

WHEN FARMING MEANS BUSINESS

Realising the full potential of farming is about growing and developing your business, not only your crop or livestock, but also your profit. Improve productivity and profitability by focusing on the positives and minimising disadvantageous aspects, through strong, dedicated management.

Success springs from determination and clear targets, from laying down the appropriate strategy and allocating correct investments for the future. Quality results require the right ideas and equipment. When there is work to be done, you need the optimal setup and smart solutions that support you towards an easier, more profitable way of working. You need solutions that make tough and demanding conditions less complicated





YOUR KVERNELAND

INTELLIGENT FARMING SOLUTIONS

Choose the best farming solution for you and your land. Combine the highest possible yields with sustainability. This will start with the correct tillage. The choices you make depend on various factors and should match your specific circumstances, like soil structure, crop rotation, residue management, economic and ecological viabilities.

The choice is yours!

You must consider environmental and legal issues. From conventional methods to conservation tillage: the balance of operations at the right time has to be found to achieve high yields with the best soil condition (air, moisture, biological activity, etc.) with a minimum amount of energy, time and investment. For this, Kverneland offers a full range of intelligent farming solutions.

Conventional Tillage

Conventional Tillage

- Intensive method of cultivation
- Complete soil inversion e.g. by a plough
- Less than 15-30% crop residues left on soil surface
- Seedbed preparation done by an active tool or special seedbed harrow
- High phytosanitary effect by reduced pressure of weed and fungi diseases - fewer herbicides and fungicides needed
- Better dry-off and faster increase of soil temperature for better nutrients absorbation

Conservation Tillage

Mulch Tillage

- Reduced intensively in terms of depth and frequency
- More than 30% of residues are left on soil surface
- Extended repose period of the soil
- Cultivator and/or discs incorporate the crop residues within the top 10cm of soil for stable bearing soil
- Full-width tillage seedbed preparation and seeding in one pass
- Protection against soil erosions with reduced lost of soil and water
- Improvement of soil moisture retention

