

Quality Ploughs for the Professional Farmer



He's Confident. He has the Best Plough in



Kverneland is world renowned and unequalled in producing ploughs with high performance and low operating costs

Innovation from the start

In 1879 at the age of 25, Ole Gabriel Kverneland founded his smithy business in a small village south of Stavanger, Norway. As he was brought up on a farm and educated in agriculture he subsequently understood all the machinery requirements of farmers. He strongly believed in innovation and realized

that a mouldboard plough must be able to withstand the very tough stony soil conditions of Norway. Over the years, he together with his team of engineers developed special steel heat treatment processes to allow his ploughs to work in the toughest of soil. Using these new steels of unique strength, Kverneland succeeded in manufacturing robust ploughs thus gaining a strong reputation for quality. Today, Kverneland is the leading manufacturer of ploughs and has a very strong market position throughout the world.

the World!



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Customer orientated

The tradition of customer orientated product development has resulted in the long record of innovations and in becoming a leading plough brand in the industry. High priority is given to building close relationships with end users. Systematic follow-up of individual customer experiences helps Kverneland to adapt products to better match farmer's requirements.

Kverneland's unique steel

130 years of experience in developing special steels and heat

treatment processes have resulted in unsurpassed quality and wear resistance - "Kverneland steel" is unique.

Lighter than our competitors and extremely robust after Kverneland's special heat treatments. This process is carried out and adapted not to a few selected plough parts but to the complete plough.

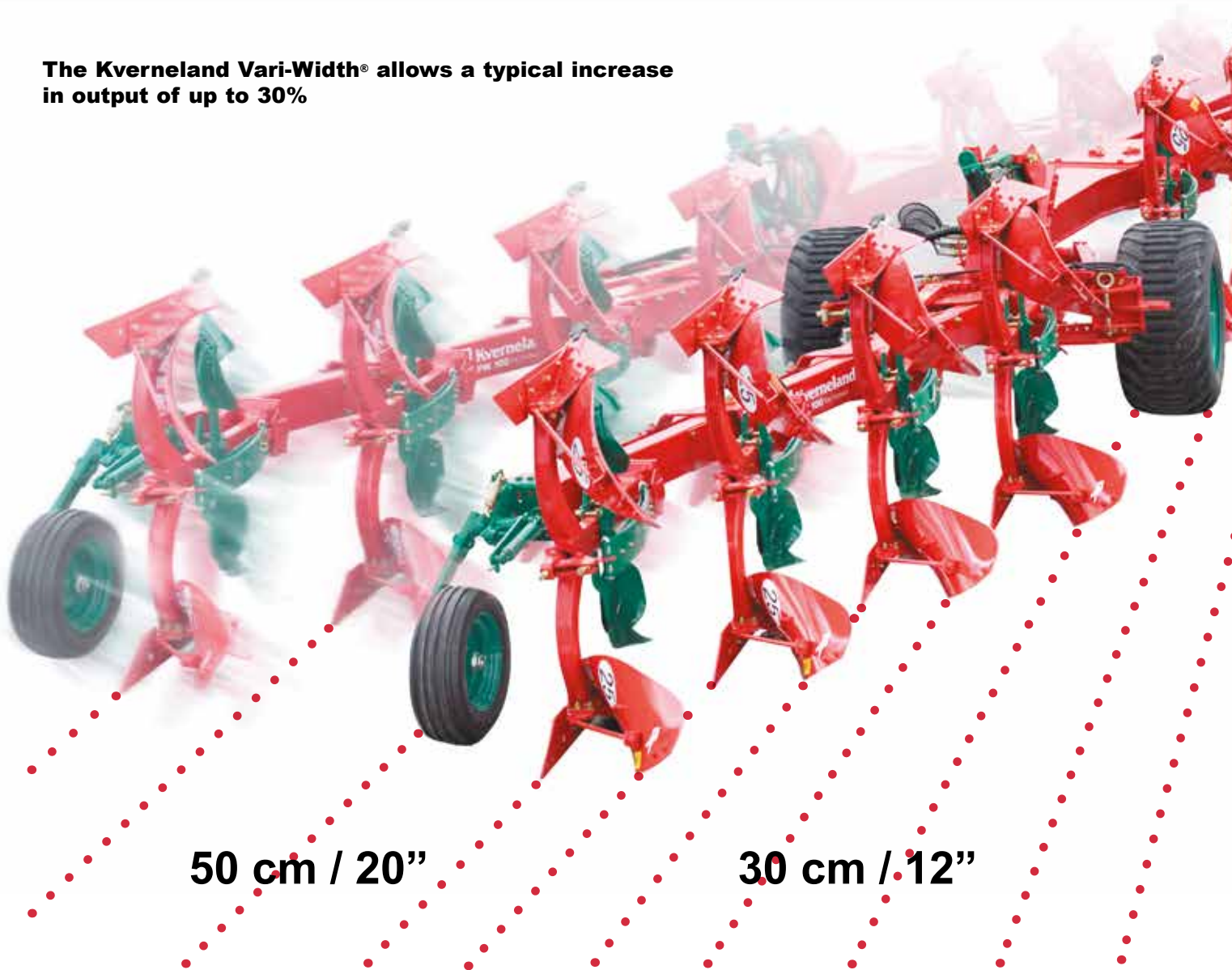
Kverneland's unique heat treatment is a guarantee of the Kverneland ploughs outstanding performance, quality and longevity.

