

Independent disc stubble cultivator

# OPTIMER XL

## 100 and 1000 series



[www.kuhn.com](http://www.kuhn.com)



be strong, **be KUHN**









OPTIMER XL

100

1000

# INTENSIVE MIXING AT HIGH SPEED

The future of agriculture lies in competitiveness and profitability. The OPTIMER XL large-diameter independent disc stubble cultivators offer exceptional stubble cultivation quality from 5 to 15 cm deep, even in heavy crop residue.

In particular, the KUHN independent disc stubble cultivators provide:

- Shallow stubble cultivation (5 to 8 cm) to:
  - Force seed emergence
  - Interrupts capillary action
  - Mechanically destroy weeds and cover crops
- Carry out a median stubble ploughing (8 to 15 cm) to incorporate large quantities of residue (corn, manure, etc.), maximize the straw/soil mixture, accelerate their decomposition through a mulch effect and control pests (slugs, mice, etc.)

Sow your cover crop in a single pass

- Benefit from simple and tool-free adjustments for unrivalled comfort and speed in adjusting the working depth.

## The KUHN independent 620 mm disc stubble cultivator Overview

Models	Number of discs	Working width (m)
OPTIMER XL 300	24	3
OPTIMER XL 350	28	3,5
OPTIMER XL 400	32	4
OPTIMER XL 4000	32	4
OPTIMER XL 5000	40	5

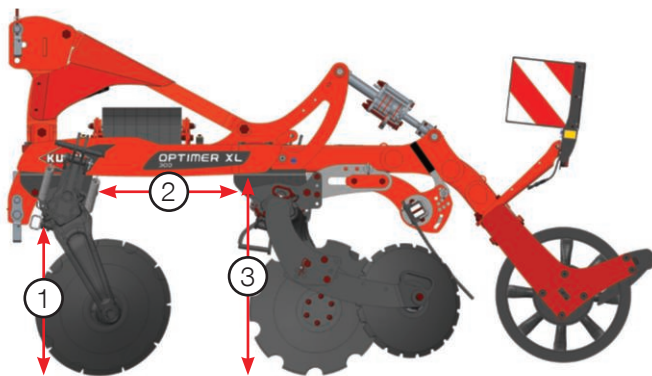




# THE GUARANTEE OF A SUCCESSFUL STUBBLE CULTIVATION

Proper stubble cultivation depends on how well the residue is cut and mixed with the soil. Good residue incorporation promotes rapid decomposition in the soil. The OPTIMER XL's strong point is having one disc on each arm and a high underbeam clearance, which reduces clogging, even when working heavy residue (grain corn, manure). The OPTIMER XL range provides intensive stubble cultivation at speeds of up to 10 km/h.

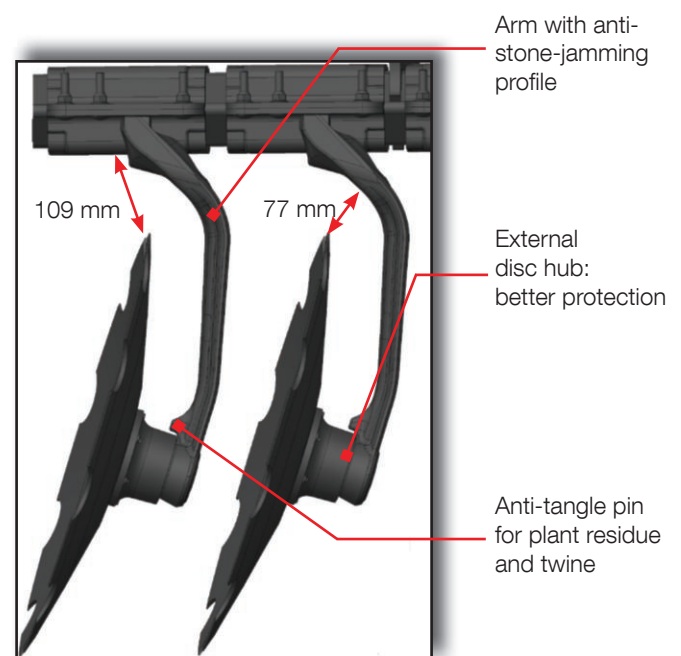
## LARGE CLEARANCE



- ① Clearance under disc train = 70 cm
- ② Clearance between disc trains = 95 cm
- ③ Underbeam clearance = 91 cm

