



**GASPARDO**

Growing Together



**SUBSOILERS**

# MASCHIO SUBSOILERS

MASCHIO GASPARDÒ offers a complete, high-quality range of subsoilers that can satisfy any customer. Our subsoilers are available with working widths ranging from 1,3 to 7 m, both fixed and folding. The smaller versions are ideal for low-power (50 hp) tractors (even for orchards), while the larger models are perfect for tractors with high power (up to 600 hp).



## AGRONOMIC BENEFITS



### ***Break of the compacted layer just below the tine depth***

Break of the tillage sole allows proper root development, facilitates water drainage and soil aeration, and increases crop's resistance to both biotic and abiotic stresses.

### ***No inversion of layers***

Despite deep working, there is no inversion of the soil profile, thus reducing CO<sub>2</sub> emissions.

### ***Optimal crop residue management***

By keeping the residue on the surface, the quantity of organic matter of the terrain increases, allowing the proliferation of all telluric organisms. In addition, the presence of residue creates a natural mulch layer that reduces erosion due to water.

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## ECONOMIC BENEFITS



### **Reduced fuel consumption**

Thanks to the special design and inclination of the tines, friction with the ground can be reduced, resulting in lower fuel consumption.

### **Performance**

High working speed is the key to proper soil tillage.

### **Reduced maintenance**

The reduced presence of moving working parts means lower maintenance requirement.

# EFFICIENT AND BENEFICIAL

## LESS POOLING AND MORE SAVINGS

Breaking up the soil allows greater percolation of the water towards the deeper layers (with consequent reduction of water pooling) and an improvement of all the physical properties of the soil (in particular its porosity). Thanks to the particular slant of the shanks, it is possible to decrease tensile stress during work, drastically reducing diesel consumption.



## SUBSOILING

- Better development of the basal part
- Deeper roots
- Greater productivity
- Better product quality

## NO MORE COMPACT SOIL

Working 40 to 70 cm deep, the MASCHIO GASPARDO subsoilers guarantee the elimination of the compacted layer just below the tine depth, allowing for an optimal root absorption.

## ROLLERS

The rollers guarantee a good preparation of the seedbed and at the same time allow the compaction of the ground moved by the shanks, limiting the evaporation of water from the surface layers.

The new double spade roller is available for loose soil, while the classic double spike roller is recommended on stubborn and rich soils.

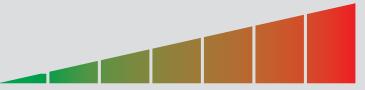


**SPADE ROLLER**



**SPIKE ROLLER**

# To work better, you need the right tool!

COATING	BORON STEEL	BORON STEEL WITH TUNGSTEN COATING	WIDIA
USEFUL FOR	Loose terrain without debris	Difficult terrain without debris	Terrains that are sandy, abrasive or rich in debris
VITA			

In addition to perfectly breaking up the deep, compacted layer of soil, the blades allow for an optimal decompaction of the ground in general and the reconstitution of the porosity in all the worked soil, while maintaining a large part of the crop residue on the surface (about 40%), thus protecting the plot against the erosive effect of rain and wind. In the presence of stones it is possible to use the new WIDIA blades that guarantee an increase in durability of about seven times compared to standard blades.

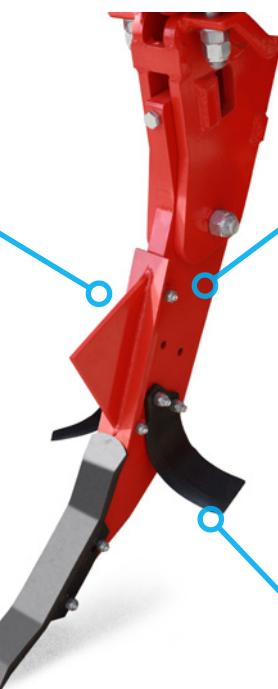
## **Clod-breaking blades**

The central blade, secured with two elastic pins, breaks up the clods, optimising the soil's refinement.

