



# Curve Tooth cutter heads

Capable of handling  
the toughest and hardest soils



# Why choose our Curve Tooth cutter head?

Best practice from the field, combined with a decade of scientific research, has resulted in a new standard for cutter heads.

The Curve Tooth cutter head is designed to handle the toughest soils with ease and maximise the performance of your cutter suction dredger.

- **highly effective on projects with a wide variety of soil types**

Although designed for the toughest soils, the Curve Tooth cutter head has proven in extensive field testing to be highly effective on projects with varying soil conditions. From rock and sticky clay to free-flowing sand and silt, the versatility of our cutter head provides optimum performance in all conditions, especially in mixed and varying soil conditions.

- **maximised productivity**

Meticulously positioned teeth reduce spillage and enable continuous, high production rates. Downtime is minimised to keep your operation running smooth as the curved teeth are not only stronger, they are also self-sharpening for a longer life span and there is no need to change cutter heads when soil conditions change.

- **energy efficient operation**

The Curve Tooth cutter head operates with minimal power requirements and consumption. This ensures efficiency and cost effectiveness. Even when external conditions change, power requirements and reaction forces remain constant.





# Looking sharp, staying sharp

Wear is always perpendicular to the cutting surface. Although the teeth are almost half worn, the edge is sharp and crisp.



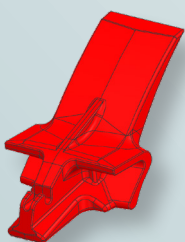
## Unique features

### Curved teeth, inspired by nature

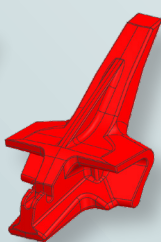
The tooth design of our Curve Tooth cutter head is inspired by a particular type of snail tooth. This snail is remarkably effective at scraping food from rocks. The curved teeth of this delicate creature, featuring a small cutting surface and high penetration force, can tackle some of the hardest materials found in nature. We have applied these principles to our teeth, resulting in curved teeth with an optimal balance of strength, wear resistance and sharpness.

#### Benefits of curved teeth:

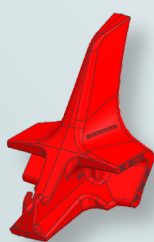
- stronger and more compact than straight teeth
- able to withstand higher strains and stresses with the smallest possible cross-sectional area of the teeth
- the cutting element of the teeth is self-sharpening
- fixation of the teeth to the adapter is maximised by a curvature of the tail preventing unnecessary resistance and wear.



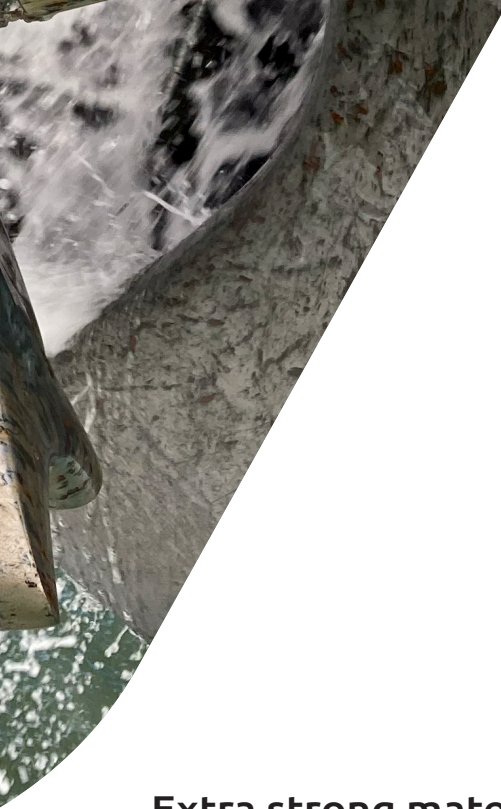
*flared chisel*



*narrow chisel*



*pick point*



## **Extra strong material teeth and adapters**

In addition to the intrinsic strength of the Curve Tooth provided by the curved design, the material also contributes to its longevity. The material of the teeth and adapters is based on a special material with a long history of use in the dry mining industry and optimised for the specific characteristics of dredging, namely operation in salt water. This makes the teeth suitable for the most demanding applications in hard rock dredging and provides long life in all other applications.

