

KÖCKERLING

Total over view leaflet



Technology | Experience | Innovation

In 1955 the KÖCKERLING Bros Heinrich and Friedrich laid the foundations for an industrial production of soil working machines in east Westphalia (near Gütersloh/Bielefeld). In the beginning seed combinations and rotary cultivators were being produced. In the last 15 years KÖCKERLING have specialised in producing machines for ploughless farming. From the beginning the success of the company has been the close contact with farmers and practical farming. A

tradition of skilled craftsmanship, years of experience in tillage equipment and a good understanding of solutions to tillage problems is a good basis for the future. Customer orientated thinking and the ability to provide customer satisfaction and service support from KÖCKERLING is the basis for the partnership with Machinery Dealers.



Our target: Satisfied Customers



Long years of experience, technical know how and personal contact - the aim of all of the KÖCKERLING personnel. Product Development, Construction, Production and Assembly through to Accounts and Marketing have one target = The Production of effective machines for modern Agriculture and satisfied customers.



High Quality parts for effective machines



For the production of all machines only material of the highest quality has been used. For the frame, hot drawn box section 100 x 100 x 8mm and 120 x 120 x 8 mm is used. All the parts used by KÖCKERLING are of the highest quality material.

First class service from



a basic fundamental consultancy, a reliable wearing parts supply, an effective Service department, a personal business partner, that can offer the best possible support.

ALLROUNDER classic - The cultivator

The universal cultivator

The ALLROUNDER is, as the name indicates, a very universal machine for seed-bed and secondary stubble cultivation.

The ALLROUNDER can work the whole year undertaking different tasks:

- In spring for producing seedbeds on ploughed land
- In the autumn for secondary stubble cultivation
- and for an intermediate pass to take out weed seeds.

The hydraulic levelboard is a critical and valuable tool when producing an even seedbed. In the spring the goose foot point works shallow. The soil is aerated but worked very shallow, allowing quick drying. The STS roller with following harrow produces a good reconsolidation of the moved soil with an optimum crumbly finish, ideal for the seed. Whether for sugar beet,

maize or cereals - the ALLROUNDER guarantees easy moving and fine soil in one pass, so that the „weather window“ can be best used. Further activities, where the ALLROUNDER excels, include slurry incorporation, working green manure and fast aeration of the soil.

Also, working the stale seedbed, the ALLROUNDER produces fine work after the deeper stubble cultivator for a secondary stubble cultivation, working the straw more evenly into the soil and removing weeds. The high output and low diesel consumption of 4.5 litre per hectare makes the ALLROUNDER a very practical machine. The high under frame clearance of 60 cm delivers block free working. The strong Hercules tines 70 x 12 mm guarantee a long working life even in dry conditions or stony ground.

- 3-point mounting
- Strong frame
- Various rollers
- Optional trailed transport kit
- Working width from 3,00 m to 6,00 m

The technical data

Working width	3,00 m	4,00 m	5,00 m	6,00 m
Transport width	3,00 m	2,70 m	2,70 m	2,70 m
Number of tines	21	25	33	39
Tine spacing	15 cm	15 cm	15 cm	15 cm
Under frame clearance	60 cm	60 cm	60 cm	60 cm
Weight	900 kg	1.280 kg	1.505 kg	1.780 kg
Length	3,50 m	3,50 m	3,50 m	3,50 m
Roller	Crumbler 350 mm / Double – crumbler 350 mm STS – roller 530 mm Tube-bar crumbler 520 mm Ø			
Levelling	Hydr. Levelboard, levellers			
Following Harrow	13 mm	13 mm	13 mm	13 mm
Lights	Option	Option	Option	Option
Power requirement	80 HP	100 HP	120 HP	140 HP



ALLROUNDER profiline

Allrounder profiline 600 / 750

The ALLROUNDER 600/750 - profiline- is equipped with a double STS roller, an integrated transport arrangement and a massive tine frame. The working depth is controlled by the front support wheels and the rear double STS roller. For safe road transport the folding wings reduce the width to 3.00 m.

The technical data

	ALLROUNDER -profiline-	
Working width	6,00 m	7,50 m
Transport width	3,00 m	3,00 m
Number of tines	36	44
Tine spacing	16,70 cm	16,70 cm
Under frame clearance	60 cm	60 cm
Weight	4.600 kg	5.400 kg
Length	7,30 m - 7,80 m	
Roller	Double STS – roller 530 mm	
Levelling	Hydr. Levelboard	
Following Harrow	13 mm	13 mm
Power requirement	180 HP	220 HP

