



ENTIRE SPECTRUM OF TOOLS FOR SOIL TILLAGE

Indestructible tillage machines

www.rolmako.com



The choice
of a professional



Various
soil and working conditions
require an individual
matching

Climate properties, soil conditions and species of crops – all of these force the agricultural machinery manufacturers to continuously improve and design new and better farming tools. Rolmako meets the expectations of farmers all over the world by offering the entire spectrum of soil cultivation tools.

Each cultivator is designed for operation in specific soil conditions, therefore the proper device configuration is so important, and most of all, choosing the right working elements. When building agricultural structures, we know that a farmer managing a mixed soil needs a machine that will work, whether it will be cultivation on heavy clay, sandy or very stony soil.

This presentation is to make it easier for our dealers and farmers to choose the right agricultural machinery starting with recognizing the right working tools, appropriate chisels, plough share and discs for the specific crop and the effect that the user needs to obtain.

In this publication, each working element of a tillage cultivator, stubble cultivator, disc harrow, or subsoiler has been accompanied by a description of its cultivation function, soil on which it should operate as well as its maximum working depth.

The best quality-price ratio in the industry

Rolmako tillage machines
are capable of making a series
of agrotechnical treatments



- ☐ pre-sowing cultivation
- ☐ mixing of solid organic fertilisers with soil (manure, aftercrop)
- ☐ mixing of liquid organic fertilisers with soil (liquid manure)
- ☐ mixing of mineral fertilisers with soil
- ☐ ultra shallow stubble tillage
- ☐ classic stubble tillage
- ☐ deep ploughless tillage
- ☐ deep loosening of the soil without turning it over
- ☐ breaking of the plough pan
- ☐ improvement of water regimes in soil
- ☐ cultivation of fallow land



CHAPTER I

Seedbed cultivators
Tillage cultivators



CHAPTER II

Disc harrows



CHAPTER III

Subsoilers
Looseners



CHAPTER I

Seedbed cultivators Tillage cultivators

Machines whose primary working elements are tines for pre-sowing and stubble cultivation, mixing of natural fertilisers, no-till work, and other agrotechnical operations.

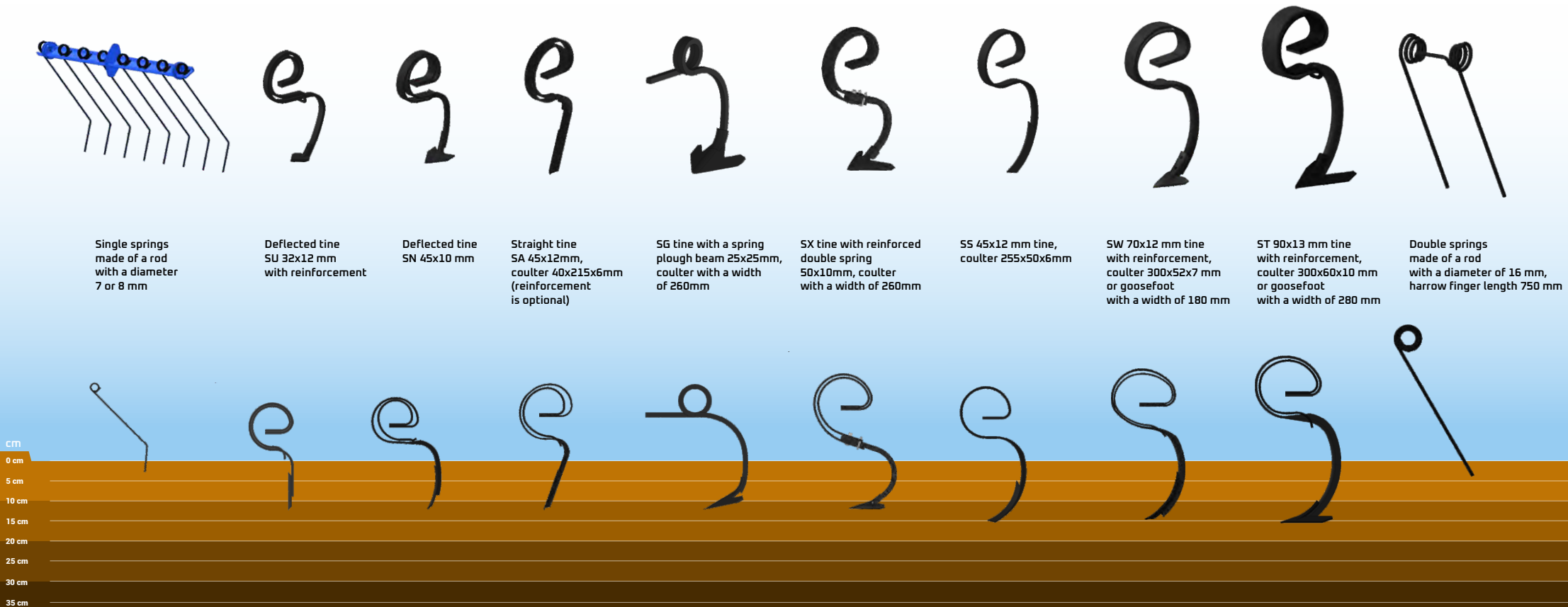
The purpose of the cultivator depends on the type of the working tines used. Tillage machines with versatile applications are equipped with a plough beam compatible with various working attachments adapted to different field operations.



The choice of an agricultural cultivator is dictated by the field conditions, in which it is to work and the cultivation effect that we want to achieve. The most important component of the machine determining the final result of work are the working elements and overload protection.

TINES

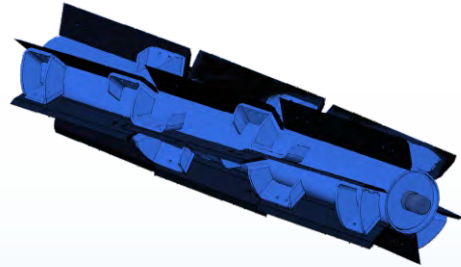
At Rolmako, when designing new devices, we pay much attention to the selection of working elements in terms of the economy and quality of cultivation.



