

Mechanical 4 Ropes Orange-Peel Grab



Since 1969, Negrini has developed a range of buckets optimised for handling commonly transported bulk materials. The purpose of a bucket is to handle large volumes of bulk material quickly and efficiently. A good design combined with the use of high wear-resistant steel and an excellent pulley system, allows the design and construction of very strong buckets with relatively low deadweight and high production capacities. The blades of all buckets are made of Hardox (or similar) wear-resistant steel to improve strength and extend life. Minimal maintenance can also be carried out by non-expert personnel, greasing and periodic inspection of the structures (pins, bushings, welds, etc...). The equipment has been designed for heavy-duty use in presence of dust, sand and dirt with hot and harsh temperatures. Installation is simple on all Liebherr ropeway machines or port cranes like Konecrane, Italgru, Gothenburg, etc.

Our standard production ranges from buckets with a capacity of 1 m³ up to buckets with a capacity of 40 m³ and can be divided into 3 categories:

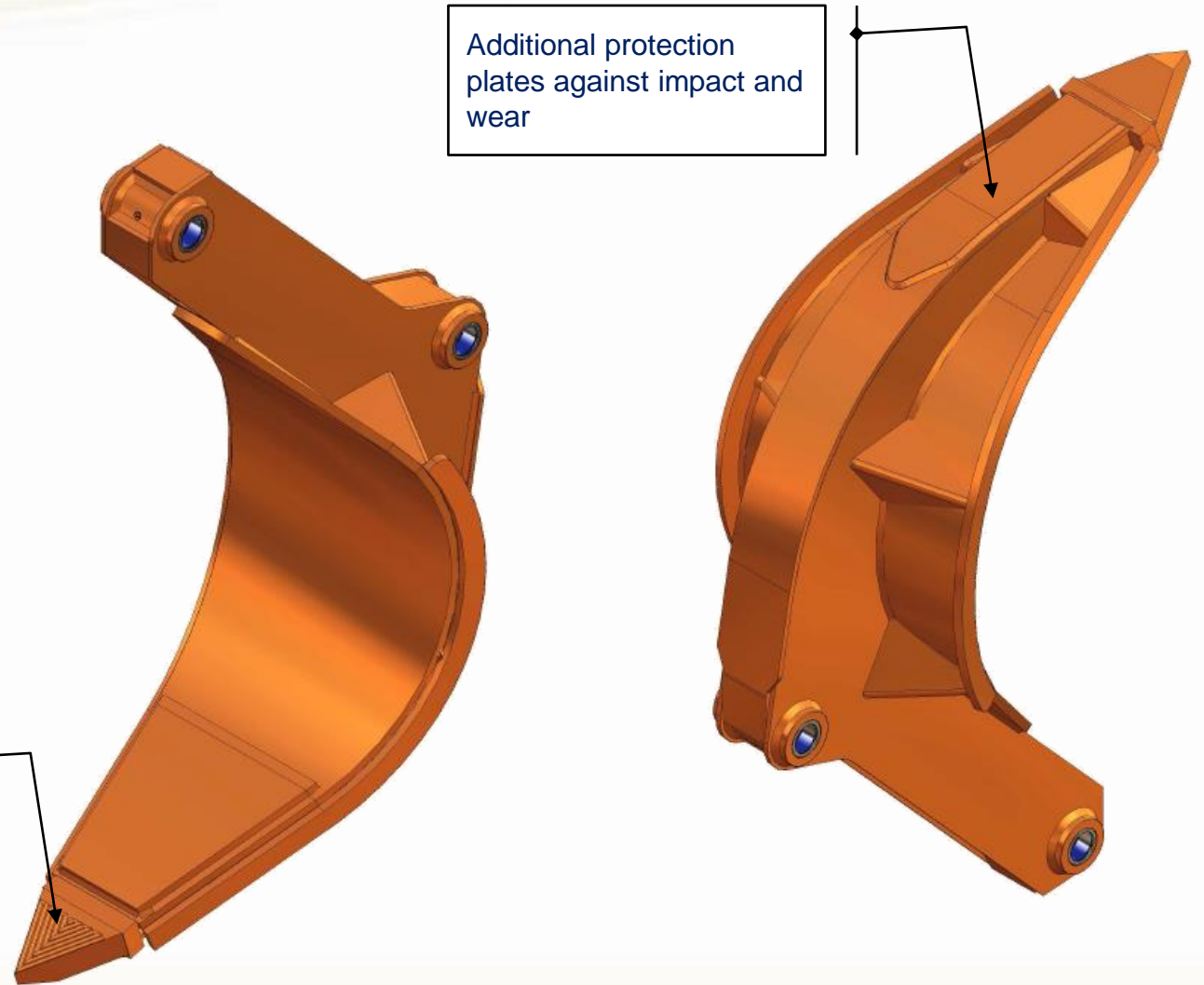
- LM (Light Material), materials with density 1.0 ton/m³
- GP (General Purpose), materials with density 1.6 ton/m³
- HD (Heavy Duty), materials with density 2.6 ton/m³

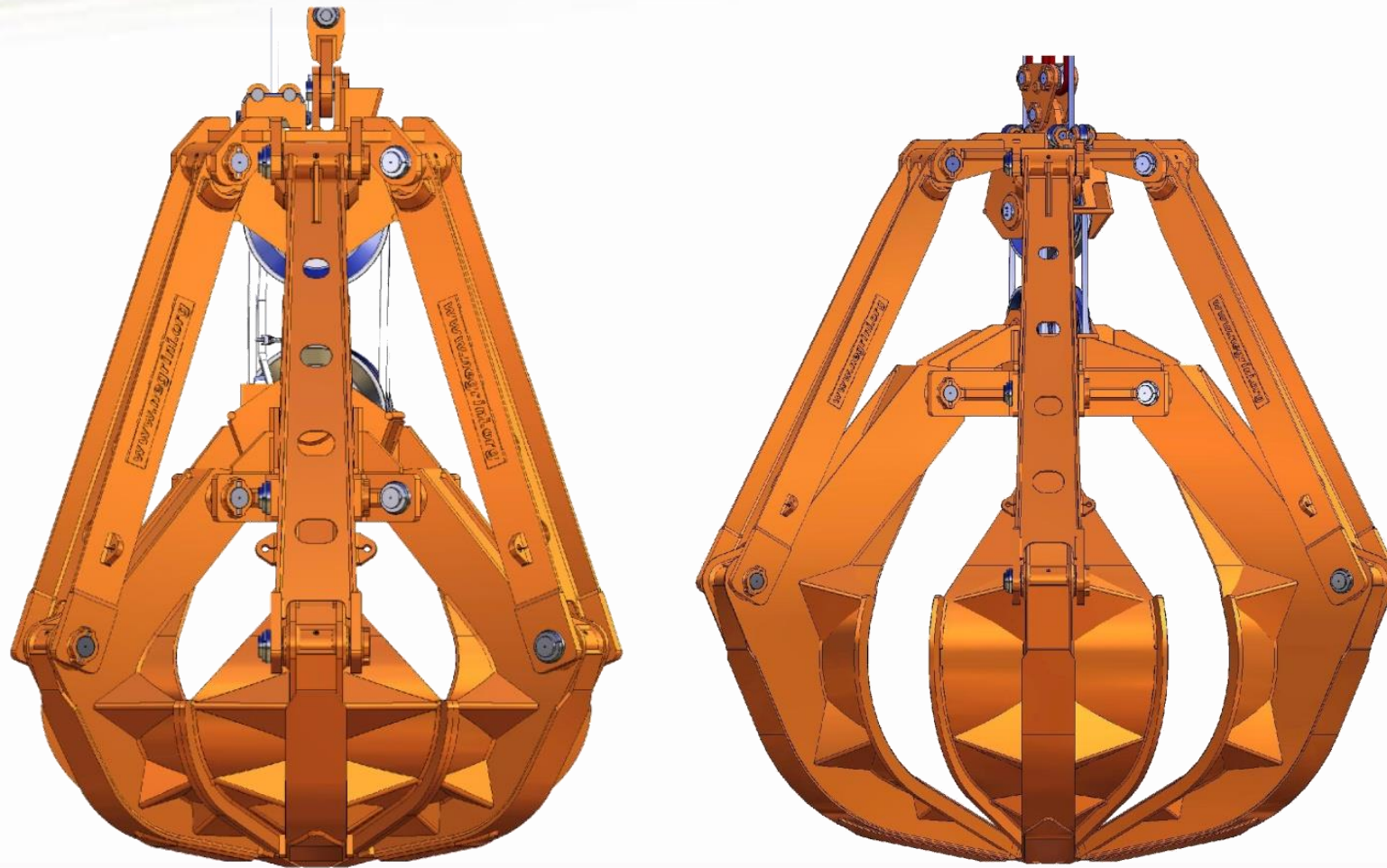


The valves have a high strength structure and are further protected in areas susceptible to impact or wear, the tip made of steel is protected by coating material Brinell 650

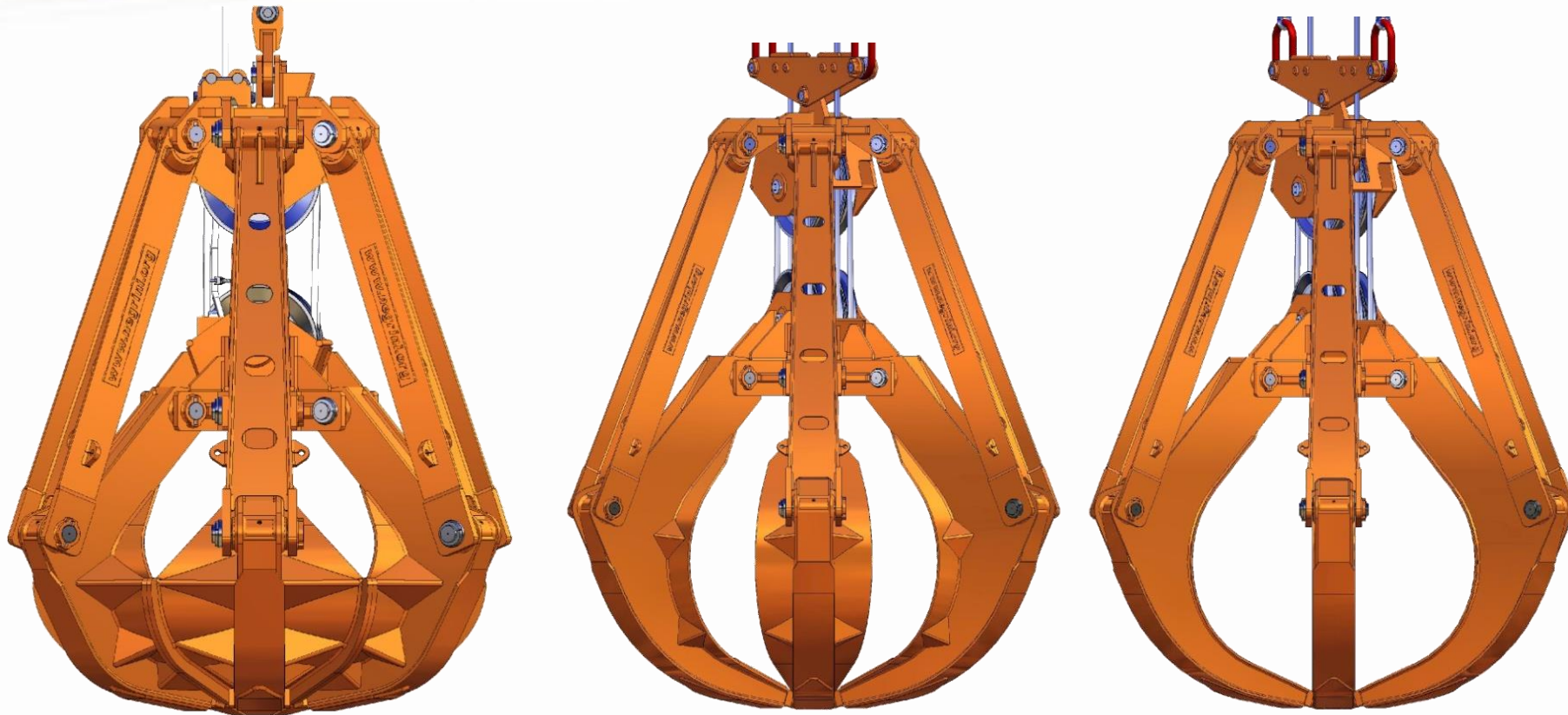
Additional protection plates against impact and wear

