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# Tooth systems

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**LIEBHERR**

Earthmoving and material handling technology



# The Liebherr tooth systems

## The right tooth for every application

In order to optimise the economic efficiency of Liebherr machines, the tooth form must be adapted to the particular application matched to the respective application application. Liebherr offers comprehensive tooth programmes with tooth shapes for every task.

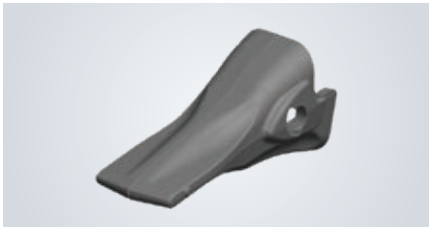




# The Liebherr Z-System

With the Liebherr Z-system, the optimised tooth design leads to increased efficiency on the construction site. The low digging resistance, the self-sharpening tooth shape and the simple and hammerless tooth change speak for the Liebherr-Z-System.

## C-tooth



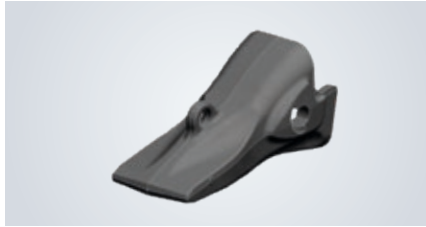
### Features

The conical shape ensures very good penetration into cohesive soils.

### Areas of application

Easily soluble soil types and weakly cohesive soils (e.g. loose, loamy sand, fine to medium gravel, moist or soft clay).

## R-tooth



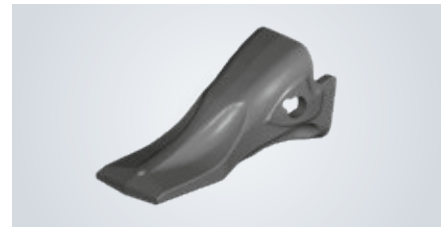
### Features

Small cutting width and large wear volume result in high specific penetration force and tool life.

### Areas of application

Soil types that are difficult to dissolve, especially abrasive soils, rock (e.g. limestone, shale, very hard clay, lignite).

## L-tooth (for wheel loaders)



### Features

Very good penetration into cohesive soils. Ideal for precise grading work in conjunction with the single-blade tooth adapter.

### Areas of application

Soil types that are easily to moderately soluble (e.g. loamy sand, clay, fine to medium gravel). to medium gravel).

## CL-tooth



### Features

Elongated tip shape with sharp cutting edge for very good penetration properties.

### Areas of application

Medium soluble and cohesive soils  
Soil types up to soils with medium plasticity (e.g. hard, loamy sand, medium-hard clay, fine to medium gravel).

## CR-tooth



### Features

The elongated tip allows good penetration into debris. The wide and thick sole of the tooth ensures good conditions, the wide and thick sole of the tooth a long service life.

### Areas of application

Abrasive soils, rock (e.g. granite, basalt, sandstone. Predominantly in conjunction with folding bucket inserts).

## PF-tooth



### Features

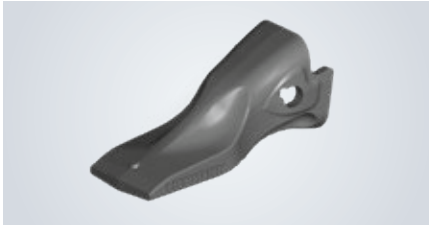
Fork tip with excellent penetration in extremely compact soils. Can be mounted as a supplement to the P-tips on the trowel corners to adjust the angle of inclination angle.

### Areas of application

Very hard and frozen ground, rock that is difficult to loosen (e.g. solidified, unweathered clay slate, heavy ores with medium and weak fracturing, Slag heaps from steelworks).

The teeth are made of high-strength steel, which is characterised by maximum wear resistance and a long service life long service life.

### H-tooth (for wheel loaders)



#### Features

Good penetration capacity in the debris. The wide and thick sole of the tooth ensures a long service life under wear-intensive conditions.

#### Areas of application

Medium soluble and cohesive soil types to soils with medium plasticity (e.g. hard, loamy sand, medium-hard clay, fine to medium clay, fine to medium gravel).

### P-tooth



#### Features

Pointed tooth with good penetrating power even in hard rock.