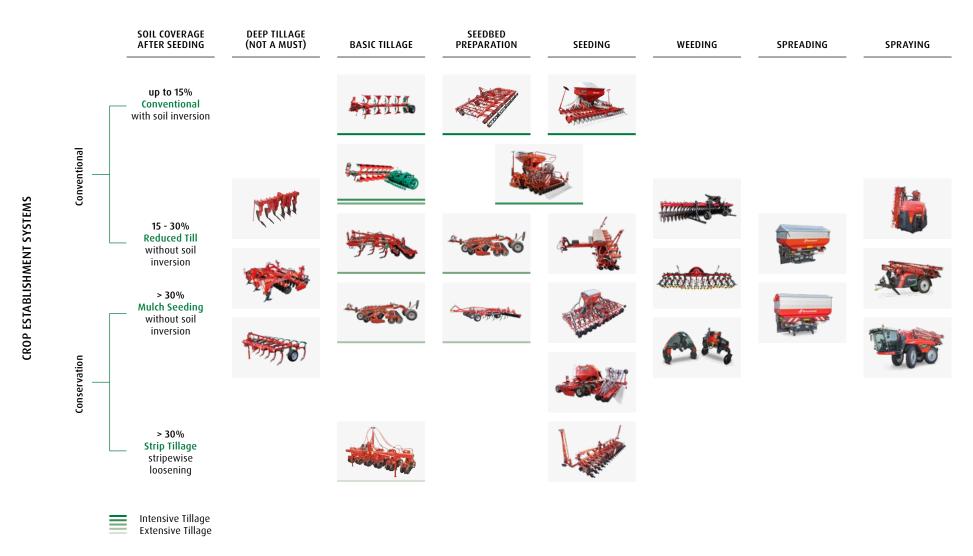
Strip Tillage

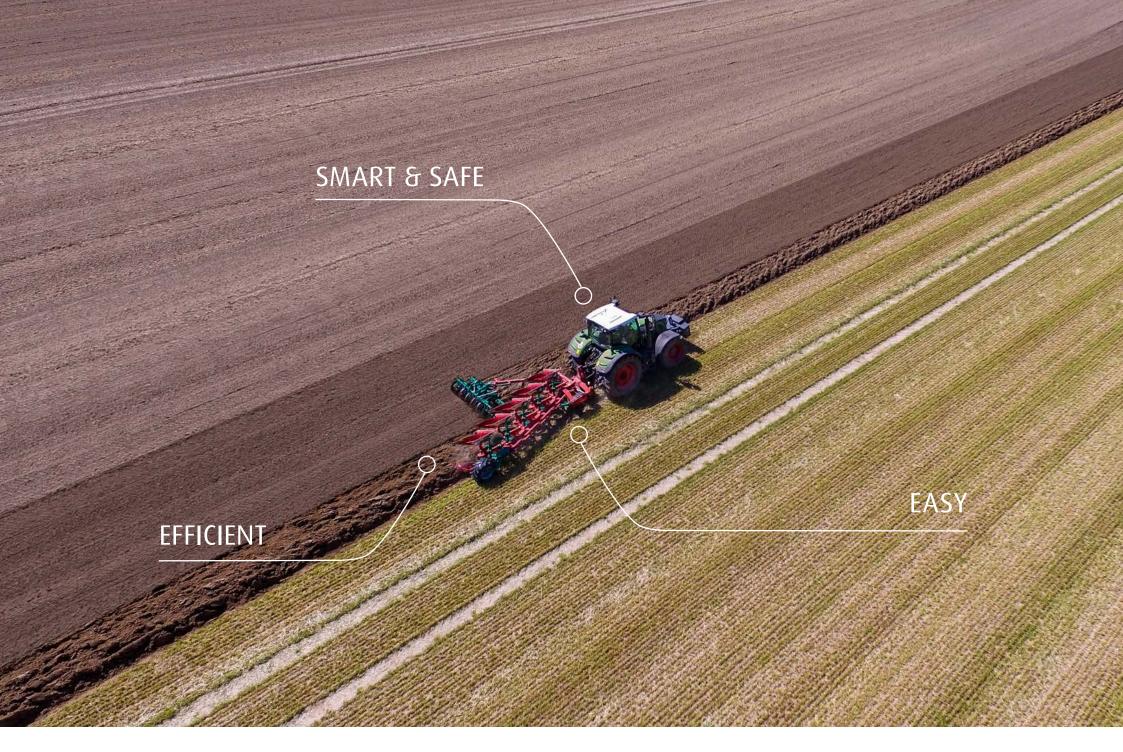
- Strip-wise loosening before or during seeding of up to 1/3 of the row width (Loibl, 2006).
 Up to 70% of the soil surface remains untouched
- Strip-till combines the soil drying and warming benefits of conventional tillage with the soilprotecting advantages of no-till by disturbing only the area of the soil where the seeds are placed
- Exact fertilising deposit
- Soil protection against erosion and drought

Vertical Tillage / No-Till

- Extensive method
- Working soil vertically avoids additional horizontal layers or density changes
- Increasing water infiltration, root development and nutrient take-up
- Plants' roots dictate the overall health of the plant, as they deliver nutrients and water throughout, contributing to a higher yield
- A strong set of roots make plants more resistant to wind and drought
- Indirect energy input

KVERNELAND'S INTELLIGENT FARMING SOLUTION







OPTIMISE PLOUGHING AND COMFORT TO MAXIMISE PROFITABILITY

Easy

From the tractor cabin, the ISOBUS enables all operations as well as the most important plough adjustments.

Efficient

FURROWcontrol optimises ploughing for all 4, 5, 6 furrow models.

Smart & Safe

Maximum security for the driver and for anyone/anything around with the Kverneland unrivalled trailer transport solution.

OVERVIEW

INNOVATIONS THAT COUNT

The Kverneland 2501 i-plough® is recommended for tractors around 206kW/280hp. Each and every developped innovation benefit the users working life: reach the perfect ploughed field in the most efficient and easy manner.



ISOBUS controlled operations

Four essential functions are covered by the ISOBUS: Ploughing, Transport, Marking and Connecting. The most important plough settings are enabled for the perfect ploughed field. The ISOBUS functionalities are available from any Kverneland ISOBUS screens and from any tractor ISOBUS screens.

FURROWcontrol

Easy straight furrows following a pre-defined A-B line with any ISOBUS screens.



Hinged headstock

Changing from transport to ploughing position can be done from the tractor cabin.



Trailer Transport Solution (TTS)

The plough actually behaves like a trailer. Optimised safety for the driver and for anything/anyone around.



Aero-profile legs

This new design prevents potential blokages when ploughing in high residue fields.



Central adjustment of skimmers

Save time for the perfect ploughing. The 2 skimmers adjust simultaneously.