As complete as possible range of soil tillage cultivators on the market

The choice of an agricultural cultivator is dictated by the field conditions, in which it is to work and the cultivation effect that we want to achieve. The most important component of the machine determining the final result of work are the working elements and overload protection.

TINES



ProCut knife roller
(Cutting rotor with the diameter of 375 mm, which consist of obliquely arranged double-sided knives divided into 5 segments)



Vogel & Noot type tine
with double-sided
heart-shaped coulter



Lemken type tine
with divided coulter
with Non-stop
protection



Tine for ploughless tillage
with spring plough beam
35x35 mm



Delta tine with
Non-stop protection
(straight mouldboard)

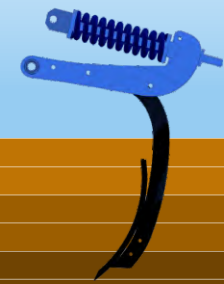
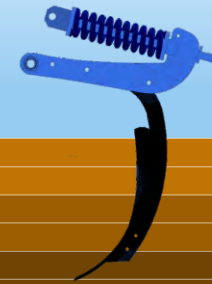


AgriFlex tine with Non-stop
protection (twisted mouldboard)



AgriFlex tine
with Non-stop
protection with
narrow coulter 40 mm

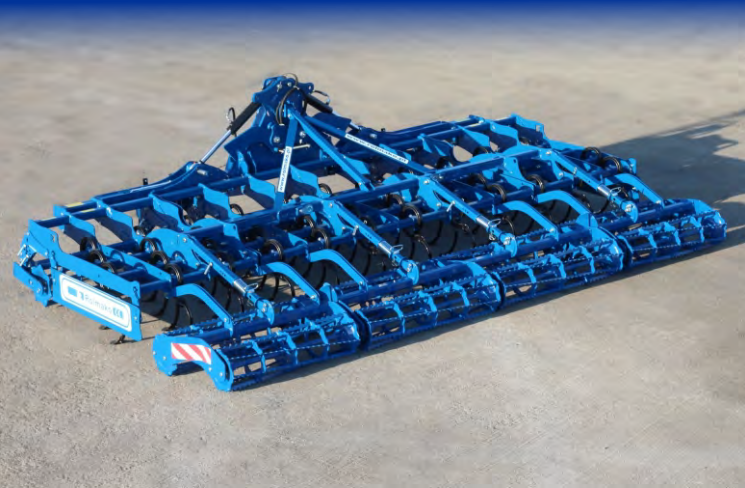
cm
0 cm
5 cm
10 cm
15 cm
35 cm



Working elements should be operated as shallow as possible so as to achieve the intended cultivation effect

CHAPTER I

Seedbed cultivators
Tillage cultivators



Legend

Recommended
for a given type of soil

It can operate on this soil,
the effect of the work should
be satisfactory

Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

Depending on the compactness, soil is divided into:

compact soils – clays and loams

medium-compacted soils – clay sands and dust

slightly-compacted soils – slightly loamy sands

loose soils – loose sand and gravel

Single springs made of
a rod with a diameter 7 or 8 mm

Application in machines:
■ ActiVAgro weeder

Maximum depth: 3 cm

Power demand: ★★★★★★★★★★

Purpose, cultivation effect:
■ Mechanical removal of weeds that along with
the roots are pulled to the surface of the soil

Cultivation functions:

- Ultra-shallow tillage
- Aeration and broking of soil crust
- Grassland tillage
(raking turf and destroying molehills)
- Mixing of mineral fertilisers with soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

SU 32x12 mm tine
with reinforcement*

- Coulter 35x200x5 mm
- Wide coulter 100 mm**
- *) the reinforcement for U 659 cultivator
is an option, for other machines
it is standard.
- **) available for the U 382 machine

Application in machines:

- Machines mounted on the tractor's
front three-point linkage
- Tillage cultivator U 382
- Seedbed cultivator U 659
- Compact seedbed cultivator U 684
- BigField system carrier

Maximum depth: 12 cm

Power demand: ★★☆☆☆☆☆☆☆☆

Purpose, cultivation effect:
■ Levelling and rolling of the soil

Cultivation functions:

- Pre-sowing cultivation, weed infestation regulation
- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER I

Seedbed cultivators
Tillage cultivators



Legend

Recommended
for a given type of soil

It can operate on this soil,
the effect of the work should
be satisfactory

Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

Depending on the compactness, soil is divided into:

compact soils – clays and loams

slightly-compacted soils – slightly loamy sands

medium-compacted soils – clay sands and dust

loose soils – loose sand and gravel



SN 45x10 mm deflected tine

- Coulter 35x210x6 mm
- Wide coulter 120 mm

- Application in machines:
- Pre-sowing cultivator U 445 VibroSTAR



Maximum depth: 12 cm

Power demand: ★★☆☆☆☆☆☆☆☆

- Purpose, cultivation effect:
- Levelling and rolling of the soil

- Cultivation functions:
- Pre-sowing cultivation, weed infestation regulation
 - Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



SA 45x12mm straight tine,
coulter 40x215x6mm
(reinforcement optional)

- Application in machines:
- Compact seedbed cultivator U 684
 - BigField system carrier



Maximum depth: 12 cm

Power demand: ★★☆☆☆☆☆☆☆☆

- Purpose, cultivation effect:
- Levelling and rolling of the soil

- Cultivation functions:
- Pre-sowing cultivation, weed infestation regulation
 - Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER I

Seedbed cultivators
Tillage cultivators



Legend



Recommended
for a given type of soil



It can operate on this soil,
the effect of the work should
be satisfactory



Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

Depending on the compactness, soil is divided into:

- compact soils – clays and loams
- slightly-compacted soils – slightly loamy sands
- medium-compacted soils – clay sands and dust
- loose soils – loose sand and gravel



SG tine with spring plough beam
25x25mm, coulter with a width of 260mm

Application in machines:

- Compact seedbed cultivator U 684
- BigField system carrier

Maximum depth: 12 cm

Power demand:



Purpose, cultivation effect:

- Levelling and rolling of the soil
- Good mixing and cutting of weeds over the entire surface, also in case of shallow cultivation

Cultivation functions:

- Pre-sowing cultivation, weed infestation regulation
- Mixing of mineral fertilisers
- Mixing of liquid organic fertilisers with soil
- The tine is also recommended for the cultivation of vegetables and sugar beets

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



SX tine with reinforced double
spring 50x10mm, coulter
with a width of 260mm

Application in machines:

- Compact seedbed cultivator U 684
- BigField system carrier

Maximum depth: 12 cm

Power demand:



Purpose, cultivation effect:

- Levelling and rolling of the soil
- Good mixing and cutting of weeds over the entire surface, also in case of shallow cultivation

Cultivation functions:

- Pre-sowing cultivation, weed infestation regulation
- Mixing of mineral fertilisers
- Mixing of liquid organic fertilisers with soil
- The tine is also recommended for the cultivation of vegetables and sugar beets

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER I

Seedbed cultivators
Tillage cultivators



Legend

Recommended
for a given type of soil

It can operate on this soil,
the effect of the work should
be satisfactory

Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

Depending on the compactness, soil is divided into:

compact soils – clays and loams

slightly-compacted soils – slightly loamy sands

medium-compacted soils – clay sands and dust

loose soils – loose sand and gravel



SS 45x12 mm tine, 255x50x6 mm

- Application in machines:
- Universal cultivator U 497
 - BigField system carrier



Maximum depth: 15 cm

Power demand: ★★★★★★★★★★

- Purpose, cultivation effect:
- Tillage and mixing at medium depth

- Cultivation functions:
- Pre-sowing cultivation, weed infestation regulation
 - Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



SW 70x12 mm tine with reinforcement*

- Coulter 300 x 52 x 7 mm or goosefoot with a width of 180 mm
- *) the reinforcement is optional

- Application in machines:
- Tillage cultivator mounted on the front three-point linkage
 - Universal cultivator U 497
 - BigField system carrier



Maximum depth: 15 cm

Power demand: ★★★★★★★★★★

- Purpose, cultivation effect:
- Tillage and intensive mixing at medium depth
 - The effect of a wide cutting for the variant with goosefeet

- Cultivation functions:
- Mixing of solid organic fertilisers with soil, e.g. manure
 - Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER I

Seedbed cultivators Tillage cultivators



Legend

Recommended
for a given type of soil

It can operate on this soil,
the effect of the work should
be satisfactory

Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

Depending on the compactness, soil is divided into:

compact soils – clays and loams

slightly-compacted soils – slightly loamy sands

medium-compacted soils – clay sands and dust

loose soils – loose sand and gravel

Tine ST 90x13 mm with reinforcement*

- Coulter 300 x 60 x 10mm or goosefoot with a width of 280 mm
- *) the reinforcement is optional

- Application in machines:**
- Universal cultivator U 497
 - BigField system carrier



Maximum depth: 15 cm

Power demand: ★★★★★☆☆☆☆

- Purpose, cultivation effect:**
- Tillage and intensive mixing at medium depth
 - The effect of a wide cutting for the variant with goosefeet

- Cultivation functions:**
- Pre-sowing cultivation, weed infestation regulation
 - Mixing of mineral fertilisers with soil and liquid organic fertilizers, e.g. liquid manure
 - Mixing of solid organic fertilisers with soil, e.g. manure
 - Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

Double springs made of a rod with a diameter of 16 mm, length of the harrow finger 750 mm

- Rolmako EasyFix system (MADE IN GERMANY)**
- fast and economically justified
regeneration of working elements
(multiple regeneration)



- Application in machines:**
- SpringExpert mulch harrow

Maximum depth: 4 cm

Power demand: ★☆☆☆☆☆☆☆☆

- Purpose, cultivation effect:**
- Mechanical removal of weeds that along with the roots are pulled to the surface of the soil
 - Stopping evaporation
 - It allows more water to be retained in the soil

- Cultivation functions:**
- Ultra shallow stubble tillage
 - Grassland tillage (raking of turf and destruction of molehills)
 - Stimulating the germination of self-seeding cereals and rapeseed

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER I

Seedbed cultivators
Tillage cultivators



Legend

Recommended
for a given type of soil

It can operate on this soil,
the effect of the work should
be satisfactory

Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

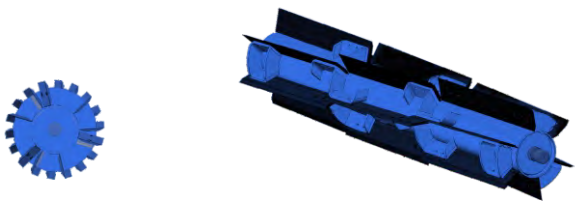
Depending on the compactness, soil is divided into:

compact soils – clays and loams

slightly-compacted soils – slightly loamy sands

medium-compacted soils – clay sands and dust

loose soils – loose sand and gravel



ProCut knife roller

- Application in machines:
- ProCut knife roller mounted on the front three-point linkage
 - U 693 compact disc harrow
 - U 652 disc harrow
 - U 436 multifunctional tillage cultivator
 - SpringExpert mulch harrow

Maximum depth: 3 cm

Power demand: ★★☆☆☆☆☆☆☆☆

- Purpose, cultivation effect:
- Intensive shredding of crop residues and aftercrop plants
- Cultivation functions:
- Cutting aftercrops and crop residues that will comprise the mulch cover. Chopped straw and leaves are easier to be covered and mixed in subsequent stubble operations
 - Destruction of maize borer larvae in maize stubble

