COMPACT DISC HARROW
RUBIN 10
Stubble cultivation is active crop care

There are more and more demands to reduce the application of crop care products in arable farming. As a result, stubble cultivation is gaining more importance as a good option for mechanical weed control.

The first, shallow pass of stubble cultivation encourages volunteer cereals and weed seeds to germinate. At the same time, chopped straw, stubble and roots still on the field are incorporated into and mixed with the soil to promote rapid rotting.

During dry summers, stubble cultivation offers yet another benefit: it loosens the upper soil layer, breaking up capillary action and reducing evaporation to retain valuable moisture in the soil. The first stubble cultivation pass is sometimes followed by another,
deeper pass, which serves to control emerging volunteer cereals and weeds mechanically. Organic fertilisers such as liquid manure or fermentation residue can be incorporated at the same time, before sowing the crop. This exhaustive soil cultivation is an active form of crop care, as it reduces the use of crop care products in the next crop.

LEMKEN’s new Rubin 10 compact disc harrow is a reliable partner in thorough soil cultivation – even when cultivating lodged cereals, maize straw or tall green manure crops. While cultivators, especially those with short line distances, soon reach their limits in this kind of environment, the LEMKEN Rubin 10 ensures intensive mixing of soil and regrowth, even under difficult conditions and with low working depths.
The discs are arranged to produce symmetrical forces on both sides.

- This not only reduces overlap, but also the need for corrections when working with a GPS.

- As a result, this system delivers excellent penetration and high acreage performance. The absence of side draft additionally saves fuel.

- The middle discs are offset to prevent blockages and provide for even cultivation over the full working width. A patent is pending for this unique arrangement.
The concave disc bearings of the Rubin 10 are designed as maintenance-free angular ball bearings, so there is no need for lubrication or adjustment. The Rubin 10 therefore requires minimal maintenance.

- An internal six-fold cartridge seal optimally protects the bearing against dust and moisture.
- The bearing unit features a special coarse dirt seal, which also protects against coiling twine or wire.

The hardened and tempered Dura-MAXX discs with a 645 mm diameter deliver maximum service life and operating times and thus reduce maintenance costs.

- The discs support working depths of up to 14 cm.

The concave disc bearings of the Rubin 10 are attached individually to a surface-hardened stalk whose special shape provides maximum clearance between the discs.

- Thanks to the optimised clearance between the discs, the Rubin 10 operates without blockages, even with very moist and sticky soils.

The discs are inclined 20° to the soil. Their angle to the direction of travel is 17° towards the outside in the front row and 15° towards the centre in the rear row.

- This provides optimal penetration and ensures cultivation over the full working width.
- In this way, optimal mixing and crumbling results are achieved.
Each concave disc is individually attached to the frame with pre-tensioned spring elements.

- The working depth is accurately maintained, even in harder soils.
- The discs are always true track following.
- Optimal pressure is exerted on each disc, and both the working position and tripping force are maintained precisely, which cannot be achieved with rubber stops.
- Maintenance-free bracket mounting.

When hitting obstacles, the concave discs deflect independently upwards and rapidly return to their working position. In the basic position, the coil spring pushes the stop upwards.

When the protection is tripped, the spring is compressed and the stop remains on top.

The tripped element then deflects downwards. The stop can move down so that the recoil energy from the spring dissipates in the soil.

This cushions the recoil from the overload protection. The energy from the spring is transferred to the soil and does not place any strain on the frame.
The impact harrow behind the first row of concave discs guides the soil flow:

- It provides intensive mixing and crumbling of the soil.
- The soil flow is slowed down ahead of the second row.

Two impact harrows with adjustable depth and angle are positioned behind the discs to control how the flow of soil is deposited on the field. They also improve straw distribution when the implement is operated diagonally to the direction of threshing.

The levelling harrow behind the second row of discs leaves a level surface:

- The flow of soil is deflected and thus levelled perfectly.

An innovative, self-locking feature allows easy adjustment of the working depth of the harrows.

- Both harrows feature central depth adjustment.
- Quick adjustment to changing working conditions ensures optimal working results.
- No additional locking mechanism is required.

Optional
Impact and levelling harrow with central adjustment

Standard equipment
Impact harrow
Rubin 10 – rigid, folding or semi-mounted

Semi-mounting with transport wheel

Semi-mounting with transport wheel is optionally available for all mounted implements. This ensures that road transport regulations are complied with when using heavy trailing rollers.

- The transport wheel reduces the weight load on the rear tractor axle when the implement is raised.

- The wheel thus provides high stability for the tractor/implement combination during road transport.

- The new transport wheel delivers maximum ground clearance at headlands and during transport. The wheel is raised and lowered without an extra spool valve.

