

GRÉGOIRE BESSON

# 40 50 60 70 80 90





# Soil preparation equipment & services for farmers

# Preparing the soil and the future

«Above all else, the GB Group is committed to combining resources and methods to serve not only the customers of the group's various brands, but also dealers and suppliers around the world. We also want to bring together the teams from our many production sites and subsidiaries around a single corporate project.

Throughout the GB Group, we want to support everyone who is working towards efficient and sustainable agriculture by offering a wide range of product solutions and an increasing number of services.

We are mindful of the challenges facing humanity in the decades to come and we are convinced that they will require smarter, more efficient and more sustainable soil preparation.»



Patrick Besson, CEO of the GB Group

# **GB** Group

Grégoire Besson and Agriway are the two brands of the GB Group. Our experience and ambitions are the same for all our brands, even if each name has been shaped by its own particular approach.

Grégoire Besson, the founding brand of the group, continually strives to strengthen its partnership of trust with agricultural professionals.

# A global presence

5 Plants & 7 Subsidiaries



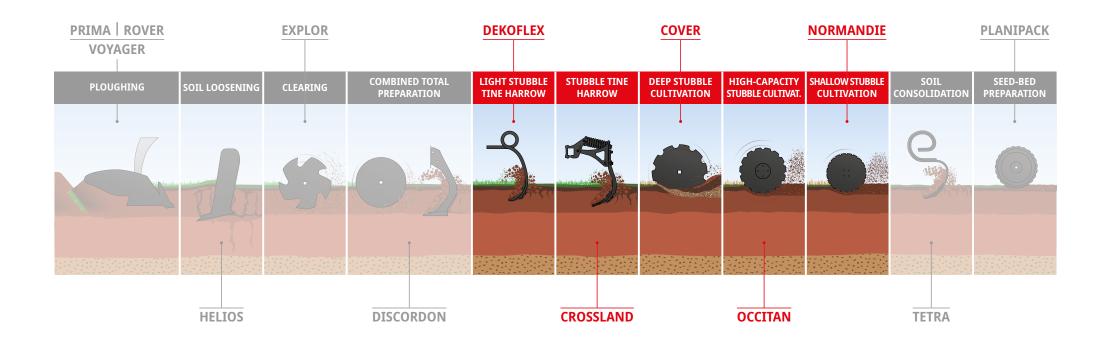
# With our employees, 1 objective: customer satisfaction

Whether we are in our factories, at an agricultural show or out in the fields, we always keep in mind that our task is to help our customers improve their soil productivity.

# **Grégoire Besson and soil tillage**



1 NEED > 1 NAME



## **5 STUBBLE CULTIVATOR RANGES TO MEET YOUR NEEDS**

**DEKOFLEX** A simple and economical light

tine stubble cultivator.

### CROSSLAND

The stubble tine harrow with the lowest cost per hectare on the market. COVER

The solution for scalping, separating dense root systems and creating a mulch with large volumes of plant waste.

### OCCITAN High weight per disc ratio and mechanical non-stop safety.

### NORMANDIE

Fast stubble tillage and ultrasimple maintenance.

# A simple range

Index	40	50	60	70	80	90
Light stubble tine harrow	•	•	DEKOFLEX 60	•	•	•
Stubble tine harrow	•	CROSSLAND 50	CROSSLAND 60 CROSSLAND T60	CROSSLAND T70	CROSSLAND T80	•
Deep stubble cultivator	•	COVER V T50 COVER X T50	COVER V T60 COVER X T60 COVER XL T60	COVER V T70 COVER X T70 COVER XL T70	COVER X T80 COVER XL T80	COVER XL T9
High-capacity stubble cultivator	•	OCCITAN 50	OCCITAN 60 OCCITAN T60	•	•	•
Shallow stubble cultivator	•	NORMANDIE 50	NORMANDIE 60 NORMANDIE T60	NORMANDIE T70	NORMANDIE T80	•
Farm size						
Tractor power	<b>50 to 85 HP</b> 37 to 62 kW	62 to 92 kW	<b>125 to 210 HP</b> 92 to 154 kW	<b>210 to 310 HP</b> 154 to 228 kW	<b>310 to 400 HP</b> 228 to 294 kW	400 to 600 HI 294 to 441 kW
Cylinders			₽₽₽ =   <b>н</b>   <b> </b>    <b> </b>   = 4/6	₿₿₿₿₿₿₿ ╕ ₽'₽ ₽'₽ ₽'₽  6		
Lifting capacity	<b>3</b> ,5T	5T/6,5T	6,5T/9T	10,5T	11,5T	10,5T

# **Better soil preparation for tomorrow**

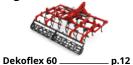
We are convinced that the food challenges of the 21<sup>st</sup> century can only be solved through more efficient and intelligent soil preparation. Grégoire Besson designs, produces and distributes soil preparation equipment for farmers who are growing for the future.



# SUMMARY

### DEKOFLEX

Light stubble tine harrow



### CROSSLAND

Stubble tine harrow

Crossland T60 \_\_\_\_\_ p.22



Crossland T70 \_\_\_\_\_ p.26

### COVER



### **OCCITAN**

High-capacity stubble cultivator



### NORMANDIE

Stubble disc harrow





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Normandie T70 \_\_\_\_\_ p.76

### Accessories

- Crossland working parts \_\_\_\_\_
- Normandie, Occitan and Cover Discs \_\_\_\_\_ p.81
- Rear equipment \_\_\_\_\_
- \_\_\_\_\_\_ p.80 Servicing \_\_\_\_\_\_
  - Our product range \_\_\_\_\_\_
- p.84 p.86

# We are committed to respecting the environment

Weeds and pests are controlled with soil preparation tools. Our product lines meet your most demanding needs.

# Which one? Tine or disc tools?

Tines can work from 2 to 35 cm deep. This type of tool is suitable for work with small amounts of plant residue. For surface work, using goose shares, it is ideal for second passes after harvest for the destruction of new growth.



At intermediate depths, it is ideal for accelerating residue decomposition by mixing the different profile elements. Used at a depth of 35 cm, it enables profile restructuring to compensate for extreme weather events.

For weeding, the stubble tine harrow destroys perennials by depletion and extraction. Extracting, along with following harrows, separates soil from roots for total destruction.

### Stubble tillage using disc tools is ideal for the first pass after harvest. It cuts up residues, putting them in contact with the soil to begin decomposition.

Be careful, you need to be familiar with the plant species that you want to destroy. Disc tools are not recommended for the destruction of perennials such as thistle, bindweed or rumex.





THE LARGEST CHOICE OF DISCS ON THE MARKET

Stubble disc harrows promote the destruction of post-harvest pests.

The shallow working depth promotes selfseeding, which helps to deplete the weeds in the soil. Disc tools can work at depths of up to 20 cm.



### Various working depths from 2 to 20 cm

Produce different finishes according to soil, working conditions and your disc harrow attachments.









Destruction of complex root systems

### Various working depths from 2 to 35 cm

Vary the working depth, the number of passes and the attachments of a single machine and achieve different finishes.







Deep tillage

Ploughing back

Seed bed preparation



Ploughing back

Seed bed preparation





# Economical stubble cultivation

The Dekoflex is characterized by a simple and maintenance-free design.

# **DEKOFLEX 60** MOUNTED LIGHT STUBBLE TINE HARROW

### From 18 to 26 tines - Tractors: 125 to 210 hp - Working width: 4.00 to 6.00 m



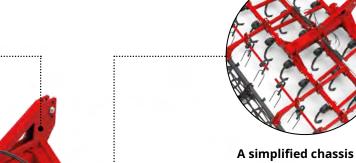
### A well-thought-out head

The hitch has several combinations in CAT 2 and 3N. Three top holes are available, the fixed hole to stiffen the machine and increase penetration and the slotted hole for better ground tracking and less stress in the frame. The lower pins have two fasteners to best fit the tractor's rear geometry.



### Intuitive adjustment

The working depth is simplified for the user. It can be adjusted using pins to make a high and a low stop. The levelling comb system is attached to it for combined adjustment. Moreover, the length of the roller arms can be adjusted according to the desired clearance and limit the overhang.



The two-piece frame is streamlined to facilitate the passage of residue while maintaining tine spacing.

The mechanically welded frames give you a very high resistance.



### A good finish

The levelling comb system is there to plug the hole made by the rear row tine to keep the field always well levelled. Its combs are mounted on a spring blade for safety at work.

### MOUNTED LIGHT STUBBLE TINE HARROW | DEKOFLEX 60



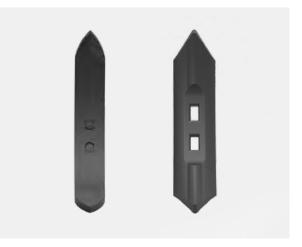
### An economic tooth

The pigtail tooth is maintenance-free. With its spring steel buckle, it creates lateral and longitudinal vibrations to obtain good stubble tillage and a good mixture between plant residues and soil to improve their decomposition in the soil. The buckle ensures non-stop safety in light soils.



### **Rear equipment**

The single square bars roller is the only aft equipment available to break up clods on the surface and create a minimum of re-soil on the ground. Its maintenance-free bearing assembly reduces maintenance time and increases your productivity.



### Several choices of tips

We offer two types of tips. The first one is made of reversible forged steel for floors that are not subject to much wear and tear. The second one with carbide to resist the friction of abrasive soils.



### A controlled overhang

We had thought of the Dekoflex to have a centre of gravity close to the tractor to make it easier to lift the machine with a light tractor and to have a counterweight at the front of the tractor to reduce soil compaction.



### **Good clearance**

Designed with three rows of tines, the Dekoflex is a machine with a wide clearance to be able to pass through good volumes of crop without clogging. Its undercarriage space allows you to work from 2 cm to 20 cm in light soils.



### Safe transport

The transport width is 2.50 m to facilitate road travel. Its hydraulic folding is equipped with a locking system so that there is no mechanical or manual action on the machine to lock it. In addition, you can unhook the folding machine in order to minimize the storage area under your building.

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### MOUNTED LIGHT STUBBLE TINE HARROW DEKOFLEX 60

	DEKOFLEX 60 TECHNICAL SPECIFICATIONS							
Working width (m)	4.00	5.00	6.00					
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 190</b> <i>92 / 140</i>	<b>150 / 200</b> <i>110 / 147</i>	<b>175 / 210</b> 129 / 154					
Transport width (m)		2.50						
Transport height (m)	2.10	2.60	3.10					
Indicative weight with single bar Ø 500 (kg)	1 960	2 500	2 870					
Yoke hitch type (Cat.)		3N - 3						
Chassis version		Can be folded in two parts						
Number of tines	18	22	26					
Deflector		Not available						
Тір		Bolted reversible points / Option: carbide bolted						
Wing (mm)		Not available						
Tine spacing (mm)	222	227	230					
Spacing between tines in a row (mm)	666	681	692					
Spacing between rows of tines (mm)	750							
Under frame clearance (mm)	700							
Tine safety system	Pig tail							
Levelling system		Standard without / Option: following harrow						
Levelling safety system		Lame ressort						
Roller adjustment		Mechanical						
Rear equipment (mm)		Roller single bar Ø 500						
Depth control	Roller							
Stabilizing wheel	Not available							
Max. working depth (mm)		200						
Seed drill and walkway support kit		Not available						
Road traffic lights		As standard						





# **Reliable and economical**

*Stubble harrow range with unparalleled performance.* 

*Spacing between tines - the key to reduced fuel consumption and precision work.* 

# **CROSSLAND 60** MOUNTED STUBBLE TINE HARROW

### 14 to 23 tines - Tractors: 125 to 210 hp - Working width: 4.30 to 5.30 m



### Large clearance

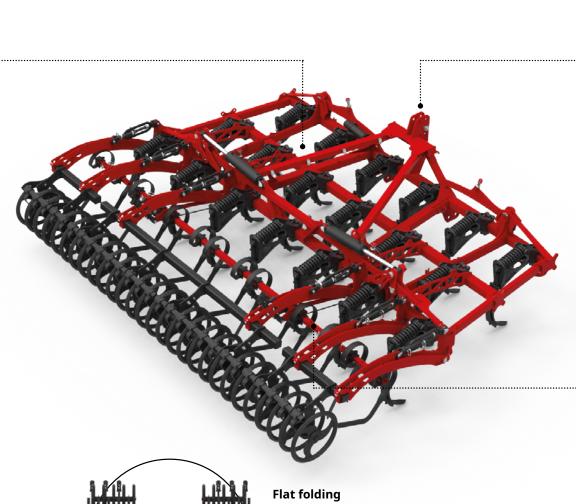
We offer two chassis heights, 750 mm as standard or 850 mm as an option, which increases the passage of plant volume through the Crossland.



### Working depth

You can choose from two working depth adjustment methods:

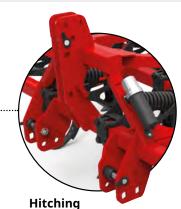
a standard mechanical version with a high and low stop adjustment using a pin or a hydraulic cylinder system for increased productivity.



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This allows you to save space in your building during winter storage.

Three-stage folding means you can work in a folded position to increase penetration. As the Crossland width does not exceed 3.00 m, transport is completely safe.



Hitching is compatible with Cat.3 and Cat.3N depending on the category of your tractor. Several heights are possible to adapt to your hitching arrangements. There are two possibilities for your top link; a fixed point to force penetration or a slot arrangement to allow for better

contour following.

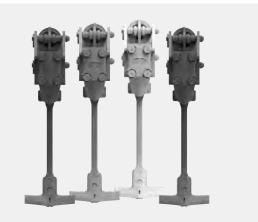


### **Combined adjustment**

The leveling system is attached to the roller frame which enables the working height adjustment to be integrated with the roller.

If you adjust the working depth, the leveling system changes at the same time.

### MOUNTED STUBBLE TINE HARROW CROSSLAND 60



### **Tine spacing**

The Crossland has a tine spacing of 230 mm, which creates small bands of soil resulting in finer surface work. This choice is more economical as less pulling power is needed, resulting in better fuel consumption. This concept also means it is easier to level the ground as fewer ridges are created.



