

BKL

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LOADING EXPERT

**DETAILS _____
MAKE PERFECTION**



Jiangsu Changlong Petrochemical Equipment Co., Ltd. (CCLPEC)

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Shanghai Office (International sales)

📍 Add: Room 810, West Jiangchang Road No. 160, Shanghai, 200436, China.

MODERN / CONCENTRATION / INNOVATION

Professional and Trustworthy Supplier

FACTORY AREA

50,000 M²

MANUFACTURE FACILITIES

300⁺ SETS

INDUSTRY EXPERIENCE

30⁺ YEARS

SUPPLIED LNG LOADING EQUIPMENT

1500⁺ SETS



Design Innovation and Modern Production Management

MARINE LOADING FACILITIES



MARINE LOADING ARM

GANGWAY

QUICK RELEASE HOOK

WE SUPPLY WELL-CONSIDERED LOADING SOLUTIONS

ELEVATE EFFICIENCY AND SAFETY

MARINE LOADING ARM



FB MLA
(Full Balance Marine Loading Arm)

- Quick and easy routine maintenance
- Swivel joints on FB MLA can run without maintenance all their lives because of the enduring lubrication
- Simple and light-weight structure



Diameter: DN150 – DN200
Tanker Size: 1,000 – 30,000 DWT
Operation: manual, hydraulic

Diameter: DN150 – DN500
Tanker Size: 3,000 – 500,000 DWT
Operation: manual, hydraulic



RIGID MLA
(Rigid Pantograph Marine Loading arm)

- Light-weight structure with a pipeline
- Self-support design
- Applicable for narrow space between each arm



Diameter: DN150 – DN300
Tanker Size: 3,000 – 300,000 DWT
Operation: manual, hydraulic

FIRST CHOICE



RC MLA
(Rotary Counterweight Marine Loading Arm)

- Strong separated supporting structure, no stress on liquid pipeline to minimize leakage risk
- The mechanical bearings at the risers, trunnions, and apex can help minimize frictions and improve performance of free wheel operation
- Applicable for cryogenic liquid, high pressure gas, and chemicals

Factory Manufacturing Ability Highlights

- Strong production capacity, 30+ marine loading arms in fabrication simultaneously.

High-precision machining center for up to 24 inch processing.

Modern and standard sandblasting, painting and paint baking room.

Self owned seals workshop.

Plate rolling up to 100mm, five sets 35-ton overhead cranes.
- Work with international top vendors for hydraulic & electrical components.

Patented and self manufactured key components.

Cryogenic treatment pool for cryogenic swivel joints to ensure longtime service.

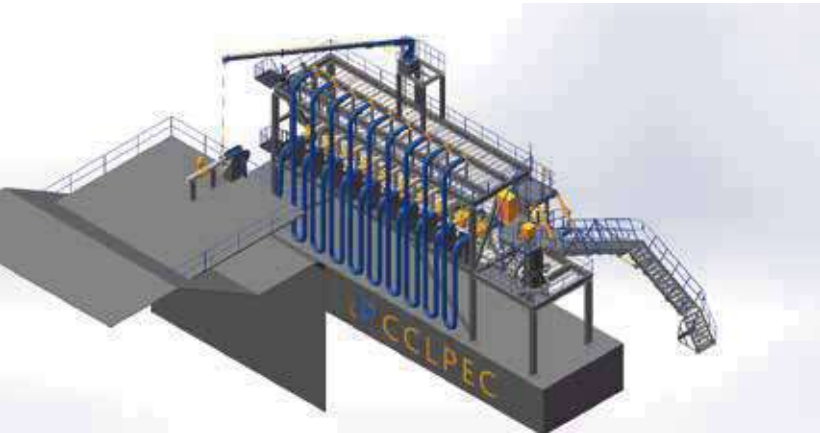
Short delivery for LNG marine loading arms.



HPNG MLA
(High Pressure Nature Gas Marine Loading Arm)

- Suitable for unloading high pressure natural gas from FSRU to the shore pipeline grid
- ISO 16904, ISO 17177 and OCIMF2019 should be applied to the design and operation of HPNG MLAs
- Unique design of swivel joints up to 600 or 900 bar working pressure
- Optional ESD system provides quick release of HPNG MLAs and safe isolation-between terminal units, or between terminal and ship

Diameter: DN300 or customized
Design Temp.: -40°C to 50°C
Design Pressure: CL600, CL900



HOSE TOWER

- Simultaneous loading and unloading of multiple media: Hose towers have the capability to accommodate multiple hoses, allowing for the simultaneous loading and unloading of different products.
- Customizable to specific requirements: The number of hoses in a hose tower can be adjusted to meet the specific requirements. Additionally, it is available for hose of different material and additional marine gang-way.
- Flexible and convenient operation: Hose towers utilize lifting equipment to assist in the quick and labor-saving connection of hoses and manifold flanges.
- High space utilization efficiency: Hose towers are designed to optimize the use of space on the jetty or quay, taking up less ground space by vertically holding the hoses.

