Mounted Disc Mowers

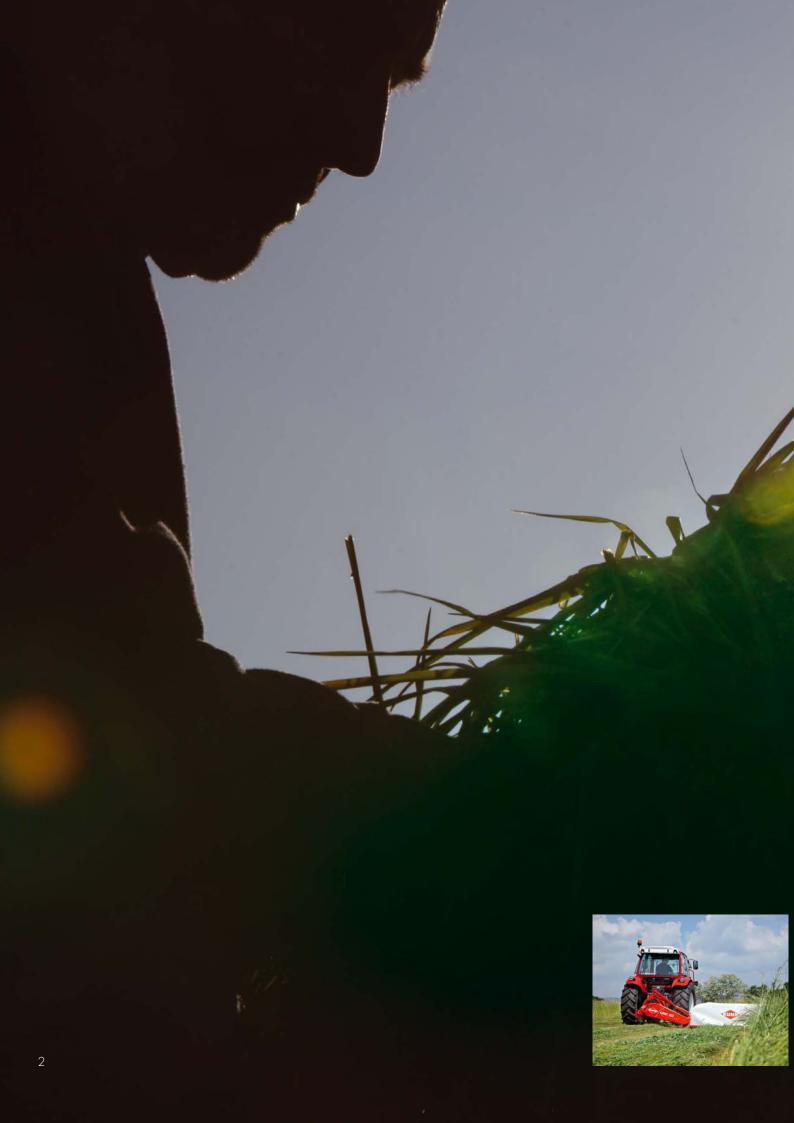
## GMD 10 Series GMD 100 Series



www.kuhn.com



be strong, be **KUHN** 



GMD	16	20	24	28
GMD	240	280	310	350

## **THE NEXT GENERATION OF KUHN MOWERS:** BENEFIT FROM EXTENSIVE EXPERIENCES!

Today, all high-performance farms are aware of the importance of basic forage for their herds. All the extra energy available in the forage is reflected in higher productivity and hence higher revenues.

#### HOW TO ACHIEVE TOP-QUALITY FORAGE

With KUHN mowers you can count on several features, which help keeping the forage clean, avoid that it is chopped and preserve the sward. Features for an optimized ground pressure and travel range have been put into action on both series.

