

A decorative graphic at the bottom of the page. It features a blue background with a repeating pattern of the text "cactus grab | quick release link | rope pear socket | scissors grab | clamshell grab | trimming grab" in a light blue, sans-serif font. Overlaid on this background are two large, white, stylized triangles that point towards each other, creating a central white space.



## **nemag handles your bulk**

For many years now, Nemag is the preferred partner for the handling of dry bulk materials. Whether it is the handling of coal and iron ore or the loading and unloading of grain, animal feed, scrap metal, minerals, biomass or other bulk goods. Nemag ensures that you can work as efficiently as possible. All our products are made in close consultation to meet our clients' demand. That is why our grabs have such a strong reputation around the world.



### Efficient bulk handling

Nemag was established in 1924, when it started repairing ships and grabs in the Rotterdam harbour. Since 1980, Nemag products find their way from a well-equipped manufacturing site in Zierikzee to leading companies around the world. Skilled and dedicated employees design and manufacture our products, using state-of-the-art technology and the finest materials. Quality products with perfect performance at the lowest possible cost per ton of cargo handled. Nemag products last longer, require little

maintenance and rarely malfunction. Many large dry bulk handling companies confirm this on a daily basis.

### Development and innovation

Nemag spends a lot of time on research and development. Together with our customers, research institutes and universities, we continuously work on technological improvements and refinements. We investigate new materials, experiment with new types of grabs to increase efficiency for unloading cargo and to lowering the

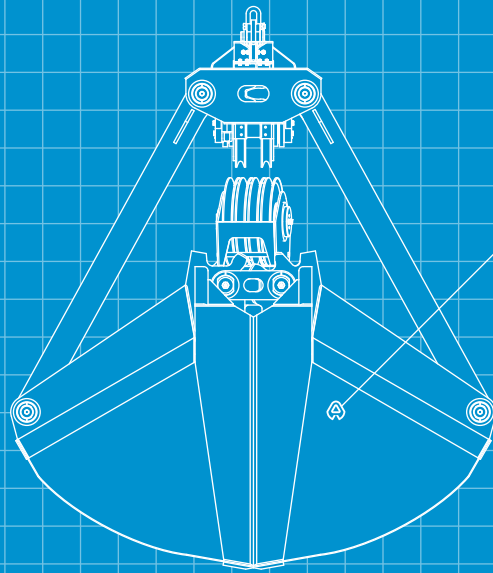
costs per transhipped ton. Furthermore, we are always looking for ways to meet the increasingly strict environmental regulations. This way, we help our clients to fulfil their responsibility toward the environment.



## the clamshell grab

Under all circumstances, Nemag guarantees a high level of productivity, long life span and low costs for maintenance for handling bulk materials. For a reliable and fast handling of many different bulk goods, Nemag developed the Clamshell grab. This grab enables you to ship practically every kind of bulk material, as long as it isn't too coarse: coal, ore, minerals, biomass, concentrates, fertilizer, bauxite and phosphates.





## specifications

**Lifting capacity** 20 - 85 tons Safe Working Load

**Volume** over 60 m<sup>3</sup> (coal)

**Bulk goods** coal, iron ore, minerals, bauxite, fertilizer, grain, cattle feed, biomass and white bulk

**Shell** can be open, half closed or closed for environmental-friendly shells

**Grab opening in relation to the crane** can be longitudinal, transversal and diagonal opening



The Nemag Clamshell grabs stand out thanks to their excellent digging and filling capabilities and extremely fast emptying capabilities. Especially during the free digging phase of unloading, the Nemag Clamshell grab performs extremely favourably. With its extremely efficient design, the Clamshell grab combines a favourable distribution of forces in the construction with the advantages of easy operation. The Nemag Clamshell grab is very lightweight, making it highly productive.

In order to be able to process many different kinds of material, the Clamshell Grabs are available with every possible kind of opening direction and with diverse rope positions: longitudinal, transversal and diagonally in relation to the crane. At Nemag, we listen to client's requirements and will make our products to meet your needs. To combat the emission of dust, the Clamshell grab

can also be fitted with closed shells. In addition, we ensure that the lip plate type is suitable for the nature of the material.