### **Spring-mounted Eurochisel tines**

The auto-reset spring safety system protects your machine while you work in stony soil. When a stone is present, the tine retracts by compressing the spring. When the spring compresses, the pressure at the tip decreases which helps to protect it as it passes the stone. The tine leg is made of cast steel for increased impact and vibration resistance. On the tine housing, you have three adjustment heights to adjust the tips independently.



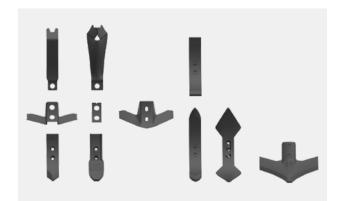
### Tine shear bolts

The shear bolt safety system is designed for heavy or light soils that are not stony. The moulded block is very easy to use. The bolts, secured against turning, can be changed quickly using a single tool. The shear bolts are pre-cut to ensure clean breaks and easy changing. Finally, on the tine leg, we have integrated a release stop so that it does not become stuck.



### Levelling

The hockey stick blade picks up the flow of soil from the tooth to cover the hole and have a perfectly levelled floor. It is equipped with a non-stop safety device with the spring steel curve on its upper part. They are mounted with a parallelogram system to have the same working angle according to the depth. Finally, the levelling adjustment is combined with the roller depth adjustment for greater efficiency.



### Wide choice of tips

A wide range of tips is available, designed to work from 2 to 35 cm deep. Goose shares are ideal for shallow work, they work up to 5 cm for effective weed scalping. Standard and carbide tips are useful for heavy duty work. With our tips, we can work with spoilers to cut root systems. The Dart spoiler tips on the left can be used with deflectors to improve soil/plant mixing over the entire working depth.



### **Rear equipment**

Three types of rear rollers are available according to your needs:

square bars rollers for a simple solution, double bar rollers for surface crumbling, and the Impak roller, ideal for self-seeding. This enables good soil consolidation.

Finally, you can choose a triple following harrow to accelerate the destruction of weed root systems.

### CROSSLAND 60 | MOUNTED STUBBLE TINE HARROW

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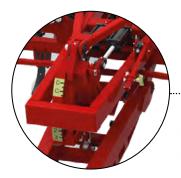
### MOUNTED STUBBLE TINE HARROW CROSSLAND 60

I	CROSSLAND 60 TECHNICAL SPECIFICATIONS									
Working width (m)	4.30	4.90	5.50	4.40	4.85	5.30				
<b>Tractor power (HP)</b> Tractor power (kW)	125 / 190 125 / 190   92 / 140 92 / 140		<b>175 / 210</b> 129 / 154	<b>125 / 190</b> 92 / 140	<b>150 / 200</b> 110 / 147	<b>175 / 210</b> 129 / 154				
Transport width (m)	3.00									
Transport height (m)	2.20									
Approximate weight with single bars roller Ø 500 (kg)	2 184	2 280	2 451	2 349	2 445	2 616				
Yoke hitch type (Cat.)	3N - 3 - Quick coupler									
Chassis version	Mounted, three-stage flat-folding									
Number of tines	14	16	19	21	23					
Deflector	Optional Double mix / Universal (only with Dart tip)									
Тір	Reversible TH / Optional carbide TH, cast Dart, carbide Dart, goose share									
Spoiler (mm)		Option (305)			Option (254)					
Tine spacing (mm)	306 230									
Spacing between tines in a row (mm)	690									
Spacing between following harrows (mm)	800									
Under frame clearance (mm)			750 / Opti	on 850						
Tine safety system		Stan	dard shear bolt safety / Optio	nal spring-mounted auto	-reset					
Levelling system			Standard without / Hock	key stick blade option						
Levelling safety system			Spring-moun	ited blade						
Roller adjustment	Standard: mechanical/Optional: hydraulic									
Rear equipment (mm)		Rollers: single bar Ø 5	00 / Double bar Ø 400/Ø 300 /	/ Impak Ø 540 / Optional	following harrow Ø 16*					
Depth control			Rolle	er						
Stabilizing wheel	Not availableWith following harrow 10.0/75x15.3 (Ø 760)Not availableWith following harrow 10.0/75x15.					10.0/75x15.3 (Ø 760)				
Max. working depth (mm)			350	)						
Seed drill and walkway support kit	Available soon									
Road traffic lights			As stan	dard						

\* Option available only on 4.40m and 4.90m with front depth wheel.

# **CROSSLAND T60** SEMI-MOUNTED STUBBLE TINE HARROW

### 19, 21 or 23 tines - Tractors: 125 to 210 hp - Working width: 4.40 to 5.30 m

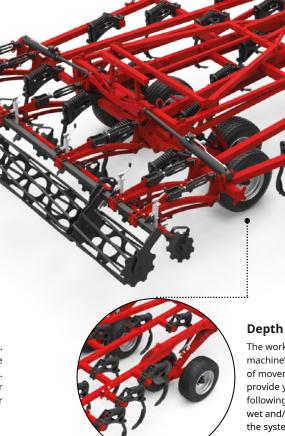


### Single point depth control

Working depth control is very straightforward. Simply modify the yellow stop to limit the lowering of the wheel cylinders and thus vary the depth of the tines in the ground. A graduated depth control scale visible from the cab.

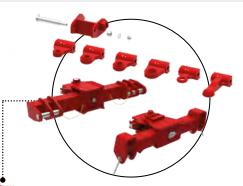
### Wide choice of tips

A wide range of tips is available, designed to work from 2 to 35 cm deep. Goose shares are ideal for shallow work, they work up to 5 cm for effective weed scalping. Standard and carbide tips are useful for heavy duty work. With our tips, we can work with spoilers to cut root systems. The Dart spoiler tips on the left can be used with deflectors to improve soil/plant mixing over the entire working depth.



### Depth control by wheels

The working depth is controlled by the machine's bogie wheels. Their flexibility of movement and large wheel diameters provide you with exceptional field contour following. This is important for work in wet and/or sticky conditions because the system enables you to work with or without a roller.



### Suitable hitching

We offer a wide range of double cone hitchings for drawbar couplings, designed to tolerate movements up to 15°. A linkage pin ring is available To improve manoeuvrability, we have a choice of two coupling arms, depending on the category you need.



### **Tine spacing**

The Crossland has a tine spacing of 230 mm, which creates small bands of soil resulting in finer surface work. This choice is more economical as less pulling power is needed, resulting in better fuel consumption. This concept also means it is easier to level the ground as fewer ridges are created.

### SEMI-MOUNTED STUBBLE TINE HARROW CROSSLAND T60



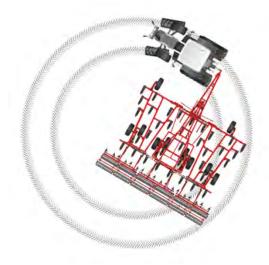
### Perfect field contour following

Depth control wheels are mounted on a bogie to improve field contour following. It enables you to pass over various obstacles that may be present in the fields such as stones, holes or bumps. Articulation on the road is also very easy because the machine is always stable.



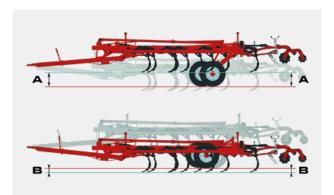
### Choice of two safety systems

We offer two safety systems to adapt to your type of soil. We recommend the shear bolt safety system if you do not have stony and/ or hard soils. On the other hand, the auto-reset spring safety system is more appropriate if you have significant stones in your fields.



### A very manœuvrable machine

The position of the wheels in the machine enables the best possible turning radius. The drawbar has been designed to work with dual wheel tractors.



### Parallelogram design

A special feature of the Crossland is its parallelogram lifting system. Its cylinders, using a master-slave design, ensure perfect machine lifting. This concept makes it easier for you to adjust. It is carried out in a single movement by means of a hydraulic stop. You can also work without a stop in order to vary the working depth continuously. This unique design transfers the load onto the drawbar to optimize traction and your tractor's fuel consumption.



### Levelling

The hockey stick blade picks up the flow of soil from the tooth to cover the hole and have a perfectly levelled floor. It is equipped with a non-stop safety device with the spring steel curve on its upper part. They are mounted with a parallelogram system to have the same working angle according to the depth. Finally, the levelling adjustment is combined with the roller depth adjustment for greater efficiency.



### **Rear equipment**

Three types of rear rollers are available according to your needs:

square bars rollers for a simple solution, double bar rollers for surface crumbling, and the Impak roller, ideal for self-seeding. This enables good soil consolidation.

Finally, you can choose a triple following harrow to accelerate the destruction of weed root systems.

### **CROSSLAND T60** SEMI-MOUNTED STUBBLE TINE HARROW

### SEMI-MOUNTED STUBBLE TINE HARROW CROSSLAND T60

	CROSSLAND T60 TECHNICAL SPECIFICATIONS							
Working width (m)	4.40	4.85	5.30					
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 190</b> <i>92 / 140</i>	<b>150 / 200</b> <i>110 / 147</i>	<b>175 / 210</b> 129 / 154					
Transport width (m)		3.00						
Transport height (m)	2.90	3.12	3.35					
Approximate weight with single bars roller Ø 500 (kg)	4 657	4 847	5 693					
Yoke hitch type (Cat.)	Double conical ring: Ø	) 35 mm - Ø 55 mm - Ø 65 mm / Option: arms CAT 3N - 3 .	/ Scharmüller Ø 80 mm					
Chassis version	Semi-mounted be folded in three parts							
Number of tines	19	21	23					
Deflector		Optional: Double mix /Universal (only with 'Dart' tip)						
Тір	Reversib	Reversible TH / Optional: TH carbide, cast Dart, carbide Dart, goose share						
Spoiler (mm)		Option (254)						
Tine spacing (mm)		230						
Spacing between tines in a row (mm)		920						
Under frame clearance (mm)	800 to 1000							
Under frame clearance (mm)	750 / Option 850							
Tine safety system	Standard: shear bolt / Optional: spring-mounted auto-reset							
Levelling system	Standard without / Hockey stick blade option							
Levelling safety system	Spring-mounted blade							
Roller adjustment	Standard: mechanical / Optional: hydraulic							
Rear equipment (mm)	Roller : single bar Ø !	500 / Double bar Ø 400/Ø 300 / Impak Ø 540 / Optional fe	ollowing harrow Ø 16					
Stabilizing wheel		Not available						
Depth control		Wheels						
Pneumatique	340/65R18 (Ø 890)							
Braking	Standard: hydraulic / Optional: tyre							
Max. working depth (mm)		350						
Seed drill and walkway support kit		Available soon						
Road traffic lights		As standard						

\* Option available only on 4.40m with front depth wheel.

# **CROSSLAND T70** SEMI-MOUNTED STUBBLE TINE HARROW

### 23 or 25 tines - Tractors: 210 to 310 hp - Working width: 5.30 to 5.75 m



### Single point depth control

Working depth control is very straightforward. Simply modify the yellow stop to limit the lowering of the wheel cylinders and thus vary the depth of the tines in the ground. A graduated depth control scale visible from the cab.

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### Wide choice of tips

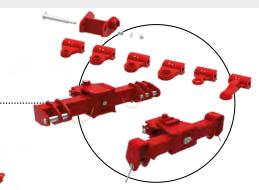
A wide range of tips is available, designed to work from 2 to 35 cm deep. Goose shares are ideal for shallow work, they work up to 5 cm for effective weed scalping. Standard and carbide tips are useful for heavy duty work. With our tips, we can work with spoilers to cut root systems. The Dart spoiler tips on the left can be used with deflectors to improve soil/plant mixing over the entire working depth.



### Depth control by wheels

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The working depth is controlled by the machine's bogie wheels. Their flexibility of movement and large wheel diameters provide you with exceptional field contour following. This is important for work in wet and/or sticky conditions because the system enables you to work with or without a roller.



### Suitable hitching

We offer a wide range of double cone hitchings for drawbar couplings, designed to tolerate movements up to 15°. A linkage pin ring is available To improve manoeuvrability, we have a choice of two coupling arms, depending on the category you need.



### **Tine spacing**

The Crossland has a tine spacing of 230 mm, which creates small bands of soil resulting in finer surface work. This choice is more economical as less pulling power is needed, resulting in better fuel consumption. This concept also means it is easier to level the ground as fewer ridges are created.

### SEMI-MOUNTED STUBBLE TINE HARROW | CROSSLAND T70



### **Flat folding**

This allows you to save space in your building during winter storage.

Three-stage folding means you can work in a folded position to increase penetration. As the Crossland width does not exceed 3.00 m, transport is completely safe.



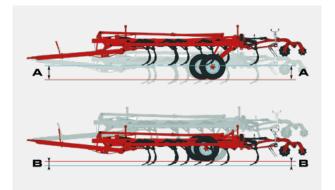
### Choice of two safety systems

We offer two safety systems to adapt to your type of soil. We recommend the shear bolt safety system if you do not have stony and/ or hard soils. On the other hand, the auto-reset spring safety system is more appropriate if you have significant stones in your fields.



### Depth wheel on lateral supports

In addition to the central chassis bogie wheels, on this model we have added wheels to improve stability for the lateral supports. A single wheel on each lateral support increases depth control as well as productivity.



### Parallelogram design

A special feature of the Crossland is its parallelogram lifting system. Its cylinders, using a master-slave design, ensure perfect machine lifting. This concept makes it easier for you to adjust. It is carried out in a single movement by means of a hydraulic stop. You can also work without a stop in order to vary the working depth continuously. This unique design transfers the load onto the drawbar to optimize traction and your tractor's fuel consumption.



### Levelling

The hockey stick blade picks up the flow of soil from the tooth to cover the hole and have a perfectly levelled floor. It is equipped with a non-stop safety device with the spring steel curve on its upper part. They are mounted with a parallelogram system to have the same working angle according to the depth. Finally, the levelling adjustment is combined with the roller depth adjustment for greater efficiency.



### **Rear equipment**

Three types of rear rollers are available according to your needs:

square bars rollers for a simple solution, double bar rollers for surface crumbling, and the Impak roller, ideal for self-seeding. This enables good soil consolidation.

Finally, you can choose a triple following harrow to accelerate the destruction of weed root systems.