The Kverneland Vari-Width® System

Variation on the Move

Kverneland Vari-Width® is a world-patented system for mechanical or hydraulic furrow width adjustment. The system allows the optimal match between tractor, implement and soil conditions. By using the Vari-Width® system, you can plough wider, quicker, better and at lower cost.

The Kverneland Vari-Width® allows a typical increase in output of up to 30%



The system that changed thinking

Kverneland's Vari-Width® system has been the market leader for many years. The experiences of satisfied users and the tests carried out by several international research institutes have demonstrated that the system is without question one which has permanently changed the thinking on ploughing techniques.

Increased capacity by more than 30%

The Vari-Width® concept is based on gaining maximum output. As the ploughing width can be constantly varied, on the move and at will (hydraulic version), the full power and traction of the tractor can be utilised at all times, taking varying soil conditions and difficult terrain in its stride.

Cost saving

Kverneland Vari-Width® offers cost saving and output related advantages in addition to the practical fact that the work can be done more easily. In terms of capacity, it is of great benefit to be able to vary the ploughing width. By increasing the furrow width from 35 cm to 45 cm (14" to 18"), the overall ploughing width is increased by an impressive 30%.



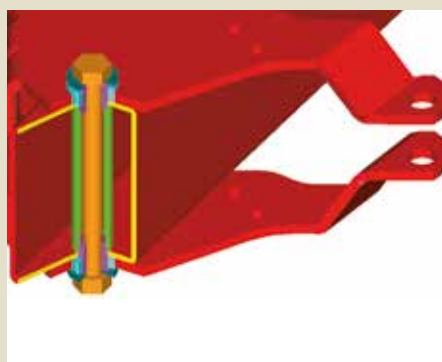
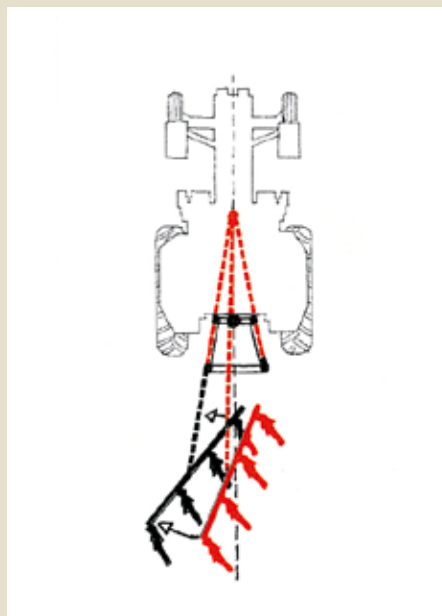
Infinite adjustment of working width from 30 to 50 cm (12"-20"), depending on models.

With Kverneland Vari-Width®, the working width can be infinitely hydraulically adjusted from the driver's seat while on the move.

Kverneland's patented Vari-Width® system has the correct parallel linkage along the whole length of the plough. That is why you always get the right line of pull, which in turn leads to a lower draft requirement and less wear and tear.

Two different systems

Kverneland Vari-Width® is available in two variants – with hydraulic or mechanical adjustment of the furrow width. The hydraulic variant allows adjustment of the furrow width from the driver's seat 'on the move'. The practicality of being able to determine not only the depth, but also the width of the furrows is crucial if the best results are to be achieved.



Minimum wear

The Kverneland Vari-Width® system has a unique non-wearing linkage joint between the beams and the mainframe section. The system consists of a robust 24mm bolt, a distance tube, and two special heat-treated cones and hardened replaceable bushes.



The heat-treated mainframe together with the bolt, distance tube, two cones and hardened bushes ensure a unique non-wearing pivot joint between the beams and the mainframe.

The heat-treatment of high quality steels, and exacting manufacturing accuracy, guarantee perfect beam and body alignment with minimum wear.

In terms of fuel used, the consumption of diesel in relation to the increased output is reduced by as much as 18%.

Ability to vary the ploughing width

The degree of 'finish' of the furrows and the capacity of the plough can be adjusted by regulating the ploughing width. For example, increasing the ploughing width also gives more 'clearance', making it easier to handle stripped or chopped straw, whereas shallow ploughing with a greater ploughing width is also made possible by increasing the furrow width.

Easier to make a better job

With Kverneland Vari-Width® it is easier to make a better job. The work can be kept straighter more easily, and it is easier to work up to hedges, fences, trees and ditches.

Vari-Width® saves time

By increasing the ploughing capacity by more than 30%, the work can be finished quicker.

The Kverneland Auto-reset System

Unbeatable in Stony Conditions

The simplest and most reliable auto-reset system on the market.

With Kverneland's auto-reset system, you just keep on going. Whenever the plough meets an obstruction, each leg releases over it and then returns to the correct ploughing depth. Simple and efficient.



Kverneland's fully automatic non-stop auto-reset system has always been unbeatable when it comes to trouble-free ploughing in stony conditions.

The simple multi-leaf spring system allows the plough legs to release over stones and other solid objects in the ground in a smooth and efficient manner. This avoids sudden jolts and possible damage.

Once the obstruction has been passed, the plough body automatically returns to the correct ploughing depth.

