

## WE ADVANCE SAFETY, SECURING PEOPLE AND PROPERTY.

By engineering unique innovations,

and offering the most reliable and efficient solutions



#### **About Matre Maskin**

- Matre is a privately owned company out of Norway.
- The company was established in 1953.
- Certified company with an implemented quality management system According to ISO 9001:2015.
- Since early 1980's Matre has been a world leading manufacturer of foam proportioning equipment for the offshore and marine industry
- Since 1991 Matre have delivered Firefighting solutions to various helicopter platform applications. (Matre DIFFS)
- Main office and production premises are located in Norway. Sales representatives in US and Russia.





#### Facilities & People

All production and testing are carried out in our location in Norway.
In all 4100m2
Offices
Production

- **T**est center.
- □ Machining hall.











Our service and products used in various of segments





Matre is a well renowned provider of Deck Integrated Fire Fighting Systems for the global maritime and offshore industry as well as onshore sector.

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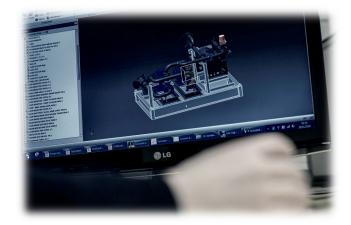


## Matre DIFFS for Yacht vessels

Matre Maskin AS has over the years supplied many DIFF System for the yacht marked.

#### **ABOUT DIFFS :**

- Reliable and efficient fire fighting system
- Extinguishing any fire at helideck within 15 seconds
- Activated by one push at the "Start" button
- No need for trained personnel to operate the system
- In case of emergency; personnel can be used for rescue
- Helideck can be entered shortly after system release
- Automatic drainage of the system
- Minimal and easy maintenance





## DIFFS System on Yacht Vessels.

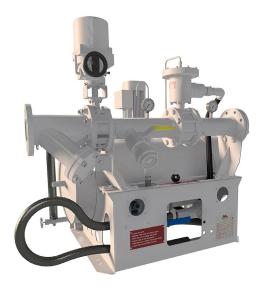


Matre DIFFS for Yacht consists of the following main components:

#### Matre Foam Skid:

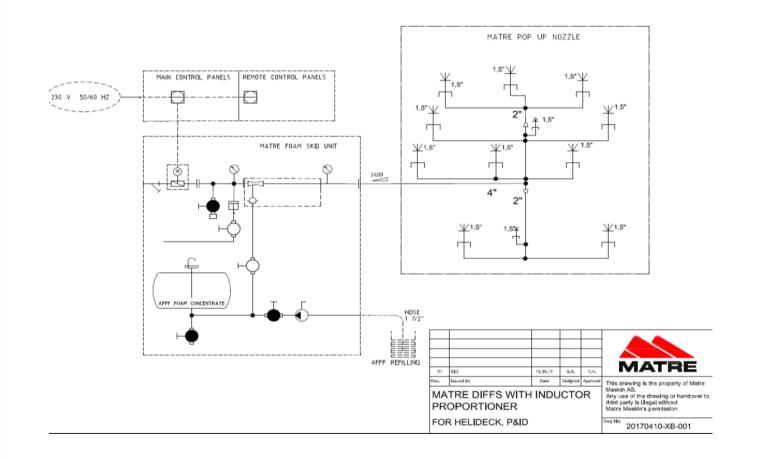
- Strainer at skid inlet
- Butterfly valve with el actuator for activation
- Flushing Connection
- Matre Foam proportioner
- Foam Tank
- Automatic Drain Valve
- Painting (Optional)
- Matre Pop-Up Nozzles at Helipac
- Main Control Panel
- Remote control panels







## System Overview (Typical)





## Matre Pop-Up Nozzle

Matre Pop-Up Nozzle Both horizontal and vertical spray Minimum water pressure at nozzle 4bar. Coverage: Horizontal ø 7m Vertical 6 m









## DIFFS System on Super Yacht Vessel.





## YACHT DIFFS REFERENCES

















Matre have for more than 25 year been delivering various loose firefigthing equipment as well as Deck Foam System to be used in car ferries and passenger vessels operating at the west coast of Norway.

#### Matre Deck Foam System for car ferries consists of:

- Sea Water Pump
- Foam Pump
- Foam tank
- Matre Balanced pressure foam proportioner
- Butterfly valves with electric actuator
- Matre Flexi nozzles and Matre Water Curtain Nozzles
- Control Panels
- Design in accordance to applicable standards and regulations
- Hydraulic calculation for the system
- Equipment delivery
- Start up service and support
- Lifetime service





#### **General System Description:**

The system is designed to cover the entire vehicle parking area, which is divided into three or four zones depending on the size for vessel

Zone 1 is characterized as dangerous cargo area. This requires a minimum foam application rate of 10 l/m<sup>2</sup>/min.

Zones 2,3 and 4 is defined as the private car area. The minimum required foam application rate in these zones are 6.5 l/m<sup>2</sup>/min. Capacity of the foam tank is sufficient for minimum 30 minutes of foam for the zone with the largest amount of coverage required. The system can be operated from the following locations:

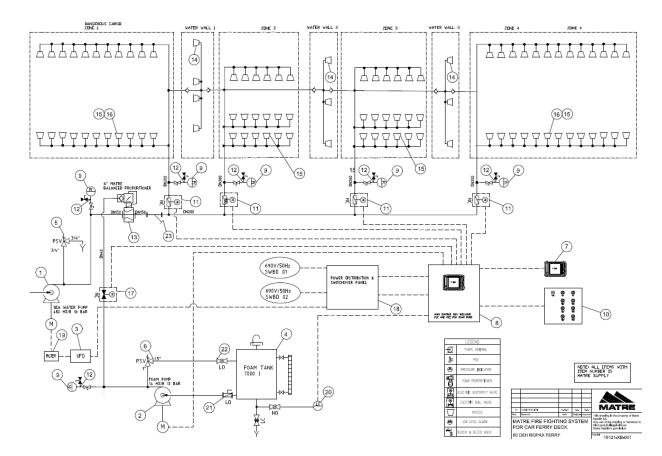
- - Touch panel at the bridge.
- - Touch Panel at main control cabinet.
- Remote Control Panel at deck, with push buttons and indication lamps.







**P&ID Typical:** 





- Design in accordance to applicable standards and regulations.
- Hydraulic calculation for the system
- Equipment delivery
- Start up service and support
- Lifetime service





Electrical Ferry «Kommandøren» Fjord 1



## Matre Flexi Nozzle

#### **Matre Flexi Nozzle**

Matre Flexi Nozzle is a high capacity deluge nozzle. Both water capacity, spread angle and jet direction can be adjusted.

- Matre Flexi Nozzle is used when a specific area has to be covered like:
  - $\cdot\,$  Car deck on a ferry
  - $\cdot$  Tank top
  - $\cdot\,$  Well head area etc.

Our Flexi Nozzles are in size 1 1/4" to 4" with flow range from approx. 200 l/min. to 6000 l/min. These nozzles have adjustable direction, spread angle and capacity.





## Matre Flexi Nozzle







## FERRY REFERENCES







## **MATRE Service**

Matre has service partners located in strategic areas ready for assist customers worldwide. Service engineers from Matre take on:

- Installation of Matre Systems / Equipment
- Commissioning of Matre Systems / Equipment
- Maintenance of Matre systems and equipment
- Trouble shooting
- Modification of existing Matre systems (example: from 1% to 3% foam insertion)