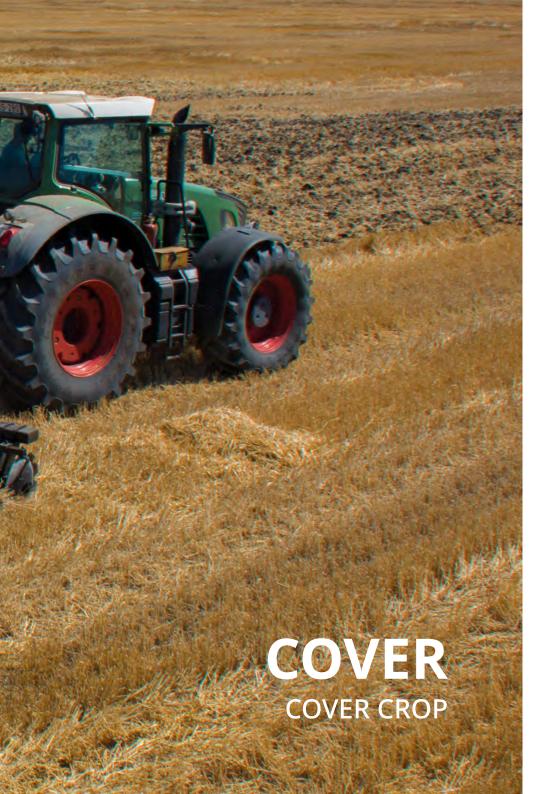
### CROSSLAND T70 SEMI-MOUNTED STUBBLE TINE HARROW

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### SEMI-MOUNTED STUBBLE TINE HARROW CROSSLAND T70

	CROSSLAND T70 TECHNICAL SPECIFICATIONS					
Working width (m)	5.30	5.75				
<b>Tractor power (HP)</b> Tractor power (kW)	<b>210 / 280</b> <i>154 / 206</i>	<b>220 / 310</b> 162 / 228				
Transport width (m)	3	.00				
Transport height (m)	3	2.20				
Approximate weight with single bars roller Ø 500 (kg)	5 655	5 705				
Yoke hitch type (Cat.)	Double conical ring: Ø 35 mm - Ø 55 mm - Ø 65 m	m / Option: arms CAT 3N - 3 / Scharmüller Ø 80 mm				
Chassis version	Semi-mounted, th	ree-stage flat-folding				
Number of tines	23	25				
Deflector	Optional: Double mix / Ur	niversal (only with 'Dart' tip)				
Тір	Reversible TH/Optional: TH carbide	, cast Dart, carbide Dart, goose share				
Spoiler (mm)	Optic	on (254)				
Tine spacing (mm)	2	230				
Spacing between tines in a row (mm)	2	920				
Under frame clearance (mm)	800 to 1000					
Under frame clearance (mm)	750 / Option 850					
Tine safety system	Standard: shear bolt / Optional: spring-mounted auto-reset					
Levelling system	Standard without / Ho	ockey stick blade option				
Levelling safety system	Spring-mo	ounted blade				
Roller adjustment	Standard: mechanica	al / Optional: hydraulic				
Rear equipment (mm)	Roller: single bar Ø 500 / Double bar Ø 400/Ø 30	00 / Impak Ø 540 / Optional following harrow Ø 16				
Stabilizing wheel	Standard without / Op	tional 340/65R18 (Ø 890)				
Depth control	Wł	neels				
Pneumatique	340/65R18 (Ø 890)					
Braking	Standard: hydrau	ulic / Optional: tyre				
Max. working depth (mm)	3	350				
Seed drill and walkway support kit	Availa	ble soon				
Road traffic lights	As st	andard				





# Versatile and efficient

Increased penetration thanks to heavyweight discs and chassis. It enables versatile soil preparation and is ideal

for complex root system destruction.

# **COVER V T60** SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW

### From 32 to 40 discs - Tractors: 125 to 210 hp - Working width: 3.60 to 5.25 m



### Single beam chassis

The single beam chassis (300 x 200 x 8 mm) allows the tractive force to pass to the disc gangs in order to resist foreign bodies in the soil.



For optimal pulling power, the drawbar angle can be adjusted by a hydraulic cylinder. This system enables you to control the cylinder as desired.



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# Réglage de l'angle des disques

Le réglage d'angle des disques est Mechanical de série et en option vous pouvez choisir le réglage Hydraulic. L'avantage du train de disques disposé en V est d'être plus stable dans les terrains to relief.



### Central axle

The centre positioning of the axle ensures good load transfer and precise control of the working depth.

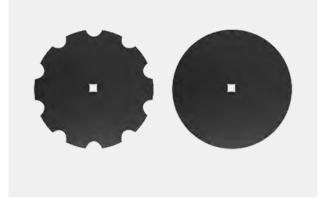


### **Stabilizing wheel**

After a certain width, it is better to have a wheel on the right lateral support to stabilize the machine so that it maintains the same working depth at all speeds.

GRÉGOIRE BESSON

### SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW COVER V T60



### Wide choice of discs

To improve disc gang performance, we offer two types of discs: notched and plain. 660 mm and 710 mm diameters are available, so you can adapt to your disc gang depth and the volume of organic matter present on your land. To limit disc diameter wear, several disc thicknesses are available.



### **Robust stacking of disc gangs**

Treated steel shafts absorb shocks well and do not lengthen when tightened. To simplify access for disc replacements, disc gangs are tightened and clamped from the ends.

The mechanically welded design along with the choice of steel make our disc gang seating the best on the market.



### **Durable bearings**

The compact, cast iron housing means that it will not interfere with the passage of residues. This minimizes jamming.

Thanks to triple sealed packing and two outward-facing seals, excess grease can escape but dust and debris cannot enter. This system extends service life and reduces maintenance to a minimum.



### **Bearing protection**

A bearing protection guard is recommended for very stony conditions. The aim is to preserve the bearing from wear and tear due to ground friction but also from impacts caused by foreign objects in the field.



### Hydraulic control box (optional)

All adjustments are made from the tractor cab even if you have only two or three double-acting valves. This allows you to combine a large number of hydraulic options for maximum ease of use.



### Safe transport

The machine's hydraulic folding system ensures safe transport. To make travelling easier, the Cover is 2.50 m wide and the height is optimized.

### **COVER V T60** SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW

### SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW COVER V T60

	COVER V T60 TECHNICAL SPECIFICATIONS								
Working width (m)	3.60	4.00	4.40	4.80	5.20	3.65	4.20	4.70	5.25
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 140</b> 92 / 103	<b>135 / 150</b> 99 / 110	<b>145 / 170</b> 107 / 125	<b>155 / 190</b> <i>114 / 140</i>	<b>165 / 210</b> 121 / 164	<b>125 / 140</b> 92 / 103	<b>135 / 150</b> 99 / 110	<b>145 / 180</b> 107 / 133	<b>155 / 210</b> 114 / 154
Transport width (m)	3.00								
Transport height (m)	2.00	2.15	2.40	2.70	2.80	2.10	2.30	2.50	2.80
Indicative weight (Kg)	4 380	4 830	5 350	5 870	6 390	4 250	4 910	5 430	5 950
Yoke hitch type (Cat.)				Cast ring ball jo	int: Ø 35 mm - Ø 4	5 mm - Ø 55 mm			
Chassis version	Can be folded in two parts								
Number of discs	32	36	40	44	48	28	32	36	40
Disc shaft diameter (mm)	40 x 40								
Disc diameters (mm)				Standa	ard Ø 660 / Option	n Ø 710			
Disc thicknesses (mm)				7 mm at th	e front and 6 mm	at the back			
Spacing between discs (mm)	230 270								
Under frame clearance (mm)	800								
Max. working depth (mm)					200				
Working part safety system					Fixed seating				
Disc angle adjustment	Front: standard mechanical / Optional: hydraulic - Rear: standard hydraulic								
Stabilizing wheel				Side whe	el 10.0/75x15.3 (Ø	795 mm)			
Tyres			Standa	ord 400/55x22.5 (Ø	1010 mm) / Optior	n 500/45x22.5 (Ø 10	21 mm)		
Braking				Standa	rd hydraulic / Opti	ion tyre			
Seed drill walkway					Not available				
Hectare counter	Option								
Roller adjustment	Standard: mechanical tie rod / Optional: hydraulic								
Rear equipment (mm)			Standard	d without / Optiona	l following harrow	or square bars roll	er Ø 500		
Road traffic lights	As standard								

# **COVER V T70** SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW

### From 36 to 48 discs - Tractors : 200 to 310 hp - Working width: 4.50 to 5.95 m



Single beam chassis

Strength based on single-beam chassis design measuring 300 x 200 x 8 mm. It enables the pulling force to be directed to the disc gangs and to resist foreign bodies present in the ground.



Drawbar angle

For optimal pulling power, the drawbar angle can be adjusted by a hydraulic cylinder. This system enables you to control the cylinder as desired.



### Disc angle adjustment

The disc angle adjustment is mechanical as standard, as an option you can choose hydraulic adjustment. V-shaped disc gangs have the advantage of being more stable on uneven ground.



### Central axle

The centre positioning of the axle ensures good load transfer and precise control of the working depth.

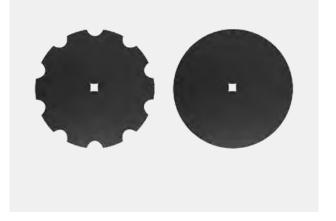


### **Stabilizing wheel**

After a certain width, it is better to have a wheel on the right lateral support to stabilize the machine so that it maintains the same working depth at all speeds.

GRÉGOIRE BESSON

### SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW | COVER V T70



### Wide choice of discs

To improve disc gang performance, we offer two types of discs: notched and plain. 660 mm and 710 mm diameters are available, so you can adapt to your disc gang depth and the volume of organic matter present on your land. To limit disc diameter wear, several disc thicknesses are available.



### Robust stacking of disc gangs

Treated steel shafts absorb shocks well and do not lengthen when tightened. To simplify access for disc replacements, disc gangs are tightened and clamped from the ends.

The mechanically welded design along with the choice of steel make our disc gang seating the best on the market.



### **Durable bearings**

The compact, cast iron housing means that it will not interfere with the passage of residues. This minimizes jamming.

Thanks to triple sealed packing and two outward-facing seals, excess grease can escape but dust and debris cannot enter. This system extends service life and reduces maintenance to a minimum.



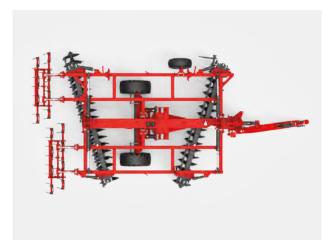
### **Bearing protection**

A bearing protection guard is recommended for very stony conditions. The aim is to preserve the bearing from wear and tear due to ground friction but also from impacts caused by foreign objects in the field.



### Hydraulic control box (optional)

All adjustments are made from the tractor cab even if you have only two or three double-acting valves. This allows you to combine a large number of hydraulic options for maximum ease of use.



### Stable on rugged terrain

The V-profile arrangement of the disc lines is ideal for working on hilly terrain. This design allows the machine to remain stable on slopes which increases productivity and makes your work easier.

### **COVER V T70** SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW

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### SEMI-MOUNTED V-PROFILE OFFSET DISC HARROW COVER V T70

	COVER V T70 TECHNICAL SPECIFICATIONS						
Working width (m)	4.50	4.95	5.50	4.95	5.40	5.95	
Tractor power (HP) Tractor power (kW)	<b>210 / 270</b> 164 / 201	<b>220 / 280</b> 164 / 209	<b>230 / 290</b> 172 / 216	<b>220 / 280</b> 164 / 209	<b>230 / 290</b> 172 / 216	<b>240 / 310</b> 179 / 231	
Transport width (m)			3.00	с С			
Transport height (m)	2.50	2.70	3.10	2.70	3.00	3.10	
Indicative weight (Kg)	4 680	4 890	5 040	4 650	4 790	4 950	
Yoke hitch type (Cat.)			Cast ring ball joint: Ø 35 m	m - Ø 45 mm - Ø 55 mm			
Chassis version			Can be folded	in two parts			
Number of discs	40	44	48	36	40	44	
Disc shaft diameter (mm)			40 x	40			
Disc diameters (mm)			Standard Ø 660 /	Option Ø 710			
Disc thicknesses (mm)			7 mm at the front and	d 6 mm at the back			
Spacing between discs (mm)		230			270		
Under frame clearance (mm)			800	)			
Max. working depth (mm)			200	)			
Working part safety system			Fixed se	ating			
Disc angle adjustment		Front: sta	andard mechanical / Optional:	hydraulic - Rear: standard l	nydraulic		
Stabilizing wheel			One side wheel 10.0/7	′5x15.3 (Ø 795 mm)			
Tyres		Standard 400/55x22.5	5 (Ø 1010 mm) / Option 500/4	5x22.5 (Ø 1021 mm) or 600/	′50x22.5 (Ø 1170 mm)		
Braking			Standard: hydraul	ic / Option: tyre			
Seed drill walkway	Option						
Hectare counter			Optio	on			
Roller adjustment	Hydraulic						
Rear equipment (mm)		Standard withou	ut / Option: square bars roller	Ø 600 / Emopak P Ø 600 / E	mopak V Ø 600		
Road traffic lights			As stan	dard			

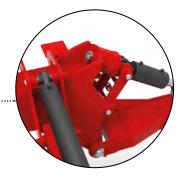
# **COVER X T60** SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW

### From 28 to 44 discs - Tractors: 125 to 210 hp - Working width: 2.50 to 4.40 m



### **Rigid chassis**

Using a single-beam structure, proven over decades, the Cover X has increased rigidity from the lateral supports to achieve greater and more uniform disc penetration in harsh conditions.



### Drawbar suspension

Elastomer around the drawbar cylinder allows flexibility during transport and in the field. An accumulator is connected to the wheel axle to protect your machine and for easy handling.



### Disc gang adjustment

The angle adjustment enables you to set the disc aggressivity and modify your working depth. It can be done mechanically using a tension rod or by optional hydraulics.



### **Rear equipment**

A wide choice of rollers is available according to the finish you want. If you want consolidate and close your soil to create conditions for weeds, we have the Emopak range. For lighter and more economical finishes we have a range of roller bars.

