

Artificial Intelligence Artificial Intelligence Artificial Intelligence



Breaking barriers to better turf

Artificial

Machines for Synthetic Turf

Verti-Art® Range

of Synthetic Turf Maintenance Machines

A common misconception is that synthetic turf requires little maintenance, but regular attention is vital to ensure optimum playing performance and durability. This can be achieved with the Verti-Art range of synthetic turf care equipment, manufactured by Redexim-Charterhouse.



Brushing

Verti-Comb®

↑ Steel rakes rear*

Model 1800



Model 4000

The Verti-Comb is designed for brushing and decompacting large areas of turf fast and efficiently.

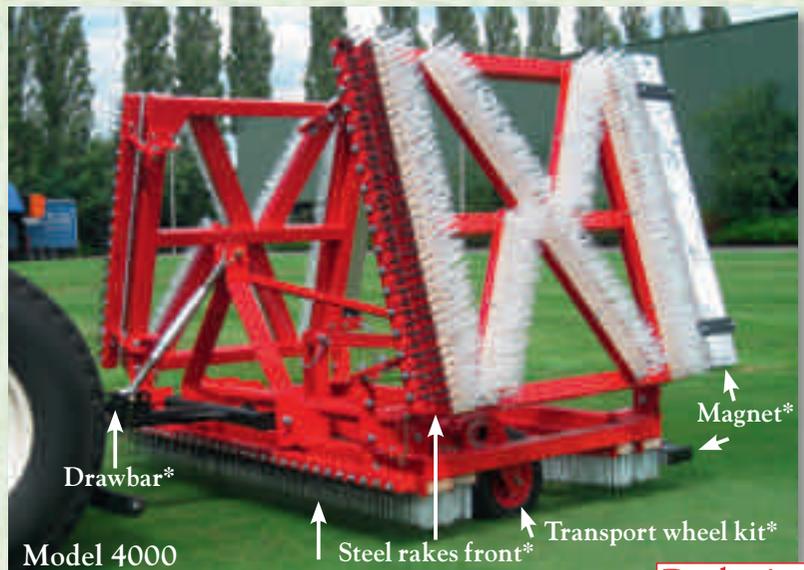
Foldable side wings can be added to the standard Verti-Comb 1800 model (1.8m working width) converting it into the model 4000 (4.0m working width).

Several options can be added, like steel front or rear pins for decompaction, a magnetstrip for picking up steel debris, and a transport wheelkit with drawbar makes it possible to pull the Verti-Comb with any vehicle.

* = optional items

Technical Specifications:

Model	1800	4000
Working width	1.8m	4.0m
Weight	104kg	220kg
Tractor required	18HP	25HP
with lift cap of	200kg	450kg
Total width in operation:	1.8m	4.0m
Total width when folded:	-	1.22m
Optional:	<ul style="list-style-type: none"> - Magnetic kit - Steel pins section front + rear - Drawbar + transport wheel kit (lift: mechanical or hydraulic or electrical) - Hydraulic lift kit 	



Model 4000

↑ Steel rakes front*

↑ Transport wheel kit*

↑ Magnet*

↑ Drawbar*



Breaking barriers to better turf

Verti-Broom®

Technical Specifications:

Model	185	240
Working width	185cm	240cm
Weight	50kg	75kg
Tractor recommended	10HP	10HP
Dimensions	185x185x20cm	240x240x20cm
Option	Transport wheels	Transport wheels

For brushing and striping of artificial turf, nothing beats the proven Verti-Broom. The highly effective triangular arrangement of the brushes will straighten and groom each grass blade for an attractive and realistic finish to the synthetic turf. The soft, long wearing brushes quickly and efficiently brush surface infill to an even and level finish.



Two optional transport wheels can be added



Verti-Broom model 240 has a large working width of 2.4 meters

Verti-Brush®

Infill is a “mobile” material, so it will inevitably move around as the surface is used. The Verti-Brush quickly and effectively levels and distributes applied or existing infill with powerful hydraulic brushes. The five counter-rotating brushes can easily reach to the base of the turf to loosen and evenly redistribute fill or can be applied to mix and level a

new application. The durable poly brushes can be accurately set to a specific depth to achieve a light surface brush-in or aggressively mix and loosen the deepest fill.