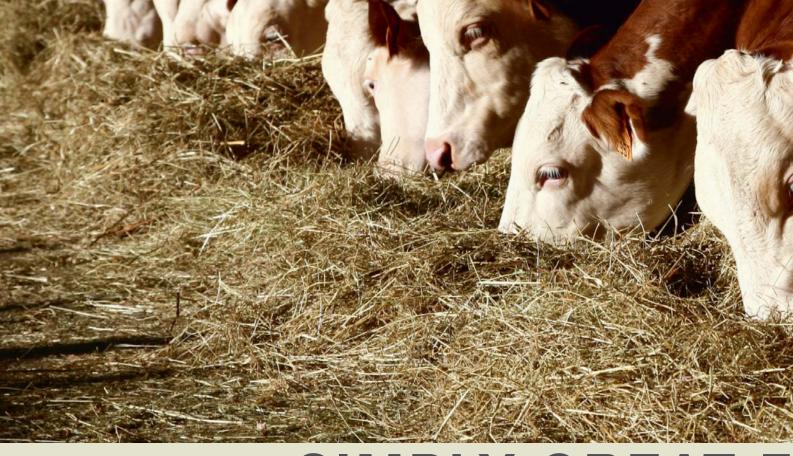
#### HOW TO SAVE ON TIME AND ENJOY A STRESS-FREE USE

The reliable 100 series cutter bar stands for longevity and limited down time. Important parts, as the attachment frame of the GMD 100 models, have been reinforced to enhance the machine's stability even more.

## KUHN's mounted GMD 10 and 100 series in brief:

	Working width (m/ft)	Cutter bar	Knife attachment	
GMD 16	1.60	series 100	by bolts	
GMD 20	2.00	series 100	by bolts	
GMD 24	2.40	series 100	by bolts	
GMD 28	2.80	series 100	by bolts	
GMD 240	2.40	series 100	by FAST-FIT or bolts	
GMD 280	2.80	series 100	by FAST-FIT or bolts	
GMD 310	3.10	series 100	by FAST-FIT or bolts	
GMD 350	3.51	OPTIDISC	by FAST-FIT or bolts	





## Granmaster

The basic ration provides the cheapest forage for the livestock. In the current environment of expensive concentrate prices and the need to increase productivity and cost-efficiency in milk and meat production, the value of forage in a basic ration is more important than ever. Mowing is the first important step in the hay and silage making process with several options to be exploited in order to ensure an optimal nutritional value of the forage. KUHN mowers have evolved in order to harvest all the forage's value. This has happened by listening to farmers' needs and translating them into specific solutions, of which some can be found here.

Find all the expertise KUHN has to offer in this context on www.kuhn-grassmaster.com.

# SIMPLY GREAT F



#### CUTTING AT THE RIGHT HEIGHT

- Less impurities are incorporated into the crop, not only when mowing but also during the following forage harvesting operations.
- The right cutting height is important to favor high-value forage varieties. If cut to close to the ground, undesirable weeds and plants may have a better chance to grow.
- Last but not least, crop yield and productivity are increased by preserving the tillering base which composes the sugar reserves of the plant and the new buds.

## KUHN SOLUTIONS

An ideal and constant cutting height is obtained by simple adjustment of the top link. Lifting skids are optionally available, if higher cutting heights are required.



**ENSURING A CLEAN AND EVEN CUT** Double cutting has to be prevented, as it results in leaf losses and damage of the forage that risks then being affected by diseases. Therefore the cutter bar and disc design should promote forage flow towards the swath and avoid that soil is incorporated into the forage.

#### Specific design of the cutting unit

- The disc mower's bevelled knives ensure a high-quality clean and even cut.
- The oval-shaped discs as well as the compact and streamlined profile of the cutter bar reduce soil and crop residue accumulation.

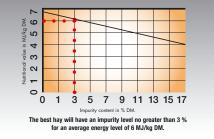


# **ORAGE!**



#### GRASS MUST BE CUT NOT CHOPPED!

The crop should be quickly ejected into the swath and only cut once. Double-cutting causes higher crop losses, delays regrowth and increases the power requirement on the tractor.



#### PRESERVE THE PLANT COVER

The more the grassland is productive, the more it is also sensitive to damage. Nevertheless, it is essential to preserve the sward. Otherwise, deep-rooting species, which are often undesirable (rumex, dandelions, etc) would develop and impurities would be incorporated into the crop.



