

## PRODUCTION RANGE

### NAVAL

We provide deck equipment for naval and offshore applications based on own and/or customers' projects.

**Winches:** manual, electric, hydraulic, electro-hydraulic or Diesel driven:

- anchorage - range chain size 12k2 ÷ 54k3
- mooring - range chain size 12k2 ÷ 54k3, traction force 60-250kN
- towing - up to 1000 kN pulling force
- coupling - CPW type, 25÷60to static holding force

MENAROM P.E.C manufactures a diversified range of winches, differentiated in terms of structure. The winches are certified by the main classification societies, such as: RNR, BV, LRS, DNV-GL, ABS.

**Davit winches** - SWL 85 ÷ 200 kN intended for: life saving systems, ships, maritime rigs

**Deck equipment for seagoing or inland vessels:**

- *capstans and hoists*
  - mooring capstans – 15-100kN traction force
  - anchor and mooring capstans – stud link chain diameter 12-36
- *rudders and tillers*
  - Hydrodynamic profile rudders
  - Type HD, according to Van der Velden® Marine Systems design
  - Rudder trunks, streamline bodies and tillers
- *chain stoppers*
  - for U2 and U3 chain qualities, for chain sizes from 12,5 to 40 mm
  - Knife chain stoppers for U2 chain quality, for chain sizes from 12,5 to 40 mm k2
  - friction chain stopper for chain size 12,5-50 mm k2
  - roller chain stopper for chain size 12.5-56 mm k3
- *roller fairleads*- simple or double
- *warping roller*
- *chocks* - type A – DIN 81915 load 10-320kN, type C- DIN 81915 load 10-320kN
- *smith bracket* – type SB 56, SB 64, SB 76 (chain size)
- *anchor shackles* - Swivel shackles, from size 17,5/12,5 to 50/42
- *derricks*
- *cranes*

Until the end of 1989, Menarom P.E.C. (previously named *Naval Mechanical Factory, Galati Naval Mechanical Enterprise*, and *Menarom S.A.*,) was practically the sole supplier for various kinds of naval machinery, including davits, life raft slewing cranes and related winches, for all Romanian shipyards existing at that time, in Constanta, Galati, Mangalia, Braila, Tulcea, Giurgiu, Turnu-Severin and Oltenita. After 1990, a gradual process of specialization mainly on deck equipment has begun, withal enlarging of the geographic area covered by its sales.

Deck machinery • Winches • Capstans • Rudders • Cranes • Davits • Steel structures • Electric switchboards

A selection of the major foreign customers for naval deck and life saving equipment contains the following companies:

- For life raft davits, cranes and derricks, including related winches:
  - ACEBI / France
  - Nyborg (former Trellis) / Norway
  - Watercraft Hellas / Greece
  - NDM Norway - Part of Palfinger Group /Norway
  - Man Diesel & Turbo – Denmark
  - BAGGERMAATSCHAPPIJ BOSKALIS BV – Holland
- For other types of winches (anchor, mooring, towing, coupling):
  - DMT Group / Holland
  - NDM / Norway
  - Groupe CFNR / France
  - Van Wijk Werkendam / Holland

Number of sold units in the last 10 years: over 5000 pcs.

Starting with 2009, a strategic partnership with Norsafe AS, Norway was initiated, dedicated for production of life and rescue boats davit winches, based on a commonly developed modern design.

## **INDUSTRIAL**

We offer equipment for industrial processes based on own and/or clients' projects for various applications, especially for products with high technicity level.

We provide equipment for terrestrial and civil applications:

- mechanical equipment for various industrial processes
- metal engineering & machining works, including on CNC machines
- dragging & maneuvering equipment for harbour & offshore application
- steel structures medium & light
- sandblasting & painting works
- starting resistors
- hydraulic blocks

We work based on own and/or clients' projects and can provide any of the above according to specific requests.

The above profile description is a non-restrictive range, being an extract from the company's offer, related to the products that are currently manufactured based on the orders of our major, regular clients.

MENAROM P.E.C. has the full capability and availability to respond also to various other particular requests, based on *tailor made projects*, within the following application range:

- metallic structures and various engineered steel items
- mechanical engineering works
- electrical engineering works.