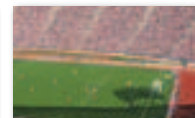
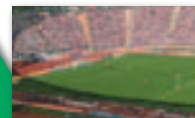




 **Wiedemann**[®]

*Deep aeration and removal of
compaction to a depth of 40 cm,
central tine adjustment,
central depth adjustment,
integrated absorbing system,
integrated tine mounting
and dismantling system,
complete line of tools
and rear accessories.*

TERRA SPIKE[®] XP



TERRA SPIKE® XP

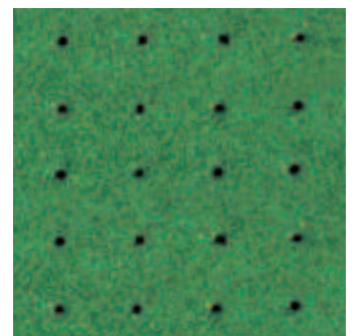
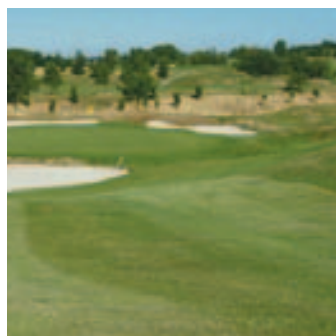
Satisfied players are your best customers – so you should achieve a maximum of quality on your turf. We will assist you.

Regular deep spiking and deep aeration is the prerequisite for a healthy growth of roots. After decompacting the ground, the roots can penetrate deeper into the ground and thus will make better use of water and nutrients. The water and air circulation will be improved, thatch will be removed and the shearing strength will be increased.

Often there is only very little time available for performing this job, which is especially important for the quality of your turf. Therefore, a high productivity with both an excellent quality of work and an easy operation are important criteria for you when selecting the machine to be used? Well, the **TERRA SPIKE® XP** is the ideal machine for you.

The **TERRA SPIKE® XP** is operated on golf greens, fairways and sport grounds. Prior to developing the **TERRA SPIKE® XP** the engineers from Wiedenmann listened carefully to the green keepers and groundsman and made their requirements the basis for the conception of the **TERRA SPIKE® XP**. Using most sophisticated 3D CAD technology the requirements of these practical users were realized in the **TERRA SPIKE® XP**. Technical reliability and a long service life of the machine were further criteria during the development stage. The individual components were selected and tested carefully. After completing the development stage the **TERRA SPIKE® XP** had to undergo a long test stage, proving in a rough permanent field operation that it meets all requirements of the development target. Another important request of the users was the requirement of a multiple utility of the **TERRA SPIKE® XP**. This requirement has been met with the **System TERRA SPIKE®**. For the application along with the **TERRA SPIKE® XP** there is a wide range of tools and rear attachments available, allowing to expand the **TERRA SPIKE® XP** into a multi-functional machine which can be operated over the whole year.

This brochure gives you detailed information about the various options for operating and applying the **TERRA SPIKE® XP**.

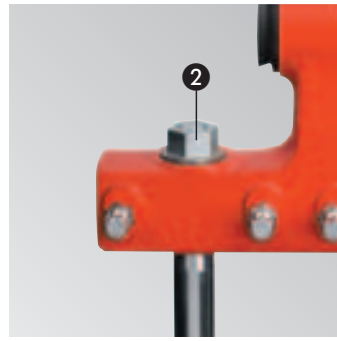


■ **Quicker – Easier – More Efficient**

TERRA SPIKE® XP – the new dimension of deep aeration which treats your turf gently. When you have mounted the **TERRA SPIKE® XP** to your tractor and have lifted it for the first time, you will be surprised at how easy it works. The reason for that is the especially compact direct attachment of the **TERRA SPIKE® XP**, which reduces the necessary lifting power considerably. Find out how quick and easily both the working depth and the tine entry angle can be adjusted using the **QuickSet**. The wide adjustment range of the tine entry angle from

90° up to 65°, which is adjusted centrally through a crank, allows the optimal adjustment of the spiking intensity to the respective ground conditions and the extent of soil compactions. The robust 3-speed gear allows to set the desired hole spacing precisely synchronized to the respective driving speed. The fact that a firm fit of the tine in the tine holder and still a quick exchange of tines is no contradiction is demonstrated by the **QuickFit**. This technical detail solution will convince you as well.