Hardox material tip protected by 650 brinell

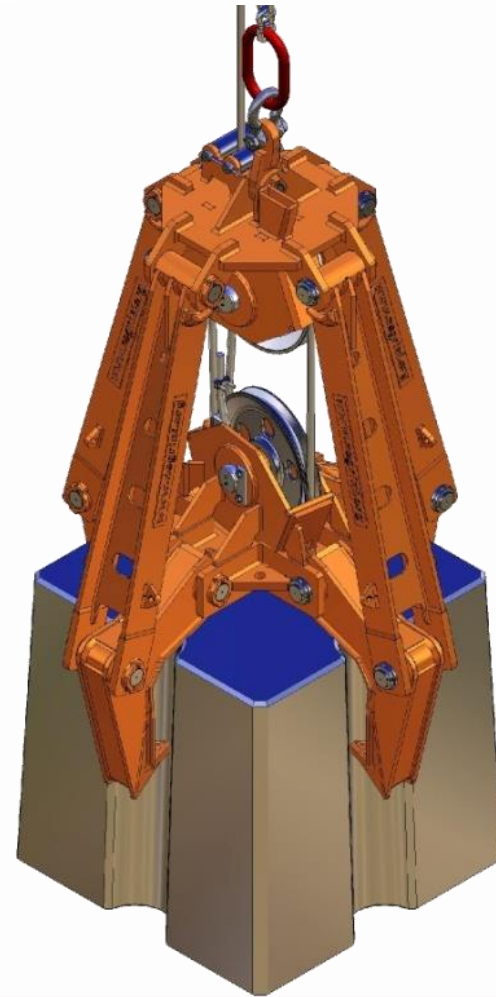
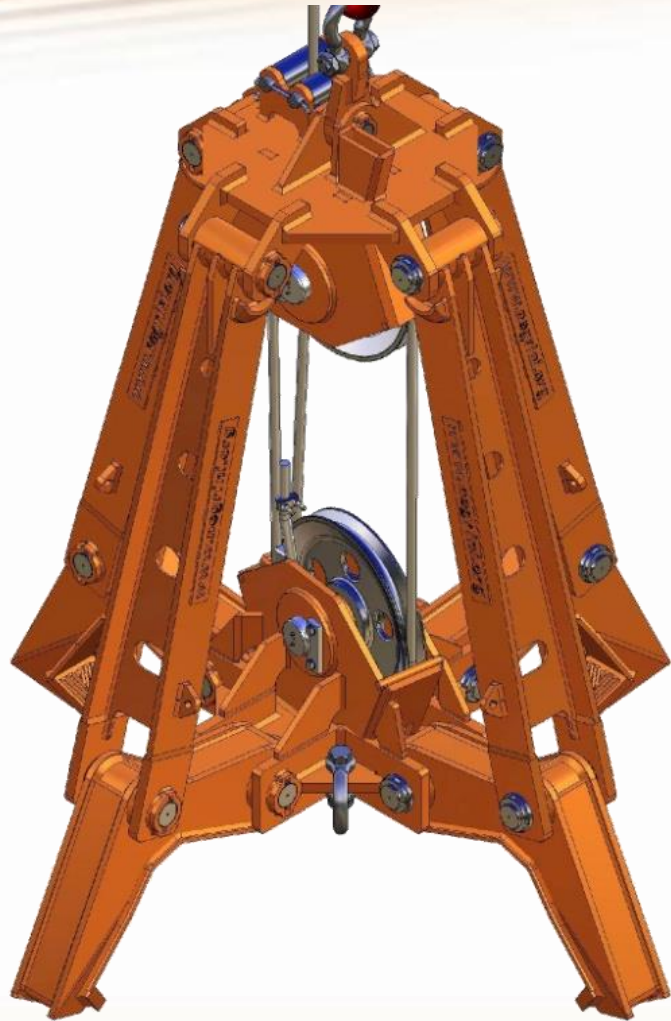




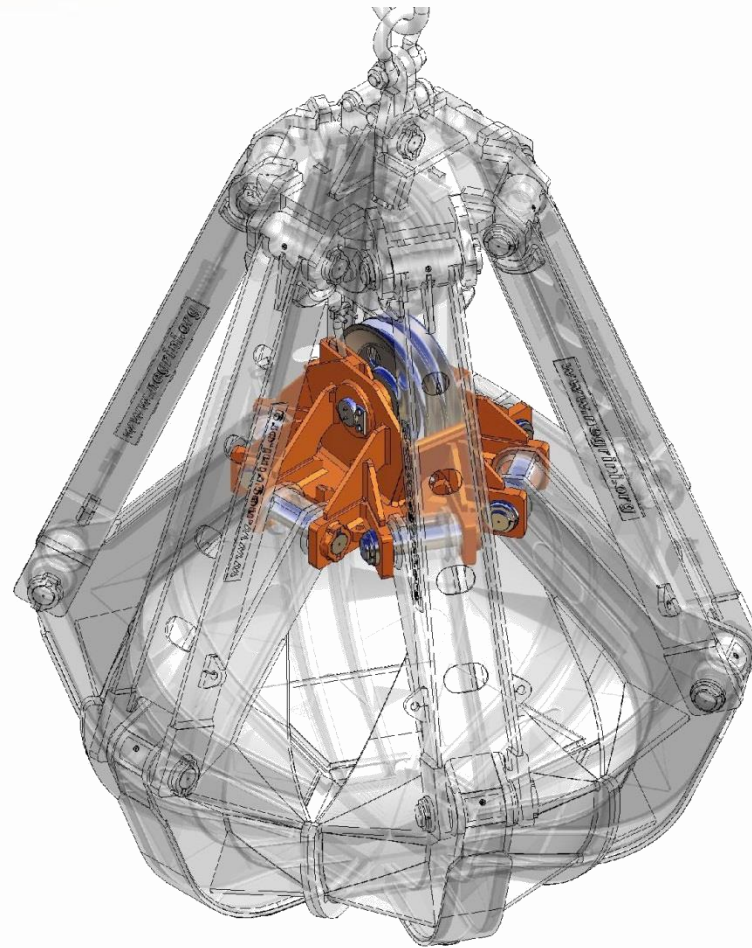
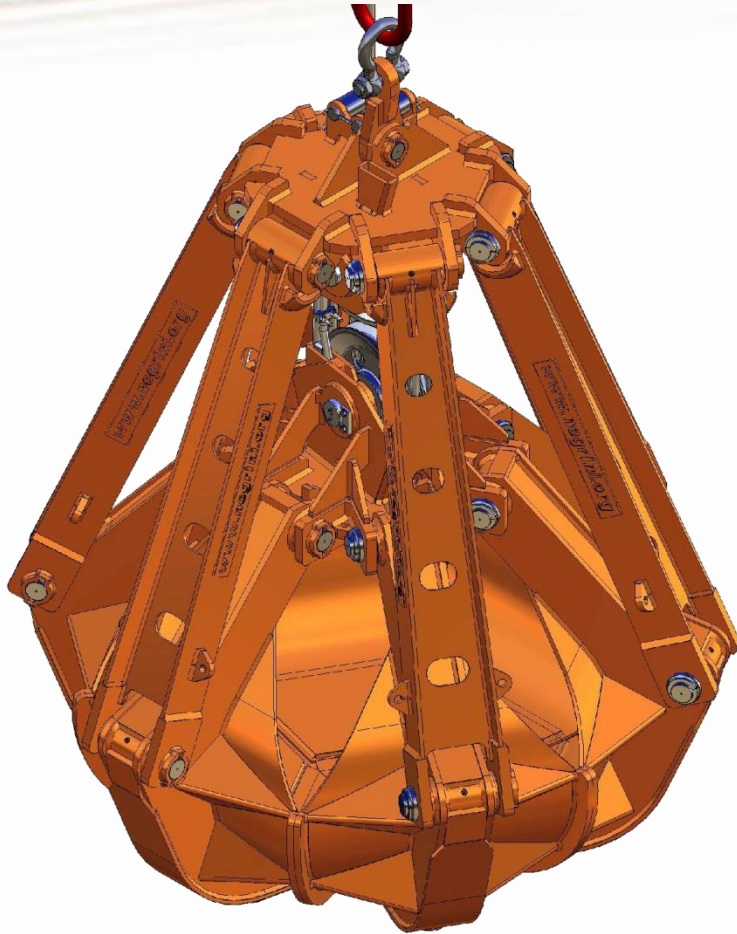
By replacing the valves we can change the characteristics of the grab, we can have the opportunity of mounting large valves to handle light materials, or smaller but heavy and robust jaws for moving hard materials difficult to penetrate



