

Due to continuous technical updates, technical parameters are subject to change without notice.  
The machine in the picture may include additional devices.  
The pictures are for reference only, and the actual product shall prevail.



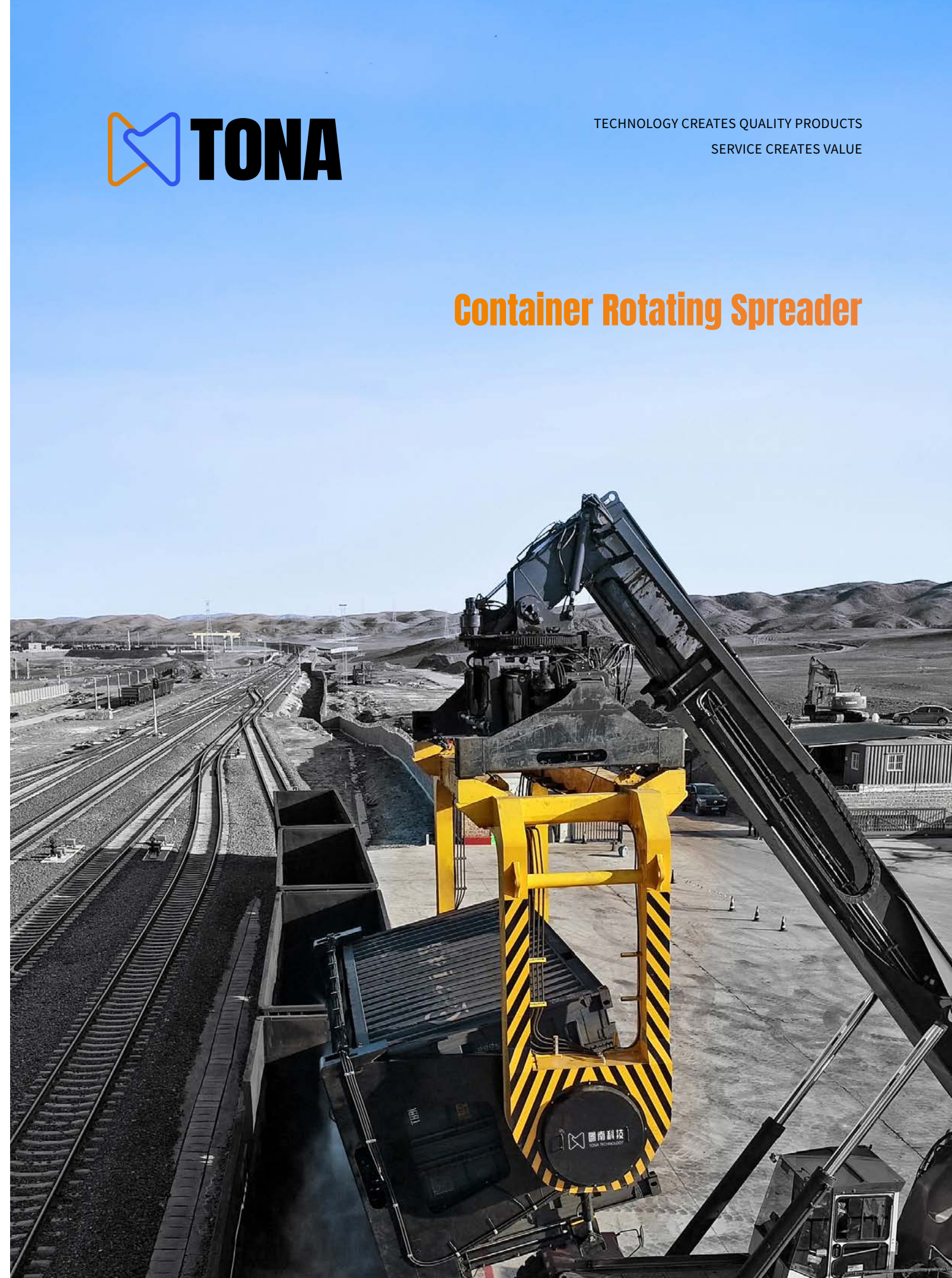
## HUNAN TONA MACHINERY TECHNOLOGY CO.,LTD

