



# ***RECYCLER ATTACHMENTS***

***for Ground Stabilization***



***Multi-function***





## ABOUT US

**Soil Solutions** is the global leader in providing Value Engineered Solutions for Road Construction.

We are constantly innovating and supplying new technologies that improve the process, cost effectiveness and sustainability of road construction.

We take pride in delivering the best possible solutions to our clients across many industries including Mining, Oil, Agricultural, and Construction.

With these Recycler Attachments you can now achieve the same efficiency and high level of performance without the high cost of a self-propelled Recycler or Reclaimer, and negate the need for a crushing and screening plant as these attachments crush stone in-situ.



**These multi-purpose machines are the latest example of innovative technical and construction solutions that Soil Solutions provides.**



## ADVANTAGES

The “Multi-Purpose” machines were designed to be reliable and efficient even under the most harsh job conditions. In particular, rugged solutions have been designed and developed to facilitate and accelerate ground stabilization work for roads, motorways, airports, industrial yards, railways and other major infrastructure jobs. Also, for the maintenance and creation of unpaved roads, airstrips, plantation / agricultural roads.



**Superior results,** with the ground perfectly consolidated and levelled. The rear mount keeps the tractor from running over the prepared surface.

**These machines offer the incomparable** advantage of being able to meet the requirements for many applications: stone crusher, stabilizer and under certain conditions asphalt grinder for road maintenance and construction. As well as stone crusher and tree stump grinder in agricultural/forest areas that are normally difficult to access.



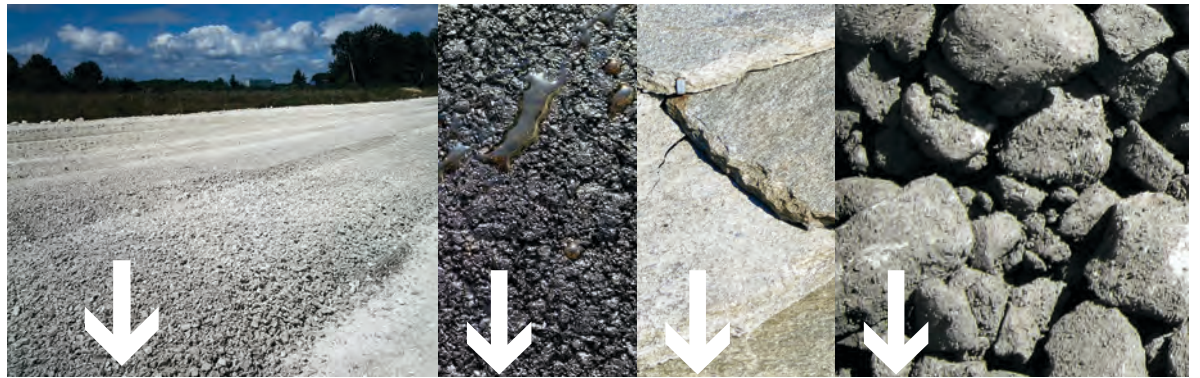
**Moving** from one job site to another is quick and easy.

**The Multi-Purpose heads in the “Construction” Rotor may be attached to a tractor quickly and easily.**

**The tractor's PTO powers the grinding head and can be quickly equipped with a stone crusher/stabilizer.**







Stabilize

Asphalt  
grinding

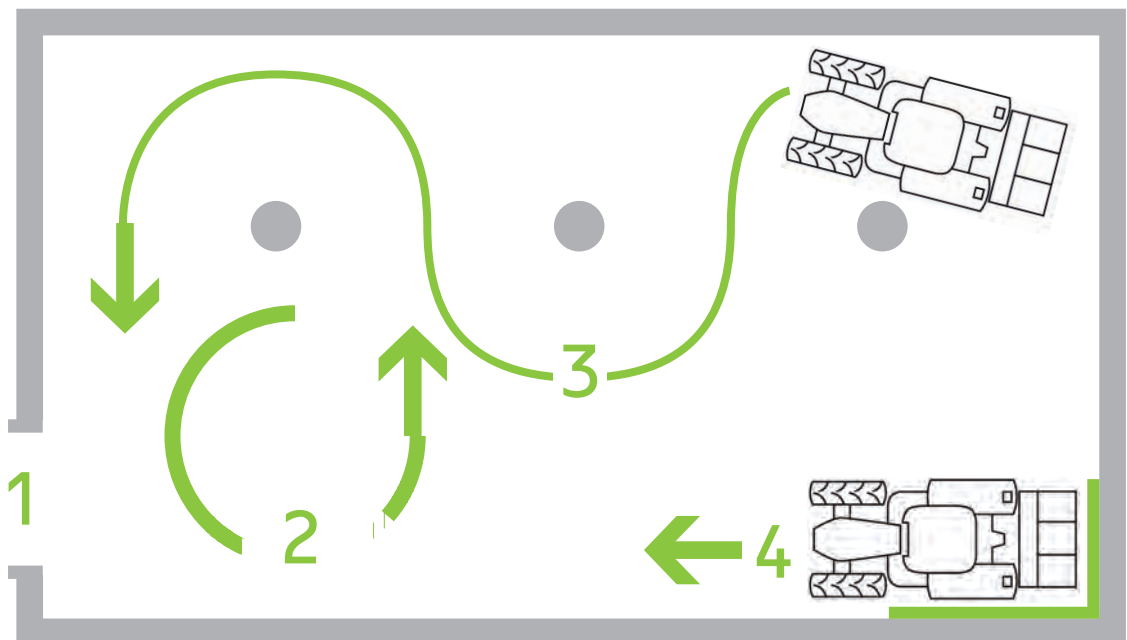
Slab  
grinding

Stabilize in  
presence of stones

**Versatile and functional** because they are able to grind rock and asphalt, crush stone and chemically stabilize rocky or coarse material.

**Compact and maneuverable**, they work with great agility even in restricted areas, on curved secondary roads, for re-finishing corners and segments that are hard to reach with machines. Therefore, the superior results can be achieved in restricted spaces or in open surfaces, and in the presence of individual moveable stones or stone slabs.

**1)** Use with restricted access **2)** Extreme maneuverability **3)** Easy to use even in the presence of obstacles **4)** Perfect finish of corners and difficult to access areas



### High performance and efficiency with every application

High quality materials, reliable technology and attention to details ensure rugged efficiency over time.







## THE MACHINES

### RSL Model:

High-level function with reduced dimensions and low weight. Versatility and flexibility make it perfect even in very tight spaces. Ideal for areas of asphalt during road main- grinding small maintenance procedures.



### MTM Model:

Its compact size and maneuverability ensure fast, easy transport from one jobsite to the next and enable work in tight spaces that are hard to reach with self-powered machines.





## MTH Model:

This is the top of the range in terms of technology and productivity. It is designed for use with very powerful tractors. Very reliable as it offers high performance under the harshest conditions.



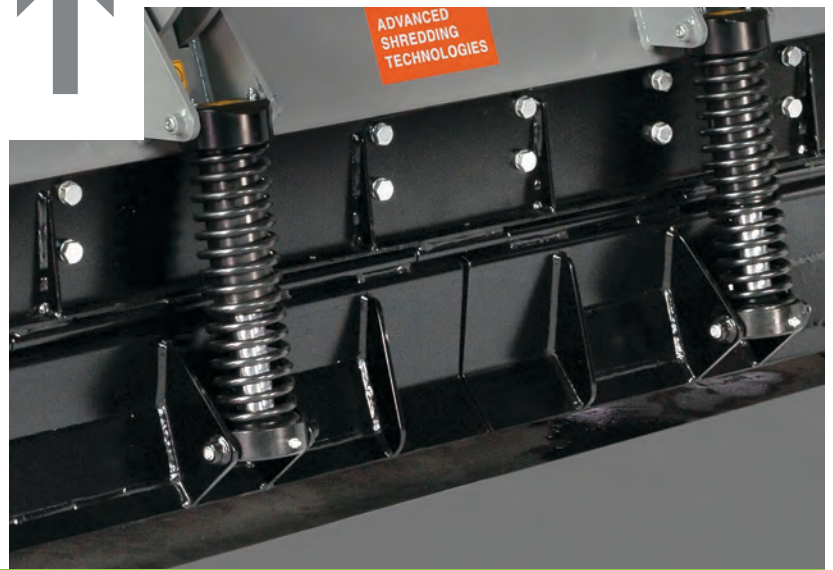




## DETAILS

Each mechanical component is protected and easily accessed. All internal parts subject to wear are easy to reach and may be replaced from the outside. All adjustments required for work are also accessible from outside.

