

#### **Safety Boom Lift**

Grab automatically lifts as it closes, protecting ship hulls, port surfaces, equipment and the grab itself

#### **Bio oil**

for extended oil change intervals, with safe environmental compatibility

## SENtrack

Maintain fleet management safety by monitoring the condition of your machines

# Powerful LED spotlights

for optimal illumination of the work area



## Load moment limitation

Protection of equipment by switching off in the event of an impermissible load

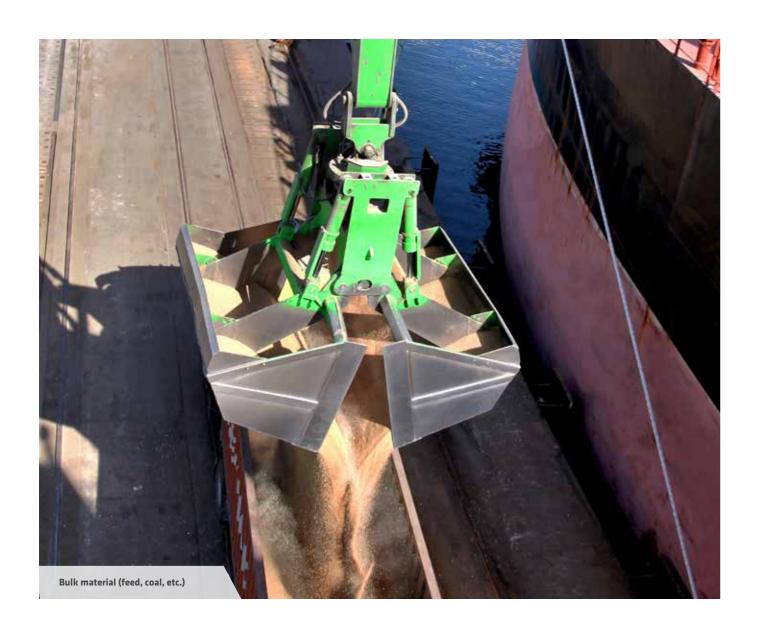


for climbing equipment during boom maintenance



# **EXPERIENCE VARIETY**FOR EVERY TYPE OF MATERIAL

The entire range of handling technology can be flexibly operated using the quick change system on the stick and the SENNEBOGEN material handlers' powerful hydraulics. Whether in the port, scrap yard or sawmill, you can easily switch between different grab applications.