Technical Specifications:

Working width:	170cm
Weight:	170kg
Tractor recommended:	13HP with double acting valve and 10ltr per min at 70bar
Dimensions:	120x170x85cm



Levelling

Dragmat

Stainless steel scraper wire mats can be used to evenly distribute infill or to level a new application.



Technical specifications

Size	Weight
120x180cm	12kg
180x240cm	35kg
240x240cm	47kg

Verti-Top® 1500

The infill material used in synthetic systems must be kept level for a consistent playing field and the upper carpet fibres have to remain free of litter and leaves to avoid the accumulation of dirt and bacteria, as well as, harmful materials such as glass splinters. The Verti-Top achieves all this efficiently and effectively. Its rotary brush ingeniously removes surface litter and the top infill layer, then filters out debris by using a vibrating mechanism. The cleaned infill is then redistributed evenly over the surface, and a rear brush ensures a smooth finish.

Technical Specifications:

- Working width: 150cm
- Weight: 425kg
- Tractor required: 25HP with 525kg lift capacity.
- Dimensions: 135x171x100cm
- Capacity: 18.000m²/h
- Capacity hopper: 170ltr
- Sieve mesh size: 5x5mm
- Standard items:
 - Fixed and free floating 3-point linkage
 - Free floating rear brush
 - Angle setting shaking sieve (for adjustable cleaning density).
 - Height adjustable integrated rake
- Optional:
 - Sieve mesh size
 - 3,2x3,2mm, 4x4mm, 5½x5½mm, 6x6mm



The debris collection hopper drops down for emptying. Debris removed from surfaces can include hair, chewing gum and even stones.



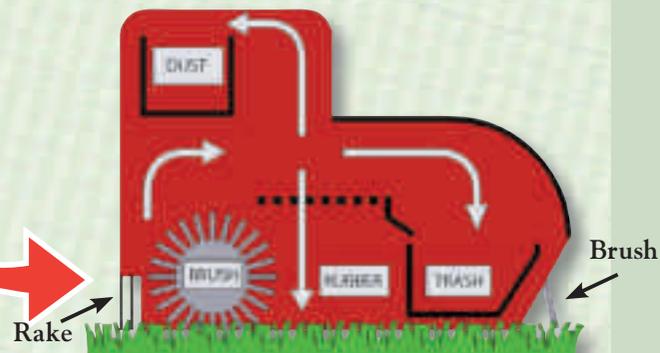
There are optional sifting screens (sieves) available for various infill sizes.



A special rake opens up the infill first, thus enabling the rotating brush to collect the debris from deep in the mat.

Verti-Top Vac

De Verti-Top Vac is a version of the Verti-Top 1500, in which a vacuum cleaning mechanism has been constructed. While the vibrating mechanism is collecting the larger debris partials, the vacuum system is sucking all the fine partials, like dust, into a filter bag.





The Verti-Top cleans the field, and restores the fibres into a healthy, upright position, giving the field a soft and natural texture.



After only a few hundred meters, the dustbag already contains a few dense clumps of dirt, hair, trash and dust.

Technical Specifications:

Working width:	150cm	Standard items:
Weight:	500kg	- Removable dustbag in vacuum-unit
Tractor recommended:	25HP with 600kg lift capacity.	- Fixed and free floating 3-point linkage
Dimensions:	135x171x121cm	- Free floating rear brush
Capacity:	18000m ² /h	- Angle setting shaking sieve (for adjustable cleaning density).
Capacity Vacuum unit:	removable dustbag 20ltr	
Capacity hopper:	170ltr	
Sieve mesh size:	5x5mm	
Optional:	Sieve mesh size 3,2x3,2mm, 4x4mm, 5½x5½mm, 6x6mm	

From: *Turf Business*

Bladerunner, a clean-sweep for the Hammers

We look at one of the latest sets of synthetic surface maintenance equipment in use at Premiership club West Ham. For Dougie, the Verti-Top proved to be the just item of kit he was looking for. "Yes, this was the piece of kit I had been waiting for", he says. "The Verti-Top is specifically designed to remove debris, leaves, bottle tops; even human hair – and it does just that, really cleaning the whole surface. It is amazing what the machine picks up and the quantities too. The hopper gets filled with surprising amounts of hair and even stones from the indoor pitches. It will also tackle chewing gum, one of the most unpleasant things we have to deal with, very well."

