

Junkkari

Part of the MSK Group



S-M-D

New generation of drills

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When developing the combi drill range, we paused to consider what kind of company we want to be seen as and how we would like our customers to experience Junkkari. Based on this deliberation, we recorded Junkkari's values, which guide our day-to-day operations.



DOWN TO EARTH

Junkkari has its feet on the ground and targets set high. The machines are functional and robust. Junkkari people are fair and approachable. Being a family company, the work atmosphere is fair and open, and people have the will to do things the right way. Employees are listened to and cared about.

STRONG

Junkkari is a genuine, fair and honest partner and employer that is in equilibrium with itself and the environment. Over six decades of experience make Junkkari a stable company in the industry. It is supported by a diverse and international high-tech family group whose products are exported all over the world. In addition to expertise and attitude, an international mindset and the understanding of different cultures are emphasised. Junkkari aims to be a significant European player in its industry.

BOLD

Junkkari is an expert in seeding and bioenergy, daring to reform and be unique and different. Junkkari challenges the norms, breaks boundaries and innovates boldly, but not recklessly. Junkkari has trust in itself and its expertise, foresees needs and even changes the market. We have experience, expertise and skill.

PROFESSIONAL'S PARTNER

Junkkari is the agriculture and forestry professional's partner that is close to the customer. Junkkari is always ready to learn and develop new things in cooperation with the farmer, and takes part in various research and development projects. Junkkari people have a spirit of doing things.

By choosing Junkkari, you can be satisfied.

Junkkari S-series

The S series drills are designed for seeding tilled soil. They are suitable for conventionally or lightly tilled soil.

The conventional wedge-shaped disc couler used in the S-series' predecessor, Simulta, has been updated to a new level of durability and seeding precision, and it is now the standard couler in all S series machines. Fertilizer can be placed in the seed row with the seed couler or in a separate fertilizer row using the fertilizer couler. For fertilising, you can choose either a conventional S tine fertilizer couler or a completely revised sturdy fertilizer disc couler.



S-M-D

Junkkari M series

The M series is the most versatile seeder in our model range, a true universal drill. It can be used for seeding in varying conditions, in both conventionally tilled or even untilled fields.

Underlying the versatility is a very sturdy wedge-shaped disc couler and one of the broadest couler pressure ranges in the market. The pressure of the new durable couler can be hydraulically adjusted during driving between 10 and 120 kg.





S-M-D

Junkkari D series

This heavyweight in our model range is a thoroughbred direct seeding drill. Thanks to its broad coulters pressure range and load-carrying depth control wheel, the machine also seeds with precision in cultivated fields.

The structure of the strong double disc coulters includes an optimally-located depth control wheel and an adjustable closing wheel after the discs, which ensures the closure of the row.

JUNKKARI COULTERS

“ *The coulter unit is the soul of combi drills and the core around which everything is built.* ”

We have made the coulters even better – a clear competitive edge for Junkkari.

Junkkari's philosophy is that working depth must be guided on each coulter separately and at the point where seed is placed in the soil. This way, we ensure an optimum working depth in all conditions.

The field is never completely even. When aiming for the best possible sprouting, controlling the sowing

depth must be done with a coulter that follows the contours of the terrain.

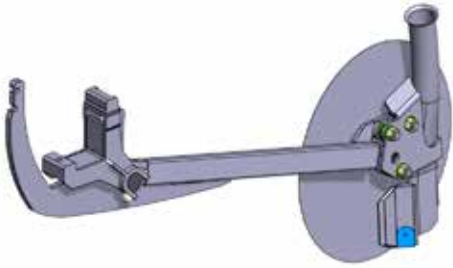
In Junkkari's S and M series coulters, depth control takes place with the wedge-shaped disc coulter and correspondingly with adjustable depth control wheel in the D-model. The simple operation of the disc is based on the change in the surface area carrying the wedge-shaped disc coulter. This way, the coulter maintains the correct depth even in the lightest soils.