## QUICK AND EASY GRAB CHANGE

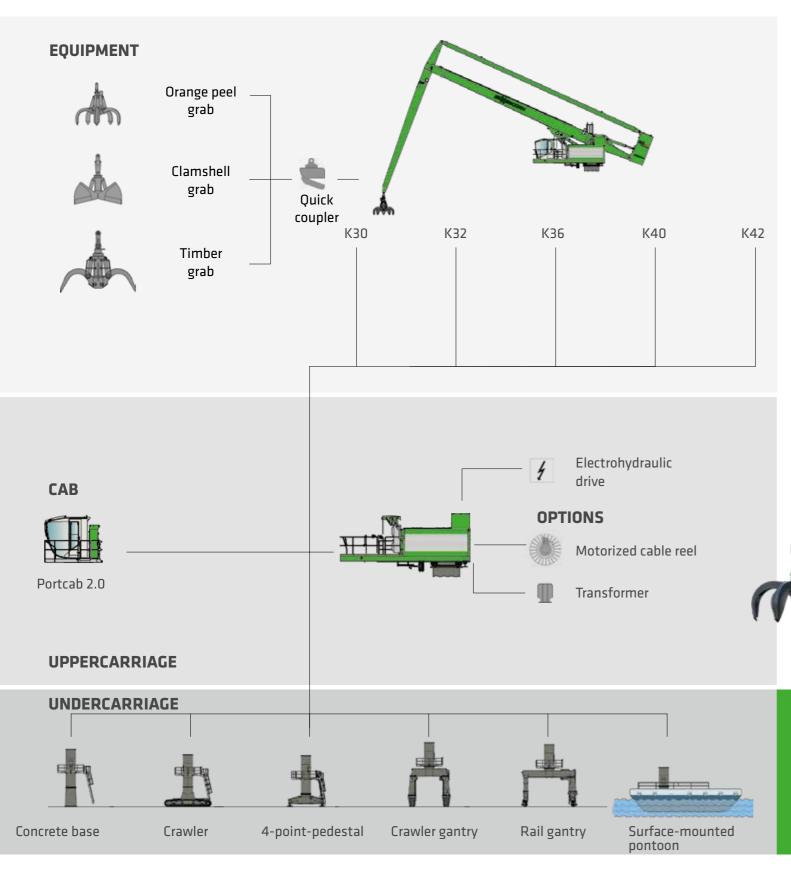


Watch the video to see how quick and easy it is to change the grab with the quick change system on the stick!

www.sennebogen.com/quick-coupler



### A MODULAR DESIGN. **NUMEROUS APPLICATIONS.**



## WHAT DOES YOUR MACHINE LOOK LIKE?

Configure your individual machine from our modular system. The great variety of solutions that we can implement in this way is unique anywhere in the world.

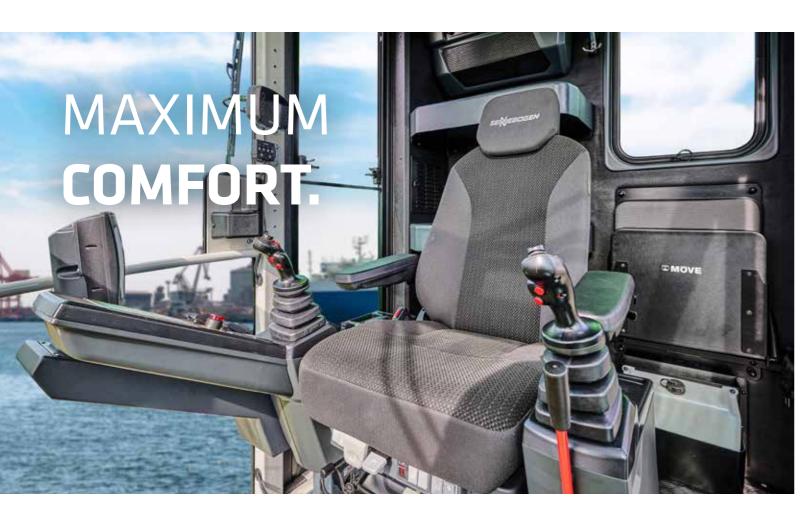
**EQ** BALANCER



#### **CUSTOM CONFIGURATION**

More than 16,000 unique material handling solutions can be delivered through SENNEBOGEN's modular machine design - watch the video now!

www.sennebogen.com/versatility



#### Everything in view

The spacious cab with panoramic view gives you a practical overview of your work area. The window in the floor makes it possible to carry out precise loading operations even in close proximity. The safety cameras provide support and allow you to monitor the critical areas conveniently via the monitoring system in the cab.

#### Pleasant indoor climate

Whether in warmer areas or in ports with sub-zero temperatures, you can enter a work space with a comfortable temperature every day and concentrate on the essentials of work thanks to pleasant heating and air conditioning.

#### Easy control

The intelligent SENCON control system gives you quick and easy feedback on the machine's condition. Thanks to the intuitive user interface, it has never been easier to monitor energy consumption and utilization, control the desired working modes and contribute towards reducing operating costs.

