



ATEK
DRIVE SOLUTIONS
BRAKES · GEARS · MOTORS

HIGHEST STANDARDS AT SEA

Tailor-made system solutions for maritime applications

Status as of 07/2026

YOUR PARTNER FOR CUSTOMIZED SYSTEM SOLUTIONS IN SHIPBUILDING

ATEK Drive Solutions stands for tailor-made system solutions for the maritime powertrain in the shipbuilding industry – with a particular focus on high-performance, durable, and fully documented shaft brake systems for vessels.

Whether luxury yachts, submarines, research vessels, fishery protection boats, or naval ships: We deliver individually configured braking systems from a single source – from conception and design through steel construction, piping, hydraulics, and control systems, to repair and maintenance services.

Furthermore, **ATEK Drive Solutions** develops and supplies drive systems including brakes, gearboxes, and motors for anchor and mooring systems, winches and cable winches, cranes and lifting systems, as well as deck and hatch equipment.

Saltwater, humidity, heat, and frost are consistently taken into account in our material selection, surface treatment, and corrosion protection. This results in long-lasting systems with high availability and predictable maintenance.



OUR SOLUTIONS FOR THE DIVERSE DEMANDS AT SEA

ATEK Drive Solutions develops and supplies customized drive solutions for key applications in shipbuilding – robust, durable, and precisely tailored to the specific application.



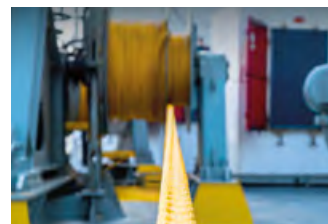
Shaft Brake Systems

Individually configured braking systems for marine propulsion – designed for safety, reliability, and controlled operating conditions



Anchor & Mooring Systems

Drive systems featuring brakes, gearboxes, and motors for secure holding, anchoring, and mooring processes on board



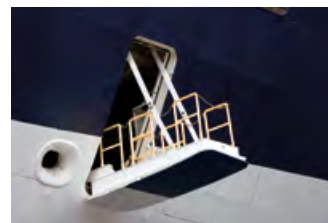
Winches & Cable Winches

Customized drive solutions for pulling, holding, and positioning tasks in demanding maritime environments



Cranes & Lifting Systems

High-performance drive technology for precise and safe lifting and handling operations under maritime conditions



Deck & Hatch Equipment

Drive systems for reliable movement, opening, and closing functions in deck and hatch systems

QUALITY AND EFFICIENCY FROM A SINGLE SOURCE

ATEK Drive Solutions combines engineering expertise, manufacturing experience, and system understanding to create solutions that prove themselves in practice.

You can rely on this:

Tailor-made Solutions

No standard products, but systems precisely matched to the application, installation environment, and vessel type.

Drive Technology from a Single Source

Integration of brakes, gearboxes, and motors into perfectly fitting system solutions.

Focus on Shaft Brake Systems

High level of expertise in high-performance braking systems for the maritime powertrain.

Designed for Maritime Operating Conditions

Material selection, corrosion protection, and surface treatment tailored to saltwater, humidity, and temperature fluctuations.

Project-ready Documentation

Technically sound, specified, and transparently documented solutions for demanding projects.

Service-oriented throughout the entire Life Cycle

From conception and design to repair, maintenance, and support.