“ *The Junkkari coulter always sows the seed at the right depth, which also makes the shoot even.* ”

COULTER UNIT

S-M-D



S series coulters unit

Junkkari's lightest coulters unit solution is a wedge-shaped single disc coulters whose previous versions have been used for decades by Simultas. The S model coulters is designed for sowing cultivated soil. It is a simple and reliable coulters that functions excellent with varying soil types.

Precise and durable

Thanks to the optimised shape of the coulters part and coulters pipe extending to the ground, the coulters features premium sowing precision. This way, seeds can be placed very precisely at the right point at the bottom of the sowing row. The shaping of the wear part and higher coulters pressure ensure that the coulters is also suitable for sowing in heavy soil.

The S model disc uses high-quality maintenance-free bearings and durable materials in wear parts, such as a ceramic wear part and hard special casting.

Fertilizer coulters or combi coulters?

Junkkari's S model provides versatile possibilities for selecting the fertilizer placement. The fertilizer can be placed with a combi coulters in the sowing row or with a separate fertilizer coulters into a fertilizer row with a 25-cm row spacing. The drill can also be built as a seeds-only version and equipped with start fertilisation equipment, if necessary. When a separate fertilizer coulters unit is selected, there are two options: a wear-resistant fertilizer disc coulters unit that penetrates plant waste excellently, or a reliable s-tine fertilizer coulters with a hard facing tip.

In addition to lighter pulling power, the benefit of the combi coulters unit is rapid utilisation of soluble nitrogen, especially during a dry spring. The initial growth of the plant is accelerated thanks to better growth force, and the shoots are healthier than when fertilising in a separate fertilizer row.

If a urea-containing fertilizer or a nitrogen amount of over 120 kg/hectare is used in sowing, we recommend the use of a separate fertilizer coulters unit to avoid fertilizer burn of the seed.



COULTER UNIT

S-M-D



M series coultter unit

The M series coultter unit is designed for versatile sowing methods and soil types. The coultter is a heavy-duty wedge-shaped disc with a coultter pressure range of 10–120 kg. The coultter pressure can be adjusted hydraulically during driving with the tractor hydraulics.

The coultter works excellently with all soil types, and it can also be used for direct seeding if the conditions are favourable. The properties of the M machine are at their best with cultivated soil and varying soil types. Correct depth control of the coultter ensures a successful sowing result.

Durability and reliability

Particular attention has been paid to durability in the M-line coultters. The special casting of the coultter part is reinforced with a ceramic wearing part that doubles the resistance of the coultter against wear compared to the preceding model. The toothed coultter discs are made of 5 mm hardened boron steel, and disc plates are hard welded to the disc.

Premium-quality double-row angular ball bearings with the heaviest duty calibre on the market are used in the coultter disc. The bearings are maintenance-free. The choice of materials and components

ensures sturdy durability even in the most challenging conditions.

Precise seeding

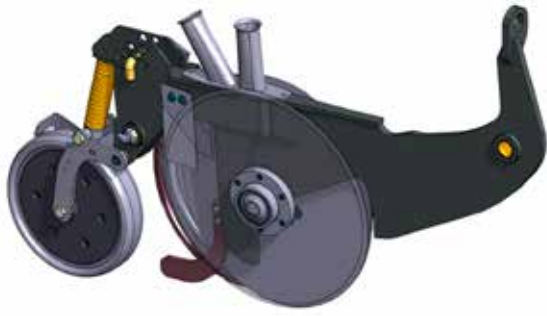
The seeding precision of the Junkkari M-line coultters is based on the same principles with the S-line coultters. The seeding depth of the coultter is controlled where the seed is placed in the soil. Thus, the coultter follows the contours of the field individually and without any delays.

The seed is placed precisely on the bottom of the seed furrow on the surface of untilled soil, and capillary effect lifts moisture for the seed to use. The placing accuracy of the coultter is ensured by taking the seed all the way to the soil via a pipe without a rotating disc rising the seeds to dry surface soil.