## **Reversible quick-release blade**

Given its particular shape, the blade is able to easily break up hard and compacted layers, facilitating the penetration of the shank.

Thanks to the quick-release system with single plug, in a few seconds it is possible to rotate the reversible blade in case of high wear, and if necessary to replace it if completely worn.



## **Progressive slant**

The slant of the shanks has been specifically designed to minimise the strain on the machine.

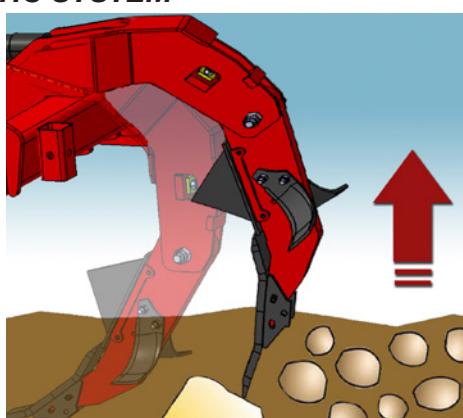
## **Side coulters**

The 140 mm coulters cut the ground horizontally and at high speeds shatter the clods in the top layers of the soil.

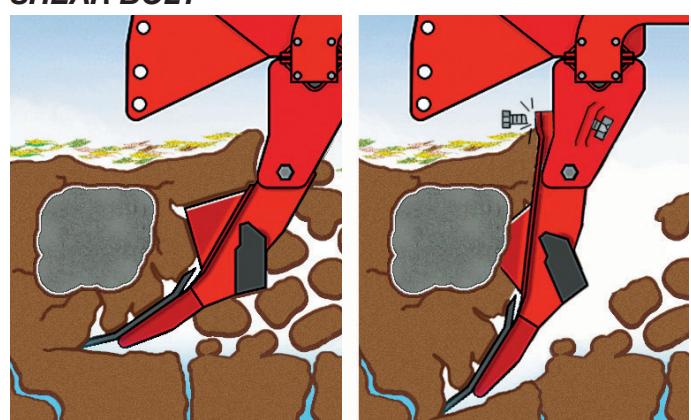
The perfect overlap between the two ranks guarantees an optimal result throughout the area. The position of the fins can be adjusted according to the working depth, allowing for better working of the soil.

## **HYDROPNEUMATIC SYSTEM**

The modern safety system and the new shank design ensure correct movement of the element upwards in the event of hidden obstacles, thus preventing damage. By means of a valve system, the oil pushed out of the piston is channelled into a double nitrogen accumulator. Thanks to a pressure gauge it is possible to set the release force of all the shanks.



## **SHEAR BOLT**



When the maximum load is exceeded, the breaking of the bolt allows the shank to be raised, avoiding possible damage to the shank and the frame.

# **PINOCCHIO**

## **from 50 to 160 hp**



### **PINOCCHIO 200/5**

#### **PINOCCHIO**

Designed for medium/low-power tractors (50-160 hp).

The machine works at a maximum depth of 45 cm and is available in different sizes from 1.3 to 3 m, therefore ideal for small farms or simply for those who do not have high-powered tractors.

#### **STRONG AND COMPACT**

This subsoiler can mount 3, 5, 7 tines according to the working width. The tines have a thickness of 30 mm and a height of 76 cm, qualities that allow PINOCCHIO to work in any condition.

The combination of tines and tips in WIDIA guarantee very high performance.



#### **ORCHARD/VINEYARD VERSION**

The models with working widths ranging from 1.3 to 2.5 meters are highly valued for their ability to decompact the spaces between the rows in orchards and vineyards with clayey and asphyxiated soils that in general are compacted by the continuous passage of the tractor. This way the soil is ventilated for the benefit of the root systems.



