

LAIMET SCREW CHIPPERS - AN UNIQUE FINNISH INVENTION BY LAIMET

Introduction

The high efficiency LAIMET chippers are suitable for chipping all sorts of wood: sawn surfaces (slabs), tree tops, thinned out trees as well as logging waste. LAIMET chippers also chip frozen wood efficiently.

By changing the type of blade, chips of different sizes - ranging from 20-25 mm to 100-150 mm in length - may be produced. The chips produced are even and splinter-free, and are suitable for heating purposes, as pulp chips, as mulch in horticulture, as animal litter, in covering cultivated land and fields, in composts, when building up green areas, etc.

LAIMET chippers are number one in productivity, with efficiency remaining high even in demanding conditions. Operation is quiet, construction is simple, and there are few parts that wear out.

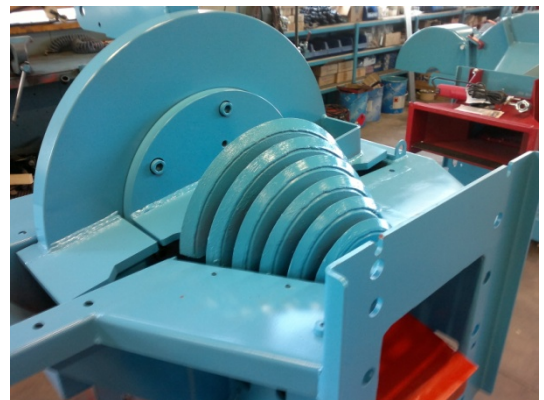
LAIMET offers chippers for all purposes: Whether you need the small tree chipper PS-10, or the awesome LS 50 L producing up to 200 cubic meters of chips per hour, we offer you the best quality.

All LAIMET chippers are electric or tractor engine powered. However, diesel powered versions of some of the models are also available.

Function principles of the screw chipper:

Function principle of a screw chipper is very simple and reliable. A conical screw blade when rotating pulls in the log and chips it at the same time. The screw blade is attached on a fly wheel where rotating wings flip the chips out of the chipper.

There are different types of in-feed conveyors available for moving logs into the chipper in-put opening where the screw blade grabs the log and pulls it into the chipper. No additional in-feed device is required. As the screw blade rotates with a speed, also the chipping speed remains constant ensuring standard chip length and homogeneous, high quality chips unlike the chips produced with a drum- and disc chipper



Opened Laimet screw chipper

Chipper models & options:

LAIMET Chippers can be categorized into two main types: High Speed and Low Speed -models. The rotation speed on a HS-model is 750 rpm and on LS-models 100-200 rpm. Both models have their own advantages.

HS-models are more productive due to that the rotation speed is higher, and while the wings on the fly wheel blow out the chips efficiently, no out-put conveyor for chips is needed. The blowing force through the chip out-put pipe can elevate the chips up to 5-6 m high. For the transmission on HS-models, multiple-V-belts are used, which are durable and reliable in industrial working environment.

LS-models on the other hand are quiet. Large heavy duty chippers are mostly LS-models as lower rotation speeds suit them better. The rotation speed is adjusted with a gear box allowing to use motors with less performance than on HS-models. LS-models discharge the chips beside the chipper due to a lower rotation speed and require a conveyor or other device to relocate the chips.



HS 21 IE chipper with V-belt transmission

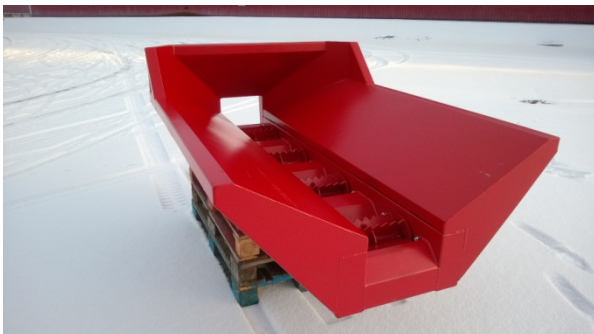


LS 21 IE chipper with gear drive transmission

The chippers are driven either with a tractor or an electric motor. It is also possible to provide one with a diesel engine.

Conveyors:

Laimet Low Speed Chippers can be provided with discharge conveyors of different belt widths and elevation angles. The discharge conveyor is possible to install so that it carries the chips to either side or to the back of the chipper. Material used on the belt conveyors is of resin resistant industrial rubber.