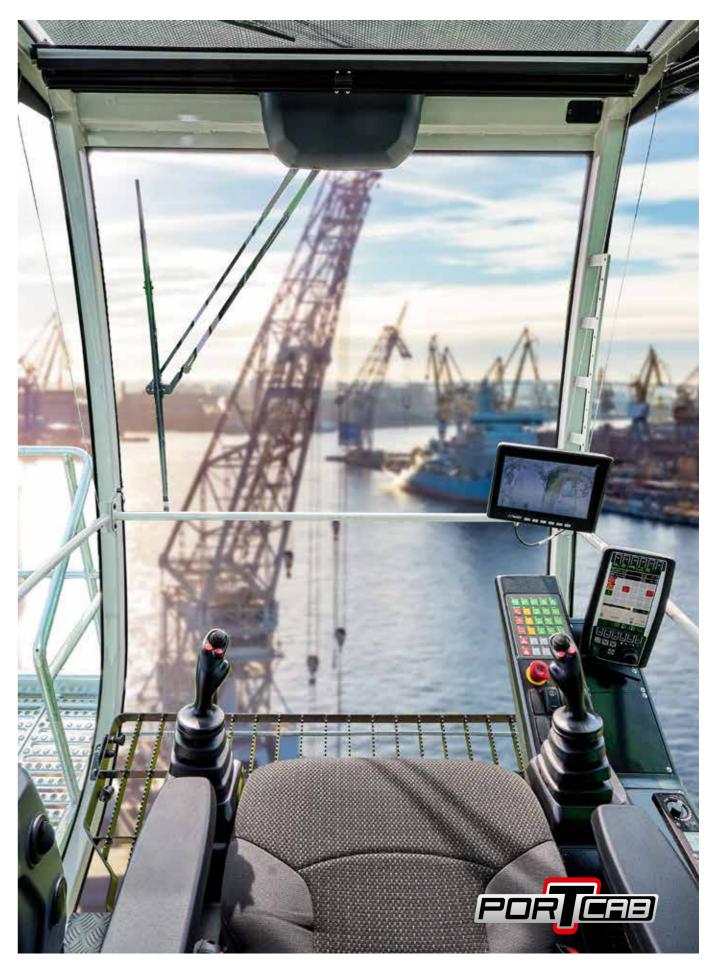
#### For your health

Operators spend many hours in their working position. The back-friendly comfort seat, adjustable armrests, joysticks that sit comfortably in the hand, and the optimally arranged controls make daily work as easy as possible.

"We welcome regular feedback from operators to ensure the work space is configured perfectly."