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



Vogel & Noot tine with double-sided heart-shaped coulter, spring plough beam 35x35 mm or Non-Stop protection

- Application in machines:
- U 453 stubble cultivator



Maximum depth: 15 cm

Power demand: ★★☆☆☆☆☆☆

- Purpose, cultivation effect:
- Tillage and intensive mixing at medium depth

- Cultivation functions:
- Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil
 - Mixing of solid organic fertilisers with soil
 - Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER I

Seedbed cultivators
Tillage cultivators



Legend

Recommended
for a given type of soil

It can operate on this soil,
the effect of the work should
be satisfactory

Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

Depending on the compactness, soil is divided into:

compact soils – clays and loams

slightly-compacted soils – slightly loamy sands

medium-compacted soils – clay sands and dust

loose soils – loose sand and gravel



Lemken tine with a divided coulter,
spring plough beam with Non-stop protection*

*) solution also available with
Vogel&Noot system



Application in machines:

- U 453 stubble cultivator

Maximum depth: 15 cm

Power demand: ★★★★★★★★☆☆☆☆

Purpose, cultivation effect:

- Intensive shredding of crop residues
and aftercrop plants

- Cultivation functions:**
- Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil
 - Mixing of solid organic fertilisers with soil
 - Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



Tine for ploughless tillage with spring
plough beam 35x35 mm



Application in machines:

- U 436 multifunctional tillage cultivator

Maximum depth: 15 cm

Power demand: ★★★★★★★★☆☆☆☆

Purpose, cultivation effect:

- Tillage and intensive mixing at medium depth

- Cultivation functions:**
- Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil
 - Mixing of solid organic fertilisers with soil
 - Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



Delta tine with Non-stop protection (straight mouldboard)

Standard equipment:
Side wing stubble shares intended for operation at a depth of up to 15 cm

Application in machines:

- U 436 multifunctional tillage cultivator

Maximum depth: 35 cm

Power demand: ★★★★★☆☆

Purpose, cultivation effect:

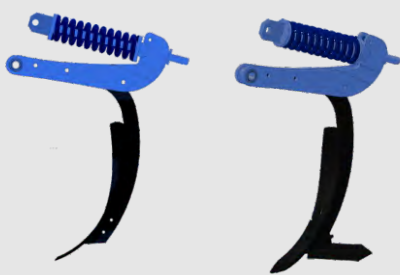
- Cultivation and intensive mixing
- Stubble cultivation and deep ploughless tillage

Cultivation functions:

- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil
- Mixing of solid organic fertilisers with soil
- Stubble tillage
- Deep ploughless tillage



Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



AgriFlex with Non-stop protection (twisted mouldboard)

Standard equipment:
Side wing stubble shares intended for operation at a depth of up to 15 cm

Application in machines:

- U 436 multifunctional tillage cultivator

Maximum depth: 35 cm

Power demand: ★★★★★☆☆

Purpose, cultivation effect:

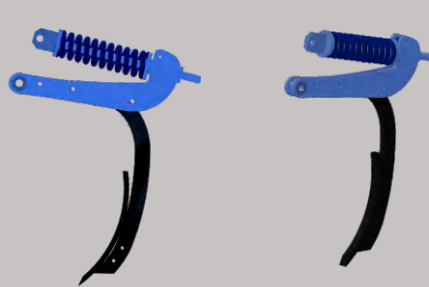
- Cultivation and intensive mixing
- Stubble cultivation and deep ploughless tillage

Cultivation functions:

- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil
- Mixing of solid organic fertilisers with soil
- Stubble tillage
- Deep ploughless tillage



Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



AgriFlex tine with Non-stop protection with a narrow 40 mm coulter*

*) standard AgriFlex tine is equipped with 80 mm chisel

The chisel after the extension can work together with a seeder to create a combination of cultivation and fertilisation

Application in machines:

- U 436 multifunctional tillage cultivator

Maximum depth: 35 cm

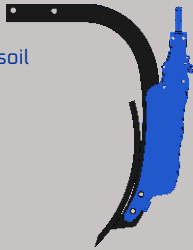
Power demand: ★★★★★☆☆

Purpose, cultivation effect:

- Cultivation and intensive mixing
- Stubble cultivation and deep ploughless tillage

Cultivation functions:

- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil
- Mixing of solid organic fertilisers with soil
- Stubble tillage
- Deep ploughless tillage
- Tillage with simultaneous sowing of fertiliser



Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER I

Seedbed cultivators
Tillage cultivators



AVAILABILITY TABLE

Item	Machine	Tines / coulters available
1.	Tillage cultivator mounted on the front three-point linkage	SW
2.	Tillage cultivator U 382	straight SU / deflected SU
3.	Seedbed cultivator U 659	straight SU / deflected SU
4.	Pre-sowing cultivator U 445 VibroSTAR	deflected SN
5.	Compact seedbed cultivator U 684	SU / SA / SG / SX
6.	Compact seedbed cultivator U 684 PRO	SU / SA / SG / SX
7.	Universal cultivator for pre-sowing and stubble cultivation U 497	SS / SW / ST
8.	BigField system carrier	SU / SA / SG / SX SS / SW / ST
9.	Stubble cultivator U 453	Vogel & Noot type tine / Lemken type tine
10.	Multifunctional tillage cultivator U 436	tine for ploughless tillage with spring plough beam 35x35 mm Delta tine for ploughless tillage AgriFlex tine for ploughless tillage
11.	SpringExpert mulch harrow	double spring fingers with a thickness of 16 mm and length of 750 mm
12.	ActivAgro weeder	single spring fingers with a thickness of 7 mm

CHAPTER II

Disc Harrows

All machines with working elements in the form of cultivation discs, comprise a group of machines that are characterized by low power demand and relatively low wear of working elements in relation to the cultivation performed.