In the models with the damped metal dozer blade, the ground material is levelled enabling a uniform base of earth and binder to be laid down.



## → Structural cast iron gear unit protection

Designed to create the least possible obstruction to soil penetration. The gear unit is easily disassembled. Attached with a swing-arm, it transmits the torque needed by the rotor (supported independently by sized, swivelling roller bearings). Independent from the chassis, it is not subject to the stress placed on the frame or any possible warping.





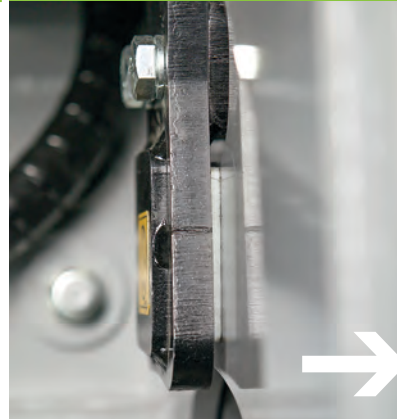
All of the machines are set up for the installation of the water system (rear installation also).



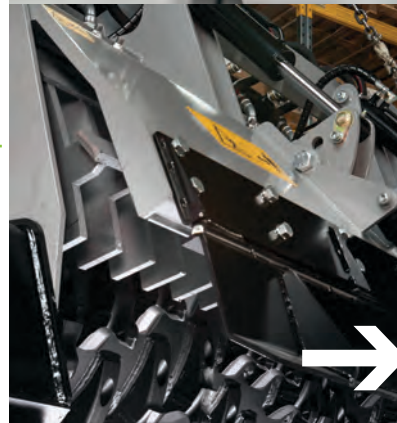
All parts subject to wear are easy to remove and may be replaced from outside.



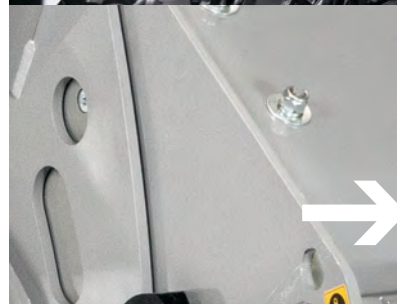
**Support skids** (to avoid sinking) are adjustable in height and easily removed for deep work. Additional options are not necessary for the machine to penetrate to its maximum depth (support skids assembled).



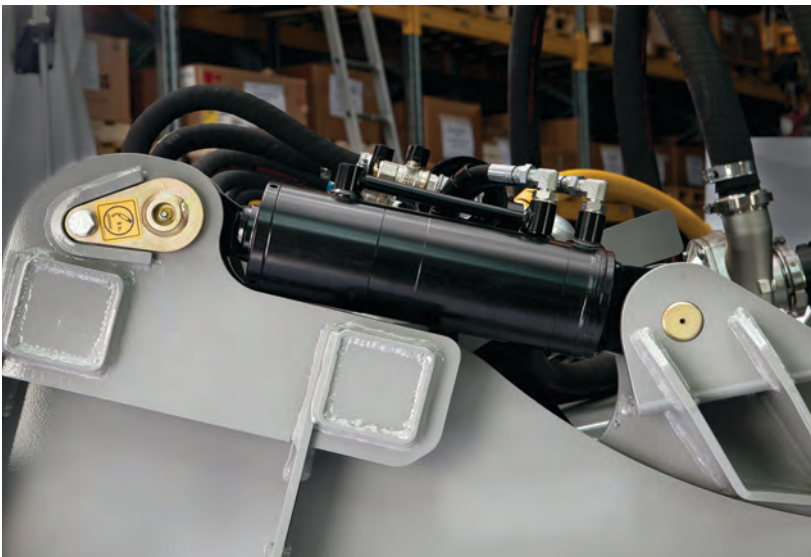
**Teflon inserts** , easily replaced, they ensure that the two frames slide easily.



**Rear hood** with hydraulic adjustment to regulate the quantity of material in output.

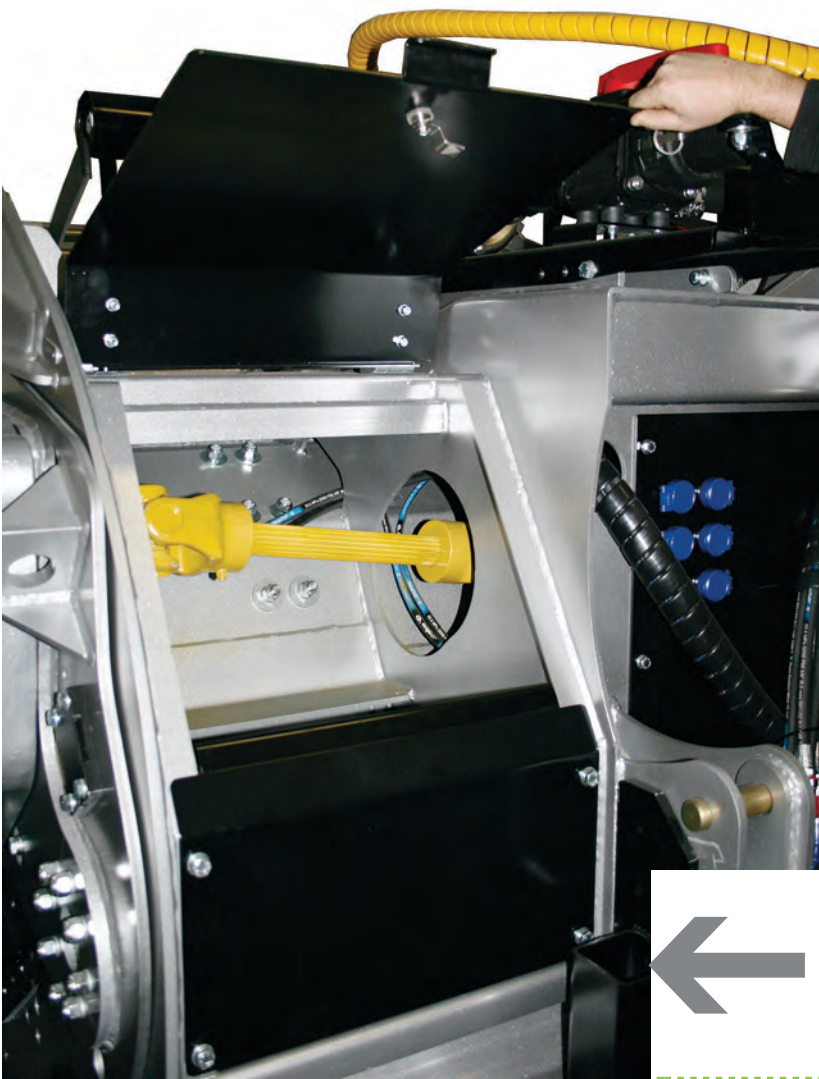


**Structural plate** with high elastic limits (Weldox) to ensure high strength and easy handling.

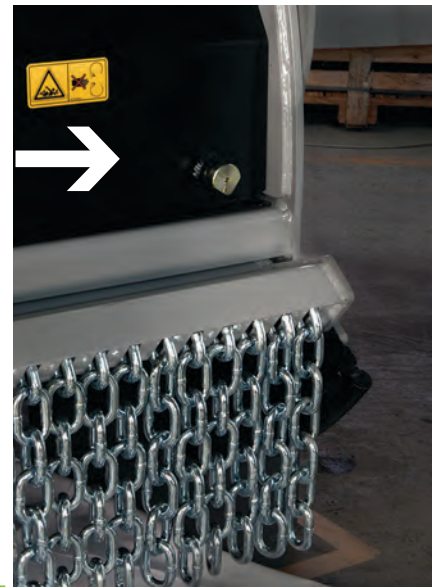


Synchronization of the two cylinders that move the two frames is ensured by a valve system.