#### MOW AT THE RIGHT TIME

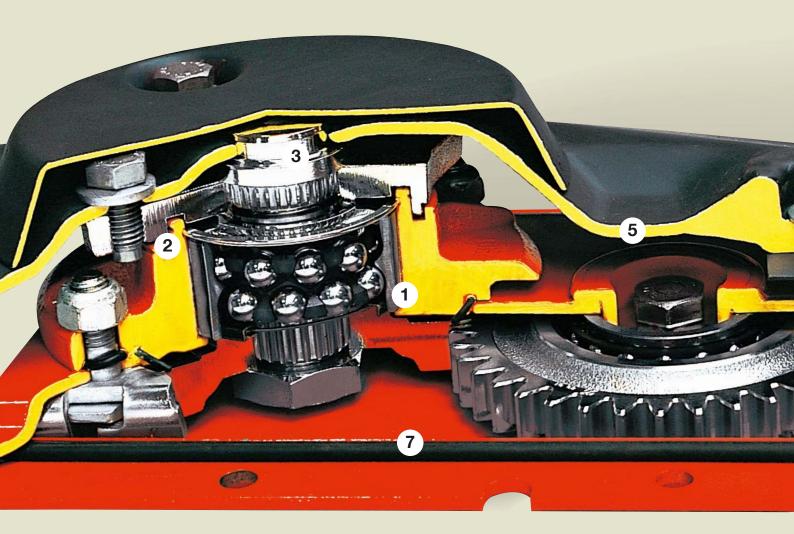
Especially for silage, harvesting at the right stage means gaining the full value of forage plants: sugars, proteins, minerals and dry matter. Therefore, capitalizing on tight weather windows at the stage when the forage is ready, is an important building block to preserve the forage quality.

#### **Converging disc rotation**

On KUHN mowers each pair of discs is driven with a converging rotation. Be sure: No double cutting will degrade your forage!

#### Perfect ground contouring

- The cutter bar is positioned close to the tractor wheels, ensuring a quick adaptation when driving over rough terrain.
- An optimal mounting of the suspension ensures an optimal balance of the cutter bar.
- Precise adjustment of the ground pressure.
- Cutter bar only exerts limited pressure on the soil.
- In this way the sward is preserved and the forage not contaminated.
- The disc mower floatation, which also allows appropriate working speeds;
- the machine's reliability: the mower won't let you down during mowing operations;
- easy swath clearing and headland turn manoeuvering thanks to the single cylinder operated lift linkage (GMD 240 to 310);
- cutting width adapted to the working surface.





Some disc mowers may look like a KUHN from the outside. However what is on the inside is more important. KUHN's design and construction standards ensure a long life and reliable operation. Assure yourself by taking a closer look on what the series 100 cutter bar has to offer.

- 1. Withstands the highest loads: special high-capacity bearings fitted in a one-piece sealed housing not subject to distorsion.
- 2. Increased service life: disc pinion shaft bearings endure radial forces for longest bearing life. This optimum position improves the load balance.
- 3. Protection should an obstacle be struck: the PROTECTADRIVE system is designed to protect the cutter bar gear train and minimizes downtime risks in full season.
- 4. Highly wear resistant: knife attachment hardware is fully protected. For added safety, heat treated steel cups are welded to the disc.
- 5. Minimum wear or distortion risks: idler gear fasteners are located in heat treated steels cups. Correct alignment is ensured without the risk of distortion.
- 6. Long-term reliability: large-diameter gearwheels in high tensile forged steel with reinforced teeth.
- 7. Perfect sealing: top-quality o-rings used on cutter bar bearing housings for a perfect, leak-free seal.



#### MINIMIZED DOWNTIME

- The disc bearing station can be removed and mounted quickly and easily. A possible repair is carried out at reduced costs from the outside with minimum downtime.
- Total safety in case an obstacle is struck: the threaded pins of the disc housings are solidly linked to the upper half casing. There is no weak point or risk that they could be ripped out.

# TAKE A CLOSER LOOK TO THE MASTERPIECE OF KUHN MOWERS



FAST-FIT attachment: blades can be quickly exchanged.

6

3

Bolt attachment

## FAST-FIT or BOLTS = 100 % safe knife attachment

# GMD 240 to 350 disc mowers can be fitted with the FAST-FIT quick release knife system. During its development, everything has been done to ensure a safety equivalent to the bolt attachment.

