

# OUR NEXT GENERATION THE MOST ENVIRONMENT FRIENDLY PRODUCT TANKERS



**MEMBER OF**  
**GOTTHIA TANKER ALLIANCE**

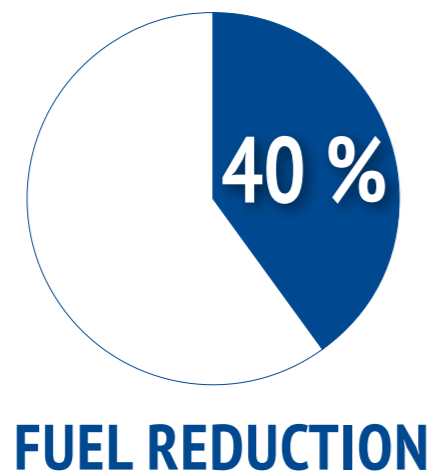


# THE BEST WAY TO CARE FOR THE ENVIRONMENT IS TO OFFER ENERGY AND EMISSION REDUCING SOLUTIONS.

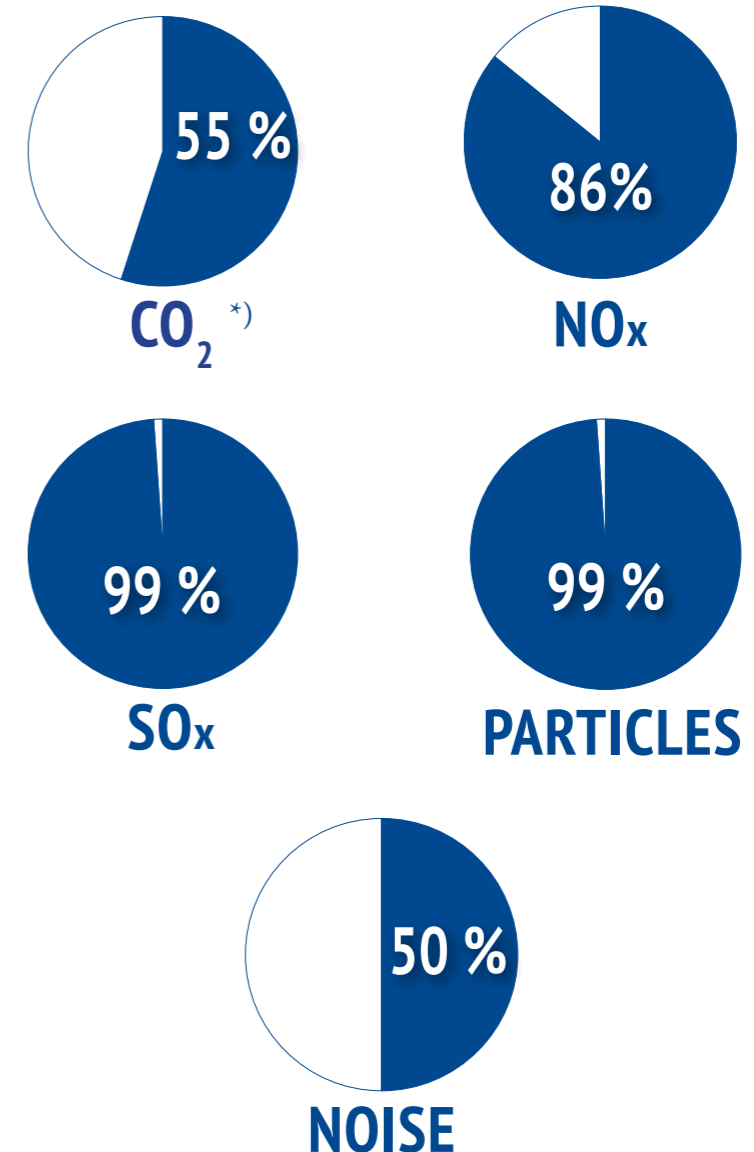
**FURETANK** provides full technical and commercial management with focus on environment and efficiency.

Together with our partners, we have developed climate smart vessels that meet future needs and requirements.

