

# Terrano

# HORSCH

Farming with passion

Terrano FX

Terrano FM

Terrano GX

Terrano MT

## CULTIVATION WITHOUT COMPROMISE





#### WE WANT TO BUILD THE BEST AGRICULTURAL MACHINES

We feel committed to the farmers' community and the wishes of our customers. Thus, it is only logical that for our products and services we aim for the highest standard. This is true for research, design and development as well as for assembly, technical service and advisory service. **We take the time** for extensive studies, use the machines on our own farms, more than 3 000 hectare – to experience ourselves what we have developed and what we are talking about.

We assume **responsibility** in farming and share the feelings of our customers – this is what we are working for with all our **passion**.

#### WE WANT TO SHARE OUR PASSION FOR FARMING

As we are farmers ourselves, there is always an **exchange** with our customers to stay well informed about their **requirements** with regard to our products. They are our **motivation**, our **driving force** and our **partner** at the same time. We attach great importance to a close contact to our customers and to approach them on an equal level. We are a **forum** and a **community for farmers** where we talk to each other, carry out tests and exchange experiences to – together with them – get better and better. This **bond** is our **backbone** helps us never to forget what we are working for.

We want to **advance** and **inspire farming** as farming inspires us and we want to give every farmer the possibility to contribute personally.

# FARMING HEROES

POWERED BY

**HORSCH**

#### THERE IS NO SUCCESS WITHOUT PASSION

When we thought about a perfect slogan for HORSCH, there was one that quickly came to mind: "**Farming with passion**". For this passion can be found in each of our **products** and also in the actions of every single HORSCH employee.

Everyone in the company – from the management to the mechanic – lives the **passion** that makes a simple product a unique one that excels due to **innovation** and **uncompromising quality** and can be adapted perfectly to the requirements of every single farmer in every country.

"We have always been and will always be farmers who intensively deal with a sustainable cultivation of the soil. Farming has a **future** and it is worth it to work hard – for the farmer as well as for the manufacturer of agricultural machinery. Each time a farmer looks into the rear-view mirror of his tractor and sees red he is to know that he opted for **uncompromising quality**."



P. Horsch

Conrad Horsch

Philipp Horsch

Philipp Horsch

Michael Horsch

Michael Horsch

# HORSCH MILESTONE – FARMING WITHOUT A PLOUGH



During the 30-year-old company tradition **HORSCH** – like no other manufacturer – contributed to the breakthrough of **tillage without a plough**. In 2013, these efforts were awarded with the "**Milestone of Agricultural Engineering**" award.

A lot of products, e.g. the Terrano, Tiger and Joker models and last but not least the universal seed drill Pronto DC, allow for farming without a plough on the highest level.

According to the Federal Statistical Office by now 40 per cent of the arable land is cultivated without a plough. For wheat it amounts to even 60 per cent. 20 years ago no-one dared to believe that.

**HORSCH** played an important part in getting this far. With this background other milestones in agricultural engineering will be developed.



Terrano FX – Universal and low horsepower requirement

Terrano GX – Elegant all-purpose tool

Terrano FM – Efficient universal cultivator

Terrano MT – Shallow mixing – deep loosening

## Terrano

### EXTREMELY LOW HORSEPOWER REQUIREMENT!

#### Terrano FX – Universal cultivation without compromise

The HORSCH **Terrano FX** is a compact 3-bar cultivator with a wide range of use – whether for shallow stubble cultivation or intensive soil cultivation.

The all-rounder Terrano FX mixes perfectly in all depths between 5 and 30 cm. Thanks to the frame height of 85 cm (on the 3, 3.5, 4 and 5 FX models) and a tine spacing of 30 cm, the Terrano accurately mixes in all crop residues, even under the heaviest of conditions.

#### Terrano GX – Elegant precision in its diversity

The **Terrano GX** has been developed for efficient and accurate tillage. The scope of use ranges from shallow tillage to deep tillage up to 25 cm. It is available in a 3- and a 4-bar version. Due to the simple handling and the structured design together with an optimum working result the machine is an uncompromising tool for all requirements.

Several equipment versions are available for consolidation like for example the **SteelFlex packer**.

#### Terrano FM – Efficient universal cultivator

The HORSCH **Terrano FM** is ideal for shallow and medium-deep tillage. The 4-bar frame design with a tine spacing of 27 cm guarantees intensive mixing and levelling. In the field, the Terrano 10/12 FM turns on the whole packer width and on the front support wheels thus allowing for fast and safe turning manoeuvres despite the large working widths.

