
-  Adjoining operator consoles can be combined to form a video wall.

Computing

Steatite has been designing and manufacturing military-grade computer systems for decades. We have a range of COTS systems suitable for integration into the M-MFC, including thick, thin, and zero clients and high-performance GPU computers.

Switches

KVM switches can be incorporated to allow multiple client systems or servers to operate through selected displays and via a single keyboard and mouse. The M-MFC offers bespoke mode switching allowing operators to select inputs from conveniently positioned user panels.

The M-MFC supports network Switches providing fibre and/or copper Ethernet connectivity with speeds of 10Gb or more.

Audio

Support for tactical communication headsets with either analogue or digital interfaces and supporting features including active noise reduction (**ANR**) and push-to-talk (**PTT**). High performance speakers can be incorporated within the console.

Keyboard & Pointing Devices

The integrated rugged keyboard has vandal proof keys, wider key spacing for accurate use when wearing gloves, and backlit keys for use in low light environments.

Devices such as mouse and joysticks are commonly integrated, but the M-MFC can also support controllers and tracker balls. Secure stowage of devices is incorporated within the console.

The keyboard/mouse desk is available in either a fixed position or in a hinged version with lock positions to support human factor requirements.

Support Services

The design and build of Operator Consoles is only part of the story, as most military programs require significant support services.

This includes elements such as Technical Publications, Obsolescence Management, Through-Life Support, all of which Steatite can help with.

Technical Publications

To support the operator consoles, our in-house technical authors will write operator and maintenance manuals to describe the common tasks that will be carried out in the field, as well as including key safety information.

Obsolescence Management

The BOMs for complex systems can often contain from several hundred parts. Steatite offer proactive obsolescence management services tailored to the requirements of a given project.

Tech Refresh

To offer the long-term support required by military platforms, technology upgrades will be required on a periodic basis.

Steatite can design upgrade kits for the consoles that Steatite have supplied, as well as for those supplied by other manufacturers and can perform these upgrades in-house or provide mod-kits for onsite upgrade.

System Maintenance

Reliability modelling can be used to help plan spares stock holding for the duration of the program, and Steatite can offer extended warranties and other services to ensure any repairs are carried out in a cost-effective and timely manner.