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TECHNOLOGY CREATES QUALITY PRODUCTS  
SERVICE CREATES VALUE

## Container Rotating Spreader





# COMPANY PROFILE

Hunan Tona Machinery Technology Co., Ltd. was established in April 2019, and located in Changsha Economic and Technological Development Zone - a global high-end equipment intelligent manufacturing center. We are committed to providing customers with research and development, production, and technical services of complete container handling equipment, bulk cargo handling equipment, ship repair equipment, and customized equipment. We strive to become a leader in the customization of bulk container handling and high-end equipment.

Upholding the principle of innovation-driven development, the Company provides customers with excellent product and service value. Our R&D investment maintains a rapid growth of 30%. By virtue of strong R&D and innovation capabilities and long-term experience in construction machinery, while depending on the complete advantages of Changsha’s construction machinery industry chain, the Company currently enjoys a sound development in port equipment, bulk cargo handling, green ship repair, and product customization. The container rotating spreader, which is used for bulk cargo handling, stably ranks first in the domestic market share.



## Company Vision

To be a leader in the customization of bulk container handling and high-end equipment



## Service Concept

Success Lies in Quality  
Service Determines the Future



## Business Philosophy

Technology creates quality products  
service creates value



## Core Values

Innovation - Customer First  
Specialty - Product First

As a high-tech enterprise, we always respond to national initiatives, actively promote the “intelligent, green and high-end” industrial transformation, and steadfastly pursue the technological innovation. We regard the transformation of independent research and development into scientific and technological achievements as the guiding beacon for the Company’s progress. The Company has been granted titles such as “National High-tech Enterprise” and “Provincial SRDI Small and Medium-sized Enterprise”, and has applied for and been authorized more than 30 patents.

With nothing save the clear sky above, and no obstacles  
in the way, it starts upon its journey to the south





Container Rotating Spreader is used to tilt forward and rotate a 20ft open top container. It can be matched with 45-ton standard reach stacker of Sany, ZPMC, XCMG, Konecranes, Kalmar and other brands. With a rated lifting capacity of 38 tons, the spreader can be used for fast cargo transfer between container and open freight car, as well as fast unloading of bulk cargo from open top containers. It is equipped with many kinds of dust control measures to effectively control dust, such as dust guard and dual spray system, in response to the national strategy of blue sky development.

## 01 EFFICIENT

- The spreader adopts a fast attachment mode, and can be switched with the principal machine within 2 mins
- Shaking function can be configured to solve the problem of bulk cargo adhesion and incomplete unloading, reducing material loss
- The spreader can be wirelessly controlled through a remote control, and also can be operated with buttons that are set in the cab, which is convenient and fast



## 02 SAFE

- The spreader is equipped with four color lights, which can indicate positioning, twist-locking, container holding and other operations in real time, directly guiding the operator. The lights are interconnected with the safety logic of the principal machine to prevent safety risks caused by mis-operation
- The twistlock system is fitted with ISO floating twistlock (similar to the spreader of standard reach stacker), as well as safety measures such as mechanical self-locking and interlocking, electrical unlocking and locking logic protection, and mechanical and electronic protection
- A dual camera monitoring system can be provided, making it easy to observe the rotating and handling process and improving the operational safety
- Based on dynamic simulation and finite element analysis, the device is made of high-strength steel plate, and the parts with high stress are reinforced, enhancing the overall structural strength of the machine





# 03 ENVIRONMENTAL PROTECTION

- No bulk cargo falls to the ground in the handling process, without loss
- It can be equipped with dust guard to isolate dust and mist, with remarkable effect
- A full-coverage dual spray system is equipped to effectively prevent the leakage of dust and mist