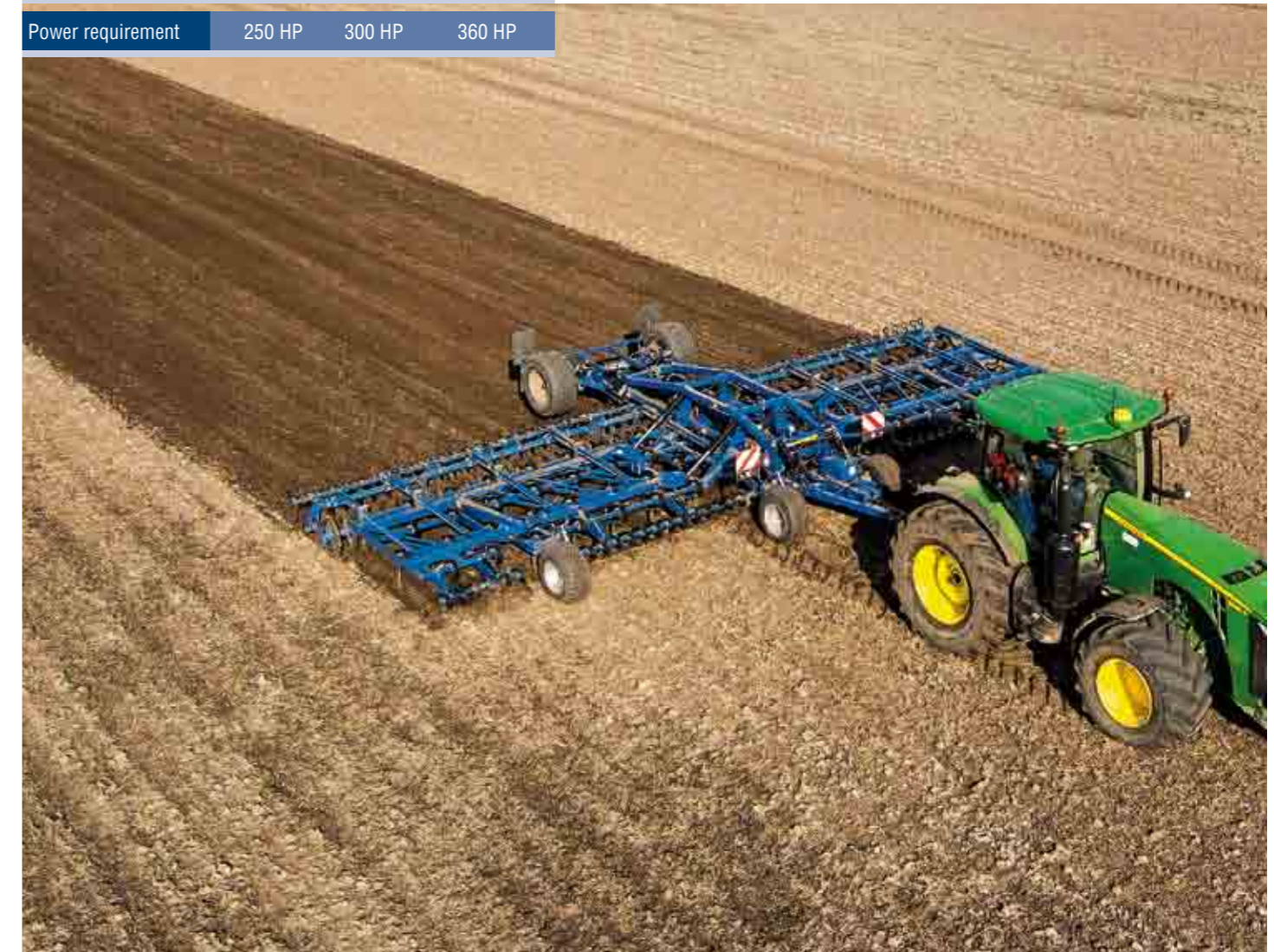


Allrounder profiline 900 / 1200 / 1450

The ALLROUNDER 900/1200 and 1450 - profiline- is equipped with a double STS roller, an integrated transport arrangement and a massive tine frame. The working depth is controlled by the front support wheels and the rear double STS roller. For safe road transport the double folding wings reduce the width to 3.10 m.

The technical data

	ALLROUNDER -profiline-		
Working width	9,00 m	12,00 m	14,50 m
Transport width	3,00 m	3,10 m	3,00 m
Number of tines	54	72	86
Tine spacing	16,70 cm	16,70 cm	16,70 cm
Under frame clearance	60 cm	60 cm	60 cm
Weight	7.000 kg	8.650 kg	10.350 kg
Length	8,50 m - 9,00 m		
Roller	Double STS – roller 530 mm		
Levelling	Hydr. Levelboard		
Following Harrow	13 mm	13 mm	13 mm
Power requirement	250 HP	300 HP	360 HP



TRIO - The stubble cultivator

The TRIO stubble cultivator is targeted at the smaller and medium sized farms with tractors from 100 – 160 HP and is three-point linkage mounted

The first stubble working is usually shallow so the volunteers and weed seeds are not buried deep. At the same time the capillary structure is broken restricting the drying out process. The TRIO is equipped with winged points to move all the ground at shallow depths so that straw and stubble is properly mixed. For very dry conditions and shallow working KÖCKERLING offers the TOP-MIX goose foot point. Second working can go down to 25 cm perhaps for rape to aerate the soil and for further working in the straw and stubble. This way the following crop has the best germination conditions. For deep work the wing is removed. Now the TOP-MIX point works at 80 mm wide with the soil guide for the optimum mixing effect. The height adjustable spring sweeper leveller evens out the ridges left by the tines and is not affected by stones. The result: low wear costs. The following STS roller is an original from KÖCKERLING, and is now used all over Europe. The ,U' profile rings fill with soil so

that the friction between the soil in the ring and the soil in the field keeps the roller turning and creating an optimum reconsolidation effect. In particular the STS roller allows working in damp conditions in spring and late autumn. The height adjustable following harrow, which is integrated with the STS roller, is a very useful tool. It leaves an improved straw mixing and an even fine finish. The stone protection utilises coil springs and is standard equipment. For lighter and stone free soils the TRIO without the coils spring but equipped with a shear bolt protection is available. The stone protection system has been used on thousands of farms through out Europe. The coil spring protection system is supported with a replaceable Polyamid block. Even in details KÖCKERLING place great importance in the quality. The three point linkage attachment points are made from special steel that hinders hole wear.

