



YAPLUKA 60' - photo Jérôme Kelagopian

2 _ **MOTORISED REEFING - FURLING SYSTEMS**

Electric & Hydraulic



Wauquiez 43



Privilège 435



Moody Carabiner 47'

Several hundred PROFURL electric or hydraulic genoa reefing systems have been supplied over more than 15 years, making PROFURL the first manufacturer of this type of systems in the world.

The main features of these systems are high output and great reliability. This new range of PROFURL motorised systems includes the very latest improvements of the modern technology, allowing compact and modern design.

The PROFURL motorised systems are covered worldwide by a 3 year warranty.



Gear motor

The special grade cast aluminium housing is treated against corrosion by an oven baked paint finish.

All stainless steel parts are insulated from the aluminium housing with insulation bushings. The close tolerance of the gears and transmission produces very quiet operation. The gearbox is lubricated for life in an oil bath and requires no maintenance.

The self-locking mechanism is non-reversible, thus requiring no manual locking to immobilise the extrusions when the sail is furled or reefed.

The sail may be furled equally well in either direction just depending on the location of the sail's anti UV strip.

The gear ratio has been optimised to produce a high output and an ideal speed of rotation. The lower part of the gear motor includes an adjustable stainless steel tube connecting the housing of the motor onto the lower toggle supplied.

The ProFurl motorised systems are subjected to severe tests on a special test rig. Torque output is carefully measured, as well as speed of rotation and power consumption.



Luff extrusions

Luff extrusions are identical to the ones used with the manual ProFurl models.

They can easily withstand the high torque produced by the gear motor.

Extrusions are delivered in 2-meter sections,

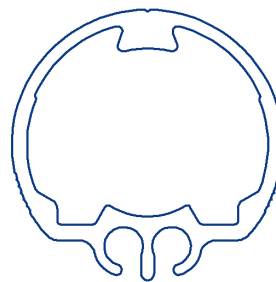
linked by the unique patented ProFurl connectors. Self-lubricating Nylon graphite bearings are fitted at each joint, and prevent wear, corrosion and noise.



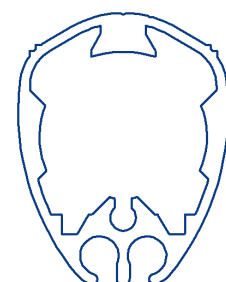
Profurl motorised models

| Electric models | Power of electric motor | Outside diameter of wires supplied | Minimum section of wires for power supply | |
|------------------------------------|-------------------------|------------------------------------|-------------------------------------------|----------|
| | | | 12 V | 24 V |
| NDE C 42 NDE R 42 | 850 W | 8.5 mm | 25 sq.mm | 16 sq.mm |
| NDE 52 | 850 W | 8.5 mm | 25 sq.mm | 16 sq.mm |

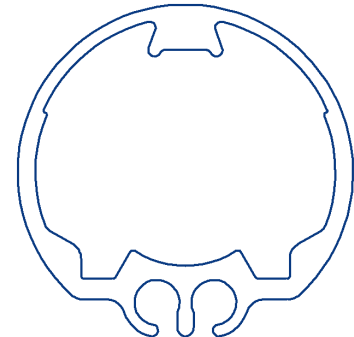
| Hydraulic models | Maximum operating pressure | Maximum speed of rotation | Maximum flow |
|------------------------------------|----------------------------|---------------------------|--------------|
| NDH C 42 NDE R 42 | 100 bars | 30 Rpm | 15 L / mn |
| NDH 52 | 140 bars | 30 Rpm | 15 L / mn |



► Model ND C 42 (C = "cruising" round extrusions) for forestay from 8 (5/16") to 12.7 mm (1/2") diameter.



► Model ND R 42 (R = "racing" foiled extrusions) for forestay from 8 (5/16") to 10 mm (3/8") diameter.



► Model ND C 52 for forestay from 12 (1/2") to 16 mm (5/8") diameter

Wrapstop

The high output of the gear motor requires a 100% safe device to prevent the halyard wrapping around the forestay.

The patented ProFurl Wrapstop eliminates any possibility of halyard wrap.



Installation

The ProFurl motorised systems may be fitted over the existing forestay in most cases, either with or without a turnbuckle.

The extrusions and halyard swivel are identical to the ones on a manual (drum + reefing line)

reefing system.

The special bottom fitting allows customising installation as per customer's requirement: raised from deck for easy anchoring and no chafe of sail's foot on the lifeline, or low to

deck for maximum luff length. The solid custom made female-female lower toggle and clevis pins are delivered standard with the system.

Power supply

In electric (E) version, the system is delivered pre-wired from the factory with 2 X 5 metre of wire, to be connected onto the relay box (supplied standard). The housing is sealed in the factory and tested for watertightness. The systems are available in 12 or 24 Volts DC.

