

WOODFIELD

Safe Hands

MARINE SOLUTIONS
Marine Loading Arms



ABOUT WOODFIELD

Woodfield Systems is a premier design, manufacturing, sales & service organization providing customized bulk fluid handling and safety access solutions for loading and unloading products in the oil & gas, chemical, petrochemical, cryogenic and aviation sector.

Woodfield Systems manufactures loading arms, safety access systems, floating suction units and metering/processing skid systems integrated into a complete solution to meet the needs of our clients.

Woodfield Systems has state of the art engineering and manufacturing facilities in India, United States and Europe with sales offices across the world. These facilities allow for immediate response to any customer's needs, regardless of their location in the world.

An **ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, PED:CE and AD 2000-Merkblatt HPO/DIN EN ISO 3834-2** Integrated quality management system and a passionate leadership team, Woodfield Systems continues to keep all our clients and team members "in safe hands".



AFTER SALES SERVICES & CUSTOMER SUPPORT

- International presence with manufacturing facilities/ offices in USA, EUROPE, INDIA and a worldwide agent network to provide quick services to clients for the Marine Loading Arms
- We provide complete service package for Marine Loading Arms including design, manufacturing, supply, installation & commissioning
- Quick delivery of spares
- We provide Annual Maintenance Contract for Marine Loading Arms
- We undertake inspection of Marine Loading Arms
- We provide training to Marine Loading Arm operators for smooth operation & maintenance



WOODFIELD MARINE LOADING ARM (LNG/CRYOGENIC)

The WOODFIELD CRYOGENIC MARINE LOADING ARM is a structurally supported double counterweighted Marine Loading Arm designed around the latest requirements of OCIMF (Design and Construction Specification for Marine Loading Arms), uses a rigid pantograph link system for accurate balance, smooth operation and minimal maintenance.

This Marine Loading Arm is specifically designed to be used for cryogenic applications along with the additional safety requirements of an Emergency Release System. Controlled electro/ hydraulically using either a trailing lead or radio pendant the control system can be custom designed to meet the client's requirements.

It is available in sizes from 6" to 16" diameter with pressure ratings up to 300lbs and operating temperatures from -196°C to +200°C.

Standard design features:

- Stainless steel structurally supported product pipe
- Rigid pantograph link
- Minimal maintenance required
- Electro-hydraulic control system
- Radio remote control or trailing lead pendant
- Fully counterbalanced and OCIMF compliant
- Available in sizes 6" - 16" and 150lb or 300lb pressure rating

Optional design features:

- Emergency release system (ERS)
- Manual or hydraulic quick connect /disconnect coupler (QC/DC)
- Triple swivel support jack
- Ladders and platforms
- Remote lubrication
- Range alarms
- Nitrogen purge
- Vapour recovery
- Product stripping system
- Heat tracing / insulation
- Temperature monitoring
- Constant position monitoring
- Mobile trailer mounted

All of Woodfield's products are designed with the full lifecycle of the equipment in mind.

All Woodfield Marine Loading Arms require minimal maintenance and have the ability to replace all product seals without the need for cranes, saving both time and money.



WOODFIELD MARINE LOADING ARM (MANUAL OPERATION)

The Woodfield Apex Counter Weight Marine Loading Arm, designed around the latest requirements of OCIMF (Design and Construction Specification for Marine Loading Arms) is manually operated to give easy operation via ropes that enable the operator to connect the Marine Loading Arm to the ship.

This style of Marine Loading Arm is ideal where the client either requires a simple low cost solution or has no power available for a control system.

It is available in sizes from 4" to 12" diameter with pressure ratings up to 300lbs and operating temperatures from -50°C to +200°C.

Standard design features:

- Effective low cost solution
- No electrical or hydraulic controls required
- Available in sizes 4" - 12" and 150lb or 300lb
- Fully balanced and OCIMF compliant
- Low maintenance costs

Optional design features:

- Manual quick connect disconnect coupler (QC/DC)
- Triple Swivel Support jack
- Ladders and access step
- Remote lubrication
- Range alarm
- Nitrogen purge
- Product Stripping system
- Mobile trailer mounted

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WOODFIELD MARINE LOADING ARM (MANUAL OR HYDRAULIC OPERATION)

The Woodfield double counterweighted Marine Loading Arm is designed around the latest requirements of OCIMF (Design and Construction Specification for Marine Loading Arms), uses a rigid pantograph link system for accurate balance, smooth operation and minimal maintenance. It is the most common design with a wide range of applications

This Marine Loading Arm can be either manually or hydraulically operated using lever hydraulic, trailing lead or radio pendant's.