QuickFit

The integrated system for mounting and demounting tines allows the quick and trouble-free mounting of the conical 20 mm and 25 mm tines.

Mounting of Tines

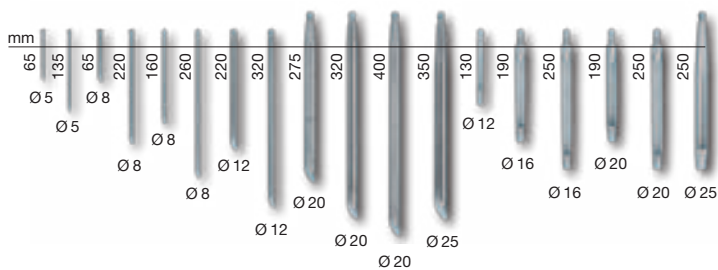
- 1 Hand-tighten the tine from below into the tine holder.
- 2 Screw the lock nut tight from above. The tine is now safely tightened in the conical tine holder.

Dismounting

- 2 Turn the lock nut in the opposite direction, which will press the tine out of the cone.
- 1 Afterwards, turn out the tine manually.

Tine Program for Every Application

A complete range of solid tines with diameters of 5, 8, 12, 20 and 25 mm, as well as hollow tines with diameters of 12, 16, 20 and 25 mm, let the **TERRA SPIKE® XP** master every job. Using the 5 mm needle tines you can achieve up to 3,700 holes per m². These are optimal prerequisites for light aeration or for preparing the ground for overseeding.



Change Speed Gear

Extremely robust change-speed gear allows to set the desired hole count in accordance with the operating speed and number of tines.

Tine Holders

The robust tine holders with largely dimensioned bearings and integrated grease reservoirs even withstand extreme conditions, such as impact stresses, dirt and sand.

QuickSet

Central, tool-free and quick adjustment of tine entry angle (90° up to 65°) and working depth. By means of just one central crank you can easily and quickly make these adjustments which are important for the working quality, whichever tine length you have mounted or whether the tine is new or used. If desired, the working depth can also be adjusted hydraulically from the driver's seat. In case of frequently changing ground conditions this allows to adjust the working depth of the **TERRA SPIKE® XP** quickly and during the operation.

1 Central Depth Adjustment

You'll be surprised at how quickly and easily the working depth of the **TERRA SPIKE® XP** can be set. Transfer the length of the tines you have mounted to the adjustable depth pointer, then set the desired working depth by means of the central depth adjustment crank. Finished. There's no quicker and easier way.

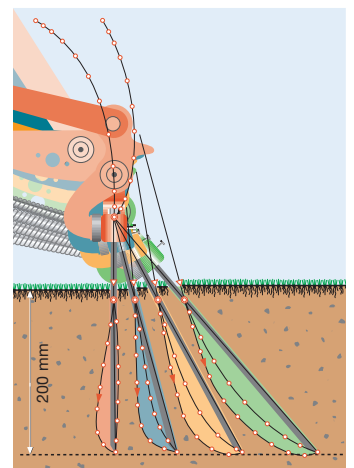
2 Central Adjustment of Angle

Crank with integrated **Power Pack** for the central, quick and tool-free adjustment of the entry angle of the tines.



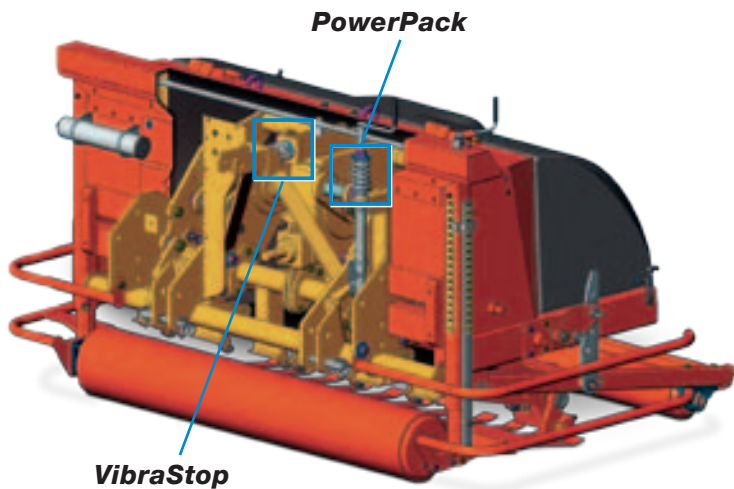
Achieve different spiking intensities by adjusting the entry angle of the tines.