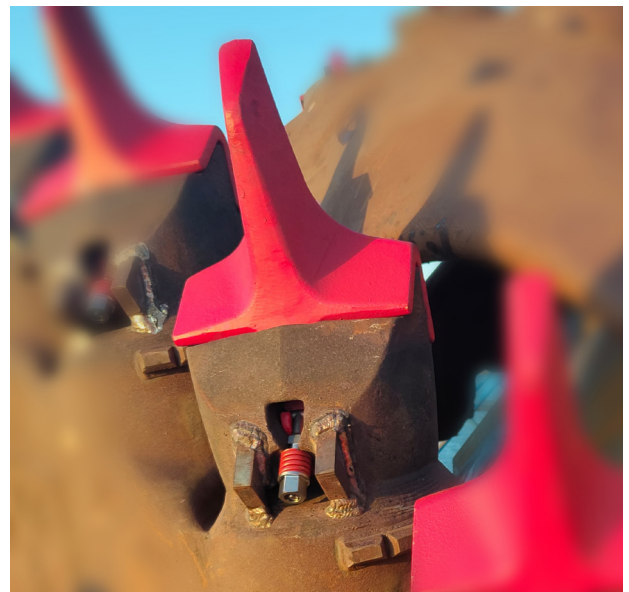
## **User-friendly locking mechanism**

The locking mechanism is designed with safety in mind, following current standards in the hammerless operation market. Critical parts are protected by adapter and teeth, limiting or eliminating contact between soil or other abrasive materials and the locking.

Locking is achieved using a mechanical spring to ensure continuous contact between the teeth and the adapters. The locking design makes it easy to change teeth, resulting in faster tooth replacement. A locking washer prevents the locking from falling apart when loosened.

## **Single-cast body for extra strength**

Where other cutter heads have the back ring, arms and hub welded after casting, this cutter body is cast in one piece, including the back ring, arms and hub. The single cast body makes the Curve Tooth cutter head inherently strong and durable, eliminating weak spots from welding while allowing design optimisation and customisation to suit any needs.





# Which Curve Tooth cutter head is right for your project?

## Rock

### Application

Hard and mixed soils.

### Profile

Pointed for maximum penetration force.

### Adapters

*Shank adapters:* robust and cast, ensuring strong power transmission and minimal wear.

### Power range

150kW - 9,000kW

### Benefits

- highly efficient in hard and mixed soils
- designed to handle heavy-duty operations.



## Sand and clay

### Application

Sand, silt, and clay.

### Profile

Rounded for optimal cutting performance.

### Adapters

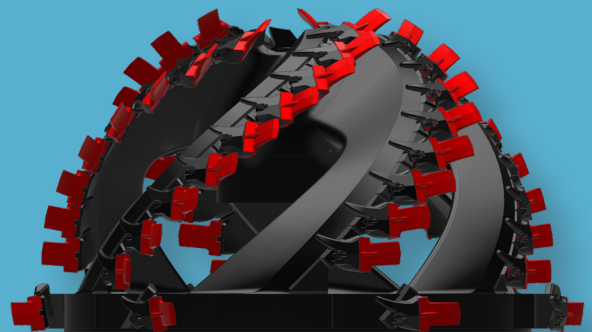
*Wing adapters:* slim and welded, reducing blockage and maximising production.

### Power range

195kW - 11,900kW

### Benefits

- maximum output with minimal spill
- optimised for sand and soft soil applications.



*Both types of cutter heads use the same design of curved teeth, available as pick points, and as narrow or flared chisels.*

## Rock

	Back ring inside	Cutter power	Teeth system	Adapter system	Weight*
0 CT	1,330mm	150kW	Curve Tooth	Shank	4,000kg
10 CT	1,455mm	380kW	Curve Tooth	Shank	5,500kg
20 CT	1,700mm	720kW	Curve Tooth	Shank	7,500kg
30 CT	2,050mm	1,200kW	Curve Tooth	Shank	10,000kg
40 CT	2,330mm	1,850kW	Curve Tooth	Shank	14,000kg
50 CT	2,550mm	2,700kW	Curve Tooth	Shank	18,500kg
60 CT	2,700mm	3,800kW	Curve Tooth	Shank	23,000kg
70 CT	2,800mm	5,200kW	Curve Tooth	Shank	29,000kg
80 CT	2,850mm	6,900kW	Curve Tooth	Shank	36,000kg
90 CT	2,900mm	9,000kW	Curve Tooth	Shank	45,000kg

## Sand and clay

	Back ring inside	Cutter power	Teeth system	Adapter system	Weight*
0 CT	1,400mm	195kW	Curve Tooth	Wing	2,000kg
10 CT	1,700mm	550kW	Curve Tooth	Wing	3,000kg
20 CT	2,000mm	1,150kW	Curve Tooth	Wing	5,000kg
30 CT	2,100mm	2,050kW	Curve Tooth	Wing	7,500kg
40 CT	2,300mm	3,400kW	Curve Tooth	Wing	11,000kg
50 CT	2,600mm	5,400kW	Curve Tooth	Wing	16,000kg
60 CT	2,800mm	8,200kW	Curve Tooth	Wing	22,000kg
70 CT	3,600mm	11,900kW	Curve Tooth	Wing	28,000kg

Customised designs are available in addition to the standard designs listed in the tables above.

\*Including teeth and lockings, excluding optionals.

## Optional parts

A wide range of optional parts and peripherals are available for efficient and cost-effective use of the Curve Tooth cutter head:

- cutting equipment: flared or narrow chisels and pick points
- knock-off blocks on the back ring
- stone gratings
- wear protection on the cutter head body
- etc.