

MANTSINEN

ATTACHMENTS

FRONTRUNNER IN EFFICIENCY AND SUSTAINABILITY

Mantsinen hydraulic material handling machines and highly durable attachments offer the highest productivity, speed and capacity for our customers who themselves aim to be the strongest links in the global logistics chain.

Mantsinen was established in 1963 by two brothers, who started transporting wood and timber for local companies and municipalities around Eastern Finland. Since the very beginning our work in logistics operations has provided us with invaluable day to day experience in material handling as well as the machines and attachments. Our decades of practical knowledge has given us an edge over other manufacturers – enabling us to become the world-renowned name in material handling.

Today, Mantsinen boasts of a wide portfolio of material handlers up to over 300 tons, and a great variety of attachments for every material handling need. Our products are backed up by our vast service offering, from fully outsourced logistics services to consulting, training, technical support and spare parts.





DEVELOPED TO GET THE JOB DONE

Mantsinen provides the appropriate attachment for all handling needs: bulk, scrap and container handling, wood and steel products and universal cargo.

Our broad experience in handling various materials and comprehensive knowledge of their properties ensures great insight for the design process. The focus is always on having the best possible tool for each application and material being handled. We design and manufacture attachments in-house at our factory in Finland and deliver them worldwide thanks to our extensive dealer network.



OPTIMIZED FOR YOUR NEEDS

In cases where the load and material are well defined, we can optimize both the attachment and the material handler for the specific task, like feeding chemicals for a fertilizer company, loading logs onto trucks, or feeding grain into a silo.

In most cases there is a need for various attachments, for example at a commercial port where their daily business needs vary greatly.

In these cases we offer standard or custom made buckets, grabs, hooks and spreaders which can be interchanged in a blink of an eye using our robust quick coupling system.

We also manufacture maintenance and storage racks for attachments that enable safe and easy connection and maintenance of the attachments. Whatever the handled materials may be, we have a solution for you!

MANTSINEN

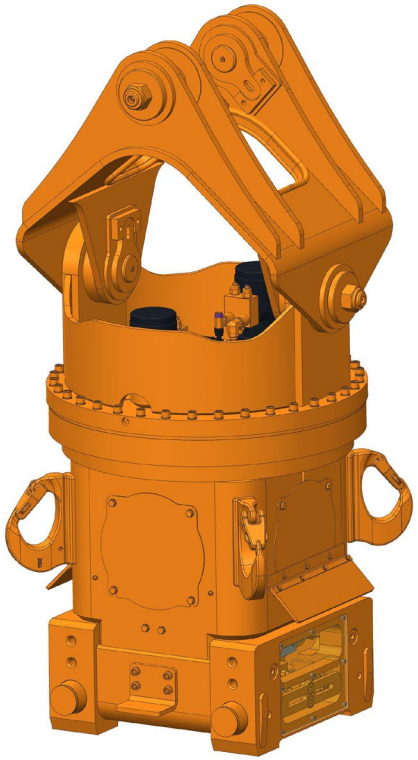
AUTOMATIC QUICK COUPLER

The Mantsinen Automatic Quick Coupler (MCA) increases efficiency and safety. It enables a quick change of attachments automatically from the operator's cabin - completed in just two minutes!

The lightweight, cost-efficient and robust solution makes material handling more flexible and faster. The MCA comes in two sizes: smaller MCA30 (SWL 30 t) for Mantsinen 60-160 machines and larger MCA60 (SWL 60 t) for Mantsinen 200 and 300.

Both use the same adapter; you can cross-use attachments for both coupler sizes. Additionally, adding hydraulic, electrical or can-bus connection points allows connecting to a multitude of different attachments.

The MCA can be equipped with hydraulic, electric and can-bus connections. Available as retrofit solution for older machines and attachments.



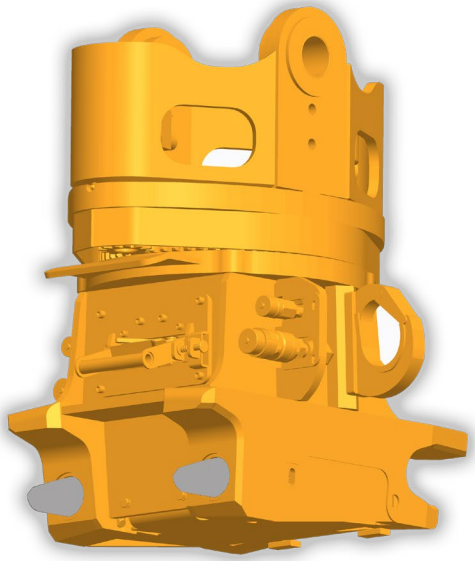
SCAN THE QR CODE AND SEE IT IN ACTION



Utilizing Mantsinen attachments together with the Mantsinen material handling machines provides a clean package minimizing the chances of hydraulic hoses and electrical wires getting snagged during the operation, as all of the connections are routed through the open end of the stick and through the openings on the link and rotator packages.

