

# **Cultivators for effective stubble incorporation**







# Stubble cultivation with Kverneland

Incorporation, mixing, levelling and consolidation

Kverneland offer a wide range of cultivators, ensuring the optimum choice of stubble cultivation implements to suit your soil conditions.

Important features for the optimum cultivator are:

- Frame with optimum under-beam clearance
- High performance
- Large inter-tine spacing
- Type of tines
- Type of wing shares
- Manoeuvrability

# Fast and shallow, re-compaction and level finish, that's how stubble cultivation should be!

The stubble cultivation, especially within a no-tillage or minimum tillage cultivation program to conserve soil structure and moisture, is an operation which requires great consideration. Stubble cultivation will be the basis of success or failure of the following crops.

## Interruption of the "green bridge"

For efficient farming, stubble cultivation has to be carried with greater care the closer the cropping sequence is repeated. The transmission of root diseases or weed problems from one crop to the next needs to be prevented. If the period between two crops becomes shorter the interruption of the "green bridge" will be necessary to ensure soil hygiene.

## Volunteers germination and straw decomposition

Stubble cultivation also has to ensure a quick and even emergence of volunteers prior to spraying off or a second pass of the cultivator to clean the seedbed. Straw decomposition should also be accelerated as any diseases are transferred by straw. Effective chopping and even distribution of the straw by the combine is the ideal starting point. If the combine does not

manage this effectively, an additional operation of mulching might become necessary.

## Supporting the soil structure

Cultivation should be carried out **as quickly as possible** after harvest in order to benefit from the stable crumb structure. Cut stubble continues to draw the moisture from the soil so it is important to fully expose the root to the air and improve moisture retention.

**Shallow**, an average working depth of 5 -10 cm is the ideal cultivation depth to ensure that all volunteer and weed seeds are germinated and not buried.

Stubble cultivation should **recompact** the work in order to ensure that all seeds have the optimum soil contact and accelerate emergence.

A fine level seed bed improves soil closure and a weatherproof finish, reducing slug damage and preserving moisture. Straw decomposition is also accelerated since a larger quantity of straw gets in contact with the soil bacteria through effective mixing.



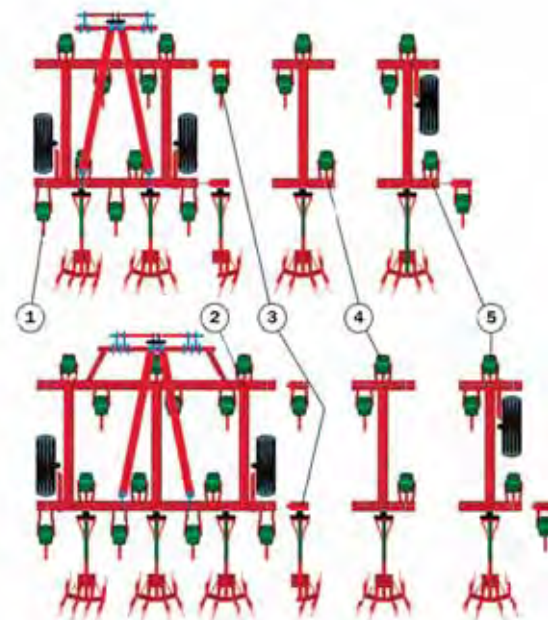




## Kverneland CLF Cultivator

for fast and effective stubble cultivation  
at working depths of 5 to 15 cm

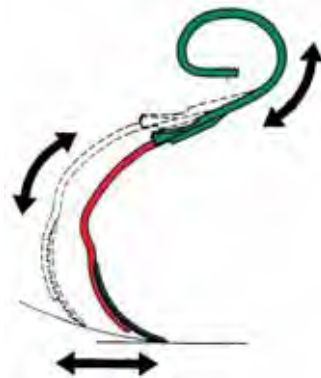
The Kverneland CLF is the ideal tool for shallow optimum mixing stubble cultivation. The special design of the "Turbo-tine" ensures excellent mixing of soil and crop residues. In Autumn cultivations the results prior to ploughing are excellent.





### The "Turbo-tine"

The special design of the tine produces a "turbo" effect. Not only are clods broken up, but the soil is thrown forwards into the air in a rotary movement, ensuring effective and thorough mixing of plant debris with the soil, whilst working depth remains constant.



The "Turbo-tine" provides thorough mixing of soil and crop residues at a constant working depth.