ROBERT AUMÜLLER, Head of the Port Business Unit







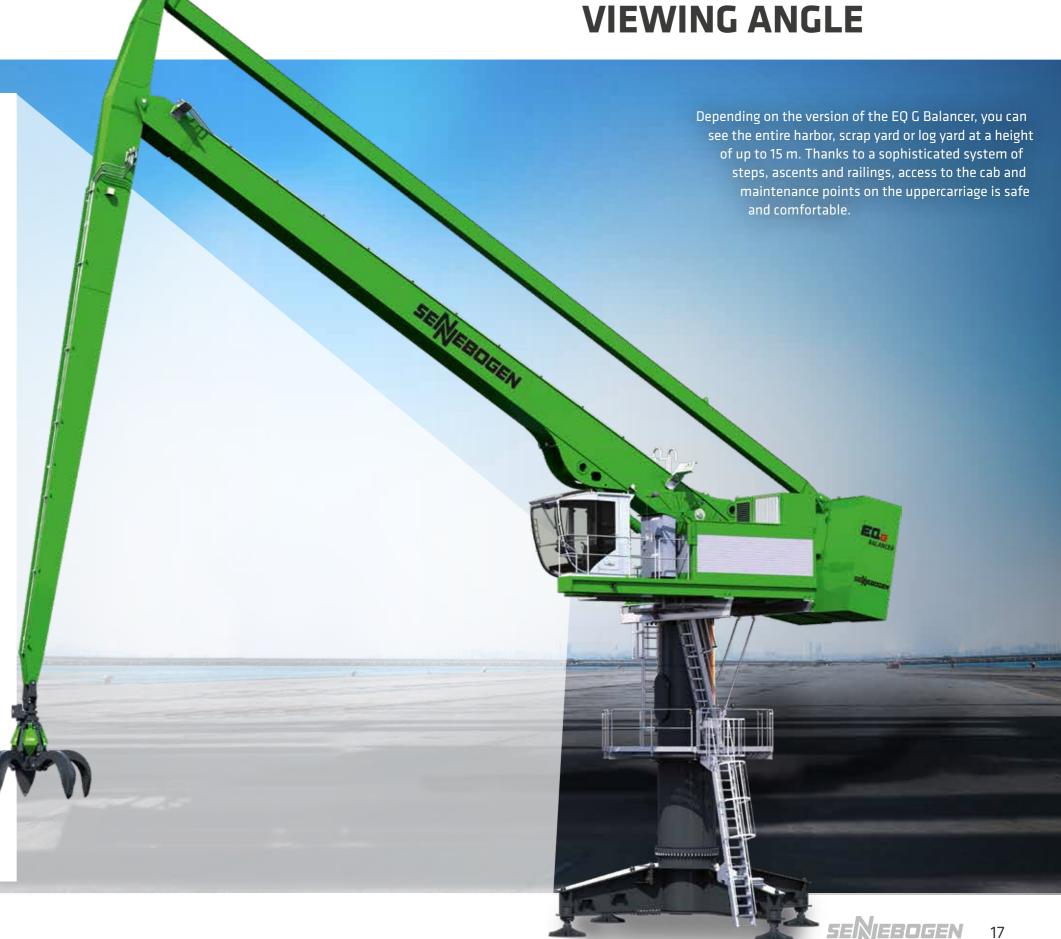
### **CAB** HIGHLIGHTS



The large capacity cab for the best all-round view of the port

IN SERIES	POR <b>T</b> CEE
ENTRANCE	Easy access through wide cab door
OPERATOR'S SEAT	Air-suspended, with lumbar support, headrest and numerous settings for optimal ergonomics, heated
ARM RESTS AND FOOT SUPPORTS	Easy to adjust to suit each user
WINDSHIELD	Generous windshield, tinted double glazing for safety windows
FLOOR WINDOW	Large floor window made of safety glass for the best view into the hull
WIPERS	Parallelogram windshield wipers for harsh weather conditions
	Wipers for skylight
AIR CONDITIONER	Heating/air conditioning system with fresh air and recirculating air filter
LARGE 10.2" MONITOR	Camera-supported monitoring of the danger zone (rear, right)
FOLDAWAY SEAT	Additional trainer's seat with seat belt
RADIO PREPARATION	✓
SENCON CONTROL AND DIAGNOSTIC SYSTEM	✓
OPTIONS	
AIR-CONDITIONED SEAT	✓
RADIO	✓
COOLING BOX FOR FOOD AND DRINKS	<b>√</b>
LOUD SPEAKER SYSTEM	<b>✓</b>
SUN PROTECTION PACKAGE	✓







#### ✓ 1. Reduce service costs

The dashboard is used to monitor the machine and its main operating parameters (temperatures, consumption). If key figures deviate significantly from the target value, the user is informed immediately.

#### 2. Reduce consumption

You will receive daily updated insights into your fleet processes: Easily identify and optimize times when machines are idle or change set parameters when machines are underloaded to reduce consumption.

"What if you could receive real-time data from all your machines with just one click and so increase your productivity? SENNEBOGEN's SENtrack telematic system makes this possible."

#### 3. Improve productivity

With just a few clicks, you can identify and optimize machine capacity, analyze routes if required and thus make your processes more profitable.

#### 4. Safeguard your investment

Practical alarm messages inform you about critical machine conditions. In the event of irregular movements, the machine can also easily be deactivated remotely.





#### KEEP IT SIMPLE. WITH MANAGEABLE TECHNOLOGY.



Reliable and practical technology makes life easier. We rely on hydraulics, electrics and electronics only where they provide the greatest benefit.



We make you happy, not reliant. With cost-effective components and fewer process steps, you can take care of your own machine.