Diameter: DN150 to DN400
Design Temp.: -40°C to 50°C
Operation: hydraulic

SWIVEL JOINT

Our unique design of low-temperature swivel joint ensures leak-free and nonsticking performance even in cryogenic conditions, achieving flexible rotation under high loads.

The seals can be easily inspected without disassembly swivel joint, and can be replaced easily without any crane.

Specialized surface treatment is used to enhance the hardness of internal stainless steel raceway, thus to significantly extend the service life and reduce leakage risk.

Furthermore, our swivel joint has successfully completed a comprehensive test of 400,000 uninterrupted rotations at low temperatures (-196°C) witnessed by Bureau Veritas (BV).



1

ERS



Emergency Release Coupler consists of two ball valves and a removable clamp that tightly holds the two valves together without any pressure loss. Due to the special design of the ball valves, the spill volume during release can be minimized.

The pantograph mechanism can ensure the simultaneous close of the upper and lower ball valves, and ERC can only disconnect after both valves are fully closed.

Fully compliant with the latest version of OCIMF and ISO16904 standards. Valves in accordance with API 607-2016 standard and certified by Lloyd for fire protection.

Self-owned seals workshop empowers us to offer a diverse range of high-quality customized seals, applicable to various usage environments and requirements, reducing cost in short time.

2

HYDRAULIC QCDC

Due to single hydraulic cylinder design, the QCDC clamp's pressure can be evenly and simultaneously applied on the manifold. In case of power failure, the clamps will be keeping locked by reliable spring locking device, and can be released with simple manual tools.

With unique patented design our cryogenic type QCDC can keep its surface Frost-Free during a multi-day loading process, after then there is no need to use hot water for disconnection.

MANUAL QCDC

Manual quick connection and disconnection coupler (MQCDC) is very convenient for operation, each claw can be individually tighten or loosen with lever. The guide bars and bumper blocks on flange face will help the align process and prevent sparks caused by collision.

Cryogenic Marine Loading Arm

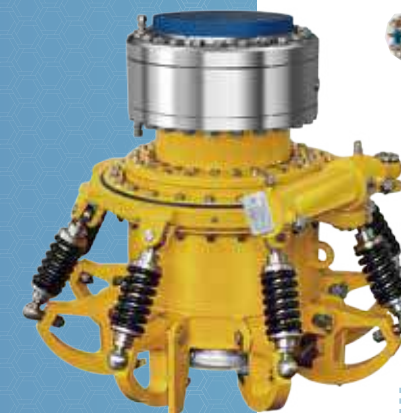
CCLPEC brings exceptional LNG marine loading arm with integrate modern technology and innovative design, offering multiple advantages:

Modern manufacturing processes ensure the equipment's stability and durability in challenging operational environments.

Optimized structural design enhances operational efficiency.

Advanced monitoring and control systems oversee the operation and loading process, ensuring the safety of operators, terminals, and equipment.

With outstanding performance and reliable quality, CCLPEC cryogenic marine loading arms provide great convenience for your LNG terminal.



3



Scan the QR code to watch videos of our MLA



MARINE LOADING ARM

INTELLIGENT CONTROL SYSTEM



Hydraulic Power Unit (HPU)

The HPU provides hydraulic power for the operation of marine loading arms with two electrical pumps, and one manual pump. For LNG MLA there is one accumulator to retract all the arms into stowed position (for LNG MLA) or rising all the arms automatically and simultaneously by approximately 2m after PERC emergency release.

Hydraulic Valve Block (HVB)

The hydraulic valve block (HVB) is installed at the bottom of the loading arm, and mainly includes solenoid valve, ball valve, throttle valve, and accumulator. By switching different oil circuits, it can provide power for each actuator of the loading and unloading arm. The accumulator can be used as an emergency power source for the ERS when the power is lost, so as to prevent further damage to the ship and shore equipment.



Local Control Panel (LCP)

The CCLPEC MLA has several control methods:

1. By buttons and switches on local control cabinet, which is installed on dock.
2. By wired controller at triple swivel assembly or at local control cabinet, when it is close to manifold flange.
3. By wireless remote controller at any place within 100m around LCP.
4. By manual lever in hydraulic substation at the root of MLA riser column.



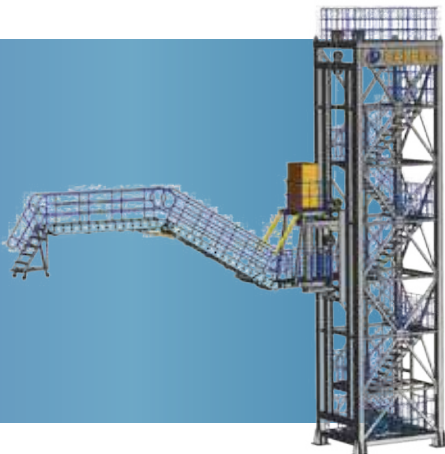
Intelligent control of safe operation and maintenance system

The intelligent monitoring system from CCPEC can display the position of multiple loading arms in real time. Pre-alarms, warnings, and release areas are shown on the display, timely alarms will be indicated in case of failure or abnormal conditions. The range available for maneuvering, are continuously calculated, displayed, and safely stored, which is important for checking the loading arms.