Swivel depth wheel mechanism

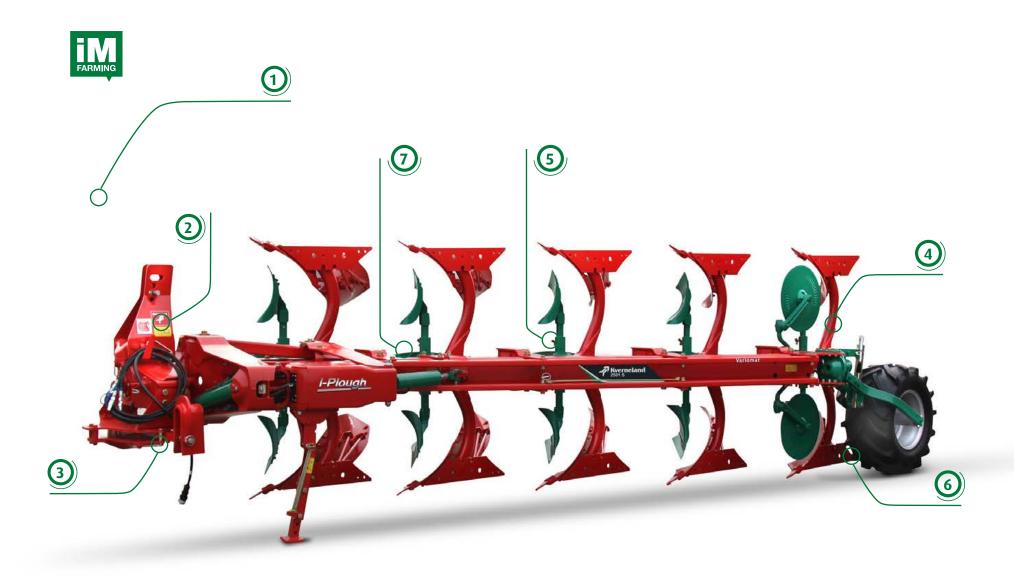
This principle increases the driver's comfort at headlands.



Add on leaf spring system

Easy adjustment of the leg releasing forces.

Maximise productivity



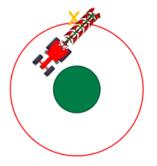
SMART & SAFE TRANSPORT SOLUTION THE TRAILER CONCEPT

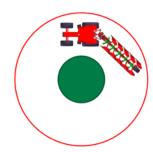


Kverneland revolutionises the transport of mounted reversible ploughs with 2 innovations.

Quick and easy. One can change the plough position from transport to ploughing and vice versa from the tractor cabin. The top link of the tractor remains connected during transport thanks to the hinged headstock. The pivot point of tractor/plough is located in the middle. No further adjustements are necessary for the ploughing position.

Safety during transport is optimised for the driver and for anyone/anything around. The Kverneland 2501 behaves like a trailer thanks to a turnable cross shaft (45 degree mutual offset). No tilting out when driving in curves.





Maximise safety with the Kverneland 2501 i-Plough transport solution





EFFICIENT PLOUGHING

NEW DESIGNS FOR HIGHER PERFORMANCE



The Kverneland 2501 i-Plough® features legs with a new design, called "aero-profile". Not only higher than the standard Kverneland legs, these new legs improve the soil flow. Heavy residues are pushed out, hence limiting possible blokages regarless of the 85/100 cm interbody clearance.

The "aero-profile" legs are hollow and robust thanks to the Kverneland heat treatment technology. By limiting the weight of the legs, the Kverneland plough is lighter and easy to pull. Low pulling requirements saves fuel consumption.

In the heavy/stony conditions, the world renkowned Kverneland auto-reset system combines efficiency with no maintenance cost. For the Kverneland 2501 i-Plough® the leaf springs have a new design. They can be added in an easy manner, by unscrewing 2 bolts manually.

The release forces are identical to the standard Kverneland auto-reset. The decompression solution lengthen the plough and tractor life times compared to other systems.

Tested in different heavy soil conditions in Europe.



