

# The compact disc harrow

## **Rubin 10 MR + TF**

 **LEMKEN** THE  
AGROVISION  
COMPANY







Calls to reduce the application of crop care products in arable farming are getting increasingly louder. As a result, stubble tillage is experiencing a veritable renaissance as a good option for **mechanical weed control**. So, what does it take to be successful?

During the first shallow pass, volunteer cereals and weed seeds are encouraged to germinate. At the same time, chopped straw, stubble and roots still on the field are incorporated and mixed into the soil to promote **rapid rotting**.

During dry summers, stubble cultivation offers another important benefit: It loosens the upper soil layer, breaking up capillary action and reducing evaporation to retain valuable **moisture in the soil**.

The first stubble tillage pass is sometimes followed by another, somewhat deeper pass, which serves to control emerging volunteer cereals and weeds mechanically. Depending on the subsequent crop, which can be grown as a main or catch crop, an additional pass is required to prepare the seedbed. This comprehensive soil cultivation method is an **active form of crop care**, as it reduces the use of crop care products in the next culture.

Our broad range of LEMKEN compact disc harrows ensures that there is the perfect machine to match your individual requirements and needs. LEMKEN's Rubin 10 compact disc harrow is a reliable partner in thorough soil cultivation and the perfect machine even when tilling lodged cereals, maize straw or tall green manure crops. The LEMKEN Rubin 10 ensures **intensive mixing of soil and regrowth**, even at shallow working depths and in difficult conditions.







# Clearly defined **functional areas**

## **Trailing roller**

With the wide range of rollers, there is a roller to suit every arable farming requirement. The trailing roller also ensures the precise depth control of the Rubin.

## **Impact and levelling harrow**

The optional impact harrow behind the first row of discs ensures a controlled flow of soil and thus an even more intensive mixing and crumbling of the soil. The levelling harrow behind the second row of discs leaves a level surface.





## Disc section

The concave discs of the Rubin 10 are attached individually to a stalk. The optimised angle of the discs in relation to the ground and in the direction of travel ensures perfect penetration and enables full-surface work even in difficult conditions.

## Mounting options

The Rubin 10 compact disc harrow is available in both a mounted and a semi-mounted version, depending on your requirements in terms of equipment and working width.





# For every need **the right model**

## **Rubin 10 MR**



Even the basic, headstock-mounted version of the Rubin 10 MR is just right for a wide range of applications. This compact disc harrow offers proven equipment and technology and is available in a rigid version with a working width of up to 4 metres.

## **Rubin 10 TF**



The Rubin 10 TF, the semi-mounted version of this compact disc harrow, is available from a working width of 4 m. Hydraulic folding with automatic transport lock and hydraulic depth adjustment are standard features on this version. Semi-mounting reduces tractor loads and ensures safe road transport, even with large working widths. Different wheel sizes and an optional brake system ensure that the machine is gentle on the ground and safe. The ModuLight LED also helps to provide maximum safety on the road.





## Perfectly mounted (TF)

On the Rubin 10 TF, the headstock, the drawbar eye or the ball head coupling for attaching the compact disc harrow to the tractor is fixed to a standardised flange plate.

The Rubin 10 TF can be configured with two different drawbar lengths. These allow a tractor width of 4.1 m or 5.4 m if **tractors with twin tyres** are to be used. The maximum possible external width of the tractors is reduced to 4.0 m if the implement is fitted with front tools. The stand is positioned so that it serves as a support for the headstock. The top link pin no longer needs to be removed to lock the headstock in place, but can remain in place.



## The right depth

On the Rubin 10 MR, the working depth is set either mechanically via a hole guide or, as an option, hydraulically from the driver's cab. To ensure **precise control of the working depth**, new and used discs can be differentiated in the version with hydraulic working depth adjustment. The full scale can be utilised in both settings. With new discs, a stop prevents blockages caused by working too deep.

The Rubin 10 TF is always equipped with hydraulic depth adjustment and therefore swivels, eliminating the need for a stop pin. The full scale can still be utilised, but must be viewed in two sections, as it reflects

the **condition of the discs**. For new discs, the adjustment range is shown between 1 and 5. With increasing wear, this shifts towards the 5 to 10 range for used or worn discs.

## Precise guidance (TF)

The semi-mounted Rubin 10 TF can be fitted with depth control wheels. These not only ensure a **consistent working depth** and smooth operation even with variable soil conditions, but also allow precise pass alignment along slopes. With the wheels positioned inside the machine, **manoeuvrability at the headland** is excellent. The self-balancing system is hydraulically self-contained and requires no additional spool valve.



## Upgrade to a multi-tool

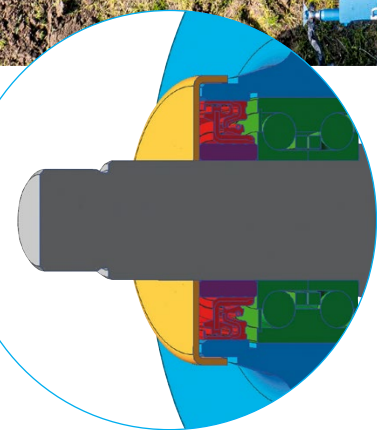
If **catch crops** are to be sown at the same time as stubble is tilled, the Rubin 10 can be combined with the **MultiHub**. The MultiHub can be switched off on one side to avoid overlaps. The MultiHub with a 200-litre hopper capacity is available for the mounted version, while the 500-litre version is available for the semi-mounted machines.





