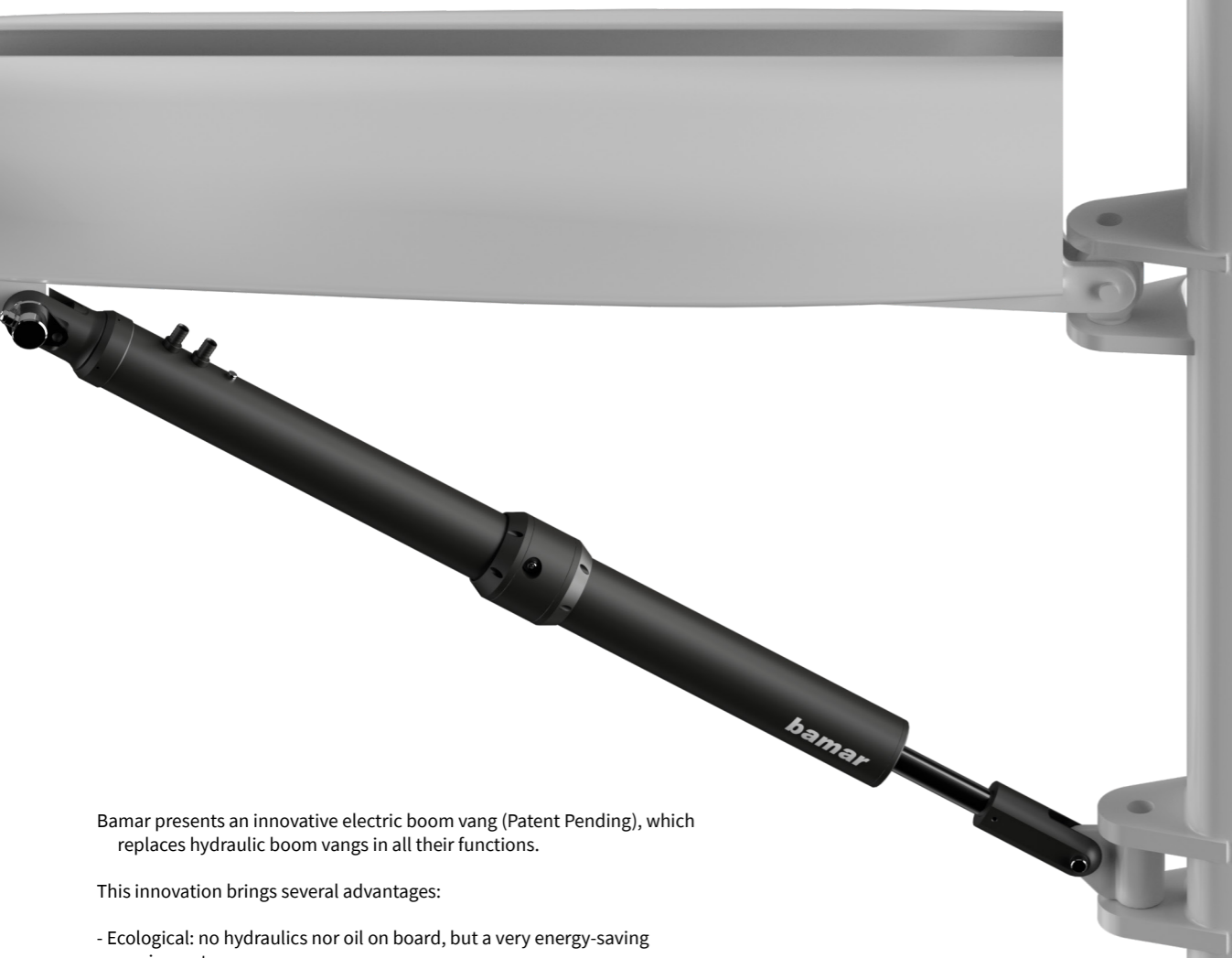


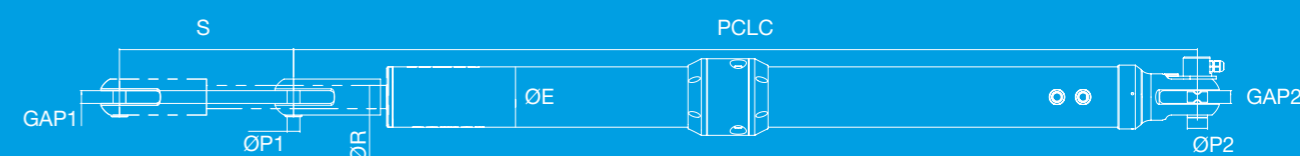
E-VANG (M01)



Bamar presents an innovative electric boom vang (Patent Pending), which replaces hydraulic boom vangs in all their functions.

This innovation brings several advantages:

- Ecological: no hydraulics nor oil on board, but a very energy-saving equipment
- Easy installation: no manual pumps or hydraulic hoses and control units, just connect the unit to the 12/24/48V on-board power supply;
- Ease of use: controlled by 3 switches (Up - Down - Emergency Quick Release high speed);
- Connectivity: it is possible to connect the electric boom vang to the on-board automation monitoring and management system (end-of-stroke sensors, load cell, ampere absorption, position sensor if required);
- Active safety: the dynamometric pin recognises the external compression loads exerted by boom and mainsail and allows the vang to automatically adapt to the sail's adjustment requirements (avoiding wrong manoeuvres or overloads);
- Passive safety: in the event of a power failure on board, thanks to the manual emergency backup device, the vang can be extended or retracted with a standard winch handle or power drill.



Model	Body ØE mm	Cylinder Rod ØR mm	Pin ØP1 mm	GAP1 mm	Pin ØP2 mm	GAP2 mm	Stroke S mm	PCLC mm
e-Vang 1	92	35	16 - 19	19	28 - 30	19	250	2500
e-Vang 3	104	40	22	22	35	22	300	3000 - 3250
e-Vang 5	130	50	25 - 32	32	40 - 42	32	400	3500 - 3750