A Verti-Groom is the vital extra component of the package deployed by Dougie and his team. He has found using this tool ahead of the Verti-Top helps to de-compact, level and soften the surface, bringing debris to the top of the infill in the process. A previous pass with Verti-Top is not

always necessary, but working the two together can really help bring a heavily played and contaminated surface back into shape.

"The two bits of kit complement each other and both are straightforward and simple bits of kit. There is nothing over complicated and that means there is very little that can go wrong. That is what we want – simple kit that does a really good job."

Even when the Verti-Groom is used first and followed with the Verti-Top, Dougie reckons he can finish a pitch in around an hour and a half.

"After the pitches have been cleaned, they really look great. Of arguably far greater importance, the coach and players tell me the surfaces play better and that they are softer under foot. Because we are covering these pitches in less time, we are now better able to stick to a regular leaning regime. I reckon this should help extend the life of the artificial pitches and I'd recommend this equipment to anyone charged with maintaining an artificial pitch."



West Ham groundsman Dougie Robertson uses the Verti-Top on the club's indoor and outside synthetic playing surfaces. He is pleased with the machine's ability to pick up debris, finding it effective, fast and easy to operate.

Verti-Top[®] WB



The Walk-behind Verti-Top is self-driven and powered by a 6 ½ HP engine. It is ideal to clean small areas.

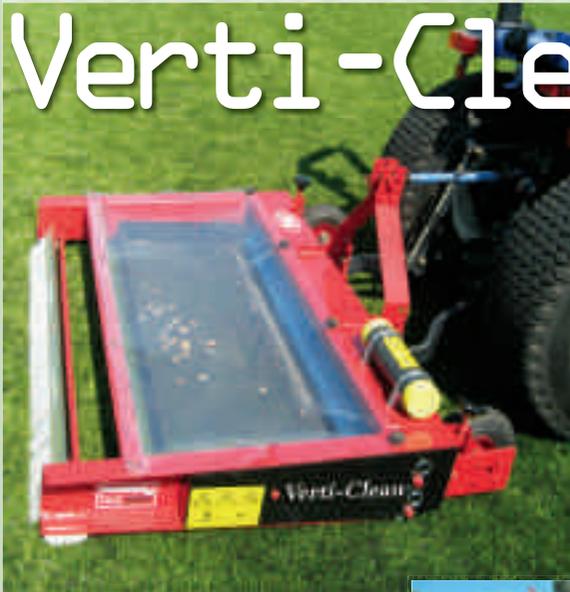
Technical Specifications:

Working width:	84cm
Engine:	6 ½HP, wheels are driven by engine
Weight:	150kg
Capacity:	3000m ² /h
Capacity hopper:	30ltr
Sieve mesh size:	5x5mm
Standard items:	Angle setting shaking sieve (for adjustable cleaning density)
Optional:	Sieve mesh size 3,2x3,2mm, 4x4mm, 5½x5½mm, 6x6mm



The width of the Verti-Top WB can be narrowed to 87cm enabling it to pass through small passways.

Verti-Clean[®] 1500



The Verti-Clean picks up surface debris with a rotating brush, which throws it on a vibrating sieve. The sieve filters infill material back on to the playing surface, while retaining the debris. Both the rotating brush and the vibrating sieve are powered by groundwheels.

Technical Specifications:

Working width	150cm
Weight	109kg
Tractor required (mounted)	12HP with 150kg lift capacity
Tractor required (towed)	10HP
Dimensions	171x108x70cm
Capacity	15000m ² /h
Capacity hopper	70ltr
Sieve mesh size	5x5mm
Standard items	- fixed and free floating 3-point linkage - free floating rearbrush
Optional:	- Rear steel pin section - Sieve mesh size: 3,2x3,2mm, 4x4mm, 5,5x5,5mm, 6x6mm - Magnet for collecting ferrous materials - Towed version: mechanical: including drawbar or hydraulic: including drawbar+wheels



The Verti-Clean can be operated by nearly every vehicle as a towed version.