The traditional quick coupling device is compatible with all of the Mantsinen material handling machines. All attachments that have a suitable adapter for a quick coupling device are compatible with it, including those made by other manufacturers.

Quick couplers are equipped with rotators and are available in two versions. Safe working load for Mantsinen MC620 is 25 metric tons (55,115 LBS) and for MC720 it is 50 metric tons (110,230 LBS).









WE ALSO MANUFACTURE ATTACHMENTS FOR OTHER MATERIAL HANDLING MACHINES!





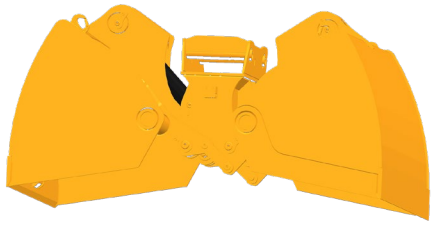
BULK HANDLING

MOVING LARGE VOLUMES EFFICIENTLY

Our clamshell buckets enable the most efficient handling of bulk materials together with a material handling machine. We offer a wide range of clamshell buckets for various applications and for materials of different weights, such as sand, gravel, fertilizers, wood chips, grain, iron ore and pellets. We also manufacture attachments that are customized for customer specific needs.

Our broad experience in handling various bulk materials and comprehensive knowledge of their properties provides great insight for the design process. The varying requirements of materials are taken into account in the shapes of clamshell buckets and also in the evaluation of the cylinder force.

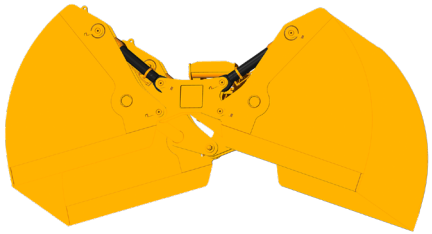
ATTACHMENTS FOR BULK MATERIAL HANDLING



CLAMSHELL BUCKET

Standard series for light and medium weight materials. Typical density of material 1–2,5 t/m³ (60 – 150 lbs/ft3).

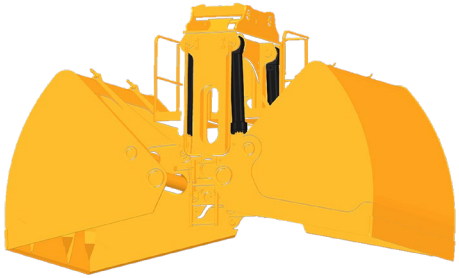
Volume 2–18 m³ (2.6–23.6 cu yards)



CLAMSHELL BUCKET LIGHT

Light series for bio materials. Typical density of material 0,3–1 t/m³ (20 – 60 lbs/ft3).

Volume 8–25 m³ (10.5-32.7 cu yards)



CLAMSHELL BUCKET HEAVY

Heavy series for rough, hard and heavy materials. Typical density of a material 2–4 t/m³ (120 – 250 lbs/ft3)

Volume 6–25 m³ (7.85–32.7 cu yards)



ORANGE PEEL GRAB LIGHT

Light series for bio materials. Typical density of a material 0,3–1 t/m³ (20 – 60 lbs/ft3).

Volume 6–16 m³ (7.8–20.9 cu yards)







SCRAP HANDLING

DEFAULT SETTING: BEASTMODE

Mantsinen offers a wide variety of scrap grabs with 4-6 tines and with three different tine models; open, semi-open or closed. This allows each material type to be handled with the most optimized grab, whether the operator is looking for material penetration, filling of the grab, or maneuverability of the tool.

Our standard scrap grabs are supplied with five or six tines. Four tine grabs are efficient solutions for applications handling scrap into or out of semi-truck trailers or railcars.

We also offer multiple quick coupler options making changing the attachments easy and safe.

