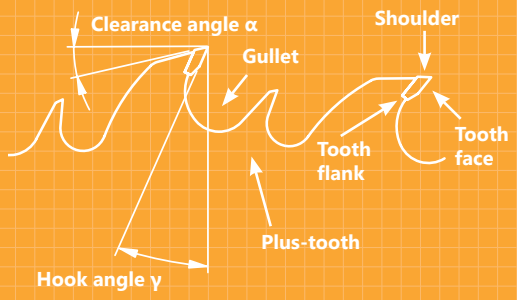
TECHNOLOGY

Tooth geometry

There's a lot happening at the tooth area of a circular saw blade. The small tungsten carbide or stellit saw teeth chip away the shavings which then seemingly storm about the gullet, are again broken up by the Plus-tooth and then hastily ejected by the spin of the circular saw blade.

The better the cutting material, tooth form, tooth type and tooth geometry are coordinated for the subsequent application, the higher the performance of the circular saw blade.



Cutting materials

In the sawmill industry, tungsten carbide (TC), stellit (ST) and chromium-vanadium steel (CV) are three cutting materials used for saw teeth, where an inexpensive CV tooth comes directly from the straight-set circular saw body and therefore cannot be tipped. Available for HDS circular saw blades:

+ TC - application-optimised tungsten carbide styles in four quality levels HWQ: HDS01 to HDS04
+ ST - stellit, particularly tough and robust cutting material
+ CV - chromium-vanadium steel for inexpensive straight-set standard circular saw blades

Tooth forms

HDS circular saw blades primarily feature universal, easy to sharpen flat teeth. Other shapes are available of special applications.

+ F Flat tooth
+ W Alternate top bevel tooth
+ H Hollow tooth
+ TF Triple chip - flat tooth
+ TT Triple chip - triple chip tooth
+ FS Flat tooth with protective chamfer

Saw tooth

General tooth types

In addition to tipping and the construction of the saw body, the tooth type is an important factor in optimising the cutting performance and cutting quality as well as stability and service life.

+ KV - tooth type (peg tooth)
  Long- and cross-cut, tungsten carbide/stellit tipped
+ PV - tooth type (curved tooth)
  Long- and cross-cuts, primarily stellit tipped
+ NV - Tooth type (pointed tooth)
  mostly for cross-cuts and for straight-set circular saw blades

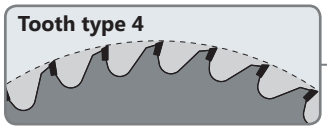
The KV tooth type was greatly modified for high-performance areas at the sawmill. This resulted in special, extremely powerful sawmill tooth types.

General tooth types

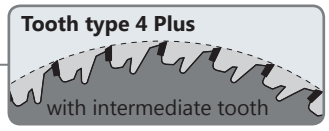
STABILO Hexa CC

Dimensions	510 x 4.7/3.5/4.9 x 150 mm
Teeth	18 TCT teeth . Tooth form flat tooth . Tooth type 4 Plus Hexa style with 6 chip clearance slots
Features	AST Graduated Saw Blade Technology, gradation type ESEF one side with single gradation from 4.9 to 3.5 mm . CoolCut CC
HDS-No.	12388

TECHNOLOGY



★ HDS-standard



Tooth type 4

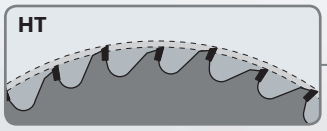
The universal tooth type 4 suitable for rough and fine cuts as well as long and cross cuts is the standard tooth type and characterised by the particularly large gullet. The gullet is even able to collect and eject and adequate amount of sawdust with high feed rates or large cutting heights. The radial shape of the gullet aids in ejecting the sawdust.

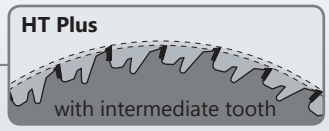
Profile
+ Consistent tooth heights
+ Consistent pitch
+ Large gullet

Tooth type 4 Plus

When we developed "tooth types 4 Plus" our focus was on optimising chip removal. The striking "Plus-tooth", also referred to as intermediate tooth, splits the gullet and improves saw dust ejection as well as the chip flying outward. This eliminates sawdust friction between the circular saw blade and material being cut, as well as the sawdust clumping together in the gullet. Reducing the strain on the circular saw blade allows for a smaller kerf.

Profile
+ Consistent tooth heights
+ Consistent pitch
+ Plus-tooth for improved chip ejection & chipping





HT High-Low

The modified tooth type 4 allows for different cutting heights to be processed with greatly varying feed rates using a single circular saw blade type. This eliminates the blade change and the associated set-up costs. It further reduces the expenditure of acquisition and storage, since a limited cutting area only uses one specific circular saw blade type. The tooth type therefore greatly contributes to the profitability of your production line.

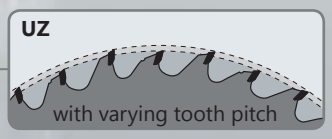
Profile
+ Varying tooth heights
+ Consistent pitch
+ Large gullet

HT High-Low Plus

The "HT Plus" tooth type combines the strengths of HT teeth and the "Plus-tooth". On one hand this allows a wide range of different cutting heights and different feed rates to be processed without changing the circular saw blade, and on the other hand the intermediate tooth the improved sawdust ejection from the additional tooth in the gullet minimises the thermal strain on the circular saw blade.

Profile
+ Varying tooth heights
+ Consistent pitch
+ Plus-tooth for improved chip ejection & chipping

Sawmill tooth types



UZ Varying tooth pitch

The UZ tooth type is of particular interest for trim- and fine cutting units. The alternating tooth heights and the uneven pitch allow the UZ tooth type to be used efficiently for fine cuts for large cutting heights with low feed rates as well as for trimming with significantly lower cutting heights at high feed rates.

Profile
+ Varying tooth heights
+ Varying pitches
+ Large gullet

UZ Plus

Tooth type "UZ Plus" combines the advantages of this tooth type with the benefits of the "Plus-tooth". The effective chip ejection and the improved chip break reduce friction and heat so the circular saw blade allows a reduced kerf.

Profile
+ Varying tooth heights
+ Varying pitches
+ Plus-tooth for improved chip ejection & chipping