KVERNELAND AUTO-RESET SYSTEM

EFFICIENT AND MAINTENANCE FREE

Release characteristics

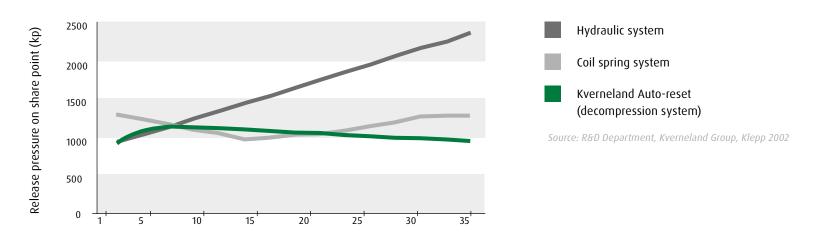
The diagram shows the differences between three different Auto-reset systems, and how the pressure varies as the body rises (1 cm).

Conclusion

The unique Kverneland leaf spring Auto-reset system is highly recommended.

Benefits from Kverneland Auto-reset

When hitting an obstacle, the pressure on the point, frame, plough parts, decreases. The stress on the plough is therefore reduced which guarantees a longer life to the plough. Each body releases independently one from another to come back to the correct ploughing depth once the obstable passed. This ensures a quality ploughing.



INCREASE PRODUCTIVITY CENTRAL ADJUSTMENT OF SKIMMERS



For the perfect ploughing, adjusting the depth of the skimmers is important. Uncorrect adjustment of skimmers causes unfavorable placement of residues in the ploughed soil. This new solution contributes to making ploughing more efficient.

100% higher productivity in adjusting skimmers.

Smart and easy, Kverneland 2501 i-Plough® offers the possibility to adjust the skimmers depth simultaneaously.

Use the spanner and just screw or unscrew the central bolt.

This operation having to be repeated for each leg, this innovation makes you save time and not least contributes to a perfect soil preparation.

Manure and maize skimmers plus trash boards are available as well as plain or notched disc coulters in 18" or 20".

100% higher productivity







KVERNELAND WHEELS

EASY ADJUSTMENTS AND HIGH PRODUCTIVITY





High stability

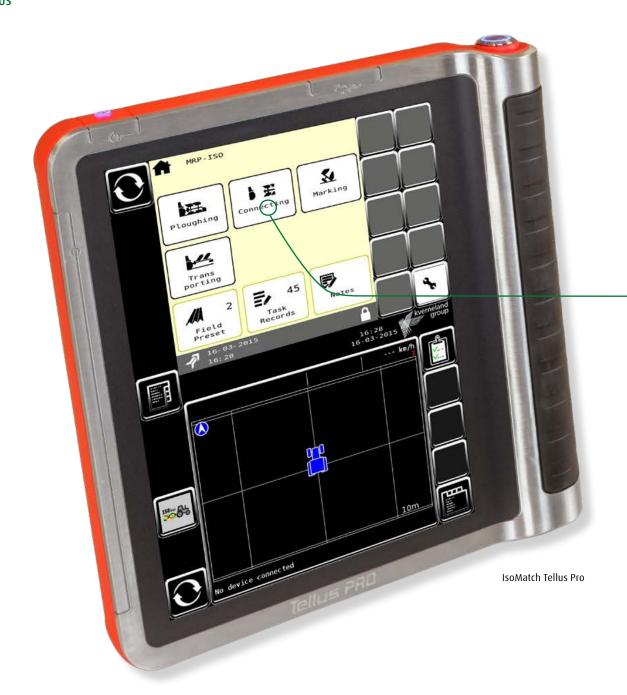
Choose either a rear mounted wheel for the best ploughing performance or a frame mounted wheel to optimize the ploughed area. The rear mounted wheel 420/55 x 17 offers a high stability in any conditions; particularly appreciated for 5-6 furrow ploughs. The alternatives feature the dimensions 340-55 / 16 or 280/60 x 15,5. The frame mounted wheel is available for the 5 and 6 furrow ploughs. The wheel is actually covered from the working width of only 18".

The wheels are adjustable hydraulically from the tractor cabin with any ISOBUS terminals. The ploughing depth can hence be controlled from the tractor cabin. High ploughing performance can be achieved whichever Kverneland wheels get chosen. Reliable ploughing width adjustments are obtained by activating the Variomat®.

Maximise comfort.

The soft swivel movement of the wheel, during turning at headlands, reduces tiredness and makes days more productive.

Easy conversion from ploughing to transport either mechanically or ISOBUS operated. For the latter, activate the transport position on the ISOBUS screen and the wheel automatically changes position.



USER FRIENDLY

ISOBUS OPTIMISES PLOUGHING AND COMFORT

FOR MAXIMUM EFFICIENCY

The Kverneland 2501 i-Plough® is an ISOBUS plough

The ISOBUS technology is utilised to make the driver working day more productive while aiming at the perfect ploughed field.