### • ONLY ONE DISC PER ARM

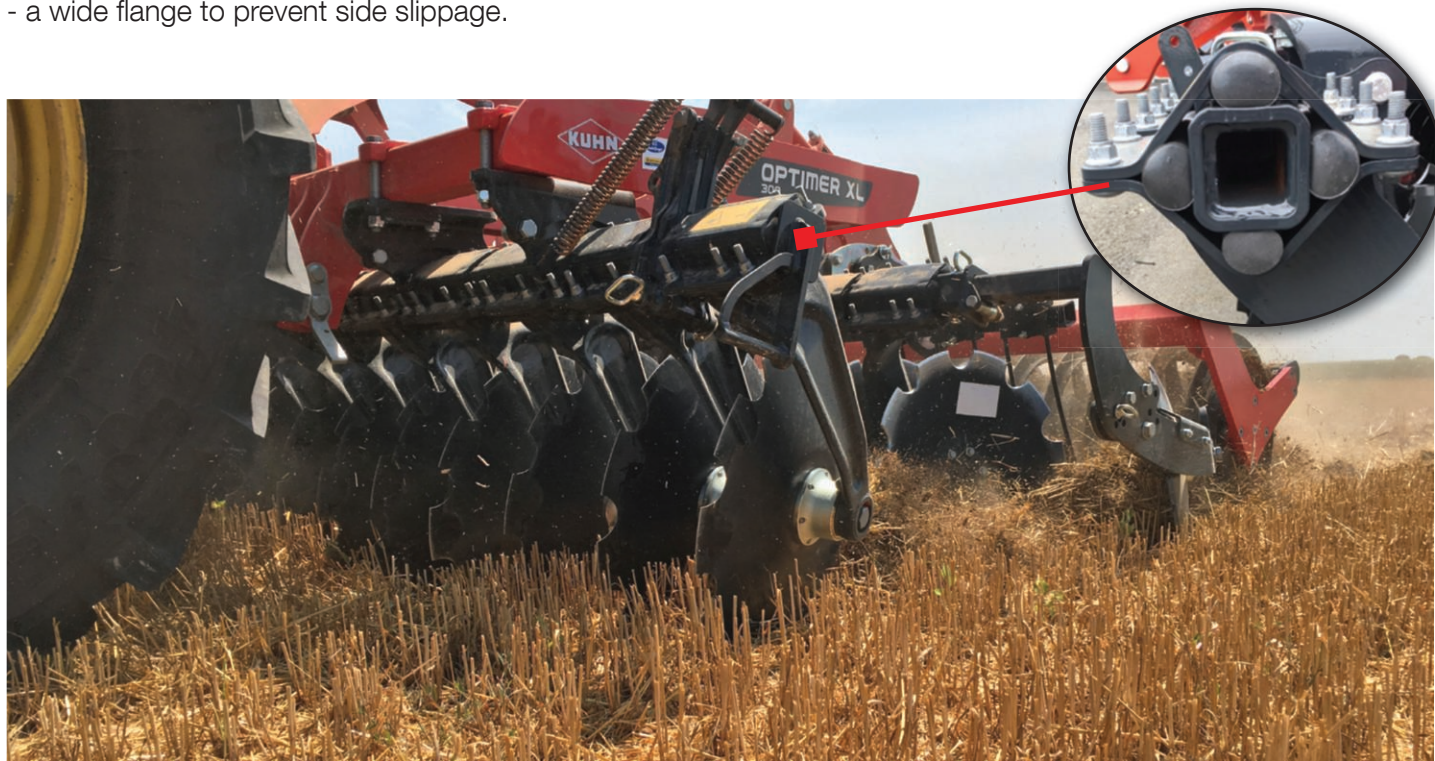
The OPTIMER XL has only one disc per arm to allow you to work calmly without the risk of clogging even in heavy residue.



## HIGH PENETRATION CAPACITY

The OPTIMER XL stands out from its competitors thanks to its better penetration in dry conditions. This is due to a unique design:

- only one disc per arm and independent disc safety for optimal control of the penetration capacity,
- an optimization of the disc attack angle ( $12^\circ$  vertical -  $14^\circ$  horizontal),
- an elastomer safety system combining penetration power and clearance when obstacles are hit,
- a wide flange to prevent side slippage.