#### Areas of application

Very hard, frozen ground, rock that is difficult to loosen (e.g. firmly deposited, unweathered clay slate).

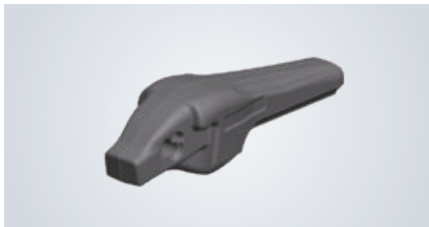
### Shrouds



#### Features

Reduces the wear of the bucket cutting edge and thus extends its service life while retaining its good penetration behaviour.

### Tooth adapter (single leg)



#### Features

For precise grading work.

### Tooth adapter (two legged)



#### Features

For harder applications, especially with shrouds. (shrouds).

## Conversion kit

#### A conversion kit consists of:

- 1 x adapter
- 1 x tooth
- 1 x safety bolt
- 1 x protection plug
- 1 x blocking part
- 1 x Wear cap for size 50, 70, 90

#### Order example:

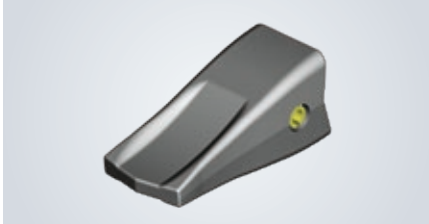
**The tooth size corresponds to the dimensions of the bucket lip.**

Converting a bucket with a bucket lip thickness of 40 mm with 5 new C teeth: 5 x conversion kit

# The Liebherr-Uni-System

Thanks to the low overall height and the slim, self-sharpening tooth shape, the Liebherr-Uni system stands for the best digging performance with low penetration resistance. Highly wear-resistant steel ensures the familiar reliability that has already proven itself in wheel loaders, even under tough conditions. The lateral clamping sleeve lock enables a simple and safety tooth change.

## Standard tooth



### Features

Symmetrical cap with free cut front, self-sharpening, reversible.

### Areas of application

For easily to moderately soluble Soil types (loamy sand, gravel, soft brown coal, soft / medium clay etc. clay etc.).

## HD-tooth



### Features

Cap with large material content for long long service life for wear-intensive applications.

### Areas of application

For particularly abrasive soils (granite, basalt, sandstone, rock with quartz content etc.).

## Pointed tooth



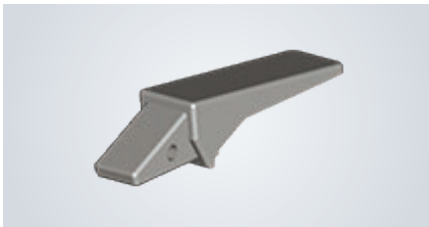
### Features

Pointed tooth for good penetration, reversible.

### Areas of application

For very hard and frozen ground, rock that is difficult to loosen (limestone, shale, lignite, removing from wall gravel etc.).

## Adapter



### Features

For precise grading work.



# The Liebherr Group



## Global and independent: more than 70 years of success

Liebherr was founded in 1949 when, with the development of the world's first mobile tower crane, Hans Liebherr laid the foundations for a family business now employing nearly 50,000 people and comprising over 140 companies across every continent.

The parent company is Liebherr-International AG in Bulle, Switzerland, whose associates are exclusively members of the Liebherr family.

## Leaders and pioneers

Liebherr is a pioneer and its forward-looking approach has seen it make important contributions to technology history over a wide variety of industries. Employees throughout the world continue to share the courage of the founder, sharing a passion to produce innovative products and a determination to provide world-leading equipment and machinery.

## Diversified portfolio

The company is one of the world's biggest construction equipment manufacturers and provides high-quality, user-oriented products and services to sectors including: earthmoving, material handling, deep foundations, mining, mobile and crawler cranes, tower cranes, concrete production and distribution, maritime cranes, aerospace and transportation, gear technology and automation, refrigeration and freezing, components and hotels.

## Customised care

Liebherr solutions are characterised by precision, implementation and longevity. The company is committed to technological excellence and to providing customers with solutions that match their needs exactly. That customer focus does not end with delivery of a product but continues through a comprehensive range of back-up and support services.

[www.liebherr.com](http://www.liebherr.com)

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