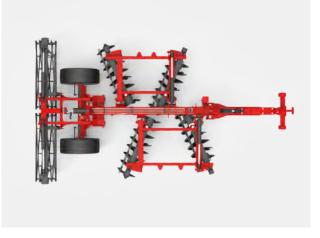


# Consistent ground levelling

On the front disc gangs, you have the option of using a deflector and an anti-projection disc to control the ground projection and the outer disc depth. Combined with the graduated mounting of the rear disc gangs you achieve a perfectly levelled field.

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### SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW COVER X T60



### X design

The disc gangs are offset for uniform work across the entire working surface. This also allows perfect symmetry between the right and left side in order to balance pulling forces. X-profile Disc gangs are versatile and work well on land with few contours.



### **Durable bearings**

The compact, cast iron housing means that it will not interfere with the passage of residues. This minimizes jamming.

Thanks to triple sealed packing and two outward-facing seals, excess grease can escape but dust and debris cannot enter. This system extends service life and reduces maintenance to a minimum.



### **Bearing protection**

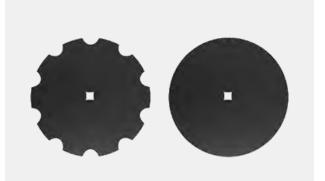
A bearing protection guard is recommended for very stony conditions.

The aim is to preserve the bearing from wear and tear due to ground friction but also from impacts caused by foreign objects in the field.



### Easy to adjust

For a perfect finish and a well-levelled field, the machine must be parallel to the ground. All you need to do is adjust the drawbar cylinder and the roller depth using the two hydraulic cylinders.





### Wide choice of discs

To improve disc gang performance, we offer two types of discs: notched and plain. 660 mm and 710 mm diameters are available, so you can adapt to your disc gang depth and the volume of organic matter present on your land. To limit disc diameter wear, several disc thicknesses are available.

### Seed drill + walkway support kit

You have the option of integrating a support and a walkway for the installation of a 300-litre plant cover seed drill. You can either adapt your own seed drill or order one with the machine (factory assembly). The advantage of combining seed drilling and stubble ploughing is to maximise the use of your equipment which, in turn, improves depreciation costs. This combination also reduces your crop seeding costs.

GRÉGOIRE

### **COVER X T60** SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW



### SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW COVER X T60

	COVER X T60 TECHNICAL SPECIFICATIONS								
Working width (m)	2.50	2.90	3.30	3.70	4.10	3.00	3.45	3.90	4.40
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 140</b> 92 / 103	<b>135 / 150</b> 99 / 110	<b>145 / 170</b> 107 / 125	<b>155 / 190</b> 114 / 140	<b>165 / 210</b> 123 / 164	<b>135 / 150</b> 99 / 110	<b>145 / 170</b> 107 / 125	<b>155 / 190</b> 114 / 140	<b>165 / 210</b> 123 / 164
Transport width (m)					2.50				
Transport height (m)	1.50	1.70	2.00	2.60	2.70	1.70	2.00	2.70	2.80
Poids indicatif (kg)	4 150	4 430	4 710	5 040	5 320	4 430	4 710	5 040	5 320
Yoke hitch type (Cat.)		Stand	ard: hitch on arm o	cat 2 / Option: hitch	on arm cat 3N ou	3 / Cast ring ball jo	oint: Ø 35 mm - Ø 4	5 mm	
Chassis version				Can	be folded in two p	parts			
Number of discs	28	32	36	40	44	28	32	36	40
Disc shaft diameter (mm)					40 x 40				
Spacing between discs (mm)				Standa	ard Ø 660 / Option	Ø 710			
Disc diameters (mm)				7 mm at th	e front and 6 mm	at the back			
Disc thicknesses (mm)			195				23	30	
Under frame clearance (mm)					800				
Max. working depth (mm)					200				
Working part safety system					Fixed seating				
Disc angle adjustment				Standard: r	nechanical / Optio	n: hydraulic			
Stabilizing wheel					Not available				
Tyres			Standa	ard 385/65x22.5 (Ø	1072 mm) / Option	n 500/45x22.5 (Ø 10	21 mm)		
Braking				Standa	rd: hydraulic / Opti	ion: tyre			
Seed drill walkway		Option							
Hectare counter		Option							
Roller adjustment		Hydraulic							
Rear equipment (mm)		Stand	lard: single bar rol	ler Ø 600 / Option:	double bar Ø 500/	Ø 400 / Emopak V	Ø 600 / Emopak P	Ø 600	
Road traffic lights					As standard				

# **COVER X T70** SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW

### From 36 to 64 discs - Tractors: 125 to 310 hp - Working width: 3.20 to 6.20 m



### **Rigid chassis**

Using a single-beam structure, proven over decades, the Cover X has increased rigidity from the lateral supports to achieve greater and more uniform disc penetration in harsh conditions.



For a perfect finish and a welllevelled field, the machine must be parallel to the ground. All you need to do is adjust the drawbar cylinder

and the roller depth using the two

hydraulic cylinders.



### **Choice of depth control**

Depth control using wheels allows you to pass over any type of terrain regardless of the weather. Support using wheels prevents the roller from jamming because the weight of the machine does not push the roller into the ground. In dry conditions you can choose between wheels and rollers for good stability.



### Graduated mounting

The disc gangs at the back of the machine are mounted gradually to ensure good soil levelling. The volume of soil that the front disc gang projects is recovered.



### Disc gang adjustment

The angle adjustment enables you to set the disc aggressivity and modify your working depth. It can be done mechanically using a tension rod or by optional hydraulics.

### SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW | COVER X T70



#### Wide choice of discs

To improve disc gang performance, we offer two types of discs: notched and plain. 660 mm and 710 mm diameters are available, so you can adapt to your disc gang depth and the volume of organic matter present on your land. To limit disc diameter wear, several disc thicknesses are available.



### Robust stacking of disc gangs

Treated steel shafts absorb shocks well and do not lengthen when tightened. To simplify access for disc replacements, disc gangs are tightened and clamped from the ends.

The mechanically welded design along with the choice of steel make our disc gang seating the best on the market.



### **Durable bearings**

The compact, cast iron housing means that it will not interfere with the passage of residues. This minimizes jamming.

Thanks to triple sealed packing and two outward-facing seals, excess grease can escape but dust and debris cannot enter. This system extends service life and reduces maintenance to a minimum.



### X design

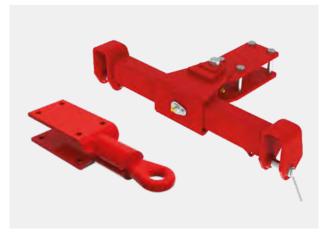
The disc gangs are offset for uniform work across the entire working surface. This also allows perfect symmetry between the right and left side in order to balance pulling forces. X-profile Disc gangs are versatile and work well on land with few contours.



#### **Bearing protection**

A bearing protection guard is recommended for very stony conditions.

The aim is to preserve the bearing from wear and tear due to ground friction but also from impacts caused by foreign objects in the field.



### Several hitching types

Two hitching types are available: a turning ring hitch for the eye bolt or the drawbar, or a Cat 2 and 3N arm coupling to improve manoeuvring in headlands thanks to the wide turning circle.

### **COVER X T70** SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW

	COVER X T70 TECHNICAL SPECIFICATIONS							
Working width (m)	3.20	4.20	4.60	5.00	5.40	5.80	6.20	
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 140</b> 92 / 104	<b>135 / 170</b> 99 / 127	<b>145 / 200</b> 107 / 149	<b>155 / 230</b> 115 / 171	<b>165 / 260</b> 123 / 194	<b>175 / 290</b> 130 / 216	<b>185 / 310</b> 138 / 231	
Transport width (m)				3.00				
Transport height (m)	1.80	2.20	2.40	2.60	2.80	2.90	3.30	
Indicative weight (Kg)	4 100	4 560	4 980	5 170	5 420	5 550	5 690	
Yoke hitch type (Cat.)		Standard: hitch on arm	cat 3N / Option: hitch	on arm cat 3 et 4 / Cast	ring ball joint: Ø 35 mi	m - Ø 45 mm - Ø 55 mm		
Chassis version			C	an be folded in two part	S			
Number of discs	40	44	48	52	56	60	64	
Disc shaft diameter (mm)				40 x 40				
Disc diameters (mm)			Sta	ndard Ø 660 / Option Ø	710			
Disc thicknesses (mm)			Stan	dard 6 / Option 7 / 8 (Ø	660)			
Spacing between discs (mm)				195				
Under frame clearance (mm)				800				
Max. working depth (mm)				200				
Working part safety system				Fixed seating				
Disc angle adjustment			Standar	d: mechanical / Option ł	nydraulic			
Stabilizing wheel	Not av	vailable	Standard wit	hout / Option: two side	wheels 10.0/75x15.3 (@	ð 760 mm) / 11.5/80x15.	3 (Ø 845 mm)	
Tyres		Standard 400/	55x22.5 (Ø 1010 mm) /	Option 500/45x22.5 (Ø	1021 mm) - 600/50x22	5 (Ø 1171 mm)		
Braking			Star	dard hydraulic / Option	tyre			
Seed drill walkway				Option				
Hectare counter	Option							
Roller adjustment	Hydraulic							
Rear equipment (mm)	Standard	l without / Option: squa	re bars roller Ø 600 / Er	nopak P Ø 600 / Emopal	< V Ø 600	roller Ø 600 / Emopak	Option: square bars P Ø 600 / Emopak V Ø und bars Ø 900	
Road traffic lights				As standard				

### SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW COVER X T70

		COVER X T70 TECHNICAL SPECIFICATIONS							
Working width (m)	4.00	4.40	4.80	5.30	5.80	6.20	4.50	5.00	5.50
<b>Tractor power (HP)</b> <i>Tractor power (kW)</i>	<b>135 / 170</b> 99 / 127	<b>145 / 200</b> 107 / 149	<b>155 / 230</b> 115 / 171	<b>165 / 260</b> 123 / 194	<b>175 / 290</b> 130 / 216	<b>185 / 310</b> 138 / 231	<b>155 / 230</b> 115 / 171	<b>165 / 260</b> 123 / 194	<b>175 / 290</b> 130 / 216
Transport width (m)					3.00			1	
Transport height (m)	2.10	2.30	2.50	2.70	2.90	3.30	2.30	2.70	2.80
Indicative weight (Kg)	4 660	4 710	4 870	5 020	5 290	5 440	4 720	4 970	5 300
Yoke hitch type (Cat.)		Standard: hi	tch on arm cat 3N	l / Option: hitch or	n arm cat 3 et 4 / C	ast ring ball joint: (	Ø 35 mm - Ø 45 m	m - Ø 55 mm	
Chassis version				Car	be folded in two p	parts			
Number of discs	36	40	44	48	52	56	36	40	44
Disc shaft diameter (mm)					40 x 40				
Disc diameters (mm)				Stand	ard Ø 660 / Option	Ø 710			
Disc thicknesses (mm)				7 mm at th	ne front and 6 mm	at the back			
Spacing between discs (mm)			2	.30				270	
Under frame clearance (mm)					800				
Max. working depth (mm)					200				
Working part safety system					Fixed seating				
Disc angle adjustment				Standard:	mechanical / Optic	on hydraulic			
Stabilizing wheel	Not av	ailable	St	tandard sans / Op	tion: two side whee	els 10.0/75x15.3 (Ø	ð 760 mm) ou 11.5	/80x15.3 (Ø 845 m	im)
Tyres			22.5 (Ø 1010 mm) ım) - 600/50x22.5		Option 500/45x2	.5 (Ø 1150 mm) / 2.5 (Ø 1021 mm) (Ø 1171 mm)	Option	l 400/55x22.5 (Ø 1 500/45x22.5 (Ø 10 //50x22.5 (Ø 1171	21 mm) -
Braking				Standa	ard hydraulic / Opti	on tyre			
Seed drill walkway					Option				
Hectare counter		Option							
Roller adjustment					Hydraulic				
Rear equipment (mm)	Standard withou			/ Option double bangle round bars Ø		mopak P Ø 600 /	/ Option: doub	it / Option: square le bars Ø 500 Ø 40 00 / Emopak V Ø 6	0 / Emopak P Ø
Road traffic lights					As standard				

# **COVER XL T60** SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW

### From 40 discs - Tractors : 125 to 210 hp - Working width: 3.10 to 4.05 m



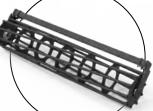
#### Axle suspension

An accumulator on the support axle cylinder provides you with the best possible road handling conditions.



### **Drawbar flexibility**

The drawbar gives you flexibility and perfect handling thanks to two 'silentbloc' dampers located on the top of the cylinder.



### **Rear equipment**

For finishing work, a bar roller can be fitted to the rear.

If your machine is equipped with a roller, you can choose whether to work with it or not, as it folds over the top of the machine.



### **Depth control wheels**

This solution enables you to pass through any type of terrain. Depth control wheels avoid roller jamming as the weight of the machine does not push the roller into the ground. In dry conditions you have the choice between wheels and rollers for a high level of stability.



### Adjusting hydraulic angles

The angle adjustment cylinder provides ease of use and safety for the driver. This simple and efficient system is also used for folding and unfolding the harrow.

### SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW COVER XL T60



### **Choice of tyres**

As standard for widths up to 4.00 meters, we offer the  $11.5/80 \times 15.3$  wheel, and for widths greater than 4.00 meters we have the  $12.5/80 \times 15.3$ . As an option to give you more soil lift you can choose a wider wheel - the  $445/45 \times 19.5$ , or you can choose a low pressure tyre to limit soil compaction - the  $400/60 \times 15$ .



Depending on your needs, we offer two disc spacings. The 195 mm spacing is for fine work, recommended for shallow depths and the 230 mm spacing for more versatile use with summer stubble tillage and destruction of complex root systems.



### Low centre of gravity

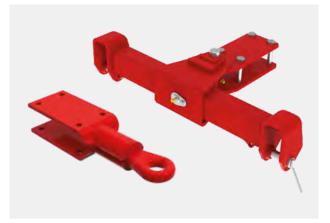
This feature provides you with a high level of safety both on the road and in the field. A low centre of gravity gives you stability.



### **Consistent ground levelling**

On the front disc gangs, you have the option of using a deflector and an anti-projection disc to control the ground projection and the outer disc depth. Combined with the graduated mounting of the rear disc gangs you achieve a perfectly levelled field.