### THE DISC: THE ESSENTIAL COMPONENT

- **Diameter: 620mm**
  - Good scalping
  - Good mixing
  - Creates fine tilth
  - Working depth from 5 to 15 cm
  - Working speed of 7 to 15 km/h
  - Good wear resistance
- **Conical disc**
  - Angle is maintained despite disc wear:  
 $12^\circ$  vertical and  $14^\circ$  horizontal
  - Maintained work quality
- **Thickness 6mm**
  - Good wear resistance
  - Ideal penetration capacity







## EASY-TO-OPERATE

KUHN makes sure its machines are fitted with simple and quick adjustments for easy use. The OPTIMER XL range is equipped with mechanical adjustments using spacers as standard and optional hydraulic spacers.

Working comfort also means limited maintenance. The OPTIMER XL range is designed with quality parts that guarantee exceptional reliability, such as the hubs that are lubricated for life for hassle-free stubble ploughing.

### TOOL-FREE ADJUSTMENTS

- **MECHANICAL ADJUSTMENT BY SPACERS**

Upper stop spacers: working depth

Lower stop spacers: load transfer of the roller on the machine



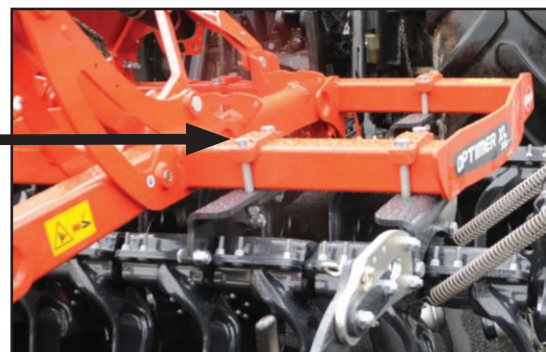
- **OPTIONAL HYDRAULIC ADJUSTMENT**

Continuous hydraulic adjustment of the working depth from the tractor cab.



- **ADJUSTMENT OF THE DISC CROSSOVER**

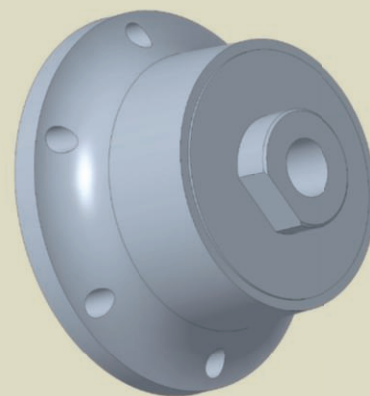
Possibilité de régler le recroisement des trains de disques avant et arrière. Le recoupement des zones travaillées par les disques avant et arrière assure un travail homogène sur 100% de la parcelle malgré l'usure des disques..



## LIMITED MAINTENANCE

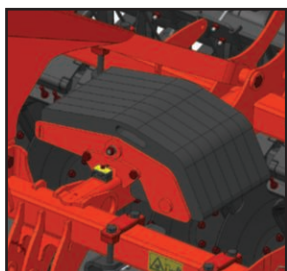
The OPTIMER XL 100 and 1000 series have the benefits of the OPTIMER+ range with low maintenance thanks to the lubricated-for-life hubs.

- Bearing diameter: inner 45 mm / outer 84 mm
- Bearing width: 45 mm
- O-ring: waterproof on the disc side
- 5-lip cassette sealing ring: increased waterproofing on hub side
- Synthetic grease: better resistance over time and increased durability



## HIGH ADAPTABILITY

The OPTIMER XL mounted models benefit from a centre of gravity close to the tractor, limiting the balance point. It is therefore possible to use the OPTIMER XL with small tractors. You save fuel and enjoy better comfort on the road thanks to a more compact design.



### Extra weights

Additional weights of 460 kg can be added to the OPTIMER XL 100 models to improve penetration capacity in difficult terrain. The weights work in combination with the SH small seed drill.



### Levelling harrow

The levelling harrow, mounted between the discs and the roller, considerably improves the levelling quality of your plot. It guarantees a good distribution of straw and ensures soil and residue flow evenly.



### Gauge wheels

Front gauge wheels are available on the OPTIMER XL 1000 models. They allow you to work with the drawbar in the float position for excellent ground tracking and stability. In addition, the working depth is adjusted from the cab via the gauge wheels combined with the roller.



### Multi-purpose SH seed drill

To sow your cover crops while stubble ploughing, the OPTIMER XL can be equipped with an SH. It can be used to sow cover crops such as: mustard, phacelia, clover, ray grass and cereals... in a single pass.





# OPTIMUM TAMPING

The roller plays a key role in providing a clean finish to your stubble cultivation. That's why KUHN offers a wide selection of rollers to help you choose the one that best suits your needs.

The roller controls the working depth, tampers the soil after the discs have passed, levels the ploughed area and crumbles the soil.