The **double RollPack packer** guarantees high operational reliability combined with intensive consolidation and a good surface structure.

#### Terrano MT – Shallow mixing and deep loosening

There is a disc harrow situated in the first two rows of the **Terrano MT** followed by two rows of TerraGrip tines with narrow LD (low disturbance) points. It is particularly suitable for cultivating heavy soils that require deep loosening, but where harvest residues can only be mixed in a shallow way to prevent rough soil from being transported to the surface.

The **HORSCH SteelDisc packer** is used to guarantee maximum consolidation.



#### MiniDrill Accurate efficiency for catch crops and Greening

The HORSCH MiniDrill is a completely new development. It is equipped with a 400 l hopper and the well-proven metering unit of the Pronto. The seed is injected directly into the distribution system. The MiniDrill can be combined with all Terrano FX and GX machines.

To guarantee an excellent lateral distribution there are six evenly distributed outlets in front of or behind the packer for 3 m machines and twelve outlets for 4 m working width upward.



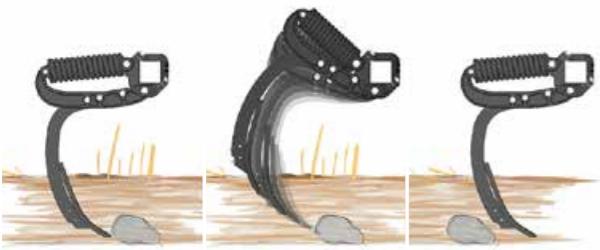
#### Philipp Horsch:

"The **Terrano FX** is the top-selling HORSCH cultivator. By now, it can be characterised as the classic cultivator. We have brought to perfection some individual details like for example the frame design or the TerraGrip tine of the second generation in all working widths."

# TerraGrip

## SOLID SAFETY

The **TerraGrip** is a very powerful tine with overload protection. The trip height amounts to 30 cm without triggering a shear bolt. This saves time and money. Due to the effective stone protection the tine moves quickly in case of overload and due to the spring force penetrates the soil again quickly and exactly – without the usual side movements.



**TerraGrip III illustration**

TerraGrip III 550 kg release force/30 cm trip height.

When releasing the force decreases to 170 kg.  
This releases the stress on the frame.



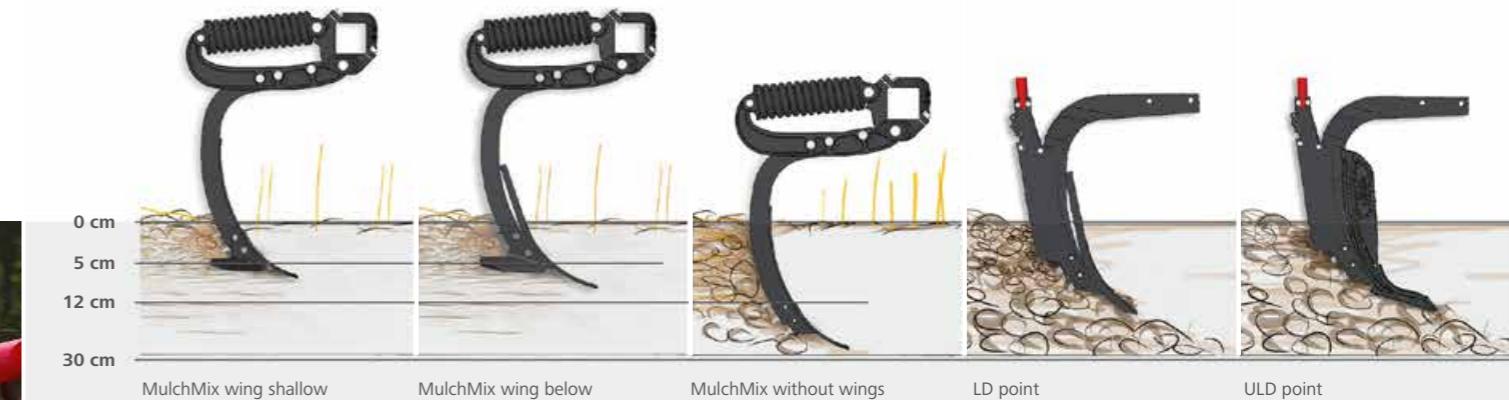
# HORSCH

## POINT VERSIONS FOR ANY USE

The **MulchMix point** with its steep angle is designed for the intensive mixing of harvest residues and deep cultivation. Due to the large diameter (600 mm) of the **HORSCH MulchMix point** the soil is not pressed and its structure remains intact. Regardless of the working depth: The point never penetrates the soil vertically. This reduces the horse power requirement and saves valuable petrol. Even if there are high amounts of straw, it achieves an excellent mixing quality. The MulchMix points consist of three parts (point, guide plate, wing) which can be changed independently. For a very shallow stubble