Entry angle	Angle of horizontal swing	Motion (mm)	Depth (mm)
90°	6°	28	200
85°	13°	50	200
80°	19°	65	200
75°	25°	70	200



VibraStop / PowerPack

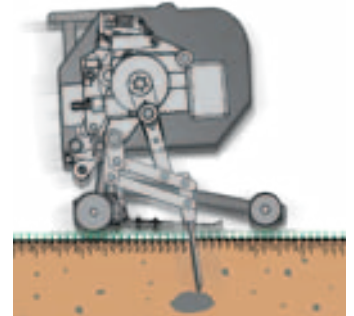
Deep aerification and loosening is tough work, both for man and machine. If, for example, a tine makes contact with a stone during operation, the tine must lift the entire machine within a fraction of a second in order to overcome this obstacle. The jolts and vibrations that inevitably occur when this happens adversely affect not only the deep aerifier, but also the tractor and the tractor driver in the form of damaging jolts and vibrations. Consequently the quality of work suffers.



To eliminate this fundamental drawback, Wiedenmann has developed two independently operating, exclusive damping systems - **VibraStop** and **PowerPack**. Together, they absorb perfectly all jolts and vibrations caused by extreme compaction or stones. The result is unrivalled smoothness of running with a minimum of strain on the driver, tractor, deep aerifier and tools.

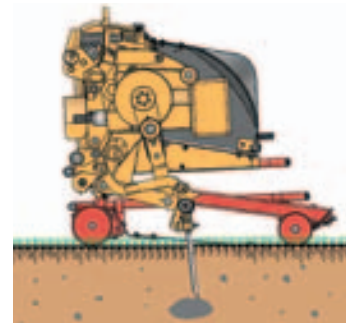
Other machines on the market

The tine strikes an obstacle in the soil. The resulting impact is transmitted undamped to the deep aerifier, the tractor and the tractor driver with damaging effect.



TERRA SPIKE® XP

The tine strikes the same obstacle in the soil. The **VibraStop** and **PowerPack** damping systems are instantly activated, and the resulting impact is absorbed. This way, the load on the deep aerifier and tractor is reduced to an almost negligible level.



System TERRA SPIKE®

Numerous satisfied **TERRA SPIKE® XP** customers expressed their desire of applying the **TERRA SPIKE® XP** even more often. Our engineers fulfilled this desire by developing various rear attachments. On the basis of the **TERRA SPIKE® XP** the machine can be expanded into a multi-functional machine

by means of various tools and rear attachments, allowing an all-year operation for different jobs. The economic efficiency achieved by reducing the operations is unbeatable. And your turf will reward you for the lower number of passes by a healthy growth.



Bogey

Instead of direct attachment to the rear 3-point hitch of the tractor the **TERRA SPIKE® XP** can also be equipped with a bogey. This can be an advantage with combined rear attachments.



Hydr. rotary brush

If the optional hydraulic rotary brush is used instead of the rear roller, the turf is first top-dressed and then it is deep loosened with the **TERRA SPIKE® XP** while the top-dress material is brushed into the turf.



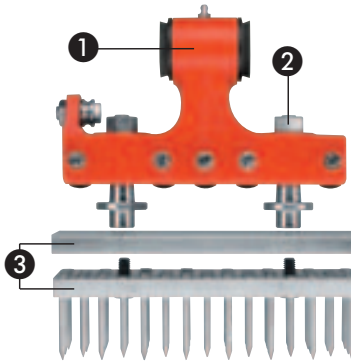
Core Collection Scraper / Windrow

When using hollow tines the cores can be skimmed off during the same operation by using the optional core collection scraper or deposited as rows when using the optional windrow. This makes subsequent collection of the cores much easier.