The central electrical distributors and electronic modules facilitate maintenance and service, and are protected against environmental influences thanks to the large-scale e-hox



The SENCON control system supports you with diagnostics and makes troubleshooting easier. So your machine is back in action more quickly.



All maintenance and service points are clearly arranged and easily accessible. The clear labeling of components makes finding your way around easy.



#### **TECHNICAL DATA, EQUIPMENT**

#### MACHINE TYPE

MODEL (TYPE) EQ G Balancer

# TYPE up to 315 kW, standard with 400 V / 50 Hz OPTIONS Transformer Cable reel

TANK CAPACITIES	
HYDRAULIC TANK	900
CENTRAL LUBRICATION SYSTEM	Automatic central lubrication for equipment and slewing ring, display of fault and empty message via SENCON

# DESIGN Torsion-resistant box design, precision crafted, steel bushings for boom mounting, very service-friendly design with walk-in powerpack, folding maintenance roof and engine installed in the longitudinal direction COOLING Cooling system with demand-driven fan control, hydraulic oil cooling, hydraulically driven, thermostatically controlled nowe

	SYSTEM	driven, thermostatically controlled incl. far reversal; thermostatically controlled powe pack ventilation (overpressure system)
	OPTIONS	LED lighting package
		Swing bearing brake via foot pedal
		Fire extinguisher
		Maritime climate paint
		Low temperature packages
		Electrical hydraulic tank preheating
		Magnet generator 20/25 kW

HYDRAULIC SYSTEM			
_	oad-sensing/ LDUV hydraulic system, electronically operated work functions		
DELIVERY RATE	up to 2 x 390 I/min		
OPERATING PRESSURE	up to 340 bar		
CONTROL SYSTEM	Proportional, precision electrical control of work movements, 2 joysticks for work functions, additional functions via switches and foot pedals		
SAFETY	Hydraulic circuits safeguarded with safety valves		
	Pipe fracture safety devices		
	Load torque warning with capacity display		
	Emergency lowering of the equipment in case of engine standstill		
OPTIONS	Overload safeguard with shutdown		
	Tool control for programming pressure/ rate of up to 10 tools		
	Bio-oil filling		

SLEWING DRIVE	
GEARBOX	Planetary gear with bent-axis hydraulic engine, integrated brake valves
PARKING BRAKE	Spring-loaded multi-disk brake
SLEWING RING	Externally toothed, with pinion lubrication
SLEWING SPEED	0-2.5 rpm, variable

#### **HEAVY DUTY MODE**

Heavy-lift system as standard equipment

#### **TECHNICAL DATA, EQUIPMENT**

CAB	PORTER
CAB TYPE	Portcab 2.0
CAB FEATURES	SENNEBOGEN Portcab 2.0 - large port cab with excellent all-round visibility, large full-view windshield without obstruction of vision, extremely powerful heating/air conditioning system with 14 adjustable air jets
	Air-suspended comfort seat, seat belt, additional trainer's seat, control elements in accordance with the latest ergonomic standards, control and diagnostic system SENCON
OPTIONS	Polycarbonate windshield
	Safety side window and rear window
	Polycarbonate safety glass
	Wipers for right side window
	Sunblinds on the side windows
	Loudspeaker system with swan neck microphone
	Radio
	Cooling box
	Sun protection for side windows

#### CRAWLER

Crawler undercarriage with hydraulic travel drive on each chassis side integrated in the chassis frame by an axial piston engine via compact planetary gears, spring-loaded parking brake, hydraulically ventilated multi-disk brake

TRAVEL SPEED 0 - 1.3 km/h

#### 4-POINT-PEDESTAL

Robust 4-point-pedestal for maximum stability and work safety for stationary work, e.g. when loading scrap shears

#### RAIL GANTRY

Custom-manufactured rail undercarriage, dimensions according to customer requirements. With rail sweep, bumper, storm lock, travel alarm and end position switch-off

EQUIPMENT	
REACH	up to 42 m
CYLINDERS	Hydraulic cylinders with high-quality sealing and guide elements, end position damping, sealed bearing points, bearing points with high-quality bronze bushes, automatic central lubrication
OPTIONS	Safety Boom Lift for equipment
	additional LED lighting
	Stick mounted camera

#### **OPERATING DATA**



OPERATING WEIGHT

#### from 117 t to 370 t

depending on machine type, equipment length, undercarriage version, pylon and attachment.