To that objective, the ISOBUS supports 4 essential functions:

Ploughing

All important adjustment possibilities from the tractor cabin via any ISOBUS screens.

Transport

Automatic sequences to ensure a safe transport.

Marking

Important function for "non-square fields" and for nice in's and out's on the head land.

Connecting

Safe and trouble free parallel setting of the cross shaft connection to the tractor lower links.

The display of potential operations is clear and intuitive. Easy to control and to adjust parameters via the touch screen.

The ISOBUS supports you in many ways. For instance:

Field preset

Adjustments can be pre-set according to soil conditions or tractor requirements.

Changing tractors or ploughing in different soil conditions are easily carried out via finger tips.

Plough settings are automatically calibrated to the tractor rear wheel settings.

Task record

Better control of the Farming management via Task Records.

Possibility to control the total of ploughed hectares.





ISOBUS ENABLES PRECISE OPERATIONS

FOR IMMEDIATE ACTION

User friendly. Comfortably seated in the tractor cabin, any parameters can be adjusted by finger tips. Ploughing adjustments are clearly displayed on the same screen. Each adjustment is easily recognisable by 1 icon + 1 measurement.

For best and instant understanding, measurements are indicated in cm or inches.

Hence, it is simple to control and adjust the most important ploughing parameters:

- left and right angle
- 1st furrow
- · ploughing depth
- $\bullet \ \mathsf{ploughing} \ \mathsf{width}$



FURROWcontrol

FOR UTMOST PRODUCTIVITY

Straight furrows can be a matter of pride but it also indicates how serious soil preparation is. Ploughing can be followed by other operations. They will be easier to carry out if furrows are straight in the first place.

Kverneland FURROWcontrol straightens up furrows quickly and efficiently. Once an A-B line is defined, FURROWcontrol automatically adjusts the working width by following this A-B line. RTK/DGPS signals guide the plough while the Variomat® adjusts the working width from 12" to 24" for parallel furrows. Not least, the pulling line adjusts automatically too.

Maximise your productivity. Plough more, plough better, plough effortless. Experience has showed that FURROWcontrol can make straight furrows even when it looks impossible. Very wet soils or very hard soils, not worked out for a few years, are often difficult conditions preventing an efficient ploughing. FURROWcontrol becomes the ideal solution by enabling straight furrows.

By activating FURROWcontrol, the plough makes the adequate adjustments for the perfect furrows. As a result, your tiredness is reduced during and after the working day. Straight furrows also have a positive economic impact. The field gets ploughed quicker, hence using less fuel.





OVERVIEW

MAXIMISE SOIL RE-CONSOLIDATION BENEFITS

Ploughing alone benefits most soils. Re-consolidation after ploughing or before seeding increases productivity and favours higher yields.

Agronomic benefits

The combination of ploughing and re-consolidating is both efficient and environmentally friendly. Soils are loosened, organic matters are incorporated to enrich the soils. Weeds are controlled mechanically. The elevation of temperature of the ploughed soil is actually positive. The associated water evaporation is limited by the immediate re-consolidation via packers. Water capilarity is hence re-established for the benefit of the soil life.

Maximise efficiency

Driven by efficient crop management processes, as a farmer, it is difficult to grant sufficient time for the soil to settle by itself. Furthermore, soil moisture shall be maintained to ensure a good germination after seeding.

Kverneland's re-consolidating tools are therefore recommended in combination with ploughing or directly before seeding. Coarse clods get crushed, soil is re-consolidated with a favourable soil moisture.

Higher profitability

Profitability is generally improved by either cutting down costs or improving yields. By re-consolidating soils either during ploughing or directly before seeding, the profitability improves on both ends. Cost are reduced by completing 2 operations simultaneously. The fuel consumption is optimised too. Yields will improved due to the re-consolidation of the soils.

TEST RESULTS

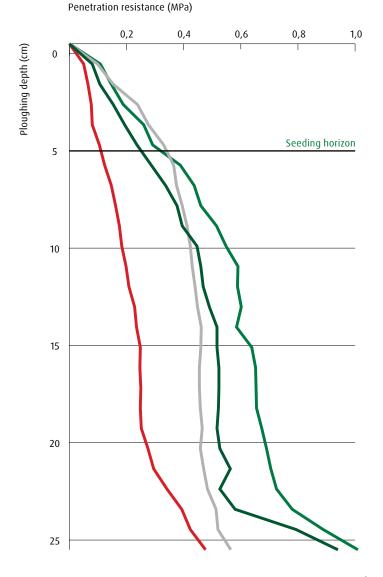
The re-consolidation of the soil after ploughing has been analysed after using three packer systems: Kverneland Packomat, Kverneland packer and a competitor packer.