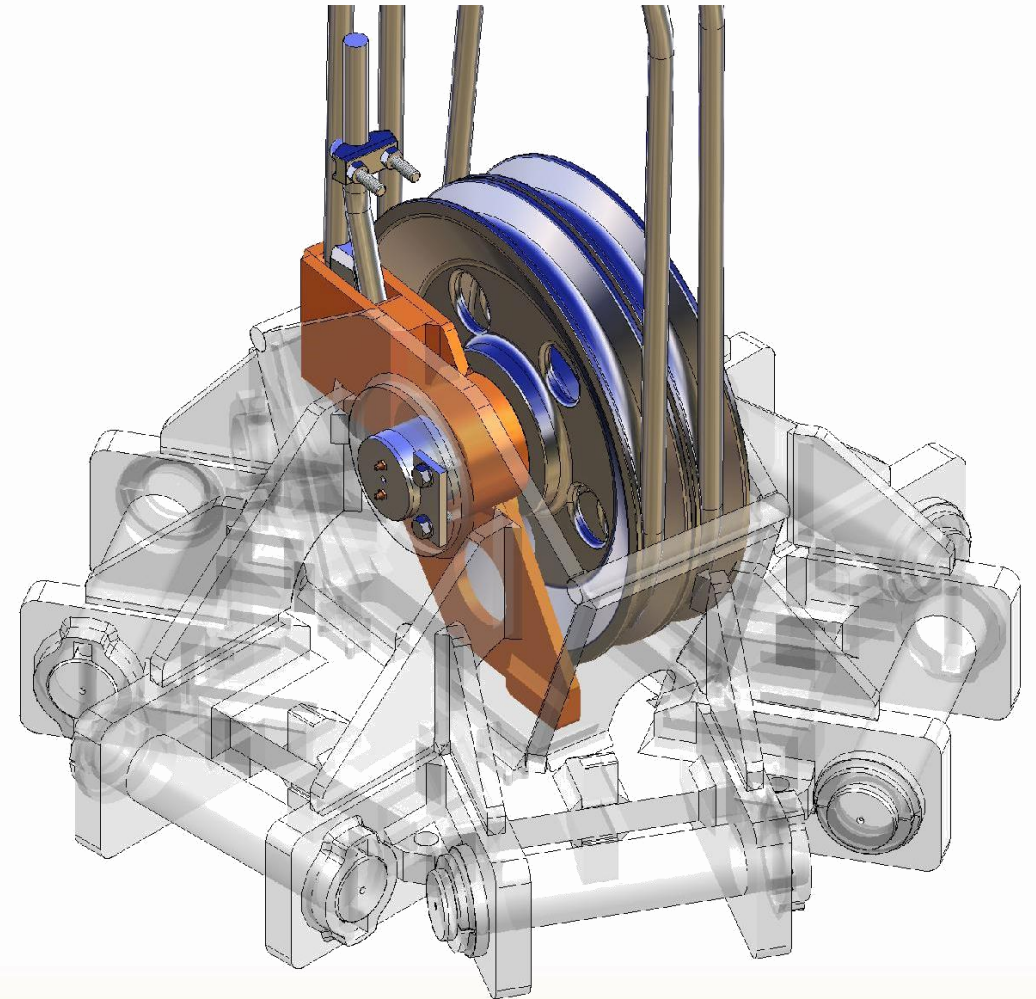
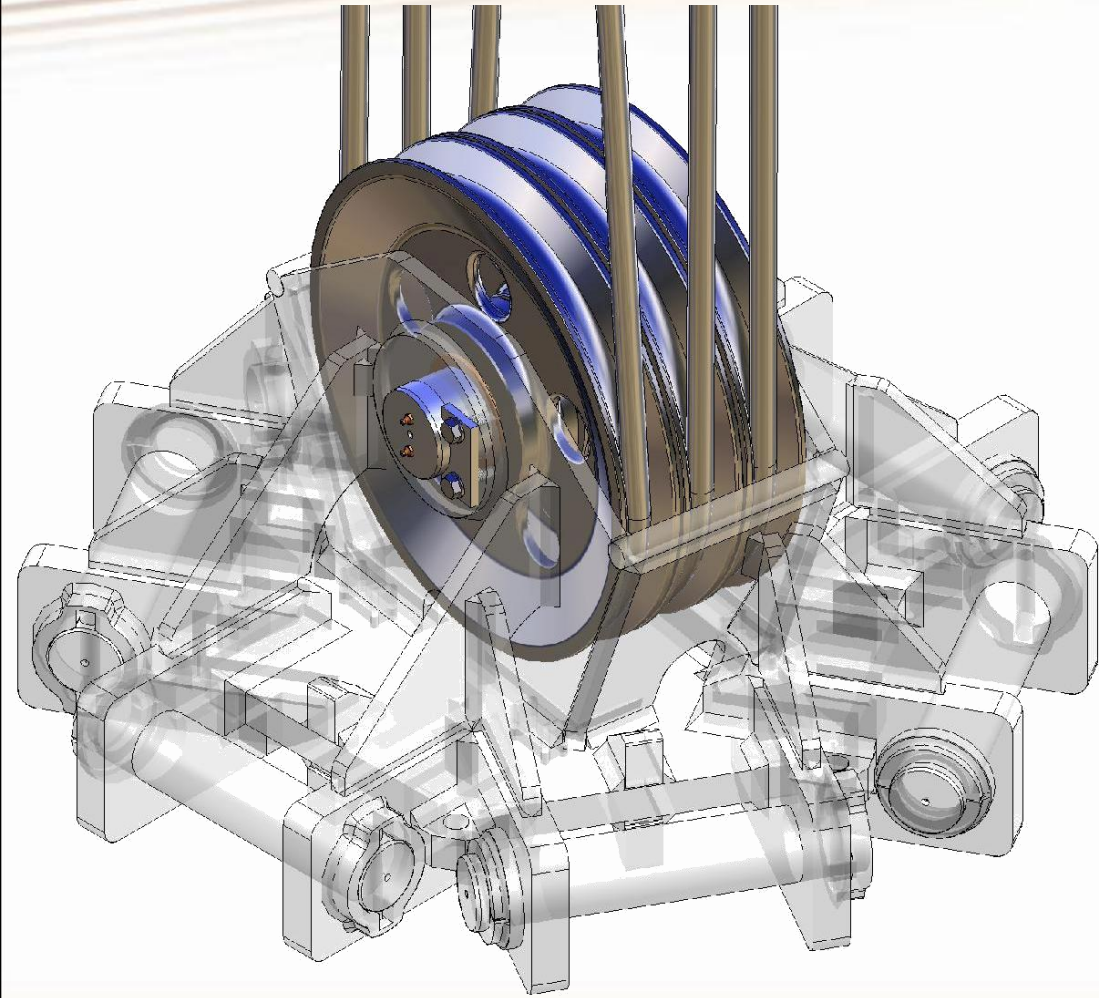
The jaws of all our grabs can have different shapes to meet different needs. On request we can manufacture jaws with special profiles

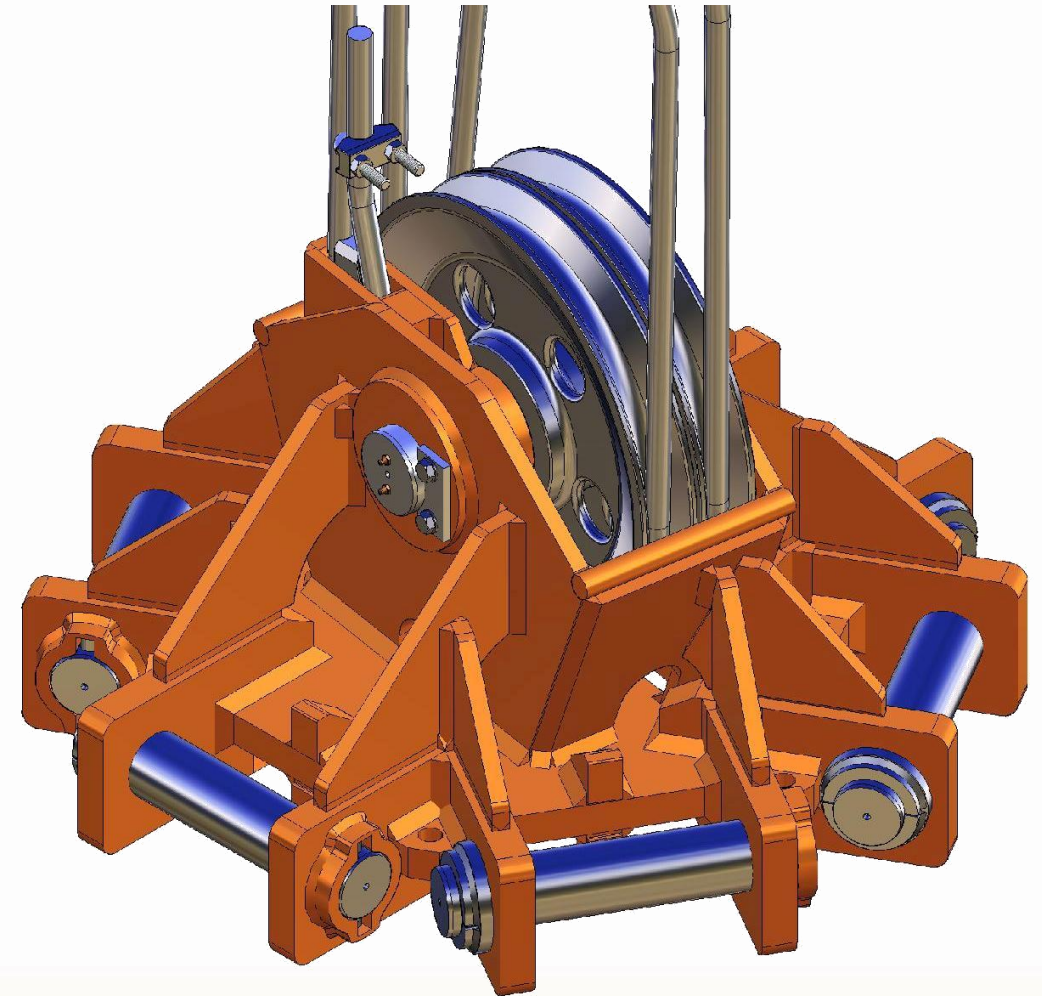
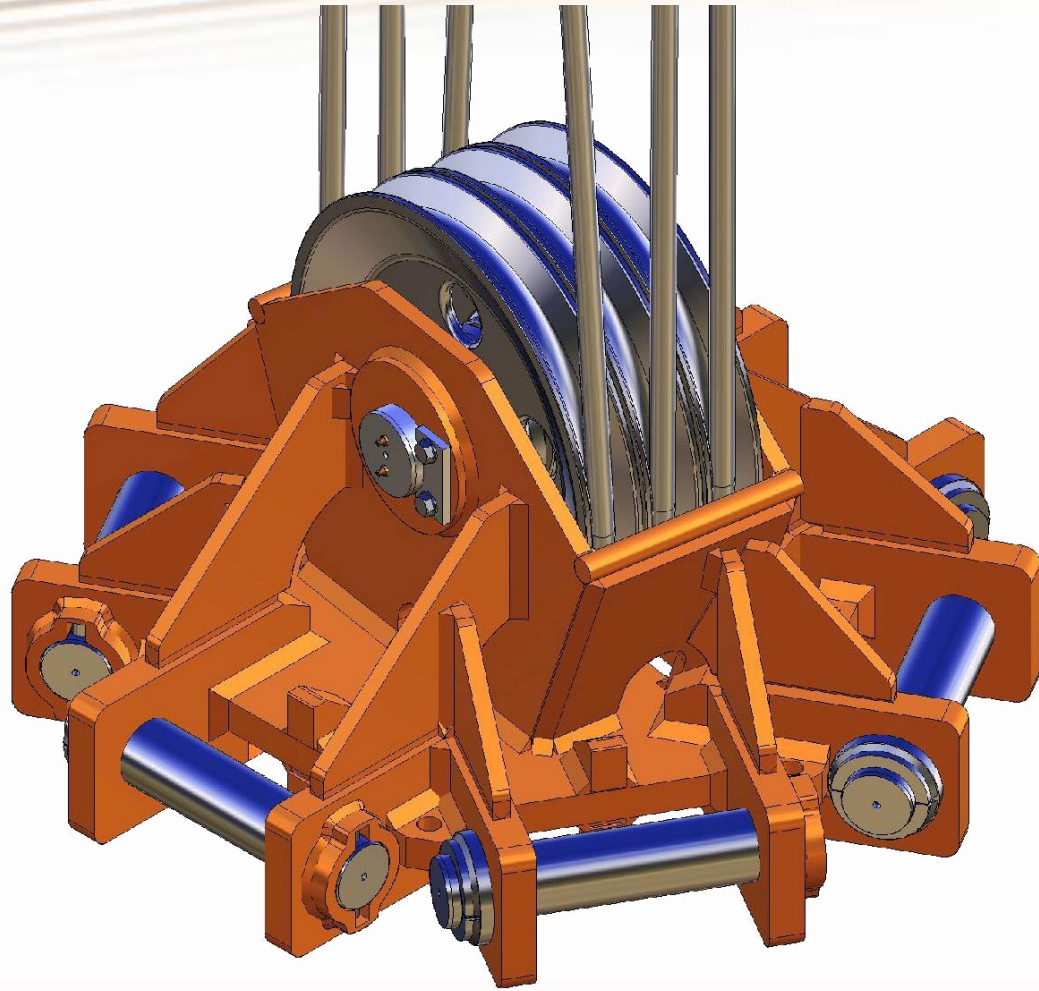


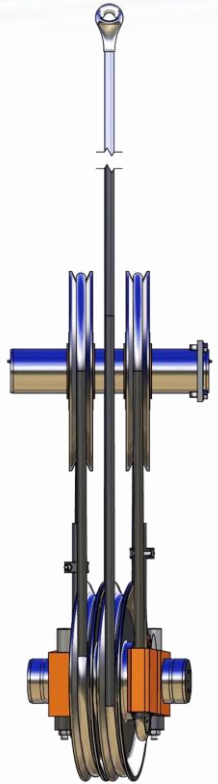
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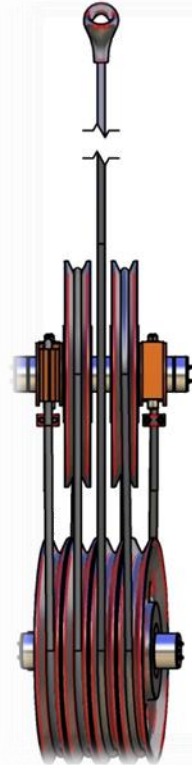
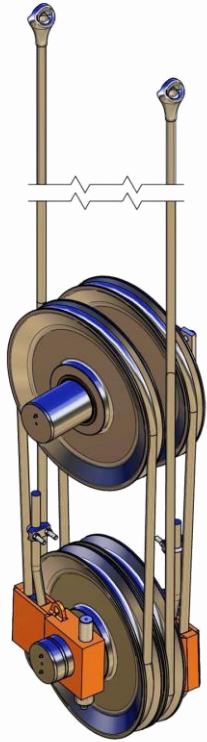
The flexibility in the design of the bodies allows the insert or the removal of pulleys in order to obtain greater closing force by increasing the number of sizes (fold), or greater speed by decreasing the number of sizes (fold), the user will have the opportunity to optimize the bucket either for light or more difficult materials.