## CHOOSE THE RIGHT ROLLER

- **TAMPER**

The roller restructures the soil more or less superficially to promote good soil-to-seed contact and accelerate germination. In addition, it limits soil moisture loss by capillary action and prevents it from drying out.



- **LEVELLING**

The roller evens out the passage of the OPTIMER XL throughout the entire plot. Proper distribution of clods and soil creates the perfect conditions for germination. Working comfort is improved thanks to less impacts and jolting during subsequent tasks. Levelling is also beneficial for harvesting tools as it allows them to work as close to the ground as possible.



- **CRUMBLING**

Depending on the work required and the structure of the soil, the crumbling action should vary. False seedbeds require fine tilth to promote optimal emergence of volunteers and weeds. The roller is used to break up clods and create a fine tilth. However, caution is needed in silty soils because too much crumbling can accentuate capping.





## A COMPLETE RANGE



### **TUBE ROLLER Ø550 MM - 75 KG/M**

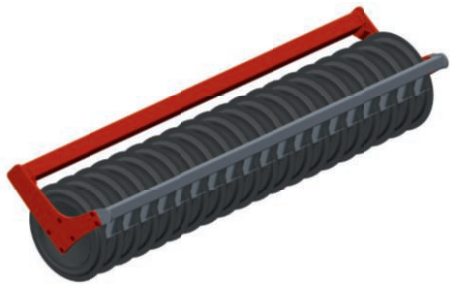
(only on mounted models)

A lightweight, cost-effective roller that offers quality tamping and machine stability on light-to-medium soils.



### **T-RING ROLLER Ø600 MM - 130 KG/M**

A lightweight, aggressive roller on clods and straw; it maintains quality coarse soil. Ideal for silty soils.



### **T-LINER ROLLER Ø600MM - 140 KG/M**

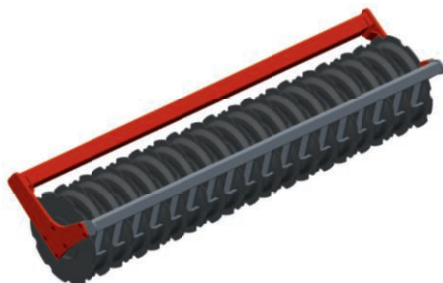
**(only on mounted models)**

It has the advantages of the T-Ring while adapting perfectly to stony conditions. It provides perfect surface crumbling on clay and/or clumpy soils.



### **V-LINER ROLLER Ø600MM - 145 KG/M**

It provides excellent crumbling and levelling in any type of soil.



### **HD-LINER ROLLER Ø600MM - 180 KG/M**

A heavy roller, it delivers quality work in wet and stony conditions. Its V-shaped profile reduces runoff and improves water infiltration into the inter-rows. In addition, it has a high tamping and consolidation capacity.



### **DOUBLE U ROLLER Ø600M - 175 KG/M**

(only on trailed models)

Adapts to any type of soil. Its U-shaped profile and 12.9 cm spacing ensure surface tamping and perfect crumbling thanks to the soil-to-soil contact. It is self-cleaning and resistant to clogging.



# STUBBLE CULTIVATION, A KEY STEP IN SOIL TILLAGE

Stubble ploughing is the first tillage operation after harvesting. As the soil has been left to rest for several weeks, this step is essential in reactivating soil life. Stubble ploughing offers several agronomic benefits:

- Incorporate stubble and straw mulches (working depth: 2-3 cm)
- Destruction of unwanted weeds and crop regrowth (2-3 cm)
- Controlled populations of slugs and other pests (3 to 5 cm)
- Reduced weed seed stock through forced seed emergence (3 to 5 cm)
- Restructuring of the soil and creation of a seedbed favourable to the establishment of the next crop or cover crop (9 to 15 cm)

Thus, when choosing your soil tillage tool, you should consider all these objectives. OPTIMER XL independent disc stubble cultivators promote rapid decomposition of plant residue and weeds. The discs provide considerable soil expansion which ensures an excellent quality of soil/straw mixture and pushes the weed seeds back to the surface. The roller presses the soil against the seeds to promote rapid and optimal emergence of volunteers and weeds. OPTIMER XL enables you to mechanically destroy false seedlings and finish soil preparation at least 2 weeks before planting the next crop.



## Stubble ploughing, a weeding technique

Resistance to certain plant protection products, soil pollution, especially surface and groundwater pollution, are many arguments in favour of mechanical weeding. Surface stubble ploughing (up to 15 cm) helps to control adventitious flora by reducing seed stock. The realization of false seedlings must take into account the targeted weed and its optimal germination period. The exhaustion strategies to be implemented vary according to the species. Several false seedlings may be necessary to achieve the complete disappearance of the targeted weed.