Fertilizer in the seed row or a separate row

With M model fertilizer can be placed in the seed row with a combi coultter, or in a separate row using separate fertilizer coultters with a 25cm row spacing. The drill can be built as a seeds-only drill and equipped with start fertilisation equipment that places the starter fertilizer in the seed row. Fertilizer coultters sold as optional equipment are sturdy disc coultters with rubber springs and toothed discs.





COULTER

S-M-D

D-series coultter unit

Developed as the result of long research and product development, the Junkkari D-line coultter is the sturdiest coultter in the model range. It is designed specifically for direct seeding, but it also works on cultivated fields.

The row spacing of D coultters is 16.7 cm, making the coultter unit spacious. The double disc coultter uses an abrasive resistant steel disc with a diameter of 445 mm. Thanks to the large diameter, the need for pulling power is low, and the coultter unit penetrates plant waste excellently, even in light soils.

Precision and reliability

The D line's coultter pressure range of 60–220 is among the broadest in the market. The large working depth control wheel is located optimally, ensuring precise working depth control also in softer conditions.

Similarly to Junkkari's other coultters, the working depth of the D coultter is determined at the very point where the seed is placed in the soil. The working depth

control wheel is located slightly behind the discs, so the wheel is not filled by soil ploughed from the coultter disc even in challenging conditions.

The coultter guides the seed and fertilizer precisely to the bottom of the furrow. The seed guide tube and guide lip running over the furrow ensure that the seeds do not rise from the bottom of the furrow with the discs. Placing the seed at the bottom of the furrow and the closure of the furrow are absolute requirements for successful seeding. The spring-loaded closing wheel of the Junkkari D drill closes the narrow furrow made by the coultter.

Premium-quality materials and components

The Junkkari D coultter uses maintenance-free double-row angular ball bearings of the largest size in the market. The wearing parts of the coultter are also made of premium-quality materials, meeting the tough requirements for coultters in direct seeding.



Precise and reliable seed metering device



The seed metering device and coulters are key to a successful seeding result. Junkkari wants to ensure the high quality of these critical components by manufacturing gearboxes, coulters and metering devices in-house. Junkkari's expertise is also proven by the fact that other drill manufacturers have also selected components made by Junkkari for their machines.

Reliability and simplicity have been focus points in the design of the metering device. Junkkari drills are designed so that seeding can be continued also during a power failure. Seeding is not interrupted even if the drill control cable is damaged, for example; it can be continued thanks to the mechanical drive.

The power of Junkkari SMD models is generated by a reliable ground wheel. The feeding rate is adjusted steplessly with the gearbox by adjusting the rotation

speed of the feed wheel. Feeding always takes place across the entire width of the feed wheel, also making the machine feed precise at low feed rates and at all speeds.

When seeding small seeds, a studded wheel intended for feeding them is used. Thus, the seeding amount of small seeds is precise even with seed quantities of only a few kilogrammes.

The metering device has been built to be simple and reliable without compromising precision and adjustability. A rotation test is very easy to perform. As an option, the drill can be equipped with user-friendly fertilizer and seed remote control. By selecting the ISOBUS control unit, the feed quantity of fertilizer and seed can be controlled according to the seeding plan automatically based on GPS location information.



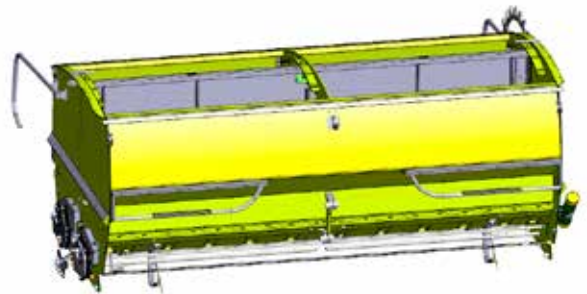
Hopper size based on need

Three different hopper options are available for Junkkari drills: Eco and Plus seed/fertilizer hoppers and the Seed hopper for seeding. All hoppers have a tarpaulin cover with an easy-to-use quick-release lock. Moreover, the tarpaulin rolling point can be easily set to the front, rear or middle of the hopper at the partition wall. Small seed/start fertilizer equipment is available for all hoppers. The Eco and Plus hoppers have fertilizer sieves as standard and seed sieves available as options.