### Material

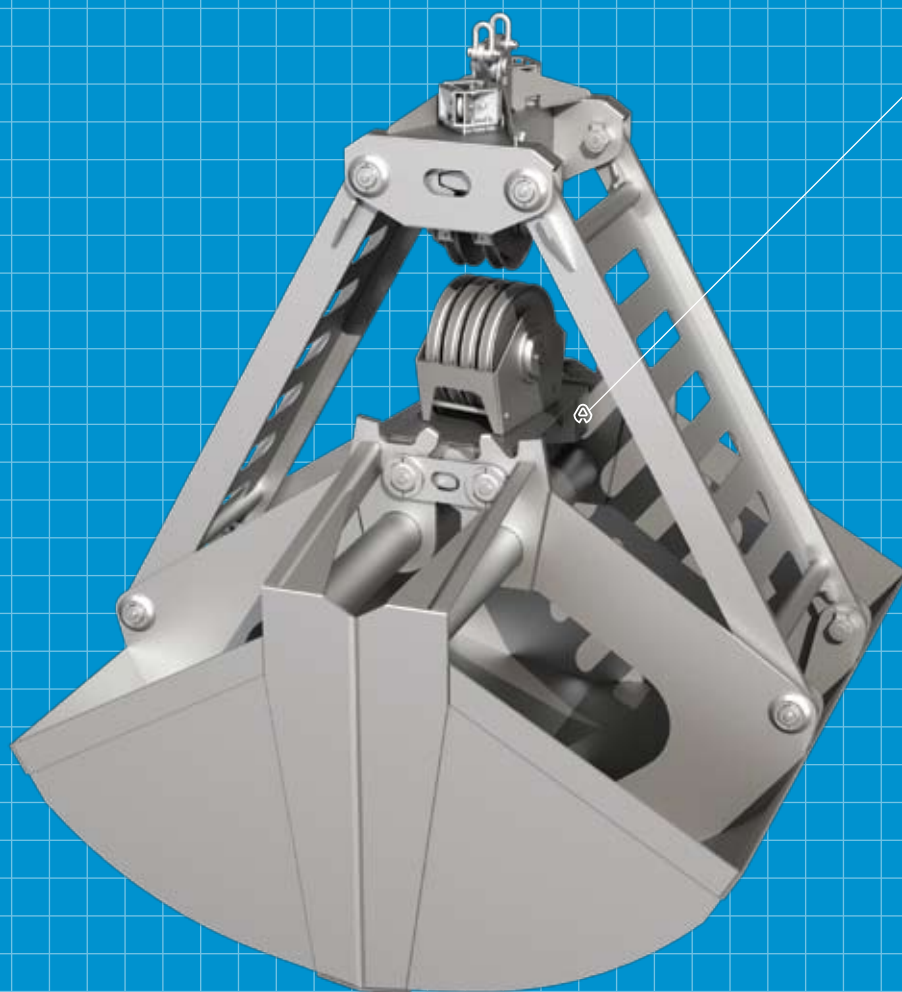
The grabs are manufactured from the highest possible quality steels, such as Dillidur 400, Hardox 400, Dillimax 690 and Weldox 700 or equally renowned brands. The clamshell grab's closing rope guide can be equipped with low friction cable guides, which guarantee a long life span of the closing cables. Standard equipped with low friction pivots, which combine a high lifting power with light and low friction opening and closing of the grab. At your request, we can offer central lubrication.

### Characteristics and advantages

The Clamshell grab is available for lifting capacities of over 85 tons and volumes of over 60 m<sup>3</sup>. Practically every kind of bulk material can be handled providing it

is not too coarse. The shells are available in open, half closed and closed versions and with every kind of possible opening direction and with diverse cable patterns. The robust design of the Clamshell grab is manufactured with high-tensile steel. It is lightweight, with excellent filling and digging and fast emptying capabilities. Its also is equipped with excellent cable guides.