### Wide choice of discs

To improve disc gang performance, we offer two types of discs: notched and plain. 660 mm and 710 mm diameters are available, so you can adapt to your disc gang depth and the volume of organic matter present on your land. To limit disc diameter wear, several disc thicknesses are available.

### Several hitching types

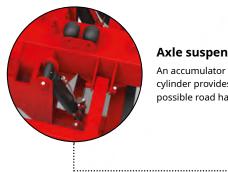
Two hitching types are available: a turning ring hitch for the eye bolt or the drawbar, or a Cat 2 and 3N arm coupling to improve manoeuvring in headlands thanks to the wide turning circle.

### SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW COVER XL T60

	COVER XL T60 TECHNICAL SPECIFICATIONS						
Working width (m)	3.10	3.50	3.90	2.70	3.10	3.60	4.05
<b>Tractor power (HP)</b> <i>Tractor power (kW)</i>	<b>125 / 170</b> 92 / 125	<b>135 / 180</b> 99 / 132	<b>145 / 190</b> 107 / 140	<b>125 / 170</b> 92 / 125	<b>135 / 180</b> 99 / 132	<b>145 / 190</b> 107 / 140	<b>155 / 210</b> 114 / 154
Transport width (m)				2.50			
Transport height (m)				1.80			
Indicative weight (Kg)	4 220	4 420	4 620	3 920	4 120	4 320	4 520
Yoke hitch type (Cat.)				Turning hitch Ø 50 mm			
Chassis version			Fold	able in tunnel (horizonta	ally)		
Number of discs	32	36	40	24	28	32	36
Disc shaft diameter (mm)				40 x 40			
Disc diameters (mm)			Star	dard Ø 660 / Option Ø 7	710		
Disc thicknesses (mm)			7 mm at	the front and 6 mm at t	he back		
Spacing between discs (mm)		195			23	30	
Under frame clearance (mm)				800			
Max. working depth (mm)				200			
Working part safety system				Fixed seating			
Disc angle adjustment				Hydraulic			
Stabilizing wheel				Not available			
Tyres		Standard 11.	5/80x15.3 (Ø 845 mm)	′ Option 445/45x19.5 (Ø	895 mm) or 400/60x15	5 (Ø 861 mm)	
Braking			Stan	dard hydraulic / Option	tyre		
Seed drill walkway				Not available			
Hectare counter	Option						
Roller adjustment				Mechanical with stop			
Rear equipment (mm)		S	tandard without / Opti	on: square bars roller Ø	500 / round bars Ø 500	0	
Road traffic lights				As standard			

# **COVER XL T70** SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW

### From 40 to 64 discs - Tractors: 210 to 310 hp - Working width: 4.40 to 7.00 m



#### Axle suspension

An accumulator on the support axle cylinder provides you with the best possible road handling conditions.



### Drawbar suspension

Elastomer around the drawbar cylinder allows flexibility during transport and in the field. An accumulator is connected to the wheel axle to protect your machine and for easy handling.



### **Rear equipment**

For finishing work, a bar roller can be fitted to the rear.

If your machine is equipped with a roller, you can choose whether to work with it or not, as it folds over the top of the machine.



### Depth control wheels

This solution enables you to pass through any type of terrain. Depth control wheels avoid roller jamming as the weight of the machine does not push the roller into the ground. In dry conditions you have the choice between wheels and rollers for a high level of stability.



### **Stabilizing wheel**

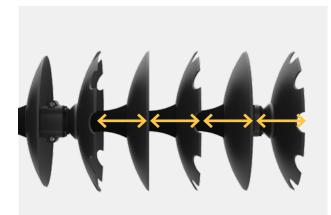
After a certain width, it is better to have a wheel on the right lateral support to stabilize the machine so that it maintains the same working depth at all speeds.

### SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW COVER XL T70



### **Consistent ground levelling**

On the front disc gangs, you have the option of using a deflector and an anti-projection disc to control the ground projection and the outer disc depth. Combined with the graduated mounting of the rear disc gangs you achieve a perfectly levelled field.



### **Several spacings**

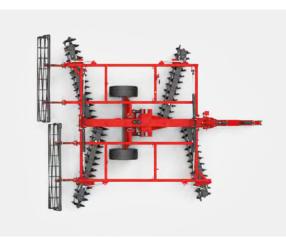
Depending on your needs, we offer two disc spacings. The 195 mm spacing is for fine work, recommended for shallow depths and the 230 mm spacing for more versatile use with summer stubble tillage and destruction of complex root systems.



#### **Durable bearings**

The compact, cast iron housing means that it will not interfere with the passage of residues. This minimizes jamming.

Thanks to triple sealed packing and two outward-facing seals, excess grease can escape but dust and debris cannot enter. This system extends service life and reduces maintenance to a minimum.



### X design

The disc gangs are offset for uniform work across the entire working surface. This also allows perfect symmetry between the right and left side in order to balance pulling forces. X-profile Disc gangs are versatile and work well on land with few contours.



#### **Bearing protection**

A bearing protection guard is recommended for very stony conditions.

The aim is to preserve the bearing from wear and tear due to ground friction but also from impacts caused by foreign objects in the field.



### Several hitching types

Two hitching types are available: a turning ring hitch for the eye bolt or the drawbar, or a Cat 2 and 3N arm coupling to improve manoeuvring in headlands thanks to the wide turning circle.

### **COVER XL T70** SEMI-MOUNTED X-PROFILE OFFSET DISC HARROW

		COVER	XL T70 TECHNICAL SPECII	ICATIONS				
Working width (m)	4.60	5.00	5.40	5.80	6.20			
<b>Tractor power (HP)</b> Tractor power (kW)	210 / 260 220 / 270 230 / 280 240 / 290 250 / 3   154 / 191 162 / 198 169 / 206 176 / 213 184 / 2							
Transport width (m)			3.00					
Transport height (m)	3.10	3.50	3.65	3.70	4.00			
Indicative weight (Kg)	6 210	6 530	6 700	6 860	7 050			
Yoke hitch type (Cat.)	Standar	d: cast ring ball joint Ø 35 mm / C	Option: cast ring ball joint Ø 45 m	m - Ø 55 mm - 65 mm - Scharmü	ller K80			
Chassis version			Can be folded in two parts					
Number of discs	48	52	56	60	64			
Disc shaft diameter (mm)			40 x 40					
Disc diameters (mm)			Standard Ø 660 / Option Ø 710					
Disc thicknesses (mm)		7 m	m at the front and 6 mm at the b	ack				
Spacing between discs (mm)			195					
Under frame clearance (mm)			800					
Max. working depth (mm)			200					
Working part safety system			Fixed seating					
Disc angle adjustment		Star	ndard: mechanical / Option: hydra	aulic				
Stabilizing wheel		Standard without / Option: two s	ide wheels 10.0/75x15.3 (Ø 760 n	nm) or 11.5/80x15.3 (Ø 845 mm)				
Tyres		Standard 400/55x2	2.5 (Ø 1010 mm) / Option 500/45:	x22.5 (Ø 1021 mm)				
Braking			Standard hydraulic / Option tyre					
Seed drill walkway			Not available					
Hectare counter	Option							
Roller adjustment	Mechanical tie rod							
Rear equipment (mm)		Standard without / Opt	ion: square bars roller Ø 500 - Do	buble following harrow				
Road traffic lights			As standard					

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			COVER XL	T70 TECHNICAL SP	ECIFICATIONS					
Working width (m)	4.40	4.80	5.30	5.80	6.20	6.60	7.00			
<b>Tractor power (HP)</b> Tractor power (kW)	<b>210 / 250</b> <i>154 / 184</i>									
Transport width (m)				3.00						
Transport height (m)	3.00	3.20	3.60	3.70	4.00	4.10	4.30			
Indicative weight (Kg)	5 970	6 110	6 230	6 550	6 700	6 900	7 100			
Yoke hitch type (Cat.)		Standard: cast ring bal	ll joint Ø 35 mm / Optio	on: cast ring ball joint Ø	45 mm - Ø 55 mm - 65 n	nm - Scharmüller K80				
Chassis version			C	Can be folded in two par	ts					
Number of discs	40	44	48	52	56	60	64			
Disc shaft diameter (mm)				40 x 40						
Disc diameters (mm)			Sta	ndard Ø 660 / Option Ø	710					
Disc thicknesses (mm)			7 mm at	t the front and 6 mm at	the back					
Spacing between discs (mm)				230						
Under frame clearance (mm)				800						
Max. working depth (mm)				200						
Working part safety system				Fixed seating						
Disc angle adjustment			Standar	d: mechanical / Option:	hydraulic					
Stabilizing wheel		Standard sar	ns / Option: two side w	heels 10.0/75x15.3 (Ø 76	60 mm) or 11.5/80x15.3	(Ø 845 mm)				
Tyres		S	itandard 400/55x22.5 (	(Ø 1010 mm) / Option 50	00/45x22.5 (Ø 1021 mm)					
Braking			Standard I	hydraulique / Option pn	eumatique					
Seed drill walkway				Not available						
Hectare counter	Option									
Roller adjustment	Mechanical tie rod									
Rear equipment (mm)		Stan	dard without / Option:	square bars roller Ø 50	0 - Double following har	row				
Road traffic lights				As standard						





# **Enhanced skills**

An important weight per disc ratio and a non stop mechanical safety which allows the Occitan to be situated today between the Normandie and the Cover. A versatile range.

# **OCCITAN 60** FOLDABLE MOUNTED LARGE DIAMETER DISC HARROW

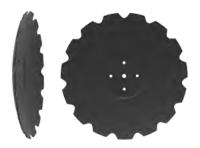
### From 36 to 44 discs - Tractors: 125 to 310 hp - Working width: 4.20 to 5.20 m



### Large clearances

The distance between the two rows of discs is 950 mm, which makes the Occitan easy to work in the presence of a lot of plant residues without any risk of blockage.

The clearance under the beam that holds the safety devices is 650 mm. This height ensures that you can pass through the vegetation and work at a great depth without any problem.



#### Two large-diameter discs

We offer two discs Ø 620 mm with small notches. These discs are self-sharpening and their crenellations ensure an optimal cutting of the residues for a good decomposition. The rather large curvature of the disc allows a scalping over the whole surface and a homogeneous mixture. As standard we offer a thickness of 6 mm.



### Non-stop safety device springs out

The non-stop spring-loaded safety system provides you with optimum operating comfort and ensures that you can work non-stop.

In addition, this system ensures a very good penetration of the discs due to its resistance to release.

Resulting from the technology used on the Eurochisel tooth of our Crossland range, it starts its release at 350 kg to reach a resistance up to 420 kg at 10 cm, then the resistance decreases to 18 cm. This system allows you to limit as much as possible the stresses and shocks in the frame in order to bring a long life to your equipment.

#### Two discs per arm

The safety devices have been designed to accommodate a double offset bearing which allows perfect alignment of all discs in the row. This means that we have exactly the same distance between each disc, which ensures that you get a homogeneous and high quality work. Having two bearings per arm has allowed us to increase the clearance in the machine and save weight. The forces are better distributed on the safety because there is one disc on each side, thus optimizing its operation. The penetration capacity of the tool is maximum even in dry conditions.



### High-strength frames

The design of our chassis ensures high resistance to stress and a very good distribution of traction forces. The tubes are nested in the oxycutting and the effort is multiple. The steels used are of superior quality for a top-of-the-range machine.

### HIGH-CAPACITY STUBBLE CULTIVATOR | OCCITAN 60



### Combination with a vegetation cover seed drill

You have the possibility to integrate a plate and a gangway for the mounting of a 300 litre canopy seed drill. You can either adapt your own seed drill or order one with the machine (factory fitted). The advantage of combining seed drilling and stubble tillage is to reduce the depreciation cost of your implement which will be used on more surface. This combination also reduces your crop seeding costs.



#### 4 rollers of your choice

We offer four types of rollers on this range of material. You can choose between a single square bars roller

Ø 500 mm adapted for a good depth control and used for its aggressiveness on plant residues. There is also a double bar roller Ø 500/400 mm which accelerates the decomposition of the residues and facilitates the contact with the seeded soil. We offer two versions of the Impak roller Ø 540 mm with a V profile for in-line finishing and deep soil consolidation and the U profile which allows the machine to be well maintained and push its limits in wet conditions.

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### Infinitely variable hydraulic roller adjustment

You can add a little technology to your machine by integrating the hydraulic roller adjustment option. We use the system of master-slave cylinders which ensures you have optimal adjustment precision. So you don't have to get off the tractor to add chocks. You can therefore change your working depth easily and at any time according to your plot of land.



#### A simple machine

We have chosen simplicity to make the tool easier to use. The depth settings of the combs or rollers are optimised so that you don't waste time in the field.

Some adjustments can be made from the tractor cab if you choose the hydraulic option.



#### Two optional comb harrows

You can customize your machine by adding one or two comb harrows. The first one can be placed between the two disc lines to channel the flow and make it fall down before the rear discs pass. This results in a better cut and a more even mulch. The second comb harrow placed between the last row of discs and the roller provides stability to the tool by limiting the projection of the flow into the roller, you can work at high speeds.



#### Side deflectors ironclad

A left side deflector is fitted as standard and the right is optional (recommended). These disc deflectors catch the soil flow from the outside working discs and channel this flow into the machine template so that there are no markings between each pass. These devices are mounted on a swivel in order to retract in the event of encountering a foreign object.



### Lower cost per hectare

The work carried out on the Occitan on the disc arm angles and the choice of the disc with a pronounced curve allows us to affirm today that fuel consumption is limited. Tractive forces are low and the work remains homogeneous for a good decomposition of crop residues or cover crops. With the installation of a canopy seed drill (optional) you can cover a wider range of tasks on your farm.