ATTACHMENTS FOR SCRAP HANDLING

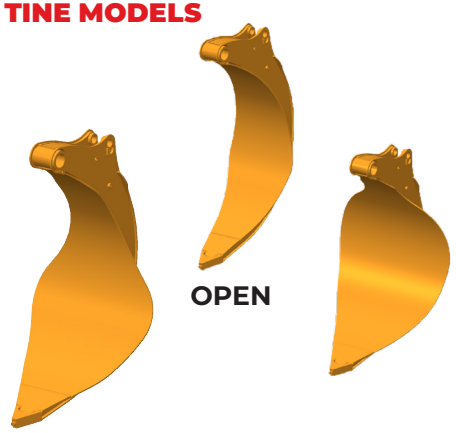


ORANGE PEEL GRAB

Traditional orange peel grab.

Volume 0.8–10 m³
(1.05-13.10 cu yards)

TINE MODELS



OPEN

SEMI-OPEN

CLOSED



SQUARE GRAB

Scrap Grab especially for loading and unloading scrap from trucks and wagons.

Volume 2.2 m³
(2.9 cu yards)

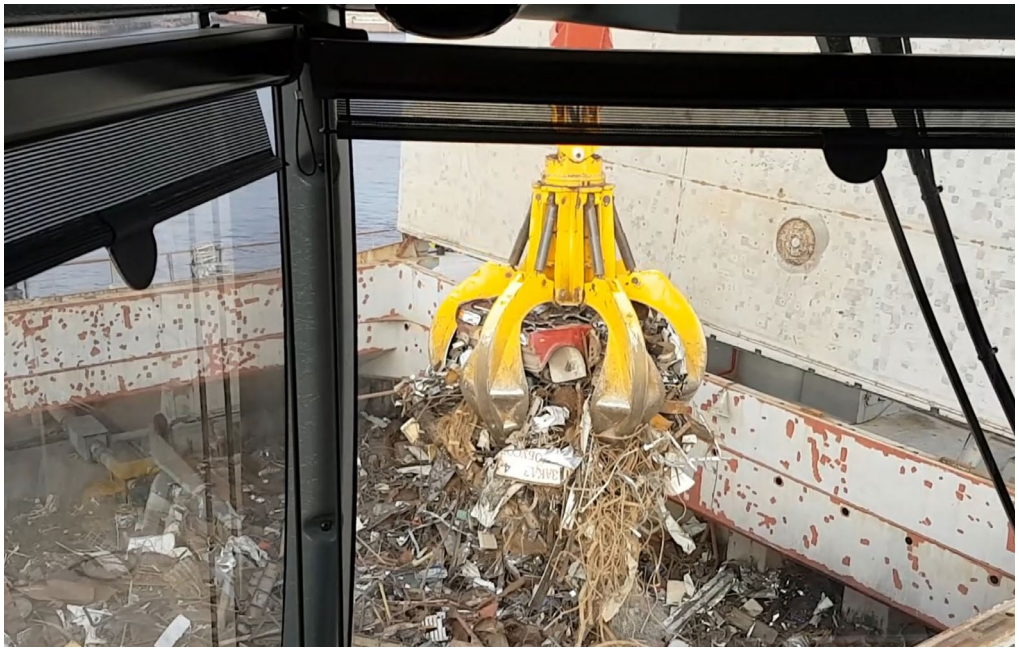


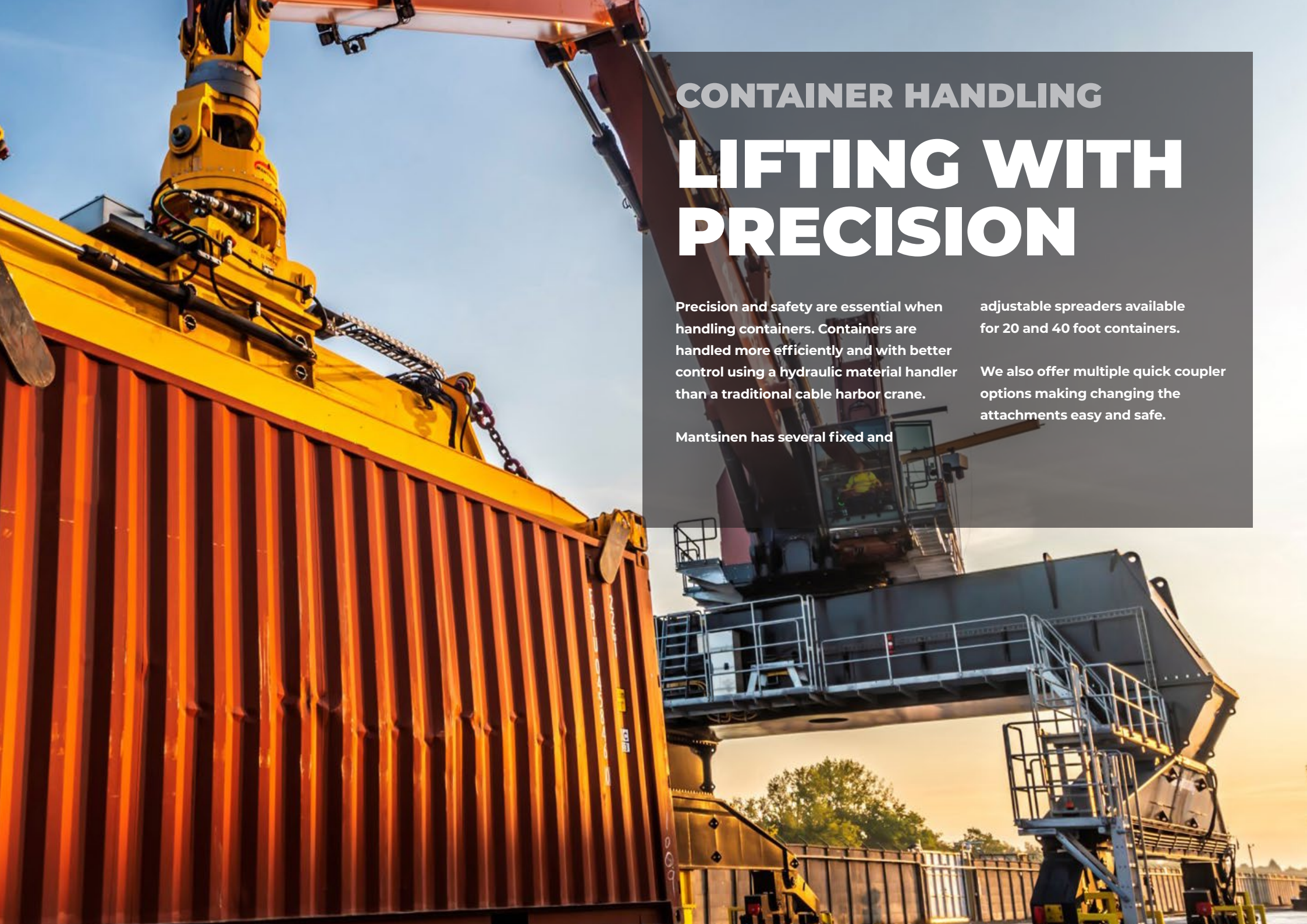
LIFTING MAGNET

Lifting magnet for scrap handling.

Nominal power 9-25 kW
(13.60 – 34.00 hp)







CONTAINER HANDLING

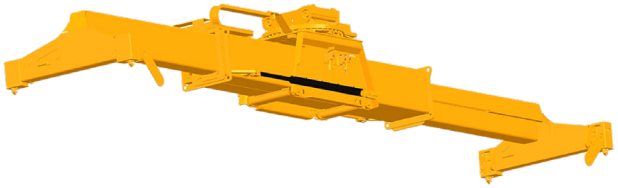
LIFTING WITH PRECISION