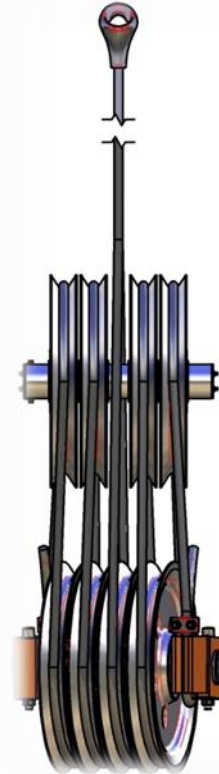
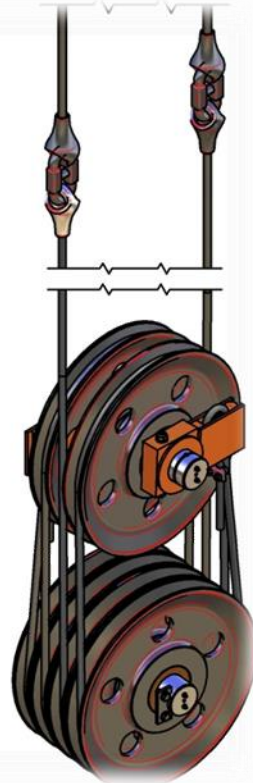




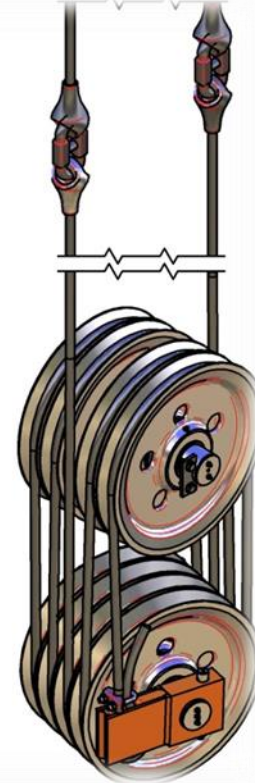
3 Fold



4 Fold

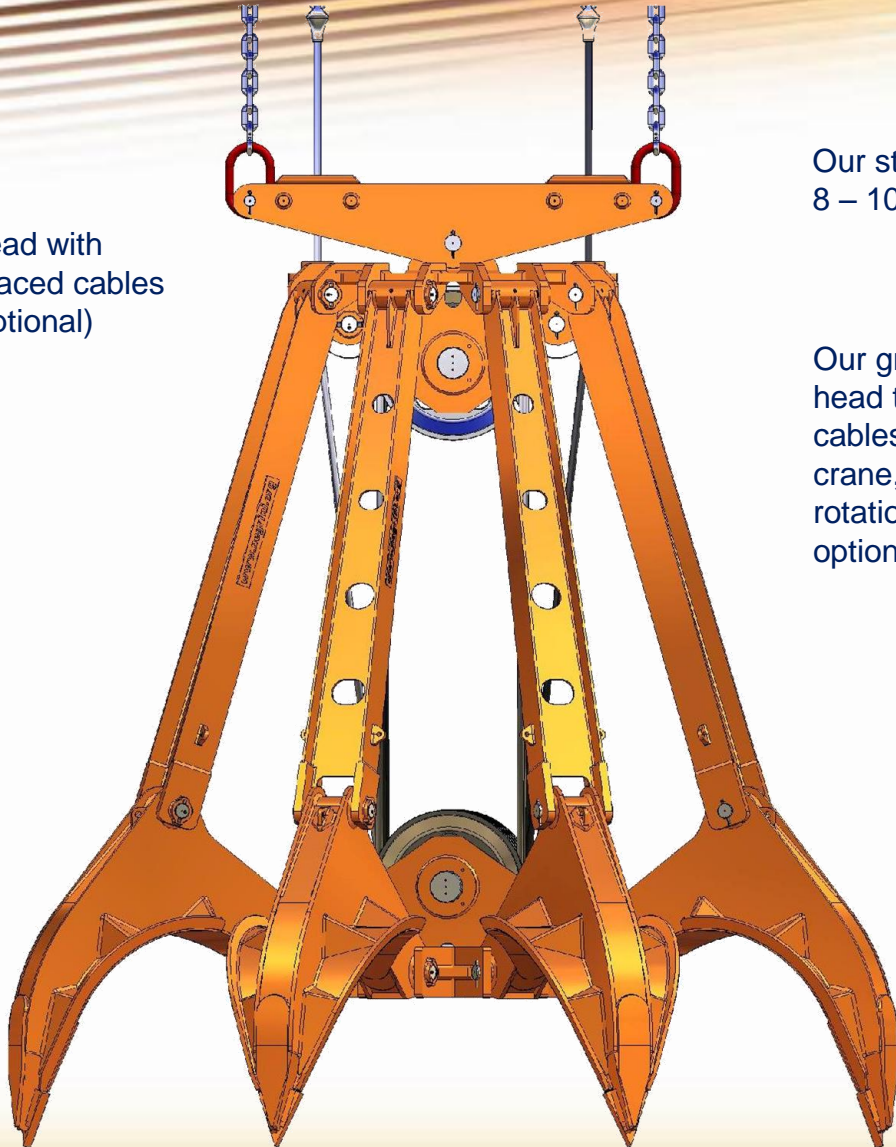


5 Fold



The flexibility in the design of the blocks allows the incorporation or suppression of pulleys in order to obtain greater force when closing by increasing the number of sizes (fold), or higher speed by decreasing the number of sizes (fold), the user will have the possibility to optimize the bucket in the presence of lighter or more hard materials.

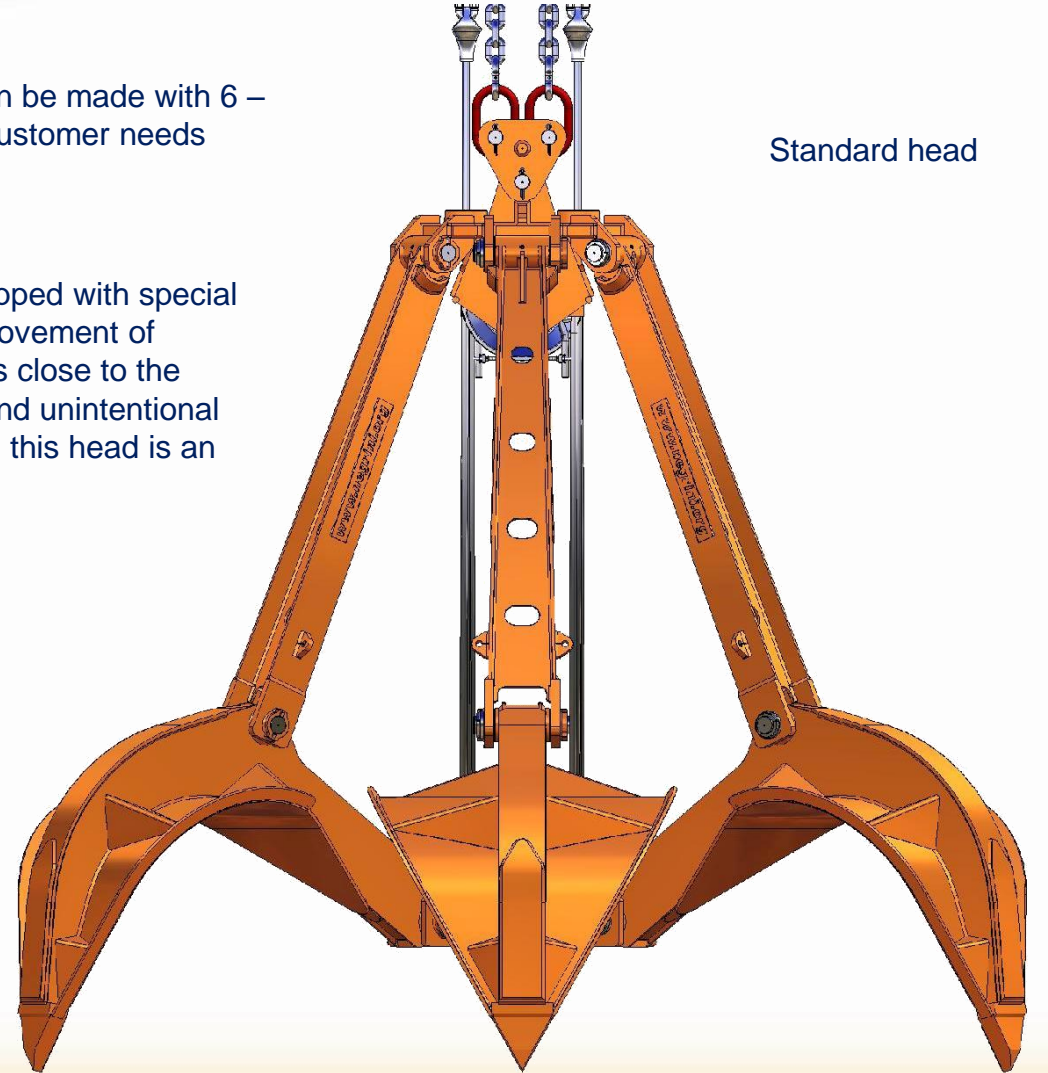
Head with
spaced cables
(optional)