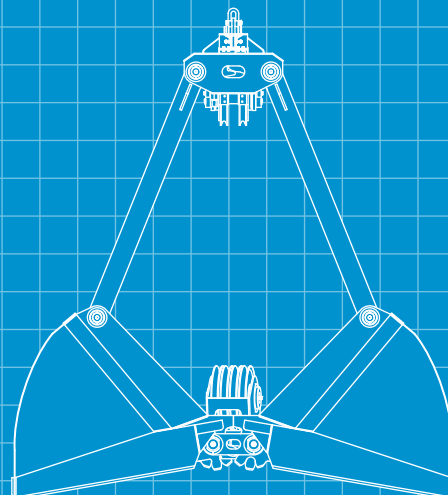
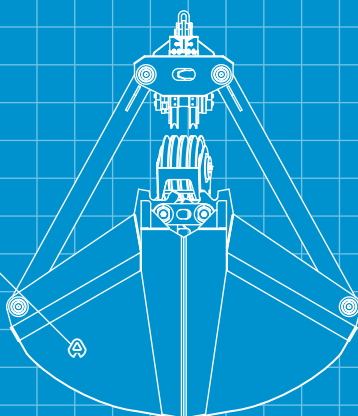
# the clamshell grab



## characteristics

- Balanced design
- Shell type open, half closed or closed
- Very stable shell construction
- Optimal symmetrical closing because of tooth segments
- Low-friction cable guide with guide wheels for extremely long life span of the closing cable
- Round knife edges to avoid damage to ship
- Shells manufactured out of wear resistant steel
- Arms manufactured out of high tensile steel
- Light running pivot points
- Cylinder bearings in the sheaves
- Special lip plate types on demand
- Central lubrication on demand

- Shell type open, half closed or closed
- Special lip plates types on demand
- Central lubrication on demand





## the added value of the clamshell grab

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High free digging productivity

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Lightweight

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Specifically suited for handling powdery and dusty material

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Long life span of closing cables

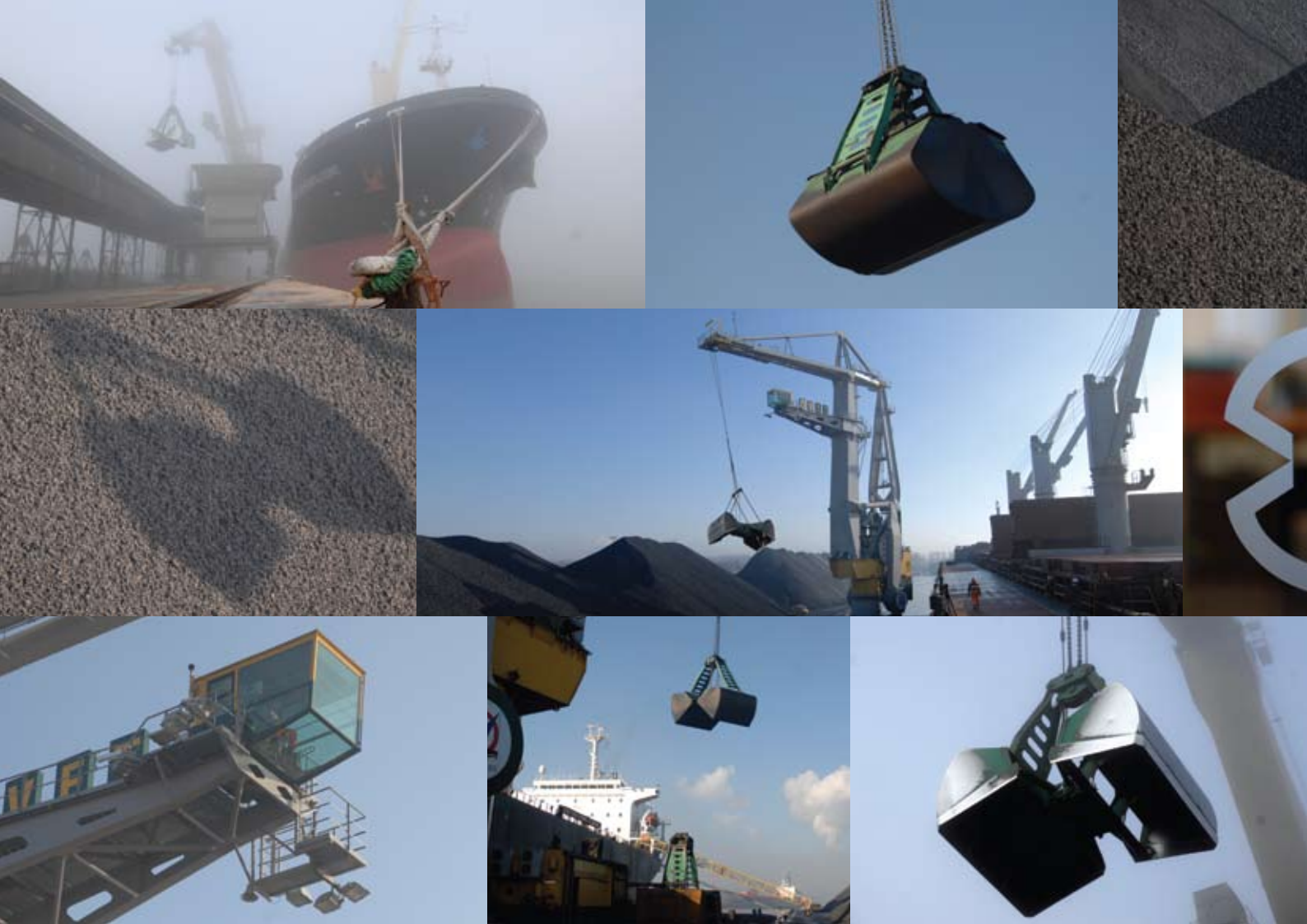
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Minimal maintenance costs per ton of handled material