Precision and safety are essential when handling containers. Containers are handled more efficiently and with better control using a hydraulic material handler than a traditional cable harbor crane.

Mantsinen has several fixed and adjustable spreaders available for 20 and 40 foot containers.

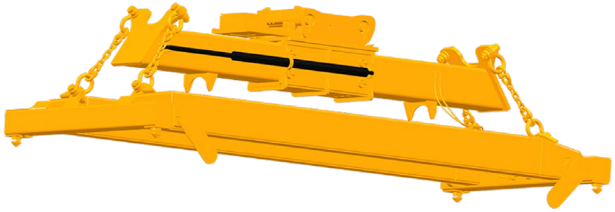
We also offer multiple quick coupler options making changing the attachments easy and safe.

ATTACHMENTS FOR CONTAINER HANDLING



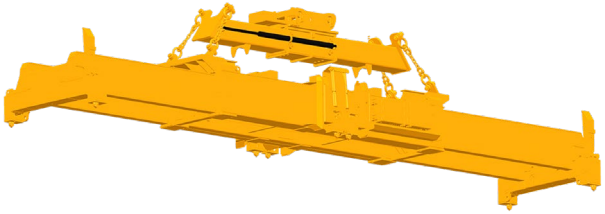
CONTAINER SPREADER TELESCOPIC

Telescopic Spreader for 20' to 40' containers.



CONTAINER SPREADER FIXED LENGTH

Fixed container spreaders for 20' and 40' containers.