Multi-Tine Holders

In addition to the wide range of tines Wiedenmann offers various multi-tine holders to ensure an even higher operational efficiency. Select the appropriate type from 3 different multi-tine holders. The „Nail Board“ multi-tine holder for the 5 mm and 8 mm solid tines with a tine length of 65, 135 or 220 mm allows you to mount 73, 38, 24 or 8 tines. In the multi-tine holder for 8 mm solid tines you can mount 8 tines, with the two tine rows being placed offset to each other to ensure a narrow hole spacing. In the 3rd multi-tine holder you can mount either 8 pieces of 12 mm solid tines, or 12 mm, 16 mm, or 20 mm hollow tines. With this multi-tine holder the two tine rows are exactly placed after one another, so that they can also be used in connection with a turf retainer. The possible running speed and the related productivity are significantly increased by this.



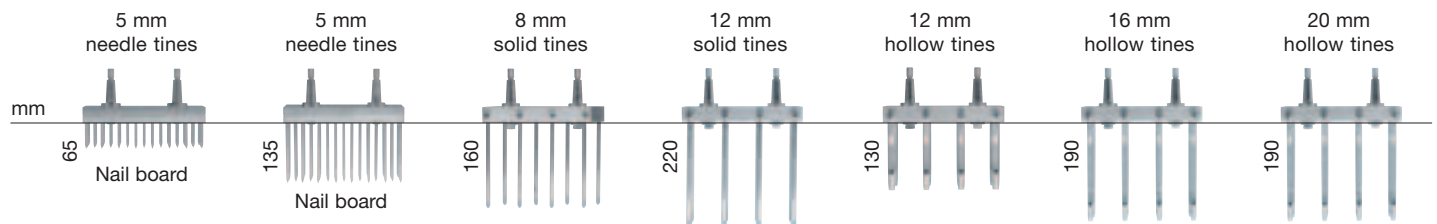
1 Tine Holder

2 QuickFit:

The multi-tine holders are easily and quickly mounted using the tine mounting and demounting system of the tine holder.

3 Nail Board:

For exchanging tines the nail board is released through two screws, the tines are exchanged and the board is mounted again. Quick and easy.



TECHNICAL DATA	TERRA SPIKE XP 6	TERRA SPIKE XP 8
Working width in cm:	160	210
Weight in kg (app.):	960	1200
Working depth in cm with solid tines / hollow tines up to:	40 / 20	40 / 20
Dimensions L / W / H in cm (app.):	132 / 216 / 162	132 / 265 / 162
Mounting:	rear - 3-point cat. I + II	
Drive:	p.t.o. and 3 speed gear box	
QuickSet / QuickFit / PowerPack / VibraStop:	standard	standard
Tools:	solid spoons 5, 8, 12, 20, 25 mm / hollow spoons 12, 16, 20, 25 mm	
Rear roller:	standard	standard
Turf retainer:	optional	optional
Hydraulic depth adjustment:	optional	optional
Core swath board:	optional	optional
Hydraulic rotary brush:	optional	optional
Set of ballast weights:	optional	optional
Bogey:	optional	optional
Multi-tine holders for solid tines of 5 / 8 / 12 mm:	optional	optional
Multi-tine holders for hollow tines of 12 mm 16 mm and 20 mm:	optional	optional
Productivity with permanent operation in m ² per hour with 20 mm solid tines and a square hole spacing of 130 mm:	@ 1.5 km/h 54 holes/m ² = 2,400 m ² /h	@ 1.5 km/h 54 holes/m ² = 3,150 m ² /h
Productivity with permanent operation in m ² per hour with 20 mm hollow tines and a square hole spacing of 65 mm:	@ 0.75 km/h 216 holes/m ² = 1,200 m ² /h	@ 0.75 km/h 216 holes/m ² = 1,575 m ² /h

Descriptions and images are not binding. Construction and design are subject to modifications.

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