



# THE RANGE OF MOORING BUOYS



# CONTENT

1

## BENEFITS

- Cost-effective
- Environment-friendly
- Versatile

2

## DESIGN / MANUFACTURING

- Normative Referential
- Floats
- Structure
- Option
- Mooring link
- Anchoring

3

## RANGE

- MB-1250
- MB-1400-0.7 & 1.5
- MB-2000
- MB-2500
- MB-3000



# BENEFITS

**Extend harbours facilities into deep water**  
**Reduce the impact on marine environment**

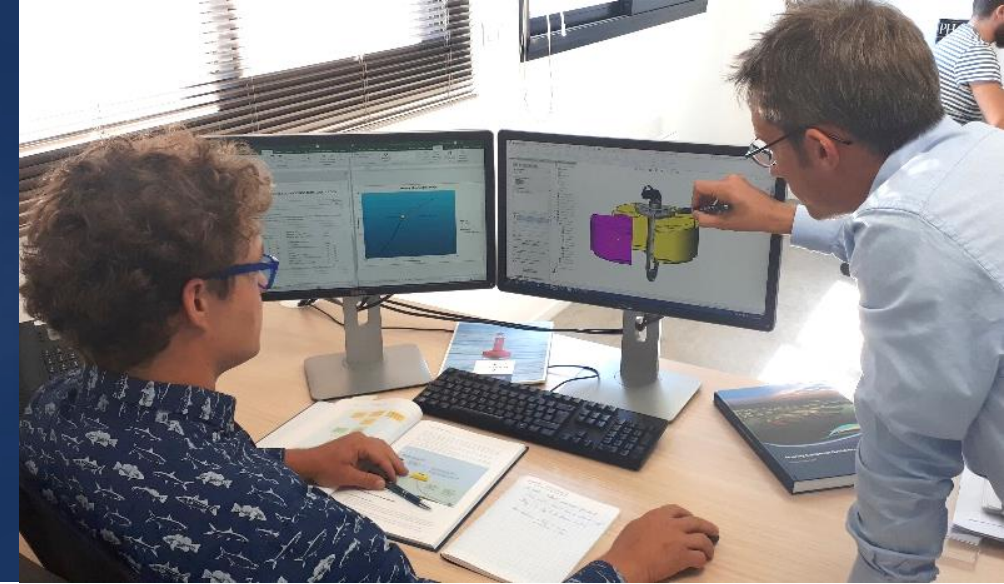


- **Safe and cost-effective**
  - No need to extend quayside facilities
  - Temporary or permanent
  - Low maintenance
- **Environment-friendly**
  - No hard construction
  - No need for dredging
  - No need for using anchors
- **Versatile**
  - All types of ships
  - All types of site conditions
  - Single Point Mooring (SPM) or Multi Buoy Mooring (MBM)