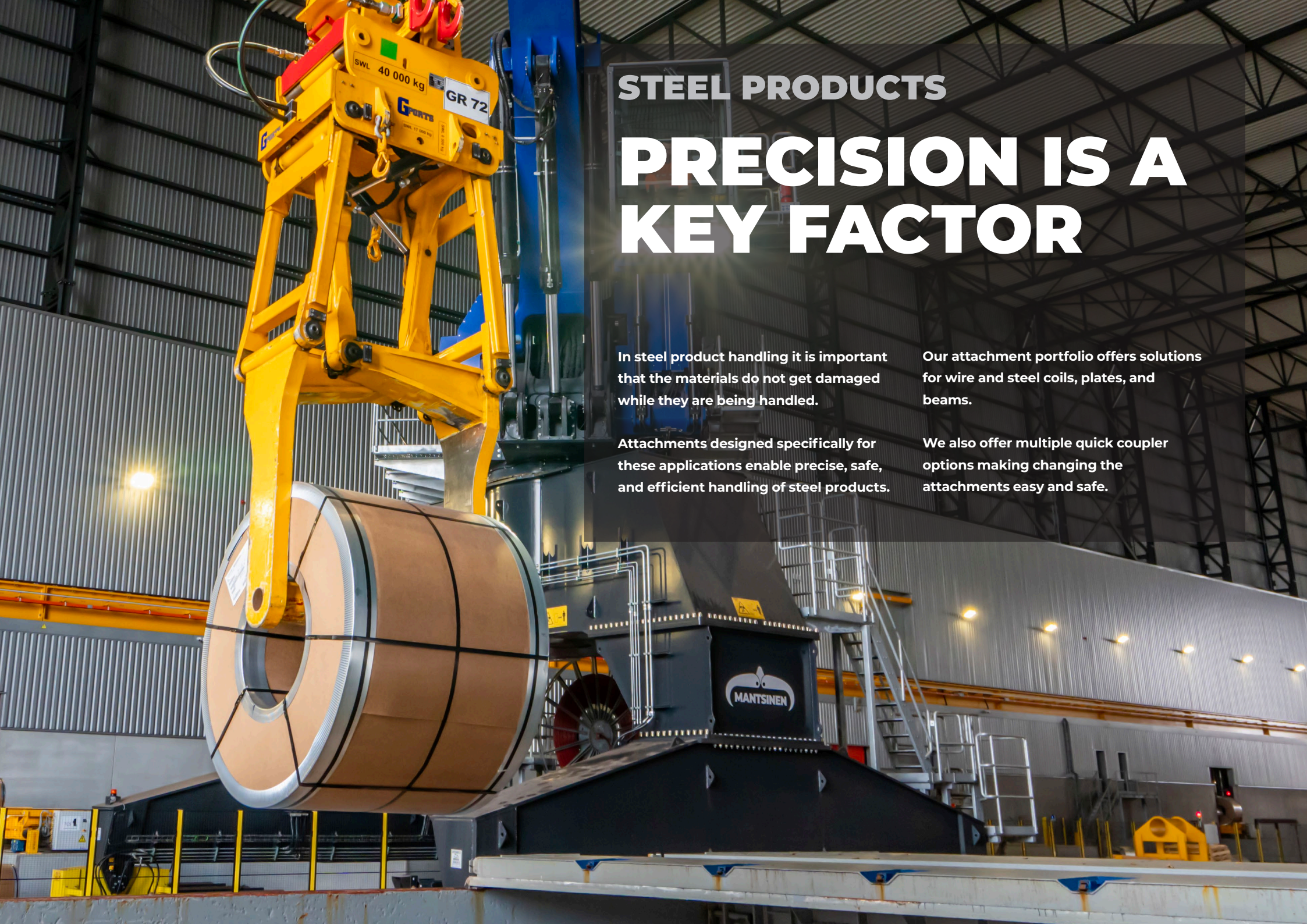


CONTAINER SPREADER TELESCOPIC TWIN LIFT

Telescopic spreader for 20' and 40' containers or two 20' containers.







STEEL PRODUCTS

PRECISION IS A KEY FACTOR

In steel product handling it is important that the materials do not get damaged while they are being handled.

Attachments designed specifically for these applications enable precise, safe, and efficient handling of steel products.

Our attachment portfolio offers solutions for wire and steel coils, plates, and beams.

We also offer multiple quick coupler options making changing the attachments easy and safe.

ATTACHMENTS FOR STEEL PRODUCTS



COIL CLAMP

Suitable for steel coils of different sizes, maximum coil weight 40 metric tons (88,185 LBS). Minimizes the needed lifting space between coils. Coil detection system available as an option.