If the manual version is selected, brackets can be fitted for upgrade to hydraulic operation at a later date. It is available in sizes from 6" to 20" diameter with pressure ratings up to 300lbs and operating temperatures from -50°C to +200°C.

Standard design features:

- Rigid pantograph link
- Minimal maintenance required
- Manual, hydraulic or electro-hydraulic control options
- Fully counterbalanced and OCIMF compliant
- Available in sizes 6"-20" and 150lb or 300lb pressure rating

Optional design features:

- Manual or hydraulic quick connect disconnect coupler (QC/DC)
- Triple swivel support jack
- Ladders and platforms
- Remote lubrication
- Range alarm
- Nitrogen purge
- Vapour recovery
- Heat tracing/Insulation
- Constant position monitoring
- Product stripping system
- Mobile trailer mounted

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WOODFIELD MARINE LOADING ARM WITH EMERGENCY RELEASE SYSTEM

The Woodfield double counterweighted Marine Loading Arm is designed around the latest requirements of OCIMF (Design and Construction Specification for Marine Loading Arms), uses a rigid pantograph link system for accurate balance, smooth operation and minimal maintenance.

This Marine Loading Arm is specifically designed to be used where additional safety requirement of an Emergency Release System are required. Controlled electro/hydraulically using either a trailing lead or radio pendant the control system can be custom designed to meet the client's requirements.

It is available in sizes from 6" to 20" diameter with pressure ratings up to 300lbs and operating temperatures from -50°C to +200°C.

Standard design features:

- Rigid pantograph link
- Minimal maintenance required
- Electro-hydraulic control system
- Radio remote control or trailing lead pendant
- Fully counterbalanced and OCIMF compliant
- Available in sizes 6" - 20" and 150lb or 300lb pressure rating

Optional design features:

- Emergency release system (ERS)
- Manual or hydraulic quick connect /disconnect coupler (QC/DC)
- Triple swivel support jack
- Ladders and platforms
- Remote lubrication
- Range alarms

- Nitrogen purge
- Vapour recovery
- Product stripping system
- Heat tracing / insulation
- Temperature monitoring
- Constant position monitoring
- Mobile trailer mounted



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SWIVEL JOINT - “THE HEART OF EVERY LOADING ARM”

Loading Arms are articulating rigid pipe work systems specifically designed to handle a plethora of bulk petrochemical, industrial and compressed gas products. They make the connection between plant storage and the transport, be it truck, railcar or ship to allow the product to be transported away or received in.

Loading Arms not only carry their own weight and the weight of the product, but they also carry important process equipment such as valves, couplers, purge lines etc. This allows large bore process systems to be used which an operator typically could not manage, or would put them at risk.

Swivel Joints are high precision devices which carry the axial and radial load of the Loading Arm while at the same time carry the product under pressure and allow to rotate the Loading Arm and make the important connection. At the same time being able to handle system or ambient temperatures from +230°C to -196°C.

Sealing:

A range of sealing options exist to suit every application. Most seals are interchangeable with other Swivel Joint models in the range.

Materials of Construction:

- Carbon steels
- Stainless steels
- Aluminium
- Exotic Alloys

The Ball Raceway - most important feature

Woodfield's Swivel Joints are designed to fulfill all requirements coming from different and severe applications in the industry. Reliability, environmental safety, low cost of ownership and many years of trouble-free service are mandatory!

To even exceed customers expectations the quality of the ball raceways of our Swivel Joints is of utmost importance. It goes without saying that all ball raceways (on inner and outer ring!) of our Swivel Joints undergo a special hardening process to provide the required load capacity!

Design and testing of all of our Swivel Joints is based on the criteria of the OCIMF (Oil Companies International Marine Forum - Design & Construction Specification).



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Let Woodfield Systems Complete the Solution



Safety Access Equipment



Skid Solutions



Land Loading Arms



Metering Skid



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