The technical data

	TRIO		TRIO light (ab 59 kW)	
Working width	3,00 m	4,00 m	3,00 m	4,00 m
Transport width	3,00 m	3,00 m	3,00 m	3,00 m
Number of tines	10	13	10	13
Tine spacing	30 cm	30 cm	30 cm	30 cm
Under frame clearance	85 cm	85 cm	85 cm	85 cm
Weight	1.670 kg	2.500 kg	1.270 kg	1.630 kg
Length	4,00 m	4,00 m	4,00 m	4,00 m
Roller	STS - roller 530 mm Double STS – roller 530 m		Tube-bar-crumbler	
Levelling	Sweeper leveller		Sweeper leveller	
Following Harrow	13 mm	13 mm	13 mm	13 mm
Power requirement	100 HP	140 HP	100 HP	140 HP

Trio

The stubble cultivator with hydraulic depth adjustment.



TRIO 400T - The stubble cultivator

The 3 bar stubble cultivator with integrated transport wheels

With the swing to sowing into stale seed beds and direct drilling the demands of stubble cultivation has increased. As more of the post harvest residues are lying on the surface the straw mixing and the distribution has become a key issue for a successful subsequent crop. By comparison with earlier cultivators the TRIO 3 bar cultivator produces a finer finish and consequently the optimum stale seed bed. The TRIO stubble cultivator produces a finish that suits the new sown crop. This is especially true in heavy straw crops. The double STS roller provides excellent reconsolidation. The integrated transport wheels reduce the headland compaction and deliver a tight turning circle.

- Machine refinements
- Optimal mixing effect
 - Robust frame construction
 - Ideal reconsolidation
 - Excellent levelling

The Technical Data

	TRIO 400T
Working width	4,00 m
Transport width	3,00 m
Number of tines	13
Tine spacing	30 cm
Under frame clearance	85 cm
Weight	4.300 kg
Length	7,50 m
Roller	Double STS roller 530 mm
Levelling	Sweeper leveller
Following Harrow	13 mm
Power requirement	180 HP



QUADRO - Stubble Cultivator

The 4 bar universal cultivator for shallow stubble cultivation and deep soil loosening

The name QUADRO identifies the four bar cultivator series in the KÖCKERLING program. The quality of the straw working and the straw distribution is dependent on the number and distribution of the tines. Basically the more tines the better the work, however the layout of the tines must also produce block free working. The QUADRO series is equipped with hydraulic transport wheels, which make road transport, and turning on the headlands fast and reliable. The working depth of the QUADRO is between 5 – 30 cm. This allows the machine to work shallow when working in straw and deeper to loosen the soil. The QUADRO is equipped with stone-protected TOP-MIX tines. The huge front depth wheels adjust the depth and the double STS roller mounted at the rear. This way an even working depth is guaranteed.

The front depth wheels are mounted out wide to limit side ways movement. A particular advantage on the 4.0m and the 4.6m models is the ability to work with the wings folded at 3.0m. To achieve this, the front depth wheels are mounted on the centre section of the machine. When the tractor power is too small for deep working the 3.0m centre section compensates for the lack of power. When working shallow the 320 mm wings points or the goosefoot points are used. The wings are removed when working deep utilising the point and the soil guides. In practice when working deeper than 20 cm the wear cost and the diesel usage are proportionally higher.



The technical data

Working width	3,00 m	4,00 m	4,60 m	5,70 m
Transport width	3,00 m	3,00 m	3,00 m	3,00 m
Number of tines	11	15	17	21
Tine spacing	27 cm	27 cm	27 cm	27 cm
Weight	3.300 kg	5.000 kg	5.300 kg	5.800 kg
Length	7,00 m	7,00 m	7,00 m	7,00 m
Under frame clearance	85 cm	85 cm	85 cm	85 cm
Tine bar spacing	70/80/70 cm	70/80/70 cm	70/80/70 cm	70/80/70 cm
Frame material	100 x 100 x 8 mm	100 x 100 x 8 mm	100 x 100 x 8 mm	100 x 100 x 8 mm
Tines / Points	TOPMIX-tine width 80 mm point and a 350 mm wing or a 320 mm goose foot point			
Levellers	Height adjustable spring steel sweeper levellers that can be widened, take out the ridges left by the tines and pulls in any ridges at the side of the machine, massive levelboard in front of the STS roller complete the levelling			
Roller	Double STS roller 530 mm			
Lights	Standard	Standard	Standard	Standard
Optional	Following harrow 13mm, hillside disc, air or hydraulic brakes			
Power requirement	140 HP	170 HP	190 HP	240 HP

The targets of stubble working are:

Even straw distribution, the creation of a homogeneous stale seedbed, soil aeration for the following crop and a good reconsolidation.

