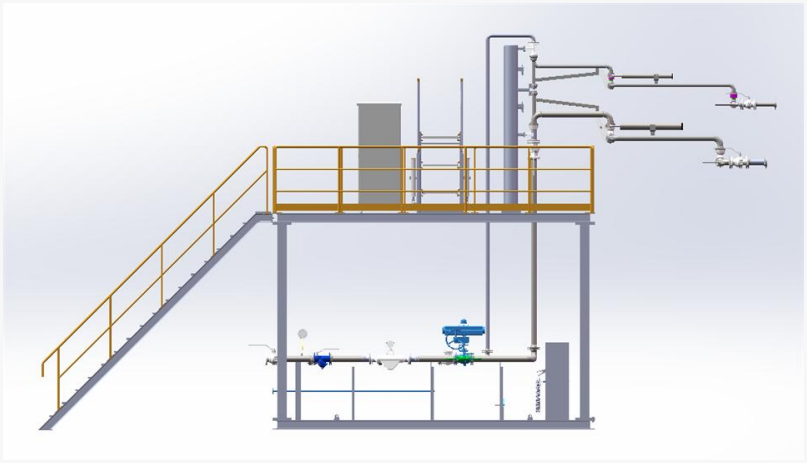
Why Skid-Mounted Loading Arms Improve Installation Speed and Flexibility



LIANYUNGANG, JIANGSU, CHINA, March 12, 2026 /EINPresswire.com/ -- As energy infrastructure projects worldwide face increasing pressure to shorten construction timelines and optimize capital efficiency, modular equipment solutions are becoming the preferred choice for terminal operators. In this context, the Skid-mounted loading arm package from China has emerged as a practical engineering innovation that significantly enhances installation speed, reduces on-site complexity, and improves long-term operational flexibility. Lianyungang Hechang Machinery Co., Ltd., a specialist in fluid loading and storage systems since 2009, is helping refineries, oil terminals, and LNG facilities accelerate project delivery through advanced skid-mounted loading arm solutions.

Industry Demand for Faster Terminal Deployment

Oil, chemical, and LNG infrastructure projects are increasingly developed under tight schedules and strict safety regulations. Conventional installation methods for loading arms often require extensive civil work, field welding, piping alignment, and coordination among multiple contractors. These processes can contribute to longer construction schedules and higher installation complexity.

As energy logistics networks expand, project developers are examining modular equipment approaches that reduce field assembly and simplify project coordination. Skid-mounted loading arm systems represent one such approach, as a significant portion of fabrication and assembly work can be completed before delivery to the installation site.

Structure of a Skid-Mounted Loading Arm System

A skid-mounted loading arm system generally consists of a pre-assembled equipment module built on a structural steel base. The module may include the loading arm assembly, piping, valves, instrumentation, control components, and structural support elements.

Because these components are integrated during the manufacturing stage, installation at the project site typically focuses on positioning the skid, securing it to the foundation, and connecting utilities. This approach can reduce the amount of on-site fabrication work required during terminal construction.

Skid-mounted configurations are applied to several types of loading equipment, including marine loading arms, tanker loading arms, cryogenic LNG loading systems, and automated loading arm installations.

Factory Integration and Pre-Testing

A key feature of skid-mounted systems is the high degree of factory integration. Fabrication, piping installation, wiring, and equipment alignment can be completed within controlled manufacturing environments prior to shipment.

Pre-assembly at the manufacturing stage may also allow for inspection and functional testing of mechanical and control components before the equipment arrives at the project site. As a result, field installation activities are typically limited to placement, anchoring, and connection to plant utilities.

This approach is often used to support projects that require faster commissioning or reduced field construction activity.

Reduced On-Site Construction Work

Construction sites at oil, chemical, and gas terminals often involve strict safety procedures and permit requirements for activities such as welding and hot work. Modular equipment can reduce the amount of work that must be performed under these conditions.

Skid-mounted packages may help reduce the need for extensive field welding, temporary scaffolding, and complex multi-trade coordination. For projects located in remote or

environmentally sensitive areas, reducing site work can also simplify project management.

Simplified Commissioning Process

Because skid-mounted equipment may be inspected and tested prior to shipment, the commissioning process can be more predictable compared with systems assembled entirely in the field. Functional testing conducted during manufacturing may include mechanical checks, valve operation verification, and instrumentation testing.

At the project site, commissioning typically focuses on verifying connections, integrating the system with plant controls, and conducting operational tests before full service.

Flexibility in Terminal Layout Planning

In addition to installation efficiency, modular systems are sometimes selected for their adaptability in terminal design. Skid-mounted equipment can support modular terminal layouts in which additional loading positions or transfer units may be added as capacity requirements grow.

This approach is sometimes used in storage terminals, chemical parks, and phased development projects where future expansion is anticipated.

Equipment Mobility and Reconfiguration

In certain industrial applications, equipment may need to be relocated or redeployed as operational requirements change. Modular skid-mounted systems can be removed and transported as complete units, which may simplify relocation compared with permanently assembled installations.

This characteristic can be relevant for temporary facilities, phased projects, or infrastructure that may later be expanded or modified.

Manufacturing and Project Experience

Lianyungang Hechang Machinery Co., Ltd., established in 2009, manufactures loading and transfer equipment used in oil, chemical, gas, and energy handling systems. The company has participated in a large number of projects related to liquid transfer infrastructure in both domestic and international markets.

Experience from installations in tank farms, marine terminals, and chemical facilities has contributed to the development of modular loading arm configurations designed for different operating environments.

Equipment and System Scope

The company’s equipment portfolio includes marine loading arms, tanker loading arms, automated loading systems, quantitative loading control equipment, quick release mooring hooks, gangways, hose handling systems, steel trestles, and floating pontoons.

These systems are used in applications such as refineries, LNG receiving terminals, chemical industrial parks, storage facilities, and other industrial sites involving liquid transfer operations.

Services Supporting Project Implementation

Projects involving loading infrastructure typically require coordination across multiple engineering phases. Services associated with these projects may include technical consultation, engineering design, manufacturing, equipment inspection and testing, installation guidance, and maintenance support.

Such services can support project planning, equipment integration, and operational reliability over the lifecycle of terminal facilities.

Modularization in Energy Infrastructure Development

Modular equipment strategies are increasingly discussed within the energy sector as project developers seek to reduce construction risk and manage project timelines. As infrastructure projects continue to evolve, skid-mounted equipment solutions may play a role in supporting more flexible and efficient installation approaches.

About Lianyungang Hechang Machinery Co., Ltd.

Established in 2009, Lianyungang Hechang Machinery Co., Ltd. focuses on equipment and system solutions related to loading, unloading, storage, and transportation processes for the oil, chemical, gas, and energy sectors. The company provides a range of loading arms and supporting terminal equipment used in industrial liquid transfer infrastructure.

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