### Specially heat-treated tines

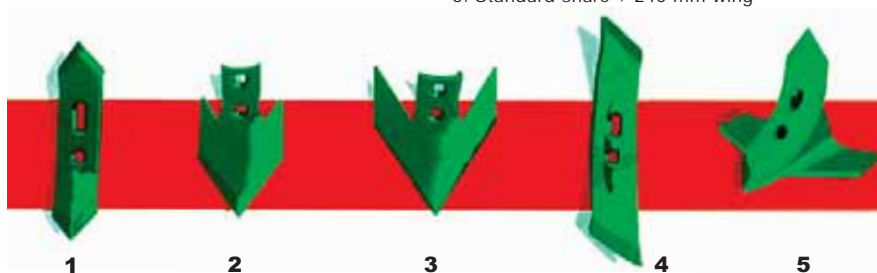
The "Turbo" tines are equipped with a specially heat-treated share made of high quality steel ensuring extra strength and durability.

### Four rows of tines

The robust, fully-welded frame provides an under-frame clearance of 75 cm. Combined with the arrangement of the tines in 4 rows, this clearance allows the cultivator to move more easily in dense crop residues with minimum risk of blocking. With the soil flowing more easily between the tines, mixing of the residues is considerably improved.

### Modular frame

The modular construction, based on 9 or 13 tine machine, allows an expansion of the cultivator from 9 to 15 tines (rigid models) or from 15 to 29 tines (hydraulic folding models). The Kverneland CLF is therefore easily adapted to any increase in tractor horsepower.



### Precise depth control

Depending on the working width, precise working depth is controlled by 2 or 4 pneumatic or steel wheels.

A highly visible graduated scale provides reference for easy adjustment. For optimum stability, the wheels are mounted inside the cultivator frame.

### Optional equipment

Depending on the desired result, the Kverneland CLF can be fitted with:

- Mixing discs
- Single row finger harrow (12 mm)
- 410 mm Diameter cage roller

A wide choice of shares:

1. 60 mm Reversible standard share
2. 120 mm Goose foot share
3. 180 mm Goose foot share
4. 60 mm "Twisted" share
5. Standard share + 240 mm wing



The pneumatic or metal depth wheels are set using screw adjusters and graduated scale allows for precise depth control.



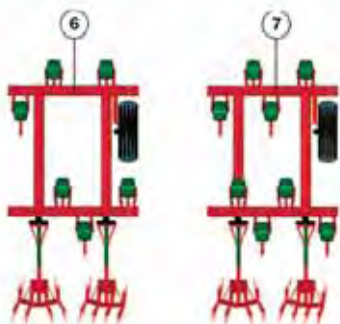
Kverneland CLF stubble cultivator with optional adjustable straw incorporation (mulch) discs for thorough mixing of soil and trash.



Kverneland CLF stubble cultivator with optional adjustable 12 mm finger harrow.

### Module system Extension scheme

1. Basic frame with 9 tines
2. Basic frame with 13 tines
3. Extension by 1 tine
4. Extension by 3 tines
5. Extension by 4 tines
6. Extension by 6 tines
7. Extension by 8 tines



## Specifications

Working width	Transport width	No. of tines	No. of wheels	Basic weight	Weight without/with equipment	Power requirement
2.0 m	2.0 m	9	2	510 kg	1100 / 1370 kg	45 kW / 61 HP
2.5 m	2.5 m	11	2	570 kg	1250 / 1700 kg	55 kW / 75 HP
3.0 m	3.0 m	13	2	680 kg	1450 / 1850 kg	65 kW / 88 HP
3.4 m	3.4 m	15	2	740 kg	1590 / 2180 kg	90 kW / 122 HP
3.4 m	2.1 m	15*	2	860 kg	1850 / 2390 kg	90 kW / 122 HP
3.9 m	2.1 m	17*	2	920 kg	1980 / 2520 kg	110 kW / 150 HP
4.3 m	3.0 m	19*	2	1140 kg	2320 / 2990 kg	120 kW / 163 HP
4.8 m	3.0 m	21*	4	1200 kg	2460 / 3130 kg	135 kW / 184 HP
5.7 m	3.0 m	25*	4	1400 kg	2810 / 3750 kg	145 kW / 197 HP
6.6 m	3.3 m	29*	4	1650 kg	3100 / 3950 kg	160 kW / 218 HP

\* Hydraulic folding models

# Kverneland CLM Heavy-Duty Stubble Cultivator

The Kverneland CLM is a further development of the well proven and tested Kverneland CLD. It is the ideal stubble cultivation tool for working depths of 5 to 20 cm.

## Tine Options

To suit different working conditions, the CLM is available with 2 different type of tines:

- Rigid tines, with shear bolt safety device for use in stone-free soils.
- "Auto-reset" tines with the well proven Kverneland leaf spring safety system, for hard and stony conditions.