TECHNICAL PARAMETER

| Item                         | TRQ380                             |
|------------------------------|------------------------------------|
| Product name                 | Rotating spreader of Reach Stacker |
| Applicable container type    | 20ft open top container            |
| Applicable principal machine | 45t standard Reach Stacker         |
| System pressure              | 14MPa                              |
| Rated capacity               | 38t                                |
| Dead weight of the spreader  | 10t                                |
| Rotating angle               | -10-220°                           |
| Rotating time                | 60s                                |
| Twistlock technology         | ISO floating twistlock             |
| Protection class             | IP55                               |

OPTIONAL FEATURES



Vibration function



Dust guard



Dual spray system

EXTENDED MODEL



Rotating Spreader of Quayside Crane TRS3820/TRS3840

| Applicable product | Rated load | Container spec.              | Weight       |
|--------------------|------------|------------------------------|--------------|
| Quay Crane         | 38t        | 20ft/40ft open top container | 10.5t /14.0t |



Rotating Spreader of Portal Crane TRM450

| Applicable product         | Rated load | Container spec.         | Weight |
|----------------------------|------------|-------------------------|--------|
| Portal/Mobile Harbor Crane | 45t        | 20ft open top container | 13.0t  |





EXTENDED MODEL



Rotating Spreader of Ship Crane TRSC380

| Applicable product | Rated load | Container spec.         | Weight |
|--------------------|------------|-------------------------|--------|
| Ship crane         | 38t        | 20ft open top container | 8.5t   |



Rotating Spreader of Bridge Crane TRB380

| Applicable product | Rated load | Container spec.         | Weight |
|--------------------|------------|-------------------------|--------|
| Bridge crane       | 38t        | 20ft open top container | 9.5t   |



EXTENDED MODEL



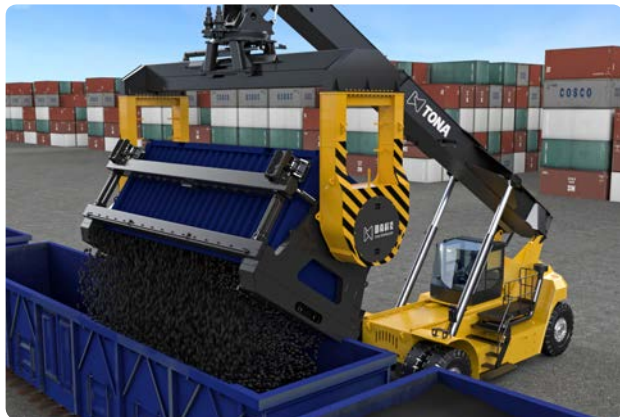
Multi-Purpose Container Rotating Spreader TRM380

| Applicable product                         | Rated load                                   | Container spec.                                    | Weight                                       |
|--|--|--|--|
| Quayside crane, gantry crane, Portal crane | 20ft spreader: 45t<br>Rotating spreader: 38t | 20ft standard container<br>20ft open top container | 20ft spreader: 3.5t<br>Rotating spreader: 9t |



Integrated Rotating Spreader TRW380

| Applicable product  | Rated load | Container spec.         | Weight |
|---|------------|-------------------------|--------|
| Reach Stacker<br>(Directly connected to the Reach Stacker boom) | 38t        | 20ft open top container | 13.3t  |



