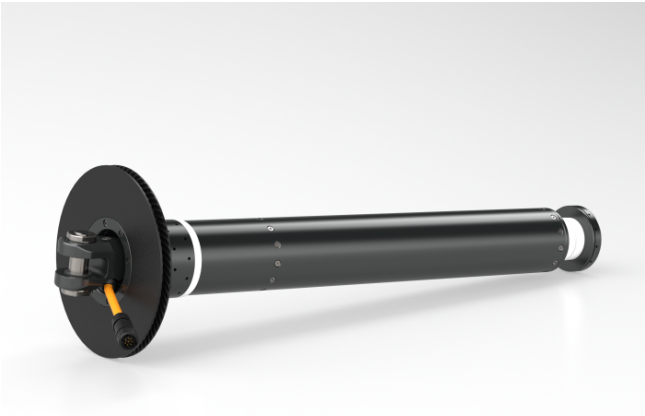
BFE-165



Furling System	boom drives
drive type	electric
furling direction	cw, ccw
max. E-length (boom length), approx.	11 m
D1 – mandrel inner diameter	165 mm
D2 – □ emergency drive wheel	330 mm
L – total length	1445 mm
d – □ clevis pin	40 mm
W – clevis width	66 mm
G – clevis depth	35 mm
weight of the drive unit	74 kg
holding torque	6000 Nm
drive torque	600 Nm
max. furling speed	27 rpm
flatten function	Yes
nominal supply voltage	24 V, 48 V
max. current consumption 24 V	80 A
max. current consumption 48 V	40 A

Mainsail handling at the push of a button.

Application

Reckmann **BFE** is a complete electric drive system for in-boom furling, enabling the handling of large sails with a small crew or even single-handed. The drive unit is **installed internally** within the boom mandrel as a compact, sealed system. An **emergency drive wheel** allows the sail to be furled using a line drive in case of power failure.

Functionality

To **hoist** the sail, the drive is set to a **braked freewheel mode**. The sail is then rolled out of the boom conventionally using the main halyard, with only the winch being operated. The defined braking resistance prevents uncontrolled unrolling, for example in gusty conditions.

When **lowering the sail**, the mandrel inside the boom rotates **at the push of a button** to furl the sail, while the operator eases the main halyard at the desired speed. The additional *flatten* function allows immediate, **fine retensioning** of the luff without opening the locking mechanism, e.g. to approach a reefing point with precision. A strong integrated mechanism securely **locks the mandrel** and absorbs the forces when sailing reefed.

All components are designed for marine use, featuring seawater-resistant materials and protected cabling (min. IP67).

System Concept

BFE systems are supplied as **complete, pre-configured systems** including the required control and connection components.

The system includes the following components as standard; see system diagram:

- Drive unit with emergency drive wheel
- Connection cable to the control panel
- Drive flange
- Mast cable
- Control panel (1x)
- Electronic control box

System Options

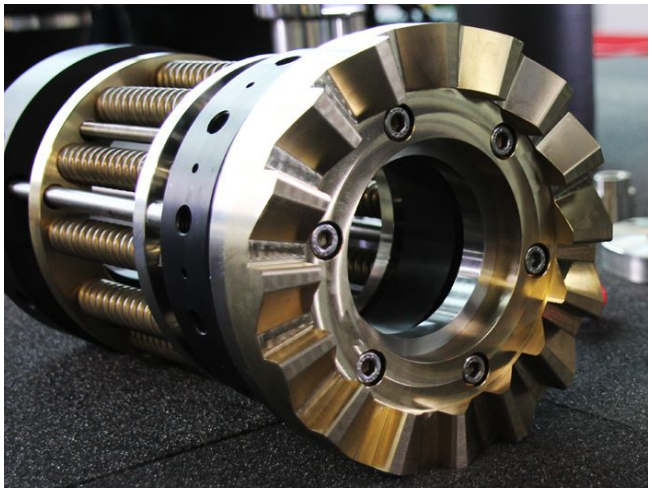
BFE drives are available for **12 V, 24 V or 48 V system voltage**, depending on system type, see table below.
All systems are available in cw (**clockwise**) and cw (**counterclockwise**) configurations. The appropriate configuration is selected depending on whether the sail is to be furled on the **starboard** (cw) or **port side of the boom** (ccw).