The lightweight hopper with debris can easily be removed for emptying



Verti-Air®



A common problem with artificial turf is debris and bacteria build up deep down within the infill. This problem is compounded by compaction of the material, restricting drainage through the backing material and creating damp, stagnant areas. To address these problems, the Verti-Air utilizes a rotary brush and turbine compressed air to lift all material, sift out the debris and return the clean, dry and decompacted infill back into the turf. Even the lightest debris is removed with the exclusive fine filter screen.

Technical Specifications:

Working width:	160cm
Weight:	550kg
Tractor recommended:	65HP with 700kg lift capacity + double acting valve
Dimensions:	160x170x110cm
Capacity:	2.000 - 10.000 m ² /h



X-Treme-Clean®



The X-Treme-Clean maintains synthetic turf with firm surfaces, where the infill serves as a stability mat. The machine contains a set of extremely firm brushes, which rotate in opposite directions. Thus the mat is vigorously brushed, and the infill is rubbed to the turf surface. After bringing it to the surface, the infill can be cleaned and further processed. The firm brushes remove algae, weed and moss, and decompact the top layer, making it more permeable, so that water can drain away more easily. Regular application prevents agglutination of the top layer. The X-Treme-Clean is ideal to regenerate tennis courts, sand-filled football fields and hockey fields.

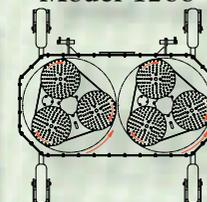
intense maintenance of firm surfaces

Technical Specifications

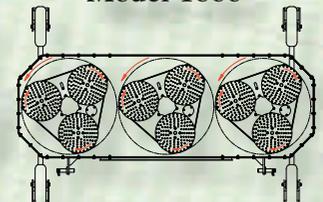
Model	1200	1800
Working width	1.2m	1.8m
Number of rotors	2	3
Number of small brushes	6	9
Weight	225kg	300kg
Recommended tractor	18HP	25HP



Model 1200



Model 1800



After the sand is brought to the surface, it can be easily processed, like cleaning it with the Verti-Top Vac.



Compaction

Compacted, hard surfaces are one of the biggest problems encountered on artificial turf fields. Just like natural turf, all types of infill become compacted in time.

To reduce the compaction levels it is imperative to use spring tines (rakes or pins) to loosen the infill mix.

This process keeps the fibers in an upright position, enabling the player to place his shoe under the ball.

Verti-Groom®

The Verti-Groom equipped with Ø 5mm steel rakes.



The Verti-Groom is equipped with fine and flexible steel rakes (3 rows of Ø 5mm) or optional steel pins (2 rows of Ø 3mm) which gently lift and break up compacted areas. They straighten and lift the turf fibres, leaving them plush and upright for a soft and level playing surface.



Optional the Verti-Groom can be equipped with 2 rows of Ø 3mm steel pins.

Technical Specifications:

Working width	200cm
Weight	150kg
Tractor required	14HP with 200kg lift capacity
Dimensions (lxwxh)	50x200x90cm
Optional:	<ul style="list-style-type: none"> - Bar with Ø3mm steel pins - Brush section - Towed version (mechanical) inclusive drawbar, 10HP required. - Magnet - Multiple sections of rakes + pins

Multiple sections of rakes or pins can be added



A brush section can be added to the steel rake or pin section of the Verti-Groom.



Air-Rake



Aeration

Like the Verti-Groom, the Air-Rake is equipped with spring steel rakes of Ø5mm. However the rows with rakes are displaced from each other and the Air-Rake is pulled on two sliding carriages.

Technical Specifications:

Working width	200cm
Weight	100kg
Tractor required	10HP with 140kg lift capacity
Dimensions (l x w x h)	100x215x80cm

(re-)Construction

The Verti-Rake is ideal to work the sand and infill during installation of the field.

Verti-Rake



Model Pro 450H folded



Technical Specifications:

Model	Weight (kgs)	Tractor required	Number of rakes	Foldable
Pro 200 (+ working width cm)	175	10HP	168	no
Pro 300	230	20HP	240	no
Pro 450H	380	25HP	360	hydraulically
Pro 600H	550	40HP	480	hydraulically
Optional	- Brushkit - Towed version (mechanical) including drawbar			

When compaction of the infill is so severe that the Verti-Groom is not able to pull through, then the Verti-Rake should be used. The Verti-Rake decompacts the turf surface, using Ø6mm thick spring-loaded and flexible rakes.