cultivation and all-over cutting the wings can be set to a shallow position. If deep loosening and at the same time an excellent mixing of the soil is desired, the wings can simply be dismantled.

If deep loosening without mixing is desired, the machine can be equipped with **HORSCH LD points** which guarantee excellent loosening up to 30 cm without moving too much earth. Another option is the **HORSCH ULD points** that due to its shape does not take clods to the surface, but only loosens the soil deeply.



# PACKER

## FOR THE OPTIMUM RESULT

The depth effects and the primary use of the different HORSCH packer versions.



HORSCH can supply the appropriate packer version for deep as well as for shallow consolidation. The choice of the packer depends on the soil and HORSCH has a reasonable solution for any type of soil. Due to the consolidation excessively loose soil is compacted, clods are destroyed and an ideal environment with an optimum ratio of water- and air-bearing pores is created.

The new SteelFlex packer has been developed for the Terrano GX to provide more flexibility. The **SteelFlex packer** is a mixture of SteelDisc and RingFlex packer. The **SteelDisc roller** provides a deep consolidation to guarantee an optimum connection to the water supply, the **RingFlex packer** then covers the surface with fine earth for an optimum germination bed.

	Winter packer	SteelDisc packer	Tyre packer	Cage drum roller	RollCut packer	RollFlex packer	RollPack packer	RingFlex packer	Double RollFlex	Double RollPack	Double SteelDisc	Double RingFlex	Steel Flex
Terrano FX	■	■	■	■	■	■	■	■					
Terrano GX	■	■							■	■		■	■
Terrano 10/12 FM											■		
Terrano MT									■	■	■	■	

SteelFlex packer



Double RollPack packer



# Terrano FX

## CULTIVATION WITHOUT COMPROMISE

The **Terrano FX** is a compact universal cultivator which can be equipped with different points. It is used for a shallow whole area stubble cultivation or for intensive loosening and mixing of straw to a working depth of between 5 and 30 cm. Its 3-bar, robust frame design with high clearance ensures uniform mixing in of residues even in difficult soil conditions. In comparison to 2-bar cultivators, the Terrano FX keeps the soil within the cultivator for a longer time, thus ensuring an excellent mixing performance. Even levelling and deep consolidation ensure a perfect finish and produce an optimal seedbed.

Already in 2003, the DLG Fokus test confirmed the low horsepower requirement of the Terrano FX. Maintaining best working quality, the Terrano FX consumes 20 % less diesel compared to the average consumption of all tested candidates.

The point systems can be changed easily. Each is individually optimised for its specific task (whole area/shallow, intensive mixing/deep). This makes the Terrano FX versatile, not only in working depth but also in performance. The working depth of the Terrano FX is controlled by the hydraulics of the tractor and the packing system. The depth is set with ClipOn spacers (AluClips) that limit the lowering depth of the cultivator frame in relation to the packing system.

The robust **TerraGrip tine** provides constant point control at the required working depth. The MulchMix points guarantee intensive mixing of the soil without damaging the soil structure. The levelling discs are optimally placed and can be adjusted so that the surface is level. In addition to its weight, the Terrano uses the down force of the tines for an even and deep consolidation.



### What are the excelling features of the Terrano FX?

- All-purpose
- Works in crop residues superbly, under all conditions
- Really easy to pull, tractive power requirement starts at 120 hp
- Robust, even for the most stringent requirements
- Working depths between 5 and 30 cm
- Short, compact design
- Equipment versions to suit all conditions

# Terrano GX

## ELEGANT PRECISION IN ITS DIVERSITY

The **Terrano GX** is an all-rounder that works perfectly for shallow as well as for deep cultivation up to 25 cm.