The individual disc harrows differ from each other with the distance between each disc sections, attacking angle of working elements and type of the shock absorption system applied.



Working elements in the form of rotating discs have many advantages, which translate into numerous benefits for the user of the device. The most important thing is the low resistance coefficient, which has a positive effect on the power demand and wear and tear of components.

DISC EQUIPMENT

Machines equipped with cultivation discs can perform many tasks on the farm; from pre-sowing to post-harvest soil cultivation. Disc harrows are useful when mixing organic and mineral fertilisers with soil. They are also applied for ploughless tillage. It is a multi-task machine used for many purposes on every farm.



Disc 510 mm / 560 mm
spring shock absorber
13x100 mm (fine toothing)



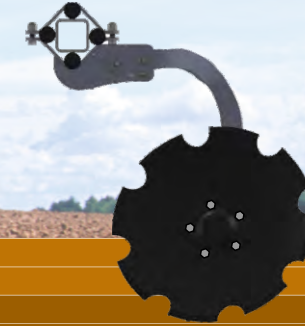
Disc 510 mm / 560 mm
rubber shock absorber 40x180 mm



Disc 560 mm / 610 mm 3D
shock absorber with 35x35 mm spring



Disc 620 mm PRO+ plough beam
LongLife rubber shock absorber
50x210 mm



cm
0 cm
5 cm
10 cm
15 cm
20 cm
25 cm
30 cm
35 cm

As complete as possible range of disc harrows on the market

CHAPTER II

Disc harrows



Legend

Recommended for a given type of soil

It can operate on this soil, the effect of the work should be satisfactory

Not recommended for the given type of soil, cultivation effect may not be satisfactory

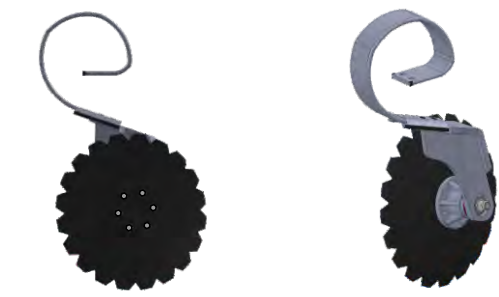
Depending on the compactness, soil is divided into:

compact soils – clays and loams

slightly-compacted soils – slightly loamy sands

medium-compacted soils – clay sands and dust

loose soils – loose sand and gravel

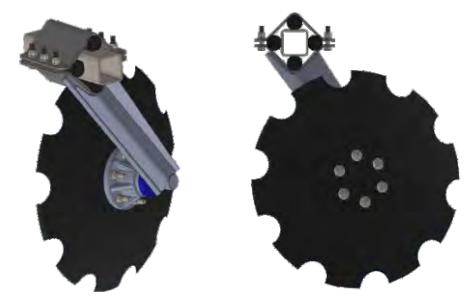


Disc 510 mm / 560 mm
spring shock absorber
13x100 mm (fine toothing)*

- Application in machines:
- U 622 light disc harrow
- Maximum depth: 15 cm
- Power demand: ★★☆☆☆☆☆☆☆☆
- Purpose, cultivation effect:
- A universal solution that is a compromise between pre-sowing and stubble cultivation
 - Optimal use of the machine on the farm
- Cultivation functions:
- Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil
 - Mixing of solid organic fertilisers with soil
 - Pre-sowing cultivation
 - Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

*) purpose, cultivation effect, and functions are described for the standard disc with an aggressive tine.



Disc 510 mm / 560 mm
rubber shock absorber
40x180 mm

- Application in machines:
- Disc harrow on the front three-point linkage
 - U 693 compact disc harrow
 - U 645 harrow for vineyards and orchards
 - U 652 disc harrow (560 mm)
- Maximum depth: 15 cm
- Power demand: ★★☆☆☆☆☆☆☆☆
- Purpose, cultivation effect:
- A universal solution that is a compromise between pre-sowing and stubble cultivation
 - Optimal use of the machine on the farm
- Cultivation functions:
- Mixing of mineral fertilisers with soil
 - Mixing of liquid organic fertilisers with soil
 - Mixing of solid organic fertilisers with soil
 - Pre-sowing cultivation
 - Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER II

Disc harrows



Legend

Recommended for a given type of soil

It can operate on this soil, the effect of the work should be satisfactory

Not recommended for the given type of soil, cultivation effect may not be satisfactory

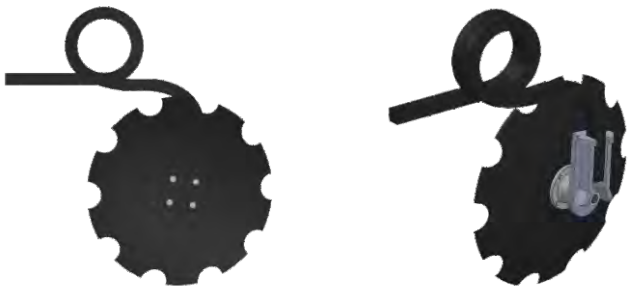
Depending on the compactness, soil is divided into:

compact soils – clays and loams

medium-compacted soils – clay sands and dust

slightly-compacted soils – slightly loamy sands

loose soils – loose sand and gravel



Disc 560 mm / 610 mm*
shock absorber 35x35 mm**
(fine toothing)

Application in machines:

- U 652 disc harrow

Maximum depth: 15 cm

Power demand: ★★★★★★☆☆☆☆

Purpose, cultivation effect:

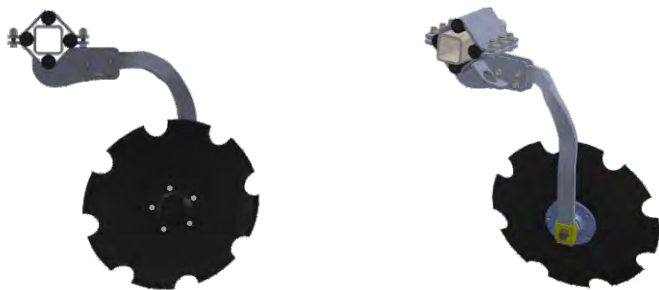
- Best cutting and mixing effect. Recommended for all post-harvest cultivation, especially after maize harvested for grain

Cultivation functions:

- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil
- Mixing of solid organic fertilisers with soil
- Pre-sowing cultivation
- Stubble tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

*) purpose, cultivation effect, and functions are described for the standard disc with an aggressive tine.
**) optional, LongLife rubber shock absorber 40x180mm used as a standard version.



