

MARINE LOADING ARM

COUNTERWEIGHT · PAINTED CARBON STEEL · 6" / 8"



Conceptual image of a river terminal application. The final configuration will depend on the project.

Product description

Marine loading arm designed to provide a controlled connection between terminal piping and the manifold of a ship, barge or river vessel during loading and unloading operations. Its articulated configuration and counterweight balancing system facilitate positioning and connection, helping to reduce the operator's manual effort.

The structure and product line are manufactured from painted carbon steel for outdoor industrial use. Gassó can assess geometries and configurations adapted to the installation layout, transferred product, required operating envelope and service conditions.

Key benefits

- Counterweight balancing system to facilitate arm positioning.
- Articulated design with swivel joints to accommodate the movements required during connection.
- Self-supporting construction, sized according to the project configuration and loads.
- Painted exterior finish for industrial and port applications.
- Configurable design according to reach, connection height, orientation and available space.
- Connection, safety, purging and drainage accessories can be integrated according to installation requirements.



Product configurations

FEATURE	6" · DN150	8" · DN200
Nominal line diameter	6" · DN150	8" · DN200
Main material	Painted carbon steel	Painted carbon steel
Balancing system	Counterweight	Counterweight
Application	Marine / river loading and unloading	Marine / river loading and unloading
Reach and operating envelope	To be defined for each project	To be defined for each project
Design pressure and temperature	To be confirmed according to fluid and conditions	To be confirmed according to fluid and conditions
Design flow rate	To be calculated according to product and process	To be calculated according to product and process
Process connections	Flange, marine camlock, DDC	Flange, marine camlock, DDC

Main components

COMPONENT	DESCRIPTION
Structure and piping	Painted carbon steel structural assembly and product line, sized for the service conditions.
Counterweight system	Balancing mechanism sized to facilitate arm movement throughout its operating envelope.
Swivel joints	Joints that allow relative movement between the arm sections. Quantity, type, seals and materials to be defined by engineering.
Vessel connection	Flange or end coupling compatible with the vessel manifold, according to the customer's specification.
Terminal connection	Base flange and fixed-piping interface, defined according to the project standards and dimensions.

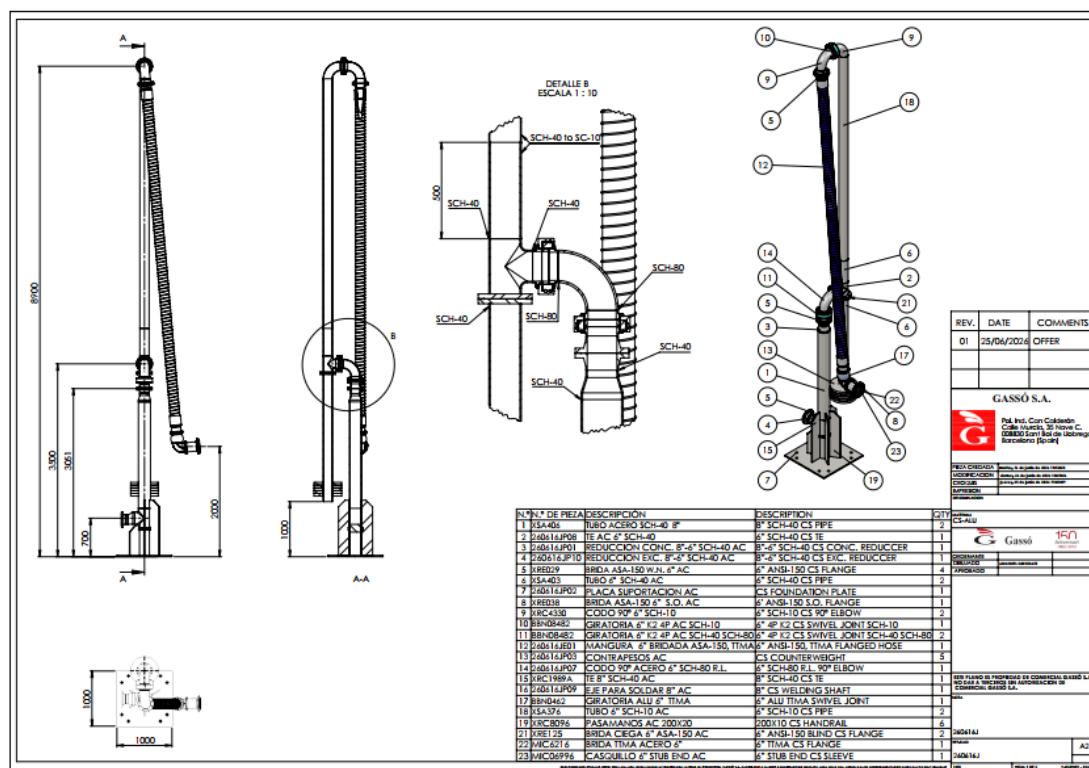


Accessories and options available on request

- Manual quick-connect coupling (QCDC), marine camlock or a specific connection solution.
- Shut-off valve in the product line.
- Purging and/or drainage system.
- Electrical insulating flange.
- Vapour return line, where applicable to the process.
- Instrumentation, operating-range indication and alarm systems.
- Breakaway safety coupling or Emergency Release System (ERS), subject to risk assessment and engineering.
- Mechanical locks for the parked position and operation/maintenance accessories.

Information required to finalise the specification

- Fluid and material/seal compatibility.
- Design pressure, temperature and flow rate.
- Flange standard and pressure class.
- Installation dimensions, heights, reach and operating envelope.
- River level range, draught variation and anticipated vessel movements.
- Swivel-joint type, sealing system and maintenance strategy.
- Applicable design, safety, inspection and conformity requirements.
- RAL colour and paint / corrosion-protection system.



Reference configuration

Reference photograph of the assembly developed in the workshop. The image illustrates the general architecture of the arm; it is not a dimensional drawing and does not, by itself, define the final design.