## DESIGN / MANUFACTURING

Compliant with International Rules,  
Recommendations, Standards and Practices



### ANCHORING AND MOORING CALCULATIONS

**DNVGL-OS-E301 : Position Mooring**

**DNVGL-OTG-18 : Guidance for long term nearshore mooring systems**

**DNVGL-RP-C205 : Environmental conditions and environmental loads**

**API RP 2SK : Design and analysis of Stationkeeping Systems for Floating Structures**

### STRUCTURE CALCULATION

**Custom design with dedicated CAD**

**Validation of mechanical performance using a finite element calculation tool**

**Mechanical tests on a traction bench**

## DESIGN / MANUFACTURING

Incorporates the latest technology



### POLYETHYLENE FLOAT

**Precompounded Low Density Polyethylene**

**Stabilisation UV and high quality pigments to avoid colour fading**

**Foaming with high density Expanded Polystyrene (EPS) or Polyurethane (PU)**

### MOORING BUOYS STRUCTURE

**Validation of mechanical performance on a traction bench**

**Approved anti-corrosion protection systems (galvanisation, painting, anodes)**

### LESS MAINTENANCE

**No corrosion on plastic parts**

**LOWER WEIGHT THAN STEEL OR ELASTOMER**

**Less logistical and lifting resources**

### ENVIRONNEMENT-FRIENDLY

**Polyethylene is fully recyclable**

**No anti-fouling coating**

**Longer service intervals**

### MODULARITY

**Easy transportation and storage**

**Easy to repair**

# DESIGN / MANUFACTURING

Option



## OPTIONAL EQUIPMENT

**Footsteps**

**Marking**

**Identification**

**Retro-reflective stripes**

**LED lanterns**

## MOORING LINKS

**D-Link**

**Static-T**

**S-Shackle**

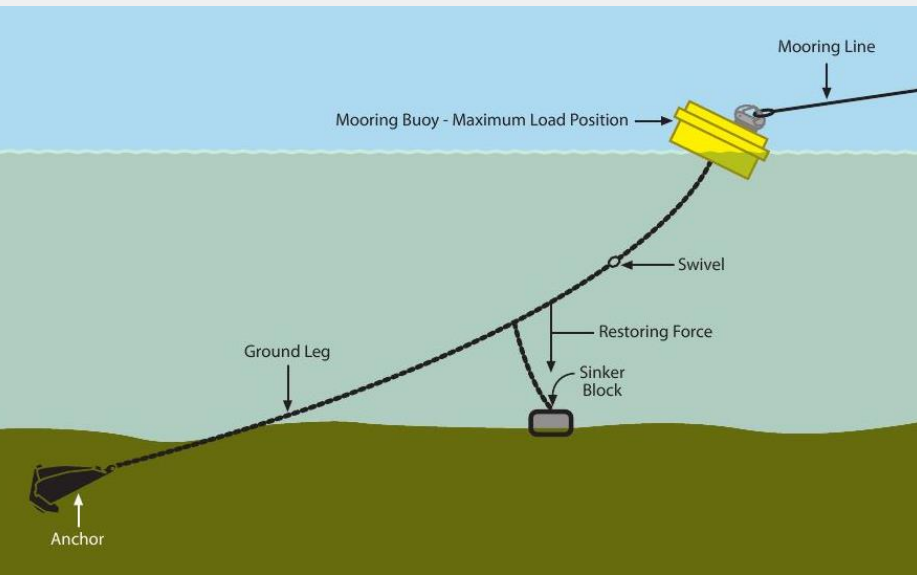
**CT- Chain Through**

**Pelican Hook(s)**



# RELATED DESIGN

## Anchoring



### TEXTILE, HYBRID AND CHAIN ANCHORING LINES

Chains with or without studlink tested on a traction bench

Textile anchoring lines and floats subsurface

Dampers to withstand peak loads

### SINKERS

Concrete

Concrete and Magnetite

Cast Iron

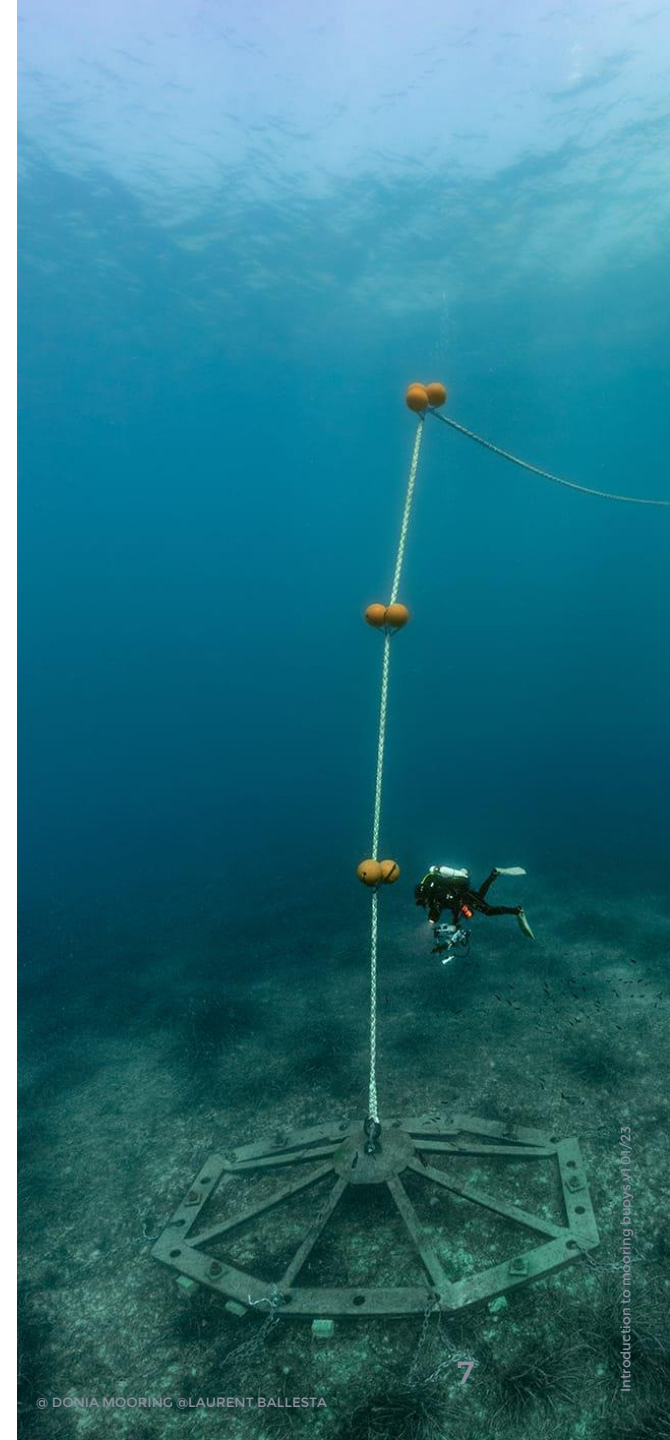
### EMBEDDING OR SCREW-TYPE CERTIFIED ANCHORS