Quicker than ever

With today's demands for higher output, both tractor and plough are expected to perform quicker than ever before. This makes more arduous demands on the equipment, particularly on the safety systems designed to protect the tractor, plough and



Taylor-made boron steel

+ Unique Kverneland heat treatment technology

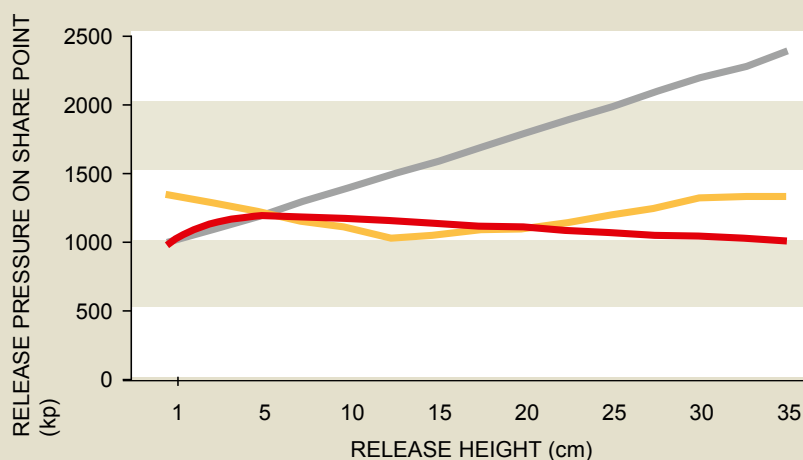
= Kverneland unequalled strength



Release characteristics

The diagram shows:

- the differences between three different auto reset systems, (Hydraulic system, Coil spring system and the Unique Kverneland leaf spring system)
- how the pressure varies as the body rises (1 cm)



● Hydraulic System ● Coil Spring System ● Kverneland Auto-Reset

Benefits

● The Kverneland leaf spring Auto-Reset system is highly recommended. 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 and ensures a better ploughing.

Extra leaves when needed

The standard Auto-Reset system includes 7 Kverneland heat treated springs (640Kp). For heavier to extreme soil conditions, extra leaf springs are added for up to 1400kp. The leaves are easily fixed with one central bolt only.



driver against the dangers encountered whenever the plough meets hidden obstructions in the ground.

Simple and easy

Kverneland's auto-reset system is of very simple construction and yet is able to withstand these punishing forces year in, year out, with a minimum of maintenance.



Standard spring
- with 7 leaves (640 kp)



Double spring package
- with 14 leaves (1400 kp)

Kverneland Plough Bodies

Excellent Ploughing Quality

A complete range of bodies to suit all types of conditions. They are renowned all over the world for their excellent ploughing quality, outstanding wear resistance and low draft requirements.



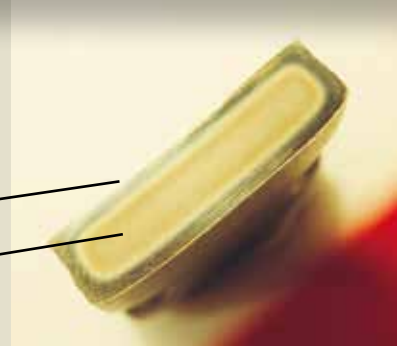
Body 28

Especially for tractors with wide tyres. It gives good turning and produces a wide furrow bottom.



Kverneland plough bodies are made of the unique Kverneland steel. The 12 hours carburising heat treatment process result in:

- the optimum wear resistance (sharp as a diamond)
- the necessary flexibility to absorb impacts.



Body No. 8

A general purpose body from medium to light soils. Capable of working at varying depths 15cm to 30cm (6 to 12 inches) and widths 30cm to 50cm (12 to 20 inches) with good cleaning and soil inversion characteristics.



Body No. 9

Like the No. 8, but even more highly "tuned". Designed for wider and deeper ploughing at depths of 15 to 35 cm (6 to 14 inches). Suitable for heavier land where well turned and packed furrows are required.



Body No. 14

A plough body with a plastic mouldboard, for use in organic soils where sticking can be an acute problem. Similar performance to body No.19



Body No. 19

Specially designed for heavy soil, No.19 is also very good for burying large quantities of chopped or stripped straw. The angle of the mouldboard increases the clearance between the bodies in a very efficient manner. It also gives a totally inverted furrow which seals in the trash. The finished work is more broken, making secondary cultivation operations more efficient.



Body No. 28

Body No. 28 suits all soil types. Longer than body No.8, it creates a flatter profile for improved tilth. Its shape and action moves the soil further away from the landside, increases the furrow bottom width by as much as 25%. This allows wide tractor tyres to work in the furrow without rolling down the previous furrow. Suitable for depths of 15 to 30cm (6 to 12") and widths from 35 to 50cm (14 to 20").



Body No. 30

Finger mouldboard especially designed for sticky-stony soils. Capable of working between 20 cm and 35 cm deep (8 to 14").

Kverneland Plough Program

Ploughs that show on the Bottom-line

Kverneland offers a complete range.

They all have the ability to make soil preparation more profitable.

The Kverneland ploughs increase output, save time, fuel and money.

Kverneland PN/RN

- manual furrow width adjustment
- center-mounted wheel
- available with 5 - 9 furrows

Kverneland PG/RG

- Vari-Width® furrow width adjustment
- center-mounted wheel
- available with 5 - 8 furrows

Kverneland PB

- Vari-Width® furrow width adjustment
- rear-mounted wheel
- available with 4 - 8 furrows

Kverneland PW/RW

- Vari-Width® or manual furrow width adjustment
- center-mounted wheels
- available with 7 - 14 furrows
- Packomat compatible



The complete range

Kverneland's plough range consists of ploughs of all types and sizes, from the small 2 furrow plough to the most advanced trailed, articulated reversible 14 furrow plough.