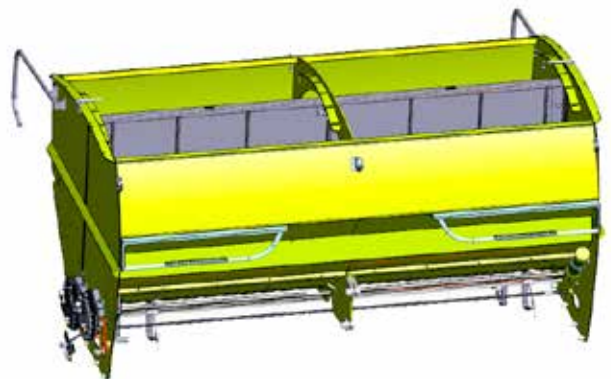


Particular attention has been paid to user safety in the design. The access ways, working platforms and handrails are designed so that filling the drill and other key work phases are safe to perform. The working platforms, for example, are self-cleaning, so dust cannot accumulate on the working platforms.

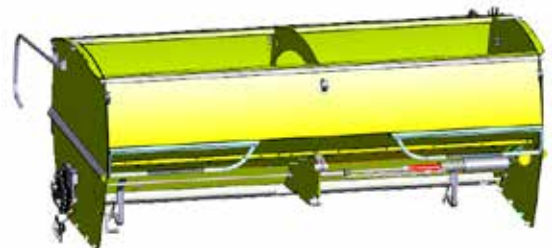
The **ECO HOPPER** is a combi hopper of a more moderate size with an adjustable partition wall and manual cover tarpaulin rolling. The total volume is 2,700 litres for the three-metre hopper and 3,700 litres for the four-metre hopper. The Eco hopper is the right choice when wanting to keep the total weight of the drill lighter, thereby avoiding packing the field. The lighter hopper allows the use of a smaller tractor. The filling height of the hopper is lower than in the Plus hopper.



The **PLUS HOPPER** is a large combi hopper with an adjustable partition wall. The cover tarpaulin opens with a spring. The total volume is 4,200 litres for the three-metre hopper and 5,700 litres for the four-metre hopper. The Plus hopper is an excellent choice when a long hopper filling interval and large seeding yield are necessary. The large hopper makes it possible to seed a large area with a single filling, decreasing the need for transporting seeds and fertilizers to fields.



The **SEED HOPPER** is the right choice when only seeds are to be seeded. The hopper is equipped with manual cover tarpaulin rolling, and its volume is 2,700 litres for the three-metre version and 3,700 litres for the four-metre version. The Seed hopper is an efficient and spacious option for seeding. The hopper is also made appealing by the possibility of equipping it with start fertilisation equipment. This makes it possible to combine efficient seeding with good sprouting and overwintering.



Efficient pressing and reliable travel

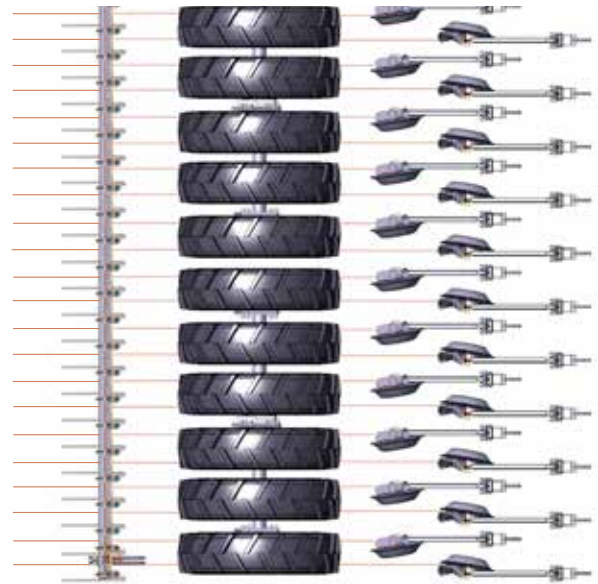
The wheels behind the machine have two tasks: they act as both the transport wheels of the machine and as the packer wheels immediately after the coulters unit. Eliminating the need for separate pressing delivers considerable time savings during the busy seeding season.