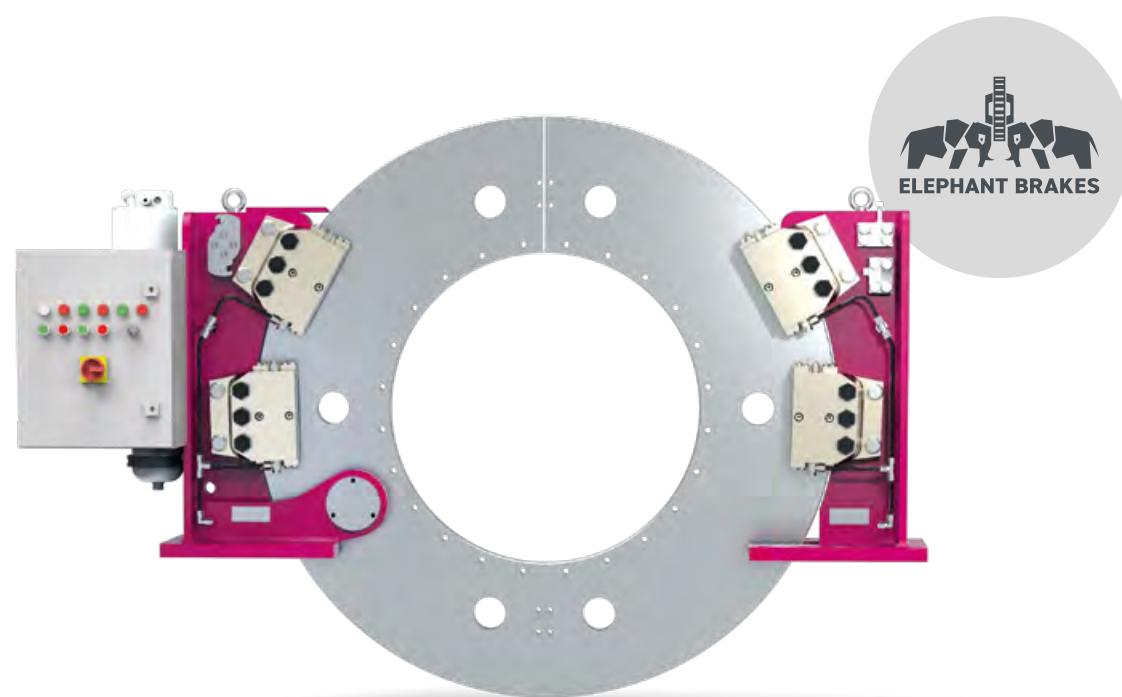
INDIVIDUAL SHAFT BRAKE SYSTEMS FOR YOUR VESSEL

Safety, control, and reliability in the maritime powertrain

Shaft brake systems are one of the core competencies of **ATEK Drive Solutions** in shipbuilding. Every system is individually tailored to the vessel type, propulsion concept, and installation environment.

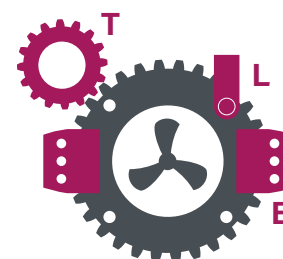
ATEK Drive Solutions delivers complete, customized shaft brake systems – from conception, design, and manufacturing to steel construction, piping, hydraulics, control systems, and documentation. This results in solutions that can be precisely integrated into the maritime drive and function reliably even under demanding operating conditions.

For maximum performance and safety at sea, **ATEK Drive Solutions** meets individual requirements with maximum precision.



Products may vary from illustrations

TURNING, LOCKING, BRAKING - PRECISELY TAILORED FOR THE MARITIME POWERTRAIN



Depending on the application, the shaft brake system performs various tasks within the maritime drive system. Precise coordination with the vessel, operation, and safety requirements is crucial.

Turning, Locking, and Braking are individually tailored to each specific design – ranging from simple, economical systems to complex premium solutions.



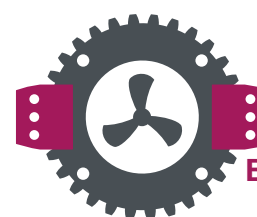
Turning

- Rotating at low speeds (e.g., in port), even with the gearbox disengaged
- Controlled shaft rotation during assembly, maintenance, and repair



Locking

- Locking the shaft during maintenance and repair work
- Preventing current-induced rotation during non-operation



Braking

- Rapid shaft shutdown
- Support for the reversing process
- Improved maneuverability
- Assistance in braking the shaft
- Preventing current-induced rotation during non-operation

Your benefits at a glance

- Secure locking of shafts and propellers
- No impairment when maneuvering a sailing vessel
- Securing moving parts during maintenance and repair work, e.g. during diving operations
- Safety and control when braking the propeller shaft during reversing maneuvers

THE SHAFT BRAKE SYSTEM IN DETAIL

Hydraulic Power Unit

- Compact, modular configuration
- With valve unit
- Membrane accumulator with certification

Monitoring Unit

- Monitors required braking torque
- Controllable via pressure switch and/or transmitter
- Certified pressure switch

Position Indicator for Locking Unit

- Visual check of locking bolt position
- Assists in positioning the brake disc for locking bolt engagement
- Optional: with inspection window

Mounting Base

- Coatings up to 'Highest Yacht Standard'
- Integration of a locking unit possible

Locking Unit

- Sensor-monitored locking operation prevents engine startup when locked

Control System with Operating Time Monitoring

- Signal contact/start-up protection when in shaft and/or turning operation
- Remote control possible from the bridge or engine control room
- Turning control can be integrated

Brake Disc

- Various variants possible, with customized holes for locking if required
- Optional external toothing for turning drives
- Easy to replace or retrofit
- User-friendly installation (split version: simple radial assembly)
- Optional: split brake disc, mounting and removal device