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Environmental-friendly design

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## references

For years now, Nemag's customers includes many leading companies. Companies that, just like us, stand for quality and reliability. We are proud of this.

We are not only proud of this, but it supports us in our conviction that innovation and quality lead to satisfied customers and therefore to an important market share. Our customers choose products that perform well and reliable, have a long life expectancy and require little or no maintenance. In summary, clients opt for Nemag as their partner, resulting in both parties benefiting from

each other's knowledge and experience and reaching optimal results when processing bulk goods. Our products continue to be developed in order to ensure the best handling of bulk materials.

A few of the leading companies, some of which have chosen for Nemag's advice and products for many years now are:

- EBHI
- Tata Steel
- EMO
- Sea Invest
- Konecranes
- ThyssenKrupp
- Arcelor Mittal
- EBS
- Endesa
- OBA
- Vale
- EECV
- Oldendorff
- Sandvik

**EBHI**

**TATA STEEL**

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ThyssenKrupp Steel



**ArcelorMittal**





## quick release link and rope pear socket

The Nemag Quick-Release Link and the Rope Pear Socket form a strong and reliable connection between the steel wire ropes of the crane and the grab. This connection can be disconnected by one man in a matter of seconds. Both products can easily be used with every type of crane and every type of grab.

### Nemag Quick-Release Link<sup>1</sup>

The Quick-Release Link is used worldwide in all our grabs and also in those of other brands.

It is an easy, quick and safe connection in which the locking piece can be removed using a simple key.

The inside of the C-section are tempered, increasing the life-expectancy of the Quick-Release Link considerably.

The construction of the locking piece ensures a reliable and safe operation.

The locking piece can be exchanged with others.

The ingenious closing mechanism guarantees optimal safety.

### Nemag Rope Pear Socket<sup>2</sup>

The Rope Pear Socket is designed specifically so that it can pass the pulleys without difficulty, whether it is used with the Nemag Quick-Release Link or not.

The life expectancy of the Rope Pear Socket often exceeds that of the steel wire ropes.



1. Nemag Quick-Release Link



2. Nemag Rope Pear Socket

**nemag** 

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