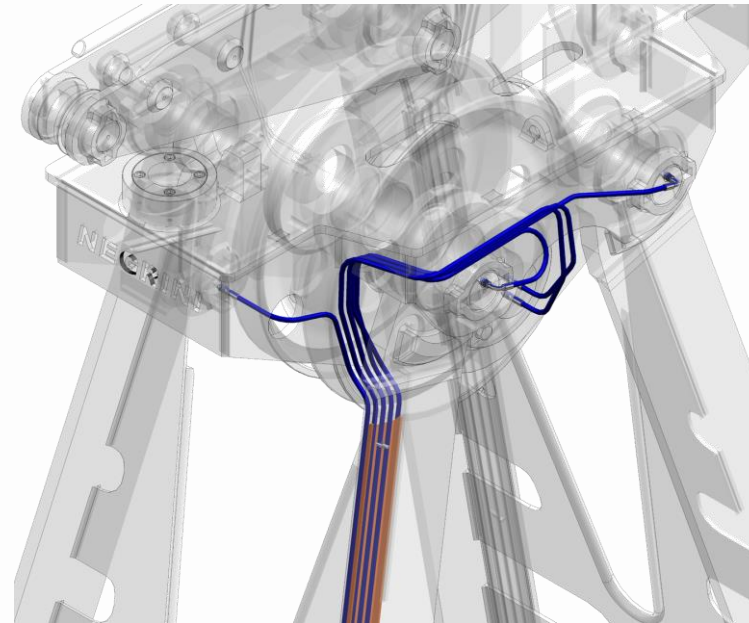
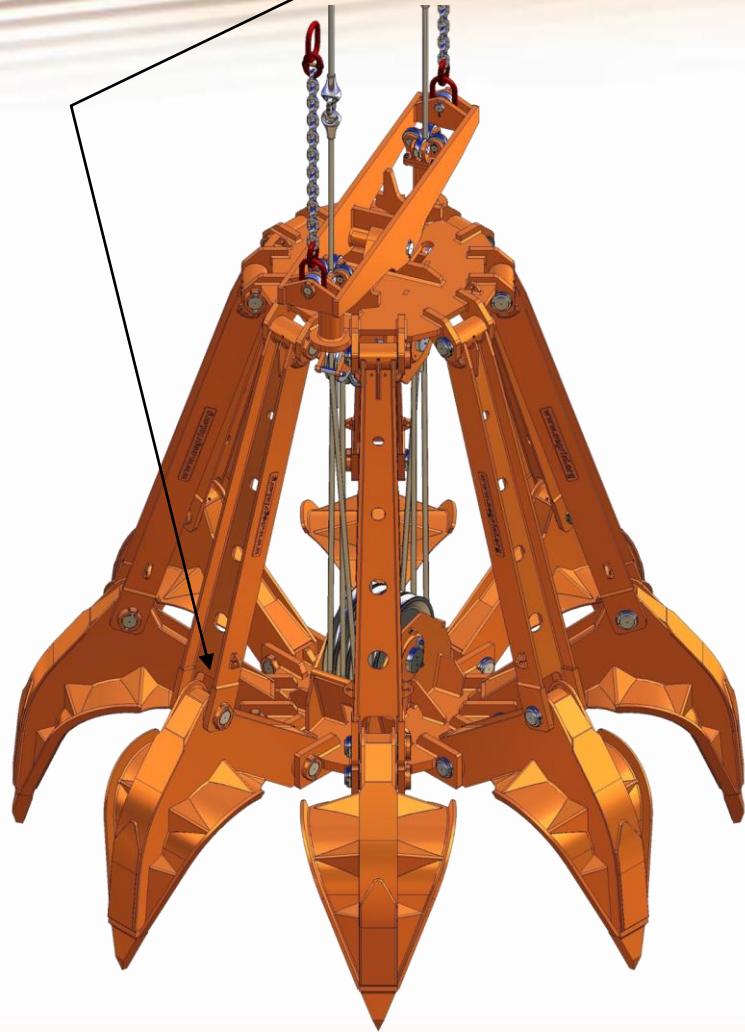
Our standard grab can be made with 6 –
8 – 10 jaws to meet customer needs

Our grab can be equipped with special
head that allow the movement of
cables, the interaxis is close to the
crane, limiting wear and unintentional
rotation of the bucket, this head is an
optional.

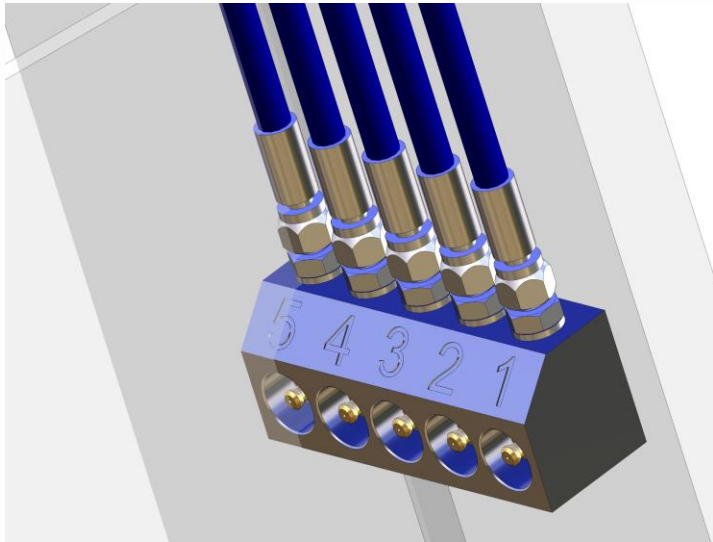
Standard head



Centralized lubrication points



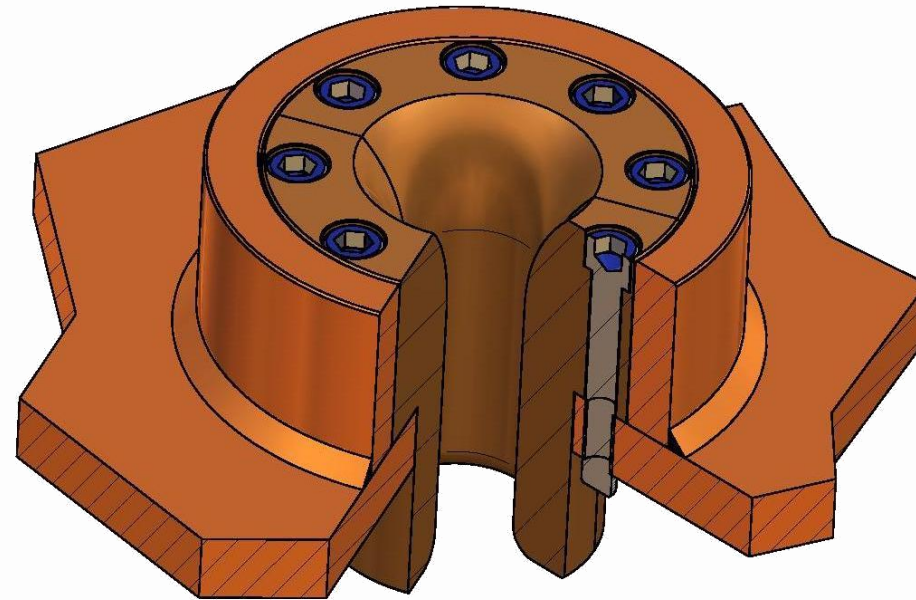
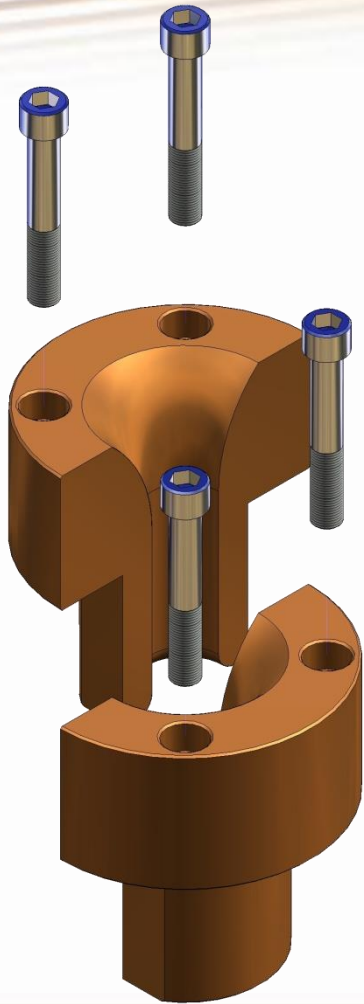
Lubrication of the upper area of the bucket facilitated, this system makes the lubrication operation safe and increases the life of the bucket, the upper part of the bucket is often forgotten because of the difficulties in reaching the points to be lubricated