The intelligent monitoring system offers a convenient solution for always being informed about the condition of each loading arm.



MARINE GANGWAY



Tower Type Marine Gangway

- Recommend for vessels larger than 50,000 DWT.
- With several floor levels (depends on the height of vessel), the platform and boarding ladder can be elevated and stop at each floor according to the height of vessel. The boarding ladder can be vertically parked to save jetty space.
- Equipped with a lifting mechanism, the smaller incline angle of the boarding ladder provides a more comfortable user experience.



Tanker: >50,000 DWT

Rotary Platform: liftable

Operation: hydraulic

Column Type Marine Gangway



Tanker: <50,000 DWT

Rotary Platform: fixed

Operation: hydraulic

- Recommend for vessel smaller than 50,000 DWT. Swift installation, easy operation, and low maintenance costs. The boarding ladder will be designed either folding or telescopic models.



OPTIONAL PRODUCTS



JIB Hose Crane

0.5~3.0T crane can be installed on top of the gangway



Fire Platform

Customized platform for purpose of installation of fire hydrant



Radio Remote Controller



Available of remote control for convenience



Control Cabin



Easy to observe MLA movement during operation

Manufacturing and Design Features:

Tailored selection and design based on vessel type, jetty parameters, hydrological conditions, seismic and wind load parameters, and customer preferences.

Tower type and column type gangways available as options. Can be equipped with additional equipment like fire platforms, JIB hose crane, control cabins, and radio remote controller.

Comprehensive strength verification for overall gangway structure.

FSRU Gangway, special attention given to escape route type with main structure, and illuminance calculations for emergency lighting.

Gangways on floating modules undergo calculations for towing strength and the design of lashing reinforcement methods.

PLC logic control enables floor selection and staircase lighting on/off

In-house sandblasting and painting workshop for ensure precise surface treatments and galvanization of steps.

All hydraulic and electrical equipment meet area explosion-proof requirements, accompanied by IEC and ATEX explosion-proof and protection certifications.

Thoughtful sizing design for ease of transportation and installation.



CCLPEC MARINE GANGWAY SERVES DIFFERENT VESSELS WITH STABILITY OF OPERATION

CUSTOMIZED DESIGN WITH GOOD QUALITY AND SMOOTH PERFORMANCE

Scan the QR code to find the video of our marine gangway



QUICK RELEASE MOORING HOOK



Quick Release Mooring Hook

CCLPEC Quick Release Mooring Hooks are designed to guarantee safe and efficient mooring operations in demanding maritime environment, as an upgraded replacement of bollard, they are suitable for large and modern jetty that requires mooring operation with minimum labors.

CCLPEC provide durable, safety and easy operated quick release mooring hook even in extremely corrosive environments by applying robust materials, advanced manufacturing techniques and smart design. Integration with our remote control, monitoring and laser berthing aid system will swiftly and accurately control the processes of connection and detachment, enhancing operational efficiency and reducing the risk of human error.

Safe Working Load (SWL): 25 ~ 200 Ton	Protection Grade: IP56, IP66 etc.
Hook Quantity: single, double, triple and quadruple	Explosion Proof Certification ATEX/IEC/NEPSI/PCEC/CNEX
Operation: manual, electrical, hydraulic	

OPTIONAL PRODUCTS



Remote control and load monitoring system

Continuously monitoring the loads of each mooring rope, this system can display and record the loads in every minute, sound the alarm in case of emergency and allow the remote control of all hooks (or in groups) to release individually, sequentially or simultaneously.



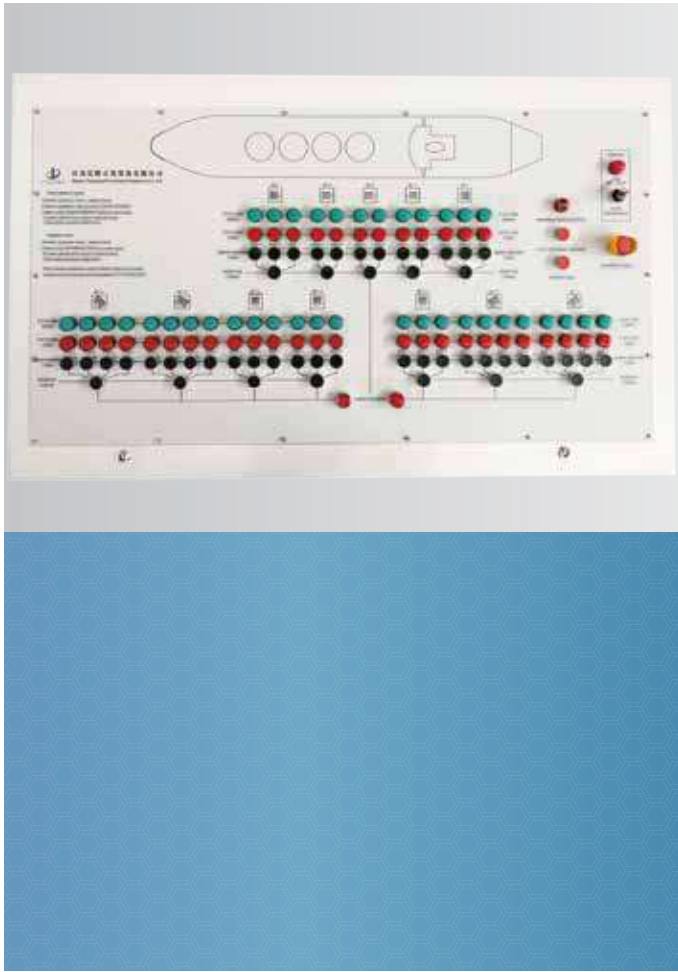
Laser berthing aid and Hydrometeorological monitoring system