Other technical requirements are:

A strong frame with a long working life, a robust and safe stone protection for the hardest conditions, the ability to work shallow and to work deep, low wear costs on hinge points and a reliable work quality even in damp conditions.

The double STS roller has proven value over many years. During work the open rings fill with soil so that the friction between the soil in the rings and the soil in the field keep the roller turning (Soil to soil). This way the surface is not to finely worked causing capping in times of heavy rain fall. The spring loaded following harrow completes the straw distribution and the final levelling.



VECTOR - The stale seedbed cultivator

The 4 bar stale seedbed cultivator for shallow working and for deep soil loosening.

The VECTOR stale seed-bed cultivator is the consequence of further development of the QUADRO for professional farmers with up to 600 HP. The key to the VECTOR is the „Easy Shift“ depth control which allows the depth to be varied in work without stopping and without leaving the tractor. It allows infinitely variable depth control from the tractor seat ensuring the optimum work depth whole to make is achieved all over the field. The driver can choose the best depth whether in sand or in wet areas or on clay. Whether on packed or weedy headlands, or on deep tramlines, or through straw heaps, the driver can select the appropriate working depth. By using „his eye“ the driver can maintain the best working depth.

Advantage of the VECTOR: The working width can be altered e.g. from 4.60 m to 6.20 m, the 5.70 m to 8.00 m and the 7.00 m to 9.00 m. It is a simple job to remove the outer wing by undoing bolts. This way the VECTOR can be adapted to suit power availability and field conditions. The new tine design used on the VECTOR increases the under frame clearance and allows working down to 30 cm. As with the QUADRO the Top-Mix points can quickly be adapted to suit the chosen work. The Top-Mix soil guide reduces blockages and improves the mixing effect in particularly heavy straw such as triticale, rye or after grain maize.



Large front depth wheels are the guarantee for a precise working depth both in wet conditions and in light soils. The proven double STS roller is now found on almost all KÖCKERLING machines. This underlines our satisfaction with this roller. Simple, robust, unhindered by stones and able to work in wet conditions. The STS roller performs on countless machines throughout Europe. The spring loaded following harrow produces the optimum straw distribution and levelling. The ability to adjust the pressure on the ground is valued by all practical farmers. For roadwork the VECTOR is equipped with an hydraulically controlled transport system and the machine is a completely trailed machine. The following attachment points are offered, CAT III CAT IV, 50 mm draw bar clevis and a K 80 ball.



The technical data

Working width	4,60 m
Transport width	3,00 m
Number of tines	17
Tine spacing	27 cm
Weight	5.950 kg
Power requirement	200 HP

Working width	6,20 m
Transport width	3,00 m
Number of tines	23
Tine spacing	27 cm
Weight	7.400 kg
Power requirement	240 HP

Working width	5,70 m
Transport width	3,00 m
Number of tines	21
Tine spacing	27 cm
Weight	6.850 kg
Power requirement	260 HP

Working width	8,00 m
Transport width	3,00 m
Number of tines	29
Tine spacing	27 cm
Weight	8.430 kg
Power requirement	350 HP

Working width	7,00 m
Transport width	3,00 m
Number of tines	25
Tine spacing	27 cm
Weight	8.160 kg
Power requirement	350 HP

Working width	9,00 m
Transport width	3,00 m
Number of tines	33
Tine spacing	27 cm
Weight	9.710 kg
Power requirement	450 HP

VARIO - The stale seedbed cultivator

8 tine bars for maximum working quality

The name PRECISION CULTIVATOR stands for the hydraulically adjustable 8 bar cultivator from KÖCKERLING. It is the flagship of the KÖCKERLING range and is the machine for professional arable farmers. With a length of 8.00m and a tine spacing of 130 mm the quality of work is unbeatable. Soil and straw is carried in the PRECISION CULTIVATOR for many meters producing the optimum mix and even distribution. The heavy leaf spring tines work is unaffected by stones and are maintenance free due to the vibration which works any blockages free. There are two point options; 100 mm and 60 mm chisel points. The point is chosen to suit the working depth. They are reversible and can be moved down for

further wear, this reduces the wear costs and on the PRECISION CULTIVATOR the operating costs are low. The 8 bar PRECISION CULTIVATOR has been available for many years and is particularly valued. The PRECISION CULTIVATOR is used for primary and secondary stubble cultivations and produces the right conditions for all soil types and following crops. The working depth can be varied on the move from the tractor driver's seat; this means that the optimum working depth is achieved all over the field. It is irrelevant whether working on weedy headlands or on wet patches the working depth can be quickly altered to suit changing conditions.

The initial research was carried out in a high straw area of approximately 12 tons per hectare and this is the reason that the PRECISION CULTIVATOR quickly developed as the professional farmers machine for creating a stale seed bed. Particularly producing good results in wet conditions. In these conditions the double STS roller through its robustness, its ability to work in wet and stony conditions leaves the ideal conditions.