## ENERGY EFFICIENCY



## EMISSION REDUCTION



*Compared to a vessel with same size built 2006, speed 12 knots.*

*\*) CO<sub>2</sub> can be eliminated if biogas is used*

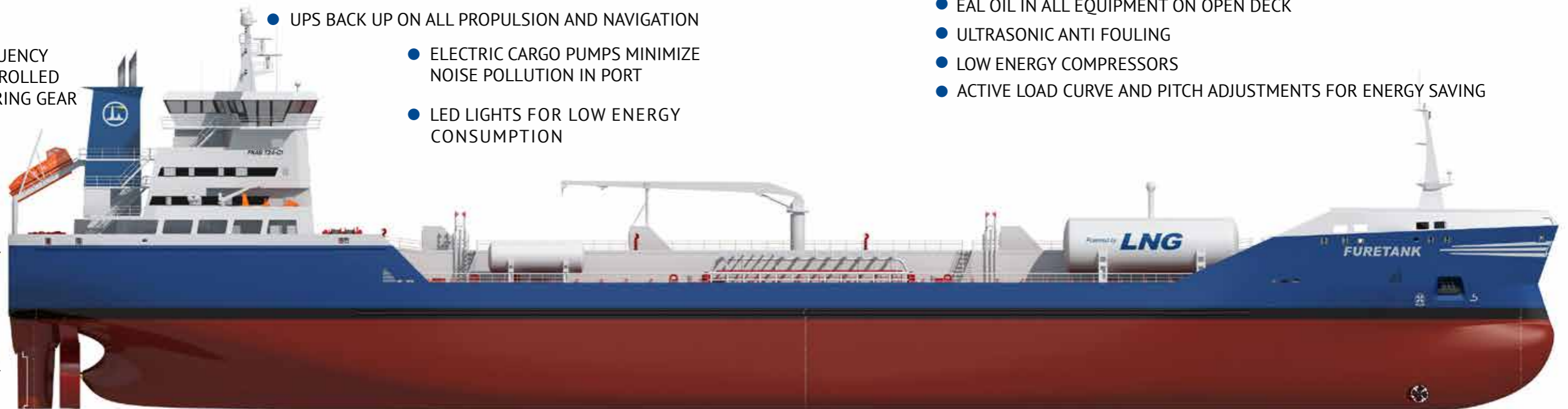
# WE DO NOT ONLY WANT TO FOLLOW THE DEVELOPMENT, WE WANT TO BE PART OF CREATING IT.

- TIER III COMPLIANCE
- LNG AS FUEL AT SEA AND IN PORT
- SCR ON AUXILIARY ENGINES
- INERT GAS ON LNG
- HIGH ENERGY CLASS ELECTRICAL MOTORS
- VFD PRESSURE CONTROLLED ENGINE ROOM FANS
- ENERGY EFFICIENT VENTILATIONS
- FLOATING FREQUENCY FOR PROPELLER EFFICIENCY
- UPS BACK UP ON ALL PROPULSION AND NAVIGATION
- FULLY EQUIPPED FOR ST LAWRENCE
- REMOTE ANCHORING FROM BRIDGE
- HIGH FOCUS ON WORK ENVIRONMENT
- CHEMICAL FREE BALLAST WATER TREATMENT
- EAL OIL IN ALL EQUIPMENT ON OPEN DECK
- ULTRASONIC ANTI FOULING
- LOW ENERGY COMPRESSORS
- ACTIVE LOAD CURVE AND PITCH ADJUSTMENTS FOR ENERGY SAVING

● FREQUENCY CONTROLLED STEERING GEAR

- ELECTRIC CARGO PUMPS MINIMIZE NOISE POLLUTION IN PORT
- LED LIGHTS FOR LOW ENERGY CONSUMPTION

● HIGH EFFICIENCY TWISTED LEAD RUDDER WITH PROPELLER BULB



- PROPELLER NOZZLE MINIMIZE REQUIRED ENGINE OUTPUT - ICE CLASS 1A
- PROPELLER NOZZLE REDUCE NOISE LEVEL
- CLASS NOTE AVM-APS ALTERNATIVE PROPULSION SYSTEM
- STEAM BOILERS WITH EXHAUST HEAT RECOVERY FROM ME AND ALL AUX ENGINES
- HEAT RECOVERY FROM COOLING WATER
- VGP COMPLIANCE FOR ALL OIL TO WATER INTERFACE
- NEW LOW DRAG HULL DESIGN
- HIGH PERFORMANCE ANTI FOULING FOR LOW FRICTION