Kverneland PN/RN

Cost efficient, easy to adjust and to maintain



Robust construction

Kverneland PN/RN is designed as the basic alternative in the wide range of semi-mounted ploughs from Kverneland. Robust square frame 120 x 200 mm and 200 x 200 mm for 8 to 9 furrows. A manual working width and an automatic steered centre mounted wheel makes it the right choice for farmers looking for a cost-efficient and reliable plough.

The PN version is fitted with auto-reset beams for stony conditions whilst the RN has rigid beams with shearbolt protection.

Centre mounted wheel

The centre mounted wheel provides easier ploughing out to fences, hedges and ditches. The wheel assembly is linked to the turnover mechanism ensuring safe reversal of the plough.

Unique headstock

To give minimum turning circle, the turning point of the plough is situated behind the headstock. The plough is linked to the tractor by means of a special joint for improved manoeuvrability.

Ample clearance

Generous underbeam clearances of 70 or 75 cm on the PN, and 70 or 80 cm on the RN, are beneficial in trashy conditions. Most models are extendable with one furrow (maximum 9 furrow plough).

Optional equipment

The Kverneland PN/RN is available with a choice of body types, skimmers and disc coulters, whilst hydraulic front furrow width adjustment is an extra option.

- manual furrow width adjustment
- center mounted wheel



Manual furrow width adjustment
 The furrow width can be adjusted from 35 to 45 cm (14, 16, 18") in steps of 5 cm.
 The adjustment is carried out by repositioning a bolt in each leg assembly.
 The position of the wheel has to be adjusted when altering the furrow width.



Model					Weight in kg					Recommended Horse Power				
Type	Interbody Clearance in cm	Underbeam Clearance in cm	Number of Furrows	Furrow Width in cm	5-F	6-F	7-F	8-F	9-F	5-F	6-F	7-F	8-F	9-F
PN	100	70/75	5 - 9	35-40-45 (14-16-18")	2820	3090	3360	3630	3900	125	150	175	200	225
PN	115	70/75	5 - 7	40-45 (16-18")	2920	3200	3500	-	-	125	150	175	-	-
RN	100	70/80	5 - 9	35-40-45 (14-16-18")	2650	2885	3120	3360	3600	125	150	175	200	225
RN	115	70/80	5 - 7	40-45 (16-18")	2750	3000	3250	-	-	125	150	175	-	-

Kverneland PG/RG

For easy ploughing right out to the field edge



PG/RG offer good stability in work and in transport, tight turning circle for narrow headlands and the opportunity to plough right up to field boundaries.

Easy on-the-move working width adjustment.

Kverneland Vari-Width® adjustment is standard. Infinitely variable furrow widths from 35 to 50 cm (14 to 20"). The work rate can therefore be increased up to 30%.

Vari-Width® is a patented design in which a hydraulic adjustment cylinder is contained within a telescopic towing frame. This design protects the cylinder and hoses from possible damage and provides operational simplicity.

The mid-frame wheel position and the compact headstock design (which places the front bodies as close to the tractor as possible) ensures tight turning ability both on headlands and into narrow gateways.

- **Vari-Width®**
furrow width
adjustment
- **center-mounted
wheel**



Easy adjustable skimmers



The PG version is fitted with the well-known Kverneland Auto-Reset system, while the RG version has rigid legs with shearbolt protection.



Model					Weight in kg				Recommended Horse Power			
Type	Interbody Clearance in cm	Underbeam Clearance in cm	Number of Furrows	Furrow Width in cm	5-F	6-F	7-F	8-F	5-F	6-F	7-F	8-F
PG	100	70/75	6 - 8	35-50 (14-20")	-	2940	3370	3800	-	150	175	200
PG	115	70/75	5 - 8	35-50 (14-20")	2970	3060	3150	3240	125	150	175	200
RG	100	70/80	6 - 8	35-50 (14-20")	-	2760	3150	3570	-	150	175	200
RG	115	70/80	5 - 8	35-50 (14-20")	2470	2880	3290	3700	125	150	175	200

Kverneland PB

Low operating cost and better weight transfer to the tractor



- **Vari-Width® furrow width adjustment**
- **rear-mounted wheel**



Looking ahead, the professional farmer requires more power, all-purpose applications and improved quality of the work. Equipment must be durable, easy to operate, less fuel consuming. In short : more efficient.

All these considerations have been taken into account in the development of the Kverneland Vari-Width® ploughs which fulfil tomorrow's requirements today.

PB model

The PB is equipped with the famous Kverneland auto-reset system.

Kverneland Vari-Width® ploughs

are ideal for large acreages. The PB consist of robust 4-8 furrow reversible models designed for use with higher horsepower tractors.

Universal joint attachment

The plough is linked to the tractor by means of a universal joint for improved manoeuvrability and protection of the transmission and of the tyres during use. Furrow width adjustment can be achieved manually or hydraulically.

Better weight transfer to the tractor's rear wheels

The plough is designed specifically for use with 4 wheel drive tractors. The special three-point linkage feature prevents high forces on the tractor during ploughing or transportation.