### OCCITAN 60 HIGH-CAPACITY STUBBLE CULTIVATOR

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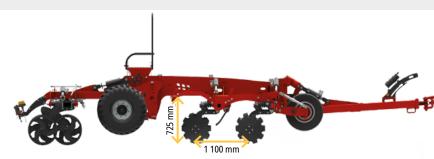
### HIGH-CAPACITY STUBBLE CULTIVATOR | OCCITAN 60

	OCCITAN 60 TECHNICAL SPECIFICATIONS					
Working width (m)	4.20	5.20				
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 240</b> 92 / 176	<b>210 / 310</b> 154 / 228				
Yoke hitch type (Cat.)	3N / 3 / Qu	ick coupler				
Chassis version	Fold	lable				
Number of discs	36	44				
Type of disc	Standard large notches	s / Option small notches				
Disc diameters (mm)	62	20				
Disc thicknesses (mm)		6				
Spacing between discs (mm)	2:	30				
Clearance between two rows of discs (mm)	950					
Under frame clearance (mm)	650					
Max. working depth (mm)	1:	80				
Safety of the working element	Spring-mount	ted auto-reset				
Left anti-spray device	As sta	indard				
Straight anti-spray device	Op	tion				
Levelling comb between discs rows	Op	tion				
Levelling comb between discs and roller	Op	tion				
Comb harrows after the roller	Op	tion				
Seed drill support	Op	tion				
Seed drill walkway	Op	tion				
Kit de diffuseurs	Op	tion				
Roller adjustment	Standard: mechanica	l / Optional: hydraulic				
Rear equipment (mm)	Rollers: single bar Ø 500 / Double bar Ø 5	00 Ø 400 / Impak V Ø 540 / Impak U Ø 540				
Road traffic lights	Stan	dard				

# **OCCITAN T60**

### SEMI-MOUNTED LARGE DIAMETER DISC HARROW

### From 36 to 52 discs - Tractors: 125 to 310 hp - Working width: 4.20 to 6.20 m



#### Large clearances

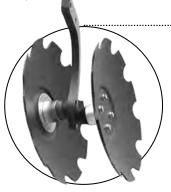
The distance between the two rows of discs is 1100 mm, which makes the Occitan easy to work in the presence of a lot of plant residues without any risk of blockage.

The clearance under the beam that holds the safety devices is 725 mm. This height ensures that you can pass through the vegetation and work at a great depth without any problem.



#### Maintenance-free bearings

The disc bearings are maintenance-free thanks to their sealing, thus limiting maintenance time and significantly increasing the machine's lifespan.



#### Two discs per arm

The safety devices have been designed to accommodate a double offset bearing which allows perfect alignment of all discs in the row. This means that we have exactly the same distance between each disc (230 mm), which ensures that you get a homogeneous and high quality work. Having two bearings per arm has allowed us to increase the clearance in the machine and save weight. The forces are better distributed on the safety because there is one disc on each side, thus optimizing its operation. The penetration capacity of the tool is maximum even in dry conditions.





### Non-stop safety device springs out

The non-stop spring-loaded safety system provides you with optimum operating comfort and ensures that you can work non-stop.

In addition, this system ensures a very good penetration of the discs due to its resistance to release.

Resulting from the technology used on the Eurochisel tooth of our Crossland range, it starts its release at 350 kg to reach a resistance up to 420 kg at 10 cm, then the resistance decreases to 18 cm. This system allows you to limit as much as possible the stresses and shocks in the frame in order to bring a long life to your equipment.

#### Hydraulic compensation

In order to simplify headland manoeuvring, we have a hydraulic drawbar cylinder with shock absorbers. This cylinder is connected in series with the lifting or lowering system of the undercarriage. A valve is used for this function. Depth adjustment at the front is done with 5 mm thick shims for good accuracy.

### HIGH-CAPACITY STUBBLE CULTIVATOR | OCCITAN T60



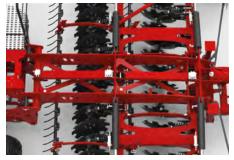
# Combination with a vegetation cover seed drill

You have the possibility to integrate a plate and a gangway for the mounting of a 300 litre ou 500 litre canopy seed drill. You can either adapt your own seed drill or order one with the machine (factory fitted). The advantage of combining seed drilling and stubble tillage is to reduce the depreciation cost of your implement which will be used on more surface. This combination also reduces your crop seeding costs.



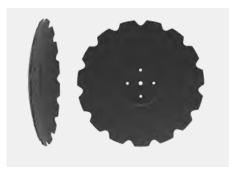
#### **Choice of rollers**

Equip your machine with a single bar roller Ø 600 mm suitable for good depth control and aggressiveness on plant residues! The double bar roller Ø 500/400 mm accelerates the decomposition of residues and facilitates soil-seed contact. Two versions of the Impak roller are available with a V profile (Ø 620 mm) for in-line finishing and deep soil consolidation and the U profile (Ø 640 mm) which holds the machine and pushes its limits in wet conditions. The double Impak U roller Ø 640 mm provides good load-bearing capacity and ground contact for light to medium-heavy soils. The Emopak V roller Ø 630 mm guarantees recoating for an excellent in-line finish. Finally, the Emopak P roller Ø 630 mm crushes clods and promotes weed germination.



### A machine that stands the test of time

The design of our chassis ensures high resistance to stress and a very good distribution of traction forces. The tubes are nested in the oxycutting and the stress absorption is multiple. The steels used are of superior quality for a top-of-the-range machine.



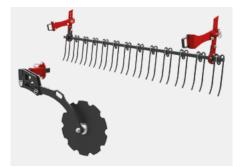
### Two large-diameter discs

We offer two discs  $\emptyset$  620 mm with small or large notches of 6 mm thickness. These discs are selfsharpening and their slots ensure an optimal cutting of the residues for a good decomposition. The large curvature of the disc allows scalping over the entire surface and homogeneous mixing.



### Hydraulic working depth adjustment

Hydraulic roller adjustment is standard on this model. You can control the depth of the rear of your implement at any time from the tractor cab and while driving. You don't need to get off the tractor to add chocks. This means you can easily change your working depth at any time to suit your plot of land.



### A customisable machine

You can personalise your machine by adding one or two comb harrows. The first allows you to channel the flow and make it fall back before the rear discs pass through for better cutting and a more homogeneous mulch. The second allows you to give stability to the tool by limiting the projection of the flow into the roller. A left side deflector is fitted as standard and the right is optional (recommended). These deflectors channel the flow into the machine template so that there is no marking between each pass.



#### Lower cost per hectare

The work carried out on the Occitan in terms of the angles of the disc arms and the choice of the disc with a pronounced curvature allows us to affirm today that fuel consumption is limited. Tractive forces are low and the work remains homogeneous for a good decomposition of crop residues or coverings. By fitting a canopy seed drill (optional), you can cover a wider range of tasks on your farm. Finally, the disc bearings are maintenancefree thanks to their sealing, considerably reducing maintenance time.

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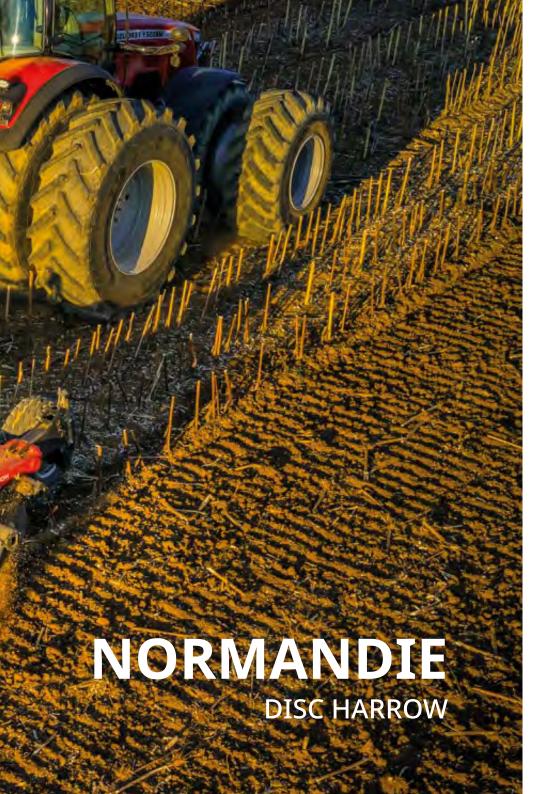
### **OCCITAN T60** HIGH-CAPACITY STUBBLE CULTIVATOR



### HIGH-CAPACITY STUBBLE CULTIVATOR | OCCITAN T60

	OCCITAN T60 TECHNICAL SPECIFICATIONS						
Working width (m)	4.20	5.20	6.20				
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 175</b> 92 / 129	<b>165 / 240</b> 121 /177	<b>205 / 310</b> 151 / 228				
Yoke hitch type (Cat.)	On arms, 3N / 3 / 0	Quick coupler / Cast ring ball joint: Ø 45 mm - Ø 55 mm /	/ Scharmüller K80				
Chassis version		Foldable in two parts					
Number of discs	36	44	52				
Type of disc		Standard large notches / Option small notches					
Disc diameters (mm)		620					
Disc thicknesses (mm)		6					
Spacing between discs (mm)		230					
Clearance between two rows of discs (mm)		1 100					
Under frame clearance (mm)		725					
Max. working depth (mm)		180					
Safety of the working element		Non-stop spring loaded					
Left anti-spray device		De série					
Straight anti-spray device		Option					
Levelling comb between discs rows		Option					
Levelling comb between discs and roller		Option					
Comb harrows after the roller		Option					
Seed drill support		Option					
Seed drill walkway		Option					
Kit de diffuseurs		Option					
Roller adjustment	Standard: hydraulic						
Rear equipment (mm)	Rollers: single bar Ø 600 / Double bar Ø 500 Ø 4	Rollers: single bar Ø 600 / Double bar Ø 500 Ø 400 / Impak V Ø 620 / Impak U Ø 640 / Double roller Impak U Ø 640 / Emopak V Ø 630 / Emopak P Ø 600					
Road traffic lights		Standard					





# High work output and ultra simplified maintenance

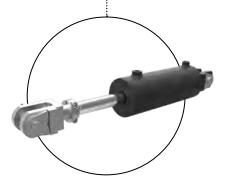
A versatile tool for stubble cultivation from 2 up to 12 cm deep, stubble ploughing, soil preparation combined with sowing under plant cover.





#### **Maintenance-free bearings**

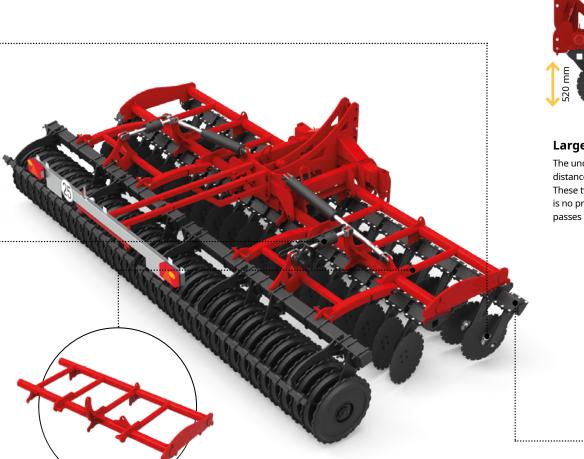
The sealing and lubrication technology of the Normandie bearings ensures maximum service life. Maintenance time is a factor that is often overlooked when calculating operational mechanisation costs. We have taken this into account to limit maintenance time.

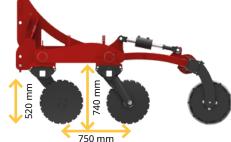


### Hydraulically adjusted rollers

As standard, the roller adjustment is mechanical. It is equipped with a high stop for depth adjustment and a low stop for lifting the machine. This adjustment is carried out using a pin and an indicator on the stops.

As an option, you can choose hydraulic roller adjustment which uses master-slave cylinder technology. You can adjust your equipment precisely under any circumstances from the tractor cab.





### Large clearances

The underframe clearance is 740 mm and the distance between the two rows of discs is 750 mm. These two factors mean that the presence of plants is no problem for the Normandie. Plant residue passes easily and there is no risk of jamming.



#### A well-designed chassis

The top chassis is made of round tubes to minimize soil build-up and to reduce weight. In addition, the tubes are embedded in oxycut sections for greater tensile strength.

### Elastomer auto-reset safety system. One disc on each arm

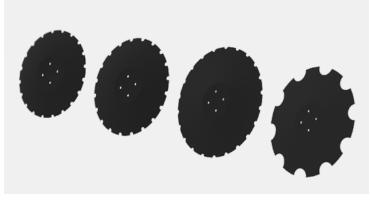
Normandie working parts are attached to the lower frame by 4 elastomer buffers that act as a safety system in the event of impacts from foreign objects or stones. These elastomer buffers have flat faces for better contact with the chassis. The whole element is held in position firmly. Each disc has its own safety system to ensure outstanding contour following and consistency.

### MOUNTED DISC HARROW | NORMANDIE 60



#### **Choice of rollers**

You can choose between 5 different rollers depending on your work and the finish you want. You can equip your machine with a single Ø 500 mm bar roller which is suitable for good depth control and aggressive plant residue actions. There is also a double Ø 500/400 mm bar roller which accelerates the decomposition of residues and promotes soil/seed contact. We offer the Ø 540 mm Impak roller with a V-profile for in-line finishing and deep soil consolidation. The Ø 630 mm Emopak roller is available for effective firming and an excellent in-line finish. The Ø 660 mm Packer roller is suitable for seed bed preparation.



### A wide range of discs

You can choose between 4 different discs depending on the work you need to perform. A Ø 460 mm disc with small notches for very shallow stubble ploughing or soil preparation. We also offer a Ø 510 mm intermediate disc suitable for stubble tillage and ploughing back. For deeper work and for when there is a lot of plant residue, we have two Ø 560 mm discs with either small or large notches.



### Low operating costs

Maintenance costs are extremely low on the Normandie range. Working parts do not need any maintenance. You can use your time for other things.

This equipment is designed to work at high speed. This results in a higher work rate that is more profitable.

Years of experience have gone into our choices of angles and discs. We assure you that Normandie equipment is the right compromise between low fuel consumption and quality work.



### Combination with a vegetation cover seed drill

You have the option of integrating a support and a walkway for the installation of a 300-litre plant cover seed drill. You can either adapt your own seed drill or order one with the machine (factory assembly). The advantage of combining seed drilling and stubble ploughing is to maximise the use of your equipment which, in turn, improves depreciation costs. This combination also reduces your crop seeding costs.



