

# BUCKETS

AND EQUIPMENT  
FOR HEAVY MACHINERY



**Miilux<sup>®</sup> OY**

## We offer to you:

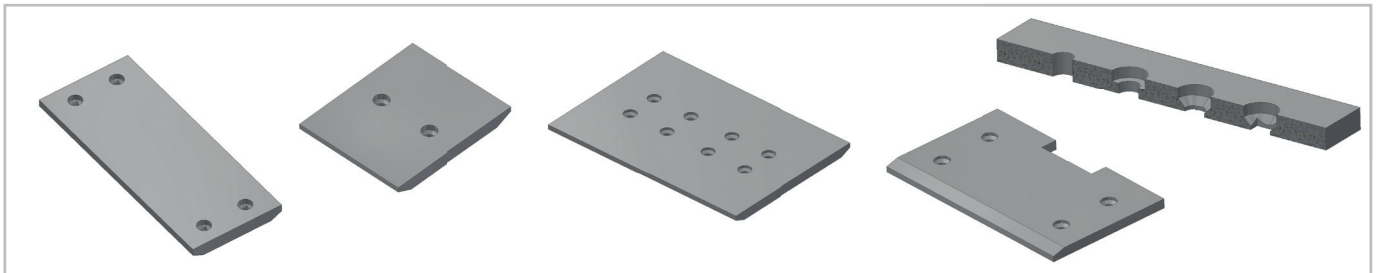
- Excavator buckets
- Loader buckets
- Skeleton buckets
- Rock buckets
- Grabs

Miilux is a pioneering manufacturer of fully protected buckets, dedicated to being used in the harshest working conditions. The ongoing development of our company and the constant search for new solutions allows us to offer the most durable and at the same time cost-effective buckets, tailored to the specific requirements of our Customers. Importantly, we have our own design and engineering facilities, thanks to which we can freely change the configuration of the protective systems depending on expected working conditions, user experience, or the buyer's budget.

The buckets we offer are made entirely of hard-wearing steel. For the production of workable cutting edges, we use wear-resistant steel in the Hard from Edge to Edge technology, which significantly extends cutting edge service life. Depending on the working environment and customer requirements, we can also retrofit the cutting edge with a system of protective shrouds and teeth.

We offer proprietary M, HD, and XHD protection systems, as well as all common solutions based on bolted teeth or using welded adapters. The combination of our experience, the Miilux® material and the protective systems used makes Miilux buckets suitable for any work, even in extremely harsh conditions. All buckets we offer are compatible with quick couplers of various types and manufacturers.

## Spare parts

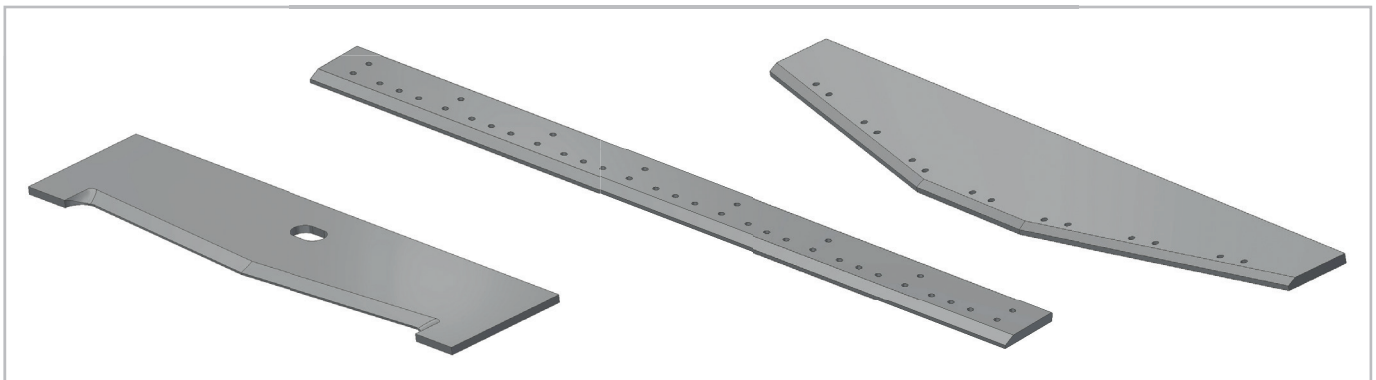


In addition to metal sheets and plates, we can supply finished custom parts, made according to customer's or our own documentation. Very often, we use reverse engineering to restore heavily deteriorated parts and develop detailed design documentation.