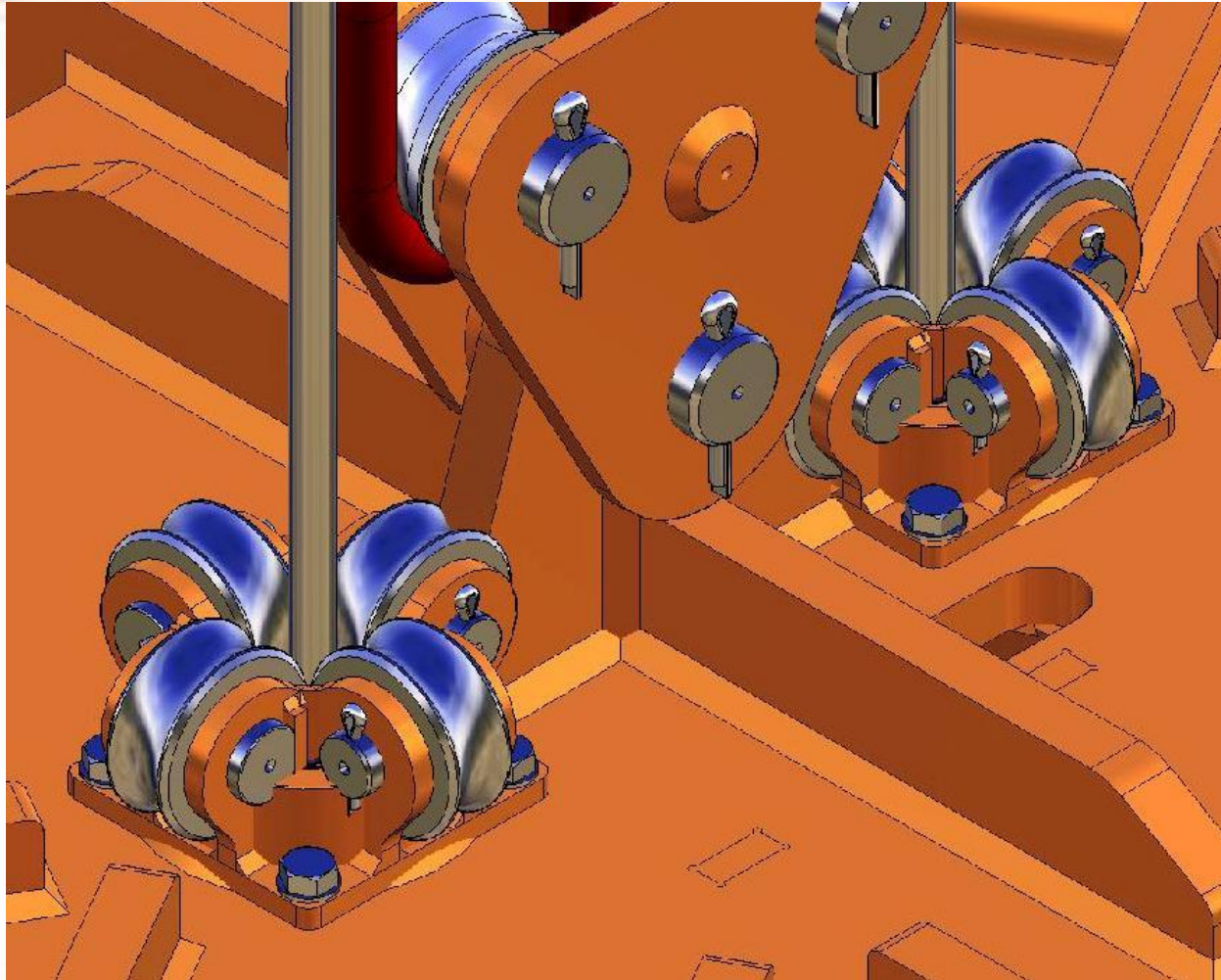


Centralized lubrication points



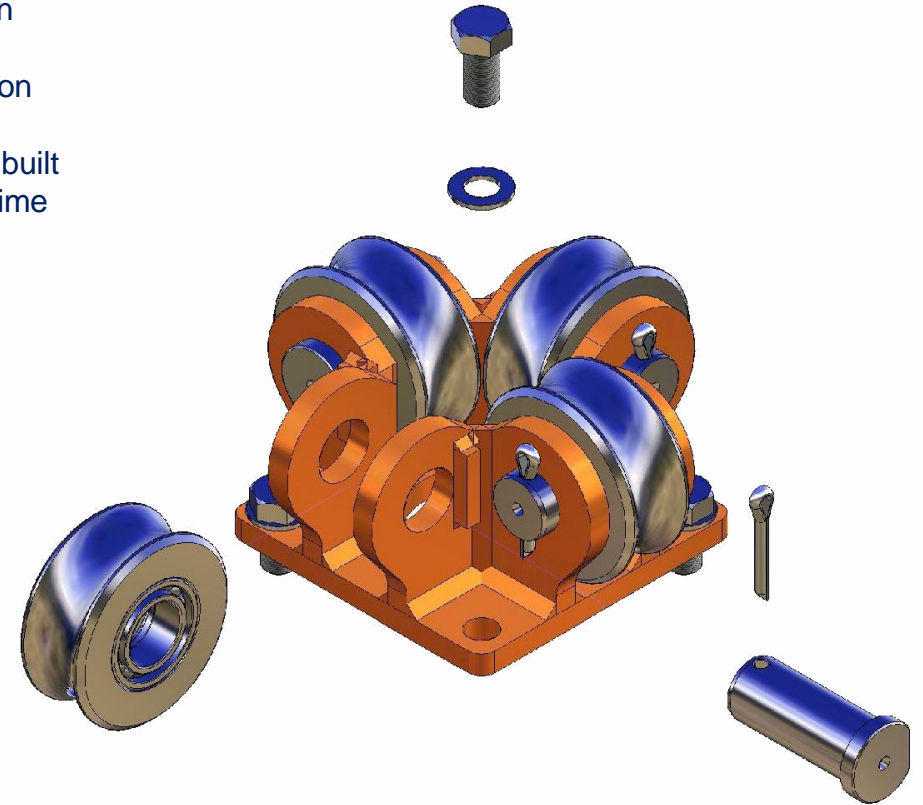
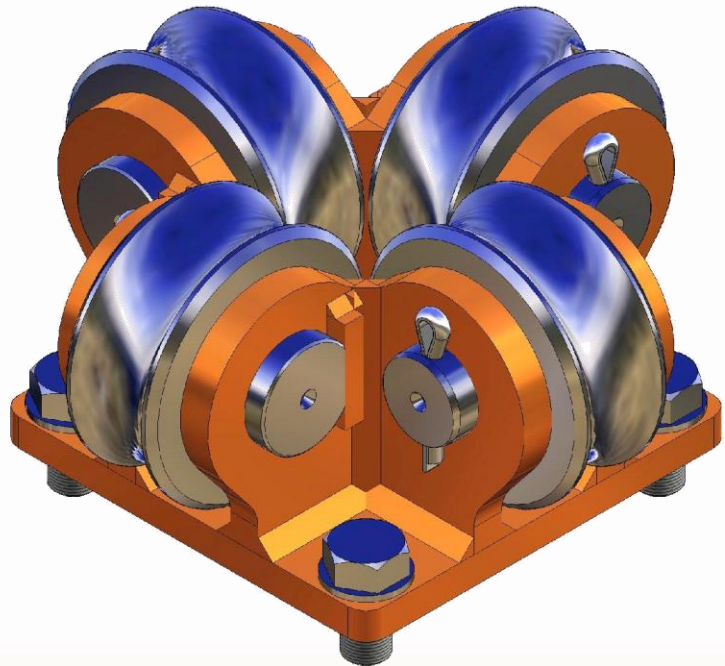
The ropes are guided inside the equipment by two semi-circular bushings, these are constructed using a bronze - aluminium alloy to limit friction and wear of the cable, bushings do NOT need lubrication or maintenance, do NOT create situations of bucket stop and it is easy to understand the condition of wear to predict replacement, the life of bushings is very long. Bushing sleeves can be disassembled separately to allow their replacement without having to remove the rope, simple and fast operation.

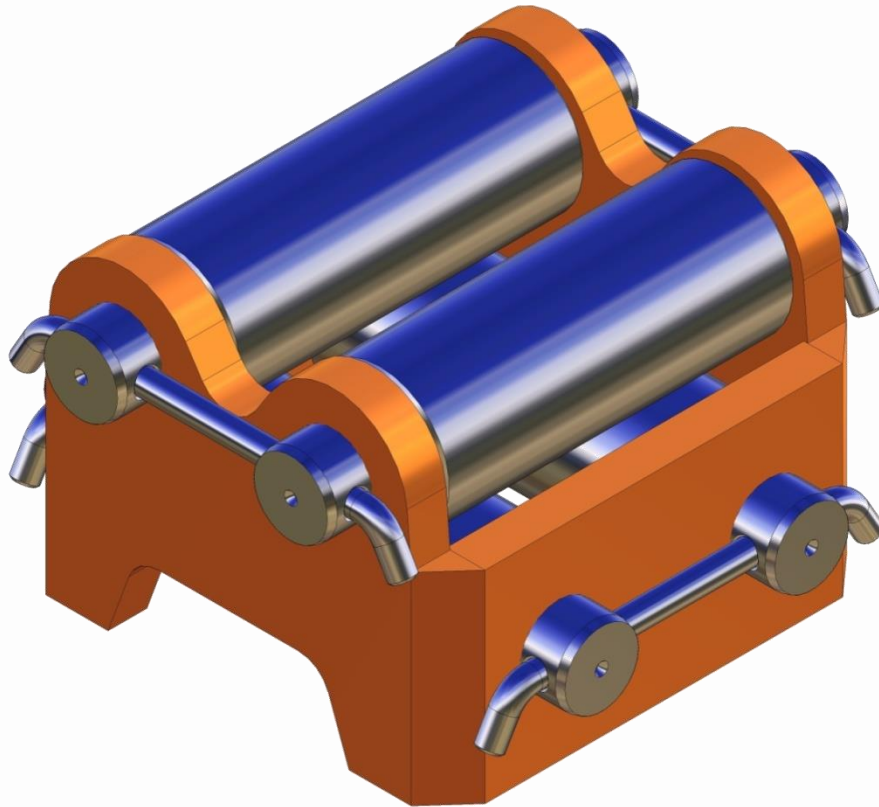




If requested by the customer, we can use the support with crossed pulleys as an alternative to the bushes. The pulleys and pins are built using hardened steel to resist over time.

If requested by the customer, we can use the crossed pulleys as an alternative to half bushes, this solution is already available in some of our equipment. The rollers and pins are built using hardened steel to resist over time

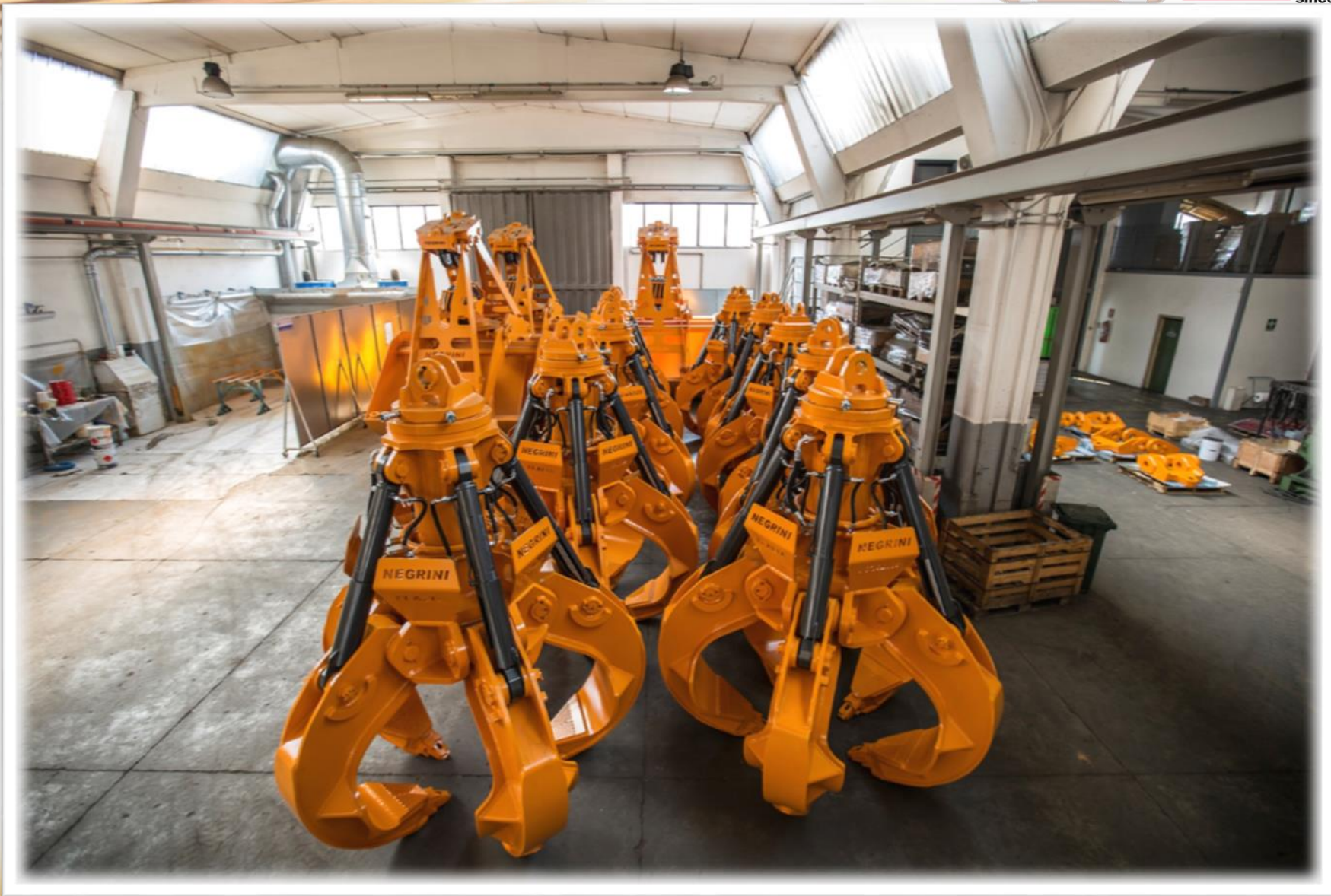




If requested by the customer, we can use the crossed roller box as an alternative to half bushes, this solution is already available in some of our equipment. The rollers and pins are built using hardened steel to resist over time,