## Specially heat-treated tines

The "Auto-reset" tines are heat-treated to the same exacting standards as the beams on Kverneland reversible ploughs. These beams are well renowned for their high quality and durability.

## Cultivation of the full working width

Whichever tine is used, the CLM has a 2-piece wing share, 460 mm wide, combined with a reversible double heart point. These ensure that all the field is cultivated over the entire working width of the machine. Each wearing part can be replaced individually.

## Robust frame

The 100x100 mm section square beam, made of fine-grained micro-alloyed steel, guarantees that the CLM is robust enough to withstand the most severe conditions. A semi-mount kit is available for the hydraulic folding machines.

Parallel lifting of the machine is achieved by utilising two hydraulic cylinders fitted to the drawbar and rear wheel frame.

## Notched hollow discs

following the tines, the notched hollow discs mix and level the surface. A rear roller consolidates the work to ensure better volunteer weed seed germination. The hollow discs both crumble and level the soil. Each set is staggered to provide better clearance for trash.

The discs are easily adjusted by either pin or screw depth control. Perfect levelling is ensured when using the optional border discs.

## Wide choice of rollers

The CLM can be fitted with a wide choice of rear rollers:

- 550 mm Cage roller
- 400 mm Twin cage roller
- 500 mm Tooth packer roller
- 550 mm Cracker-Packer roller

## Equipment

- Edge shares (standard)
- Border discs (option)
- Depth wheels (option)



The notched levelling discs are mounted on taper roller bearings. They are height adjustable by pin or screw and are staggered to avoid blockages.



Zone 1: 2 rows of tines  
Full width cutting over the entire working width  
Loosening  
Mixing



The 460 mm wing share ensures cultivation over the entire working width. The specially heat treated wear parts can be individually replaced. Carbide faced wearing parts are also available as an option.





"Auto-reset" tines with Kverneland leaf spring safety protection for use in stony/hard conditions.



"Shear-Bolt" tine safety protection for use in light and stone-free soils.



Zone 2: Notched hollow discs  
Cracking  
Mixing  
Levelling

Zone 3: Roller  
Levelling  
Crumbling  
Consolidating



## Specifications

Model	Working width	No. of tines	Transport width	Weight mounted Shear-bolt/ Auto-reset	Weight semi-mounted Shear-bolt/ Auto-reset	Minimum power requirement
CLM 3.0	3.00 m	7	3.00 m	1020 / 1220 kg	-	75 kW / 100 HP
CLM 4.0	4.00 m	9	4.00 m	1330 / 1580 kg	-	100 kW / 130 HP
CLM 4.0 Hydr.	4.00 m	9*	3.00 m	1980 / 2230 kg	2820 / 3070 kg	100 kW / 130 HP
CLM 5.0 Hydr.	5.00 m	11*	3.00 m	2250 / 2560 kg	3090 / 3400 kg	120 kW / 160 HP
CLM 6.0 Hydr.	6.00 m	13*	3.00 m	2590 / 2950 kg	3420 / 3800 kg	140 kW / 185 HP

\* Hydraulic folding models







## Kverneland CLC Chisel Cultivator

for stubble cultivation or general soil loosening at working depths of 5 to 40 cm

The Kverneland CLC is a highly versatile implement. Carrying out shallow or deep soil preparation, it is an extremely versatile machine for the majority of your soil-working requirements.

Specially heat-treated tines and wear parts guarantee long life and durability.







### Ample under frame clearance of 870 mm

The robust construction together with the specially heat-treated tines give an impressive under frame clearance of 870 mm. This, coupled with a tine spacing of 280 mm ensures the machines performs optimally in trashy conditions.

### Tine options

- Rigid tines, with shear bolt safety device for use in stone-free soils.
- "Auto-reset" tines with the well proven Kverneland leaf spring safety system, for hard and stony conditions.

### Specially heat-treated tines

The "Auto-reset" tines of the CLC cultivators are heat-treated to the same exacting standards as the beams on the Kverneland reversible ploughs. These beams are well renowned for their high quality and durability and minimum of maintenance requirement. The tines can withstand sideways movements of up to 20 cm.



All wear parts benefit from the Kverneland steel treatment technology which makes them robust enough to withstand the toughest conditions.



The CLC has the advantage of the Kverneland Non-Stop safety system providing exceptional over load protection.

### Plough points

Each tine is provided with a Kverneland reversible plough point, made of high quality steel, for maximum working life. The point allows the CLC to work at all depths, even in stony soils, and helps to eliminate plough pans, encouraging natural drainage.