Protection of tractor linkage during turnover

When reversing on headlands, the optimal angle is obtained between the tractor and the plough. This reduces the load on the two tractor lift arms. The robust turnover mechanism reverses the plough with precision in any conditions.

Hydraulic control

The rear wheel assembly is linked hydraulically to the turnover mechanism ensuring that the plough is always positioned correctly for re-entry into work. Kverneland's patented hydraulic system provides a small reversing radius and an excellent manoeuvrability during work and transportation.

Easy changeover from work to transport position

Vari-Width® ploughs can be changed over to the transport position within seconds. In the half-reversed position the plough can be transported safely due to its low centre of gravity. Even where space is restricted, the plough can be steered with ease around obstacles.

Front furrow width adjustments

As with all Kverneland ploughs, manual front furrow width adjustment is by means of a turnbuckle. For 'on the move' adjustment when ploughing on sloping ground an hydraulic cylinder can be fitted as an alternative.

In many respects, the Kverneland semi-mounted Vari-Width® ploughs are ahead of their time, fulfilling requirements that cannot be met by other conventional or reversible ploughs.



Easy adjustable skimmers

Model					Weight in kg					Recommended Horse Power				
Type	Interbody Clearance in cm	Underbeam Clearance in cm	Number of Furrows	Furrow Width in cm	4-F	5-F	6-F	7-F	8-F	4-F	5-F	6-F	7-F	8-F
PB	100	70/75	4 - 8	30-50 (12-20")	2640	2990	3340	3720	4100	100	125	150	175	200
PB	115	70/75	4 - 7	35-55 (14-22")	2690	3060	3430	3820	-	100	125	150	175	-

Under the Paint Only Heat Treated Parts

Kverneland Heat Treatment Technology

130 years of experience in developing unique heat treatment processes for unsurpassed quality and wear resistance.

Kverneland is unequalled in producing ploughs with high performance and low operating costs.



**Scan here for Video:
Kverneland Heat Treatment Technology**





Kverneland PW/RW

Efficient, flexible, easy to operate



A unique, patented concept in building a semi mounted reversible plough.

Kverneland "3 in 1" Concept

The Kverneland PW/RW 'three-in-one' semi-mounted ploughs consist of a robust central wheel wagon plough in the front and a standard mounted reversible plough at the rear.

Flexibility

This unique design gives you the flexibility to choose the right combination of ploughs to suit any soil conditions: either the whole wagon plough or only the front or the rear plough.

In some situations, it may be advantageous to use only the front part due to very wet or very hard conditions, or the availability of a tractor.

The heavy front section alone will provide optimum performance in any conditions. It may be beneficial to use only the rear part as a normal mounted plough for ploughing some smaller areas or the headlands.



- **Vari-Width®**
or manual furrow width adjustment
- **centre-mounted wheels**



The rear part of the plough

is a standard mounted reversible plough : you can either choose Kverneland EG 200/100 or Kverneland LB 200/100.

Simple and quick

The rear plough can be uncoupled within a few minutes and be ready for use. Likewise, it only takes a short time to join them together. At any time, you have the freedom to choose.

Quality ploughing

The wagon plough follows the ground undulations in a smooth way thanks to the centre section consisting of a 3-point linkage system. It therefore behaves like a normal mounted plough.

Increased output

The plough is available with either manual adjustable working width or with the famous Kverneland Vari-Width® system, allowing on-the-move furrow width adjustment from the tractor seat. The ploughing width can be adjusted from 35 to 50 cm (14-20"). The output is then increased up to 30%.

Robust design and very easy to operate

To withstand the high stresses on such a large reversible plough, particularly when ploughing at depth and at speed, Kverneland engineering skills have made it possible to construct a plough capable of withstanding these forces, but at the same time, ensuring that the plough is easy to operate.

The Kverneland PW/RW "three-in-one" consists of a robust front section with a main frame that is heat treated by induction. Dimensions of the frame vary according to the number of furrows.



IsoMatch Tellus Terminal



ATS display control

Easy to operate

A large plough may look very difficult to manage, but the Kverneland PW/RW 'three-in-one' model is equipped with an advanced management system which makes it very easy to operate.

Kverneland PW/RW

- **Vari-Width® or manual furrow width adjustment**
- **centre-mounted wheels**



You can choose between different systems :

- ATS Control (Automatic-Turning-Sequence), option: ISOBUS compatible.
- Manual management with the addition of a valve controller.
- Manual management via tractor control.

When equipped with the ATS system, the plough is very easy to operate on the headlands. It is only necessary to lift the plough at the front, press the ATS button 3 times and the plough reversing functions operate automatically in accordance to the driving on the headland. The plough will then be ready for the next ploughing operation.

The rear plough section, equipped with an hydraulic toplinek, is held in a raised position during the turning phase.

This secures perfect “ins” and “outs” at the headlands.



Easy management

Equipped with the advanced ATS control, it is only necessary to press a control button: the auto hydraulic system will turn the plough and bring it into the right position. The plough can also be equipped with ISOBUS control, or, a full manual turning/operating system for manual management.

Safe and easy turning

Unbelievably easy to operate! When turning on the headland, the specially designed centre section lowers the plough for optimum stability - and safety. With 80% of the plough's weight on the centre section, the tractor is free to make tight turns. The centre section design also provides excellent manoeuvrability during work and transport.

Generous clearance

Having a choice of underbeam clearance of 70 or 75cm on the PW and 70 or 80cm on the RW, for trashy conditions.