The system includes two subsystems: laser berthing and Meteorological/hydrological monitoring system. With good scalability & compatibility, network interfaces are reserved to support the cable load monitoring system, remote control system and as well the ship-shore system.



SAFETY MOORING, SWIFT DEPARTURE

INTELLIGENT MONITORING AND CONTROL SYSTEM FOR OPTIMIZED MODERN JETTY



- Fully comply to OCIMF standards.
- Customized material and components according to different environmental requirements.
- All hooks are tested at 150% of the safe working load (SWL).
- With effort less than 200N, each hooks can be manually released at 100% of SWL.
- Easy to reset the hook by only one man.
- Surface treatment and painting by ISO standard.
- Design to prevent sparks during operation.
- Intelligent monitoring support system with good scalability & compatibility.

LAND LOADING FACILITIES



- LAND LOADING ARM
- TUCK LOADING SKID
- RAILCAR LOADING SKID
- SCADA LOADING CONTROL

WE OFFER COMPREHENSIVE LOADING SOLUTIONS

ADVANCED FLUID LOADING SYSTEM

TRUCK RAILCAR LOADING SYSTEM



PROVEN STRENGTH AND EXPERTISE ||



Top Loading Skid

- Designed for tankers with manholes/connectors on top, a customized platform for easy access and operation.
- The metering skid is placed under the platform for easy installation and maintenance, the top loading arm, batch controller and folding stair are installed on the platform for loading operations.



Product: petroleum product and chemicals
Design Pressure: 5 ~ 20 Bar
Design Temperature: -40 ~ 300 °C

WIDE-RANGE PRODUCT
OFFERING ||



Railcar Loading Skid

- Ideal for railcar top loading and unloading operation, integrated with instrumentation, piping and components in unit, perfectly suit for all types of carriages indifferent lengths, compact structure for space saving and easy installation work.



Product: petroleum product and chemicals
Design Pressure: 5 ~ 20 Bar
Design Temperature: -40 ~ 300 °C

Features

Skid-mounted truck/railcar loading system is an integrated, highly efficient, and rapidly deployable solution that incorporates components such as pipes, instruments, valves, and loading arms into a single framework. This allows for swift assembly, commissioning, and expedited delivery within the CCLPEC factory, ultimately saving costs and on-site construction time for customers.

Loading skids, local control system and workstations will be tested and debugged within the factory, thus to significantly minimize on-site workload. This design ensures the integrity and compatibility of the entire product package.

The design of the loading system will meet the local and international codes and standards, for flammable and explosive fluids, it adheres to explosion-proof regulation such as ATEX or IEC.

Upon arrival at the site by container shipping, only the pipeline interface of loading skid needs to be connected with site pipelines, and communication needs to be established with site DCS and SIS system.

Utilizing local controllers (batch controller, HMI, or PLC), it collects signals from instruments & automatic valves and transmits them to the central control system. Equipped with a display, the local control system provides step-by-step guidance to operators to avoid misoperation.



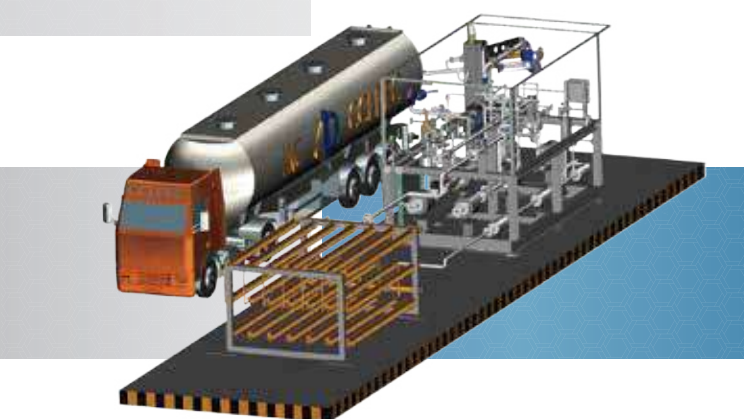
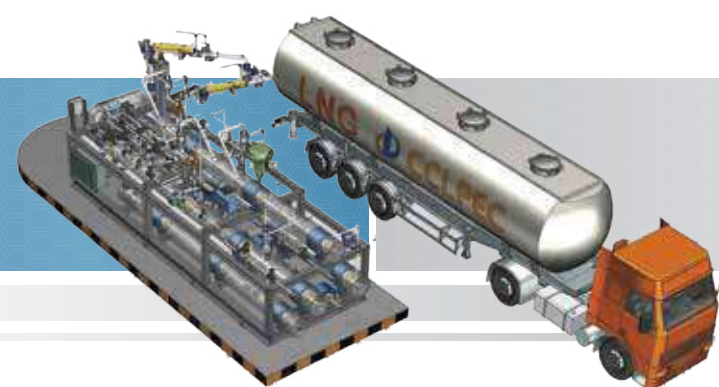
Product: petroleum product, chemicals and cryogenic liquid
Design Pressure: 3 ~ 18.5 Bar
Design Temperature: -230 ~ 200 °C