**PINOCCHIO 250/5**

#### **DOUBLE SPIKE ROLLER**

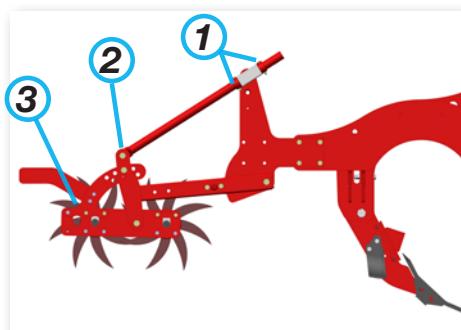
PINOCCHIO mounts a double 140 mm spike roller that guarantees both a perfect refinement of the previously worked soil and the incorporation of crop residues in the top 15-20 cm of soil. With loose soil it is possible to prepare the ground for sowing in a single pass.



#### **MECHANICAL ADJUSTMENT**

In a few seconds it is possible to change

1. Working depth
2. Working angle of the rollers
3. Distance between the rollers



#### **HYDRAULIC ROLLER ADJUSTMENT**

Upon request, it is possible to have a hydraulic version of the double spike roller, which can be adjusted comfortably from the cab.

SPECIFICATIONS	PINOCCHIO				
	130/3	200/5	250/5	250/7	300/7
Tractor power	HP	50-110	70-130	70-130	100-160
Working width	m	1,3	2	2,5	2,5
Transport width	m	1,48	2,17	2,55	2,55
Number of shanks	n°	3	5	5	7
Working depth	cm	45	45	45	45
Weight (mechanical roller)	kg	810	1050	1200	1170
Weight (hydraulic roller)	kg	766	1122	1150	1250
					1350

# ATTILA from 110 to 200 hp

# ATTILA HYDRO from 110 to 300 hp



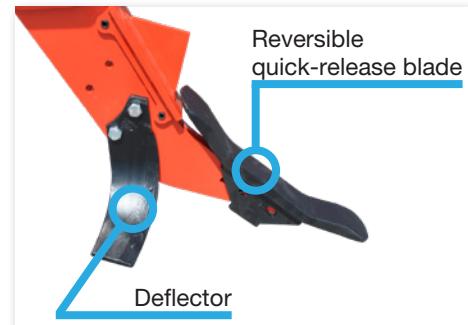
**ATTILA 300/7**

## ATTILA and ATTILA HYDRO

The ideal subsoilers for medium-powered tractors, suitable for small- and medium-sized farms. Both allow working the top 50 cm of soil without any inversion of the layers.

### MAXIMUM RESULTS WITH MINIMUM EFFORT

The special penetration angle of the tines with welded supports (CSS) allows progressive penetration into the soil, requiring less power from tractor and with less stress of the chassis. Horizontal working is ensured by the side wings, which, thanks to their tungsten carbide coating, allow greater efficiency and less wear.



### DOUBLE SPADE ROLLER

In addition to the double spike roller, ATTILA and ATTILA HYDRO are also available with the double spade roller. Characterised by a diameter of 335 mm, adjustment is hydraulic and takes place directly from tractor cab.

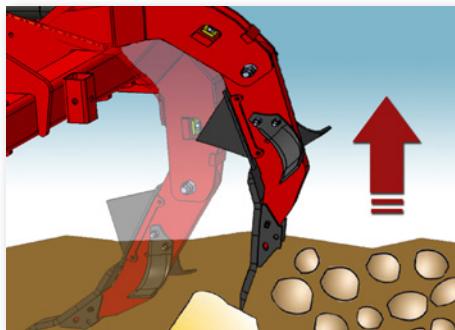
### REVERSIBLE BLADES WITH TUNGSTEN CARBIDE COATING

For abrasive soils with limited stones, the new boron steel tips with a 2 mm tungsten carbide layer are recommended. This tungsten coating, standard for mechanical machines, increases the lifespan of the element by reducing the abrasive action.