Disc Brake (Fig. EB 600)

- Nickel-plated or corrosion-protected available

Technical Features

- Shock verification, e.g., according to British Naval Standard BR3021
- Toothed and smooth brake discs
- Brake discs in split and non-split designs with hubs for radial installation
- Mounting and dismounting devices for split brake discs
- Stainless steel brake discs
- Individual turning, locking, and braking capabilities
- Component certification according to the requirements of international classification societies, such as DNV GL, Bureau Veritas, Lloyd's Register of Shipping
- Technical acceptance of the systems directly in-house at our facility
- Customized color schemes available upon request

PRODUCT COMPONENTS FOR YOUR SHAFT BRAKE SYSTEM

Product solutions from **ATEK Drive Solutions** form the technical foundation for high-performance shaft brake systems in shipbuilding. Proven brakes, gearboxes, and motors can be precisely tailored to diverse requirements, installation environments, and operational profiles.

Fixed Caliper Brakes

Hydraulically applied, spring-released for maritime braking systems

	Braking force*: up to 15,6 kN	EB255
	Braking force*: up to 34 kN	EB285
	Braking force*: up to 115 kN Material: Cast iron with enhanced corrosion protection (nickel-plated)	EB500
	Braking force*: up to 230 kN Material: Cast iron with enhanced corrosion protection (nickel-plated)	EB500

Gearboxes and Geared Motors

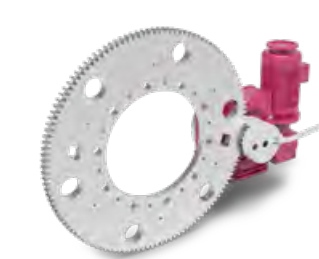
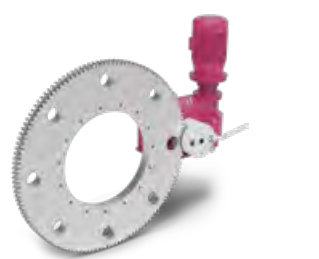
Precisely engineered gearboxes and geared motors for individual system concepts

	Bevel gearbox	V
	Bevel gearbox with flange for standard motor mounting	VL
	Worm gearbox	S
	Worm gearbox with flange for IEC standard motor mounting	SL
	Bevel gearbox with attached IEC standard motor	VLM
	Worm gearbox with attached IEC standard motor	SLM
	IEC standard motors for individual system concepts	

HOW YOUR CUSTOMIZED SHAFT BRAKE SYSTEM IS CREATED

The modular system from **ATEK Drive Solutions** demonstrates how shaft brake systems can be efficiently configured using proven modules. Beyond this, we also develop fully customized systems – newly conceived and precisely engineered for your specific application.

Turning Gear

		
S200 Size 1 (BG1) Breakaway torque: 20 kNm Continuous torque: 15 kNm	S250 Size 2 (BG2) Breakaway torque: 80 kNm Continuous torque: 45 kNm	S350 Size 3 (BG3) Breakaway torque: 170 kNm Continuous torque: 80 kNm

Braking Systems

	
Elephant Brakes up to 4 x EB500 Braking force*: > 400 kN	Elephant Brakes up to 4 x EB600 Braking force*: > 750 kN

Locking


Locking pin diameter: up to 200 mm Locking torque: up to 3,500 kNm Other sizes available on request