Disc 620 mm PRO+ plough beam
LongLife rubber shock absorbers
50x210 mm

Application in machines:

- Heavy stubble harrow U 671

Maximum depth: 15 cm

Power demand: ★★★★★★☆☆☆☆

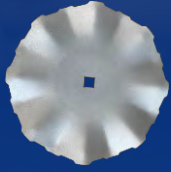
Purpose, cultivation effect:

- Recommended for all stubble cultivation, especially after maize harvested for grain
- At 7 cm working depth, the disc provides full-surface cutting of the stubble

Cultivation functions:

- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil
- Mixing of solid organic fertilisers with soil
- Pre-sowing cultivation
- Stubble tillage
- Cultivation of fallow land

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



**Disc
Twin Disc**

purpose: cultivation after ploughing, rolling of soil after the main working elements of the tillage machine
diameter: 470 mm
Hub: 30x30 mm axle with maintenance-requiring bearings
thickness: 4 mm
Note: the corrugated discs are used in machines mounted on the tractor's front three-point linkage and in subsoilers as a tillage rear roller.



Smooth disc

purpose: pre-sowing cultivation
diameter: 510 or 560 mm
hub: requiring maintenance or maintenance-free
thickness: 4 mm
Note: on request.



**Disc
with fine toothed**

purpose: pre-sowing cultivation and stubble cultivation
diameter: 510 or 560 mm
hub: requiring maintenance or maintenance-free
thickness: 4 mm
Note: on request.



**Toothed disc
standard
(universal)**

purpose: pre-sowing cultivation and stubble cultivation
diameter: 510 or 560 mm
hub: requiring maintenance or maintenance-free
thickness: 4 mm
Notes: the most universal use, standard disc for Rolmako harrows.



ALFA disc

purpose: stubble cultivation
diameter: 560 mm
hub: maintenance-free
thickness: 5 mm
Note: recommended for post-harvest cultivation after harvesting maize for grain, provides a better cutting result.



**Working disc
with a large attacking angle**

purpose: stubble cultivation and cultivation of fallow land
diameter: 620 mm
hub: maintenance-free
thickness: 6 mm
Note: best cutting effect and mixing is already available at 7 cm working depth.



UltraCutter disc

Purpose: stubble cultivation
hub: maintenance-free
Note : shallow tillage 2-3 cm at high working speed 20 km/h.



Matrix Star

Purpose: cultivation between the rows (interrow cultivation), elimination of weeds, reduction of evaporation by tearing apart the topsoil
hub: maintenance-free
Remarks: The working element is especially recommended for soil crust areas.

CHAPTER II

Disc harrow



AVAILABILITY TABLE



Item	Machine	Available discs
1.	Disc harrow on the front three-point linkage	toothed 510 / 560 mm
2.	U 622 light disc harrow	toothed 510 / 560 mm with fine toothing 510 / 560 mm
3.	Compact disc harrow U 693	smooth 510 / 560 mm ALFA 560 mm
4.	U 693 SMART disc harrow	toothed 510 / 560 mm with fine toothing 510 / 560 mm smooth 510 / 560 mm
5.	Disc harrow for vineyards and orchards U 645	toothed 510 / 560 mm with fine toothing 510 / 560 mm smooth 510 / 560 mm
6.	U 652 disc harrow	toothed 560 / 610 mm with fine toothing 560 mm smooth 560 mm Alfa 560 mm
7.	Heavy stubble harrow U 671	toothed 620 mm
8.	Heavy stubble harrow U 671 PRO	

CHAPTER III

Subsoilers Looseners

Machines intended for loosening the soil in order to improve its physical and biological properties. Subsoilers loosen the soil layer untouched by ploughing, allowing better water soaking in it, mixing of fertilisers into deeper layers and their aeration, which promotes root development of plants. The working depth depends on the model of the machine in the range from 35 cm to 60 cm.



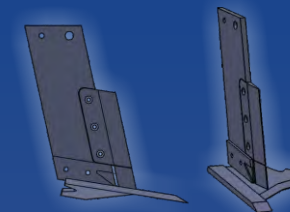
Classic, specialized subsoilers and versatile multi-purpose tillage machines

LOOSENING

Tines for important operations that improve water management and promote better soil aeration.

The use of the Rolmako subsoilers improves the soil structure, thanks to which the farmer achieves higher yield of agricultural crops.

All water is absorbed into the soil, fertilisers penetrate the lower layers, positively influencing the development of plant roots.



STORM tine*

The unique structure of the tine consisting of a plough beam equipped with a knife, which cuts vertical slots and a wide runner that loosens the soil deeply across the entire working width of the subsoiler – all at 30% smaller power demand in relation to classic subsoilers.

*) non-standard product, manufactured on request.