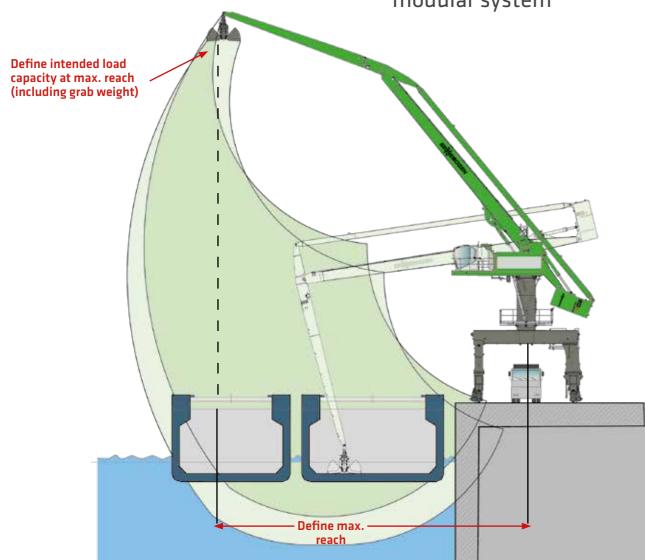




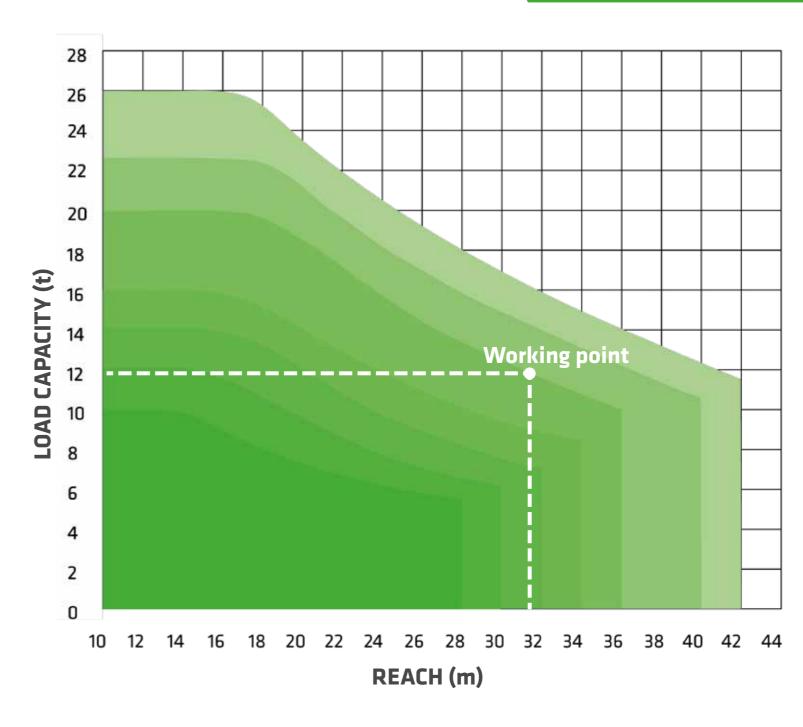


# HOW DO I FIND THE RIGHT BALANCER FOR MY APPLICATION?

Together with you, we develop the optimum configuration from our modular system



Performance curves of the EQ G Balancer range



The right solution for every application: If your working point is within the green area, we can design an EQ G Balancer that is perfectly tailored to your needs.