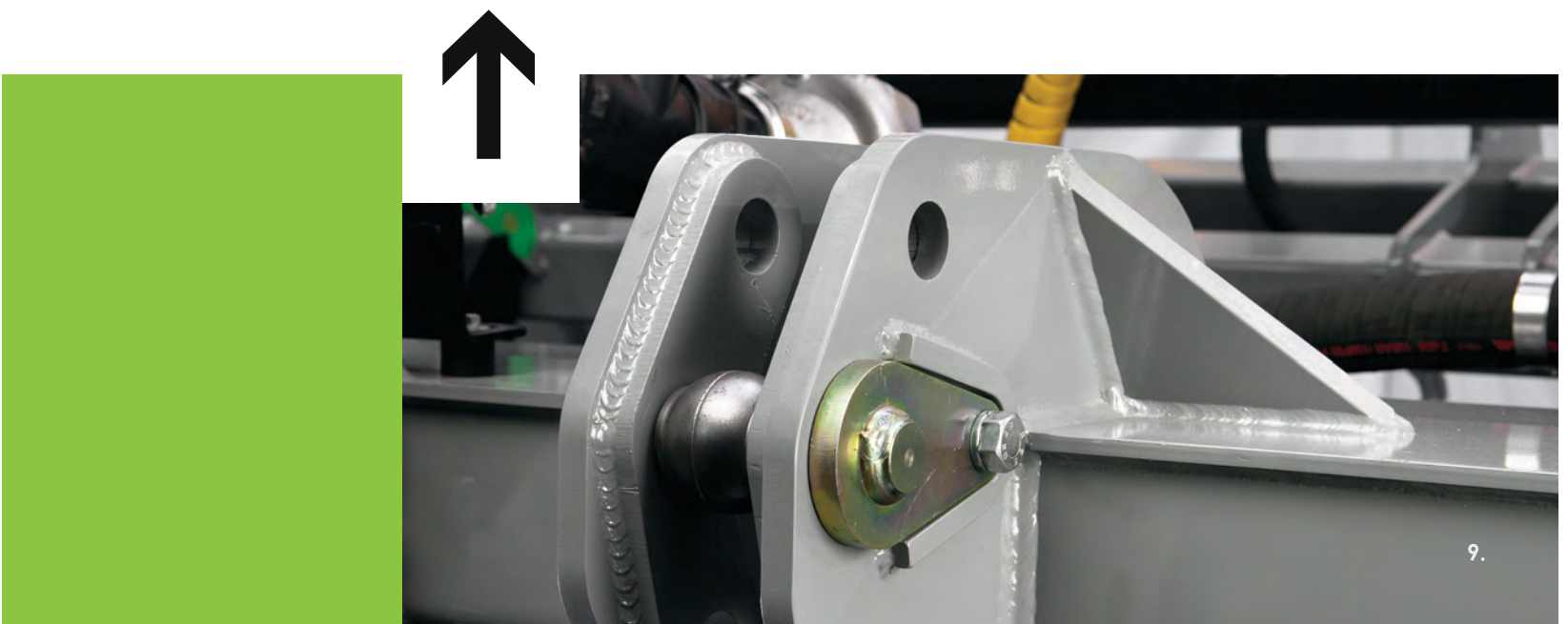


**Front hood** , with hydraulic adjustment, stops rocks from being ejected along the length of the tractor.

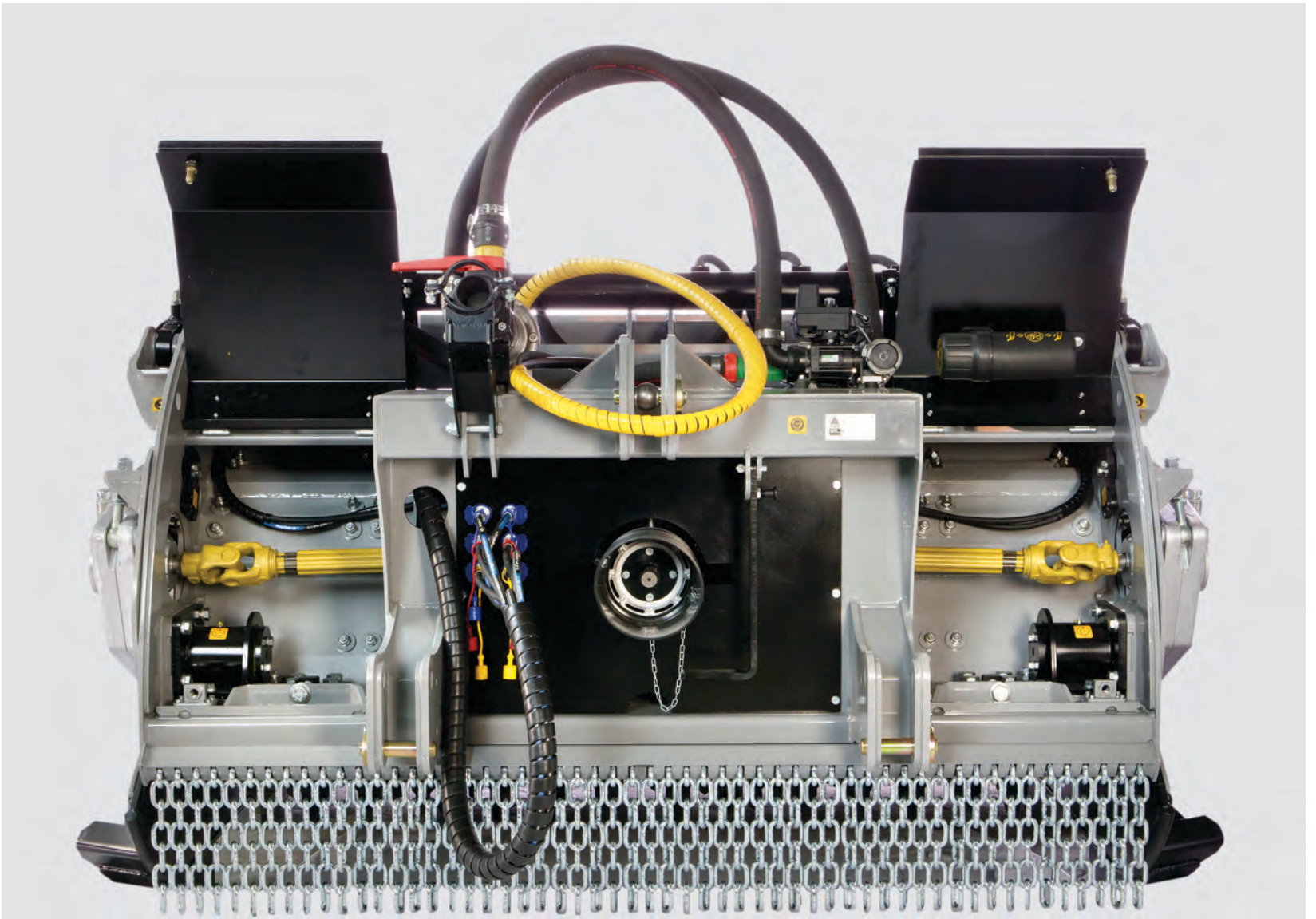


The special design of the inspection hatches ensures easy maintenance operations. The double access hatch enables fast access.

The 3 point unified hitch complies with international standards and is compatible with every tractor on the market. High strength(HARDOX)reinforcements at the anchor points ensure high levels of reliability.