### **Optional following harrow**

A following harrow is available as an option. It is located between the rear disc gang and the roller. The advantage of this system is that it limits the flow of soil and residues and brings it down again before the roller passes.

In addition, this system provides stability to the machine at high speed.



### **Clean hitching**

Normandie hitching is compatible with category 3N, 3 and Quick Coupler SAE tractors. We have two hitching heights available which makes it possible to adapt the equipment to any tractor.

All axes are locked against turning, which prevents premature wear.

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MOUNTED DISC HARROW NORMANDIE 60

		NORMANDIE 60 TECH	INICAL SPECIFICATIONS						
Working width (m)	4.00	4.00 4.50 5.00 6.00							
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 210</b> 92 / 154	<b>145 / 235</b> 107 / 173	<b>165 / 260</b> 121 / 191	<b>205 / 310</b> 151 / 228					
Transport width (m)		2.	50						
Transport height (m)	2.28	2.53	2.77	3.29					
Indicative weight (Kg)	2 600	2 750	2 900	3 300					
Yoke hitch type (Cat.)		3N / 3 / Qu	ick coupler						
Chassis version		Foldable	in 2 parts						
Number of discs	32	36	40	48					
Disc diameters (mm)		Standard Ø 510 / O	ption Ø 460 - Ø 560						
Disc thicknesses (mm)	Standard 5 / Option 5 - 6								
Spacing between discs (mm)	250								
Clearance between two rows of discs (mm)		75	50						
Under frame clearance (mm)		74	40						
Max. working depth (mm)		12	20						
Working part safety system		Elastomer	non-stop						
Levelling harrow between discs and roller		Opt	ion						
Seed drill support		Option							
Seed drill walkway		Option							
Hectare counter	Option								
Roller adjustment	Standard: mechanical / Optional: hydraulic								
Rear equipment (mm)	Roller: single bar Ø 500 / Double bar Ø 500 400 / Impak V Ø 540 / Emopak V Ø 600								
Road traffic lights		Stan	dard						



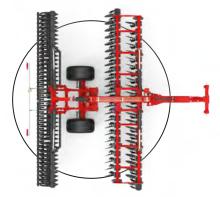
### SEMI-MOUNTED DISC HARROW

### 32, 40 or 48 independent discs - Tractors: 125 to 210 hp - Working width: 4.00 to 6.00 m



### Maintenance-free bearings

The sealing and lubrication technology of the Normandie bearings ensures maximum service life. Maintenance time is a factor that is often overlooked when calculating operational mechanisation costs. We have taken this into account to limit maintenance time.



### A stable machine at high speeds

The Normandie T60 design ensures optimal operations by placing the main axle between the discs and the roller. This configuration provides a large clearance and allows time for the residues to fall back before the roller passes. This means that the machine remains stable and also that the roller will be aggressive on residues already on the ground.



### Hydraulic working depth adjustment

Hydraulic roller adjustment is standard on this model. You can control rear equipment depths at any time from the tractor cab.

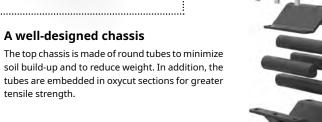
A well-designed chassis

tensile strength.



### Hydraulic drawbar cylinder

To simplify headland work and to ensure that equipment lifting is always parallel to the ground, we have an optional hydraulic drawbar cylinder. This cylinder is connected in series with the main axle lifting or lowering system. A valve is used for this function, whether you have chosen the mechanical tie rod or the hydraulic cylinder.



### Elastomer auto-reset safety system. One disc on each arm

Normandie working parts are attached to the lower frame by 4 elastomer buffers that act as a safety system in the event of impacts from foreign objects or stones. These elastomer buffers have flat faces for better contact with the chassis. The whole element is held in position firmly. Each disc has its own safety system to ensure outstanding contour following and consistency.

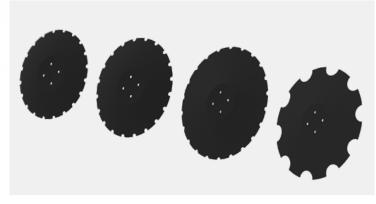
GRÉGOIRE BESSON

#### SEMI-MOUNTED DISC HARROW | NORMANDIE T60



#### **Choice of rollers**

You can choose between 5 different rollers depending on your work and the finish you want. You can equip your machine with a single Ø 600 mm cage roller which is suitable for good depth control and aggressive plant residue actions. There is also a double Ø 500 400 mm cage roller which accelerates the decomposition of residues and promotes soil/seed contact. We offer the Ø 650 mm Impak roller with a V-profile for in-line finishing and deep soil consolidation. The Ø 630 mm Emopak roller is available for effective firming and an excellent in-line finish. The Ø 660 mm Packer roller is suitable for seed bed preparation.



#### A wide range of discs

You can choose between 4 different discs depending on the work you need to perform. A Ø 460 mm disc with small notches for very shallow stubble ploughing or soil preparation. We also offer a Ø 510 mm intermediate disc suitable for stubble tillage and ploughing back. For deeper work and for when there is a lot of plant residue, we have two Ø 560 mm discs with either small or large notches.



#### Low operating costs

Maintenance costs are extremely low on the Normandie range. Working parts do not need any maintenance. You can use your time for other things.

This equipment is designed to work at high speed. This results in a higher work rate that is more profitable.

Years of experience have gone into our choices of angles and discs. We assure you that Normandie equipment is the right compromise between low fuel consumption and quality work.



#### Combination with a plant cover seed drill

You have the option of integrating a support and a walkway for the installation of a 500-litre plant cover seed drill. You can either adapt your own seed drill or order one with the machine (factory assembly). The advantage of combining seed drilling and stubble ploughing is to maximise the use of your equipment which, in turn, improves depreciation costs. This combination also reduces your crop seeding costs.



#### A simple machine

The Normandie T60 is very simple to use. All functions are hydraulic. Only 3 double-acting valves are required: the main axle, folding system and roller adjustment.

All adjustments can be made continuously from the tractor cab.



#### **Transport safety**

Normandie folding machines are equipped with a hydraulic lock in the transport position. You don't need to unlock anything. Balancing valves on each cylinder deal with this. Without activating the valve, the machine cannot unfold.

In addition, the main axle cylinder is connected to a hydraulic accumulator that acts as a suspension on the road and in headlands.

# NORMANDIE T60 SEMI-MOUNTED DISC HARROW

# SEMI-MOUNTED DISC HARROW NORMANDIE T60

		NORMANDIE T60 TECHNICAL SPECIFICATIC	DNS
Working width (m)	4.00	5.00	6.00
<b>Tractor power (HP)</b> Tractor power (kW)	<b>125 / 165</b> 92 / 121	<b>155 / 185</b> 114 / 136	<b>175 / 210</b> 129 / 154
Transport width (m)		2.50	
Transport height (m)	3.00	3.50	4.00
Indicative weight (Kg)	3 980	4 250	4 820
Yoke hitch type (Cat.)	On arms: 2 - 3N	- 3 - Quick coupler / Cast ring ball joint: Ø 35 mm - Ø 45	mm - Ø 55 mm
Chassis version		Foldable in two parts	
Number of discs	32	40	48
Disc diameters (mm)		Standard Ø 510 / Option Ø 460 - Ø 560	
Disc thicknesses (mm)		Standard 5 / Option 5 - 6	
Spacing between discs (mm)		250	
Clearance between two rows of discs (mm)		750	
Under frame clearance (mm)		740	
Max. working depth (mm)		120	
Working part safety system		Elastomer non-stop	
Drawbar balance		Standard mechanical / Optional: hydraulic	
Wheels de jauge avant		Not available	
Tyres	Standard	l: 385/65xR22.5 (Ø 1070 mm) / Option: 500/45x22.5 (Ø 10	025 mm)
Braking		Standard: hydraulic / Optional: tyre	
Seed drill support		Option	
Seed drill walkway		Option	
Hectare counter		Option	
Roller adjustment		Hydraulic	
Rear equipment (mm)	Roller: single	bar Ø 600 / Double bar Ø 500 400 / Impak V Ø 650 / Emo	opak V Ø 600
Road traffic lights		As standard	



## 56 or 72 independent discs - Tractors: 210 to 310 hp - Working width: 7.00 to 9.00 m



#### **Maintenance-free bearings**

The sealing and lubrication technology of the Normandie bearings ensures maximum service life. Maintenance time is a factor that is often overlooked when calculating operational mechanisation costs. We have taken this into account to limit maintenance time.



#### Hydraulic roller adjustment

As standard, the roller adjustment is mechanical. It is equipped with a high stop for depth adjustment and a low stop for lifting the machine. This adjustment is carried out using a pin and an indicator on the stops.

As an option, you can choose a hydraulic roller adjustment using master-slave cylinder technology. You can adjust your equipment precisely under any circumstances from the tractor cab.



# Two front stabilization wheels (optional)

Normandie T70 starts at 7 m wide. This machine is designed to work at high speeds, up to 15 km/h. These two wheels allow the equipment to be correctly stabilized. They ensure uniform work over the entire width of the machine. In addition, these wheels are swivel mounted for when you work on curves.



#### Premium tyres

We have chosen to offer a single, top-of-the-range tyre. As standard, we fit a 600/50x22.5 wheel that ensures maximum stability on the road and in headlands. This type of low-pressure technology protects your headlands from compaction.



#### Drawbar parallelogram design

The Normandie hitching is on swivel-mounted on a parallelogram design. It is always in the correct position so it does not damage the tractor coupling. This means there is no premature wear and tear.

In addition, the drawbar is mounted on hydraulic cylinders that enable lifting and lowering parallel to the ground in headlands.

#### Elastomer auto-reset safety system. One disc on each arm

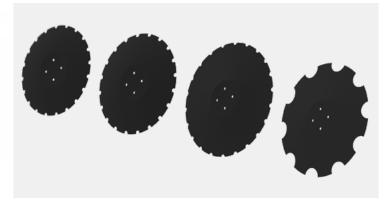
Normandie working parts are attached to the lower frame by 4 elastomer buffers that act as a safety system in the event of impacts from foreign objects or stones. These elastomer buffers have flat faces for better contact with the chassis. The whole element is held in position firmly. Each disc has its own safety system to ensure outstanding contour following and consistency.

#### SEMI-MOUNTED DISC HARROW | NORMANDIE T70



#### **Choice of rollers**

You can choose between 5 different rollers depending on your work and the finish you want. You can equip your machine with a single Ø 500 mm cage roller which is suitable for good depth control and aggressive plant residue actions. There is also a double Ø 500/400 mm cage roller which accelerates the decomposition of residues and promotes soil/seed contact. We offer the Ø 540 mm Impak roller with a V-profile for in-line finishing and deep soil consolidation. The Ø 630 mm Emopak roller is available for effective firming and an excellent in-line finish. The Ø 660 mm Packer roller is suitable for seed bed preparation.



#### A wide range of discs

You can choose between 4 different discs depending on the work you need to perform. A Ø 460 mm disc with small notches for very shallow stubble ploughing or soil preparation. We also offer a Ø 510 mm intermediate disc suitable for stubble tillage and ploughing back. For deeper work and for when there is a lot of plant residue, we have two Ø 560 mm discs with either small or large notches.



#### Low operating costs

Maintenance costs are extremely low on the Normandie range. Working parts do not need any maintenance. You can use your time for other things.

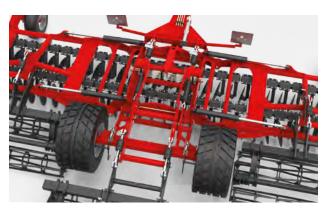
This equipment is designed to work at high speed. This results in a higher work rate that is more profitable.

Years of experience have gone into our choices of angles and discs. We assure you that Normandie equipment is the right compromise between low fuel consumption and quality work.



#### Combination with a plant cover seed drill

You have the option of integrating a support and a walkway for the installation of a 500-litre plant cover seed drill. You can either adapt your own seed drill or order one with the machine (factory assembly). The advantage of combining seed drilling and stubble ploughing is to maximise the use of your equipment which, in turn, improves depreciation costs. This combination also reduces your crop seeding costs.



#### **Optimal field contour following**

For good field contour following across the width of the equipment we have used a pressure regulating system in the folding and drawbar cylinder circuit. You can adjust the operating pressures so that the lateral supports and the drawbar articulation can move up or down depending on the field conditions. This means that the lateral supports remain flexible. Your work is uniform across the entire width while stress to the chassis is minimized.



#### Transport safety

Normandie folding machines are equipped with a hydraulic lock in the transport position. You don't need to unlock anything. Balancing valves on each cylinder deal with this. Without activating the valve, the machine cannot unfold.

In addition, the main axle cylinder is connected to a hydraulic accumulator that acts as a suspension on the road and in headlands.

Strate -

0

6

#### SEMI-MOUNTED DISC HARROW NORMANDIE T70

		NORMANDIE T70 TECHNICAL SPECIFICATIO	DNS
Working width (m)	7.00	8.00	9.00
<b>Tractor power (HP)</b> Tractor power (kW)	<b>210 / 265</b> 154 / 195	<b>245 / 280</b> 181 / 206	<b>275 / 310</b> 202 / 228
Transport width (m)		3.00	
Transport height (m)	3.70	4.15	4.52
Approximate weight with single bar roller Ø 500 (kg)	6 450	6 860	7 270
Yoke hitch type (Cat.)	On arms : 3 - 4N - 4 - Qu	ick coupler / Cast ring ball joint: Ø 45 mm - Ø 55 mm - Ø	65 mm / Scharmüller K80
Chassis version		Foldable in 3 parts	
Number of discs	56	64	72
Disc diameters (mm)		Standard Ø 510 / Option Ø 460 - Ø 560	
Disc thicknesses (mm)		Standard 5 / Option 5 - 6	
Spacing between discs (mm)		250	
Clearance between two rows of discs (mm)		750	
Under frame clearance (mm)		740	
Max. working depth (mm)		120	
Working part safety system		Elastomer non-stop	
Drawbar balance		Hydraulic	
Front stabilization wheels		11.5/80x15.3 (Ø 845 mm)	
Tyres		600/50x22.5 (Ø 1172 mm)	
Braking		Standard hydraulic / Optional: tyre	
Seed drill support		Option	
Seed drill walkway		Option	
Hectare counter		Option	
Roller adjustment		Hydraulic	
Rear equipment (mm)	Roller: single	e bar Ø 600 / Double bar Ø 500 400 / Impak V Ø 650 / Em	opak V Ø 600
Road traffic lights		As standard	

# WORKING PARTS

# CROSSLAND



Standard

#### Deflectors

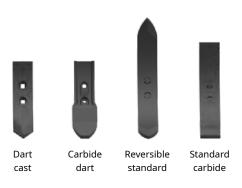
The Double mix deflector rolls soil and organic residues together to enhance mixing and accelerate humification.