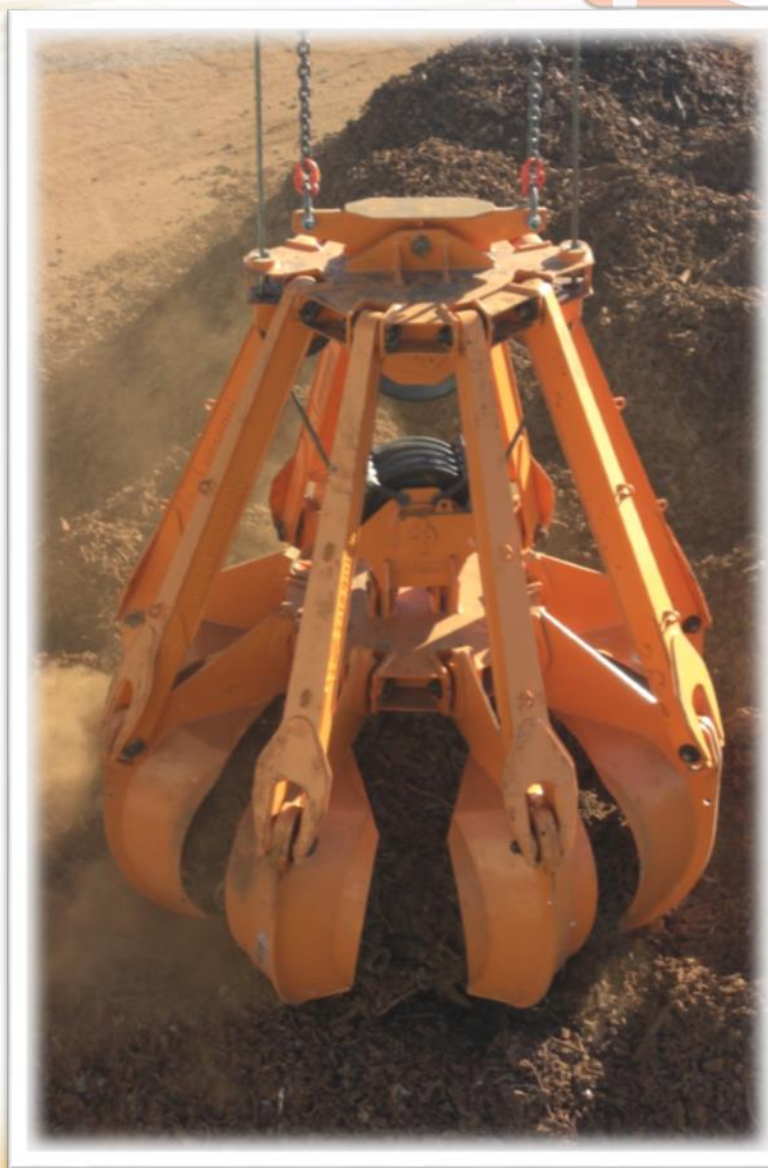




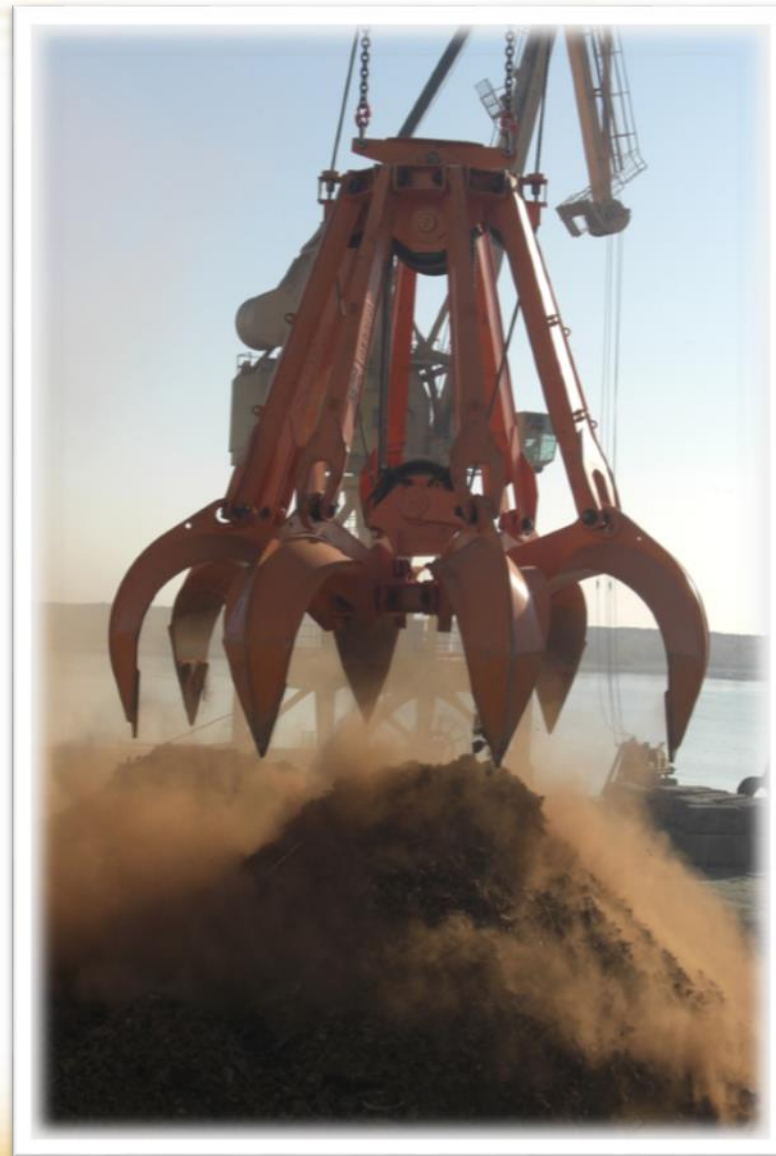
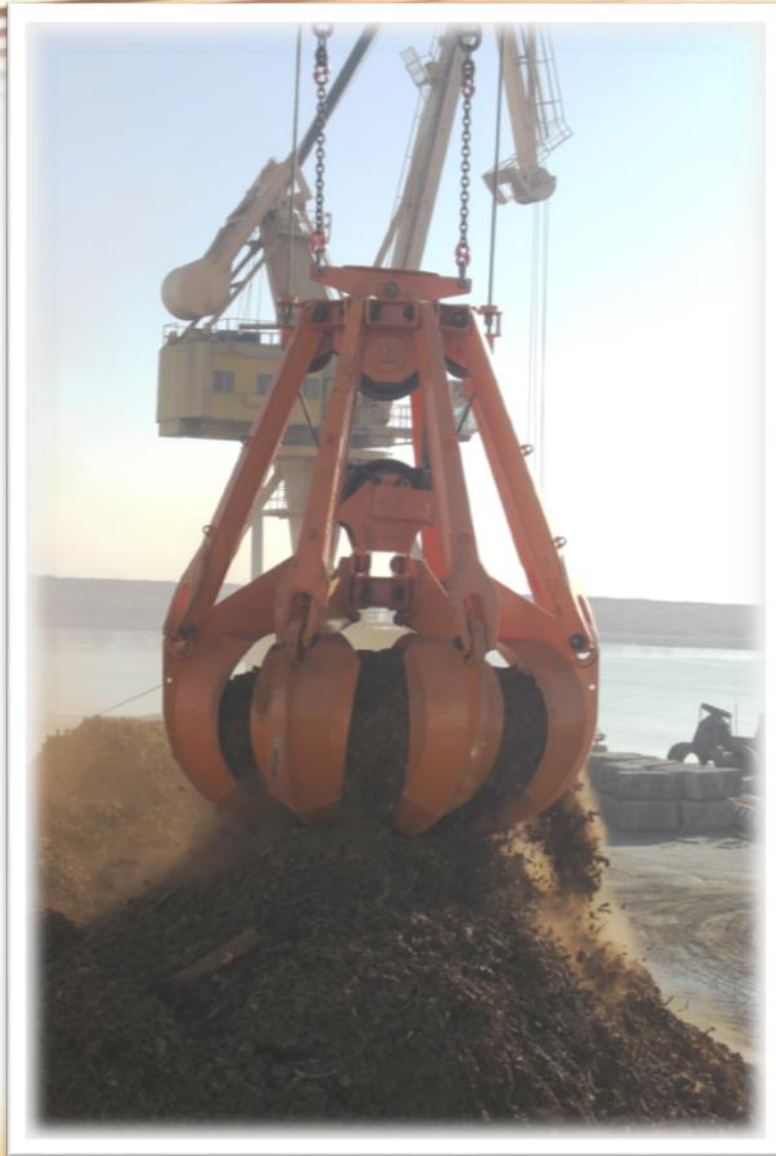




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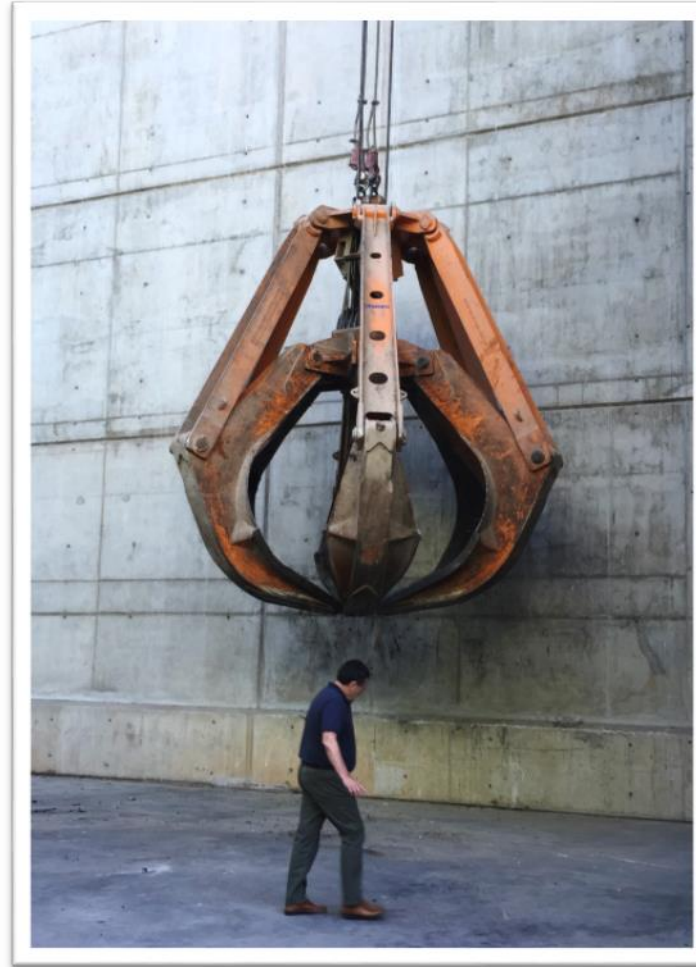
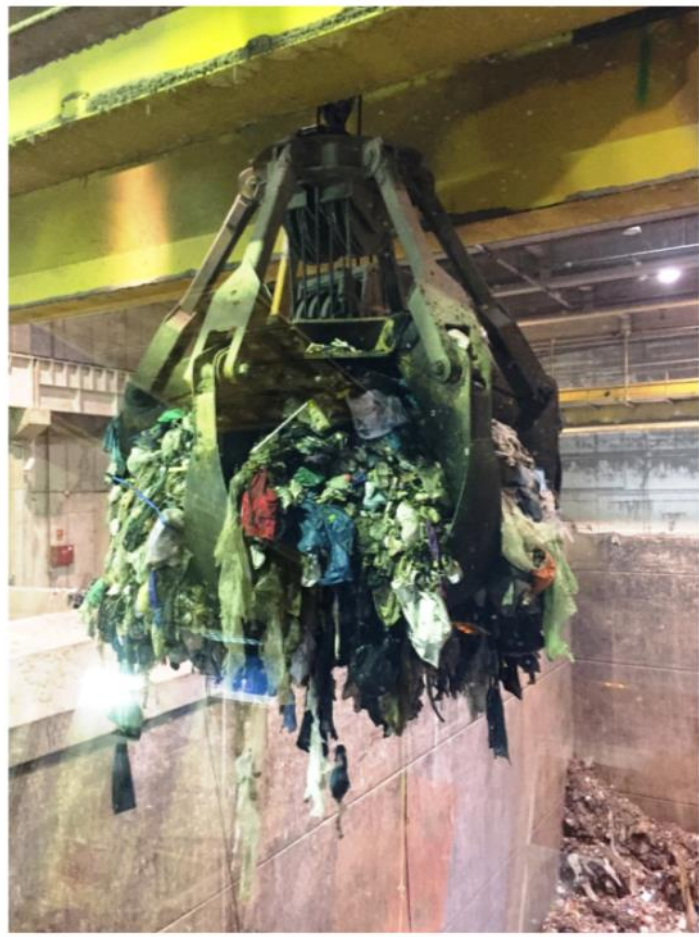