HHP AC-14

Flipper Delta

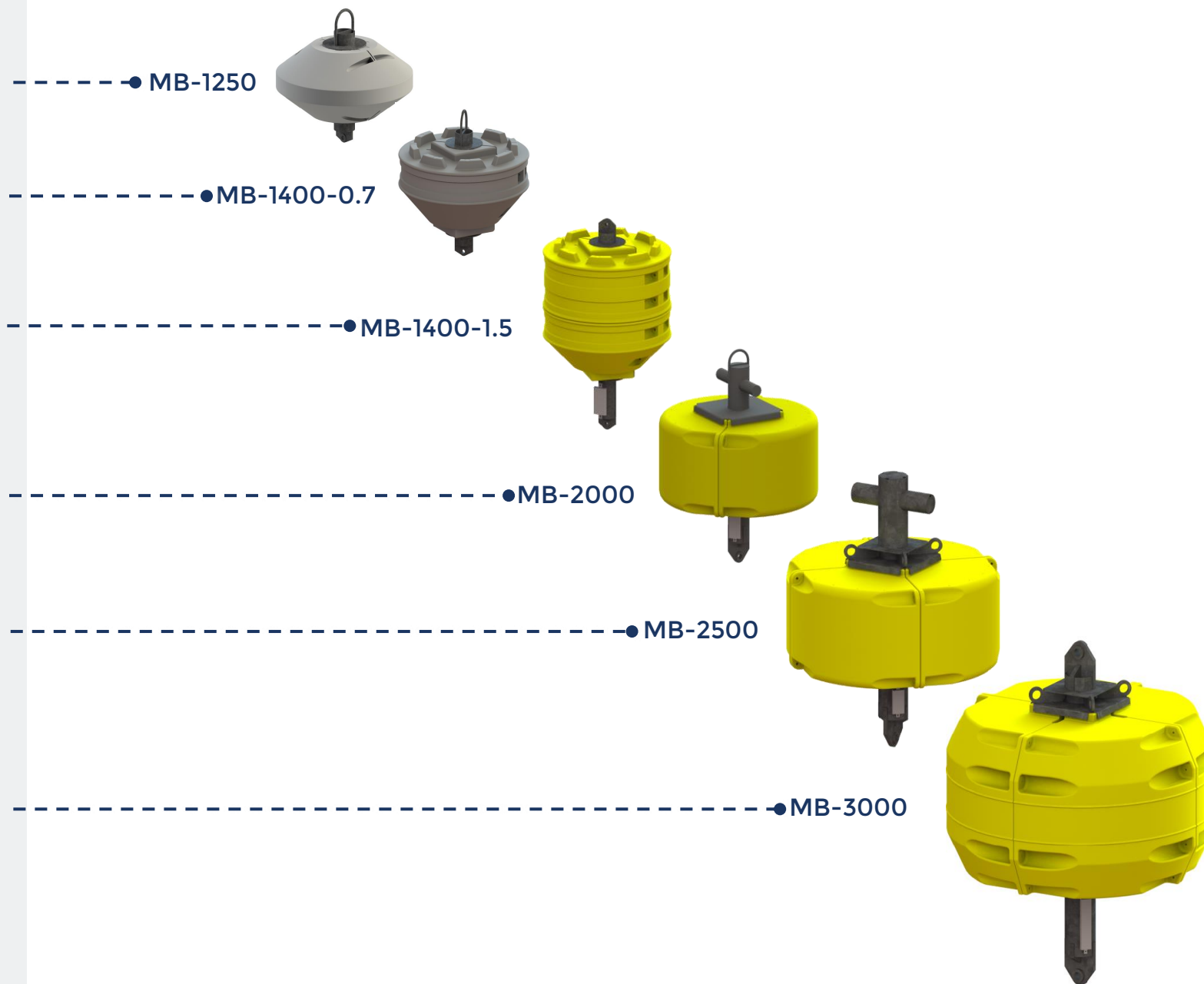
Danforth

Stevpris ...



## RANGE OF MOORING BUOYS

**Diam. from 1250 to 3000mm**  
**SWL from 5.5 to 150t**





MB-1250

SWL from 5.5 to 15t

YACHTING  
HARBOUR

|                          |                                   |
|--------------------------|-----------------------------------|
| Diameter (m)             | 1.25                              |
| Net Buoyancy (kg)        | 350                               |
| Volume (m <sup>3</sup> ) | 0.4                               |
| SWL (t)                  | 5.5 to 15                         |
| Mooring Links            | D, Shackle, Chain Through, T      |
| Option                   | EPS or PU foaming<br>Enhanced SWL |



# MB-1400-0.7

SWL from 5.5 to 15t

## YACHTING HARBOUR

|                          |                                                |
|--------------------------|------------------------------------------------|
| Diameter (m)             | 1.4                                            |
| Net Buoyancy (kg)        | 600                                            |
| Volume (m <sup>3</sup> ) | 0.7                                            |
| SWL (t)                  | 5.5 to 15                                      |
| Mooring Links            | D, Shackle, Chain Through, T                   |
| Option                   | EPS or PU foaming<br>Enhanced SWL<br>Hand rail |



MB-1400-1.5

SWL from 5.5 to 15t

WORKBOAT  
LARGE YACHT  
HARBOUR

|                          |                                                |
|--------------------------|------------------------------------------------|
| Diameter (m)             | 1.4                                            |
| Net Buoyancy (kg)        | 1250                                           |
| Volume (m <sup>3</sup> ) | 1.5                                            |
| SWL (t)                  | 5.5 to 15                                      |
| Mooring Links            | D, Shackle, Chain Through, T                   |
| Option                   | EPS or PU foaming<br>Enhanced SWL<br>Hand rail |