The graph compares the results from the actual re-consolidation and shows that:

- using a packer has a significant re-consolidation effect compared to ploughing alone
- from an agronomic point of view, the Packomat and the trailed packer positively impact the entire ploughing depth
- the competitor system shows a lower degree of re-consolidation directly underneath the seeding horizon (5 cm)

Source: Kverneland Group, Klepp, Haus Düsse, 2016





OPTIMISE PLOUGHINGPACKOMAT

Packomat follows the plough from transport to work.

Packomat works in all ploughing conditions. It levels, re-consolidates, crushes clods, prepares seed beds, from light-dry to heavy-wet soils in one pass.

The Packomat does not require any extra pulling force than for the plough alone. The support of the depth wheel on one side and the Packomat on the other side, balance even better the Kverneland plough. Less landside pressure actually reduces the draft requirements.

Maximise productivity



Packomat is available up to 5-furrow Kverneland 2501 i-Plough



Scrapers

OPTIMISE PLOUGHING

PACKERS AND PACKER ARM

Kverneland packer arm is available for any Kverneland mounted reversible ploughs and for any packers.

Quick, easy and smooth operations thanks to the hydraulic release system and to the spring system which absorbs shocks. Simple manual handling for transport position.







Packer arm connecting to the packer



Spring system

KVERNELAND BODIESFOR HIGH PERFORMANCE

Designed for high performance

Kverneland bodies benefit from an outstanding reputation worldwide: high agronomic performance and low wearing.

Low pull requirement

The university studies, FH Cologne and Wilsmannn 2012, have revealed that the design of Kverneland bodies offer some of the lowest pulling forces on the market: from -20% to -42% when ploughing at 20 cm working depth and -11% to -24% at 30 cm.

Optimise profitability

It is therefore possible to plough with one extra Kverneland body and gain in output compared to competition for the equivalent pulling forces. As regard to fuel consumption, it is reduced by 19% to 28% when using a Kverneland plough.

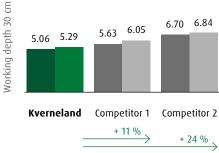
Wide choice of bodies

Over the years, Kverneland has designed bodies which are adapted to any soils conditions.

Body No. 28

- universal body easy to pull
- · for any soil conditions
- recommended for tractors with large tyres
- creates a flatter profile for improved tilth
- perfect turning of the furrow slice
- working depth: 12-30 cm
- working width: 30-55 cm
- · landside / mouldboard: 40°

PULLING FORCE (KN)* at working-depth 20 and 30 cm second body third body Kverneland Competitor 1 Competitor 2 + 20 % + 42 %



Source: FH Cologne and Wilsmann, 2012

FUEL CONSUMPTION (L/HA)*



Source: FH Cologne, 2014

^{*} The reference body is Kverneland No. 28 and the equivalent from competitors.



Body No. 8

- general purpose body
- for light to heavy soils
- working depth: 15-28 cm
- working width: 30-50 cm
- landside / mouldboard: 40°



Body No. 9

- universal body
- for light and medium soil
- easy to pull
- working depth: 18-30 cm
- working width: 30-50 cm
- landside / mouldboard: 40°



Body No. 30

- finger mouldboard with 4 exchangeable strips
- plastic spacers
- for any soil conditions
- intensive crumbling
- working depth: 18-35 cm
- working width: 30-55 cm
- landside / mouldboard: 46°



Body No. 34

- plastic mouldboard
- long and slim shape (similar to body No. 28)
- for soils with high humus content without stones
- advised for tractors with large tyres
- easy pulling
- working depth: 12-35 cm • working width: 30-55 cm
- landside / mouldboard: 40°



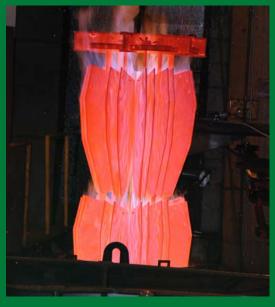
- universal body easy to pull
- for any soil conditions
- recommended for tractors with large tyres
- from deep to shallow ploughing
- perfect turning of the furrow slice
- working depth: 12-35 cm
- working width: 30-55 cm
- landside / mouldboard: 40°



Body No. 40

- for wet, sticky, abrasive, stony conditions
- recommended for tractors with large tyres
- crumble effect. Marked furrows at low speed (winter ploughing)
- best cleaning effect in sticky conditions
- working depth: 12-35 cm
- working width: 30-55 cm
- landside / mouldboard: 40°





Kverneland 12 hours carburising process results in creating 2 steels in 1 sole mouldboard.