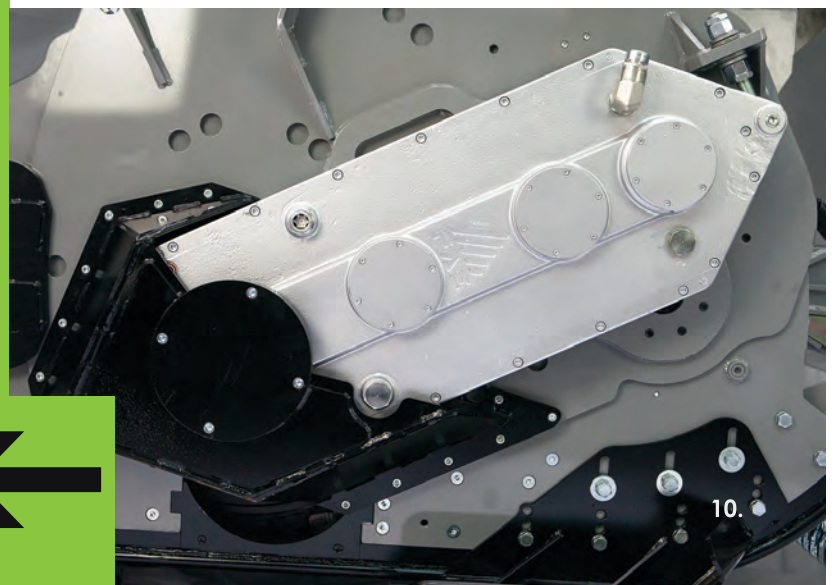
**The single and dual gear reduction system, depending on the model, requires no forced hydraulic fluid cooling under any work condition.**

**This component's high heat tolerance is an important feature as it negates the need for high maintenance parts such as oil coolers and pumps. It has a water injection spray system for cooling or adding of chemical stabilization with EBS**

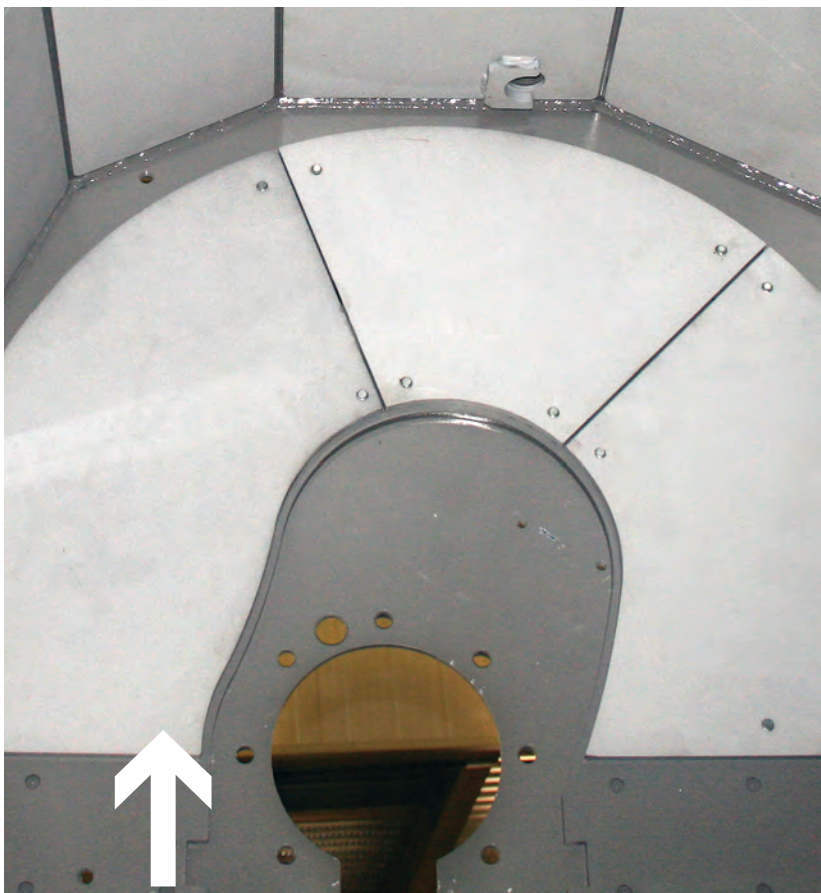


**The dual gearbox lateral transmission** (not available on the RSL 100, 125 and 150 models) perfectly transforms engine power into grinding power. Compared to a belt driven transmission, the gearbox transmission offers important advantages such as:

- 1) greater transmission torque,
- 2) less tool wear because of lower rotor rotation speeds,
- 3) more effective ground penetration due to smaller size.





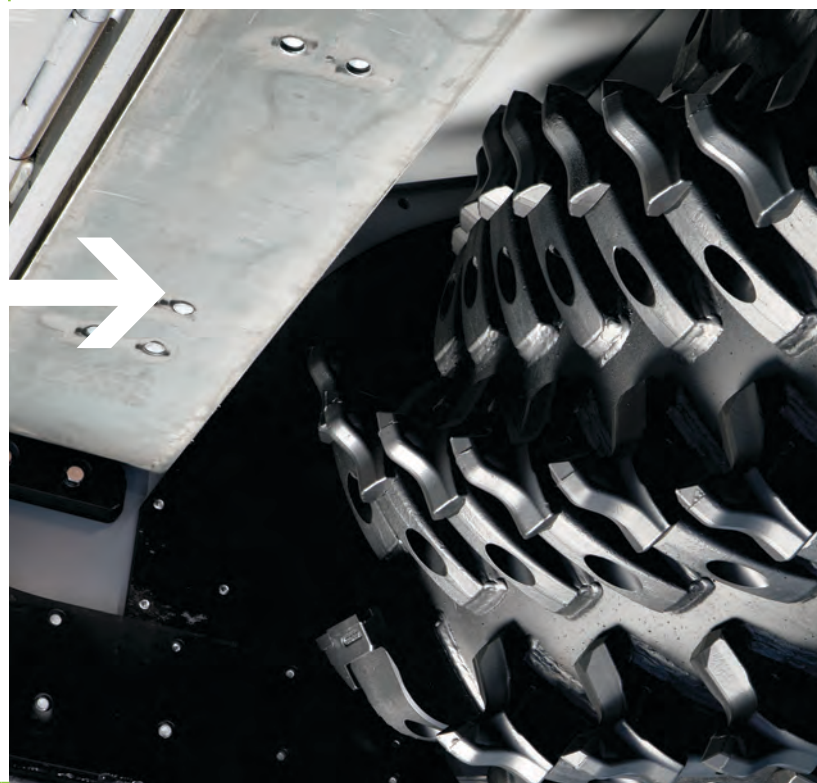


The side guards are easily replaced without removing the rotor (three-piece HARDOX® disk). They ensure long wear resistance and reduce the replacement operation time.

HARDOX® counter blades ensure the desired granulometry. These are easily replaced due to their attachment screws; making maintenance fast and easy.



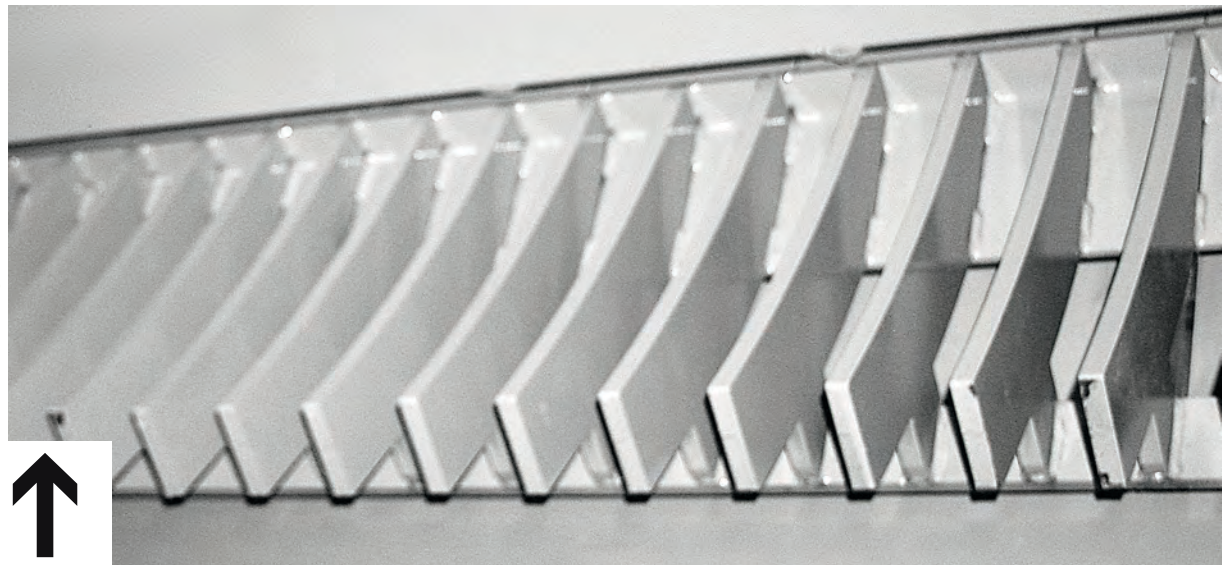
**Guards on the sides of the chassis to increase its durability.**



**Adjustment system** that enables the rapid change of position of the HARDOX counter blade depending on jobsite requirements

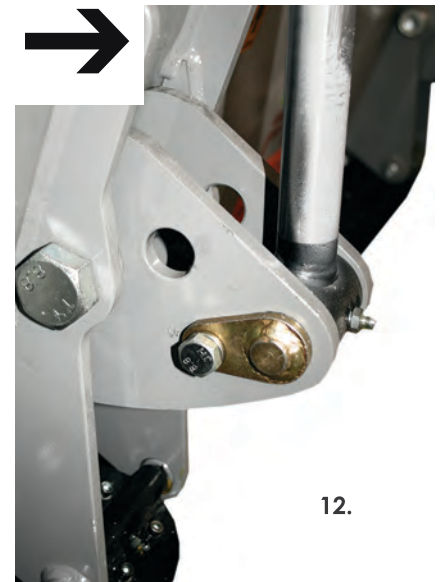


**Internal HARDOX® guards ensure excellent wear resistance. They are quick and easy to replace without disassembling the rotor.**



The grill on the rear hood, aids in defining the granulometry of the output materials. It is easy to adjust mechanically from the outside using the adjustment slots.