Spiked Roller Conveyor 315 Short (SRC 315 S)



Chips Discharge Conveyor (GBBC 800/7350)

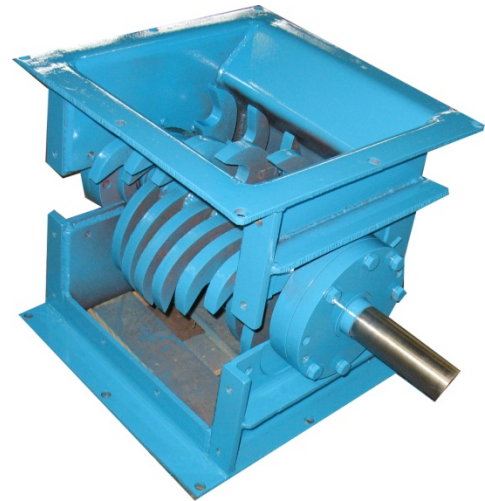
For in-feed conveyors, there are spiked roller conveyors as well as belt conveyors of various lengths to choose from, depending on use and other requirements.

Belt conveyors suit better for feeding slabs and sawmill waste. The chipper itself does not need any feeding device but the conveyor makes the feeding quicker and more efficient keeping the material flow to the chipper more constant. The conveyor speed can be adjusted with a transformer and on mobile models with hydraulics, and also has a reversing function.

Re-Crusher:

LS-models can be equipped with a so-called Re-Crusher to ensure that the chips produced are homogeneous and of even size. The re-crusher has rotating hooked knives, which break only over sized pieces but not medium or small size chips. When producing chips for gasification the re-crusher ensures the quality of the chips. The Re-Crusher is available for Laimet 100-serie Low Speed models.

In the chassis of the chipper there is an integrated space for Re-Crusher as standard. In case the customer chooses to have one, the re-crusher parts; the hooked knives, their counter blades as well as a gear motor will be installed in this space.



Re-Crusher with rotating hooks

Chip size:

The chips sizes can be changed by choosing a screw blade with a different pitch. The screw blade is made of very resistant hardened metal, and therefore a working life for this kind of blade is particularly long. When the hard-welded cutting surface is worn out, it can be refurbished at the manufacturer's work shop. The cost of the repair is half of the price of a new corresponding screw blade.



Screw blade

Advantages of Laimet screw blade chippers:

The most significant advantage is homogeneous chip with high quality. Chips produced are even sized and splitter free with minimum quantities of sawdust and small particles.

The construction of the screw chipper is simple

and therefore reliable, durable and long-lasting. There are very few parts that wear and need to be replaced. Furthermore the noise level of the Low Speed models is so low that they can even be used closed to dwellings.



Chips without fines

Laimet chipper's product range:

For agriculture use:

HS 21 A

Tractor driven, High Speed chipper, max. log diameter up to 170 mm, meant for general use

HS 25 A

Tractor driven High Speed chipper, max. log diameter up to 230 mm, meant for general use and contractors

HS 28 A

Tractor driven, High Speed chipper, max. log diameter up to 280 mm, meant for general use and contractors.

HS 21 ID CW M

Diesel driven, High Speed chipper, max. log diameter up to 170 mm, meant for general use and contractors.

For sawmill use:

HS 21 IE

Electric motor driven High Speed chipper, max. log diameter up to 170 mm or 300 mm wide slabs, meant for sawmills and light duty chipping for instance producing pulp chips

HS 25 IE

Electric motor driven High Speed chipper, max. log diameter up to 230 mm or 400 mm wide slabs, meant for sawmills and heavy duty chipping for instance producing pulp chips

HS 28 IE

Electric motor driven, High Speed chipper, max. log diameter up to 280 mm or 400 mm wide slabs, meant for sawmills and heavy duty chipping for instance producing pulp chips

LS 21 IE

Electric motor driven, Low Speed chipper, max. log diameter up to 170 mm, meant for light use chipping for instance producing chips for pulp industry or for gasification, without readiness for a re-crusher.

LS 25 IE

Electric motor driven, mid-size, Low Speed chipper, max. log diameter up to 230 mm, meant for producing chip for instance pulp industry or for gasification, without readiness for a re-crusher.

For industrial use:**LS 280 M IE LW S**

Electric motor driven, mid-size, Low Speed chipper, max. log diameter up to 280 mm, meant for industrial chipping for instance producing chips for gasification, with readiness for a re-crusher.

LS 400 L IE LW S

Electric motor driven, large-size, high performance chipper, max. log diameter up to 400 mm, meant for industrial chipping for instance producing chips for gasification or for process of manufacture in metal industry , with readiness for a re-crusher.

LS 50 L IE LW S

Electric motor driven, large-size, high performance chipper, max. log diameter up to 430 mm, meant for industrial chipping for instance producing chips for gasification or for process of manufacture in metal industry, with readiness for a re-crusher.

For household use:**PS-10**

Tractor driven, small-size, High Speed chipper, max. log diameter up to 100 mm, meant for home and garden, landscaping, etc.