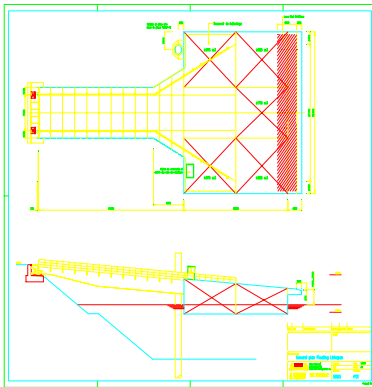


RoRo facilities & Pontoons

We are the designer, manufacturer and constructor of pontoons, linkspans and RoRo facilities (fixed - hydraulic - floaters or combined facilities). They are to be found in all ports, especially in ports with tidal ranges and in remote coastal areas for the off-loading of heavy plant for refineries and mining industries.

We have in Antwerp / Hoboken, located in Belgium, a factory with a very large dock facility, where we can make every pontoon and bridge dimension. The enormous production hall is provided with two heavy lift gantry cranes and is situated along the Schelde. An open connection to the sea permits barges, coasters and installation vessels to load/unload at our berth.

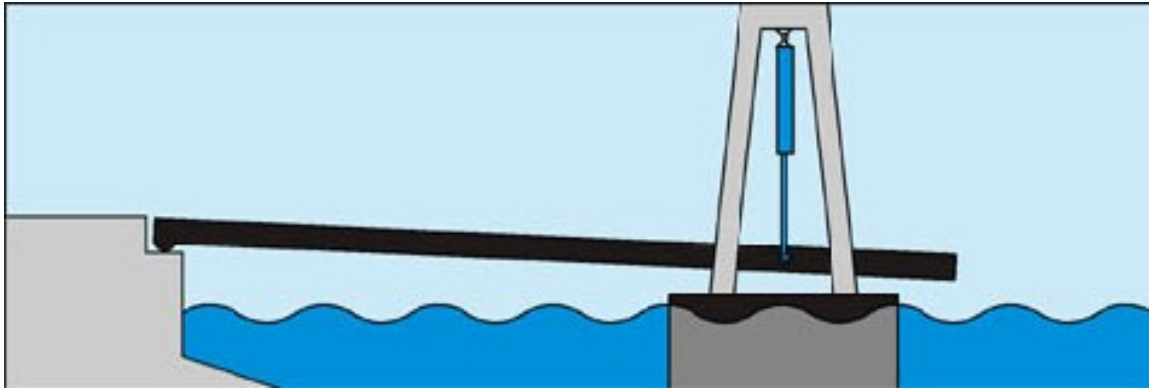


Assembly of all bridges, linkspans, pontoons and Roll-on/Roll-off landing facilities are carried out by our own experienced crew or may be done by client - in exception - on request with supervisory assistance by one of our engineers or field operators.

Design, manufacture, erection and assembly are carried out within our internal high guidelines of quality assurance (ISO 9001-2000 and VCA**), satisfying clients with accuracy and punctuality. Our designers are acquainted with the high international and local standards.

Retro Bridge can present their clients an economical and advanced solution towards their requirements. The long experience of our directors and participators in the Retro Bridge Group is at your disposal and early contact with our organisation may save you time and money.

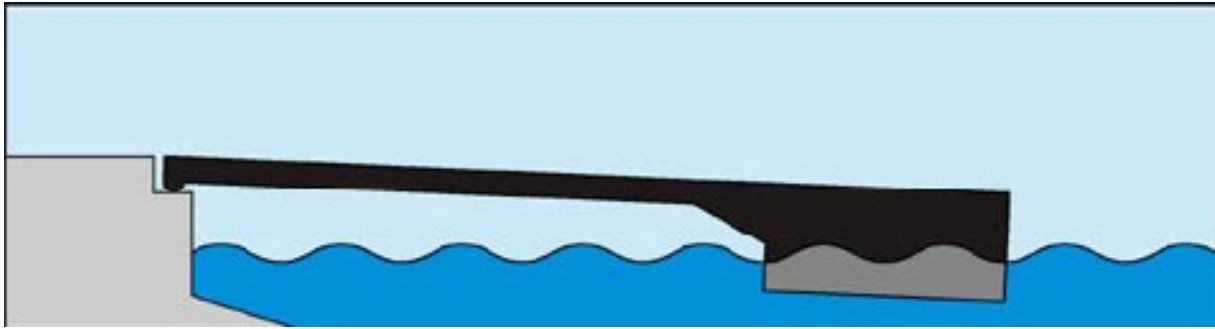
Hydraulic linkspans: (Was eerst "linkspan fix" svp veranderen)



The linkspan is mounted to a frame suspended on piles. A hydraulic system raises and lowers the linkspan to accommodate variations in the tide and the vessel's threshold. The height of the linkspan automatically responds to the vessel's movements. Safeguards are incorporated in the design of the facility to protect the unit and its users in the event of a loss of hydraulic pressure. Options to protect the landing stages from considerable damage of a collision can be found in a fender system attached to the front of the bridge or ramp, an overrun structure at the bridge attachment to the quay and/or a floating fender positioned in the front of the linkspan.