COIL HOOK

Models for one and two steel coils (Double Coil Hook).



WIRE COIL HOOK

Wire coil hook for steel wire coils. Models for lifting 1-3 wire coils at a time.



BUNDLE SPREADER

Multipurpose Bundle Spreader. Intended for lifting steel bars, steel bundles and other similar products. Six semi-automatic lifting hooks (automatic release). Telescopic frame structure



WOOD PRODUCTS

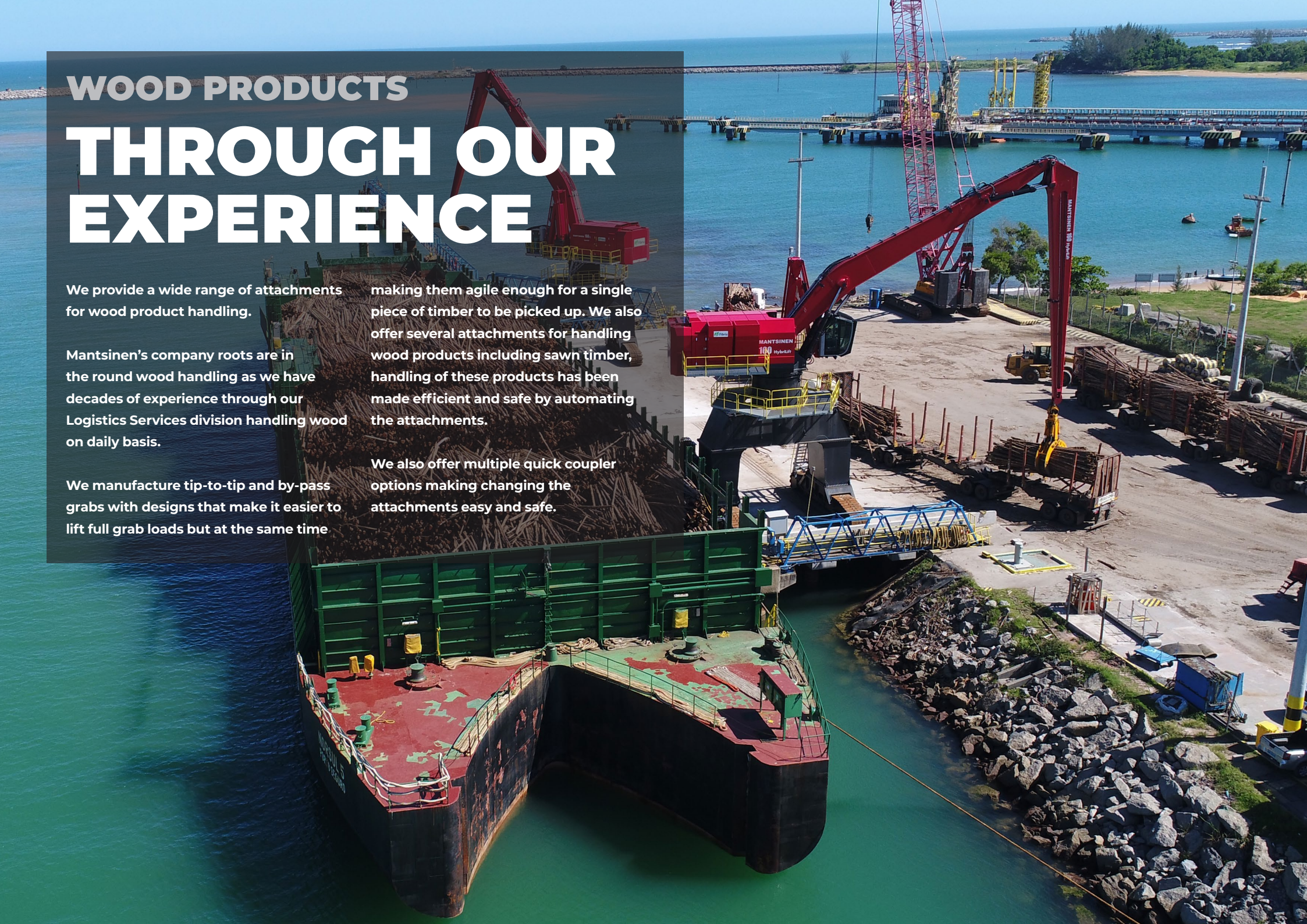
THROUGH OUR EXPERIENCE

We provide a wide range of attachments for wood product handling.