The Universal deflector creates a flow of soil and stubble on each side of the tine, this mixes the soil and straw together thanks to its projection height in the machine.



Dart

The spoiler works in conjunction with a tip and there are two models depending on your type of tine, either Standard or Dart. The spoiler is intended to scalp root systems, like a knife. Its width of 254 mm gives you good overlapping.



#### Tips

A cast or carbide Dart tip can be fitted to a deflector to optimize residue mixing. It is suitable for work from 5 to 20 cm deep.

The reversible Standard tip is suitable for work from 5 to 15 cm deep.

The Standard carbide tip is used for deeper restructuring work, for heavy soils. It helps to increase productivity.

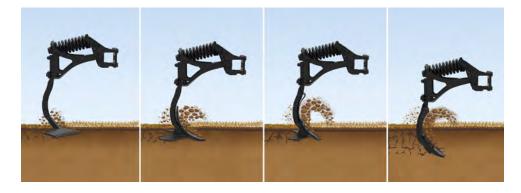


Standard

#### Goose share

The Goose share is mainly used for shallow stubble ploughing. It provides effective weed scalping even at very shallow depths. It can be mounted with a double mix deflector to enhance weed material mixing.





Spring-mounted Eurochisel tine.

# DISCS **NORMANDIE**



Small notches Ø 460 mm. 5 mm thickness.



Small notches

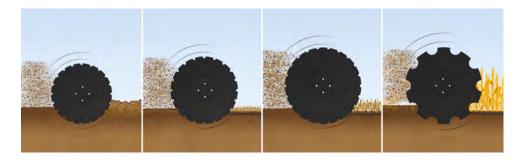
Ø 560 mm,

6 mm thickness.

3



Large notches Ø 560 mm, 6 mm thickness.



1 Used in ploughing back or very superficial stubble tillage. Its small diameter makes it rotate very quickly for a smooth finish. 2 It's a good compromise. Used in ploughing back or superficial stubble tillage. It has a high wear resistance and enables progress in the presence of plant residues. 3 The larger diameter disc is available with small notches for good residue cutting or large notches to increase its penetration capacity. It is suitable for stubble tillage depths up to 12 cm and for the destruction of high volume cover crops.

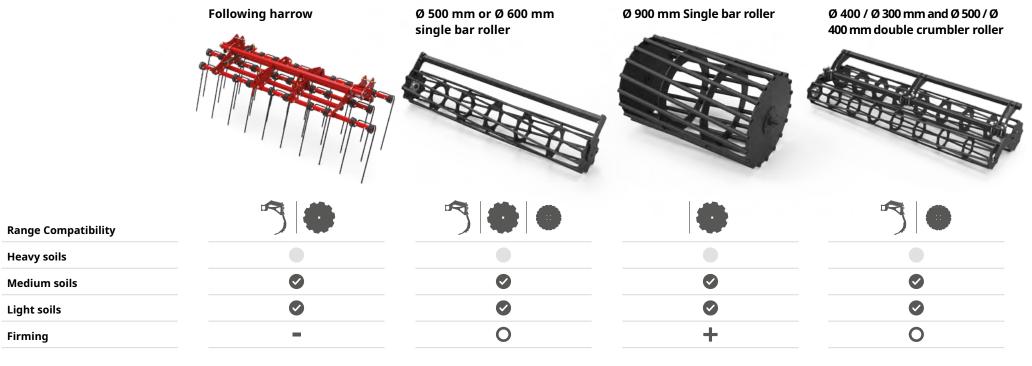


4 The discs with large notches ensure optimum penetration of the tool despite conditions that can be difficult. The large diameter allows for an evolution in the presence of a lot of plant residues. 5 The small notches discs are better suited for cutting the residues and speeding up its decomposition. The large diameter allows an evolution in the presence of a lot of plant residues.



6 A choice of discs with 660 mm diameter and 6, 7 or 8 mm thickness depending on the type of your soil. These discs are suitable for stubble ploughing, grassland destruction and ploughing in of a lot of plant residue. They can be smooth or notched according to your choice and are fitted interspersed as standard. 7 Depending on the type of your soil, we offer two discs with 710 mm and 760 mm diameters. These discs are suitable for deep work and ploughing in of a lot of plant residue. They can be smooth or notched according to your choice and are fitted interspersed as standard.

# **REAR EQUIPMENT**



Following harrows are ideal for exposing weed root systems or crops to be destroyed to the air. It contributes to good levelling in light soils. Aggressive on plant residues, this roller enables you to create a uniform mulch and accelerate stubble degradation while maintaining a good level of moisture in the soil. It is light and economical. The Ø900 single cage roller ensures good control of the machine's depth and provides an optimal finish in sandy or light soil conditions. To avoid a finish that is too fine in light soil, it has been designed with round bars to be less aggressive and to provide more lift. Twice as active, the double bar destroys the most resistant plant residues and leaves behind an excellent finish thanks to the difference in diameter between the front and rear roller. The unit is mounted on a pivot to follow land contours.

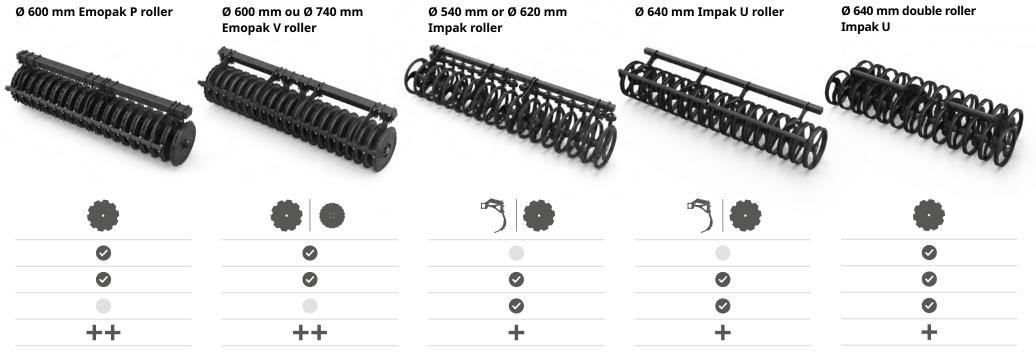








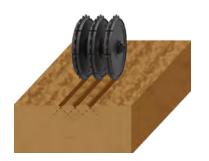


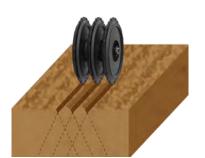


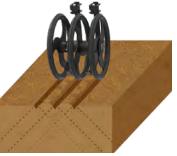
A heavy roller, the flat profile Emopak enables shallow compaction. It is ideal for self-seeding.

It crushes clods and promotes seed bed preparation to germinate weeds.

This roller is made of flanged, V-shaped and notched wheels. The Emopak V's mass gives you good consolidation, resulting in excellent in-line finishes. For self-seeding, it offers perfect soil/ seed contact. It excels in dry, stony and cloddy soils. In wet conditions, the Impak roller allows uniform soil consolidation. Scrapers prevent soil build up and level between the passes of the roller wheel rows. The Impak U roller makes furrows and compacts. It's suitable for all dry soils. Compared to the Impak V roller, it is smaller, lighter and offers less reconsolidation. The double Impak U roller Ø 640 mm provides good load-bearing capacity and earth contact for light to medium-heavy soils. The bearings are integrated directly into the cage for minimum space between the rollers. The optimised re-crossing ensures a homogeneous work.











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We train our distribution network sales representatives and technicians in our GB Academy training centre.

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Find the tutorials at: gregoire-besson.com on our services page, start-up.

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Our logistics platform enables us to ship several tons of parts every day worldwide.

You can find references, prices and weights at: gregoire-besson.com on our services page, manuals, parts.

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Do you have a question? Is there a problem? Don't hesitate to get in touch with your dealer. We will find a solution.

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Your equipment will be repaired quickly and you can concentrate on your work.

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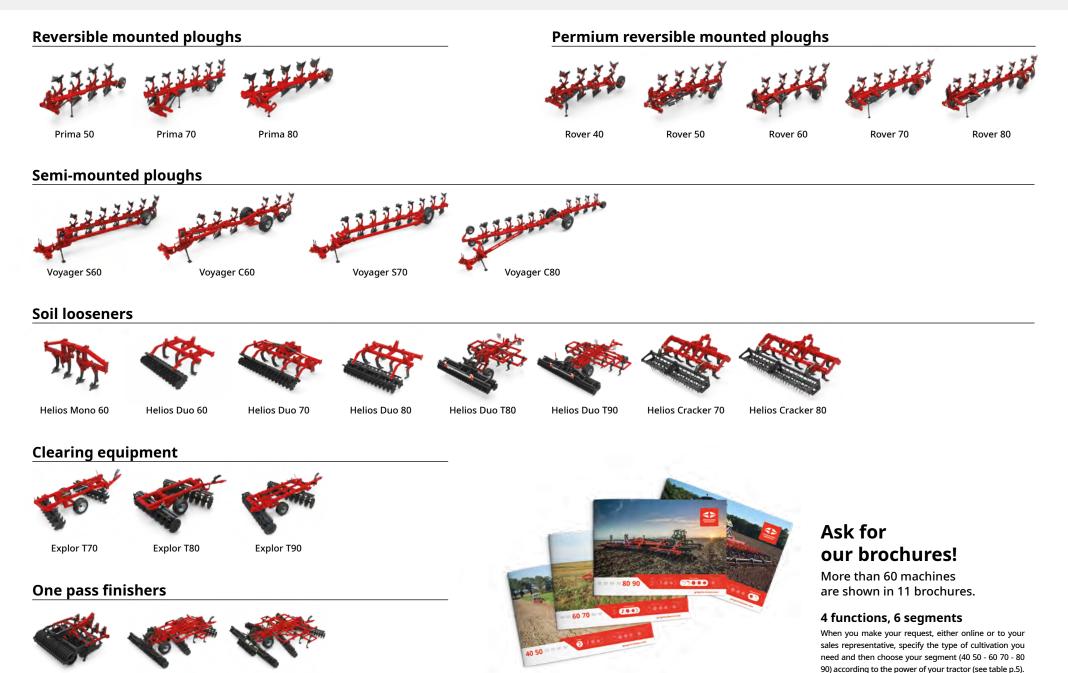
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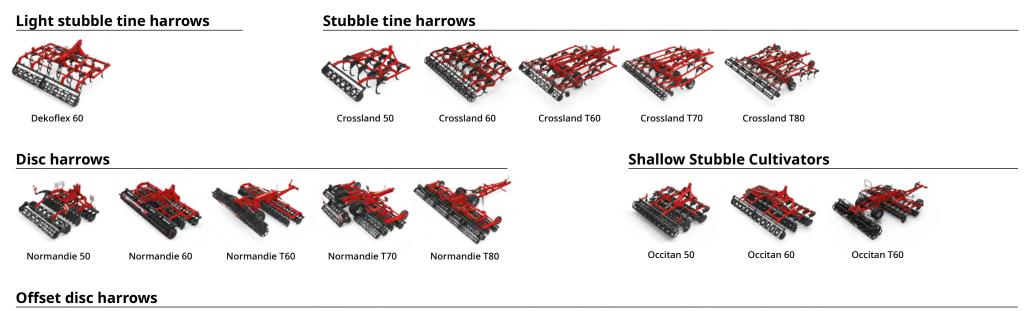
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# Our equipment range



Discordon 60 Discordon T70

Discordon T80





#### Soil consolidation





Planipack 50



## Seed bed preparation equipment





# Configure your soil preparation equipment online!

Explore the full range of possible configurations and get a price quote with just a few clicks!

# BESSON 60 70 Stubble tillage

	40	50	60	70	80	90
REVERSIBLE MOUNTED PLOUGHS	•	PRIMA 50	•	PRIMA 70 PRIMA P70	PRIMA 80	•
PREMIUM REVERSIBLE MOUNTED PLOUGHS	ROVER 40	ROVER 50	ROVER 60	ROVER 70	ROVER 80	•
SEMI-MOUNTED PLOUGHS	•	•	VOYAGER S60 VOYAGER C60	VOYAGER S70	VOYAGER C80	•
SUB-SOILERS	•	•	HELIOS MONO 60 HELIOS DUO 60	HELIOS DUO 70 HELIOS CRACKER 70	HELIOS DUO 80 HELIOS DUO T80 HELIOS CRACKER 80	HELIOS DUO T90
DISC HARROWS	•	•	•	EXPLOR T70	EXPLOR T80	EXPLOR T90
ONE PASS FINISHERS	•	•	DISCORDON 60	DISCORDON T70	DISCORDON T80	•
LIGHT STUBBLE TINE HARROWS	•	•	DEKOFLEX 60	•	•	•
CHISELS	•	CROSSLAND 50	CROSSLAND 60 CROSSLAND T60	CROSSLAND T70	CROSSLAND T80	•
DEEP STUBBLE CULTIVATORS	•	COVER V T50	COVER V T60 COVER X T60 COVER XL T60	COVER V T70 COVER X T70 COVER XL T70	COVER X T80 COVER XL T80	COVER XL T90
HIGH-CAPACITY STUBBLE CULTIVATORS	•	OCCITAN 50	OCCITAN 60 OCCITAN T60	•	•	•
SHALLOW STUBBLE CULTIVATORS	•	NORMANDIE 50	NORMANDIE 60 NORMANDIE T60	NORMANDIE T70	NORMANDIE T80	•
SEED-BED PREPARATORS	•	TETRA 50	TETRA 60	TETRA 70	TETRA 80	•
SOIL CONSOLIDATION	•	PLANIPACK 50	PLANIPACK 60	PLANIPACK 70	•	•

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