The power lines are generally the same as those for the electric anchor windlass.

The 1000 W electric version averages power consumption as little as the one of a 25 W bulb lamp during 1 hour, making special batteries unnecessary.

The hydraulic (H) version may be connected to the most usual hydraulic packs, with a corresponding calibration on the outputs (100 Bars for models 42, 140 Bars for models 52).

In the hydraulic version, the system requires 2 feeding hoses finished by female 7/16" JIC.

► Wiring diagram for electric system when installed with a windlass

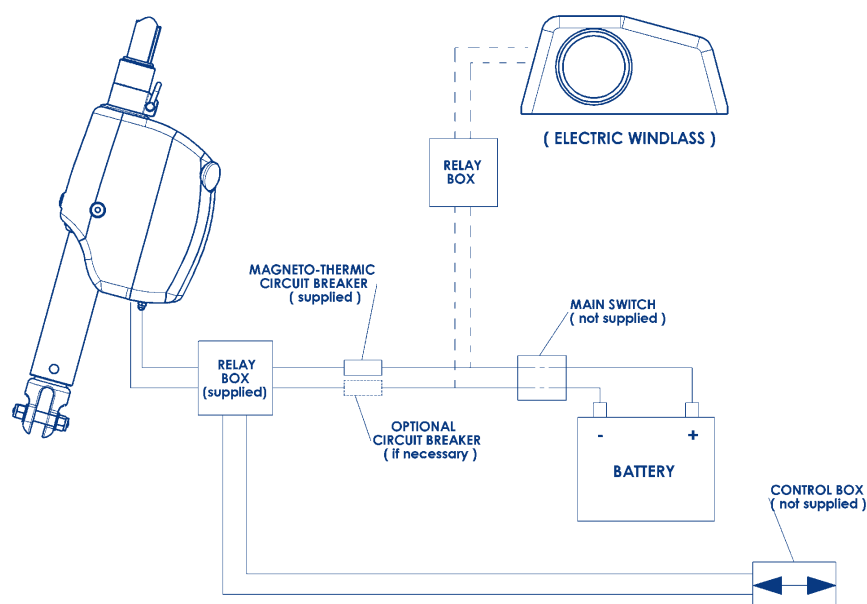


Photo: Mauquieiz

Winch handle operation

In case of failure of the power supply, the ProFurl motorised system includes a handle socket (handle supplied) located at the rear of the housing, allowing for instant manual operation. The handle may be released during manual operation with no danger of the system being overridden by the wind in the reefed sail.

Motorisation of a manual ProFurl system

By removing the bottom drum mechanism of a ProFurl manual system (model 42 or 52 manufactured later than 1987), and replacing by the corresponding gear motor, converting from manual to motorised system is extremely simple. Luff extrusions may require length adjustment in some cases.

► Weight of components

| Models | Gear motor only | Lower SS tube & toggle | Top swivel | | Extrusions including connectors & bearings |
|-----------------|-----------------|------------------------|------------|------------|--------------------------------------------|
| | | | Standard | "S" ou "L" | |
| NDE 42 / NDH 42 | 14 Kg | 6 Kg | 1,1 Kg | 1,58 Kg | 1,09 Kg/m |