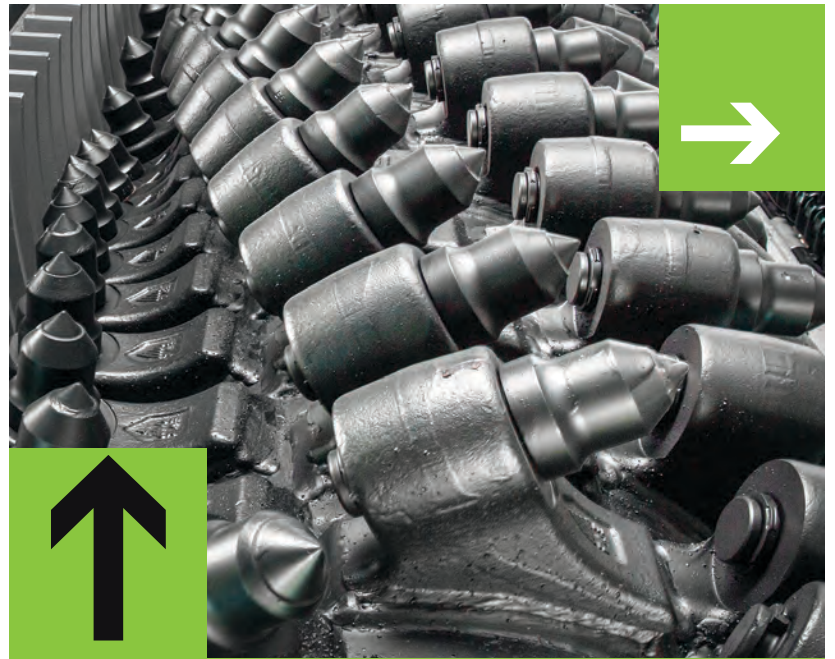
Its application is indispensable when working on clay-like soils that also have a large amount of surface stones. The grill enables the hood to be kept open so that the soil can flow out without losing the regulation of the average size of the ground material.



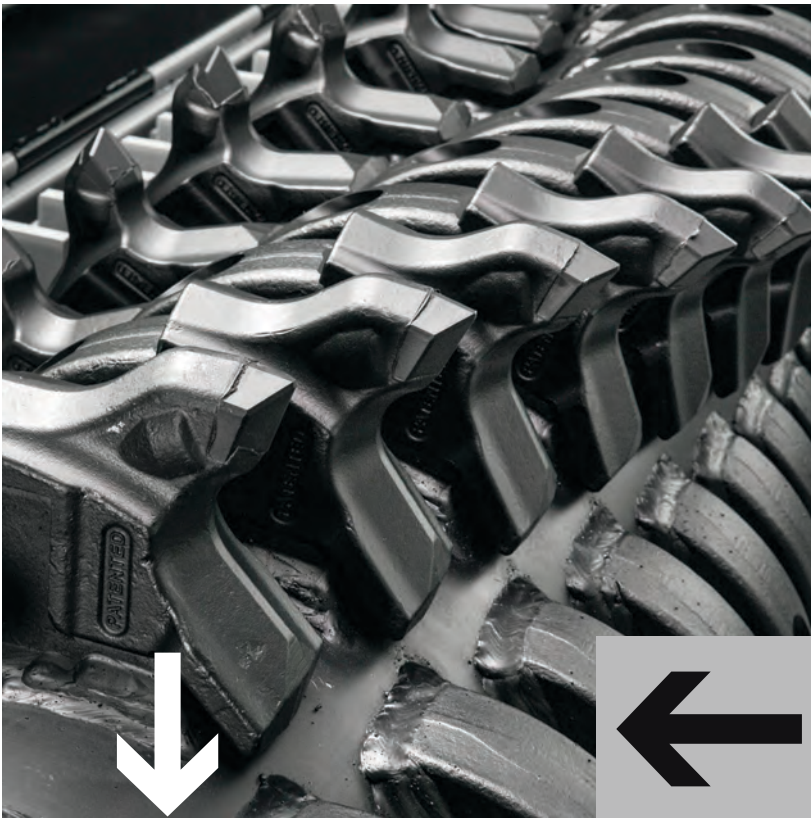




THE ROTOR



R Rotor



G/3 Rotor

## Applications



Stabilize  
the ground



G/3 type tool  
R44 type tool



Stabilize  
in presence of stones



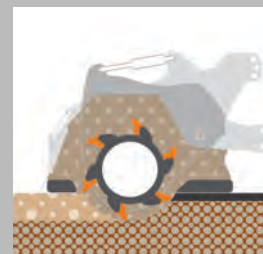
G/3 type tool



Crush  
stones



G/3 type tool



Asphalt  
grinding



G/3 type tool  
R44 type tool



Stump  
grinding



G/3 type tool



# Applications



Stabilize  
the ground



R65 type tool  
R/HD 65 type tool  
R44 type tool



Stabilize  
course material



R65 type tool  
R/HD 65 type tool



Crush  
stones



R65 type tool  
R/HD 65 type tool



Slab  
grinding



R/HD 65 type tool



Asphalt  
grinding



R/HD 65 type tool  
R44 type tool

## Models RSL, MTM, MTH



R65 type tool



R/HD 65 type tool



R44 type tool  
(optional)



STC/3/FP type tool  
(side scraper)



STC/FP type tool  
(side scraper)

## Models RSL, MTM, MTH



G/3 type tool  
(optional)



R44 type tool  
(optional)



STC/3/FP type tool  
(side scraper)



STC/FP type tool  
(side scraper)

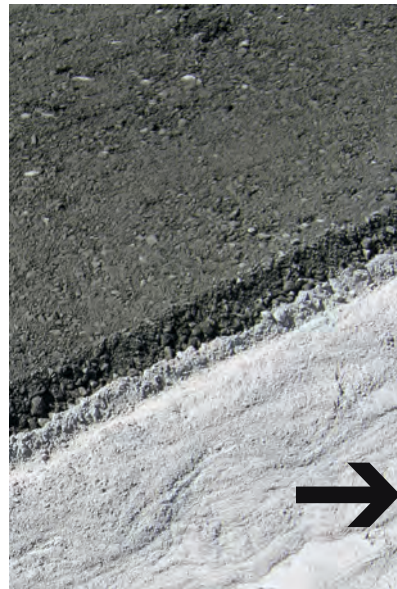




## THE ROTOR CONSTRUCTION DETAILS

The heart of this technology is the rotor, which grinds rocks, stone and asphalt, amalgamates the ground and uniformly mixes lime or cement spread over the area to be stabilized. The special set up of the twin-crossed-spiral tools ensure uniform distribution of the forces over its entire width, limits stress to the structure, reduces power absorption and enables uniform distribution of the output materials.

Rotors are equipped with different types of tools depending on the application.