## ATTILA HYDRO 300/7



### UNSTOPPABLE

ATTILA HYDRO can have 5, 6 or 9 shanks with a thickness of 3 cm and a height of 76 cm, which, together with the hydro-pneumatic safety system, allow you to work without any interruption even in soils rich in debris.

### PRACTICAL ACCESSORIES

The containment guards are simple elements but play a very important role in containing the freshly worked soil, avoiding its lateral transfer. They can be moved hydraulically or mechanically.



SPECIFICATIONS	ATTILA		ATTILA HYDRO		
	250/5	300/7	250/5	300/7	400/9
Tractor power	HP	110-150	150-200	110-180	150-240
Working width	m	2,5	3	2,5	3
Transport width	m	2,55	3	2,55	3
Number of shanks	n°	5	7	5	7
Working depth	cm	50	50	50	50
Weight (mechanical spike roller)	kg	1380	1560	-	-
Weight (hydraulic spike roller)	kg	1600	1800	2000	2400
Weight (hydraulic spade roller)	kg	1840	2200	2200	2740
					3680

# **ARTIGLIO** from 150 to 390 hp

# **ARTIGLIO HYDRO** from 150 to 350 hp



**ARTIGLIO 300/7**

## **ARTIGLIO and ARTIGLIO HYDRO**

Designed to work with medium/high-powered tractors.

These subsoilers are available in versions of different widths with solutions from 5 to 11 shanks, for a maximum working depth of 55 cm.

## **IMPOSSIBLE TO BREAK THEM DOWN**

Thanks to a ground clearance of 86 cm, the robust tines of 35 mm thickness can reach a working depth of 55 cm with excellent results even with large amounts of residue. The frames with welded tines supports guarantee maximum resistance to tensile stresses, while the shear bolts protect against possible impacts and hidden obstacles.



## **MAXIMUM STABILITY AND CONTROL**

The rear roller, available in spade or spike versions, always uses a hydraulic system for its adjustment. A practical mechanical jack ensures the perfect perpendicularity of the two rollers to the ground, allowing specific adjustment for each terrain.



## ARTIGLIO HYDRO 300/7

### HYDRO OFFERS TOP PERFORMANCE

In the HYDRO versions a double safety mechanism is provided thanks to the hydropneumatic system and the shear bolts. In fact, if the pressure applied to the tine should be too high to be tolerated by the HYDRO system alone, the shear bolt will snap, thus avoiding possible breakage.

### WIDIA TIPS: VERSATILITY AND RESISTANCE

MASCHIO GASPARDO subsoilers are equipped with reversible tips that increase their durability, increasing the efficiency of the equipment and reducing downtime. On ATTILA and ARTIGLIO models, in addition to the aforementioned tungsten carbide coating, tips with WIDIA rods are also available.



ARTIGLIO and ARTIGLIO HYDRO can be hitched to tractors with a three-point attachment of CAT 3, 4N ISO + 3 and 4N ASAE.

CARATTERISTICHE TECNICHE	HP	ARTIGLIO				ARTIGLIO HYDRO		
		250/5	300/7	400/9	500/11	250/5	300/7	400/9
Tractor power	HP	150-200	190-250	220-330	250-390	150-250	180-280	250-350
Working width	m	2,5	3	4	5	2,5	3	4
Transport width	m	2,55	3	4,15	5,15	2,55	3	4,15
Number of shanks	n°	5	7	9	11	5	7	9
Working depth	cm	55	55	55	55	55	55	55
Weight (hydraulic spike roller)	kg	1970	2376	2930	3450	2480	2850	3470
Weight (hydraulic spade roller)	kg	2440	2550	3450	-	2730	3180	3600