The Terrano GX is available as a 3- and 4-bar version and thus combines the requirements of the customers. The working widths range from 4 to 6 metre. It is equipped with the third generation of TerraGrip tines that are located smoothly in the frame and have a release force of 550 kg. The large pivot points guarantee a long, maintenance-free service life. The cultivator can be equipped with any of the described point versions and thus can be used in any season.

The chassis of the Terrano GX is located behind the tine section, in front of the levelling tools. The chassis with large tyres is used for road transport as well as for turning on the headlands. The sophisticated design characteristics of the chassis guarantees high ground clearance when lifted as well as a safe swivelling of the tyres out of the working range when lowered. The position of the chassis has been chosen to guarantee optimum manoeuvrability in the field and high driving comfort on the road.

To be able to make optimum use of the tractive output, the Terrano GX is equipped with a fully integrated tractive power amplifier that transfers weight to the rear axle of the tractor with 1 200 kg while working. It is activated by switching the control device for lifting and lowering to a depressurised condition, without any additional control devices or cylinders.

With regard to levelling you can choose between the discs with oil-bath bearing that aggressively distribute the material in front of the packer and the levellers that spread the material and thus guarantee perfect levelling.

The Terrano GX can be equipped with a single packer or with a double packer. New packer versions have been developed that cover any range of use. For working in wet conditions or to cultivate the winter furrow a special humidity/winter packer has been developed that due to its small contact area prevents compaction and that only controls the depth of the machine.

The packer range for the Terrano GX has been extended. The available single packers are the RingFlex packer and the SteelDisc packer. The double packers are the well-known double RollPack packer, the double RingFlex packer and new the SteelFlex combi-packer.



**1** TerraGrip III with 550 kg release force

**2** Disc levelling for optimum distribution, optional: levellers

**3** Structured design with middle chassis in working position

## Terrano GX

### 3-BAR VERSION



## Terrano GX

### 4-BAR VERSION



#### What are the excellent features of the Terrano GX?

- 3- and 4 bar universal cultivator
- For shallow and deep working
- Manoeuvrable due to middle chassis
- TerraGrip tines
- Hydraulic traction reinforcement
- Variable packers

# Terrano FM

## EFFICIENT UNIVERSAL CULTIVATOR



The **Terrano FM** is ideal for shallow stubble cultivation and medium-deep tillage, depending on the tractor power. Due to its 4-bar design it achieves intensive mixing and with a tine spacing of 27 cm the horsepower requirement is still low.

At the same time the clearance of the Terrano FM is large and thus avoids blocking in case of high amounts of harvest residues. It is equipped with the TerraGrip tine of the third generation – they stand for exact point control due to the high release forces of 550 kg for the Terrano 10 and 12 FM. The large pivot points are maintenance-free and very solid. The well-proven MulchMix points guarantees an excellent mixing effect with a low horsepower requirement.

In the field the Terrano 10 and 12 FM turns on the packer thus conserving the soil on the headlands. For road transport the turret chassis swings downwards and swaps place with the middle packer segment. The chassis is located in the centre of the machine and guarantees high stability and driving comfort during transport.

The disc levelling with maintenance-free oil-bath bearing guarantees an even levelling of the soil already in front of the packer. The rest is carried out by the very solid and sophisticated double RollPack packer. Due to its stable design it is suitable for almost all types of soil. The interlocking packer rings guarantee an excellent self-cleaning.

Depth control is carried out hydraulically via the packer and the swing support wheels. To adjust the machine exactly, the well-proven AluClips (colour-coded) are clipped to the cylinders.

Despite its large working width the transport width of the Terrano 12 FM is 3 metre with a frame height of 600 mm and 3.63 metre with a frame height of 750 mm.



### What are the excelling features of the Terrano 10/12 FM?

- Wide, central low chassis for perfect stability during transport
- Exact depth control via front support wheels and packer
- Turning in the field on the whole packer width = minimum load on the headlands and high turning speeds
- 600 resp. 750 mm frame height for transport widths of 3.0 m resp. 3.63 m
- Double packer
- TerraGrip tines

Terrano FM while folding

Terrano 12 FM only 3 m wide when folded

# Terrano MT

## SHALLOW MIXING – DEEP LOOSENING

The **Terrano MT** has been specially designed for the following range of use: "mixing on the top, loosening at the bottom". The cultivator has a middle chassis and a 4-bar frame design (2 rows of discs + 2 rows of tines). It is particularly suitable for cultivating heavy soils that have to be loosened deeply, but where harvest residues can only be mixed in a shallow way to prevent rough soil from being transported to the surface.