Mean draft Bok	Salt water				Density 1.020 1.015 1.010 1.005	Fresh water		Mean draft Bok
	Displacement	MCT	TpCm	Deadweight		Deadweight	Displacement	
9.5	25000	310	30.7	18000	18000	24000	9.5	
9.4	24600	306	30.6	18200	17600	23800	9.4	
9.3	24200	304	30.5	18400	17400	23600	9.3	
9.2	24000	302	30.4	18600	17200	23400	9.2	
9.1	23800	300	30.3	18800	17000	23200	9.1	
9	23600	298	30.2	19000	16800	23000	9	
8.9	23400	296	30.1	19200	16600	22800	8.9	
8.8	23200	294	30.0	19400	16400	22600	8.8	
8.7	23000	292	29.9	19600	16200	22400	8.7	
8.6	22800	290	29.8	19800	16000	22200	8.6	
8.5	22600	288	29.7	20000	15800	22000	8.5	
8.4	22400	286	29.6	20200	15600	21800	8.4	
8.3	22200	284	29.5	20400	15400	21600	8.3	
8.2	22000	282	29.4	20600	15200	21400	8.2	
8.1	21800	280	29.3	20800	15000	21200	8.1	
8	21600	278	29.2	21000	14800	21000	8	
7.9	21400	276	29.1	21200	14600	20800	7.9	
7.8	21200	274	29.0	21400	14400	20600	7.8	
7.7	21000	272	28.9	21600	14200	20400	7.7	
7.6	20800	270	28.8	21800	14000	20200	7.6	
7.5	20600	268	28.7	22000	13800	20000	7.5	
7.4	20400	266	28.6	22200	13600	19800	7.4	
7.3	20200	264	28.5	22400	13400	19600	7.3	
7.2	20000	262	28.4	22600	13200	19400	7.2	
7.1	19800	260	28.3	22800	13000	19200	7.1	
7	19600	258	28.2	23000	12800	19000	7	
6.9	19400	256	28.1	23200	12600	18800	6.9	
6.8	19200	254	28.0	23400	12400	18600	6.8	
6.7	19000	252	27.9	23600	12200	18400	6.7	
6.6	18800	250	27.8	23800	12000	18200	6.6	
6.5	18600	248	27.7	24000	11800	18000	6.5	
6.4	18400	246	27.6	24200	11600	17800	6.4	
6.3	18200	244	27.5	24400	11400	17600	6.3	
6.2	18000	242	27.4	24600	11200	17400	6.2	
6.1	17800	240		24800	11000	17200	6.1	

LAKE MÄLAREN (NEW SÖDERTÄLJE CANAL)	7,0 M	10600 TDW
ÖRESUND/DROGDEN	7,7 M	12900 TDW
MANCHESTER CANAL	7,9 M	13000 TDW
DESIGN	8,9 M	16300 TDW
SUMMER	9,4 M	18200 TDW

CARGO TANKS	SPEC. GR. 1.5	VOLUME 100 %
CARGO (SLOP) TANK 1 SB		667 M <sup>3</sup>
CARGO TANK 1 P		674 M <sup>3</sup>
CARGO TANK 2 SB		1924 M <sup>3</sup>
CARGO TANK 2 P		1917 M <sup>3</sup>
CARGO TANK 3 SB		1759 M <sup>3</sup>
CARGO TANK 3 P		1766 M <sup>3</sup>
CARGO TANK 4 SB		2104 M <sup>3</sup>
CARGO TANK 4 P		2098 M <sup>3</sup>
CARGO TANK 5 SB		2097 M <sup>3</sup>
CARGO TANK 5 P		2104 M <sup>3</sup>
CARGO TANK 6 SB		1598 M <sup>3</sup>
CARGO TANK 6 P		1598 M <sup>3</sup>
<b>CARGO TANKS TOTALLY</b>		<b>20306 M<sup>3</sup></b>

## CLASS

BUREAU VERITAS (BV) DUAL FUEL (LNG), +HULL, +MACH, OIL TANKER, CHEMICAL TANKER, ESP, UNRESTRICTED NAVIGATION, ICE CLASS 1A, AUT-IMS, SYS-IBS-1, MIN-SHAFT, VCS, INWATER SURVEY, CLEAN SHIP, EWCT, BWT, AVM-APS, IG

## DESIGN

FKAB MARINE DESIGN  
LOW DRAG HULL DESIGN

**SERVICE SPEED** 12 KNOTS

**FUEL CONSUMPTION** 8,2 TON LNG  
WITH SHAFT GENERATOR CONNECTED

## PARTICULARS

LENGTH OVER ALL 149,9 M  
BREADTH 22,8 M  
DEPTH 12,1 M  
DRAFT DESIGN 8,9 M  
DRAFT SUMMER 9,4 M  
KEEL TO TOP OF MAST 40,3M