Accessories

The following optional parts are available:

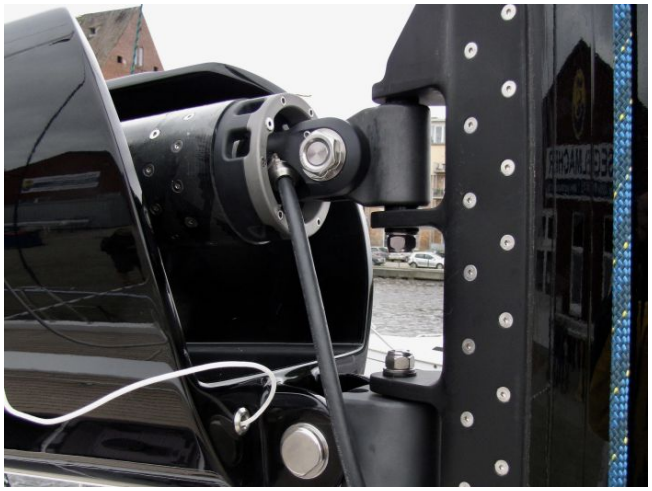
- second hard-wired control panel
- wireless remote control with receiver
- clevis pins with nuts
- universal joint for connection to the mast fitting
- mast cable extension (2.2 m)
- extra-long 8 mm hex key for emergency release
- winch sensor with connection cable

Features



Integrated locking mechanism

The system locks automatically after the operation and safely holds the load when the sail is reefed. Additionally, the ratchet geometry allows fine adjustment of the luff without unlocking (*flatten* function).



Compact in-mandrel design

The drive unit is fully integrated within the boom mandrel. This saves space, protects the system, and simply looks great.

[Note: Image does not show the standard emergency drive wheel]



Wireless remote control (optional)

The system can be operated remotely for even easier handling, allowing the sail to be controlled from a convenient position on board.

Features



Manual backup drive wheel

The system is equipped **as standard** with a drive wheel mounted at the front, allowing manual furling of the sail using a line. The toothed design of the wheel ensures a secure grip, so the mandrel can be rotated reliably even without electrical power.

For BFE-165 and larger models, the emergency drive wheel is supplied in a split, **removable design**. It can be fitted when required and removed during normal operation.



Emergency unlock via hex key

BFE-100, BFE-125 and BFE-165 are equipped with an emergency release, which can be operated using a standard 8mm hex key. This ensures safe and simple manual operation at any time.

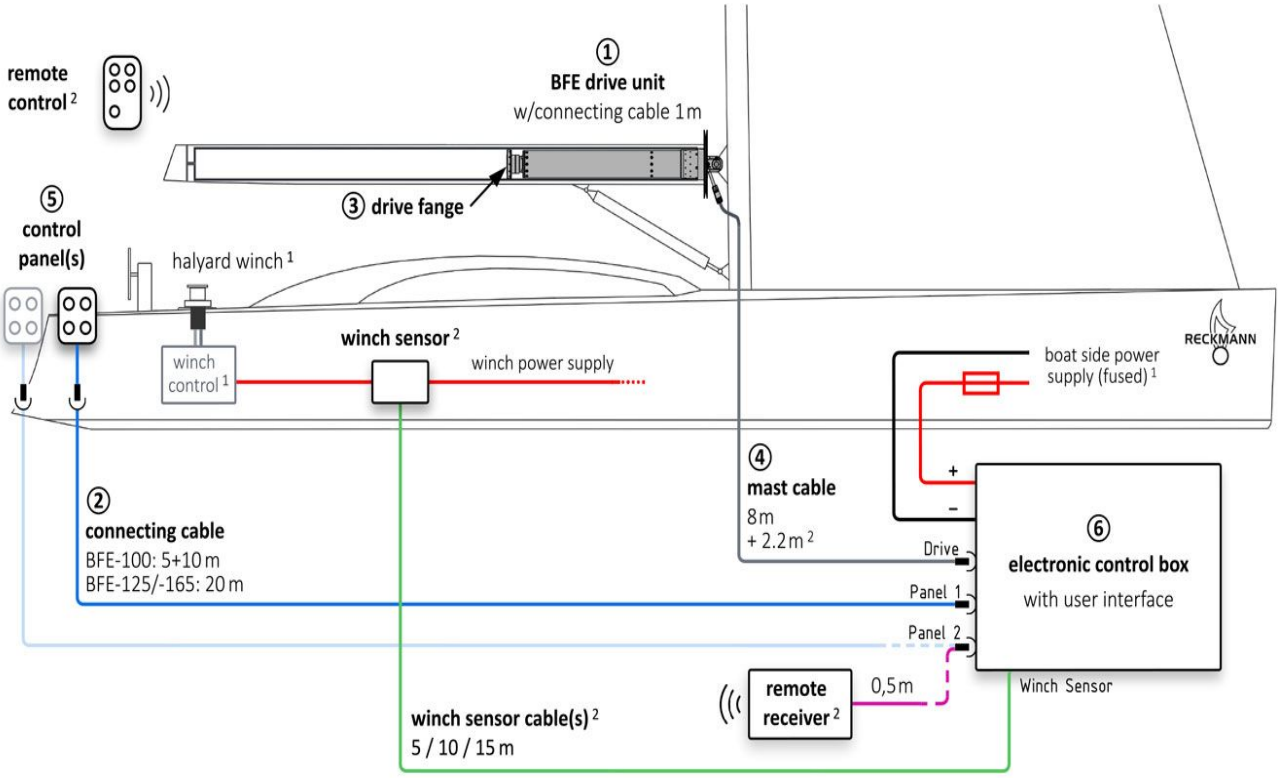
The BFE-125, BFE-165 and BFE-200 feature an integrated locking mechanism with freewheel geometry in the furling direction. This allows the sail to be manually furled via the emergency drive wheel, even without releasing the lock.