At the customer's request we perform chamfering of the components produced by us. In the case of cutting edges, we are only limited by the working length of the chamfer, which must be less than 80 mm. For parts with a thickness of less than 30 mm we can additionally offer beveling of the cut pieces, with the use of a 3D head. In this case, the chamfer angle is up to  $\pm 45^\circ$ .

For components that are fastened using screws, we also provide drilling. We are able to provide different types of holes according to customer's requirements: dead and through holes, threads, holes for plough bolts, countersunk holes for conical screws and many others.

## Cutting edges

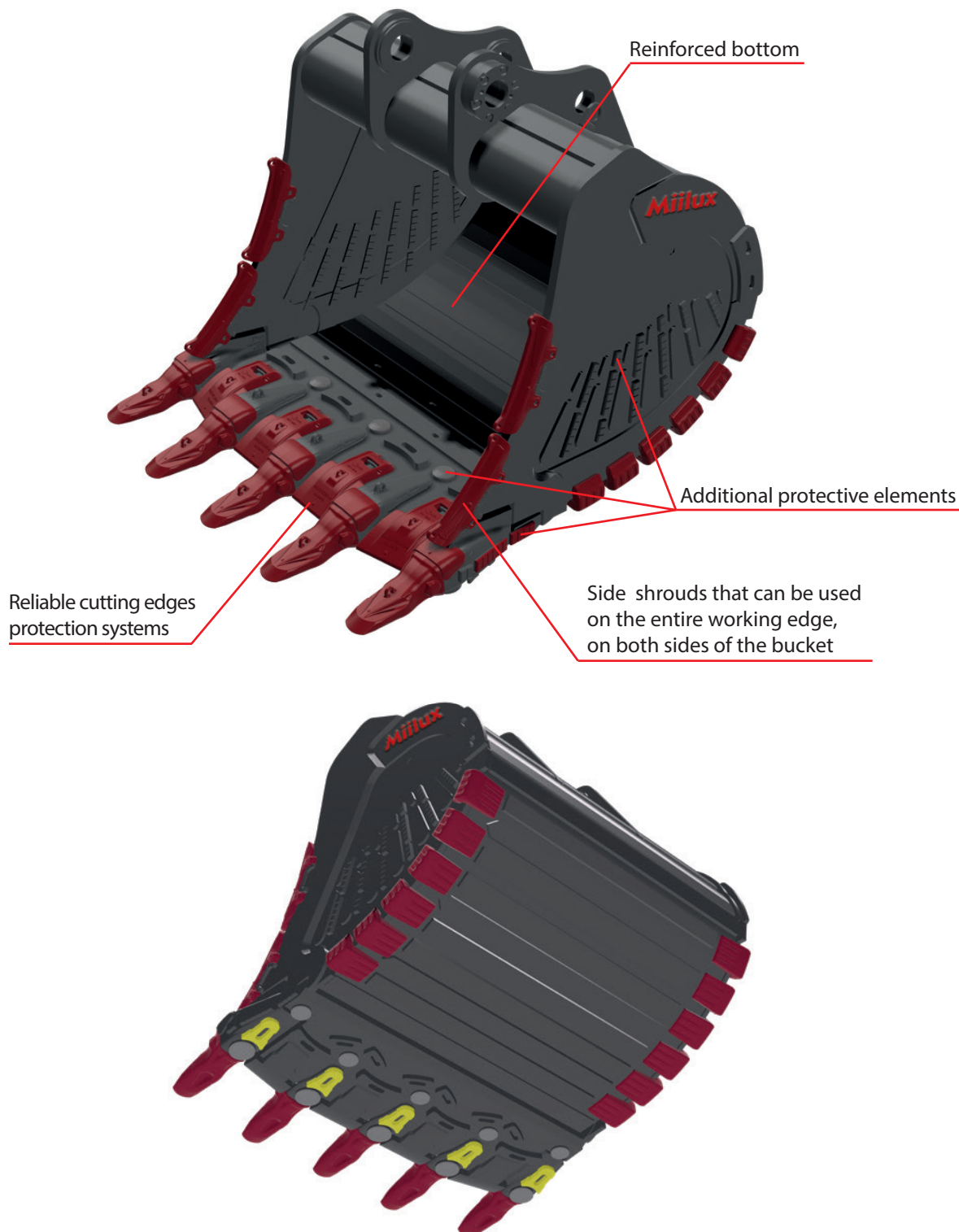


# OUR PRODUCTS

## Excavator buckets and rock buckets

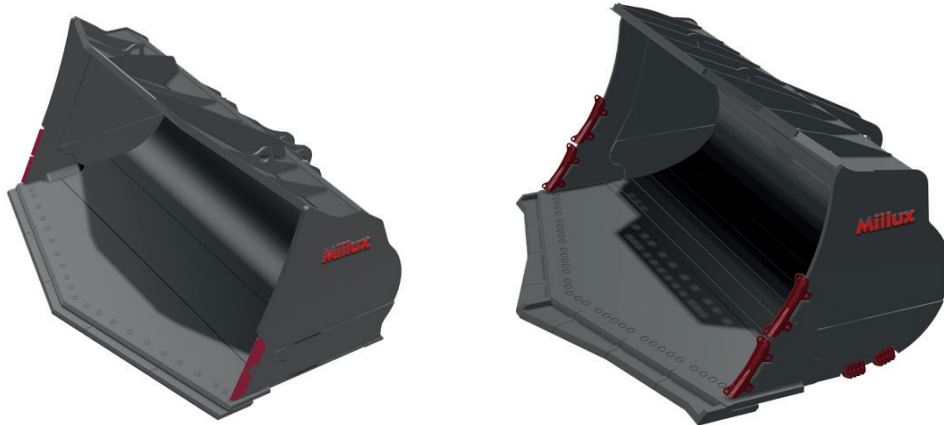
**Manufactured and tested under the toughest conditions.**

Miilux excavator buckets and rock buckets are optimally designed for all phases of each work cycle: penetration during the digging phase, quick material pick-up, maximum fill factor and easy bucket emptying. Thanks to the use of abrasion-resistant steel with high strength, working plowshares, reinforcing bars and an additional reinforcing package in the Hard from Edge to Edge technology, we offer the most durable product which is also the best economically solution. Our technologies are individually tailored to the customer's needs, as the manufacturer we can personalize the performance of the buckets and select additional equipment depending on the planned applications.



## Loader Buckets

Buckets manufactured by Miilux also include solutions dedicated to loaders. Our products are successfully used in construction or civil engineering, earth moving works, road constructions, agriculture, recycling, forestry and timber industry, in landscaping and nursery companies, and in municipal services. Miilux offers the right solution for your requirements. Our buckets guarantee a long service life and minimize the need for repairs. They are characterized by very high durability. For work in extremely difficult conditions, we also have specially designed reinforced bucket solutions.