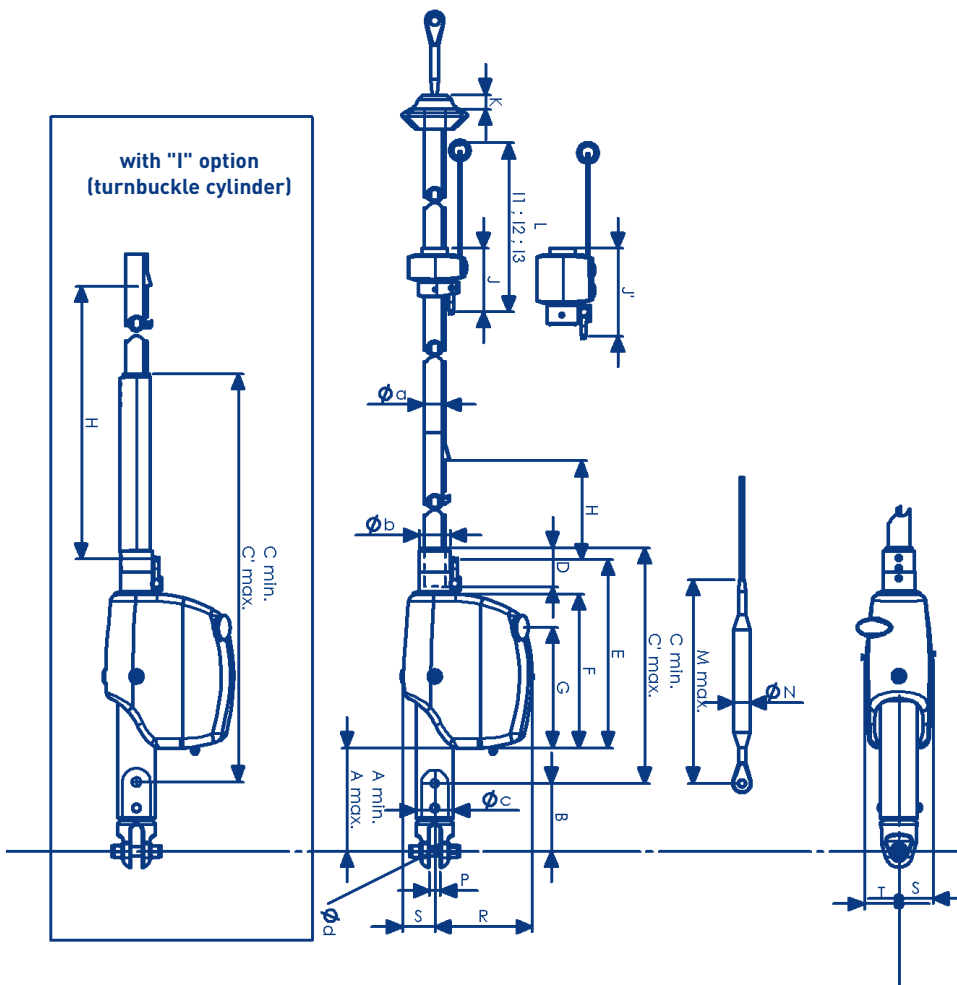
| | | | | | |
|-----------------|-------|-------|---------|---------|-----------|
| NDE 52 / NDH 52 | 15 Kg | 11 Kg | 2,58 Kg | 3,07 Kg | 1,62 Kg/m |
|-----------------|-------|-------|---------|---------|-----------|

► WORLDWIDE 3 YEAR WARRANTY



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► Dimensions of Profurl motorised systems



NDE 42 & NDH 42

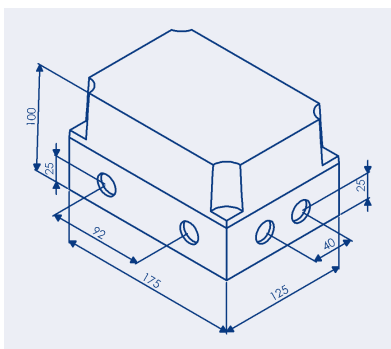
| | Standard (mm) | With optional "I" (mm) |
|------------|--------------------|-----------------------------|
| A min. | 110 | 110 |
| A' max. | 200 | 200 |
| B | 133 | 133 |
| C min. | 380 | 725 |
| C' max. | 470 | 815 |
| D | 82 | 82 |
| E | 385 | 385 |
| F | 310 | 310 |
| G | 246 | 246 |
| H | 530 | 875 |
| J | 129 | 129 |
| J' | 166 | 166 |
| K | 28 | 28 |
| L1 * | 161 | 161 |
| L2 * | 251 | 251 |
| L3 * | 331 | 331 |
| M max. | 385 | 723 |
| N max | 40 | 40 |
| P standard | 22 | 22 |
| R | 170 | 170 |
| S | 62 | 62 |
| T | 90 | 90 |
| ØX | 42 | 42 |
| ØY | 61 | 61 |
| ØZ | 73 | 73 |

* adjustable

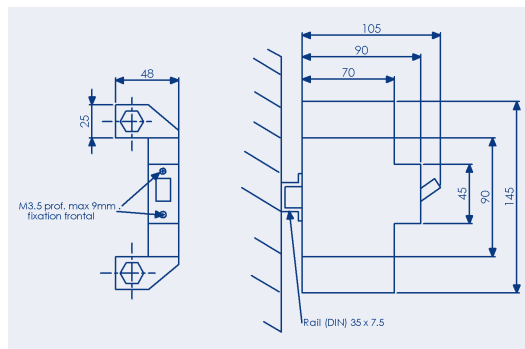
**NDE 52 & NDH 52
"I" option included**

| | (mm) |
|------------|--------|
| A min. | 130 |
| A' max. | 327 |
| B | 150 |
| C min. | 640 |
| C' max. | 836 |
| D | 105 |
| E | 398 |
| F | 315 |
| G | 250 |
| H | 850 |
| J | 173 |
| J' | 186 |
| K | 28 |
| L1 * | 329 |
| L2 * | 429 |
| L3 * | 529 |
| M max. | 730 |
| N max | 50 |
| P standard | 28 |
| R | 195 |
| S | 77 |
| T | 100 |
| ØX | 52 |
| ØY | 66 |
| ØZ | 88 |

* adjustable



Relay box (dimensions in mm)



Circuit breaker (dimensions in mm)