Bottom Loading Skid

- Suitable for various products loading by side or back connection with tank. It is the first choice for cryogenic liquid loading.



LNG TRUCK/ISO TANK LOADING SYSTEM



LNG Truck/ISO Tank Loading/Unloading Skid

- An LNG loading skid typically includes LNG pipeline, BOG pipeline, nitrogen purging pipeline, venting pipeline, cold circulation pipeline, and instrument air pipeline.
- For LNG unloading skid, a vaporizer is usually incorporated to facilitate pressurized unloading, and an option for a cryogenic pump can be added to enhance unloading efficiency.
- Equipped with a local controller, the skid can achieve full automation or semi-automatic for loading operations. A batch controller guides operators to minimize the risk of operational errors.
- CCLPEC offer the optimization of dual loading lines within a single framework, allowing simultaneous loading of LNG trucks on both sides. This significantly reduces the land occupation and clients' cost.
- All electrical and instrumentation components are sourced from top global suppliers, long-term agreements with CCLPEC, to ensure better price and after-sales service.
- High-precision loading measurement system: we can optimize the metering accuracy to $\pm 20\text{kg}$ after five loading tests.
- CCLPEC's LNG loading arms represents a decade of refined craftsmanship, with 1500+ units supplied, enables single-operator usage, labor savings, leak-free operation, replace seals without removing the swivel joint. CCLPEC independently develop a LNG quick coupler, which allows direct connection to tanker. It can be connected or disconnected in just several seconds even ice covered.

Design Flow Rate for Loading: 50-80m³/h

Design Flow Rate for Unloading: 15-30m³/h

Pipe Diameter: DN50, DN80, DN100

Pipe Material: SS304/L, SS316/L

Main Items: LNG truck loading arm or LNG hose, flow meter, flow control valves, shut-off valves, TT, PT, cryogenic pump, vaporizer, etc.



We provide efficient loading and unloading solutions for ISO tanks and LNG tanker trucks.

CCLPEC's flagship products have demonstrated outstanding performance, with over 1,000 units supplied to more than 30 LNG receiving terminals worldwide.

We are a global leader in LNG skid-mounted solutions. Our extensive design experience will ensure the loading efficiency of the LNG receiving terminal.

Provide customized services to meet a variety of site conditions.

Intelligent control system provides the whole process data monitoring, supporting to customer's DCS, SIS and SAP system.

Suitable for all kinds of cryogenic fluids, including LNG, liquid hydrogen, liquid oxygen, cryogenic ethylene, etc.