The 2-row **DiscSystem** allows for a shallow and intensively mixing cultivation and a clogging-free working even if there are difficult residues and high quantities of straw. The **DiscSystem** creates a lot of fine earth and the working depth can be adjusted hydraulically and steplessly.

The **DiscSystem** is followed by a 2-bar **tine system**. Due to the large tine spacing of 40 cm and the narrow (40 mm) LD (low disturbance) points the power demand for this system is relatively low.

It allows for an intensive loosening down to a depth of 30 cm with a low mixing effect. Almost no rough soil is transported to the surface and it runs below the disc harrow horizon. The new **Ultra LD points** increase drainage as they cultivate the soil but do not bring large clods to the surface.

Due to its middle chassis the **Terrano MT** is extremely manoeuvrable on the headlands and its roadability is excellent. Under for example wet conditions the chassis can be used additionally for depth control. Thus, less weight is transferred to the packer – the HORSCH **SteelDisc packer** with a diameter of 58 cm and a weight of 175 kg/m working width for maximum consolidation. It is also ideal on most heavy soils and its packer elements leave a good soil structure. Additionally, the **Terrano MT** is equipped with two efficient double rollers. You can choose between a **double RollFlex** or a **RollPack packer**.



SteelDisc packer for optimum consolidation also on heavy soils

TerraGrip tines with LD points for deep loosening of the soil

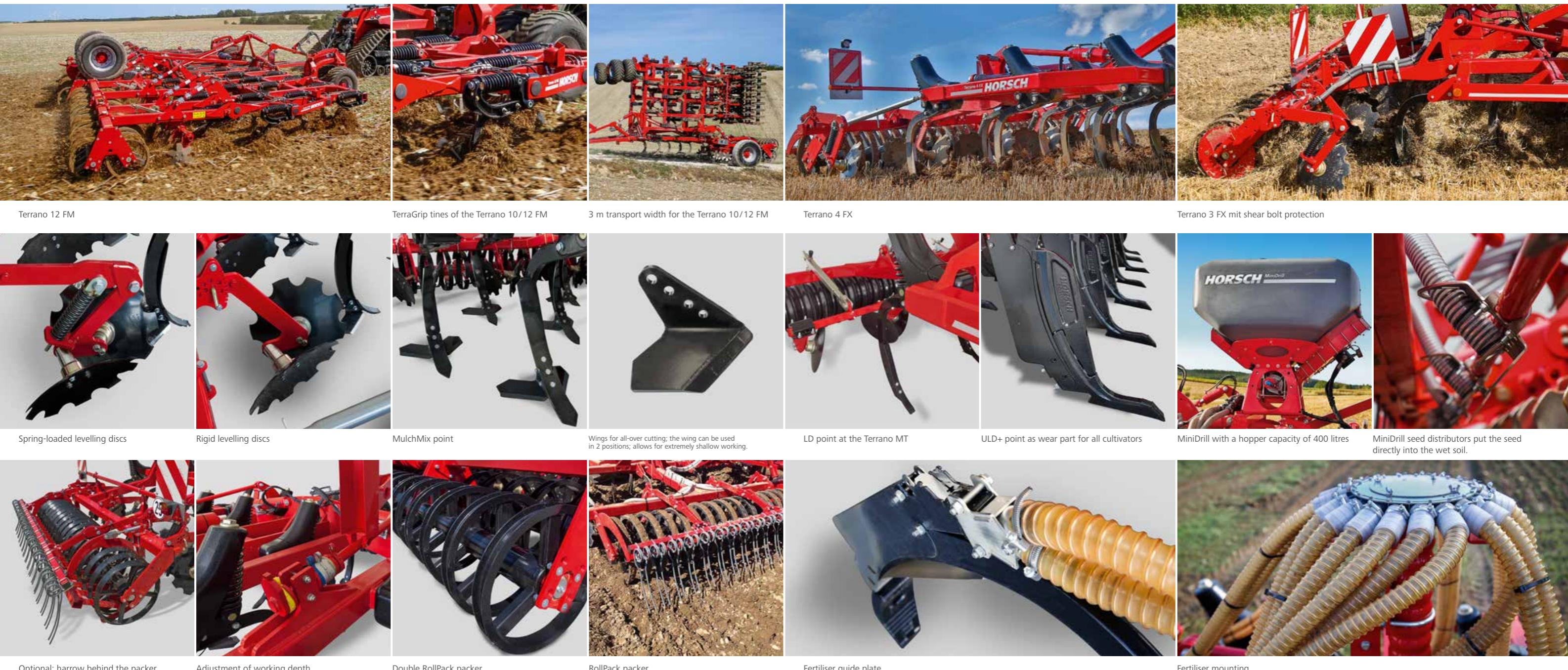
DiscSystem for intensive shallow mixing

ULD+ points loosen the soil deeply and even in heavy soils, do not bring large clods to the surface.