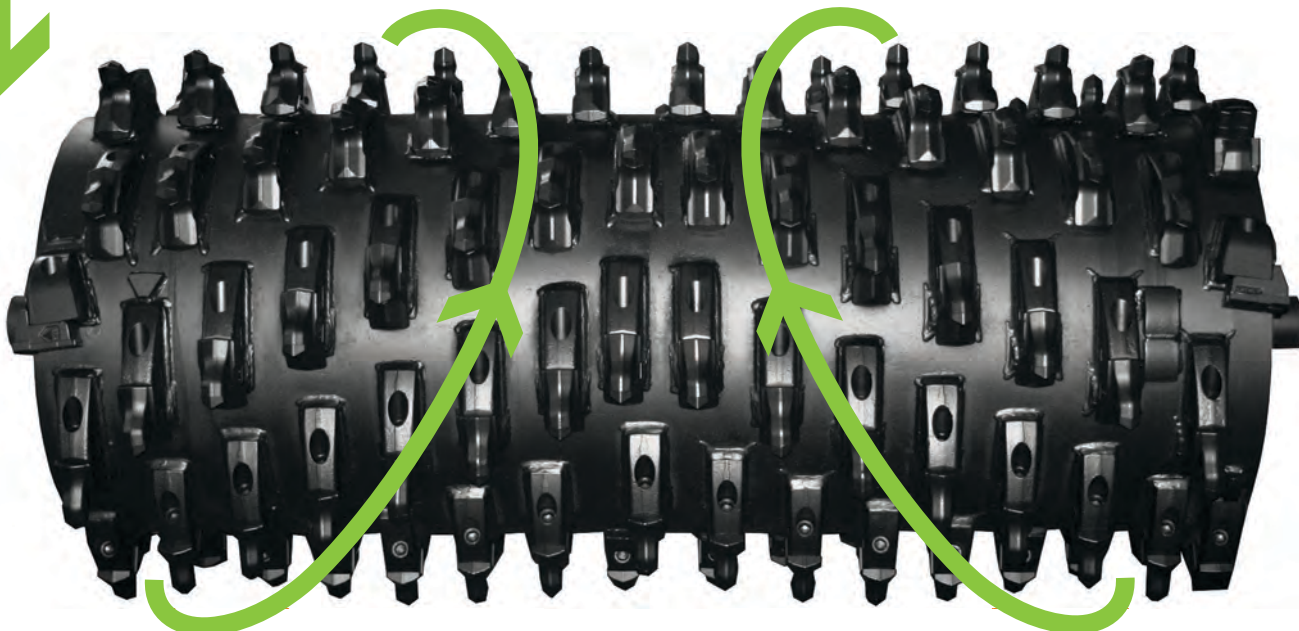
**Uniform distribution**  
for grinding and blending action even on the most difficult terrain!



**The forged steel rotor hubs**  
ensure high resistance to mechanical stresses and are flanged and bolted for easy replacement.

### **Guards with easily replaceable parts**

The ends of the rotor have been equipped with different devices or tools to protect both the rotor and the tool holder from wear. A labyrinth ring system avoids dust contamination in the rotor bearing.







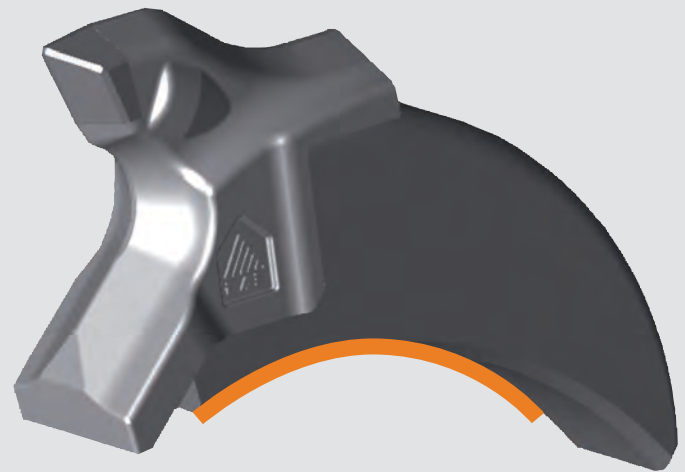
## TOOLS

The tools and holders are the product of extensive research and development. The special design of the tools ensures these advantages:

1. Maximum resistance to mechanical stresses
2. Tools have longer life
3. Maximum reliability and performance even in tough terrain
4. Reduced operating costs.

All tool holders are made of forged steel and assembled on the rotor with robotic welders, with and long-wearing tungsten carbide (Widia) inserts.

**The innovative design of the tools ensures maximum protection of the tool holder and reduced operating costs.**



**Improved resistance to mechanical stress and maximum durability because of greater contact area on the rotor.**

G/3 Rotor



R Rotor



**Easily replaced and interchangeable tools ensure efficiency with every application**

G/3 Rotor



R Rotor



**An innovative technical solution enables the application of the same tool for asphalt grinding (R44 Tool) on both rotors.**





## VARIABLE GEOMETRY CRUSHING CHAMBER

This technical solution is unique in the industry and is found on the MTM and MTH models enabling ground penetration with just the rotor.

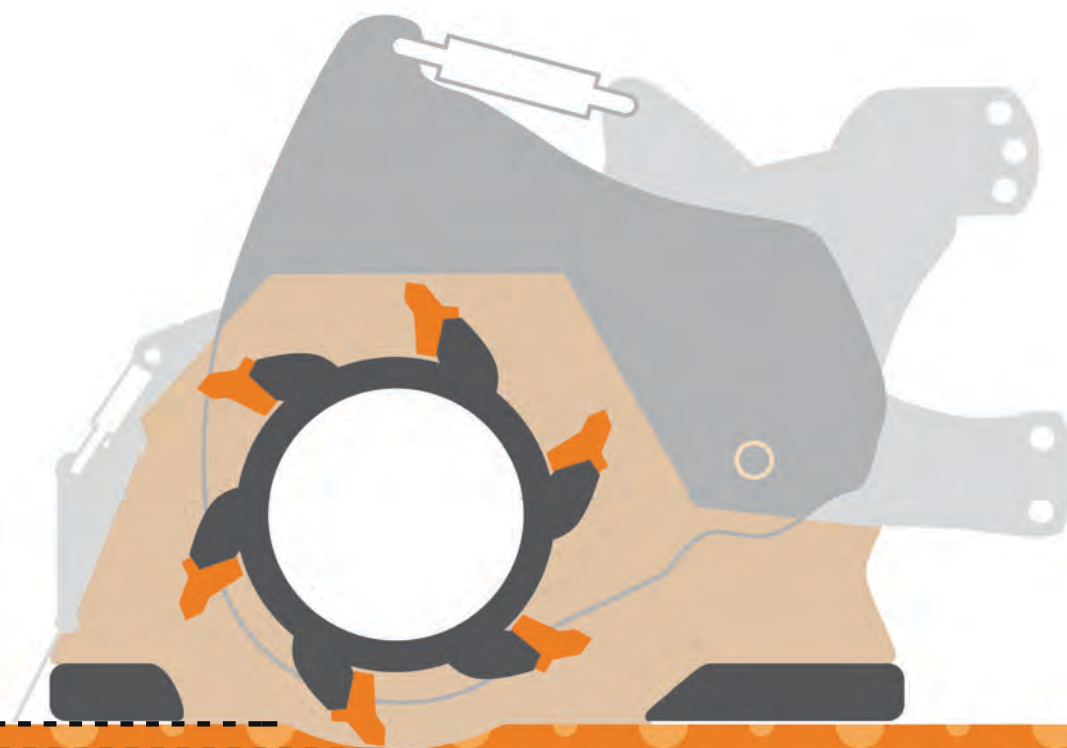


Synchronization of the two cylinders that move the two frames is ensured by a valve system.

MTM: 4,5 cm\*

MTH: 8,5 cm\*

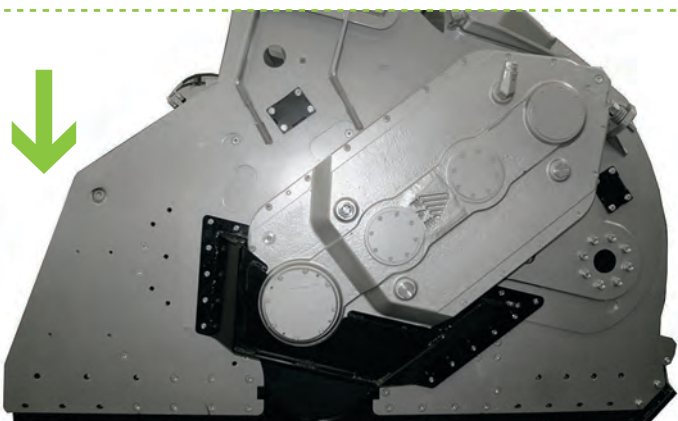
\* With Rotor type G/3





The mobile rotor may be adjusted from the tractor cab. The volume of the crushing chamber, where the earth is blended, is variable. The deeper the work, the larger the volume of the chamber.