## TONNAGE

DWT DESIGN 16,300 T  
DWT SUMMER 18,200 T  
GRT 12595 T  
NRT 5837 T

## TANKCAPACITY

CARGO 98 % 19,900 M<sup>3</sup>  
BALLAST 7400 M<sup>3</sup>  
LNG 600 M<sup>3</sup>  
HFO 540 M<sup>3</sup>  
DO 170 M<sup>3</sup>  
FRESH WATER 50/300 M<sup>3</sup>

**CARGO HEATING**  
HEAT EXCHANGER  
STEAM BOILERS 9,5 STEAM TON/H

## CARGO PUMP

ELECTRIC DEEP WELL PUMPS  
CARGO PUMPS 12X300 M<sup>3</sup>/H  
SLOP PUMPS 300 M<sup>3</sup>/H  
BALLAST PUMPS 2X500 M<sup>3</sup>/H  
DISCHARGE CAP 1800 M<sup>3</sup>/H

## MAIN ENGINE

WÄRTSILÄ 9L34DF 4500 KW

## AUXILIARY ENGINES

WÄRTSILÄ 688W4L20 688 KW  
WÄRTSILÄ 1600W9L20 1600 KW

## BOW THRUSTER

BRUNVOLL FU63LTC1750 850 KW

## INERT GAS SYSTEM

FUEL LNG/DIESEL  
CAPACITY 2250 M<sup>3</sup>/H

## BALLAST WATER TREATMENT

ALFA LAVAL PURE BALLAST



# DESCRIPTION OF POINTS

## **TIER III COMPLIANCE**

International Maritime Organization (IMO) highest emission classification.

## **LNG AS FUEL AT SEA AND IN PORT**

Inert gas generator can be operated on LNG, for cleaner emissions.

## **SCR ON AUXILIARY ENGINES**

Selective Catalytic Reactors (SCR) are installed, reducing NOx emissions.

## **INERT GAS ON LNG**

Inert gas generator will have the possibility to be operated on LNG, for cleaner emissions.

## **FREQUENCY CONTROLLED STEERING GEAR**

A more efficient way to operate the actuation of the rudder.

## **HIGH EFFICIENCY TWISTED LEAD RUDDER WITH PROPELLER BULB**

A special kind of rudder design that aims to minimize drag while optimizing stability and efficiency.

## **PROPELLER NOZZLE MINIMIZE REQUIRED ENGINE OUTPUT - ICE CLASS 1A**

With a propeller nozzle fitted the propeller will deliver approximately 25% more pull.

## **PROPELLER NOZZLE REDUCE NOISE LEVEL**

Propeller Nozzle will also reduce the underwater noise that is emitted from the propeller.

## **CLASS NOTE AVM-APS ALTERNATIVE PROPULSION SYSTEM**

AVM-APS is a classification notation for assisted propulsion, secondary propulsion system.

## **ENERGY CLASS ELECTRICAL MOTORS**

All electric motors on board has the highest possible energy efficiency class.

## **VFD PRESSURE CONTROLLED ENGINE ROOM FANS**

The engine room fans are automatically controlled in order to minimize energy consumption.

## **ENERGY EFFICIENT VENTILATIONS**

All ventilation systems are designed to consume a minimum amount of energy.

## **FLOATING FREQUENCY FOR PROPELLER EFFICIENCY**

Technical solution that make it able to run the propeller at a variable speed, resulting in reduced energy consumption.

## **UPS BACK UP ON ALL PROPULSION AND NAVIGATION**

The electrical system have a battery backup that will minimize the risk of a blackout, resulting in improved safety.

## **CHEMICAL FREE BALLAST WATER TREATMENT**

Ballast water treatment that is not using any chemical additives.

## **ULTRASONIC ICAF**

Anti fouling system for box coolers that uses ultrasonic sound waves to deter organisms from growing inside the box coolers.

## **VGP COMPLIANCE FOR ALL OIL TO WATER INTERFACE**

All systems containing oil that potentially can be leaking into the sea are filled with biodegradable oils.

## **LED LIGHTS FOR LOW ENERGY CONSUMPTION**

All lights on board where possible are of LED type.

## **REMOTE ANCHORING FROM BRIDGE**

The anchors are able to be released from bridge.

## **ACTIVE LOAD CURVE AND PITCH ADJUSTMENT FOR ENERGY SAVING**

A way to optimize the propeller RPM and pitch depending on cargo condition.

## **EAL OIL IN ALL EQUIPMENT ON OPEN DECK**

EAL is an biodegradable oil.