# **ARTIGLIO MAGNUM** from 250 to 500 hp

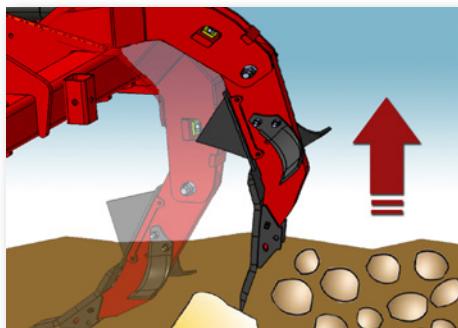
# **ARTIGLIO FOLDING** from 190 to 400 hp



## **ARTIGLIO F HYDRO 500/11**

### **ARTIGLIO F**

With its hydraulic locking system, ARTIGLIO F is the subsoiler with folding frame available with working widths of 4.1 or 5 m, with 9 or 11 tines respectively. Its particularly robust construction allows it to be used with high-powered wheeled or tracked tractors. Thanks to the maximum size of 3 metres, it is simple and safe even when moving on the road.



### **HYDRO FOR MAXIMUM SAFETY**

In the HYDRO versions, a double safety is guaranteed, resulting both from the hydropneumatic system and the shear bolts. In fact, if the pressure applied to the tine were too high to be tolerated by the HYDRO system alone, the shear bolt would break, thus preventing possible breakage.

### **IMMEDIATE ADJUSTMENT**

The working depth is hydraulically controlled through the double roller; the latter is connected to the chassis by means of the new attachment parallelogram, which allows constant contact with the ground even in the case of dips and surface obstacles.



### **SAFE ROAD TRANSPORT**

The folding frame allows safe road transport thanks to its dimensions of 2.55 and 3 m for the shear-bolt and hydropneumatic versions respectively. The tines result to be positioned within the transport widths and the lighting boards make it easy any manoeuvre. Safety is enhanced by the locking hooks, which are hydraulically operated.



## ARTIGLIO MAGNUM 300/7

### ARTIGLIO MAGNUM

Ideal for high-powered tractors thanks to a high performance frame. With shanks with a thickness of 40 mm and a very high ground clearance (115 cm), it can reach a working depth of 70 cm, offering the top performance in the category.

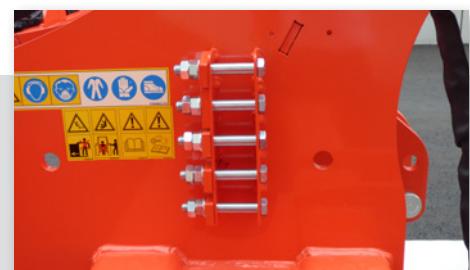


### MAXIMUM PERFORMANCE WITH "WAVE" DESIGN

With the innovative "wave" design, the sides always guarantee an optimal flow of soil and residue, avoiding blockages even at high working speeds.

### MORE BOLTS TO NEVER STOP

The spare shear bolts positioned on the three-point hitch make attachment easy and safe. Their quantities allow to reduce as much as possible downtime for their replacement.



SPECIFICATIONS	ARTIGLIO F / F HYDRO	ARTIGLIO MAGNUM				
		410/9	500/11	250/5	300/7	400/9
Tractor power	HP	250-400	350-500	190-280	240-340	310-400
Working width	m	4,1	5	2,5	3	4
Transport width	m	2,55-3	2,55-3	2,55	3	4,15
Number of shanks	n°	9	11	5	7	9
Working depth	cm	50	50	70	70	70
Weight (hydraulic spike roller)	kg	3730-4400	4150-4800	2340	2730	3680
Weight (hydraulic spade roller)	kg	-	-	2400	3060	3900

# DIABLO from 400 to 600 hp



## DIABLO

With a working width of 5, 6 or 7 m, DIABLO can only be used with tractors of the highest power. The high ground clearance and the combination of shanks and rear discs make it an unstoppable machine in all conditions.