Spraying

The trailed Verti-Spray is an excellent tool for any turf spray application. Easily coupled to most tow vehicles, the 12 volt sprayer quickly disperses up to 246 liter disinfectants and other liquids such as static reducing mixes, or plain water to cool the playing surface. Quality construction features a steel tubular frame, chemical resistant poly tank, 4-ply turf tires and a high capacity 5.3 GPM on-demand pump at up to 60 PSI. Standard features include a trigger spray gun with 4½ meters hose.

Verti-Spray®



Technical specifications

Tank size:	246liter
Hitch Type:	adjustable chevis
Weight:	98,6kg
Required tow vehicle:	295kg tow capacity
Optional:	boom sprayer swath 6m

Rink Topdressers



Rink 1010



Rink 1210



Rink 1520



Rink 1005

The Rink Topdressers come in various sizes, and are ideal to apply sand, crush rubber and any other infill into synthetic turf.



Rink 1015 self propelled



Special Infill Kit



The Infill kit is a special device available for the Rink topdressers and ideal to fill in synthetic turf pitches with quartz sand and/or rubber. The Infill kit consists of a rake, a special brush kit and a custom seal kit for the hopper. Immediately behind the wheels of the topdresser, the rake is pulling the fibres into a vertical position.

This creates an opening for the infill material so that it can drop down to the base of the mat much easier.



The 2.0m³ capacity Rink model 1520 and Rink model 1010 (photo above right) equipped with the Special Infill kit.

Hopper Extension Kit

For the Rink 1210 the hopper size can be doubled to 2.0 m³ for the application of infill, with its ultralight aluminium Hopper Extension kit



Infiller 1215[®]



The Infiller 1215 is a spreader for exactly dosage of synthetic grass surfaces with sand and crumb rubber. At the base is the Rink 1210 topdresse of 1.0m³ capacity on which the aluminium Hopper Extension kit has been added to create a total capacity of 2.0m³. The rakes of the special Infill kit pull the fibres into a vertical position. The Infiller 1215 contains its own engine, which enables it to be pulled by virtually any vehicle.



The Infiller 1215 contains a 13HP engine with electrical start.

Technical Specifications:

Model	Rink 1015 selfpropelled	Rink 1010	Rink 1210	Rink 1520	Infiller 1215
Spreading thickness:	≥0.3mm	≥0.3mm	≥0.3mm	≥0.3mm	≥0.3mm
Spreading width:	1.5m	1.5m	1.8m	1.4m	1.8m
Weight:	350kg	270kg	370kg	950kg	525kg
Hopper capacity:	0.5m ³ level	1.0m ³ level	1.0m ³ level	2.0m ³ level	2.0m ³ level
Tractor requirement:					
- Horse Power:	(13 HP own engine)	20HP	20HP	25HP	10HP
- Double acting hydraulic valve and min.oil supply of:	-	12ltr/min at 120 bar	20ltr/min at 140 bar	25ltr/min at 140 bar	-
Special Infill Kit:					
Weight:	not available	75kg	75kg	50kg	included above
Tractor requirement:	-	extra single acting valve	extra single acting valve	extra single acting valve	
Hopper Extension Kit Total (extra)					
Weight	-	-	420kg (50kg)	-	included above
Hopper capacity	-	-	2.0m ³ (1m ³)	-	
Height	-	-	1.67m (0,50m)	-	

Infill removing

The Eliminator takes the infill- material out of the turf by using an intensive rotating brush.

A conveyor belt transports the material to a dump-truck or a large bag which is carried alongside the Eliminator.

The Eliminator®



Technical Specifications:

Working width	150cm
Weight	600kg
Working width belt Elevator	45cm
Total length Elevator	240cm
Tractor recommended	35Hp with 900 kg lift capacity + 2x double acting valve
Dimensions	160x210x238cm

The Eliminator is ideal to remove sand from short-piled tennis or hockey fields.



Redexim is the first manufacturer of maintenance equipment to be certified (per july 2007) by the Synthetic Turf Council.