In addition, soil and climate conditions are very important for the success of false seedlings. Thus, it is advisable to carry out false sowings before a rainy period to ensure effective germination of weeds.





Technical data	OPTIMER XL 100 - 1000				
Models	300	350	400	4000	5000
Working width (m)	3	3,50	4	4	5
Transport width (m)	3	3,50	4	< 2,55	
Working depth (cm)	5 to 15				
Working speed (km/h)	7 to 15				
Min. tractor power (hp)	77/105	90/122	103/140	119/160	149/200
Max. tractor power (kW/hp)	123/165	141/190	164/220	178/240	223/300
Number of discs	24	28	32	32	40
Disc diameter (mm)	620				
Disc thickness (mm)	6				
Side deflectors	Right and left as standard				
Linkage	Cat. 2/3N/3		Cat. 3N/3	K80, rings, Cat. 3 or 3/4N/4	
Available rollers	Tube, T-Ring, T-Liner, V-Liner, HD-Liner 600			T-Ring, V-Liner, Double U, HD-Liner 600	
Roller adjustments	Mechanical by spacers or optional continuous hydraulic adjustment from the cab			Continuous hydraulic adjustment from the cab	
Weight (kg), with Tube roller (mounted models) / Double U (trailed models)	1985	2290	2595	5150	5600

\* KUHN SERVICES :

## BENEFITS TO HELP YOU GET MAXIMUM USE AND PROFITABILITY FROM YOUR EQUIPMENT

\* Some services are not available in all countries.

### KUHN sos order

#### Receive your parts 7 days a week; 24 hours a day

Do you need a spare part fast? With KUHN SOS ORDER, you benefit from express delivery 7 days a week, 362 days a year. So you can reduce your machine's downtime and improve your productivity rate.

### KUHN protect +

#### The professional's choice!

Enjoy 36 months of complete peace of mind with the KUHN Protect+ warranty coverage. This way you'll be able to concentrate exclusively on your work and your machine's performance. Because it's exactly what you expect when investing in high-tech farm machinery.

### KUHN i tech

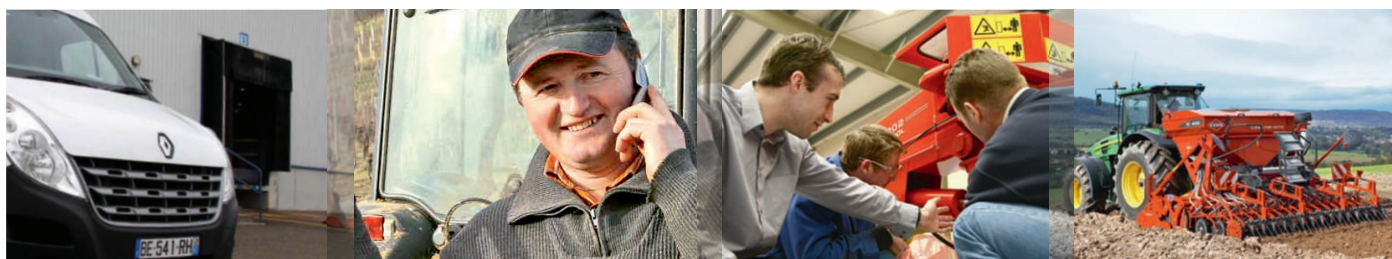
#### For the quickest repairs!

An unexpected technical hitch always occurs at the wrong time. Thanks to Kuhn I TECH, your Kuhn Approved Partner can get you up and running again quickly and efficiently. This tool is available online 24 hours a day, 7 days a week and enables quick and accurate diagnosis.

### KUHN finance

#### Invest rationally!

You need a new machine, but you're not sure about financing? Update your machinery and boost your farm's performance in total security and according to your needs and requirements with KUHN FINANCE. We offer personalised financing solutions adapted to your needs.





OPTIMER XL 300 350 400 4000 5000

# INTENSIVE MIXING AT HIGH SPEED

Farmers face different challenges but share common objectives: reduction of crop establishment costs, fast work outputs without compromising yield potential.

The OPTIMER XL models have been designed with this in mind, to offer you a versatile machine that is simple and quick to adjust, to increase your work output and preserve the quality of your soil.

## Discover the KUHN range of soil preparation equipment



PROLANDER



CULTIMER M-L



PERFORMER



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