Large wheels save soil and money

Two tractor-patterned tyre sizes are available for all Junkkari S, M and D models: 7.5x16" or 7.5x20". Especially on light soils and when using the large Plus hopper, the large tyre size has considerable benefits. Thanks to the 20-inch tyres, the unit is light to pull, and the large tyres considerably reduce the risk of bulldozing effect. The large tyres save fuel costs and the structure of the soil remains more intact thanks to the lower surface pressure.

The wheels are dimensioned so that transit with full hoppers is possible. The strong and sparsely structured frame of the wheel unit ensures good cleaning access and makes service points easily accessible. Thanks to the bogie-type operating principle, the wheels adapt excellently to terrain contours. Pressing is even and travel in transit is stable.

If the seed drill is driven in challenging conditions, urethane filling is also available as an option for the tyres, making punctures practically impossible.



Seed rows in S and M models.

Harrow finalises the seeding finish

The following harrow harrows between the rows and breaks up the surface of the soil packed by the tyre. A well-harrowed loose soil layer prevents the silting and crust formation of the surface and slows down the evaporation of indispensable moisture. The seed drill half lift function available as an option keeps the harrow on the ground also when turning in headlands.

In the S and M models, one wheel presses two rows with harrowing taking place between them. In the D model, press wheels in the coulters close and press the rows. The spacing of the harrow is adjusted for a row spacing of 16.7 cm in the D model, so that it also harrows between the rows.



Versatile and easy controls

All S, M and D seed drills can be equipped with three different types of control units, depending on the need.

Electric area meter

The area meter is the right choice for users that want to have a simple basic control unit in their seed drill. The control unit features two area counters. The control unit does not facilitate e.g. tramline functions or hopper level sensors.



G-Wizard

The modern and versatile graphical control unit provides most of the monitoring and control functions related to managing the combi drill. The unambiguous screen displays all necessary runtime information at a glance. The control unit is easy and logical to use. Depending on the equipment level of the drill, the control unit provides the following functions, among others:

- drive speed
- 2 area counters
- hopper sensors
- axle rotation sensors
- track marker control
- tramline control
- half lift control
- fertilizer rate remote adjustment (Wizard Plus model)
- gearbox monitoring



Isobus

When the ISOBUS control unit is chosen, the functions of the seed drill are managed via the tractor's ISOBUS terminal. In this case, it is not necessary to fit a separate seed drill display in the tractor. If the additional properties of the ISOBUS control unit are to be deployed without an ISOBUS tractor, Junkkari can supply a separate ISOBUS terminal for fitting in the tractor with the drill.

The ISOBUS control unit is user-friendly and versatile, and it facilitates runtime seed adjustment and precision seeding functions, i.e. automatic adjustment of seed and fertilizer quantities based on location information. The control unit features the following functions, for example:

- drive speed
- 3 area counters
- hopper sensors
- axle rotation sensors
- track marker control
- tramline control
- half lift control
- fertilizer and/or seed rate remote adjustment
- gearbox monitoring
- automatic fertilizer and seed rate adjustment