- This allows the Rubin 10 to be used with smaller tractors with lower lifting capacities and permitted axle loads.

3-point mounting

Two mounting positions for the lower link and a headstock equipped with several upper link holes allow a wide range of adjustments of the mounted Rubin 10.

- For use with different tractors and in various soil conditions.

Working depth

With rigid implements, the working depth is adjusted either hydraulically or via a series of holes. All folding Rubin 10 models feature a hydraulic working depth adjustment.

- An easy-to-read display facilitates working depth adjustments.
Rubin 10 – folding and semi-mounted

Safety, comfort and versatility

The LEMKEN Rubin 10 is available not only as a folding implement, but also as a semi-mounted version (from 4 metres working width) with either a transport axle or a combination axle.

- Semi-mounting reduces tractor loads and ensures safe road transport, even with large working widths.
- The ModuLight LED provides maximum safety during road transport.

Semi-mounting technology

The coupling points for combining the implement with LEMKEN’s Solitair 25 pneumatic seed drill are located above the chassis axle on the compact disc harrow. This produces a compact combination that is easily unhitched in just a few steps.
Straw harrow

Intelligent straw distribution for compact disc harrows

With ever wider cutting units, combine harvesters have come to leave straw unevenly distributed on the fields, and while compact disc harrows incorporate the straw well into soil, their system design does not enable them to improve longitudinal straw distribution. As a consequence, harvest residue rots only slowly and unevenly in places, which may impact negatively on the development of the next crop.

- The new, self-regulating LEMKEN straw harrow, which is mounted in front of the first row of discs of semi-mounted compact disc harrows, provides an effective solution to this problem.
- The leading straw harrow pulls harvest residue apart, transfers it to the discs in smaller amounts and thus ensures good longitudinal straw distribution.
- Automatic adaptation to working depths.
- The system is hydraulically self-contained and requires no additional spool valve.
- Very simple handling, as the system does not need to be adjusted by the operator.
- The harrow automatically folds towards the rear during transport and at the headland and provides sufficient clearance for the tractor.
rubin 10 KUA depth control wheels

The semi-mounted Rubin 10 can be equipped with depth control wheels. These not only ensure consistent working depths and smooth operation even with variable soil conditions, but also allow precise pass alignment along slopes.

- The wheels are positioned inside the working width for easy turning at the headland.
- The self-balancing system is hydraulically self-contained and requires no additional spool valve.
- Very simple handling, as the system does not need to be adjusted by the operator.
- Optimal load distribution on the tractor.

Wheels
Comfortable swivelling of the outer concave discs

<table>
<thead>
<tr>
<th>Standard equipment, mechanical</th>
<th>Optional, hydraulic</th>
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</thead>
<tbody>
<tr>
<td><img src="image1" alt="Transport position" /></td>
<td><img src="image2" alt="Transport position" /></td>
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<tr>
<td><img src="image3" alt="Swivelling" /></td>
<td><img src="image4" alt="Swivelling" /></td>
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<tr>
<td><img src="image5" alt="Working position" /></td>
<td><img src="image6" alt="Working position" /></td>
</tr>
</tbody>
</table>

- Easy, low-cost conversion from the transport to the working position.
- Comfortable switch from the transport to the working position from the tractor cab.
## Technical data

<table>
<thead>
<tr>
<th>Description</th>
<th>Working width (approx. cm)</th>
<th>Number of discs</th>
<th>Weight (approx. kg)</th>
<th>HP</th>
<th>KW</th>
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<tbody>
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<tr>
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</tbody>
</table>
Genuine spare parts for maximum service life

LEMKEN wear parts are conceived for maximum durability. High-quality steels, state-of-the-art production methods and intensive quality control ensure a long service life. This is why all genuine spare parts with the protected LEMKEN trademark carry a distinct signature. Genuine spare parts can be ordered online around the clock via the LEMKEN information and ordering system.

Service is decisive

The renowned, almost legendary LEMKEN service begins right after the purchase of a LEMKEN implement. We operate 18 branches and external warehouses in Germany and have our own sales companies and importers in more than 40 countries worldwide to ensure optimum availability of implements and spare parts in cooperation with specialist agricultural machinery dealers.

In the unlikely event that a part is not in stock, it can be ordered from the LEMKEN logistics centre, which is open around the clock, 365 days a year, and delivered to the customer within 24 hours.

Expertise from LEMKEN specialists

Highly qualified customer service technicians are available to assist farmers, contract farmers and dealers in commissioning implements and for expert maintenance and repair. Thanks to regular training, LEMKEN customer service is always up-to-date with current LEMKEN technology.