The technical data

Working width	3,00 m	4,00 m	4,80 m	5,70 m	7,50 m
Transport width	3,00 m	3,00 m	3,00 m	3,00 m	3,00 m
Number of tines	23	31	37	43	57
Tine spacing	13 cm	13 cm	13 cm	13 cm	13 cm
Weight	4.450 kg	5.910 kg	6.880 kg	7.210 kg	10.020 kg
Length	9,50 -10,0 m	9,50 -10,0 m	9,50 -10,0 m	9,50 -10,0 m	10,30 -10,80 m
Roller	Double STS roller 530 mm				
Levelling	Levelboard				
Following Harrow	13 mm	13 mm	13 mm	13 mm	13 mm
Power requirement	160 HP	180 HP	240 HP	260 HP	400 HP



TRACTION POWER KIT

Operating mode: Traction power kit contains bracket for drawbar, support and hydraulic cylinder. The bracket is mounted on top of lower link attachment and connected with centre of drawbar by support. Link between tractor and traction power kit is given by hydraulic cylinder, which needs one double hydraulic valve.

While working, pressure is given to hydraulic cylinder of traction power kit. It is important, that hydraulic cylinder is constantly delivered with 5-10 ltr per min. That is for compensating different conditions on fields, as depres-

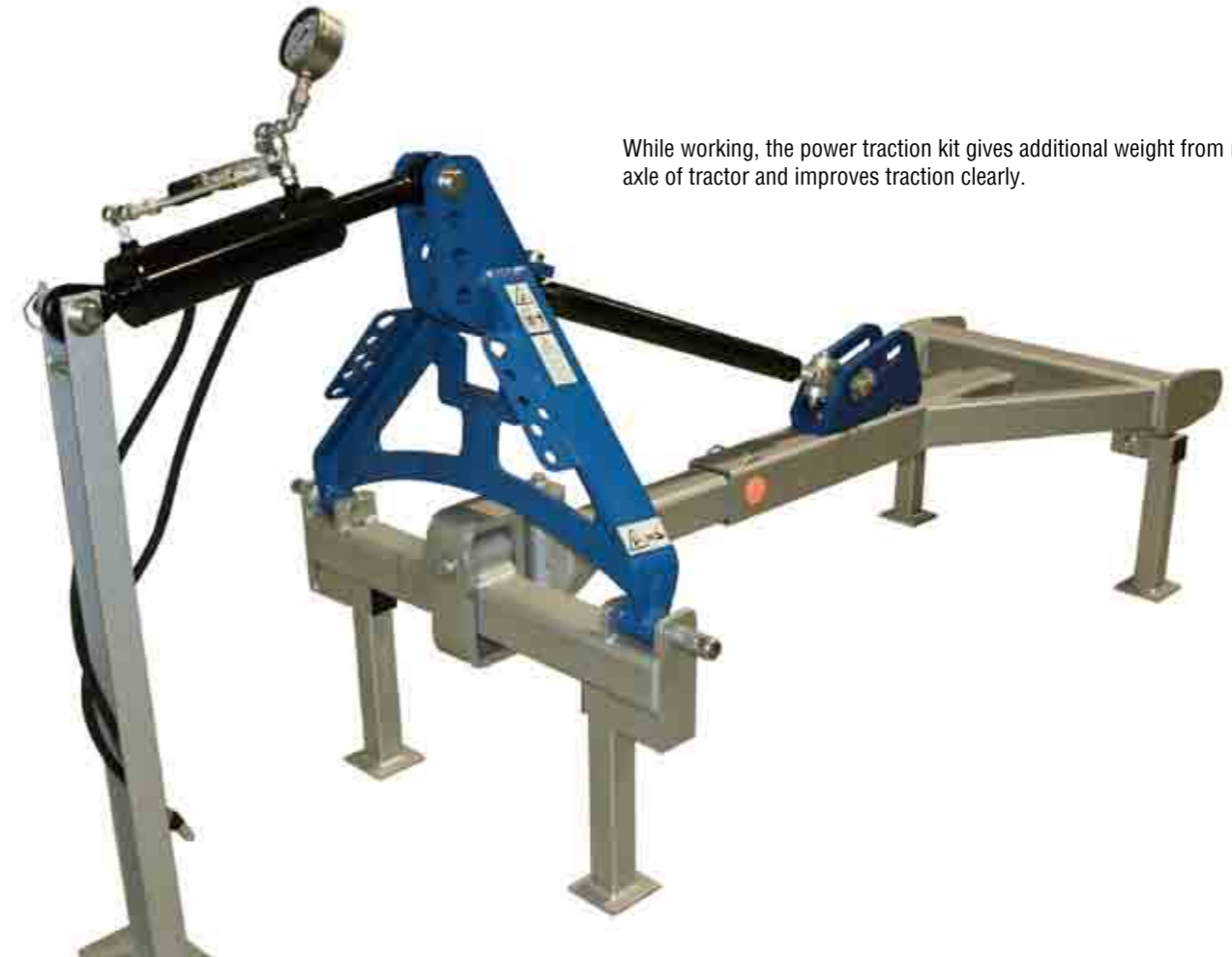
sions e. g. A Manometer, which is mounted at hydraulic cylinder, helps to set up power traction kit and to check pressure while working.