BFE – electric drive systems for furling booms



Dimensions BFE – see table for more information



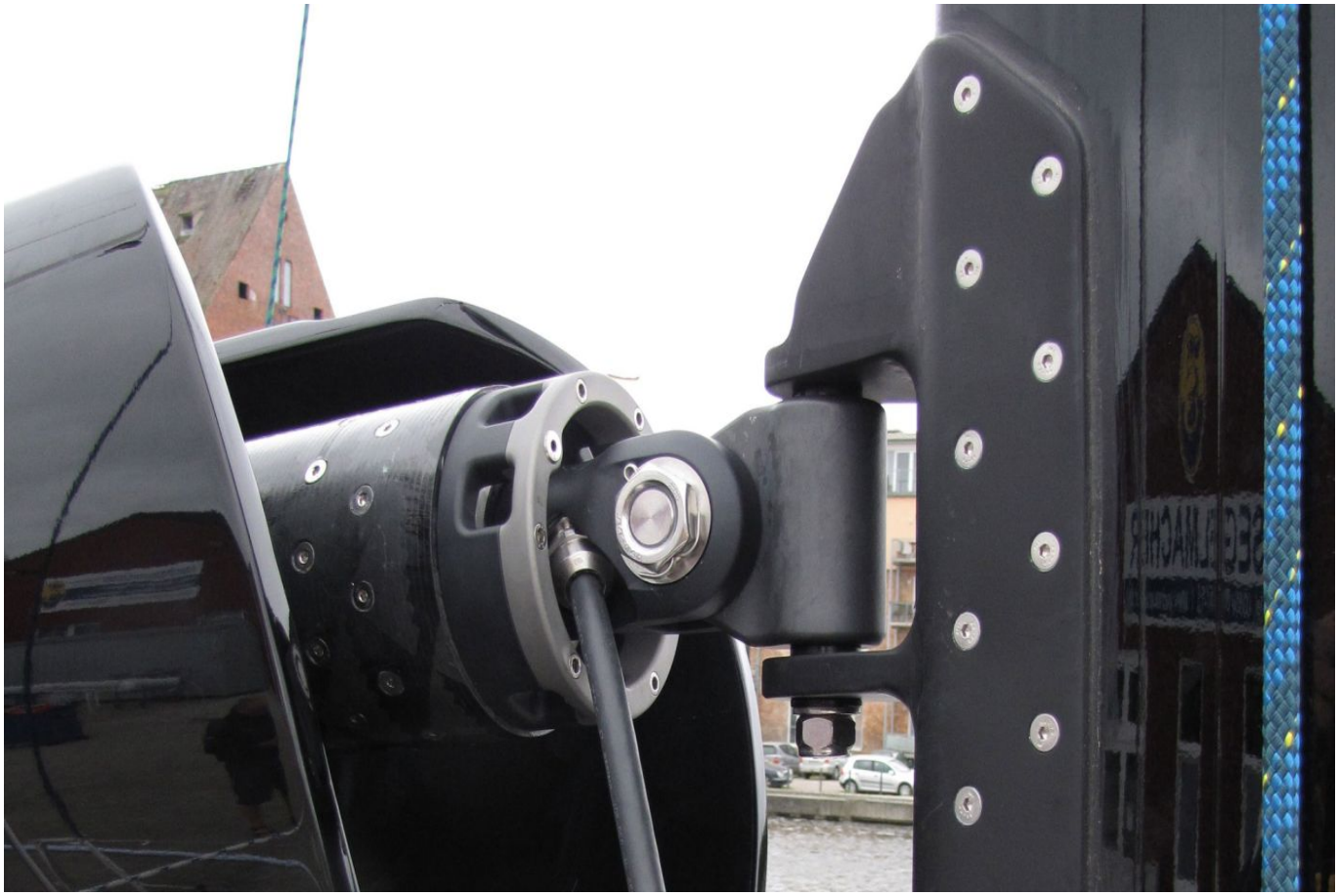
BFE system schematic