Mantsinen's company roots are in the round wood handling as we have decades of experience through our Logistics Services division handling wood on daily basis.

We manufacture tip-to-tip and by-pass grabs with designs that make it easier to lift full grab loads but at the same time making them agile enough for a single piece of timber to be picked up. We also offer several attachments for handling wood products including sawn timber, handling of these products has been made efficient and safe by automating the attachments.

We also offer multiple quick coupler options making changing the attachments easy and safe.



ATTACHMENTS FOR WOOD HANDLING



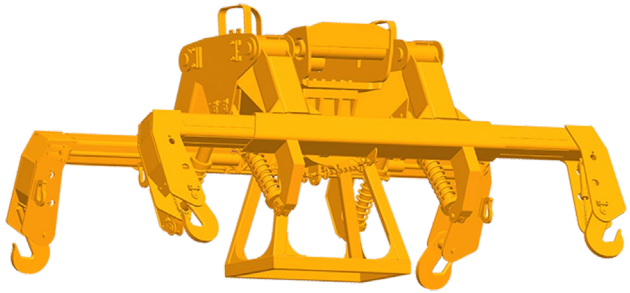
ROUNDWOOD GRAB TIP-TO-TIP

Roundwood grab especially for unloading roundwood from a ship. Standard grab sizes: 1.6 – 4.5 m2 (56.5 – 159 cu feet).



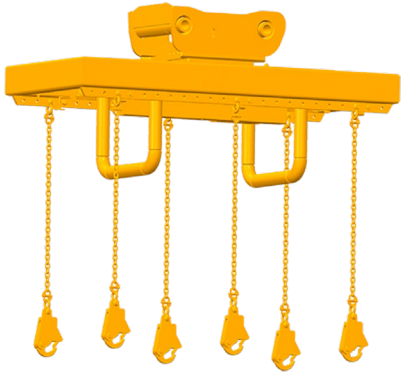
ROUNDWOOD GRAB BY-PASS

Traditional roundwood grab.
Standard grab sizes: 1.2 – 2.6 m2 (42 – 92 cu feet).



SAWN TIMBER SPREADER

Spreader for 2-4 sawn timber bundles. Semi-automatic hydraulic hooks (automatic release). Frame models: fixed length, manually adjustable or hydraulically adjustable.



BAG AND BALE SPREADER

Semi-automatic hooks (automatic releasing). Different hook models for big bags and pulp bales. Lifting capacity: 6-12 big bags or 3-6 packages of pulp bales. Frame models: fixed length and adjustable.



AUTOMATIC PULP BALE SPREADER

Fully automatic pulp spreader. Models for lifting 3-6 packages of pulp bales at a time.

UNIVERSAL CARGO

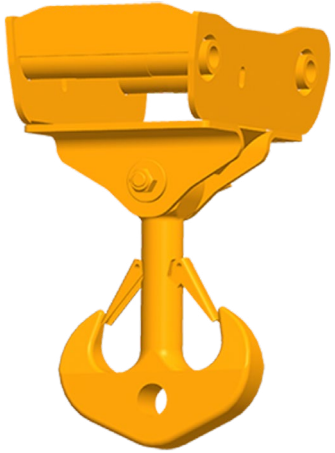
A WIDE RANGE OF ATTACHMENTS

Various lifting hooks and lifting frames are commonly used with material handling machinery. These attachments are used in multiple different lifting applications.

Our offering covers heavy duty lifting hooks and cages making it easy to attach and detach slings.
In addition to these attachments many applications call for spreaders, bale grabs, and pinchers, for example handling big bags, paper rolls, or waste bales. We also offer multiple quick coupler options making changing the attachments easy and safe.



EXAMPLE ATTACHMENTS FOR UNIVERSAL CARGO



LIFTING HOOK

Robust Anchor Hook for heavy lifting.



ROLL PINCER

Roll Pincer for paper rolls.



WASTE BALE GRAB

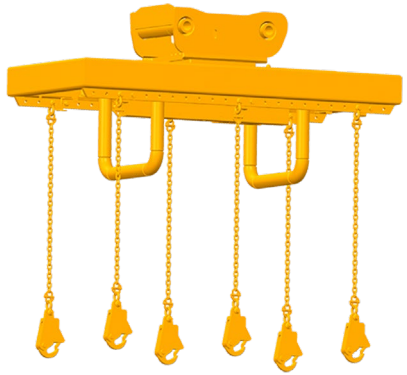
Waste Bale Grab for different sizes of waste bales.



PALLET FORK

Pallet Fork for handling cargo which is loaded on pallets.