# Discs

## in a special position



### Disc bearing

The concave disc bearings of the compact disc harrow are designed as **maintenance-free** axial angular ball bearings and therefore do not need to be lubricated or adjusted. Protective caps, conveyor discs and six-fold cartridge seals provide multiple protection for the bearings.

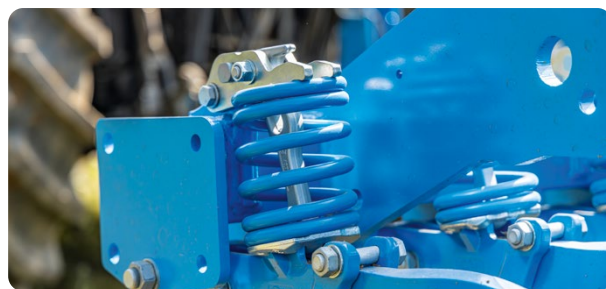
The concave discs of the Rubin 10 are attached individually to a surface hardened stalk. Its special shape provides **maximum space** between the tools. The discs are set at an angle of 20° to the ground. Their angle to the direction of travel is 17° towards the outside in the front row and 15° towards the centre in the rear row.

The increased bar spacing of 1,350 mm on the Rubin 10 TF provides even more space, further minimising the already low risk of blockages between the rows of discs.

Thanks to the patented arrangement of the centre discs, the forces act symmetrically on both sides. This **prevents side draft**, allows high area outputs to be achieved and saves fuel at the same time. The staggered centre discs prevent blockages and ensure **even tillage over the full surface**, even in very damp and sticky conditions. The result: **optimal mixing and crumbling**.

### Recoil cushioning

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 into the ground. This cushions the recoil from the overload protection. The energy from the spring is transferred to the ground and does not place additional strain on the frame.





# Optimally prepared

Combine harvesters sometimes leave unevenly distributed straw on the field. As a consequence, harvest residue rots only slowly and unevenly in places, which may impact negatively on the development of the next crop. With the Rubin 10 TF, **front tools** can be integrated into the system to solve this issue, if required.



## Self-regulating straw harrow

The self-regulating straw harrow is mounted in front of the first row of discs of semi-mounted compact disc harrows. It **pulls harvest residue apart** and transfers it to the discs in a controlled manner. The system is hydraulically self-contained and requires no additional spool valve. The harrow automatically folds towards the rear during transport and at the headland and provides sufficient clearance for the tractor.

## Levelling tine section

The 150 mm wide, spring-loaded levelling tines ensure **optimum levelling** of the seedbed. The pitch of the tines can be adjusted hydraulically. Large clods of soil or material are levelled by the levelling tine section and deposited in front of the disc section. The additional tool therefore ensures better mixing and crumbling of the soil.

## Cutting roller

If the Rubin 10 TF is to be used to incorporate a lot of organic matter, the hydraulically adjustable cutting roller with six knives is the perfect tool. The open, helical design of the 320-mm diameter roller prevents blockages and ensures smooth operation. As the roller rolls over the ground, it reliably **cuts straw or catch crops**. This saves an additional pass with a mulcher.

A self-locking feature allows easy adjustment of the working depth of the harrows. No additional locking mechanism is required. Quick adjustment to changing working conditions ensures optimal working results.



# Perfection at last



## Impact harrow

The impact harrow behind the first row of concave discs, which is available as an option on both variants, **guides the flow of soil** so that it settles in front of the second row of discs. The impact harrow therefore ensures even more intense mixing and crumbling of the soil.



## Levelling harrow

The levelling harrow behind the second row of discs leaves a **level surface** by redirecting the flow of soil to achieve optimum levelling.

## Quick roller change system

Soil conditions vary from one location to the next and tools need to be adjusted to achieve the perfect result every time. The quick-change system ensures that the trailing rollers can be swapped **with little effort**. This allows you the flexibility to easily fit the right trailing unit for your soil and working depth from the wide range of LEMKEN rollers.





# Specifications

Rubin 10	MR/300	MR/350	MR/400
Number of discs	24	28	32
Disc diameter [cm]	64.5	64.5	64.5
Line distance [cm]	12.5	12.5	12.5
Working width [cm]	300	350	400
Transport width [cm]	300	350	400
Weight without roller [approx. kg]	1,644	1,876	2,106
Tractor output (min. - max.) [kW/hp]	77/105/132/180	90/122/154/210	103/140/176/240

Rubin 10	TF/400	TF/500	TF/600	TF/700
Number of discs	32	40	48	56
Disc diameter [cm]	64.5	64.5	64.5	64.5
Line distance [cm]	12.5	12.5	12.5	12.5
Working width [cm]	400	500	600	700
Transport width [cm]	296	296	296	296
Weight without roller [approx. kg]	4,540	4,729	5,190	6,361
Tractor output (min. - max.) [kW/hp]	103/140/176/240	129/175/221/300	154/210/265/360	180/245/309/420





# A WELL-ROUNDED SOLUTION.

At LEMKEN, we don't think in terms of isolated work steps – instead we look at the full cycle including all facets of agricultural engineering. The result is comprehensive solutions that intermesh perfectly. For you, this means: high-quality, future-oriented, efficient technology for an agriculture that is both profitable and sustainable.



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