Scan the QR code to find the video of our LNG loading skid

1000+ SETS CCLPEC LNG LOADING SKID IN SERVICE WORLDWIDE

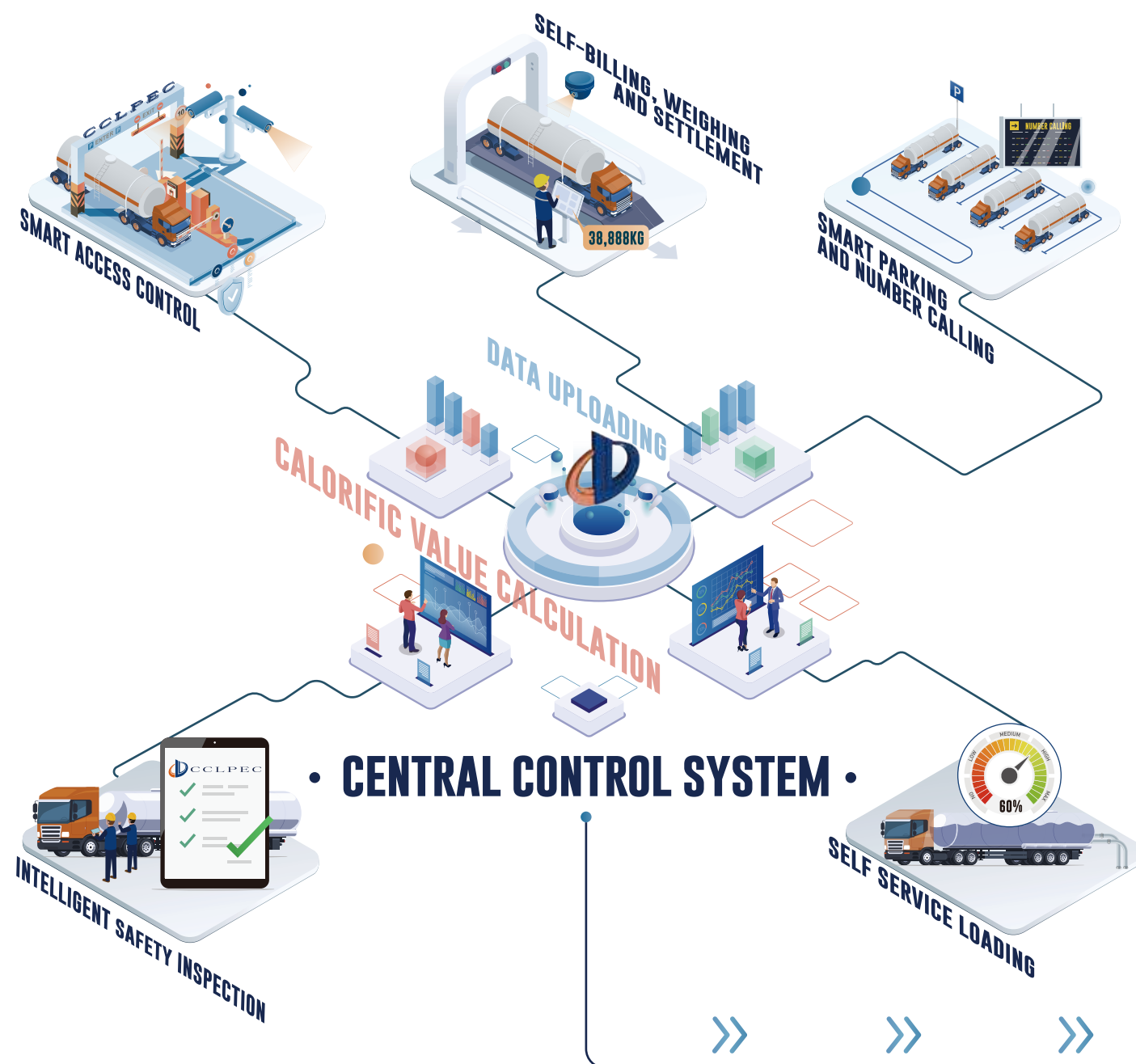
EXPERIENCED MANUFACTURER WITH CONTINUOUS INNOVATION



INTELLIGENT LOADING CONTROL SYSTEM



MAKE COMPLEX TASKS SIMPLE



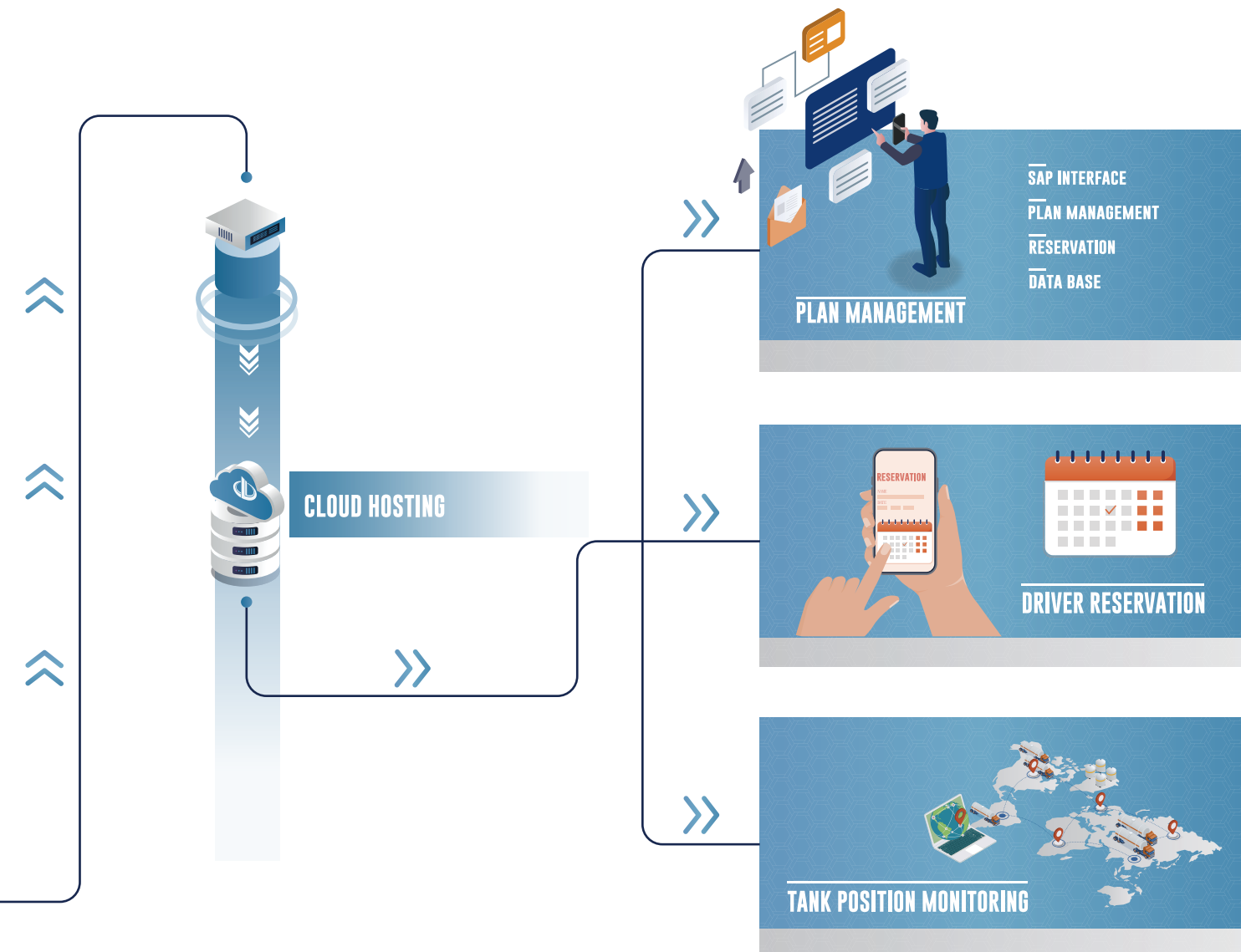
THE LOADING SKIDS AND CONTROL SYSTEMS PROVIDED BY CCLPEC HAVE BEEN IN OPERATION FOR TENS OF MILLIONS OF HOURS. OUR EXTENSIVE EXPERIENCE WILL MINI-MIZE YOUR TRIAL-ERROR AND SIGNIFICANTLY REDUCE COSTS.