#### **3 EXTRA GUARANTEES:**

- A powerful leaf spring provides constant pressure to the knife retainer.
- The knife retaining pins are also equipped with a shoulder to provide an additional level of securement.
- The leaf spring can only be depressed to remove the knife at one point when the knife is centered over the shoe. Thus when the disc is rotating it is not possible for the knife to be released. To minimize costs the knife retention pin can be replaced separately from the leaf spring.

Cutting quality remains excellent owing to the compactness of the cutter bar and the exclusive shape of the blades which move as close as possible to the guards.



# SIMPLE DESIGN. SUPERB CUTTING

The GMD 10 series is an all new evolution of existing KUHN mowers for smaller and mid-sized farms. These mowers of working widths from 1.60 to 2.80 m (5'3" to 9'2") combine a simple structure with many features, which stand for a clean and even cut. As standard, all models are equipped with the robust and performing series 100 cutter bar.





## SUSPENSION SPRING FOR ACCURATE GROUND ADAPTATION

The suspension spring allows accurate adaptation of cutter bar floatation to ground contours. The floatation spring tension is determined by adjusting the main frame height using the tractor's 3-point lift.



## ARTICULATED UNIT TO FOLLOW CONTOURS CLOSELY

The articulated cutting unit follows ground contours with maximum accuracy, even when mowing banks or ditches.





#### SAFETY BREAKAWAY MECHANISM

Should an obstacle be struck, the safety breakaway causes the mower unit to swing slightly backwards. The impact is significantly reduced. You can reset the device simply by reversing.

# QUALITY.



## HOW TO ENSURE A CLEAN AND EVEN CUT

#### CUTTER BAR FOLLOWS TERRAIN CHANGES INSTANTANEOUSLY

The distance between the cutter bar and the rear tractorwheels is very short. This enables the cutter bar to quickly react to changes of the terrain. Therefore, the cutting height remains uniform.

## FOR A COMPLETE FORAGE EVACUATION

The particular shape of the discs favors a quick clearing of the forage to the back. A recut of the grass is therefore avoided. The knives are attached by bolts to the discs.

#### OUTER SWATH WHEEL FOR PERFECT SWATH FORMATION

The swath wheel is mounted behind the outer disc cone and functions to separate cut crop from uncut crop allowing the right tractor wheels to drive over the ground instead of the previously cut crop. Swath wheel advantages over a swath board:

- It fits entirely under the curtain.
- It is not in contact with the ground.
- Damage by backing or turning is eliminated









## PTO SHAFT WITH OVERRUNNING CLUTCH

A PTO shaft with overrunning clutch is recommended if the mower is attached to a tractor with an automatic, hydraulic PTO brake. Such an overrunning clutch is available as standard on the GMD 28 model.



GMD 240

#### 280 310

## **RELIABLE MOWERS TO COPE WITH EVER INCREASING WORK**

As successors of the proven KUHN GMD 600 – 800 mowers, the new GMD 240, 280 and 310 models will convince you with powerful arguments. They have been developed in order to better adapt to ever intensifying working conditions including:

- growing surfaces to mow,
- rising mowing speeds,
- longer transport distances with speeds often reaching up to 40 or even 50 km/h.





## SMOOTHER OPERATIONS ON HEADLANDS

To limit the mowing unit lift in headland turn position, a hydraulic shut-off valve is used on the GMD 240 to 350 models. This enables smoother operating, resulting in reduced mechanical loading!



## WITHSTANDING INCREASING CONSTRAINTS

In order to better withstand the constraints at work and during transport, a reinforced attachment frame has been introduced on all GMD series 100 models. It is capable of absorbing 70 % additional strains!

#### A COVER FRAMEWORK

To ensure long-term reliable hold, the cover framework design is inherited from the GMD 350 mower.

# INTENSITY



# FOR A SUPERB MOWING QUALITY

## EVEN FLOATATION OVER THE ENTIRE CUTTER BAR

A heavier compensating spring ensures that the cutter bar will operate with optimum ground pressure through a wide range of terrain and contours.

#### CLEVER KINETICS FOR A PRESERVED PLANT COVER

The lift and suspension system allows both the cutter bar and the inner shoe to be raised off the ground using only the mower's hydraulic cylinder, simplifying operation and increasing productivity.

productivity. The tractor's 3-point hitch stays at the same preset height.

