



***Robustness and productivity***

## **Twin-Beam Subsoiler**

**For tractors from:  
80–240 hp**



Helios 3,00 m, 6 tines

These two models are built on a frame of 160x160x10 mm with a clearance between the beams of 700 mm. The tines are laid out in “W” to limit the risks of blocking between tines while preserving a compact tool.

In the Helios range, the models are available in fixed version (L/H pic.) or folding hydraulically (R/H pic.).

These models all are equipped with a “Michel” tine of 800 mm, which make it possible to work up to 55 cm depth. This tine has the capacity to loosen the sub-surface ground without disrupting the top.



Helios R 5,00 m, 10 tines

## 2 safety protections



NSH



B

The standard models of the Helios range are equipped with a shearbolt safety protection (B). This type of safety is suitable for implements working in ground, without stone and in light, medium, and heavy soils without rocks.

During the shearing of the bolt, the tine swivels and is cleared away from the obstacle.

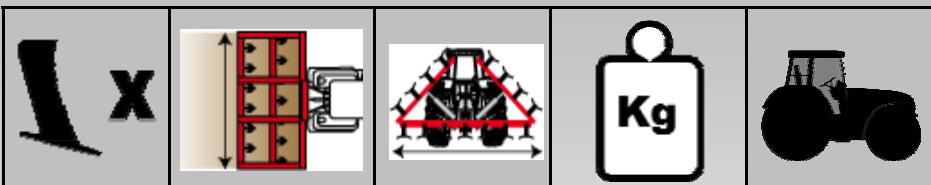
Depending on the conditions, there is a choice of bolt resistance (8.8 or 10.9).

In option, it is possible to equip all the models of the Helios range with a hydraulic safety system (NSH). Especially developed for this type of product, NSH system uses two parallel rams with hydraulic connection.

As this type of tines work deeply it undergoes side forces, therefore it is necessary to be able to neutralise in the event of release. The two rams connected together ensure the alignment of the blade

The safety device is also designed to have an important release without the risk of damaging the implement and its accessories.

## Technical features



### Helios

\* without rear equipment

Number of tines	Length (m)	Width (m)	Weight (Kg)	Power (hp)
4	2,00 - 3,00 m	3,00 m	830 / 1100 *	80/120 hp*
6	3,00 m	3,00 m	980 / 1340*	120/160 hp*
6	3,00 - 4,00 m	4,00 m	1130 / 1550 *	130/220 hp*
8	4,00 m	4,00 m	1240 / 1720 *	150/220 hp*

### Helios R

\* without rear equipment

Number of tines	Length (m)	Width (m)	Weight (Kg)	Power (hp)
8	4,00 m	3,00 m	1800 / 2350 *	180/280 hp*
10	5,00 m		1980 / 2680 *	200/340 hp*
12	6,00 m		2200 / 3040 *	240/400 hp*
14	7,00 m		2530 / 3430 *	300/450 hp*
16	8,00 m		2710 / 3780 *	400/550 hp*

## Rear additional equipments

The level finish is optimized by the use of a roller which packs the ground and also makes it possible to control the depth.

The roller is usually a crumbler, which can be replaced by mixing rollers to ensure a finish of great quality.



Twin roller



« U » roller



Twin & U roller



Triple harrows

## Rear equipments (Option)

Models	Diameter	Width
Crumbler roller	Ø 500 mm	3,00 - 6,00 m
	Ø 600 mm	
Twin	Ø 500 mm	3,00 - 6,00 m
« U »	Ø 500 mm	3,00 - 6,00 m
« Twin & U »	Ø 500 mm	3,00 - 6,00 m
Triple harrows	Ø 14 mm	3,00 - 6,00 m

## Heavy duty frame

This concept of this machine has been developed for subsoiling even at large working widths. Based on a single-beam semi mounted frame, this machine allows a working width up to 7 meters in only one pass without the need of tractor linkage.

These models are built on a single-beam frame (300x300x10). The hydraulic vertical folding frames (150x100x8) are held down under pressure by a hydraulic system equipped with an accumulator which allows a certain movement in the event of meeting obstacles.

