



# Danfoss Oil & Gas Newsletter

Issue 2  
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## Danfoss Oil&Gas

*By Kristian Knak Hede*

The Danfoss business group has for many years been developing and producing pumps suitable for various fluids and applications.

Now Danfoss has joined the oil and gas industry by introducing our CLP pumping solutions designed for metering, injecting and transferring various chemicals, additives and other hard-to-handle fluids

into production pipeline systems, gas wells and oil wells.

Danfoss Oil&Gas is part of the global family-owned Danfoss business group producing 250,000 items a day in 70 factories in 25 countries. Danfoss has more than 30,000 employees worldwide. Danfoss Oil&Gas offers various pumping solutions and accessories, eg frequency converters, pressure transmitters, electric motors and stainless steel bell-housings.



# Product developments

By Kim L. Krogh

## Compact and lightweight seal less multipurpose pump

CLP674S - 350/500

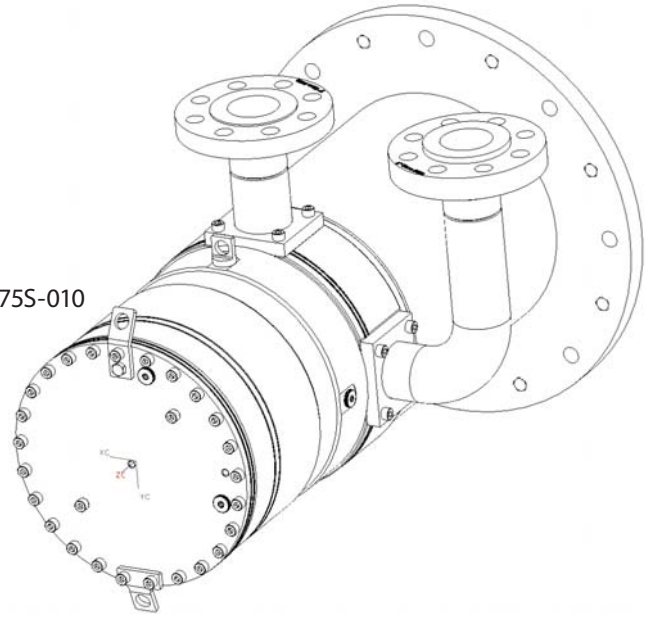
“We need a lightweight pump for light condensate transfer” was the sentence from a major Danish oil company, which started a larger redesign process in the R&D department in Danfoss Oil & Gas. They had already found a multistage centrifugal pump to fill the flow and pressure requirements, but due to the high weight of this pump, the platform would need to be strengthened to support such a solution.

The demand was:	
Flow:	18m <sup>3</sup> /h
Inlet pressure:	31.2bar
Outlet pressure:	43.1bar
Viscosity:	0.18cP
Fluid temperature:	-13°C

We used our knowledge of magnetic couplings from the Danfoss CLP675S-010 (10L/min, max 80bar) to find the optimum solution for the customer.

Our answer to the problem is the Danfoss CLP674S-430 magnetic driven axial piston pump:

Flow (rpm dependent):	13 to 26m <sup>3</sup> /h
Inlet pressure:	3 to 40bar
Differential pressure:	10 to 50bar
Outlet pressure:	max 80bar



Since based on the Danfoss CLP674N-430, it is still a very compact and lightweight Duplex and Super Duplex pump.