FAST - Vehicles experience a cumulative time savings of at least 30 minutes from entry to exit. Online debugging and diagnosis can reduce fault recovery time by 50%.

STABILITY - The integration of safety inspection, weighing, and loading processes ensures digital safety verification throughout the entire operation. Based on the pre-maintenance for data, contingency plans are prepared for every key nodes.

EXCELLENCE - Intelligent dispatch, tank inspection, self-service loading, and self-service weighing functionalities are fully realized.

EFFICIENCY - Each shift benefits from a reduction of at least 8 operational personnel, with standardized operating procedures integrated into the workflow, thereby lowering management costs.



LAND LOADING ARM

Top loading arm



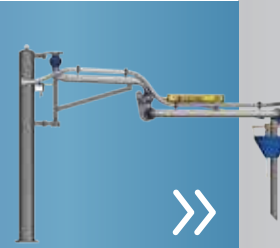
Diameter: 1" ,2" ,3" , 4"
Material: SS, CS, PTFE lining
Optional Items: loading valve, ball valve, position sensor, level switch
Operation: manual, pneumatic

Top Loading Arm with Heat Tracing



Diameter: 3" , 4"
Material: SS, CS
Optional Items: loading valve, ball valve, position sensor, level switch, pneumatic cylinder
Operation: manual, pneumatic

Top Loading Arm with Sealing Cone



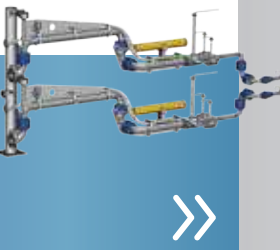
Diameter: 1" ,2" ,3" , 4"
Material: SS, CS
Connection: drop pipe with sealing cone
Optional Items: loading valve, ball valve, position sensor, level switch, vapor return hose
Operation: manual, pneumatic

Folding Stair



Step: 3, 4, 5
Material: CS
Optional Items: safety cage
Operation: manual, pneumatic hydraulic

Bottom Loading Arm with Vapor Return



Diameter: 2" ,3" 4"
Material: SS, CS
Connection: flange, quick coupler
Optional Items: vapor arm, break-away coupling, vent valve, ball valve, dry break away coupler, CGA coupler
Operation: manual

Bottom Loading Arm with API Coupler



Diameter: 4"
Material: CS
Connection: API coupler
Optional Items: breakaway coupling, composite hose, SS hose
Operation: manual

Bottom Unloading Arm



Diameter: 6" , 8"
Material: SS, CS
Optional Items: quick coupler, ball valve
Operation: manual

CNG Bottom Loading Arm



Diameter: 1" , 2"
Material: SS, CS
Optional Items: flange
Operation: manual



Seals

Nominal Diameter: DN50 ~ DN500 and other size

Design Temperature: -253 ~ +300°C

Applicable Products: LNG, low temperature ethylene, liquid oxygen, liquid nitrogen, liquid argon, other low temperature products



Break-away coupler

Nominal Diameter: DN50, DN80

Breaking Force: 30 KN

Design Temperature: -253 ~ +200°C

Applicable Products: low temperature products like LNG, oil products, LPG, chemicals etc.



Dry Disconnect Coupling

Nominal Diameter: DN50 - DN100

Material: Stainless steel

Seals: UPE

Design Temperature: -196~65°C

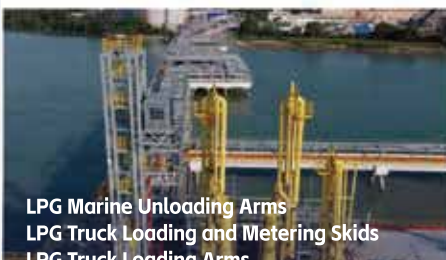
Applicable Products: low temperature products like LNG, oil products, LPG, chemicals etc.