#### FULL RANGE OF OPERATING CAPABILITY THROUGH THE KINETICS

Through the kinetics of the mowing unit articulation, mowing banks and terraces is possible at a tilt angle up to 35° and down to 25°, depending on the models.









#### **REDIMENSIONED ARTICULATIONS**

The main articulations of these machines have been redesigned to meet their long-term robustness commitment: the cutter bar is articulated on bronze bushings.



#### REINFORCED LINK BETWEEN GEARBOX AND CUTTER BAR

A reinforcement bracket links the bevel gearbox to the rear cutter bar stiffener. It provides over 40 % additional resistance to the cutter bar!





#### GOOD CLEARANCE BETWEEN MOWN AND NON-MOWN AREAS

When mowing long forage, a high clearance is necessary at the end of the cutter bar unit. A good clearance underneath the cover and the swathing disc facilitates forage ejection and good splitting of cut forage and the one still standing.

## FROM **WORK TO TRANSPORT IN THE BLINK OF AN EYE!**



**CHANGE TO TRANSPORT POSITION FROM THE CAB** 

The GMD 240 to 350 models can be optionally pivoted hydraulically into transport position. This means that changing from work to transport mode has never been as comfortable and quick. You will especially appreciate the time saved when having to work on small fields.

### A large choice of discs to adapt to each need



#### **FAST-FIT DISCS**

The GMD 240, 280, 310 and 350 mowers can Depending on the situation and intensity of use, be equipped with FAST-FIT knives. To minimize costs the knife retention pin can be replaced separately from the leaf spring. Everything has been done to ensure that the FAST-FIT attachment reaches the bolt fixation in terms of safety.





#### STANDARD DISCS

the knife bolt attachment can be selected. These discs can be fitted with beveled knives (standard) or ribbed knives.

#### **HEAVY DUTY (HD) DISCS**

These discs with a service life that outmatches all other discs, are adapted to intensive mowing conditions. The series 100 disc mowers can be equipped with these heavy discs as standard. Beveled knives are available as standard, ribbed knives as option.

## PRACTICAL FEATURES TO SAVE TIME **DURING WORK**



SEMI-AUTOMATIC BELT TENSION

dimension is maintained regardless of the load on the belts for increased belt life.



ONE TOOL FOR ALL ADJUSTMENTS

One tool, supplied with the mower, will perform - adjustment of the floatation spring, - unlocking the safety cover, - belt tension adjustment, - replacement of knives (if bolted),

- removal of discs.



#### NO TIME TO LOOSE DURING HIGH SEASON

To save time during the season, the GMD 240, a drive shaft enabling to extend the greasing intervals to every 100 hours. Only four nipples have to be greased.



## **Retain the** resale value of your machine!

Should an obstacle be encountered, the safety breakaway allows the mower to swing slightly rearwards, significantly reducing the impact load on the cutter bar. The device is simply reset by backing up.



#### **KUHN PARTS**

DESIGNED AND MANUFACTURED TO RIVAL TIME



of spare parts to defy time. You can truly rely on our know-how and our genuine parts. Farmers benefit from our client support and logistics services via any KUHN PARTS warehouse, which provide quick and reliable repair solutions in cooperation with your nearest authorized KUHN dealer.





# THE ONE FOR HIGHEST







#### GROUND PRESSURE ADJUST-MENT MADE WITHIN SECONDS

The residual mowing unit ground pressure is controlled by a hydraulic cylinder linked to a nitrogen ball: the ultimate in precision, power, simplicity and ease of adjustment. Of course, KUHN did it's best to optimize the suspension system in order to limit as much as possible the level of impurities in the forage.

#### A LEADER ON IRREGULAR FIELDS

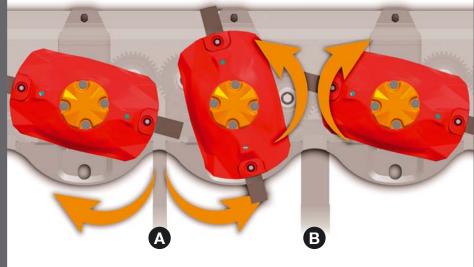
It is certainly on uneven fields where the GMD 350 model can capitalize most on its adaptation capacities. Two major parameters contribute to this result:

**1.** The cutter bar/tractor distance is undisputably the smallest among all mowers available on the market. On comparably uneven fields, the travel range of the mowing unit will only be half of a conventional one. This has undeniably positive effects on the cutting quality.