# WIDE RANGE OF SOLUTIONS FOR SCRAP YARDS, SAWMILLS & PORTS



#### AT THE SCRAP YARD

- One machine for a wide range of tasks: Loading/unloading, sorting, shear loading
- 1 balancer replaces up to 3 other material handlers
- Space-saving solution: Raised and positioned with pylon extension, storage spaces can be conveniently arranged around and below the machine



#### **WOOD INDUSTRY**

- Can also be used in environmentally critical areas thanks to emission-free electric drives
- Covers enormous ranges: ideal for larger industrial plants or log yards







#### **LARGE WORKING AREAS, LOW OPERATING COSTS**

Thanks to the enormous range of up to 42 m equipment length, you can optimize your logistics processes, whether in the scrap yard, sawmill or port. Thanks to its high handling rates and robust design, coupled with the efficiency of the electric drive, you save money in your daily operations. Combined with the EQ Balance principle, you can significantly reduce your operating costs by up to 75% compared to similar diesel-powered material handlers.

Throughout the entire life cycle, you benefit from a long service life, less maintenance and inexpensive spare parts directly from the manufacturer.





#### PORT APPLICATIONS

- A wide range of applications
- Bulk material handling up to the Panamax class
- Transshipment solutions

Covers huge work areas

With a crawler or rail undercarriage, the EQ Balancer becomes mobile and extends its working range conveniently along the travel path

#### Sample calculation:

40 m range

100 m travel path on the quay

=> 13,000 m<sup>2</sup> of effectively used space





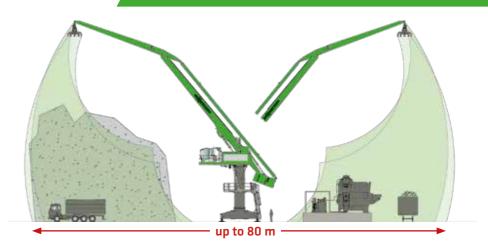


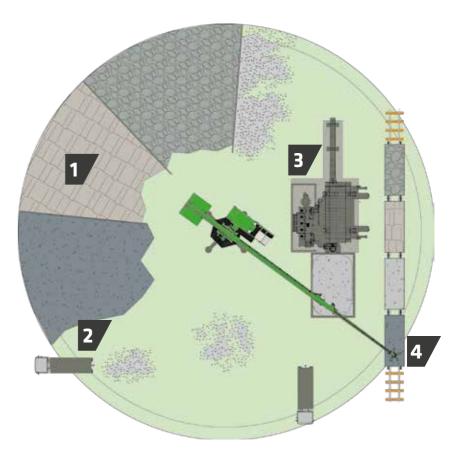


# KEY PLAYER ON SCRAP YARDS

The EQ Balancer is at the heart of your scrap yard: it unloads delivering trucks with just a few grab loads, places the material precisely in the storage areas and feeds the press or shears that shred the material. Its electric motor makes it ideal for timecritical process steps: always ready to use, fewer maintenance stops, easy to handle.