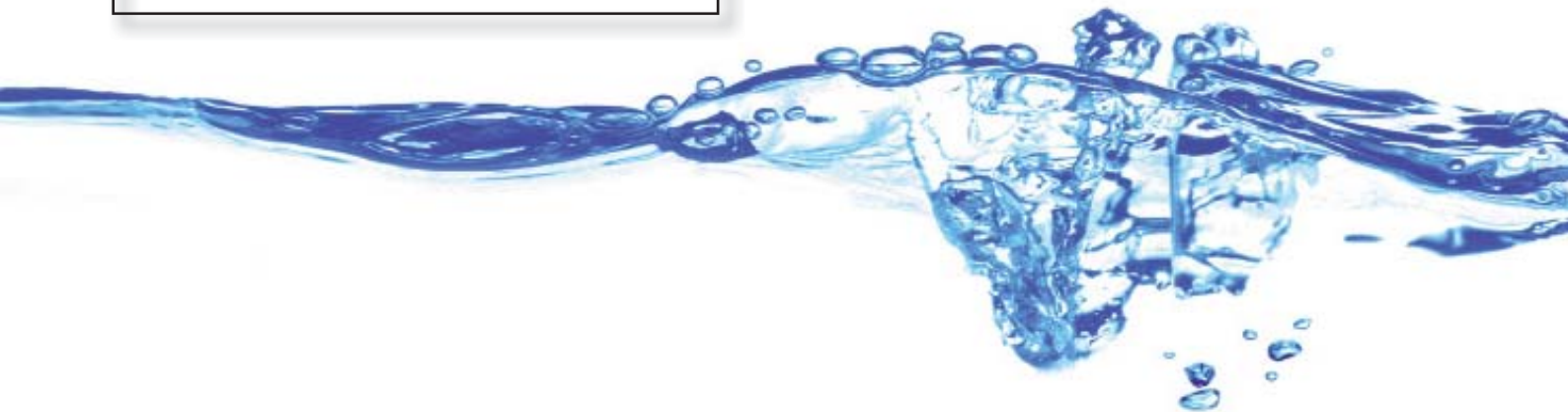
To handle the high inlet pressure, a magnetic coupling ensures that the pumped fluid, also working as the lubricant, is completely encased. Therefore no lubricant contaminates the fluid and no fluid escapes to the surroundings.

The low viscosity results in a lower volumetric efficiency, but this was taken into consideration in the design. The low temperature does not affect the high grade materials in the pump.

The pump dimensions are Ø279mm x 694mm (max diameter x length) and the weight is only 190kg.

The Danfoss CLP pumps are capable of pumping a wide variety of fluids.

Typical fluids are:	
Methanol	Scaling inhibitor
Glycols	Oxygen scavenger
Biocides	+ many more
Corrosion inhibitor	



## Online pump animation

By Kristian Knak Hede

Danfoss CLP pumps are based on the axial piston principle offering long life and high efficiency in the demanding Oil and Gas industry. The pumps are fixed displacement pumps in which the flow is proportional to the number of revolutions of the input shaft and the pump displacement, regardless of any counter-pressure.

Danfoss Oil&Gas has uploaded a small animation explaining the basic CLP pump principle. The animation is now available on our website.

**Online CLP animation:**

**[www.danfoss.com/Solutions/Oil+And+Gas/Products/CLP+pump+principle](http://www.danfoss.com/Solutions/Oil+And+Gas/Products/CLP+pump+principle)**

Danfoss CLP pumps are used in a wide range of applications. And because the CLP pumps displace a known quantity of liquid with each revolution of the pump shaft, they are a popular choice for eg metering applications. They can accommodate thin to high viscosity liquids, and minute doses to high capacities.

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## Asia-Pacific Sales manager

By Lars Bendixen

I have recently joined Danfoss Oil&Gas as Asia-Pacific Sales Manager to help drive forward Danfoss' current programme of growth in the oil and gas industry.

I have worked with the Danfoss Group for many years and have lot of experience with the Danfoss Pump range in various applications. I will focus on the Asia-Pacific area and parts of Europe. My responsibility is the Danfoss Oil&Gas complete product range including custom system packages built to meet all individual specifications.

Lars Bendixen

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## Fairs in 2009

By Kristian Knak Hede

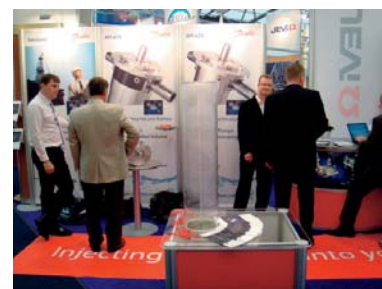
Danfoss Oil&Gas will exhibit at the premier offshore industry exhibitions/fairs around the world for offshore professionals and suppliers in 2009.

Whenever it is possible for you, please stop by and visit us at our stand. In 2009 Danfoss Oil&Gas will eg attend the following major exhibitions/fairs:


**OTC.09 4th-7th May at Reliant Park in Houston  
The Danish Pavilion**

**OGA2009 10th-12th June at KLCC Convention Centre, Kuala Lumpur  
The Danish Pavilion**

**OE2009 8th-11th September at Aberdeen Exhibition Centre in Aberdeen  
The Danish Pavilion**



Danfoss Oil&Gas booth at ONS Stavanger 2008



We look forward to meeting you!



Smallest footprint

Proven performance

Easy maintenance

Robustness and durability

Fully tested and certified

Improved performance



Want to know more?

Find a broad collection of technical information here...

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