**2.** With travel ranges of 35° upward and 30° downward, it hugs ground contours even in the most extreme situations with ease.



# **OUTPUT** THE OPTIDISC CUTTER BAR FOR GMD 350!



#### A. LESS DISTANCE FOR A CLEAN CUT

#### **B. MORE DISTANCE FOR EASY CROP PASSAGE**

At the point where the discs converge the distance is increased thus more space is provided for the crop to pass. Cut crop is quickly carried away from the cutting area, thus further improving the cutting quality.

### No more oil changes!

OPTIDISC cutter bars are designed and tested with a zero oil change objective. So you can forget having to worry about cutter bar oil changes.







THE MACHINE THAT GOES EVERYWHERE AT TRANSPORT!

For transport, the mowing unit is folded vertically to very small dimensions. For increased comfort when switching fields, two options can be fitted:

3. a simultaneous hydraulic rearward pivot to avoid folding the front guard by hand;

4. a hydraulic end guard folding for a transport height below 4 m (equipment only compatible with the hydraulic pivot).



10 SERIES

## FEATURES FOR CLEAN FORAGE AND PERFECTLY STRUCTURED SWATHS!

Clean hay and silage of high energy and nutritional value is the key to increase the herd's productivity. KUHN offers several standard and optional features that allow the swath to be tailored to what best suits your specific needs.





#### STANDARD: OUTER SWATH WHEEL FOR PERFECT SWATH FORMATION

A swath wheel is mounted behind the outer disc cone and separates cut from uncut crop allowing the right tractor wheels to drive over the ground instead of the previously cut crop. Swath wheel advantages over a swath board:

- It fits entirely under the curtain.

- It has no ground contact.
- Damage by backing or turning is eliminated.





#### OPTION: INNER SWATH WHEEL FOR GMD 24 AND 240

This wheel reduces the swath width on the GMD 24 and 240 models to approximately 1.50 - 1.60 m (4'11'' - 5'3``).

#### OPTION: SECOND INNER HIGH CONE FOR GMD 28 AND 280

To reduce swath width on these mowers, the second flat disc is replaced with a high cone that reduces the swath width to approximately 1.70 - 1.80 m (5'7"- 5'11").

# FOR AN IMPROVED COMPLIANCE OF TRACTOR AND MOWER!



#### STANDARD: **OFFSET CAPABILITY**

To ensure a full cutting width when the mower is attached to tractors with various track widths, the GMD 240 to 310 mowers have an offset range of 50 mm to the left and to the right.

#### **OPTION: GREATER OFFSET** CAPABILITY

An extended left hitch pin is available that enlarges the offset of GMD 240 to 310 up



#### **QUICK-HITCH READY!**

The GMD 240, 280 and 310 models are compatible with tractor attachments, equipped with a Quick-Hitch frame, category 2. It is only necessary to mount an optional axle.



#### OPTION: INNER SWATH WHEEL FOR GMD OPTION: CUTTER BAR LIFTING 28 AND 280

Used in connection with the second high cone, the inner swath wheel on GMD 28 and 280 will reduce the swath to approximately 1.50 m (4'11'').





## SKIDS

These lifters are available for mowing conditions, which necessitate elevated cutting heights. Up to 90 mm (3.54<sup>''</sup>) are possible. They will also prove useful in wet and sticky mowing situations.

#### **OPTION: WEAR SKID**

Wear skids are manufactured with great care to resist working conditions in abrasive soils. To reduce your maintenance costs, skid shoes are available and can be welded underneath the skids in order to increase their service life.

