

Solutions for port and coastal icebreaking



Unrivalled icebreaking performance and operational capability in ports and coastal regions

Aker ARC 124 and its derivative design, Aker ARC 124 A, are medium-sized icebreakers intended for operations in large ports and coastal regions. With either one or two azimuth propulsion units in the bow and two units in the stern, they are particularly suitable for operations in ice ridges as well as thick and

sometimes consolidated brash ice that forms in shipping channels and harbor basins as a result of regular traffic during the winter months.

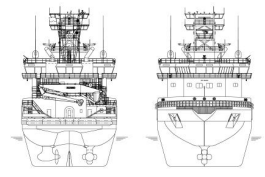
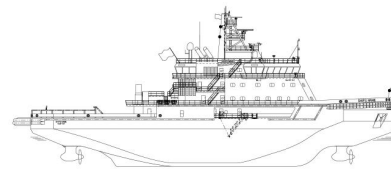
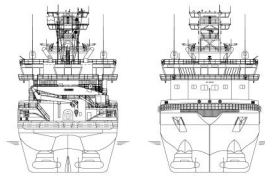
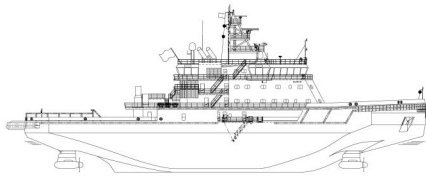
Both vessels also have excellent continuous icebreaking capability in up to 1.5 m thick level ice in both ahead and astern directions. High maneuverability in all ice conditions guarantees safe escort and assistance operations in close proximity to other vessels.

Aker ARC 124 A is the latest addition to the icebreaker design family developed by Aker Arctic. It combines the experience gained from developing basic design for the Aker ARC 124 Port Icebreaker with the advanced hull form of the Aker ARC 130 A Icebreaking Support Vessel. Both designs have been extensively model tested in open water and ice, and ships based on them have been contracted for operations in the Russian Arctic.

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Aker ARC 124

Aker ARC 124 A



Length, overall	89.5 m	85.2 m
Length, design waterline	77.6 m	74.5 m
Breadth, with fenders	21.9 m	21.9 m
Breadth, design waterline	19.9 m	19.9 m
Draught, design waterline	6.5 m	6.5 m
Draught, maximum	7.5 m	7.5 m
Deadweight	750 tons (design draught) 2,000 tons (maximum draught)	750 tons (design draught) 2,000 tons (maximum draught)
Ice class	RMRS Icebreaker7 IACS Polar Class 3	RMRS Icebreaker7 IACS Polar Class 3
Main power plant	Three medium-speed diesel generator sets (3 x 4,880 kW)	Three medium-speed diesel generator sets
Harbor diesel generator	One medium-speed diesel generator set (800 kW)	One medium-speed diesel generator set
Propulsion system	Four azimuth thrusters (2+2) 4 x 3,000 kW	Three azimuth thrusters (2+1) 3 x 3,500 kW
Open water speed	15 knots	15 knots
Icebreaking capability, 1.5 m level ice	2 knots, ahead and astern	2 knots, ahead and astern
Icebreaking capability, 5 m brash ice with 50 cm consolidation	4 knots, ahead and astern	3 knots, ahead and astern
Bollard pull	115 tons	105 tons

Common features:

- More than one week endurance in typical port and coastal icebreaking operations when air temperature is -50°C
- 30-day endurance in open water at economical speed when air temperature is up to +30°C
- Accommodation for 18 crew and 12 supernumeraries; comfortable public spaces and medical outfit
- Aft cargo deck for 12 containers (TEU); deck crane (5 tons, 22 m)
- Fire-fighting system with two monitors and engine-driven pumps
- Full escort towing outfit with winch, hydraulic pins and towing notch
- Oil spill response readiness with dedicated storage tanks and oil recovery equipment stored in containers; built-in mechanical oil recovery system can be fitted as an option
- Dynamic Positioning (DP) Class 1 as option
- Helideck as option