



## FISHMASTER®

### Integrated mode based operation

By combining vessel manoeuvring with fish finding equipment, winch systems, catch monitoring systems and energy handling into one concept the FISHMASTER® is a reality.

FISHMASTER® is a unique fusion of functions and operator comfort for efficient fishery. The excellent capability of the sensor systems to find and identify fish is combined with the capability to manoeuvre and sail the vessel, all made simple by the advanced Human Machine Interface (HMI) based on large presentation displays.

FISHMASTER® will be delivered as a part of the integration with Kongsberg navigation system, automation system, Simrad products, propulsion control, thruster control and rudder control systems.

The different operational modes (transit, shooting, towing, hauling, boost, etc.) will give the operator the power needed and the flexibility to operate from one location with all important equipment in focus.

# OPERATIONAL PERFORMANCE

The consoles can be electrically adjusted in height making it suitable both for seated and a stand-up operation. In addition the height and tilt angle of the video-wall displays can be adjusted.

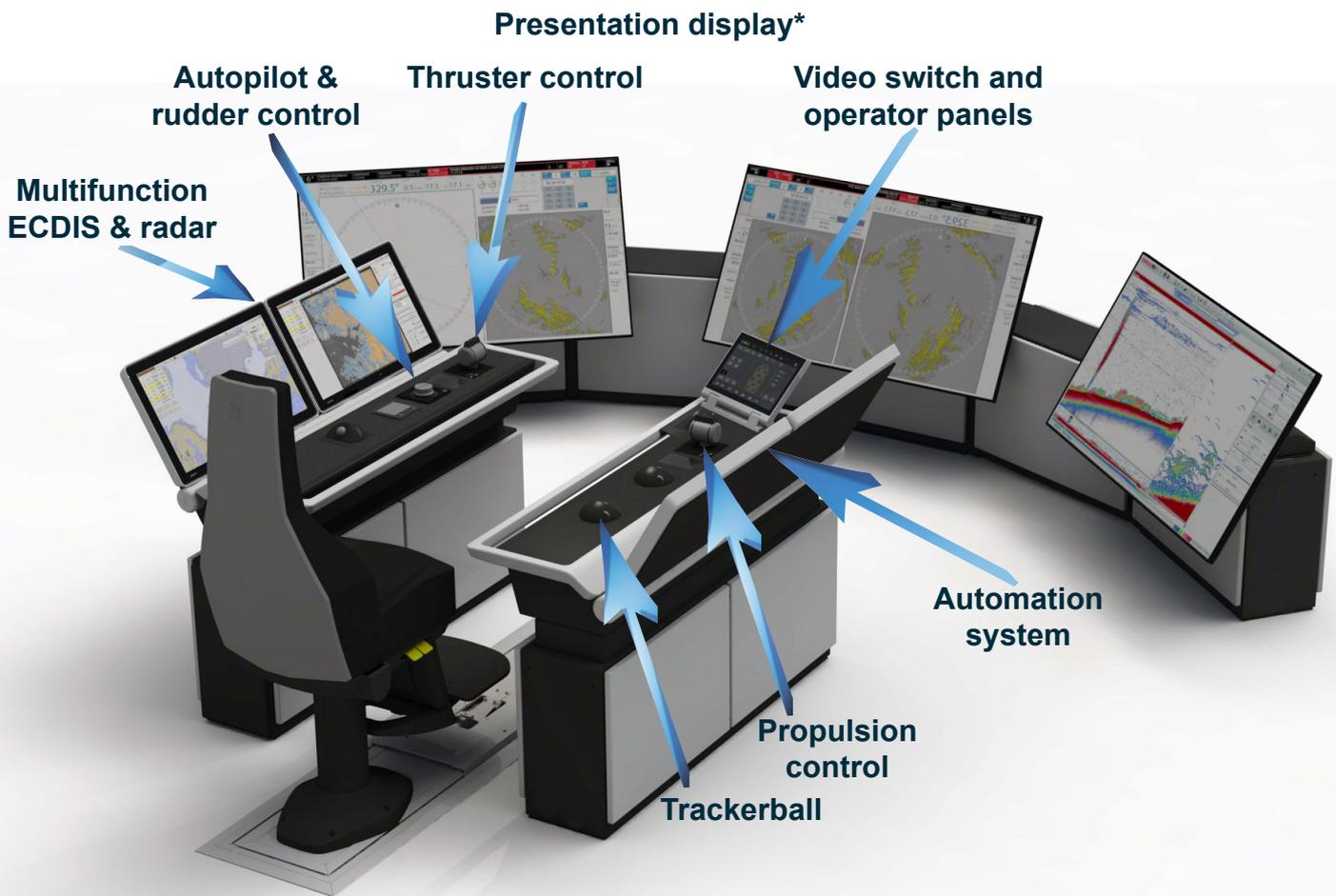
There is limited space in the consoles: Kongsberg levers for propulsion-, thruster- and rudder controls are custom design to fit into FISHMASTER. Additional operational information about these system is incorporated in the K-Chief 600 automation system