#### **Technical specifications**

	GMD 16	GMD 20	GMD 24	G
Working width (m/ft)	1.60 / 5′3″	2.00 / 6′7′′	2.40 / 7′11′′	2
Number of discs with protection skids (treated steel)	4	5	6	
Removable disc bearing stations				
Gear train protection				
Suspension				
Safety				
Knife attachment		by	bolts	
Average swath width (m/ft)	1.10 / 3′7′′	1.40 / 4'7''	1.70 / 5'7"	2
Outer swath wheel		-		L
Mowing angle	+35° to -22° (-40	° with optional kit)	+35°	to -1,5°
Headland turn position	by tractor lift			
Transport position	vertical folding by hydraulic cylinder and automatic locking			
Attachment	3-point, cat. 1 and 2			
Quick-hitch compatibility			-	
Chain limiter		•	•	
PTO rotation speed (min <sup>-1</sup> )				
Primary drive shaft				
Free wheel		$\diamond$		
Min. PTO power requirement (kW/hp)	15/21	19/26	23/31	2
Necessary tractor hydraulic equipment	1x SA			
Weight, approx. (kg/lbs)	420 / 926	465 / 1,025	544 / 1,199	60
◆ standard <> option - not available		1	1	1

#### KUHN SERVICES\* \*Not all services and equipment are availab **MAXIMIZE THE USE AND PRODUCTIVITY OF YOUR KUHN EQUIPMENT**

#### **KUHN** sos order

#### Express spare parts service 24/7

You urgently need spare parts? With KUHN SOS ORDER benefit from express delivery seven days a week, 365 days a year. Thus, you can minimize machine downtime considerably and increase your work output.

#### **KUHN** protect +

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#### The choice of professionals!

Benefit from 36 months in complete serenity because of KUHN's PROTECT + warranty. You can concentrate exclusively on your work and the performance of your machine. Because this is what you expect, when investing in high-tech machinery.

### **KUHN** i tech

#### For ever quicker repairs!

An unexpected technical problem always occurs at the wrong time. Your KUHN dealer can support you quickly and efficiently thanks to KUHNI-TECH. With this 24/7 online service, a quick and exact diagnosis is possible.

### **KUHN** finance

#### Invest rationally!

New machine necessary, financing unsure? Modernize your equipment and develop your farm with KUHN FINANCE, in total safety and according to your needs and demands.

We offer custom-made finance solutions, adapted to your requirements.

**Mounted Disc Mowers** 

MD 28	GMD 240	GMD 280	GMD 310	GMD 350
30 / 9′2″	2.40 / 7′11′′	2.80 / 9′2′′	3.10 / 10′2′′	3.51 / 11′6″
7	6	7	{	3
	•			
PROTEC	CTADRIVE			
by spring				hydro-pneumatic
◆ (by me	echnical lock)			
		by FAST-F	IT or bolts	
)0 / 6′7′′	1.70 / 5′7″	2.00 / 6′7′′	2.40 / 7'11''	2.80 / 9′2′′
•	•			
		+35° to -25°		+35° to -30°
		by integrated hy	ydraulic cylinder	
	vertica	al folding after manual folding of safe	ety cover OR hydraulic vertical back fo	olding
	3-point,	, cat. 2		
		<	>	
		<	>	
540 (option on (	GMD 310: 1000)			
1 3/8	(6 splines)			
		•		
7/36	23/31	27/36	30/41	36/49
		1x SA (+ 1x DA for optional rec	ar pivoting into transport position)	

## FIND THE MOWER THAT FITS YOUR DEMANDS

GMD			Mounted Disc Mowers
	240 to 310	350	16 to 28
Intensity of use	+++	+++	++
Comfort in setting transport/work position*	+++	+++	+
Comfort of knife replacement**	+++	+++	+
Adaptation to tractors with large wheel track	+++	+++	+

\*with hydraulic pivoting to the rear \*\*with FAST-FIT knife attachment

+++ optimum ++ very good + good

## Check out the extensive KUHN range of hay and silage making implements!

1. Compact front mounted disc mowers - 2. Front mounted disc mowers - 3. Horizontal fold disc mowers - 4. Front / rear mounted drum mowers - 5. Triple head disc mowers - 6. Triple head disc mower conditioners.

#### For more information about your nearest KUHN dealer, visit our website **www.kuhn.com**



#### KUHN S.A.

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KUHN FARM MACHINERY (U.K.) LTD Stafford Park 7 - GB TELFORD/ SHROPS TF3 3BQ



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Your KUHN dealer

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