Scan the QR code to find the video of our truck loading arm

REFERENCE

 LNG Loading and Metering Skids CNPC TANGSHAN LNG TERMINAL	 LNG Loading and Metering Skids PIPE CHINA TIANJIN LNG TERMINAL	 LNG Loading and Metering Skids SINOPEC QINGDAO LNG TERMINAL
 LNG Dual Loading and Metering Skids GUANGHUI QIDONG LNG TERMINAL	 LNG Loading and Metering Skids CNOOC NINGBO LNG TERMINAL	 LNG Loading and Unloading Skids JINAN ENERGY CAOYUAN LNG TERMINAL
 LNG Loading and Unloading Skid with Pump ZHONGXIN GAS LNG TERMINAL	 LNG Loading and Metering Skids SHAANXI YANCHANG LNG TERMINAL	 LNG ISO tank Loading and Metering Skids SINGAPORE LNGC TO TANK LOADING PROJECT
 LNG Dual Loading and Metering Skids MALAYSIA LNG TRUCK LOADING FACILITY	 LNG ISO Tank Loading and Metering Skids LNG Truck Loading Arms MALAYSIA LNG ISO-TANKS FILLING FACILITY	 Top Train Loading Arms Train Loading and Metering Skids Prover Skid UZBEKISTAN GAS TO LIQUID PROJECT

 LNG Marine Unloading Arm BINHAI LNG TERMINAL	 LNG Marine Unloading Arm PIPE CHINA ZHANGZHOU LNG TERMINAL	 LNG Marine Unloading Arms SINOPEC HUAYING LNG TERMINAL
 Marine Unloading Arms MIDDLE EAST PETROCHEMICAL TERMINAL PROJECT	 Marine Unloading Arm INDONESIA LIQUID AMMONIA TERMINAL PROJECT	 Marine Unloading Arms PLANGAS ILHA REDONDA MARITIME TERMINAL
 LPG Marine Unloading Arms LPG Truck Loading and Metering Skids LPG Truck Loading Arms Tower Type Marine Gangway MALAYSIA LPG TERMINAL	 Tower Type Marine Gangways on Floating Dock HONGKONG LNG TERMINAL PROJECT	 Column type gangway SARAWAK METHANOL PROJECT IN BINTULU
 Top Truck Loading Arms Bottom Truck Loading Arms Column Type Marine Gangway Quick Release Mooring Hooks Folding Stairs MYANMAR TIWARA TERMINAL PROJECT	 Quick Release Mooring Hooks FSRU CONVERSION PROJECT	 Quick Release Mooring Hooks VOPAK QINZHOU TERMINAL PROJECT

OUR CLIENTS

Reference List to Chinese LNG Terminals

PROJECT	SUPPLY	DELIVERY DATE
(1)CNPC Tangshan LNG Terminal	Loading and Metering Skids	2013/2014
(2)Sinopec Group Tianjin LNG Terminal	Truck Loading Arms	2016/ 2017
(3)Pipe China Tianjin LNG Terminal	Loading and Metering Skids	2018
(4)Beijing Gas Tianjin LNG	Loading and Metering Skids	2022
(5)Sinopec Group Qingdao LNG	Loading and Metering Skids	2014/2016
(6)CNOOC Binhai LNG Terminal	Loading Skids / MLA	2021
(7)Honghai Jiangyin LNG Terminal	Loading and Metering Skids	2018
(8)Guanghui Qidong LNG Terminal	Loading and Metering Skids	2020
(9)Shanghai LNG Terminal	Loading and Metering Skids	2018
(10)Wuhu Yangtze River LNG Terminal	Marine Unloading Arm	2023
(11)Zhejiang Jiaxing LNG Terminal	Loading and Unloading Skids	2020
(12)CNOOC Ningbo LNG Terminal	Loading and Metering Skids	2016/2017/2018
(13)Xin'ao Zhoushan LNG Terminal	Truck Loading Arms	2017/2018
(14)Zhejiang Yuhuan Damaiyu LNG Terminal	Truck Unloading Skid	2023
(15)Wenzhou Huagang LNG Terminal	Loading and Metering Skids	2022
(16)Pipe China Zhangzhou LNG Terminal	Marine Unloading Arm	2022
(17)Huafeng Zhongtian LNG Terminal	Truck Loading Arms	2018
(18)Chaozhou Huaying LNG Terminal	Marine Unloading Arm	2023
(19)Pipe China Yuedong LNG Terminal	Truck Loading Arms	2020
(20)Huizhou LNG Terminal	Loading and Metering Skids	2023
(21)Shenzhen Gas LNG Terminal	Loading and Metering Skids	2016/2021
(22)Shenzhen DP LNG Terminal	Truck Loading Arms	2018
(23)CNOOC Zhuhai LNG Terminal	Loading and Metering Skids	2018/2024
(24)Pipe China Beihai LNG Terminal	Loading and Metering Skids	2016/2020
(25)Pipe China Hainan LNG Terminal	Loading and Metering Skids	2018