## HEAVY DUTY FRAME

With a thickness of 10 mm, the load-bearing frame is incredibly robust. Thanks to 6 hydraulic cylinders (3 per side), the 2 side wings can be quickly closed for road transport. The cylinders also have the function of keeping the machine in a constant working position, avoiding the lifting of the sections or possible damage.

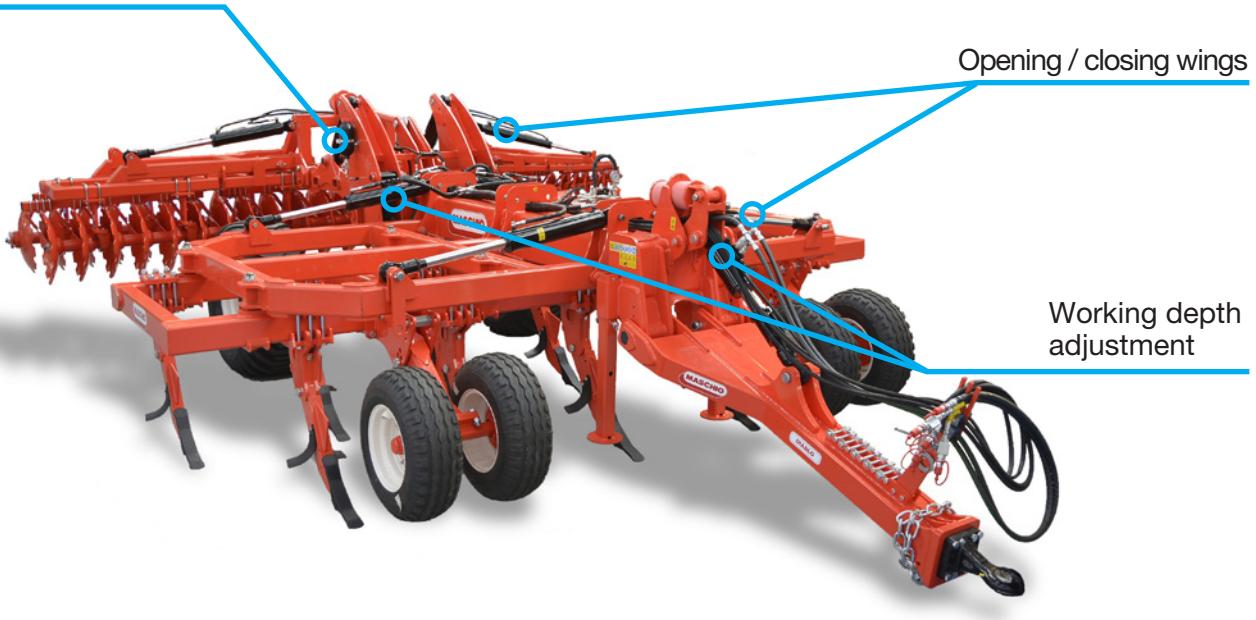


## TURNING UNDER AND CHOPPING

The 610 mm double disc roller can also chop up larger clods, only a light refinement of the soil will be then necessary before sowing. The CULTIHUB sealed hubs protect from contamination by dust, water and mud.

# Full hydraulic

Roller depth adjustment



## QUICK ADJUSTMENTS

The pair of double front wheels, (each per wing) sized 10.0/75-15.3, allow for an easy setting of working depth, thanks to the pin adjustment. The forward position in relation to the chassis increases stability and reduces risk of clogging.

## FOLDING

Despite its sizes, thanks to its 6 hydraulic cylinders, DIABLO folds up in just a few moments. The road dimensions range from 3 to 3.2 metres for the 6 and 7 metres versions.



CARATTERISTICHE TECNICHE	DIABLO		
	500/11	600/13	700/15
Tractor power	HP	400-500	450-550
Working width	m	5	6
Transport width	m	3	3,2
Number of shanks	n°	11	13
Working depth	cm	45	45
Weight (hydraulic roller)	kg	8900	9370



# GASPARDO

## Growing Together

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