## Optimum depth control

The drawbar is equipped with a hydraulic cylinder, which will be used to increase the pressure on the tractor (hitch on tractor arms) to reduce the draft. This cylinder is linked to a rubber shock absorber, to ensure a regular working depth, completed by a high level of comfort. At work, the cylinder comes in contact with a mechanical depth stop. This simple solution gives you the guarantee to work all the time at the same working depth.

The working depth of the Helios SP, is also controlled by the rear roller, with full weight transfer. It is thus possible to set the working depth from the tractor cab, which can be easily checked by a marker.

## A roller Multifunction

After the work of the tines, it is possible to use a disc roller. The target, in addition to pack and to level the surface of the ground, is to carry out a mulch on the surface.

You could make great savings in only one pass: Deep work with the tine, and top work with the discs: You are then ready to sow directly!

The roller is equipped with a double row of 610 mms diameter discs. The discs cut and carry out residues for quick decomposition and a better finish.



## 3 types of safety protection

### 1) A robust safety mechanical non-stop, without maintenance



The spring placed inside the element has at the same time, a capacity of shock absorber, and allows a fast ground return. This safety protection is appreciated by its simplicity and its reliability. Without maintenance, grease nipple or hose, the system uses a simple adjustable spring under tension.

### 2) A hydraulic non-stop safety high performance



Hydraulic safety device Gregoire-Besson is assembled on 4 ball joints. Each element can move from top to bottom, and from left to right without the articulation being damaged. This system of safety uses a double linkage and a cylinder fixed on the end of the element. This Gregoire-Besson design ensures reliability of the system and a release height of more than 60 cm.

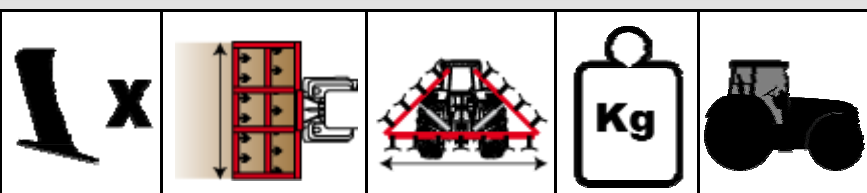
### 3) A shearbolt for non stoney conditions



During the shearing of the bolt, the tine swivels and is cleared away from the obstacle.

Depending on the conditions, there is a choice of bolt resistance (8.8 or 10.9).

## Technical features



Helios SP				
	* without accessorie			
8	4,00 m	2,70 m	3960*	210 hp*
10	5,00 m	2,70 m	4460*	250 hp*
12	6,00 m	2,70 m	4960*	320 hp*
14	7,00 m	2,70 m	5560*	400 hp*

## Rear equipments (Option)

Models	Diameter	Width
Crumbler roller	Ø 600 mm	4,00 - 7,00 m
Twin notched discs	Ø 610 mm	

## The “agronomic” tine

The tine used on the Helios range allows deep work with great quality. “Michel” tine makes it possible to work up to 55 cm depth. This tine has the capacity to loosen the sub-surface ground without disrupting the top. The «effect » caused by the tine ensures the cracking of all the working width. This type of tine can be used under all the conditions without risk of compaction, opposite to a straight tine using flat shares.

The structure is restored, in particular when ploughing has been removed for several years. Helios makes it possible to improve the rooting and circulation of the elements essential for the development of the plants like water and air.

The surface of the ground is not upset with vegetable residues remaining on the surface. For better decomposition, it is advised to equip the Helios with a disc roller. The discs cut and carry out residues for quick decomposition and a better finish.



## A better finish with rear accessories

Used after the combines and heavy implements, Helios & Helios R are used to restructure the ground. To limit the risk of anymore compaction, it is imperative to minimize the number of passes before sowing.

For that, Gregoire-Besson offers a great choice of rear accessories, which work the surface and prepared the ground after the tines.

The preparation of the soil is carried out in only one pass, therefore a great saving is achieved in the cost of crop establishment.



## Mixing rollers



Twin roller

Designed with specific profiles, these rollers cut out the crop residues and mix them with the ground due to the speed effect of the implement.



Twin & U roller



Twin notched discs

## Packer rollers



Crumbler roller Ø 500 mm



« U » roller

## Following harrows

This accessory allows an even spreading of the residues. With this action, it helps to put the residues in a good direction to make seeding easier



Triple harrow