The PW/RW 'three-in-one' plough is available with a choice of bodies, skimmers, disc coulters and wheel equipment to suit all soils and tractor types.

Kverneland PW/RW – On-land version

The PW/RW is available in 3 versions:

- In furrow
- In furrow and narrow on-land (approx. 3.2 m track width)
- On-land (approx. 4.5 m track width)

Off-set adjustment to correct the driving position is via in-cab hydraulic control.



- **Vari-Width®**
or manual furrow width adjustment
- **centre-mounted wheels**

Stable and safe in transport
Changeover from work to transport is carried out in a few seconds : the plough is turned half way and then lowered on its centre section.

In 'butterfly' position the plough is very stable and manoeuvrable with approximately 20% of its weight being transferred on to the tractor's linkage. As an option, both PW/RW can be equipped with brakes and full road lighting.



Model Stepwise					Weight in kg						Recommended Horse Power					
Type	Interbody Clearance in cm	Underbeam Clearance in cm	Number of Furrows	Furrow Width in cm	7-F	8-F	9-F	10-F	11-F	12-F	7-F	8-F	9-F	10-F	11-F	12-F
PW	100	70/75	7 - 12	35-50 (14-20")	5045	5510	6015	6480	6945	7440	210	240	270	300	330	360
RW	100	70/80	7 - 12	35-50 (14-20")	4695	5130	5565	6050	6495	6940	210	240	270	300	330	360

Model Vari-Width					Weight in kg								Minimum recommended Horse Power							
Type	Interbody Clearance in cm	Underbeam Clearance in cm	Number of Furrows	Furrow Width in cm	7-F	8-F	9-F	10-F		12-F	13-F	14-F	7-F	8-F	9-F	10-F	11-F	12-F	13-F	14-F
PW	100	70/75	7 - 14	35-50 (14-20")	5150	5630	6150	6630	HD=	7620	8100	8580	210	240	270	300	-	360	390	410
PW	115	70/75	7 - 10	35-50 (14-20")	5185	5670	6195	6680	-	-	-	-	210	240	270	300	-	-	-	-
RW	100	70/80	7 - 14	35-50 (14-20")	4800	5250	5700	6200	HD=	7120	7570	8020	210	240	270	300	-	360	390	410
RW	115	70/80	7 - 10	35-50 (14-20")	4835	5290	5745	6250	-	-	-	-	210	240	270	300	-	-	-	-

HD: Heavy Duty.

Kverneland Packomat

The Perfect Seedbed While You Plough



On many soils the perfect seedbed is made while ploughing. This combination of plough and packer is both efficient and environmentally friendly.

Weeds are controlled mechanically, the number of operations is reduced and the soil structure is immediately re-established. The traditional packer is a trailed implement which is towed by a plough. Kverneland has refined this implement and made it an integral part of the plough.

Efficient and user friendly

Kverneland's Packomat works in all soil conditions. Whatever gets ploughed is also packed. Moreover, you need not worry about releasing the packer and reconnecting it on the headland. It changes sides automatically in the plough reversing process.

The Packomat follows the plough

Compared with traditional packers which are trailed behind the plough, the integrated Packomat is rigidly mounted via a packer arm made of specially hardened spring steel. By means of this arm, weight transfer takes place from the plough to the Packomat to ensure that the packer works the soil with the right 'field pressure'. More than 1,000 kg pressure gets easily regulated by means of a turnbuckle or an optional hydraulic cylinder. The small diameter of the packer wheels gives an excellent levelling effect. In fact



Kverneland has developed a piece of equipment to make soil preparation even more cost efficient. Packomat is an integrated soil packer which is coupled directly to the plough.



the wheels carry a small amount of soil in front of them which also helps the packing effect.

Fine and smooth seedbed

The geometric relationship between the plough and the packer is constant at all times. This means efficient crushing of clods. When combined with a simple finger harrow, the packer makes a fine and smooth seedbed. On light and medium soils, the packed soil is simply ready for seed drilling. Actually on heavy soils, the Packomat reduces the necessary time for an eventual seedbed operation.

Less wear and less pulling effort

With the support of the depth wheel on the one side and the Packomat on the other

side, the plough is better balanced. Hence there is less landside pressure, less wear and a reduction in the draft requirement. In comparison with a conventional soil packer, Kverneland's Packomat requires 25% less pulling effort. Fuel consumption is therefore substantially reduced.

Perfect water conductivity

Kverneland's Packomat works with a pressure of more than 1,000 kg. The wedge-shaped discs cut their way through the furrows, crush clods, push down stones, level and pack the soil, and ensure a quick re-establishment of the capillary water conductivity. This is the best way to get germination started as early as necessary. It also reduces the problems associated to post-drilling droughts.

Adapts to any soil conditions

The Packomat is designed for ploughs from 3 to 14 furrows. In depth-recompaction is ensured by one ring section of either 480mm or 600mm Ø rings and one row of either 16mm tines with reversible points or 20mm tines with blade points.

Kverneland heat-treated steel

Specially hardened spring steel. Like all Kverneland ploughs, the Packomat is not an exception. It benefits from the unique Kverneland heat-treatment processes for unequalled robustness and wear resistance.

For more information, please consult the brochure "Packomat".



Kverneland original wearing parts

Make life much easier

The plough shares from Kverneland are well known for their outstanding wear characteristics. At each share's heart is the finest steel in Europe, which undergoes a revolutionary process of induction heat treatment.