For the highest ploughing performance, Kverneland also grinds the body to ensure a uniform surface for an even furrow.

KVERNELAND STEEL TECHNOLOGYFOR MAXIMUM ROBUSTNESS



Kverneland's unique steel: SAGITTA steels

More than 140 years of experience in developing special steels and heat treatment processes have resulted in an unsurpassed quality and wear resistance.

The heat treatment processes are carried out and adapted not only to a few selected parts but to the complete plough. This results in ploughs lighter than competitors' and extremely robust while delivering outstanding performance.

Induction hardened frame

To guarantee the durability of the plough, Kverneland heat treats the frame as well. Most competitors do not. The induction process allows using lesser steel than competitors, therefore less weight to pull and lift while ensuring a higher resistance.



ORIGINAL PARTS & SERVICE ONLY ORIGINAL PARTS WILL KEEP YOUR MACHINE A KVERNELAND



Did you know that our parts are manufactured to the same high standards and strict specifications as the Kverneland machines? Original Parts will always work and fit as intended, and are guaranteed to keep your machine running at maximum performance.

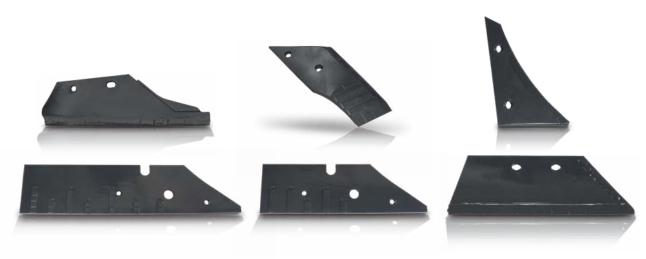
Kverneland has been a symbol of quality since 1879; the experience we have, combined with a constant strive to improve our products, ensures you the best parts available for your Kverneland machine. Parts and Service surrounds your machine with a safety-net; the quality ensures optimal usage of the machine, the quality of the parts refers to a low life-cycle cost and longer wearing time.

Our long term relationship starts at the purchase of your Kverneland machine, and we will continuously stay by your side for support and assistance. We will guide you on the way to make sure you achieve maximum performance, productivity and profit.

Do not compromise quality with cheap solutions, remember that only Original Kverneland parts are the guaranteed solution to achieve what is expected by a Kverneland machine.

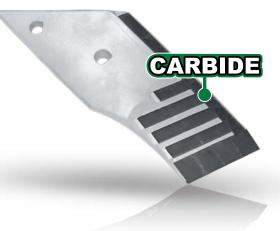


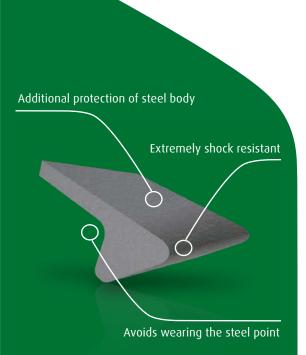
XHD CARBIDE REINFORCED PARTS STRONGER THAN EVER



Kverneland's XHD Carbide reinforced parts are designed with the most extreme conditions in mind. With a lifetime up to 8 to 10 times the life* of the standard parts, they keep costs and downtime to a minimum. Kverneland's tried and proved heat treatment processes paired with groundbreaking new designed Tungsten Carbide tiles will provide the best weapon against abrasive soils.

*Based on average test conditions. Depending on soil type, moisture content, machine type, working speed, working depth, machine width and mounting position.





Corner Tiles make the difference

The traditional method of reinforcing steel parts is to apply flat tungsten carbide tiles to the surface of the cutting edge. However, these only protect the surface - not the cutting edge.

All cutting edges of the Kverneland XHD range are equipped with Corner Tiles. These specially designed tiles wrap around the leading edge, protecting both the surface and edge from wear and damage. The result is a sharper, long lasting edge – that remains resistant to shocks and breakages from hard impacts.