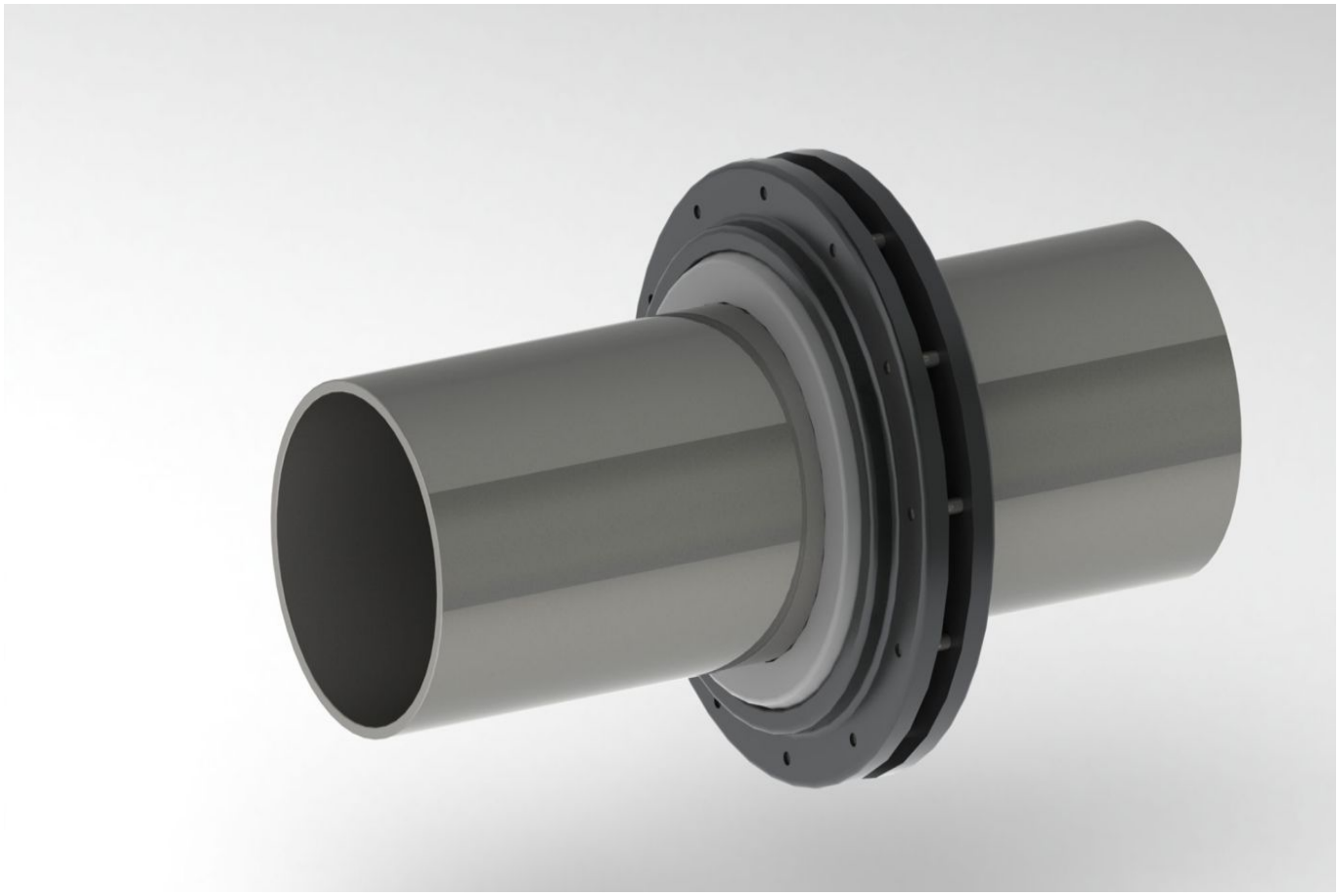
BFE-165, BFE-125, BFE-100



BFE-100 fork connection with emergency release system



BFE-125



BFE mandrel aft bearing