The result is a share hard enough to withstand the most punishing conditions, yet with the flexibility to resist impact shock loading and cracking.



Look for the Kverneland arrow. It's your guarantee of fitting Original Parts. - The Best Parts on Earth.

Revolutionary new heat-treatment process

A secret process

The outstanding wearing characteristics can be explained by two factors. First of all, the wearing regions of the share are hardened far beyond any levels achieved previously. A second hardening process guarantees a certain degree of flexibility around the bolt holes to avoid stress fractures. This subtle hardening combination ensures an extended life of the shares of at least 20-25%. The soil gets penetrated just as efficiently.

The benefits :

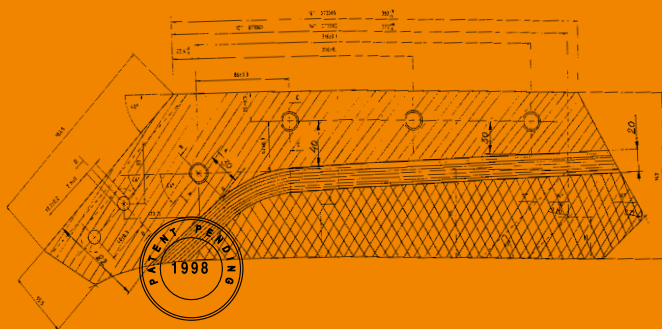
The extended life time to Kverneland shares makes you save time by not having to replace them so often, get the work finished earlier, in other words, contribute to keep costs low.

Quality and reliability

Kverneland has been developing its unique steel heat treatment methods for more than 130 years. The millions of mouldboards still turning soil around the world are acknowledging the quality and reliability of these techniques. The wear rates less than half of competitors'.

The heat is on

Kverneland succeeded in developing a special new way of heat treating reversible plough share points, to give them dramatically better life expectancy without increasing the incidence of stress fractures. The task for the engineers was extremely difficult, because the improvements that technology could achieve at that time were near the limit. The breakthrough came with an ingenious new method of induction heat treatment, which was able to confer varying degrees of hardness to different parts of the metal under test.



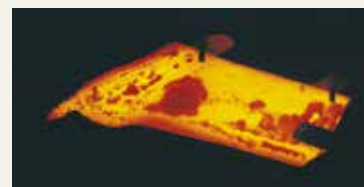
Production of shares - stage by stage



Stage 1



Stage 2



Stage 3



Stage 4



Stage 5

**Still a
secret**

Stage 6



New share



Used share - how to increase life time

The Wearing Parts Competitors cannot Match

The big challenge was to make shares with the greatest resistance in the wearing regions. How could we adapt the process to treat shares in the same way as the points? After an investment of more than € 1,5 M. , Kverneland engineers have managed to refine the technique into a revolutionary new heat-treatment process. New and more resistant shares are now available from your Kverneland dealer.

In their attempt to produce wearing parts with the same hardness and wear resistance as ours, competitors frequently resort to the use of thicker steel, albeit of

lower quality. More steel may look initially appealing. But the result is invariably very disappointing. The shares wear more quickly and the plough becomes unbalanced, as many of the forces and loads act against the natural line of draft, hampering penetration and making the plough harder to pull.

The plough shares from Kverneland have been designed from the outset to maintain consistent penetration as they gradually wear. They are specifically designed to fit Kverneland plough bodies and should in all conditions give the best results.