BAG AND BALE SPREADER

Semi-automatic hooks (automatic releasing). Different hook models for big bags and bales Lifting capacity: 6-12 big bags. Frame models: fixed length and extendable.

INNOVATIONS & FEATURES

INTELLIGENT SOLUTIONS FOR MATERIAL HANDLING

Mantsinen material handlers and attachments are designed to work seamlessly together.

There are many built-in and additional machine options available that provide intelligent solutions for the operators when used together. The sizing and capacity of the attachments are designed to provide the best possible throughput and machine performance when used together.





AUTOMATIC CLAMSHELL LEVELLING

The automatic clamshell levelling enables the operator to automatically lift the boom and stick while closing the bucket. This minimizes the contact and strain that is applied to the attachment and the bottom of the vessel while unloading materials. The large machines can have boom and stick combinations that weight upto 40 Tons (88,000 LBS), with majority of the weight being applied on top of the attachment. This is why it is important to avoid excessive pressure from the attachment to the ground or bottom of the vessel.

This function has been developed as an intelligent internal feature of the control system, so there is no need for additional hydraulic systems to be installed. This function can be retro fitted on to machines that have been delivered in 2017 or later.

VERTICAL LIFT

The vertical lift assist has been developed especially for container, steel coil, and sawn timber handling. When the assist is active, the main boom movement automatically controls the stick movement and keeps it straight vertically without the operator needing to perform any adjustments optimizing the attachment to be lifted straight up. This feature helps for example with container handling when they are lifted out of tight spots.



HEAVY LIFT FUNCTION

The Heavylift function has been designed to aid with lifting heavy loads that are close to the maximum capacity of the machine. Heavylift enhances the lifting capacity of the machine by approximately 1 to 5 Tons (2,200 to 11,000 LBS) depending on the model of the machine and the reach of the boom. When the function is activated the machine's precision mode is activated at the same time.



LOAD TRACKING INTERFACE

By adding a load tracking interface onto the material handling machine the operator can accurately monitor their flow of materials. All of the Mantsinen material handlers can be equipped with commercially approved scales, and the measurement information can be shared across the customer's systems as well.



CONTAINER SPREADER CONTROL

The container spreader control includes a function to control the spreader beam locks, lights, etc. We offer various attachments for container handling ranging from fixed 20' to adjustable 40' container spreaders.



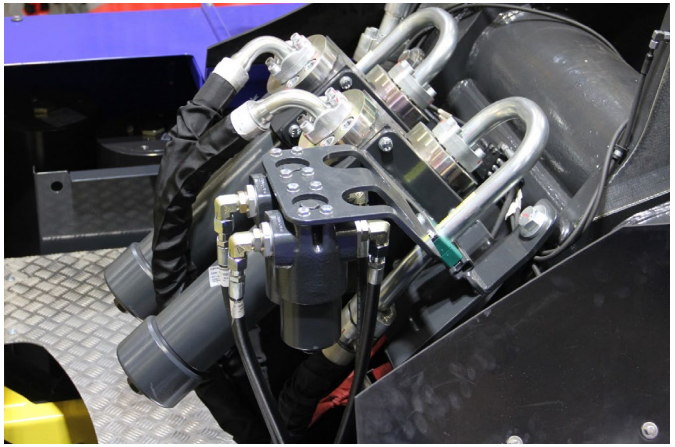
ATTACHMENT SAFETY OPENING

Some attachments and predetermined machine functions require an additional safety feature where the attachment cannot be opened or released in the middle of the work cycle. In some attachments this is a standard feature, such as the container spreaders and the steel coil clamps.



DUST SUPPRESSION

Dust suppression is an extremely useful function and it is used in applications where fine particles or dust are present, for example scrap handling. The dust suppression function sprays a mist of water during the operation of the grab and prevents the dust from coming out of the materials. This function can be adjusted in multiple ways to accomodate various material handling needs.



ATTACHMENT LINE FILTERING

The attachments are under a lot of stress in demanding applications. In case a cylinder on the attachment fails the damage that it can cause will be extensive and the downtime can potentially be long. Additional attachment hydraulic line filters prevent small particles from flowing back into the machine's hydraulic control system.

THE STRONGEST LINK IN THE GLOBAL LOGISTICS CHAIN

Mantsinen provides more efficiency, speed and capacity for our customers in global logistics chain, operating with heavy and basic industry raw materials and semi-finished products. We are the frontrunner in material handling.

MANTSINEN GROUP LTD OY

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Edition: 10/2022 EN
Printing material: UPM Finesse silk
Producer: UPM