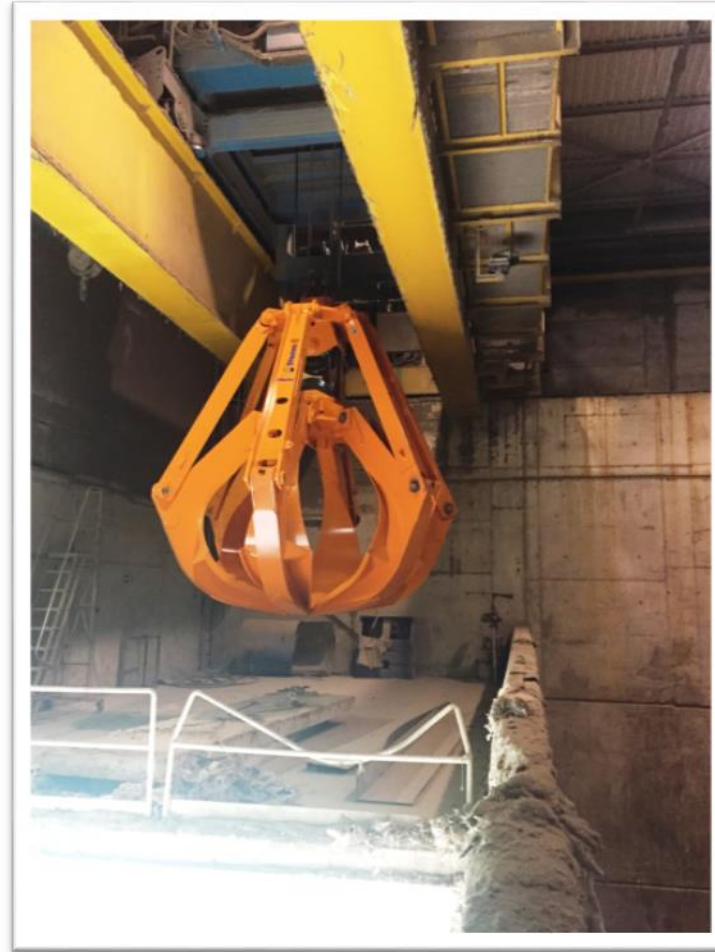
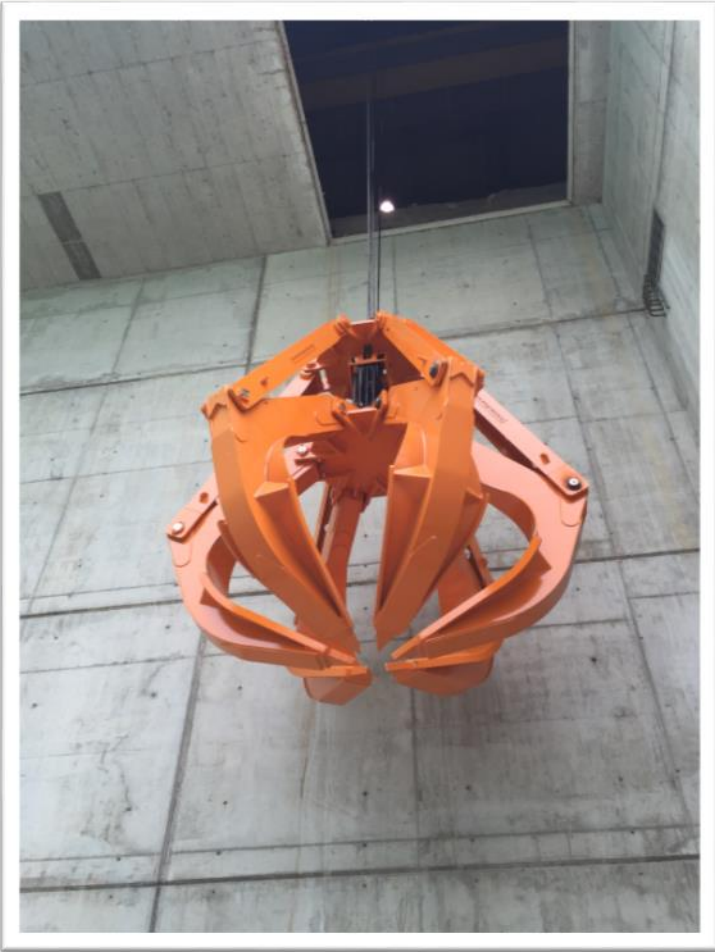












STANDARD OF MANUFACTURED					
CILINDRI / PISTONI / MARTINETTI		mat. Shirt Fe 510 internally turned and lapped mat. Stem 39Ni Crs Mo3 chromed to thickness and corrected Gaskets of the Type POLYPAC			
HOSES		SAE 100 R9 CERTEX			
CARRYING STRUCTURE		mat. Fe 510 construction in electric-welded carpentry and opportunely strengthened in the points of max. solicitation			
WELDING		Performed with continuous thread gives 1,2 protected with gas Argon.8 System approved by R.I.N.A. PRINCIPAL CHARACTERISTICS: - Tensile R = 520 N/mm ² s - Yeld point Rs = 348 N/mms - extension \dot{A} . = 38%			
GALVANIZATION		70 microns Inorganic			
FINISH		Orange tree ral to total coverage 120-150 microns c.a.			
Item	Material	M.B.L. N/mm	Yeld Point N/mm	hardness Brinnell HB Rockwel HRC	Heat treatment
Standard Carpentry	S355 JO S355 J2G3 FE.510	510	355	//	//
Special Carpentry	WELDOX.700	780 - 930	700	260	//
Parts subject usury (Blade, teeth, ecc.)	HARDOX.400 HARDOX .500 SIMILARE	1250 1550	1000 1300	360 – 440 450 – 560	//
Pin	39Ni Cr Mo3 Quenched and tempered	1000 – 1150	850	54	It tempers induction
Pistons Stems	39Ni Cr Mo3	1000 - 1150	850	54	It tempers induction chrome thickness Rectification
Pistons Shirts	S355 JO	510	355	//	Rectification / lapping inside

**DICHIARAZIONE DI CONFORMITA'
DECLARATION OF CONFORMITY
KONFORMITÄTSEKTLÄRUNG**

**DECLARATION DE CONFORMITE
DECLARACIÓN DE CONFORMIDAD**



E' costruita conformemente ai requisiti essenziali di sicurezza stabiliti dalla direttiva 2006/42/CE e successivi emendamenti. -
Entsprechend der grundlegenden Sicherheitsanforderungen laut EG-Richtlinie 2006/42/CE und folgenden Änderungen konstruiert wurde. -
Has been constructed in conformity with the basic safety requirements set down in EC Directive 2006/42/CE and subsequent amendments.
- - Est construit conformément aux conditions de sécurité essentielles établies par la directive 2006/42/CE CE et les amendements
successifs. - Está construido de acuerdo a los requisitos esenciales de seguridad establecidos por la directiva 2006/42/CE CE y sucesivas
enmiendas.

Per la verifica delle conformità di cui alle direttive sopra indicate, è stata consultata la seguente norma europea EN 292 parte 1 e parte 2. -
Zur Überprüfung der Konformität gemäß oben genannter Richtlinien wurde die folgende europäische Richtlinie EN 292 Teil 1 und Teil 2 zu
Rate gezogen. - In order to check conformity as per the Directive cited above, reference was made to European Norm EN 292 parts 1 and
2. - Pour la vérification des conformités dont à la directive ci-dessus mentionnée, la Norme Européenne EN 292 partie 1 et partie 2 a été
consultée. - Para el control de la conformidad con las directivas indicadas anteriormente, ha sido consultada la siguiente norma europea
EN 292 parte 1 y parte 2.

Si dichiara in oltre di avere apposto la marcatura CE e di aver corredato l'attrezzatura di manuale d'uso e manutenzione. - Zudem wird
erklärt, dass die CE-Kennzeichnung angebracht und das Gerät mit einer Gebrauchs-und Wartungsanleitung ausgestattet wurde. - It is
further declared that the EC mark has been attached to the equipment and a manual of use and maintenance has been provided for the
same. - Nous déclarons aussi avoir apposé le marquage CE et avoir muni l'équipement du manuel d'utilisation et d'entretien. - Se declara
además que se ha fijado la marca CE y que se ha acompañado el equipo con el manual de uso y mantenimiento.

GARANZIA: la nostra Società non si assume, salvo eventuali pattuizioni, alcuna responsabilità circa le applicazioni e comunque, operazioni a cui verrà sottoposto il materiale fornito, presso il compratore o chi per esso.

La garanzia ha durata di 12 mesi dalla data di consegna. La nostra Società si impegna a sostituire gratuitamente, franco nostro stabilimento, qualsiasi materiale ritornatoci per difetti di qualità e/o di fabbricazione.

Restano escluse dalla garanzia le parti soggette ad usura.

GUARANTEE: our company does not accept any responsibility, except in cases of agreement, regarding the applications or operations to which the materials supplied by us are subject by the buyer or on his behalf.

The guarantee is valid for 12 months from the time of delivery. Our company undertakes to replace free, ex works at our address, any materials returned to us for defects in quality or manufacturing.

Parts subject to wear and tear are excluded from the guarantee.

The guarantee does not apply if the parts in question have been tampered with in any way.

GARANTIE: Unser Unternehmen übernimmt, falls nicht anders vereinbart, keinerlei Haftung für die Anwendung und für Arbeiten, denen das gelieferte Material beim Käufer oder andernorts unterzogen wird.

Die Garantie gilt für 12 Monate ab Lieferdatum. Unser Unternehmen verpflichtet sich, kostenlos, frei ab Werk, an uns zurückgesandtes Material zu ersetzen, das Qualitätsmängel und/oder Fabrikationsfehler aufweist. Von der Garantie ausgeschlossen bleiben die Verschleiß unterliegenden Teile. Die Garantie ist ungültig, wenn mit den beanstandeten Teilen, in welcher Weise auch immer, unsachgemäß umgegangen wurde.

GARANTIE: ons bedrijf neemt, tenzij anders overeengekomen is, geen enkele verantwoordelijkheid op zich betreffende de toepassingen en, in ieder geval, handelingen waaraan het geleverde materiaal blootgesteld zal worden, bij de koper of degene die namens de koper handelt. De garantie is 12 maanden geldig vanaf de leveringsdatum. Ons bedrijf zal gratis het materiaal vervangen dat fabrieks- of kwaliteitsfouten heeft. Franco onze fabriek. Deze garantie is niet geldig voor onderdelen die aan slijtage onderhevig zijn.

ESCLUSIONI:

Sono esclusi dalla garanzia i guasti dovuti a:

- 1 utilizzi non previsti dal fabbricante;
- 2 non osservanza di quanto indicato nel presente manuale;
- 3 collegamento ad impianti tecnici non conformi con la normativa tecnica e legislativa vigente;
- 4 scarsa preparazione tecnica del personale (trascuratezza, negligenza, falsa manovra);
- 5 utilizzo di ricambi, lubrificanti o altri prodotti non consigliati dal Costruttore o non specificatamente menzionati nel presente manuale;
- 6 parti soggette ad usura
- 7 normale usura e deterioramento dovuti all'uso della macchina.

Sarà cura della **NEGRINI s.r.l.** accertare le buone ragioni del Cliente e sostituire le parti riconosciute difettose.

EXCLUSIONS:

Faults due to the following are excluded from the guarantee:

- 1 uses not foreseen by the manufacturer;
- 2 failure to respect what is indicated in this manual;
- 3 connection to technical systems not in compliance with technical regulations and legislations in force;
- 4 poor technical training of personnel (carelessness, negligence, false movement);
- 5 use of spare parts, lubricants or other products not recommended by the Manufacturer or not specifically mentioned in this manual;
- 6 parts subject to wear and tear;
- 7 normal wear and deterioration due to the use of the machine.

NEGRINI s.r.l. shall assess the information provided by the Customer and shall replace the parts it recognises as faulty.