Advise: For exact coupling between tractor and power traction kit, Koeckerling delivers a special adapter for each tractor brand and type. This guarantees optimum performance of traction power kit.



Benefits:

- Optimally traction of tractor
- No need for weights in tractor wheels
- Less fuel consumption of tractor



While working, the power traction kit gives additional weight from machine to rear axle of tractor and improves traction clearly.



PWA - The Polygonring-roller

- 2 row - offset allows that residues pass easily
- Constant reconsolidation with hydraulic pressure to outer wings
- Best self clearance by 2 row construction
- Optimum crushing of soil by rings
- Can be used even without cultivator for additional reconsolidation

PWA can be delivered with working width of 5.00 m, 6.40 m, 6.80 m and 8.20 m.

PWA 500/680 can be enlarged from 5.00 m to 6.80 m working width and PWA 640/820 can be enlarged from 6.40 m to 8.20 m working width.

PWA is combineable with: Allrounder 600/750, Quadro 400-570, Vector 460-800, Vario 400-750 and Rebell classic T 500-800

Technical data

Type of machine	500/680		640/820	
Basic machine	5,00 m		6,40 m	
with extension	6,80 m		8,20 m	
Working width	5,00 m	6,80 m	6,40 m	8,20 m
Number of rings	55	75	71	91
Spacing between rings	11 cm	11 cm	11 cm	11 cm
Diameter of rings	540 mm	540 mm	540 mm	540 mm
Weight	3.000 kg	3.650 kg	3.490 kg	4.140 kg
Length (transport)	6,20 m	6,20 m	7,20 m	7,20 m
Hight (transport)	2,62 m	3,35 m	3,20 m	3,93 m
Width (transport)	2,90 m	2,90 m	2,90 m	2,90 m
Maximum speed	30 (km/h)	40 (km/h)	40 (km/h)	40 (km/h)



REBELL classic | REBELL classic T

Compact disc harrow

REBELL classic is the new compact disc harrow of Koeckerling. This innovative machine is built very compactly with solid materials and ensures use under nearly every condition. REBELL classic is designed for working in stubble directly after harvesting, but also for seedbed preparation and on

ploughed fields for leveling and crushing blocks of soil. The working depth can be chosen between 2 cm and 12 cm. The REBELL classic is easy to pull and offers you a quick finish of necessary field operations.



Technical data

	Rebell classic	500 T	600 T	800 T
Working width	3,00 m	4,10 m	5,20 m	5,00 m 6,00 m 7,80 m
Weight	1.490 kg	2.580 kg	2.980 kg	5.060 kg 5.410 kg 6.300 kg
Power requirement	min. 110 HP	min. 150 HP	min. 180 HP	min. 160 HP min. 180 HP min. 220 HP
Spacing between discs	130 mm			130 mm
Diameter of disc	510 mm			510 mm
Cutting angle / Penetration angle	16 / 7 °			16 / 16 °
Number of discs (510 mm x 5 mm)	22 pcs.	34 pcs.	42 pcs.	42 pcs. 50 pcs. 62 pcs.
Protection against stones	Laminated spring, 90 x 13 mm			Laminated spring, 90 x 13 mm
Roller	DSTS-roller, 530 mm Ø			DSTS-roller, 530 mm Ø



REBELL - The short-disc harrow

The great disc harrow for maximum results

The REBELL meets all requirements of a modern disc harrow:

- ... the optimum insertion of big quantities of straw during the stubble processing with 620 mm discs. In addition to that the REBELL provides an excellent re-consolidation and favours thus a quick germination of weeds.
- ... various possible applications. The REBELL achieves not only an efficient stubble cultivation, also the seed bed preparation after plough and the insertion of catch crops before the drilling is done with vigour.
- ... the solid construction of this machine. The high weight of more than 8.000 kg makes the penetration of the tools into the soil in any condition possible. The residues on the surface is reliably cut and inserted.
- ... maintenance costs. Each retractable parts of the REBELL are equipped with the lockpin-system. The discs are suspended with triply sealed, unattended two-row taper roller bearings.



Important advantages

- Little susceptibility to damage
- High working speed
- Optimum insertion into the soil through the disc construction
- Best re-consolidation with the big DSTS-roller
- Hydraulic, Easy Shift control

The technical data

Working width	5,00 m	6,00 m	8,00 m
Diameter of disc	620 mm	620 mm	620 mm
Disc spacing	150 mm	150 mm	150 mm
Number of discs	32	40	52
Weight	7.960 kg	8.840 kg	10.230 kg
Power requirement	min 220 HP	min 250 HP	min 300 HP
Transport width	2,99 m	2,99 m	2,99 m
Transport high	3,20 m	3,70 m	3,99 m
Roller	Double STS roller 620 mm		
Wheels	600/55-22,5	600/55-22,5	560/60-22,5



VITU - New disc drill for precise seeding

Whether for seeding on ploughed fields, or seeding in min-till areas. Vitu is always the right choice and fits to every arable farming strategy. For meeting your demands, VITU is equipped with a two row compact disc harrow, a strong level board, two row wheel packer and new double-disc-coulters. This allows VITU to place seed extremely precisely in right position on your fields, even with drilling at high working speed. For placing fertilizer next

to seed in just one step, Koeckerling offers VITU – Combi. VITU- Combi delivers fertilizer with disc coulters directly in front of the wheel packer. The hopper for this type of machine is divided into two sections and is equipped with two hydraulically driven metering units. For changing working depth of VITU without leaving tractor, Koeckerling uses an electro-hydraulic-depth-control.