Straight tine with a chisel
100 mm HARDDOX



Straight tine with a chisel 300 mm



Subsoiler with a deflected
Michel type tine, "small" version



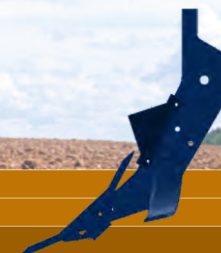
Subsoiler with a deflected
Michel type tine, "long" version



Ripper tine



Atlas tine,
working elements
with built-in
cemented
carbide



cm
0 cm
15 cm
30 cm
45 cm
50 cm
65 cm
80 cm
95 cm

The most complete offer of deep loosening machines on the market

CHAPTER III

Subsoilers
Looseners



Legend

Recommended for a given type of soil

It can operate on this soil, the effect of the work should be satisfactory

Not recommended for the given type of soil, cultivation effect may not be satisfactory

Depending on the compactness, soil is divided into:

compact soils – clays and loams

medium-compacted soils – clay sands and dust

slightly-compacted soils – slightly loamy sands

loose soils – loose sand and gravel



Straight tine with a chisel:
100 mm HARDOX

Application in machines:

- U 602 universal subsoiler

Maximum depth: 60 cm

Power demand: ★★☆☆☆☆

Purpose, cultivation effect:

- Deep loosening of the soil without turning it over
- Subsoilers equipped with a straight tine are designed to improve water regime in the soil and break the plough pan
- The loosening function is performed to a lesser extent

Cultivation functions:

- Breaking of the plough pan
- Improvement of water regimes in the soil (meliorative function – possibility of installing drainage balls)

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



Straight tine with a chisel
300 mm

Application in machines:

- U 602 universal subsoiler

Maximum depth: 60 cm

Power demand: ★★★★★★

Purpose, cultivation effect:

- Deep loosening of the soil without turning it over
- Subsoilers equipped with a straight tine are designed to improve water regime in the soil and break the plough pan
- The loosening function is performed to a lesser extent

Cultivation functions:

- Breaking of the plough pan
- Improvement of water regimes in the soil (meliorative function – possibility of installing drainage balls)

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER III

Subsoilers
Looseners



Legend

Recommended for a given type of soil

It can operate on this soil, the effect of the work should be satisfactory

Not recommended for the given type of soil, cultivation effect may not be satisfactory

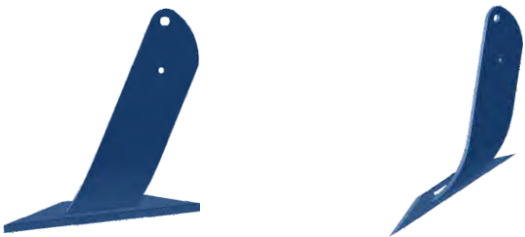
Depending on the compactness, soil is divided into:

compact soils – clays and loams

slightly-compacted soils – slightly loamy sands

medium-compacted soils – clay sands and dust

loose soils – loose sand and gravel



Subsoiler with a deflected Michel type tine, “small” version

- Application in machines:
- Subsoiler with the coupler U 608 (coupler for rotary harrow or other accompanying machine)

Maximum depth: 35 cm

Power demand: ★★★★★☆☆☆☆

- Purpose, cultivation effect:
- Deep cutting and loosening of the soil without turning it over
 - Michel tines have a better loosening effect of soil compared to straight tines
 - The meliorative function is performed to a lesser extent

- Cultivation functions:
- Breaking of the plough pan
 - Improvement of water regimes in the soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



Subsoiler with a deflected Michel type tine, “long” version

- Application in machines:
- Subsoiler with the frame U 614
 - Subsoiler with two rows of tines U 619

Maximum depth: 45 cm

Power demand: ★★★★★★★★☆☆

- Purpose, cultivation effect:
- Deep cutting and loosening of the soil without turning it over
 - Michel tines have a better loosening effect of soil compared to straight tines
 - The meliorative function is performed to a lesser extent

- Cultivation functions:
- Breaking of the plough pan
 - Deep loosening of the soil without turning it over
 - Improvement of water regimes in the soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER III

Subsoilers
Looseners



Legend



Recommended
for a given type of soil



It can operate on this soil,
the effect of the work should
be satisfactory



Not recommended for the given
type of soil, cultivation effect
may not be satisfactory

Depending on the compactness, soil is divided into:

- compact soils – clays and loams
- slightly-compacted soils – slightly loamy sands
- medium-compacted soils – clay sands and dust
- loose soils – loose sand and gravel



Ripper tine

Standard equipment:

- Side wing shares

Application in machines:

- Chisel plough U 624

- Maximum depth: 45 cm

Power demand: ★★★★★★★★☆☆

Purpose, cultivation effect:

- Deep and intensive loosening and mixing of the soil

Cultivation functions:

- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil
- Mixing of solid organic fertilisers with soil
- Breaking of the plough pan
- Improvement of water regimes in the soil
- Deep ploughless tillage

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8



Atlas tine, working elements
with built-in cemented carbide

Standard equipment:

- Working elements welded with built-in cemented carbide as standard. Stubble share 300 mm as an option

Application in machines:

- Multi-purpose subsoiler U 638
- Subsoiler with the coupler U 632

- Maximum depth: 35 cm

Power demand: ★★★★★★★★☆☆

Purpose, cultivation effect:

- Deep soil loosening, with an optional
- Stubble share stubble cultivation with intensive mixing

Cultivation functions:

- Mixing of mineral fertilisers with soil
- Mixing of liquid organic fertilisers with soil
- Stubble tillage
- Breaking of the plough pan
- Improvement of water regimes in the soil

Intended use of the working element due to the compactness of the soil							
loose soils		slightly-compacted soils		medium-compacted soil		compacted soil	
1	2	3	4	5	6	7	8