For shallow stubble cultivation, the CLC can be fitted with 30 cm wing shares, allowing cultivation over the entire working width of the machine at a depths of 5 to 15 cm.

### Optional equipment

- Single or double notched disc gang 500mm (working depth up to 25cm)
- Combination disc gang and 410 mm cage roller (working depth up to 25cm)
- 2-row Finger harrow
- 550 mm Cage roller



## Original Spare Parts

The Kverneland Group regards the sale of each machine as the start of a long-term and valuable relationship. To support the relationship, we provide the vital high quality spare part and an efficient spare part service.

You can depend on the Kverneland Group to offer a premium service. It's vital for us!



# Kverneland CLC Chisel Cultivator

for reduced operating costs

The reversible point is the same as those used on our ploughs.

As well as being very inexpensive, they offer unrivalled resistance to wear.







15-tine Kverneland CLC in stubble cultivation configuration: the wing shares make it possible to carry out shallow stubble cultivation at depths of 5 to 15cm, the discs gang ensures perfect mixing and levelling. Finally, the cage roller provides the necessary consolidation for volunteer and weed seed germination.



### Robust frame construction

The Kverneland CLC is available in working widths from 2.00 to 5.10 metres and is offered with 2 or 3 rows of tines and 2 different frame configurations:

- rigid 2.00 to 3.60m working width models
- hydraulic 2 part folding 3.60 to 5.10m models.

The machine provides a large under-frame clearance of 870mm and intercross frame distance of 900mm for optimum performance in all soil and crop conditions.

### Front mounting kit

The CLC can be fitted with an optional front mounting kit which allows the CLC to be used as a combination cultivator.



The CLC utilises the Kverneland standard plough point, with all the benefits of the Kverneland heat treatment systems. In addition to its reduced wear due to its high durability, it has the advantage of being inexpensive to replace.

## Specifications

Working width	Transport width	No. of tines	Weight Rigid/Non-Stop	Single disc	Double disc	Roller	Combination	
<b>Models with 2 rows of tines:</b>								
2.00 m	2.00 m	7	405 / 480 kg	245 kg	460 kg	200 kg	415 kg	
2.50 m	2.50 m	9	475 / 575 kg	275 kg	520 kg	230 kg	475 kg	
3.00 m	2.95 m	11	550 / 670 kg	305 kg	580 kg	265 kg	540 kg	
3.60 m	3.60 m	13	650 / 800 kg	335 kg	640 kg	315 kg	620 kg	
3.60 m	2.90 m	13*	1050 / 1200 kg	335 kg	640 kg	315 kg	620 kg	
4.30 m	2.90 m	15*	1185 / 1350 kg	490 kg	920 kg	400 kg	830 kg	
5.10 m	2.90 m	19*	1300 / 1500 kg	550 kg	1040 kg	460 kg	950 kg	
<b>Models with 3 rows of tines:</b>								
2.50 m	2.50 m	9	640 / 740 kg	275 kg	520 kg	230 kg	475 kg	
3.00 m	2.95 m	11	680 / 800 kg	305 kg	580 kg	265 kg	540 kg	
3.60 m	3.60 m	13	715 / 860 kg	335 kg	640 kg	315 kg	620 kg	

\* Hydraulic folding models  
Power requirement depends on working depth, 5 - 25 HP / tine.



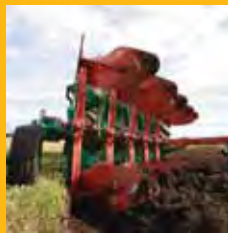


Kverneland Group is one of the leading international companies developing, producing and distributing agricultural and viticultural machinery.

The Group's family of strong brands allows us to provide professional farmers, contractors and dealers with a unique and complete range of high quality products for soil preparation, seeding, grass processing, spreading, spraying, vine conditioning and grape harvesting.

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

## Ask for other implements in the Kverneland program



Kverneland ES

Kverneland - No. 1 in plough production. The complete program consists of all types and sizes of ploughs from the smallest 2-furrow to the largest 14-furrow.



Kverneland  
CTS Stubble Finisher

Kverneland CTS Stubble Finisher- high speed stubble cultivation, with uniform mixing of crop residues. One pass operation to produce a fine, firm, level and weatherproof stale seedbed whilst carrying out deep loosening, to a maximum of 400mm. The Kverneland CTS is available in working widths of 3,0, 4,5 and 6,0 m.



Kverneland Power  
Harrows

Kverneland Power Harrows and Rotary Tillers have gone through a radical development program over recent years and are now taking an ever increasing market share the world over.

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