Kverneland Quick-Fit System

The fastest Pit Stop for plough point change ever

**Kverneland
Pit-Stop**

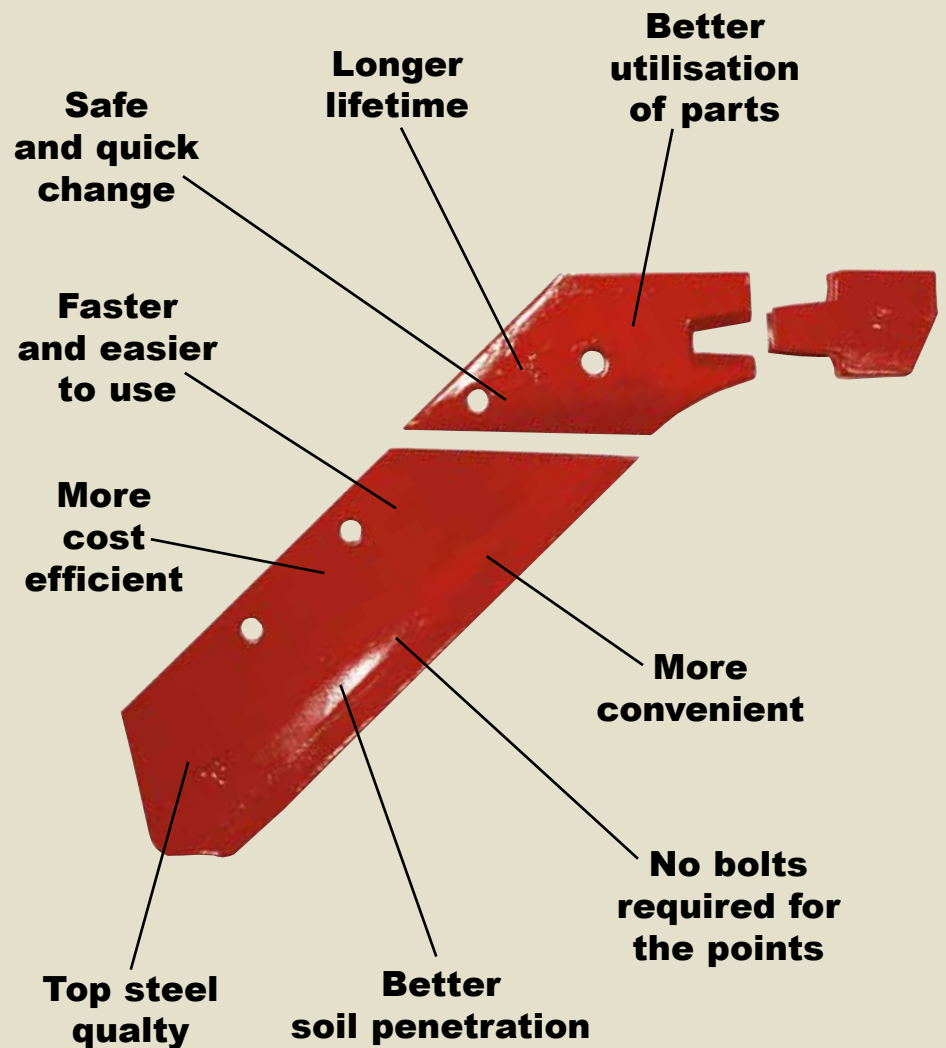


**Within a few minutes
change to a new set of points.
The only tools needed are a hammer and a shisel !**



Kverneland Quick-Fit

The unique plough share system



The patented Quick-Fit system from Kverneland consists of a share, a special holder and a very unique point. All made of Kverneland Top Quality Steel and heat-treated after Kverneland special recipe.

The share and the holder are bolted to the body, while the Quick-Fit point is fitted to the holder by a unique locking system. Just by a few sharp taps with the hammer and it is fitted. And

not to forget, when the points need to be changed, it is simply removed by means of the taper drift and the hammer.

Back in work quicker when the points wear

The Quick-Fit points take far less time to change than conventional equivalents, so the machine is back in work much quicker.

One farmer from North Yorkshire, UK comments "We have reduced downtime from about 30 minutes to five minutes when changing points on our 8-furrow reversible plough...
...the knock-on system is also quite versatile. If we are in some very hard, dry conditions and are struggling for penetration, we can simply knock-off a set of partly-worn points and put on new ones while in the field, to get the plough in the ground,"

Accessories

Choose the correct equipment

For optimal operations, the plough needs to be equipped with the correct accessories to suit the particular soil type and field conditions.

Kverneland offers a complete range of accessories for all the different plough models.



New easy adjustable skimmer

To ensure optimum positioning of the skimmer a new quick adjusting system is now incorporated on all plough models.

The new skimmer is very easy to adjust and can be moved in all directions to suit field conditions. Special indentations on the skimmer arm provide correct location and depth setting.

As the fixing bracket and stalk is fixed to the plough's leg assembly, the skimmer is easily adjusted up or down by loosening

only one bolt. Once adjusted the bolt is tightened and locked to ensure a correct and rigid assembly.

The new skimmer will be available in two versions: standard manure and maize skimmer for those difficult conditions with large amounts of trash.

Skimmers are recommended for efficient burial of stubble, grass, straw and weeds to provide a trash free finish prior to seed bed preparation.



Trashboards

Particularly useful when large quantities of surface trash - manure, straw, etc. are present. The use of trashboards increases the clearance between the bodies when compared to the use of skimmers.

Accessories



Sword Share Knives

These are an alternative to disc coulters, where reduction in weight may be necessary or where blockage from trash or stones is likely. Can only be used on ploughs fitted with reversible points.



Shares with Reversible Points

The most cost effective 'share' system for ploughing hard and abrasive soil and under generally difficult conditions.

Shares with Flush Fit Points

Recommended for ploughing in sticky soil conditions. The point is fixed by means of a single bolt and is therefore quickly replaced.



Landside Knives

A very good alternative to disc coulters, where reduction in weight may be necessary or where blockage from trash or stones is likely. Good in combination with skimmers.



Quick-Fit

The Quick-Fit point system can be fitted to all Kverneland plough bodies and reduces the down time in replacing earth wearing parts.



Disc Coulters

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



Eco share

A special new share for working 10cm below the normal ploughing depth. Also as an alternative for up to 10cm shallower ploughing depth.



Furrow Splitter

Bolted to any part of the mouldboard or share, the furrow splitter is designed to cut through heavy soils making it easier for following operations.



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. Particularly for use in conjunction with the No.19 body.

Kverneland Group

Kverneland Group is a leading international company developing, producing and distributing agricultural machinery and services.

Strong focus on innovation allows us to provide a unique and broad product range with high quality. Kverneland Group offers an extensive package of systems and solutions to the professional farming community. The offering covers soil preparation, seeding, forage and bale equipment, spreading and spraying.

Original Spare Parts

Kverneland Group spare parts are designed to give reliable, safe and optimal machinery performance - whilst ensuring a low cost life-cycle. High quality standards are achieved by using innovative production methods and patented processes in all our production sites.

Kverneland Group has a very professional network of partners to support you with service, technical knowledge and genuine parts. To assist our partners, we provide high quality spare parts and an efficient spare parts distribution worldwide.

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