Technical data

Working width	3,00 m*	4,00 m*	6,00 m
Diameter of discs	450 mm	450 mm	450 mm
Spacing between discs	136 mm	133 mm	143 mm
Number of discs	22	30	42
Weight	4.410 kg	6.230 kg	7.950 kg Single hopper 8.300 kg Double hopper
Transport width	3,00 m	3,00 m	3,00 m
Number of disc - coulters (fertilizer)	--	--	21 (only VITU-Combi)
Number of wheels	11	15	21
Number of double disc coulters (seed)	22	30	42
Hopper capacity	2800 l	2800 l	Single hopper 3700 l Double hopper 4300 l
Lower link shaft	Kat III or IV	Kat III or IV	Kat III or IV

* unavailable for VITU-Combi



JOCKEY 600 - The Tine Drill

The easy pulling and powerful drill for the modern arable farmer

Many modern universal drills require high horse powers due to their high weight leading to high diesel consumption making them costly to run. The JOCKEY 600 is opposite this due to its compact and simple design. It is easy to pull and requires low diesel consumption and can operate on ploughed ground and into stale seed beds. Less can often be more.

Reliable seed placement is achieved even at high speeds. The drill is hydraulically driven via a pump. The speed is monitored by radar. This allows increased or reduced seed rates as conditions dictate at the push of a button.

The technical data

Working width	6,00 m
Transport width	3,00 m
Number of sowing elements	36
Row widths	166 mm
Under frame clearance	60 cm
Seed hopper capacity	2800 ltr
Lower link attachment	CAT III
Weight	5.750 kg
Power requirement	180 HP



ULTIMA CS - The universal seed drill

The universal drill for professional farmers

The universal drill ULTIMA CS (produced by KÖCKERLING) is known for high performance in all conditions. For many years the ULTIMA CS drill has been used by professional farmers sowing cereals, rape, beans, peas or maize. Excellent yields and low operating costs making this drill suitable over all. The ULTIMA CS is a compact, high output drill with working widths of 3.00 m, 4.00 m and 6.00 m.

Large seed tank

A new shape seed tank is mounted length ways on the frame. A large tank opening and low height makes for easy filling. The tank has an capacity of 2800 ltr to 3300 ltr.

Precise seed placement with tines.

A pre-press wheel in front of the sowing element follows the ground contours. The sowing element consistently puts the seed in the ground at the selected depth. The depth can be changed quickly and simply. All sowing elements are linked hydraulically. When encountering a stone the tine can move over or round the obstruction without damage and without effecting the neighbouring sowing elements.

The advantages of the universal drill ULTIMA CS

- Precise seed depth placement
- High working speeds
- Low wear
- Low power requirement and diesel usage
- Sowing area cleared of harvest residue
- No sidewall compaction

High operating comfort

- Seed tank with low loading height and wide opening
- Hydraulic Depth adjustment
- Simple seed rate calibration
- Compact machine with small turning circle

The technical data

Working width	3,00 m	4,00 m	6,00 m
Transport width	3,00 m	3,00 m	3,00 m
Number of sowing elements	16	22	32
Row spacing	185 mm	185 mm	185 mm
Row width	60 mm	60 mm	60 mm
Seed tank capacity	2800 ltr	2800 ltr	3300 ltr
Weight	4.570 kg	5.720 kg	9.000 kg
Power requirement	150 HP	180 HP	220 HP



ULTIMA 800 - The universal drill

The universal drill for mulch and direct drilling

The ULTIMA 800 offers the professional arable farmer completely different possibilities. Whether on ploughed ground through to mulch drilling or direct drilling the ULTIMA 800 guarantees an even sowing depth even at high speeds. The sowing depth is controlled by a pre-press wheel that is mounted in front of each tine. This guarantees the consistent working depth even on uneven surfaces. The 60 mm wide sowing elements deliver band sowing with a spacing of 12.5 cm. The seed is pneumatically delivered into the groove left by the sowing element and it is covered by spring leveller sweeps, the STS roller reconsolidates the soil and following harrow finishes the work. Each sowing element is followed by a ring on the STS roller for exact reconsolidation guaranteeing a good capillary action. The working depth of the sowing element is altered by a hydraulic cylinder. Within seconds

the working depth across the whole drill can be altered from the tractor seat, this allows the right depth to be selected whatever the conditions. The pre-press wheels in front of the sowing element carry 70% of the machine weight ensuring the sowing elements are working into firm ground. Press, sow, press. This is the ULTIMA 800 system. Fast and even seed delivery is proof of the sowing quality of the ULTIMA 800.