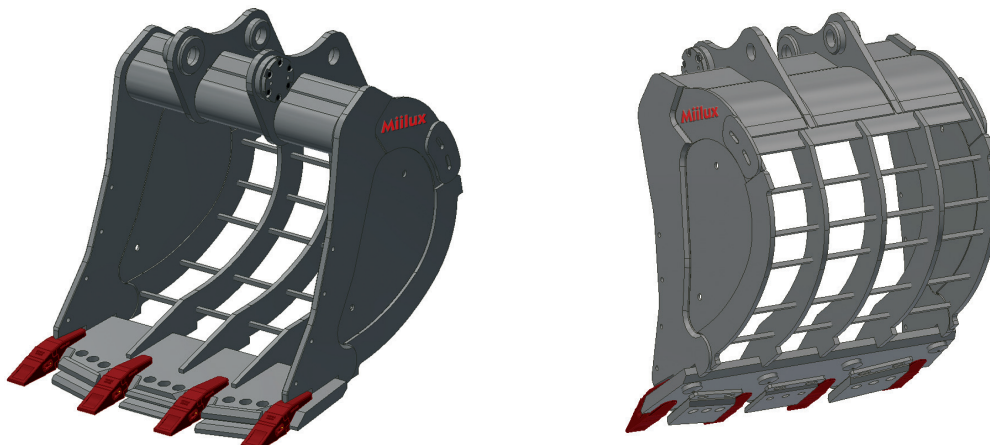
## Grabs

Miilux offers various gripper designs. These devices can be used to transport of various bulk materials. Innovative design solutions ensure proper sealing of mating surfaces. All elements exposed to wear can be fastened with the help of screw elements, which significantly shortens the time of possible repairs.



## Skeleton buckets

Skeleton buckets produced by Miilux have special operating properties. In this case, the Hard from Edge to Edge technology is of great importance, the use of which completely eliminates the heat-affected zone, and thus places devoid of abrasion-resistant properties. Miilux skeleton buckets have many uses, incl. in the construction, road and recycling industries.



We optimise the geometrical form of our buckets in many ways. To meet the expectations of our customers, we break down each bucket into its smallest parts and thoroughly analyse each of them to search for solutions that will extend the life of the bucket, reduce operating costs, and facilitate the replacement of wear parts such as teeth, plates between teeth, etc.

The results of our development work include modern cutting edge protection systems. Our patented **M**, **HD** and **XHD** solutions are a combination of the best: Miilux® material, Hard from Edge to Edge Technology and a bolted connection system. Whether it is an excavator or loader bucket, or which protection system is chosen, we always use our unique Technology to ensure that the cutting edge protection is at the highest level.

#### The most important advantages of our cutting edge protection systems:

- Quick replacement of worn parts
- Full protection of the bucket cutting edge
- Consistent bucket capacity throughout the lifecycle of the protection systems
- Possible use of a lower grade bucket cutting edge
- All System components are made using the Hard from Edge to Edge Technology, which eliminates the heat affected zone.
- The modular form of the protection systems allowing only worn sections to be replaced.
- No need for welding work allows the replacement of System components outdoor.

### Our cutting edge protection systems:



#### M SYSTEM

What makes the M System bucket cutting edge protection different from common solutions of loader buckets is the bolt system and an additional milled surface. The fully recessed bolt heads and nuts prevent the “pushing” effect in front of the bucket, which in turn increases the efficiency of excavation. Additional cutting edge milling that works with the M System protects the bolts against the effect of shearing or bending while plunging into handled material. The M system is intended mainly for loaders handling light materials.



#### HD SYSTEM

The HD system will find its application mainly in crushing and screening plants, when working with rock or other high abrasive materials. The specially designed geometric shape, in addition to the benefits of fully hidden bolts and nuts, also provides extra protection for the bottom of the bucket. The modular form of the system allows you to replace only worn-out parts, which significantly speeds up the process of restoring the bucket cutting edge to its original form, while minimising operating costs. The shape and dimensions of the HD System elements are fully customisable.



#### XHD SYSTEM

The XHD System is our unique product. This system, which is improved HD System provides further reduction of the impact forces applied to the bolts resulting from the operation of the loader bucket in loosened material. Loaders armed with the elements of the XHD system successfully operate in the harshest conditions prevailing in quarries or underground mines. The XHD System effectively compensates for machine forces affecting the bucket geometry, significantly reducing the risk of bucket damage.

## REPAIRS

Our steel service centre in Tarnowskie Góry offers well equipped technological facilities. Qualified employees and modern machines allow us to face the biggest challenges without fear. We carry out complex repairs of buckets in various technical conditions – from simple replacement of adapter or teeth, through additional reinforcements and cutting edge replacement, to complex bucket regeneration. At the request of the customer, we introduce additional modifications to the existing solutions, allowing for example to extend the period between repairs or shorten the time of replacement of protective elements. All parts and components required for repairs are made in our factory or are delivered directly by our partners, which ensures quick order performance and guarantee of matching old and new elements.



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