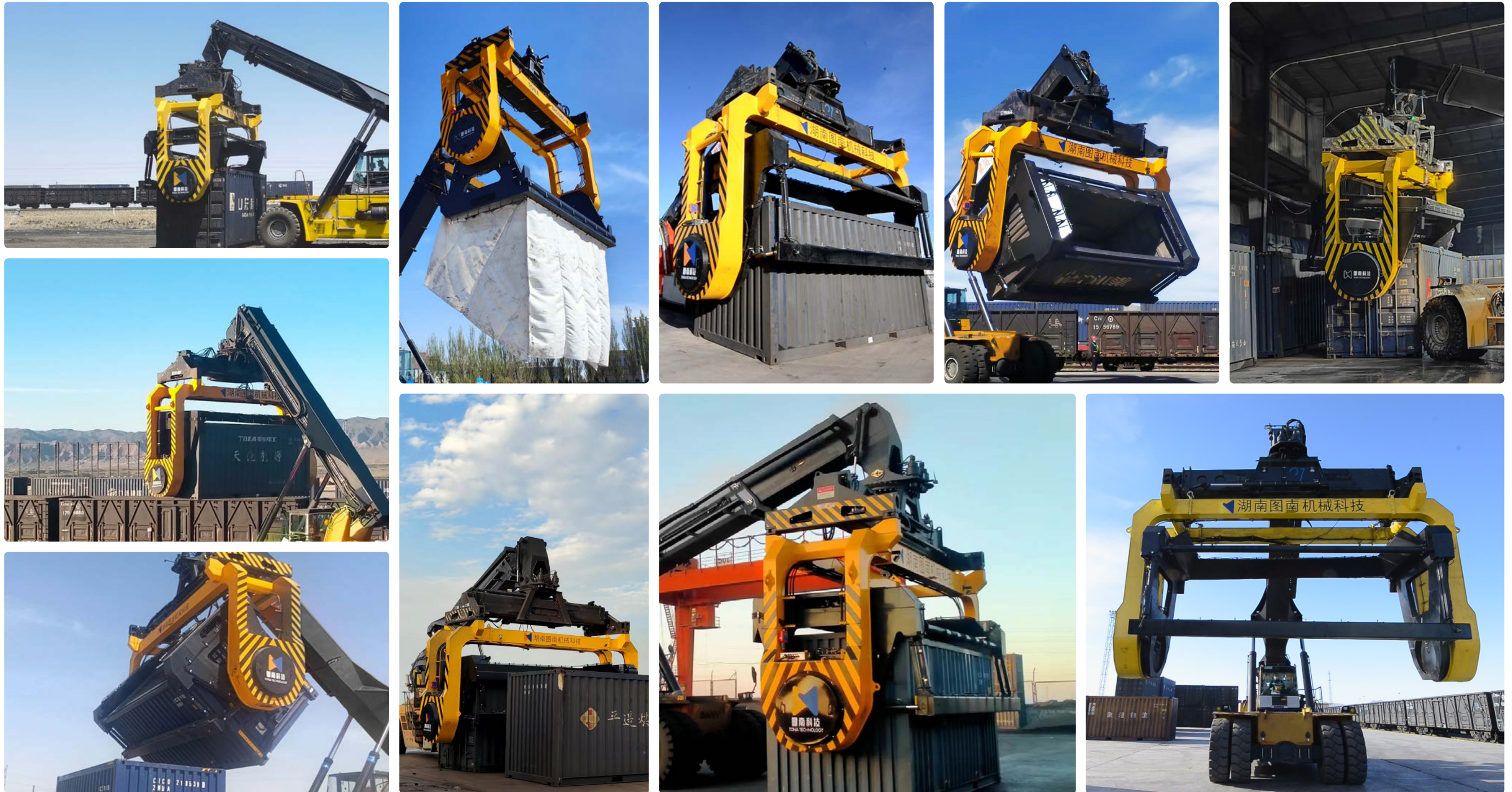


## PRODUCT SALES LAYOUT





## CONSTRUCTION CASES





## AFTER-SALE SERVICE

**Service Concept: Success lies in quality, service determines the future**

Performance Pledges and Specific Measures:

- Provide standardized customer operation training and equipment maintenance training.
- Offer 24h phone and video-based guidance for free to improve the troubleshooting speed and repair efficiency of customers.
- Actively inspect equipment at fixed periods and provide standard inspection forms for record keeping.
- Set up an exclusive accessories warehouse based on customer needs.