There is one common track ball for operation on the 55" screens. For more detailed views and operation the 13" touch panel with multi-touch can be used to operate all Kongsberg/Simrad products.

Common palette change and dimming function is handled from one location and will apply to all Kongsberg/Simrad applications.

Kongsberg/Simrad products are connected through a LAN network for easy handling of video-, mouse- and keyboard switching. Solutions can be configured for connecting a limited numbers of 3<sup>rd</sup> party equipment, however, the video signal needs to be grabbed by introducing additional hardware. The image quality may be slightly reduced and separate operator panels if applicable must be installed.

Operation of bridge auxiliaries for example window wipers, lanterns, RSW, ballast control and power management is done through the K-Chief 600 automation system.



*\*Composite video-wall supporting both picture-in-picture and expanding a single source over multiple monitors*

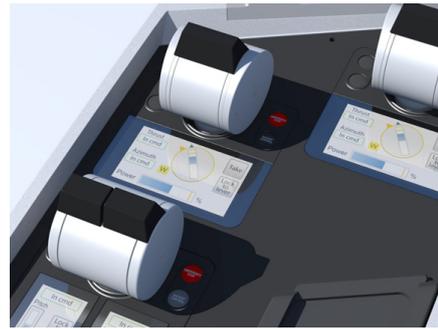
*Operator:*

- *Can configure wall layout.*
- *Can select preset wall layout.*
- *Can control a selected source.*

# PRODUCT FEATURES

## K-Thrust 600 main propulsion, thruster and rudder control

- Thruster lever design that fit the Kongsberg consoles
- Levers for engine, thruster and rudder who give you same HMI for easy operation
- Easy commando transfer between forward, aft and bridge wings
- Remote support, detailed overview and advanced diagnostic trough K-Chief® 600
- Joystick possibility



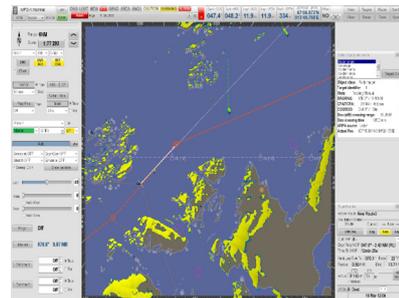
## K-Chief® 600 automation system

Alarm, monitoring, control and PMS

- Alarm system, E0 / UMS solution
- Control of all ships processes
- Power management system
- Tank gauging and monitoring
- RSW & fish-handling processes
- History storage, trending & report
- Fuel & energy overview
- CCTV