Professional technology for the professional farmer. The specification offered by the ULTIMA 800 incorporates all the requirements of a modern drill. All functions, fan speed, hopper contents, tramlining, metering wheel, pre emergent markers and fan speeds are monitored by sensors. Optionally a seed flow monitor can be supplied.

The technical data

Working width	8,00 m
Transport width	3,00 m
Sowing equipment	44
Seed tank capacity	4000 ltr
Wheels	550/60-22,5
Roller	STS 530 mm
Fan drive	hydraulic pto pump, 1000 rpm
Weight	11.000 kg
Power requirement	275 HP

Often a tine drill is criticised for not placing the seed at a precise depth – this is not the case with the ULTIMA 800. The tine clears the seed drills of straw and places the seed on a moist soil. With disc coulters the straw is pressed into the seed drill and the seed is placed on a straw(hair pin effect) in a dry place. There are many farms in Europe that will be pleased to give information about their experiences.



BOXER - New hopper

System for carrying and metering

An ideal machine for entrainment, metering, mixing and delivering seeds and/or fertilizers. The BOXER is trailed to the tractor with a three point linkage. In combination with various machines like cultivators, disc harrows, seeders or strip till seeders, all of them going on their own chassis, the BOXER can distribute effectively the entrained seeds or fertilizers.

The technical Data

Hopper capacity	2 x 1.450 ltr
Max. output	1,5 kg/ha - 400 kg/ha
Mounting	CAT III
Min. oil pressure	45l/min (direct drive)
Transport width	3,00 m
Weight	1.200 kg

Often the BOXER is used in combination with trailed cultivators. This allows to place fertilizer directly behind the tine in an opened slot, and the seed (e. g. small seeds, rape,...) in front of the roller.



MASTER

Strip till for professional users

The MASTER is a very effective machine for selective aeration of the soil and simultaneous distribution of mineral fertilizer. In combination with a single grain drill you can settle all necessary process steps with one pass:

- Selective aeration of the soil down to 35 cm
- Placement of fertilizer depots on two different levels in the aerated soil
- Necessary leveling and reconsolidation for an absolutely precise deposition of the seeds

Secured seedgermination

The seeds are precisely distributed on an optimally prepared ground.

Optimal growth of the plants

The selected aeration of the soil effects an improved root growth. They expand deeper into the soil, therefore the water supply is secured even during dry seasons and the plants can develop in an optimum way.

Excellent erosion protection

Between the seed rows remain residues of catch crops, thus the plants are protected from wind and water erosion in their early stage. After heavy rains a good soil structure prevents water and valuable soil from run-off. The organic residues shadow the ground and protect it from an early dehydration. High water absorption in heavy rainfalls.

The technical data

Working width	5,40 m / 6,00 m
Number of sowing elements	8 / 12 / 20
Row spacing	75 cm / 45 cm / 30 cm
Transport width	3,00 m
Weight	8.070 kg
Power requirement	250 HP
Option	hy. tramline marker Track disc Cutting disc 3-point-linkage at rear (hydraulic) Levelling discs Fertilizer set of tubes
	BOXER
Tank capacity BOXER	2 x 1.450 ltr



GRASMASTER - The grassland scarifying harrow

The seeding harrow for professionals

Improving grassland requires various work. Opening up the sward in spring together with rolling are ways to raise the grassland quality. For some years now much has been learnt about the effect of grass scarifying. The GRASMASTER is a special scarifying harrow that removes all old grass, meadow grass, moss and weeds. Molehills are levelled and dry dung pats are shattered. The massive cross board leveller really works well levelling molehills and breaking clods when reseeding on ploughed ground to provide a level seed-bed. The special spring steel harrow tines designed for grassland work are

aggressive and remove the dead grass, dandelions and other broad leaf weeds. All tine fields are supported by a land wheel that permits precise ground contact. A mounted seed drill is an option. The fan is powered by a pto shaft ensure a constant and strong flow of air which gives an even seed distribution. This can be difficult to achieve with an electrically driven fan. The metering wheel is driven by a spoked land wheel, the seed is delivered down 8 tubes into the tine fields where the vibration of the tines spread the seed all over the ground.

For many dairy farmers the GRASMASTER is the optimum machine for grass land maintenance and re-seeding. Increased profits of 15% are not unusual in the first two years. Critical for this effect is the timing of the overseeding operation. Warm damp conditions make the germination more certain. The growth of the new grass is impeded in dry conditions or by late frosts.

The grass varieties are also critical and should match the climate, altitude and be the right mixture for the prevailing conditions.

The technical data

Working width	3,00 m	6,00 m
Transport width	3,00 m	3,00 m
Tine field	2	4
Tines per field	60	60
Tine diameter	8 mm	8 mm
Tine spacing	2,5 cm	2,5 cm
Weight	820 kg	1.000 kg
Sowing technology		
Seed tank volume	410 ltr	410 ltr
Standard Equipment	<ul style="list-style-type: none"> - PTO driven fan - Land wheel metering wheel drive - Various metering wheels to suit different seeds - Seed tank with 200 ltr capacity - Lights - hydraulic control of the land wheel 	
Optional equipment	<ul style="list-style-type: none"> - height adjustable levelboard 	



QUALITY is our watchword .



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KÖCKERLING have a policy of continuous product improvement.

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