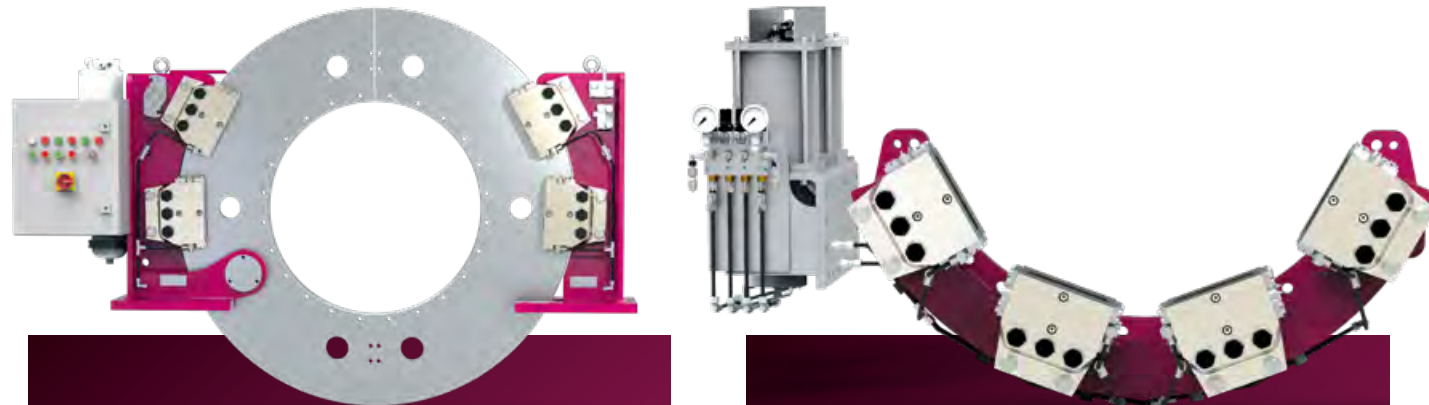
Control System


Freely configurable control system Features include: flood-proof/ submersible, ATEX-compliant, CSA/UL-compliant Available in analog or digital versions

Power Unit


Electrified/electro-hydraulic, low-maintenance, high-performance Noise level: < 62 dB (A) possible

FROM RESEARCH VESSEL TO LUXURY YACHT



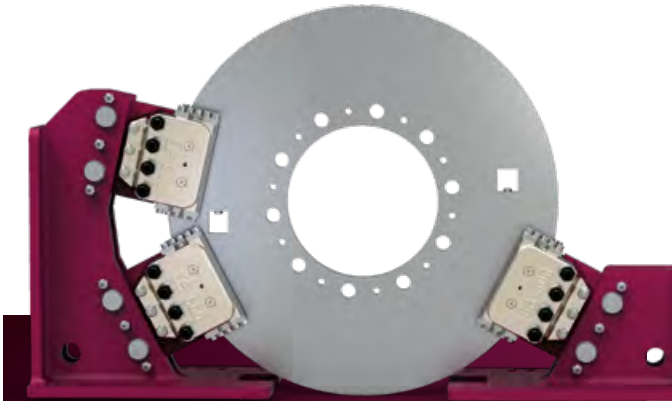
Shaft brake system with locking device

- Braking torque: **60 kNm**
- Operating pressure: **50–60 bar**
- Locking torque: **227 kNm**
- Brake disc: **1500 × 50 mm**
- Rotational speed: **50 rpm**
- Hydraulic power unit: **CA-2.4**
- Incl. control system

Shaft brake system

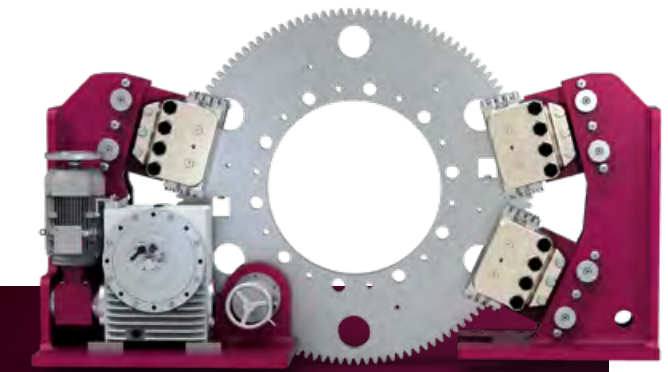
- Braking force at 100 bar: **274 kN**
- Max. operating pressure (open): **0.5 bar**
- Max. operating pressure (closed): **6 bar**
- Pressure multiplier ratio: **1/16**

OUR REFERENCE PROJECTS



Shaft brake system

- Braking torque (static): **370 kNm**
- Brake disc: **1550 × 50 mm**
- Operating pressure (static): **150 bar**
- Rotational speed: **77 rpm**



Shaft brake system with locking device and turning gear

- Braking torque (static): **370 kNm**
- Brake disc: **Ø 1536 × 65 mm**
- Operating pressure (static): **150 bar**
- Locking torque: **900 kNm**
- Rotational speed: **70 rpm**
- Turning gear breakaway torque: **50 kNm**
- Turning gear continuous torque: **25–33.3 kNm**
- Shockproof design of the brake system





DRIVE SOLUTIONS FOR SECURE HOLDING AND MOORING PROCESSES

Brakes, gearboxes, and motors for anchor and mooring systems

ATEK Drive Solutions develops and supplies customized drive solutions for anchor and mooring systems, precisely tailored to the vessel, operational profile, and technical requirements. The focus is on secure motion sequences, high load capacity, and reliable function under demanding maritime conditions.