Model	e-Vang 1	e-Vang 3	e-Vang 5
Cylinder max pull kg	4000 - 6000	8000 - 11000	15000 - 17000
Max push kg	1500 - 2000	3000	5000 - 6000
Indicative weight kg	-	38	-

Electric cylinder (M02)

To complete the line of electric vangs, Bamar also presents electric cylinders (Patent Pending).

This innovative product too has several advantages:

- Ecological: no hydraulics nor oil on board, but a very energy-saving piece of equipment
- Easy installation: no manual pumps or hydraulic hoses and control units, just connect the unit to the 12/24/48V on-board power supply;
- Ease of use: controlled by 3 switches (Up - Down - Emergency Quick Release high speed);
- Connectivity: it is possible to connect the electric cylinder to the on-board automation monitoring and management system (OPTIONAL: end-of-stroke sensors, load cell, ampere absorption, position sensor if required);
- Passive safety: in the event of a power failure on board, thanks to the manual emergency backup device, the cylinder can be extended or retracted with a standard winch handle or power drill.



Model	Body ØE mm	Cylinder Rod ØR mm	Pin ØP1 mm	GAP1 mm	Pin ØP2 mm	GAP2 mm	Stroke S mm	Minimum PCLC mm
e-Ram 1	92	35	16 - 19	19	28 - 30	19	250	1353
e-Ram 3	104	40	22	22	35	22	300	1383
e-Ram 5	130	50	25 - 32	32	40 - 42	32	400	1500 - 1800

Model	e-Ram 1	e-Ram 3	e-Ram 5
Cylinder max pull kg	4000 - 6000	8000 - 11000	15000 - 17000
Max push kg	1500 - 2000	3000	5000 - 6000
Indicative weight kg	-	38	-