Linkspan Floater:

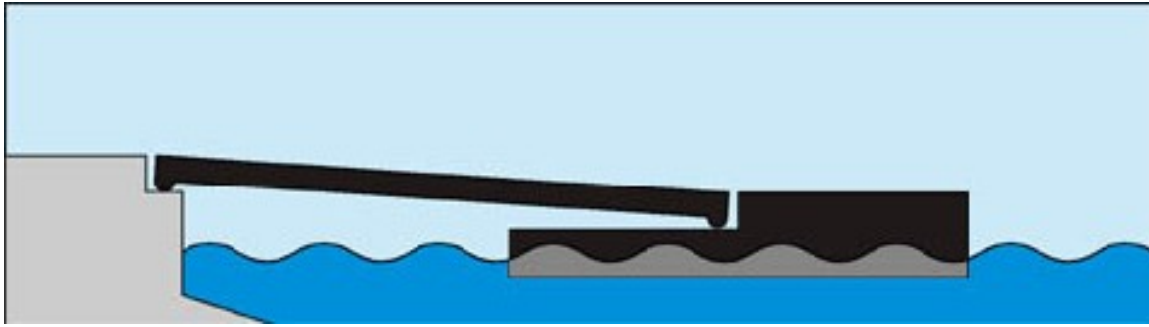


The bridge is attached to the pontoon with a fixed connection, enabling the pontoon to rise and fall with the tide. The bridge provides access at a gradient within the specified angle of inclination. Changes in the freeboard can be accommodated using a ballast system (automatic) with fixed connections between the bridge and the pontoon. Survey on different linkspans has shown that this solution is the most secured way of loading and unloading a ship.

Options to protect the landing stages from considerable damage of a collision can be found in a fender system attached to the front of the pontoon or ramp, an overrun structure at the bridge attachment to the quay and/or a floating fender positioned in the front of the linkspan.



Floating linkspan:

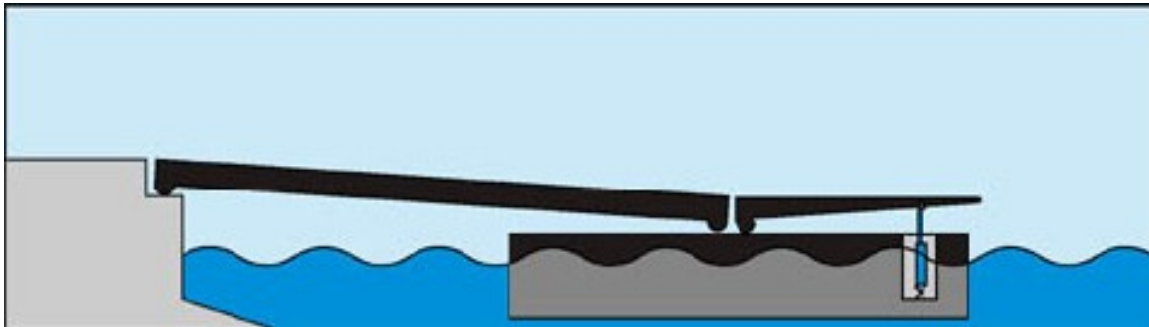


The bridge is attached to the pontoon with a hinged connection, enabling the pontoon to rise and fall with the tide. The bridge provides access at a gradient within the specified angle of inclination. Changes in the freeboard can be accommodated using a ballast system (automatic) with fixed connections between the bridge and the pontoon. Survey on different linkspans has shown that this solution is the most secured way of loading and unloading a ship.

Options to protect the landing stages from considerable damage of a collision can be found in a fender system attached to the front of the pontoon or ramp, an overrun structure at the bridge attachment to the quay and/or a floating fender positioned in the front of the linkspan.

Combined linkspan: (svp toevoegen aan het rijtje keuzes)

Combined floating-hydraulic linkspan:



A hydraulically-operated ramp attached to the floating pontoon adjusts the pontoon's freeboard to the vessel's threshold. In this design the hydraulic cylinders are located under the movable ramp, a feature which is beneficial to the safety of the structure. The pontoon ensures that the freeboard remains constant and consequently virtually no further operations of the ramp's controls are required during the loading and unloading of the vessel. This construction is also ideally suited to double-tier linkspans. Options to protect the landing stages from considerable damage of a collision can be found in a fender system attached to the front of the pontoon or ramp, an overrun structure at the bridge attachment to the quay and/or a floating fender positioned in the front of the linkspan.

Pontoons:



Retro Bridge can design and make tailor made pontoons on your demands for a competitive price. Configuration can be manufactured combined with pontoon, ballast system, mooring systems, guide pile ears, spuds and access bridge(s).

We could also provide the client of our standard high quality coupling pontoons. With our standard pontoons, it is possible to built, dismantle and rebuilt pontoon configurations very rapidly.

All pontoons are manufactured according to the classification authorities, chosen by the customer.

A small selection of available pontoons:

- 50 x 15 x 3 meter with maximum deck load 6 ton/m²;
- 30 x 15 x 3 meter with maximum deck load 6 ton/m²;
- Coupling pontoons in variable dimensions.

Retro Bridge can present their clients an economical and advanced solution towards their requirements. The long experience of our directors and participators in the Retro Bridge Group is at your disposal and early contact with our organisation may save you time and money.