### What are the excelling features of the Terrano MT?

- A combination of compact disc harrow and 2-bar cultivator
- Shallow mixing and deep loosening
- Manoeuvrable due to middle chassis
- DiscSystem can be adjusted regardless of the working depth of the tines
- TerraGrip tines in the third and fourth row
- SteelDisc packer also for heavy soils

# EQUIPMENT



# TECHNICAL SPECIFICATIONS



HORSCH Terrano FX	<b>3 FX</b>	<b>3.5 FX</b>	<b>4 FX</b>	<b>4 FX rigid</b>	<b>4 FX Chassis</b>	<b>5 FX</b>	<b>5 FX Chassis</b>
Working width (m)	3.00	3.50	4.00	4.00	4.00	5.00	5.00
Transport width (m)	3.00	3.50	3.00	4.06	3.00	3.00	3.00
Transport height (m)	2.05	2.05	3.00	2.05	3.10	3.60	3.60
Length (m)	3.80	3.80	4.00	3.80	7.10	4.00	7.10
Weight with shear bolt protection (kg)*	1 390	1 810	2 200	2 250	3 150	3 000	3 900
Weight with TerraGrip tines (kg)*	1 860	2 190	2 740	2 600	3 690	3 700	4 600
Tyre size support wheels	---	---	10.0/75-15.3	---	10.0/75-15.3	10.0/75-15.3	---
Tyre size chassis	---	---	---	---	400/60-15.5	---	400/60-15.5
Number of tines	10	12	13	14	13	16	16
Tine spacing (cm) in one row	90.00	89.00	91.50	88.20	91.50	93.00	93.00
Tine spacing (cm)	30.00	29.00	30.50	29.40	30.50	31.00	31.00
Frame height (mm)	850	850	850	850	850	850	850
Double-acting control devices	---	---	1	---	2	1	2
Power demand (kW/hp)	90–147/ 120–200	100–163/ 140–220	115–180/ 160–250	115–180/ 160–250	115–180/ 160–250	150–220/ 205–300	150–220/ 205–300
3-point linkage	3-point Cat. II/III	3-point Cat. II/III	3-point Cat. II/III	3-point Cat. II/III	---	3-point Cat. II/III–III/IV	---
Connection via lower link	---	---	---	---	Cat. III–III/IV–IV	---	Cat. III–III/IV–IV

\* Weights of the machines with minimum equipment, rigid levelling discs and RollFlex packer

HORSCH Terrano GX	<b>4.3 GX</b>	<b>5.3 GX</b>	<b>6.3 GX</b>
Working width (m)	4.00	4.90	5.90
Transport width (m)	2.99	2.99	2.99
Transport height (m)	2.83	3.36	3.85
Length (m)	8.61	8.61	8.68
Weight (kg)*	5 050	5 750	6 350
Tyre size support wheels	400/60-15.5	400/60-15.5	400/60-15.5
Tyre size chassis	550/45-22.5	550/45-22.5	550/45-22.5
Number of tines	13	16	19
Tine spacing (cm) in one row	92	94	95
Tine spacing (cm)	31.00	31.00	31.50
Frame height (mm)	850	850	850
DA control devices lower linkage	2 (+1 with hyd. depth adjustment)	2 (+1 with hyd. depth adjustment)	2 (+1 with hyd. depth adjustment)
Power demand (kW/hp)	130/175	175/240	220/300
Connection via lower link	Cat. III–III/IV–IV	Cat. III–III/IV–IV	Cat. III–III/IV–IV
Connection via adjustable drawbar	Hitch Ø 42–51 mm	Hitch Ø 42–51 mm	Hitch Ø 42–51 mm
Connection via ball head	K 80	K 80	K 80