Compared with machines that sink into the ground with their chassis, the variable-volume crushing chamber reduces traction forces, lowers fuel consumption increases efficiency and saves time.



**Lower side guard** ensures reliability even at the deepest working depths.



It ensures the proper granulometry of the ground output in every situation. It reduces traction forces and fuel consumption. It increases operational speed and saves time.

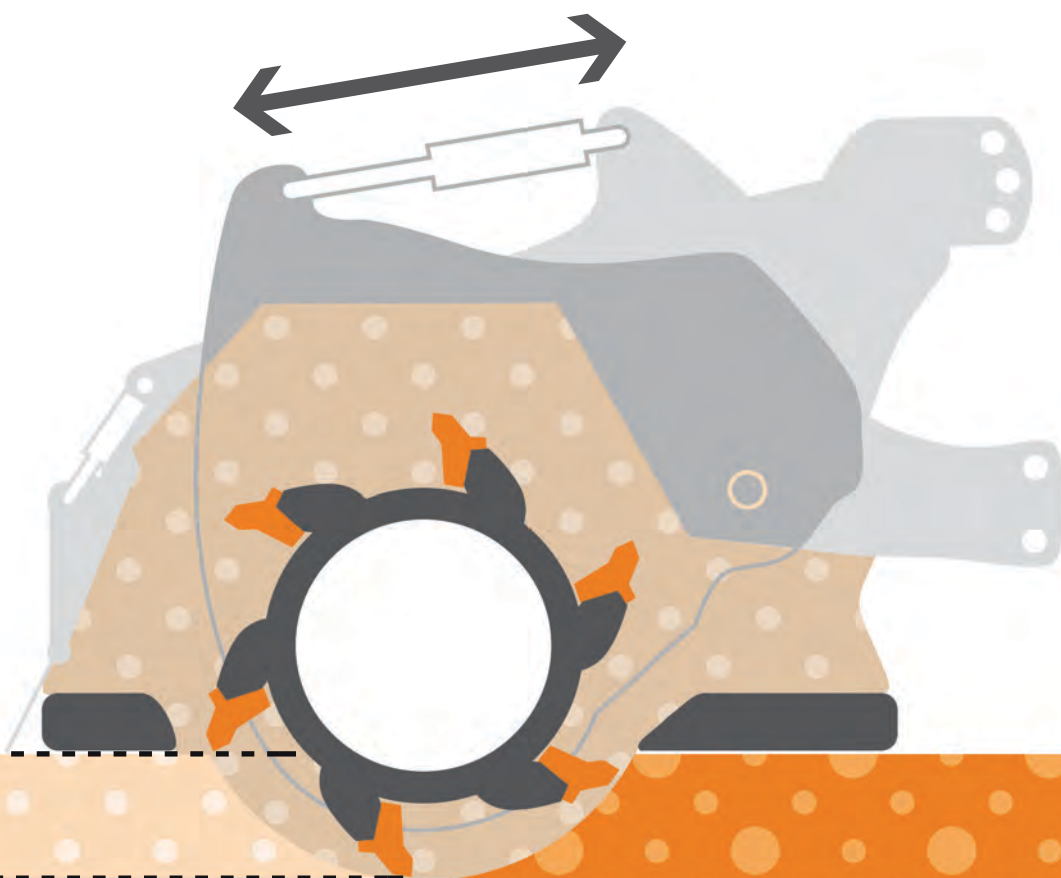
**Depth gauge**, ensures ideal results. The gauge is easily viewed from the tractor cab, enabling precise and effective depth adjustment.



MTM: 23 cm\*

MTH: 31 cm\*

\* With Rotor type G/3



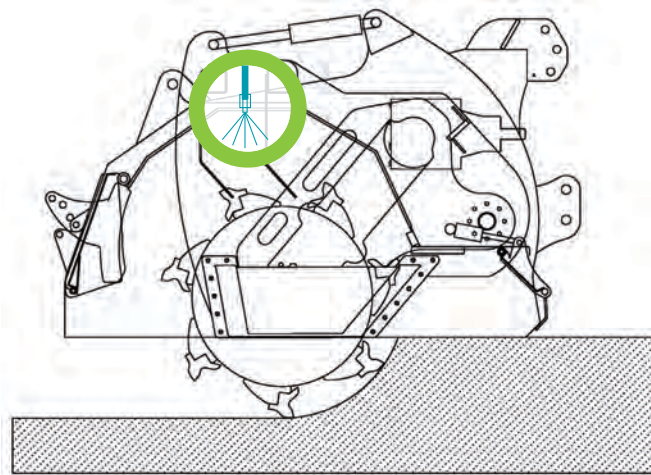
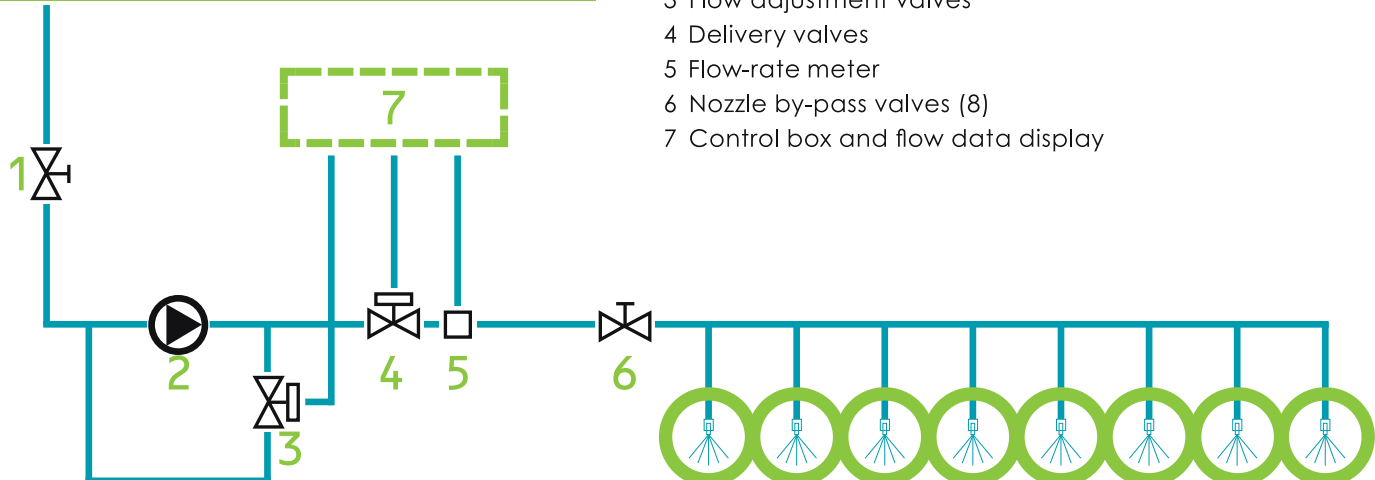
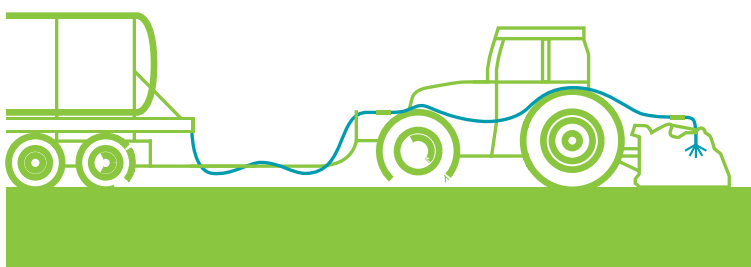