Options



Hydraulic track marker



Disc cultivator



Single-row front leveller



Double-row front leveller



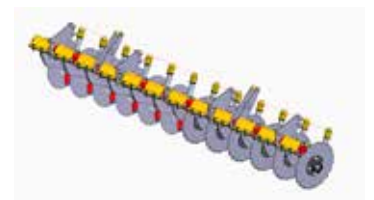
Double-row s-tine leveller



S-series fertilizer disc couler unit



S-series s-tine fertilizer couler unit



M-series fertilizer couler unit



Small seed device



Half lift function



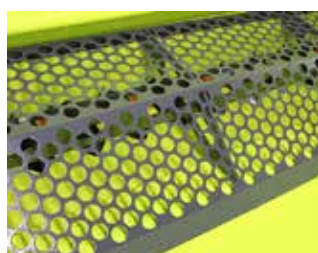
Tramlines for seed



Tramlines for fertilizer



Fertilizer and/or seed remote adjustment



Sieves for seed



Intensified hopper monitoring



Two-point linkage



Packer



Precision farming solution

COULTER UNIT

Need for direct seeding	Lightly tilled, tilled	Direct seeding (1), lightly tilled, tilled	Direct seeding, lightly tilled, tilled
Coulter type	Single-disc coulter	Single-disc coulter	Double-disc coulter
Working depth control	Wedge-shaped coulter disc	Toothed wedge-shaped coulter disc	Depth control wheel
Coulter durability	Good	Excellent	Excellent
Coulter pressure range	5–30 kg	10–120 kg	60–220 kg
Coulter pressure adjustment	Mechanical or hydraulic	Hydraulic central adjustment	Mechanical for each coulter
Pressure element	Tension spring	Tension spring	Compression spring
Number of seed coulters (3/4 m)	24/32	24/32	18/24
Row spacing	12.5 cm	12.5 cm	16.7 cm
Fertilizer placement method	Fertilizer coulter/seed coulter	Fertilizer coulter/seed coulter	Seed coulter
S-tine fertilizer coulter	Option	-	-
Fertilizer single-disc coulter	Option	Option	-

HOPPER

Hopper options	Eco, Plus or Seed			
Volume	300 Eco/Seed 2,700 litres	400 Eco/Seed 3,700 litres	300 Plus 4,200 litres	400 Plus 5,700 litres
Partition wall	Adjustable			
Sieves for fertilizer	Standard			
Sieves for seed	Option			
Tarpaulin cover	Spring operated in Plus hopper/Manual rolling in Eco & Seed hoppers			
Metering device, fertilizer	Feed wheel with gearbox adjustment			
Metering device, seed	2 studded wheels with gearbox adjustment			

WHEELS

Tyre options	7.5 - 16" or 7.5 - 20"			
Brakes	Option			
Polyurethane filling for tyres	Option			

DRAW EQUIPMENT

Hydraulic track marker	Option	Option	Option
Packer 100 cm/7.5 x 16 "	Option	-	-
Packer 140 cm/10.0/75-15.3	Option	Option	Option

CONTROL UNIT

Control unit options	No control unit/Area metering/G-wizard/ISOBUS			
Tramlines for fertilizer	Option			
Tramlines for seed	Option			
Fertilizer rate remote adjustment	Option			
Seed rate remote adjustment	Option			
Precision framing solution	Option			
Intensified hopper monitoring	Option			

OPTIONS

Hydraulic track marker	Option	Option	Option
Single-row front leveller	Option	Option	Option
Double-row front leveller	-	Option	-
Double-row s-tine leveller	-	Option	-
Disc cultivator	-	Option	-
Half lift	Option	Option	Option
Small seed and start fertilizer device	Option	Option	Option

DIMENSIONS

Working width	300/400 cm		
Transport width	300/400 cm		
Height in transport position (3/4 m)	291/341 cm	302/352 cm	302/352 cm
Filling height in working position (Eco/Plus)	189/216 cm	223/228 cm	205/233 cm
Length	474–650 cm	539–798 cm	591–851 cm
Weight	min. 2,500 kg / 3,100 kg	min. 3,200 kg / 3,900 kg	min. 3,950 kg / 4,700 kg
Power demand	55–95 kW / 75–115 kW	60–115 kW / 75–140 kW	65+ kW / 85+ kW

1) not recommended for direct seeding in heavy soils

The factory reserves the right to changes without prior notice.

A GOOD WAY TO
**WORK
HARD**



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