ORIGINAL PARTS & SERVICE LET'S FOCUS ON YOUR BUSINESS







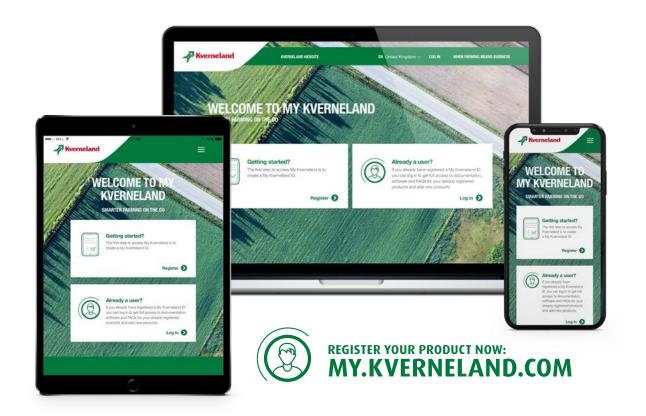
MYKVERNELAND

SMARTER FARMING ON THE GO

A personalised online platform tailored to your machine needs

With MYKVERNELAND you will benefit from easy access to Kverneland's online service tools.

Receive first hand access to information on future developments and updates, operator and spare parts manuals, FAQs and local VIP offers. All information is gathered in one place.



OPTIONS

TRANSPORT SOLUTIONS



Transport solutions:

- Trailer concept: ISOBUS controlled convertion from transport to ploughing
- Trailer concept: manual convertion from transport to ploughing
- Transport in ploughing position.
 Up to 5 furrows

ACCESSORIES

CHOOSE THE CORRECT EQUIPMENT





To ensure optimum positioning of the skimmer, a quick adjusting system is incorporated on all plough models. The skimmer will be available in two versions: standard manure and maize skimmer for those difficult conditions with large amounts of trash.



Trashboards

Particularly useful when large quantities of surface trash are present (manure, straw etc.)

ACCESSORIES

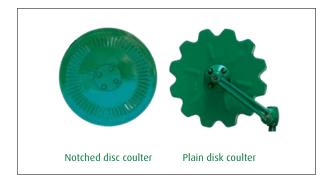
FOR THE PERFECT PLOUGHED FIELD



Leg protections

Kverneland 2501 S i-Plough: Easy adjustable releasing forces

Туре	Release force (kN)
Standard pack, 6 leaf springs	11,2
HD pack, 7 leaf springs	12,7
XHD pack, 8 leaf springs	14,4
Double pack, 6+4 leaf springs	16,9



Disc Coulters

Disc coulters are available in sizes of 45, 50 and 55 cm (18, 20 or 22") diameter, plain or notched. They are mounted on single arms. Easy to adjust to suit all conditions.



Sword Share Knives

These are an alternative to disc coulters, either to reduce weight or to avoid blockage from trash and stones. It can only be used on ploughs fitted with reversible points.



Landside Knives

A very good alternative to disc coulters, either to reduce weight or to avoid blockage from trash and stones. A good combination with skimmers.



Eco share

Designed to 10 cm below the normal ploughing depth.

Also an alternative for up to 10 cm narrower ploughing depth.



Furrow Opener

For use on the rear body to increase the width of the furrow bottom in order to accept tractors with larger tyres: up to 30" wide for example.



Knock-on®

The Knock-on® system consists of only 2 parts: a holder fixed to a regular Kverneland share and a Knock-on® point. Kverneland's Knock-on® is a universal system. Plough Knock-on® points can also be used for cultivators.



TECHNICAL DATA

Model	Interbody	Head-	Type of		Underbeam No. of		Weight (kg)			Lift requirement (kg)		
	clearance (cm)	stock	stock beam	width (cm)	clearance (cm)	furrows	4	5	6	4	5	6
	(ciii)			(CIII)	(ciii)							
Kv 2501 S i-Plough®	85	250	Auto-reset	30-55	80	4-6	1950	2280	2650	5100	6800	8800
Kv 2501 S i-Plough®	100	250	Auto-reset	30-60	80	4-6	2010	2355	2810	5350	7050	9200

Most models can be extended by one body. All weights are given without optional equipment (net weights).

The lift-requirements are given with the following equipment: 420/55 x 17 depth wheel, one coulter and skimmers for all furrows.



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WHEN FARMING MEANS BUSINESS

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