Product recommendations for your anchor & mooring systems

	Fixed Caliper Brakes	EBS001- EBS008		Worm Gearboxes	S SL
	Floating Caliper Brakes	EBS001FL- EBS008FL		Geared motor	VLM SLM
	Bevel Gearboxes	V VL		IEC standard motors	
	Stainless Steel Gearboxes	HDV HDVS HDVL			

Benefits at a glance

- Precisely tailored to the vessel and operational profile
- High load capacity under maritime conditions
- Reliable function during holding and mooring processes
- Perfect integration into the respective overall system

PRECISE DRIVE TECHNOLOGY FOR PULLING, HOLDING, AND POSITIONING TASKS

Brakes, gearboxes, and motors for winches and cable winches

ATEK Drive Solutions supplies application-specific drive systems for winches and cable winches that are precisely matched to load, dynamics, size, and operational profile. This results in robust solutions for reliable use under demanding conditions at sea.

Product recommendations for your winches and cable winches

	Lever Brakes	RH350-360, EMS120-170 EMS170S		Worm Gearboxes	S SL
	Fixed Caliper Brakes	EBS001- EBS008		Geared motor	VLM SLM
	Floating Caliper Brakes	EBS001FL- EBS008FL		IEC standard motors	
	Bevel Gearboxes	V VL			

Benefits at a glance

- Precisely matched to load and operational profile
- Secure power transmission and controlled motion sequences
- Robust design for demanding maritime conditions
- High reliability for pulling, holding, and positioning tasks



PRECISE DRIVE TECHNOLOGY FOR SAFE LIFTING AND HANDLING PROCESSES

Brakes, gearboxes, and motors for cranes and lifting systems

ATEK Drive Solutions develops and supplies application-specific drive solutions for cranes and lifting systems, precisely tailored to the load, motion sequence, and operating conditions. The focus is on controlled movements, high operational safety, and reliable function under demanding maritime conditions.

Product recommendations for your cranes and lifting systems

	Fixed Caliper Brakes	EBS001- EBS008		Planetary gearbox	PCE BPCE
	Floating Caliper Brakes	EBS001FL- EBS008FL		Servo gearbox	VC VCE
	Bevel Gearboxes	V VL		Geared motor	VLM SLM
	Worm Gearboxes	S SL		IEC standard motors	
	Hypoid gearbox	H			

Benefits at a glance

- Precisely matched to load and motion profile
- Safe and controlled lifting and handling processes
- Robust design for maritime use
- Reliable integration into the respective overall system



RELIABLE DRIVE SOLUTIONS FOR CONTROLLED MOTION SEQUENCES ON DECK

Brakes, gearboxes, and motors for deck and hatch equipment

ATEK Drive Solutions also supplies customized drive systems for deck and hatch equipment, precisely tailored to opening, closing, and adjustment movements. This results in robust solutions for applications where reliability, controlled processes, and long-term performance in the maritime environment are essential.

Product recommendations for your deck and hatch equipment

	Lever Brakes	RH350-360 EMS120-170 EMS170S		Hypoid gearbox	H
	Fixed Caliper Brakes	EBS001- EBS008		Servo gearbox	VC VCE
	Floating Caliper Brakes	EBS001FL- EBS008FL		Geared motor	VLM SLM
	Bevel Gearboxes	V VL		IEC standard motors	
	Worm Gearboxes	S SL			

Benefits at a glance

- Precisely matched to the installation environment and motion profile
- Controlled opening and closing processes
- High load capacity under demanding conditions at sea
- Long-lasting system solutions with high operational safety

PRECISION FROM DESIGN TO MANUFACTURING

Engineering, manufacturing and quality for demanding maritime system solutions

ATEK Drive Solutions supports shipbuilding projects with a clear focus on technical precision, reliable implementation and long-term operational safety. From design and engineering to manufacturing and integration, the company delivers solutions that are precisely tailored to the application and operating conditions.

Carefully selected materials, modern machinery and regular training ensure high quality standards. Optimized processes, efficient inventory management and forward-looking production planning enable short lead times and on-time delivery.

What you can rely on

- precise design based on customer-specific requirements
- selected materials and high-quality components
- modern machinery and strong manufacturing expertise
- short lead times through optimized processes
- reliable implementation with a high degree of planning certainty
- delivery in individual parts for easy assembly available

Maritime system solutions that perform in practice

Whether shaft brake systems or drive systems with brakes, gearboxes and motors for other maritime applications: **ATEK Drive Solutions** develops solutions that are precisely engineered, reliably integrated and designed for long-term durability.

With technical expertise, a high level of in-house manufacturing and a clear understanding of maritime requirements, the company creates systems that prove themselves even under demanding conditions at sea.

Talk to us about your individual solution.



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BRAKES · GEARS · MOTORS



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