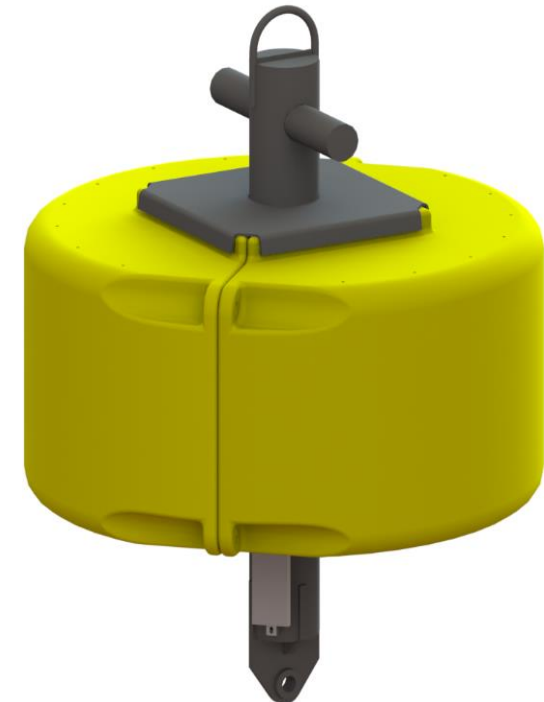


MB-2000

SWL from 7.8 to 80t

WORKBOAT  
LARGE YACHT  
HARBOUR

|                          |                                                                                |
|--------------------------|--------------------------------------------------------------------------------|
| Diameter (m)             | 2.0                                                                            |
| Net Buoyancy (kg)        | 2650                                                                           |
| Volume (m <sup>3</sup> ) | 3.1                                                                            |
| SWL (t)                  | 7.8 to 80                                                                      |
| Mooring Links            | D, Shackle, Chain Through, T                                                   |
| Option                   | EPS or PU foaming<br>Enhanced SWL<br>Hand rail<br>Rubber fender<br>LED lantern |



MB-2500

SWL from 17 to 150t

WORKBOAT  
LARGE YACHT  
HARBOUR

|                          |                                                                                |
|--------------------------|--------------------------------------------------------------------------------|
| Diameter (m)             | 2.5                                                                            |
| Net Buoyancy (kg)        | 4250                                                                           |
| Volume (m <sup>3</sup> ) | 5.25                                                                           |
| SWL (t)                  | 17 to 150                                                                      |
| Mooring Links            | D, Shackle, Chain Through, T                                                   |
| Option                   | EPS or PU foaming<br>Enhanced SWL<br>Hand rail<br>Rubber fender<br>LED lantern |



## MB-3000

SWL from 17 to 150t

Available in 3 distinct volumes

WORKBOAT

LARGE YACHT

HARBOUR

|                          |                                                                                |
|--------------------------|--------------------------------------------------------------------------------|
| Diameter (m)             | 3.0                                                                            |
| Net Buoyancy (kg)        | 6500 / 8700 / 10700                                                            |
| Volume (m <sup>3</sup> ) | 7.5 / 10 / 12                                                                  |
| SWL (t)                  | 17 to 150                                                                      |
| Mooring Links            | D, Shackle, Chain Through, T                                                   |
| Option                   | EPS or PU foaming<br>Enhanced SWL<br>Hand rail<br>Rubber fender<br>LED lantern |





# GISMAN, SINCE 1862.

close to 500 customers in 80 countries

1

Implementation of major historic lighthouses and light stations on all continents.

2

Acknowledged as a pioneering designer and manufacturer of modular plastic navigational buoys in the early 1990s.

3

Market introduction of its own range of marine lanterns and applications suite for monitoring and maintenance in 2022.

Management  
System  
approved  
by LRQA  
to standards  
ISO 9001:2015

Quality Management System  
approved to standards ISO 9001:2015.



IALA was established in 1957.  
GISMAN is member since 1966.



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