# SVANEHØJ CRYOGENIC SUBMERGED PUMP

Shaped by many years of maritime experience and state-of-the-art technology, we are proud to introduce a new cryogenic submerged fuel pump for LNG-fuelled vessels, simply developed to do better.

# Introducing a new performance level

Cryogenic submerged fuel pumps are one of the most widespread pumping solutions within the shipping industry. At Svanehøj, we are globally recognized for our premium, future-proof DW fuel pump, but have now designed our own CS fuel pump.

Based on our extensive maritime expertise and innovative mindset, the ambition with the Svanehøj CS fuel pump is to provide the industry with best-in class reliability and efficiency.

The Svanehøj CS fuel pump, supporting eco-friendly LNG-fuelled vessels, is distinguished by a:

- Uniquely designed Svanehøj permanent magnet motor ensuring higher efficiency
- Self-cleaning filter that reduces the need of service and increase uptime
- Standardized shaft design that provides easier disassembly and assembly

Exclusively produced for maritime purposes and backed-up by a global service solutions set-up, the new CS fuel pump is powering you to do better wherever your business is headed.

### Svanehøj boiler plate

Svanehøj is a market leading pump manufacturer specialized in multigas pumping systems. As a long-trusted industry partner, we provide future-proof, sustainable solutions within handling of critical liquid fluids – both on sea and land – and services that help fulfil the global community's transition towards carbonneutral transport and handling.

# THE FIRST SUBMERGED PUMP **EXCLUSIVELY** PRODUCED **FOR** MARITIME **PURPOSES**

The new Svanehøj CS fuel pump is a testament to Svanehøjs maritime DNA and the continuous ambition to serve the industry with the most trusted and competitive pump solutions.

Based on customer needs and growing challenges of the world, the CS fuel pump is the latest result of our relentless focus on innovation, sustainability, and improvement.

Meticulous about the choice of materials and dedicated to technological advancements, we

believe that this cryogenic submerged pump solution now is the one that all other submerged solutions must be measured by.



# **Operating parameters**

• Min. design temperature: -165°C

• Design flow: 12 m3/h

 Design head(s): 1-stage 120 mlc, 2-stage 200 mlc, 3-stage 280 mlc, 4-stage 360 mlc

• Head per stage: 80 mlc

• **Speed:** Variable 3000 – 6000 rpm

Control method: VFD

• Media: LNG

## **Technical characteristics**

• Electric motor: Svanehøj CS12

• Rated motor current: 42 A

• Rated motor power - output: 20 kW

• Electric motor type: Permanent magnet, derated for VFD

• Filter: Internal filter for cooling and lubricating flow

• Filter type: Self-cleaning under operation

### **Product materials**

· Pump casing/discharge branch: Stainless steel

• Pump chambers: Aluminium/Bronze

• Impellers: Stainless

· Wear rings: Carbon/hydrid bearing

· Shaft: Stainless steel

• Line shaft bearings: Carbon

• Bolts and nuts exposed to cargo: A4 Stainless steel

• Thrust bearing: Ball bearings



# Dedication and details make the difference

As a critical liquids specialists and the importance of dedication and detail, the Svanehøj CS fuel pump is set to make a great example.

The CS fuel pump builds upon many of the features that distinguish the renowned DW fuel pump, which has made Svanehøj one of the most trusted names in pumping solutions. The simplified design and innovative key components improve reliability and efficiency, while providing the global community's need for meeting emissions regulations.

# Permanent magnet motor

## Attracting higher efficiency

The new permanent magnet motor is crucial to performance of the CS fuel pump. More efficient than induction motors or motors with field windings, the electric motor delivers significant better results. It is designed by Svanehøj's own expert engineers and the result of continuous research and improvement.

# Self-cleaning filter

## Purer uptime for the pumps

The self-cleaning filter is perhaps the most unique feature of the CS fuel pump. The surface and high flow around the filter enables efficient removal of particles, resulting in less wear and tear, longer service intervals and maximum uptime for the pumps without clogging or loss of power.

## Standardized shaft design

## Designed for improved maintenance

Any kind of downtime is costly, which is why the CS fuel pump is equipped with a standardized shaft design. This ensures easy disassembly and assembly during service and inspection and improved maintenance every single time.