HORSCH Terrano GX	<b>4.4 GX</b>	<b>5.4 GX</b>	<b>6.4 GX</b>
Working width (m)	4.00	4.90	5.90
Transport width (m)	2.99	2.99	2.99
Transport height (m)	2.83	3.36	3.85
Length (m)	9.40	9.40	9.40
Weight (kg)*	5 300	6 250	6 850
Tyre size support wheels	400/60-15.5	400/60-15.5	400/60-15.5
Tyre size chassis	550/45-22.5	550/45-22.5	550/45-22.5
Number of tines	13	17	21
Tine spacing (cm) in one row	123	118	114
Tine spacing (cm)	31.00	29.50	28.50
Frame height (mm)	850	850	850
DA control devices lower linkage	2 (+1 with hyd. depth adjustment)	2 (+1 with hyd. depth adjustment)	2 (+1 with hyd. depth adjustment)
Power demand (kW/hp)	185/250	220/300	260/350
Connection via lower link	Cat. III–III/IV–IV	Cat. III–III/IV–IV	Cat. III–III/IV–IV
Connection via adjustable drawbar	Hitch Ø 42–51 mm	Hitch Ø 42–51–71 mm	Hitch Ø 42–51–71 mm
Connection via ball head	K 80	K 80	K 80

\* Weights of the machines with minimum equipment with adjustable drawbar linkage and RollPack packer



# TECHNICAL SPECIFICATIONS



HORSCH Terrano FM	10 FM (3 meter)	10 FM	12 FM (3 meter)	12 FM
Working width (m)	10.26	10.26	12.15	12.15
Transport width (m)	3.00	3.63	3.00	3.63
Transport height (m)	4.00	4.00	4.00	4.00
Length (m)	9.50	9.50	9.50	9.50
Length without drawbar (m)	---	---	---	---
Length with drawbar (m)	---	---	---	---
Weight (kg)**	12 550	12 600	13 185	13 360
Weight with shear bolt protection (kg)*	---	---	---	---
Weight with TerraGrip tines (kg)*	---	---	---	---
Tyre size support wheels	400/60–15.5	400/60–15.5	400/60–15.5	400/60–15.5
Tyre size chassis	445/65–22.5	445/65–22.5	445/65–22.5	445/65–22.5
Number of tines	39	39	45	45
Tine spacing (cm) in one row	108	108	108	108
Tine spacing (cm)	26	26	27	27
Frame height (mm)	600	750	600	750
Double-acting control devices	3	3	3	3
Power demand (kW/hp)	330–405/450–550	370–480/500–650	330–405/450–550	370–480/500–650
Connection via lower link	Cat. III–III/IV–IV	Cat. III–III/IV–IV	Cat. III–III/IV–IV	Cat. III–III/IV–IV
Connection via adjustable drawbar	Ring hitch Ø 58–79 mm			
Adjustable drawbar linkage hitch ball joint	Eyes Ø 51–71 mm			
Connection via ball head	K 80/K 110	K 80/K 110	K 80/K 110	K 80/K 110

\* Weights of the machines with adjustable drawbar with minimum equipment and double RollPack packer

\*\* Weights of the machines with adjustable drawbar with minimum equipment and double RollFlex packer

HORSCH Terrano MT	4 MT	6 MT
Working width (m)	4.40	6.00
Transport width (m)	3.00	3.00
Transport height (m)	3.20	4.00
Length without drawbar (m)	9.25	9.25
Length with drawbar (m)	9.80	9.80
Weight (kg)*	6 730	7 950
Tyre size chassis	400/70–24	400/70–24
Tyre Ø chassis (cm)	120	120
Number of tines	11	15
Tine spacing (cm) in one row	80	80
Tine spacing (cm)	40	40
Width LD point (mm)	40	40
DiscSystem front discs Ø (cm)	52	52
DiscSystem disc size (mm)	6	6
Number of front discs DiscSystem	36	48
Cutting angle DiscSystem discs (degree)	17	17
Frame height (mm)	850	850
DA control devices lower linkage	3 (+1 with hyd. depth adjustment)	3 (+1 with hyd. depth adjustment)
DA control devices adjustable drawbar	4	4
Power demand (kW/hp)	150–200/180–250	200–270/270–370
Connection via lower link	Cat. III–III/IV–IV	Cat. III–III/IV–IV
Connection via adjustable drawbar	Hitch Ø 42–51 mm	Hitch Ø 42–51–71 mm
Connection via ball head	K 80	K 80

\* Weights of the machines with adjustable drawbar with minimum equipment and double RollFlex packer





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