# WATER INJECTION SYSTEM

## Mixing function

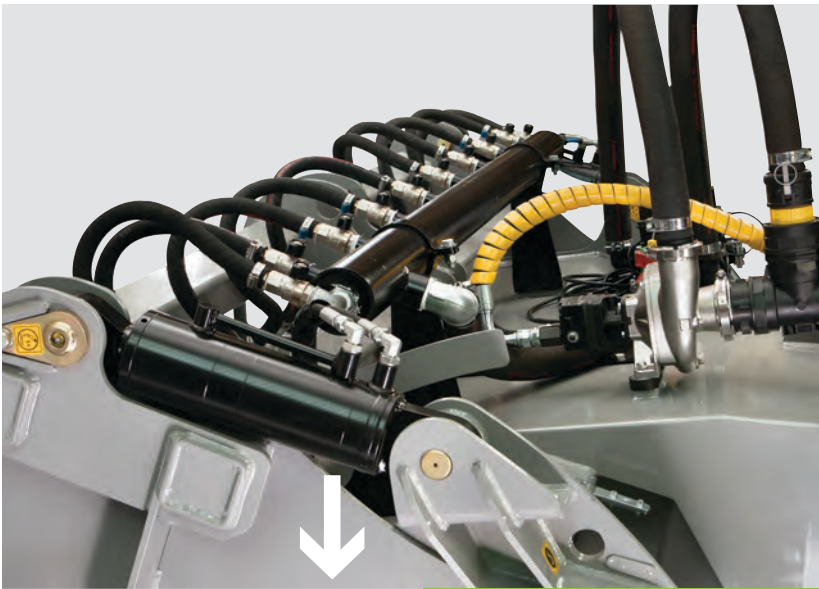
increases the moisture level of the material, improves amalgamation with EBS Soil Stabilizer during the stabilization phase and optimizes the results of the consolidation work. It ensures excellent compaction (Proctor test). This is the ideal solution as it allows for the EBS Soil Stabilizer to be mixed directly in the mixing chamber.



All of the machines are set up for the installation of the water injection system (rear installation also).

## Cooling function

limits the tool temperatures during asphalt grinding operations, thus avoiding overheating of tools and other rotor parts. It greatly reduces tool wear and is recommended for asphalt, cement and very hard rock grinding.

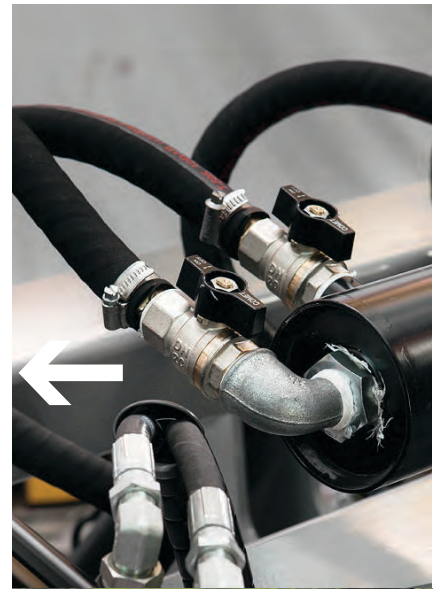


**The manifold** ensures uniform water pressure for its entire width.



**Because of the Control box and water flow data display** it is possible to monitor the real-time water levels delivered and the totals from the start of the operations from the comfort of the tractor cab.

**The adjustment valve ensures** precise and controlled water feed to the mixing chamber.



**Vast choice of types** of easily interchangeable nozzles, depending on the quantity of water required



**Each individual nozzle** is independent from the others. The system may be used partially, with maintenance and inspection operations carried out during stabilization.



## WATER INJECTION SYSTEM

### RSL

Standard version  
Optional version

#### Variable number of nozzles based on the model:

RSL100: 7 nozzles  
RSL125: 9 nozzles  
RSL150/175: 11 nozzles  
RSL200: 13 nozzles  
RSL225: 15 nozzles

### Flow may be delivered by a single 3-bar nozzle

0.4 l/min  
15.6 l/min

### Plant delivery flow rate [l/min]

3-7  
65-230

### MTH/MTM

Optional nozzle "1"  
Optional nozzle "2"  
Optional nozzle "3"  
Standard nozzle  
Optional nozzle "4"

### Flow may be delivered by a single 3-bar nozzle

7.9  
15.6  
24  
39.6  
59.4

### Plant delivery flow rate

65-110 l/min  
120-215 l/min  
185-320 l/min  
310-515 l/min  
450-720 l/min

**MTH** (water injection system with 8 nozzles) / **MTM** (water injection system with 10 nozzles)

**Installation of the nozzles** with a quick-connect bayonet attachment for fast, easy assembly and clean-up operations.







## APPLICATIONS

	RSL	MTM	MTH
Stabilization	X	X	X
Stabilization in presence of stones	X	X	X
Stone crusher	X	X	X
*Stone grinder	X	X	X
*Asphalt and bituminous conglomerate grinding with on-site reuse	X	X	X
Cutter heads	X	X	X

(\*under specific conditions)



## EQUIPMENT

	RSL	MTM	MTH
Dozing hoods		std	std
Cardan drive with torque limiter	std	std	std
Hydraulic Front hood	std	std	std
HARDOX® counter blade	std	std	std
Interchangeable and bolted HARDOX® counter blade		std	std
Oversize bearings	std	std	std
Dual gearbox transmission	**	std	std
Bolted Grill rear hood	std	std	std
Damped levelling hood		std	std
Bolted rotor hubs in forged steel	std	std	std
Forged, heat-treated steel tool holders	std	std	std
Type "G/3" rotor with tool	std	std	std
Type "R" rotor with tool	opt	opt	opt
HARDOX® steel interchangeable internal bolted guards	std	std	std
Water injection system	opt	opt	opt
Hydraulically adjusted skids	std		
Completely sealed dust-proof WELDOX® frame	std	std	std
Hydraulic Three point hitch	opt	opt	std



## TOOLS

	RSL	MTM	MTH
R 65	std	std	std
R/HD 65	opt	opt	opt
R44	opt	opt	opt
G/3	opt	opt	opt
STC/3/FP (side scraper)	std	std	std
STC/FP (side scraper)		std	std

Data refers to machines without options.

Max. 1: Only with the rotor Max. 2: Maximum working depth

Model	Tractor (min/max)	PTO (RPM)	Working width (mm)	Width (mm)	Weight (kg)	G3 Rotor			R Rotor		
						Working depth(mm)		No. of tools/type G/3+STC/3/FP+H	Working depth(mm)		No. of tools/type R+R/HD
						Max. 1	Max. 2		Max. 1	Max. 2	
RSL 100	80–120	540	1000	1435	1600	150	280	32+4+4	160	280	58+16
RSL 125	90–120	540	1240	1675	1800	150	280	40+4+4	160	280	82+16
RSL 150	100–120	540	1480	1915	1960	150	280	48+4+4	160	280	98+16
** RSL/ DT 175	120–190	1000	1720	2060	2650	150	280	58+4+4	160	280	122+16
** RSL/ DT 200	130–190	1000	1960	2300	2800	150	280	66+4+4	160	280	138+16
** RSL/ DT 225	140–190	1000	2200	2540	2950	150	280	76+4+4	160	280	154+16

↑  
RSL



						G3 Rotor			R Rotor		
Model	Tractor (min/max)	PTO (RPM)	Working width (mm)	Width (mm)	Weight (kg)	Working depth(mm)		No. of tools/type G/3+STC/3/FP+H	Working depth(mm)		No. of tools/type R+R/HD
						Max. 1	Max. 2		Max. 1	Max. 2	
MTM 200	220–360	1000	2050	2495	5700	240	400	92 + 4+4	230	400	126+20 + 4 + 4
MTM 225	220–360	1000	2290	2735	6100	240	400	104 + 4+4	230	400	144 + 20 + 4 + 4

↑  
MTM



						G3 Rotor		R Rotor			
Model	Tractor (min/max)	PTO (RPM)	Working width (mm)	Width (mm)	Weight (kg)	Working depth(mm)		No. of tools/type G/3+STC/3/FP+H	Working depth(mm)		No. of tools/type R+R/HD
						Max. 1	Max. 2		Max. 1	Max. 2	
MTH 200	300—400	1000	2080	2600	6900	310	500	104 + 4+ 4	290	500	138 + 24 + 6 + 6
MTH 225	300—400	1000	2320	2840	7200	310	500	116 + 4+ 4	290	500	160 + 24 + 6 + 6

↑  
MTH







## CONTACT

**For any further question, please do not hesitate to contact us.**

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