Pontoons and construction over the water
The Company was established in 1979 with the specific aim of designing and supplying floating pontoons for tourist harbours and in producing lay-outs for the optimal use of port space. The experience gained in dealing with problems posed by floating structures and the marine environment permitted the progressive expansion of the Company's interests beyond the marine sector.

Today INGEMAR, together with their commercial sister company Ingemar Trading & Services, designs, constructs and installs fixed piers, floating pontoons and breakwaters, specialist platforms, floating bridges, equipment for the distribution of essential services and harbour management. With these highly specialist characteristics the Group is exceptionally well placed to deal with all problems posed by floating structures, layouts, moorings and harbour services. INGEMAR operates in Italy and abroad from its offices in Milan and the factory at Casale sul Sile, near Treviso in northern Italy, where production takes place as well as design and planning, installation and assistance.

INGEMAR's role is that of highly qualified technical partner and reliable supplier to:

- **Public Authorities and industry:**
  - Feasibility studies, reorganisation and enlargement of existing marinas.
  - Designing and supplying turnkey projects for moorings, fittings, equipment and services for tourist harbours.
  - Pontoons and floating platforms for the pleasure industry and

- **Yacht Clubs and Sports Associations:**
  - Proposals for modernisation of equipment and services, expansion of receptive capacity.
  - Supply of fixed and floating structures for moorings and specialist racing equipment.

- **Industry and Services**
  - Design and construction of floating structures for specific industrial requirements.
  - Identifying floating alternatives to the use of traditional structures.

Gouvià Marina, Corfu (Greece)
Porto San Rocco, Trieste (Italy)
Marina di Villasimius, Cagliari (Italy)
Marina Jasmin, Hammamet (Tunisia)
INGEMAR specialises in the construction and installation of equipment and services which ensure the highest operational standards of tourist harbours.

- Floating pontoons
- Fingers and mini-fingers
- Floating docks
- Mooring systems
- Fixed piers and quays
- Floating breakwaters
- Harbour services

FLOATING PONTOONS

Floating pontoons are now standard both in modern marinas and in re-structured existing harbours, thanks to their adaptability, durability and practical uses. The relative insignificance of depth, speed of construction, the possibility of adding-on structures at modest expense have all contributed to the rapid expansion of these structures in substituting traditional fixed pontoons.

Discontinuous pontoons:
Type FE: galvanised steel structure, hardwood decking, reinforced floating concrete elements with expanded polystyrene core; they have a high stability on water and are suitable to specific needs of free board, overload and structural resistance.
Type AL: has a load-bearing structure in aluminium which is ideal for well sheltered harbours where they combine maximum performance with endurance and aesthetics.
Both types FE and AL are produced in versions with floating units of plastic materials, making them ideal for shallow waters and seasonal removal.

Continuous pontoons:
Type CA/LE: all-concrete elements with expanded polystyrene core and hardwood decking; they have a very high displacement, top stability on the water and the highest standard of finishing.
Type CA/CLS: similar to Type CA/LE but with concrete decking; they are comparable to traditional fixed structures.
FLOATING DOCKS

The modules are composed of linked pontoons of various types, properly modified and reinforced to comply with specific operating conditions. The large dimension of the modules, their very high displacement and notable free board height, assure a comfort fully comparable to fixed piers. These piers are destined for moorings in large harbours, as well as on lakes, where they guarantee an appreciable reduction in surface wave motion.

FINGERS AND MINI-FINGERS

Mooring on fingers, indispensable where there are tidal fluctuations, are much appreciated as they facilitate manoeuvres and are easily accessible from boats. These structures guarantee the best utilisation of harbours and improve the stability of pontoons. They also ensure maximum flexibility of landings thanks to the ease of positioning the fingers according to varying yacht dimensions, and eliminate the expensive underwater maintenance of traditional moorings with chains and sinkers.
FLOATING BREAKWATERS

Traditional breakwaters are generally constructed of enormous concrete blocks forming reefs - impossible in deep waters - and are permanent, rigid structures. The benefits of overcoming these limitations with cheaper and more flexible solutions, prompted INGEMAR to seek new possibilities using floating structures. Their experience in this field means that floating breakwaters can be installed in already protected conditions, such as lakes, sheltered ports and harbours, and where relatively cheap barriers free of ocean floor limitations are advantageous.

Type F/CA floating breakwaters are the result of 20 years of INGEMAR’s studies and applications in this field. These are large prefabricated modules made of reinforced concrete with expanded polystyrene core, of large dimensions and with very high displacement which, when linked together, create robust, durable and extremely reliable floating barriers - comparable to traditional fixed structures. It is essential to know and understand the conditions in which they will have to operate in order to evaluate their efficiency and security.
HARBOUR SERVICES

A complete and up to date equipment system is now generally a must in all large sized marinas, but the most basic services are also needed in minor tourist landing stages. INGEMAR’s activities also extend to designing, installing and providing technical assistance for the distribution of water, energy, lighting and firefighting equipment, harbour management and environmental services. INGEMAR’s production also includes various models of service bollards and fire hose units designed to be functional and comply with the latest and most stringent regulations.

WALKWAYS AND FIXED PIERS

INGEMAR’s technological capabilities have also been successfully applied to the construction of fixed structures such as piers and walkways. The structural design of the framework, tested under difficult marine conditions in combination with floating pontoons, means they can meet mooring requirements even in the most difficult and critical circumstances. INGEMAR’s walkways and fixed piers are characterised by light structures, minimal volume and the least interference possible with the sea floor and hydraulic systems on site. Employing natural materials and respecting the shape of the coastline, INGEMAR’s units blend harmoniously with their surroundings and are often integrated with pontoons and mooring fingers.
The experience INGEMAR has acquired in the construction of floating structures, as well as its great design flexibility, has given the company the necessary technical know-how to produce new solutions in solving the specific problems posed by sport and tourism, industry and transport.

**Sport and leisure time:**
- Platforms for service centres
- Floating stages
- Floating restaurants
- Racing equipment
- Bathing platforms

**Industry:**
- Pumping stations
- Pontoons for carrying electrodes
- Pontoons for fishing boats
- Floating barriers

**Transport:**
- Ferry-boat moorings
- Floating crossings
- Floating bridges
- Loading and unloading pontoons
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Venice Boat Show
Ingemar Technical Sponsor