# Cover up to 5030 m<sup>2</sup> of work area!



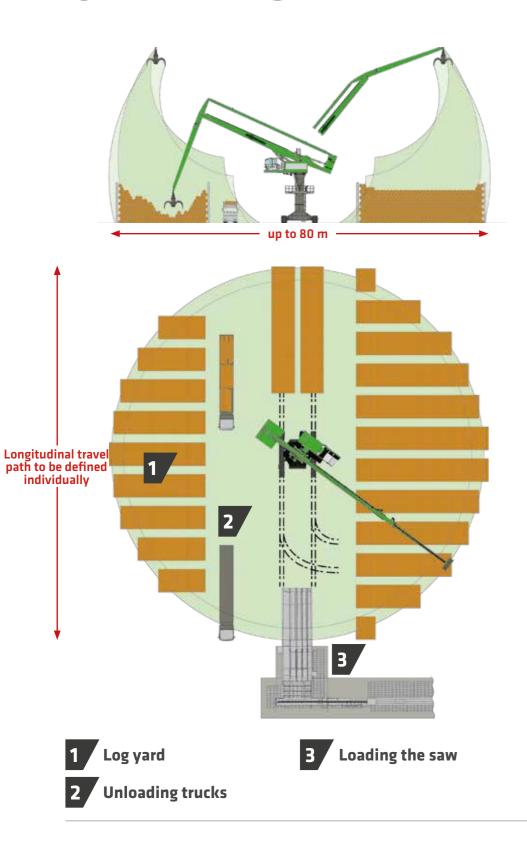


- 1 Storage areas
- 2 Unloading trucks
- 3 Loading the press
- 4 Loading/unloading the wagon



# **HEART** OF THE SAWMILL

**Storage space logistics** with just one machine!

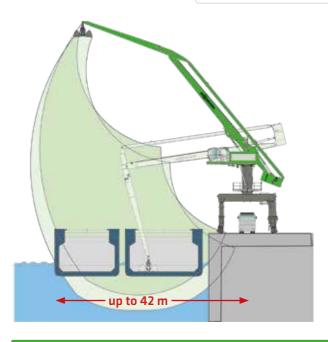




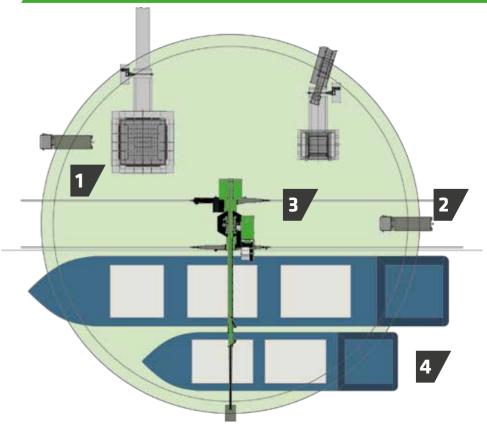


# ANCHOR POINT OF THE PORT





Wide range, extensive applications: Ship-to-ship cargo loading, hopper or ship loading



- 1 Conveyor system
- 2 Truck loading
- 3 Rails
- 4 Transshipment solution





#### **SENNEBOGEN ACADEMY**

Increase your knowledge because success is based on knowledge. In the SENNEBOGEN ACADEMY we place great importance on ensuring it flows powerfully.

www.sennebogen-academy.com



#### **SERVICE AND MAINTENANCE**

Comprehensive customer service. And supply of spare parts. Service is a TOP priority for us.

www.sennebogen.com/customer-service



#### **SENtrack**

Efficient fleet management with SENtrack: Use information that would otherwise stay hidden and increase your efficiency.

www.sennebogen.com/sentrack



#### **RENTAL & USED**

Discover the unique range of rental machines available from SENNEBOGEN Rental & Used. Find your rental machine here:

www.sennebogen-rental-used.com

#### **JOIN OUR OPERATORS' CLUB**

The spotlight is on you and your machine! We focus on exclusive information, sharing experiences with other SENNEBOGEN operators as well as fun and enthusiasm.

All benefits here www.sennebogen.com/operators-club



# **MOVE BIG** THINGS -WITH US!



years of experience

100%

family company

over **2200** 

experienced specialists worldwide

production plants in Germany

over 180

sales and service partners worldwide

different material handlers



Telehandler 4-5.5 t

Balancer 130-300 t Material handler 17-420 t

**Duty cycle crane** 13.5-300 t

Crawler crane 50-300 t

Telescopic crane 16-130 t

300 t

Port crane



This catalog describes machine models, the scope of equipment of individual models, and configuration options (standard equipment and optional equipment) of the machines delivered by SENNEBOGEN Maschinenfabrik GmbH. Machine illustrations may contain optional and supplementary equipment. Actual equipment may vary depending on the country to which the machines are delivered, especially in regard to standard and optional equipment. All product designations used may be trademarks of SENNEBOGEN Maschinenfabrik GmbH or other supplying companies, and any use by third parties for their own purposes may violate the rights of the owners.

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