CHAPTER III

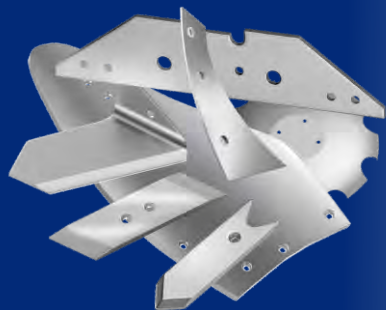
Subsoilers



AVAILABILITY TABLE

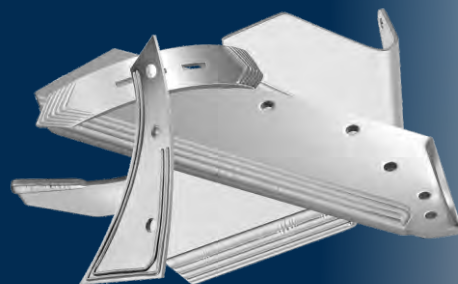


Item	Machine	Available tines
1.	U 602 universal subsoiler	straight with a chisel 100 mm straight with a chisel 300 mm
2.	Subsoiler with the coupler U 608	deflected Michel type
3.	Subsoiler with "V" frame: U 614	
4.	Subsoiler with two rows of tines U 619	
5.	U 624 chisel plough	Ripper
6.	Multi-purpose subsoiler U 638	Atlas
7.	Subsoiler with the coupler U 632	



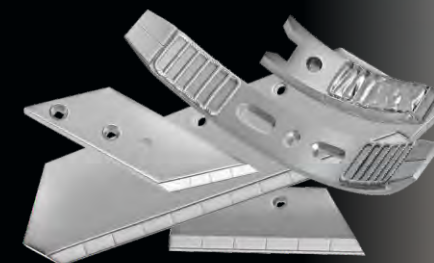
Impact resistant boron steel

The basic standard of spare parts is the best price-quality ratio and high reliability. Working elements intended for average requirements as part of work on an individual farm.



Parts reinforced with abrasion resistant welds

Wear-resistant, high-quality, efficient and reliable. Suitable for difficult operating conditions when the machine is exposed to heavy loads. Deposition welding applied on working elements is recommended when working on soils that require above-average wear and at heavy loads of working tools during service work or in case of shared use of the equipment on several farms.



Working elements armed with cemented carbide

Extreme working conditions and heavy loading of the machine sound like a daily struggle for you? The plough parts with built-in cemented carbide are just for you. Working elements armed with cemented carbide are recommended for the highest loads on large-scale farms or in case of cultivation services on soils that are free of stones. Cemented carbide blades allow to increase the service life of the working elements of a cultivator, or other machines used in soil cultivation, even up to 7 times.

Working elements shock absorbers



Even the best-quality plough parts of the cultivator or the harrow discs will turn out to be faulty and ineffective without a properly selected shock absorber to protect the working components and the supporting frame against excessive load.

The choice of the shock absorber for the soil tillage implementations determines the success of the entire project. The complete range of cultivation equipment has been achieved thanks to the introduction of many types of the shock absorption by working elements that are designed to operate with various impact loads.

Working elements shock absorbers

Division of tillage machines by the absorber



The shock absorber is the most important component of the entire plough system of the machine

Variants of shock absorbers protecting the working elements against excessive load



Torsion
springs



Vibrating
working
elements



Auger
plough
beam



Rubber
shock
absorber



Pressure
springs



Hydraulic
shock
absorber



Torsion springs

ActivAgro
Weeder

SpringExpert
mulch harrow

Auger plough beam

Compact seedbed
cultivator U 684

Compact seedbed
cultivator U 684 PRO

Disc harrow
U 652

BigField
system carrier

U 453 stubble
cultivator

U 436 multifunctional
tillage cultivator

Vibrating working elements

Tillage cultivator mounted
on the front three-point linkage

U 382 tillage cultivator

U 659
seedbed cultivator

Pre-sowing cultivator
U 445 VibroSTAR

Compact seedbed
cultivator U 684

Compact seedbed
cultivator U 684 PRO

U 497 universal cultivator
for pre-sowing
and stubble tillage

BigField system carrier

U 622 light disc harrow

Rubber shock absorber

Disc harrow mounted
on the front
three-point linkage

U 693 disc harrow
ProCut
knife roller

U 645 disc harrow
for vineyards and orchards

U 652
disc harrow

U 671
heavy stubble harrow

U 671 PRO
heavy stubble harrow

BigField
system carrier

Pressure springs

U 453 stubble
cultivator

U 436 multifunctional
tillage cultivator

U 638 multi-purpose
subsoiler

U 632 multi-purpose
subsoiler

Hydraulic shock absorber

U 602 universal
subsoiler

U 608 subsoiler with
the coupler U 608

U 614 subsoiler with
the "V" frame

U 624 chisel plough
with Ripper tine

Working tools that complement cultivation



Looseners operating
before the basic
working elements
of the machine



Crossboard drags
in different variants



Spring
combs

and many other equipment options increasing the functionality of tillage machines



Rear rollers supporting the operation of cultivation tools

Pressing, compacting the soil, crushing clods and levelling the field surface are intended to complete the cultivation following the operation of working tools of cultivation machines, this task is taken over by the rear roller. The selection of the right tillage roller has a great influence on the entire work process and the characteristics of the application of a cultivating machine, which is why Rolmako provides a range of over 30 different cultivating rollers differing in the shape and type of material used, outer diameter, weight, and most importantly, cultivation purposes. The choice of the rear roller depends on the soil that we have and the effect that we want to achieve. At Rolmako, we provide professional consulting services during the configuration of agricultural equipment aiming at the proper adaptation of the soil tillage implementation to the conditions in which it is to operate.



SUMMARY

Our goal is to produce machines that are versatile, provide the desired results regardless of the cultivation system, which the farmer chooses. The entire spectrum of working tools as well as the wide selection of cultivation elements found in one device allow us to achieve this target. Most of our machines perform several tasks during one passage, to optimize the cultivation process and to save time and money.

By cooperating with the best vendors from our industry, we gain more confidence that we maintain the high quality of each of our products.

 **Rolmako**

Plant No. 1. ul.Gwarna 8
Plant No. 2. ul. Nekielska 11F
Psary Małe, near Września
62-300 Września, Wielkopolska province
tel. (+48 61) 438 87 35
<https://www.rolmako.com>

 **Rolmako**

www.rolmako.com

Tillage solutions tailored to customer needs