## K-Nav

- Multifunction radar and ECDIS



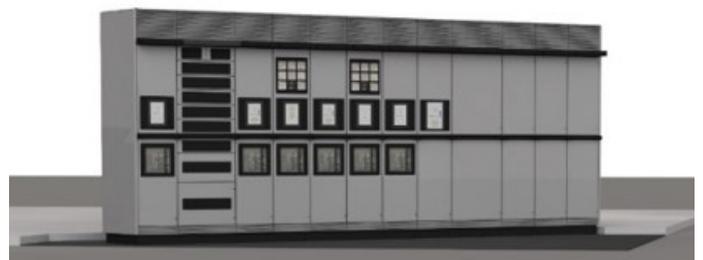
## Video switch & operator panel

- Kongsberg/Simrad supplied products connected through LAN
- 3rd party equipment connected through additional hardware
- Operator panels and operation only available for Kongsberg/Simrad products

## K-Power energy solutions

Traditional & hybrid(battery) power solution

- Variable speed PTO, dynamic combinator curve to optimize the load and rpm on the engine
- Propeller boost from auxiliary generators
- Regeneration of power from trawl winches
- Hybrid(battery)
  - Blackout prevention
  - Peakshaving
- Shore connection with battery



### Project execution

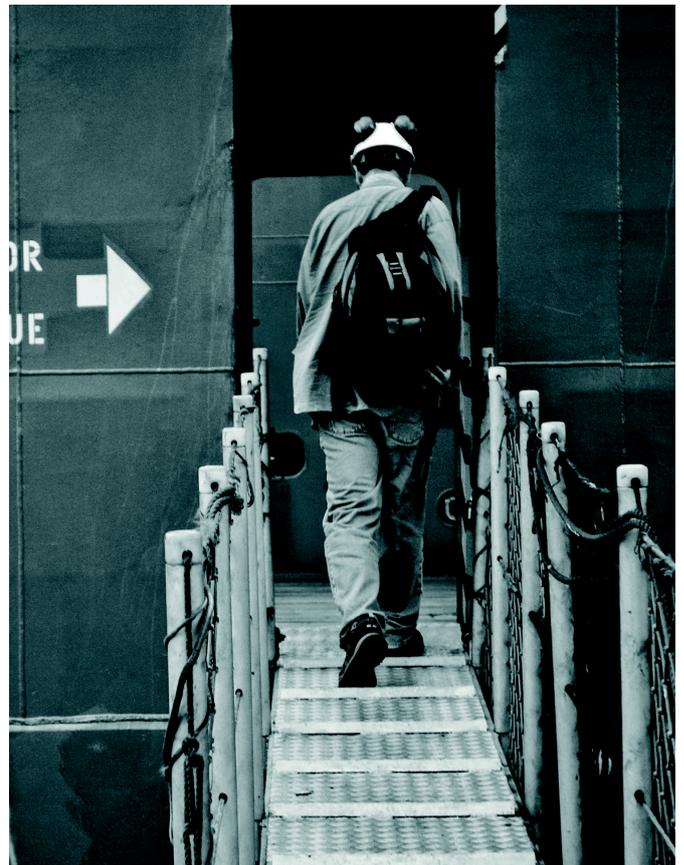
Effective project execution is at the heart of Kongsberg's success in undertaking refitting of vessels. By taking the time to gain in-depth knowledge of the customer's needs, we can ensure optimal vessel performance by upgrading the right hardware and software systems.

### Remote diagnostics and analysis - saving cost and time

K-Remote uses online system and health monitoring to provide Kongsberg customer support with remote access to ensure systems reliability. The system is designed to address the challenge of establishing a secure and reliable remote session to the vessel control system via satellite communications. The technical solution is using well proven technology adapted to maritime environments.

### Kongsberg global customer support service

Kongsberg offers technical support, maintenance support, spare part support, training services and regional support on all product lines – world wide. Our Follow the Sun 24 hour support concept ensures you support that never sleeps. No matter the time of day, someone will always answer the phone at Kongsberg Maritime if you call for help. Three high-tech support centres in Europe, America and Asia provide this 24-hour service. A world of virtual collaboration brings the expertise closer to you.



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