



Equipment Product Guide

Redefining Turfgrass Conditioning

AERATION • CULTIVATION • SURFACE HYGIENE



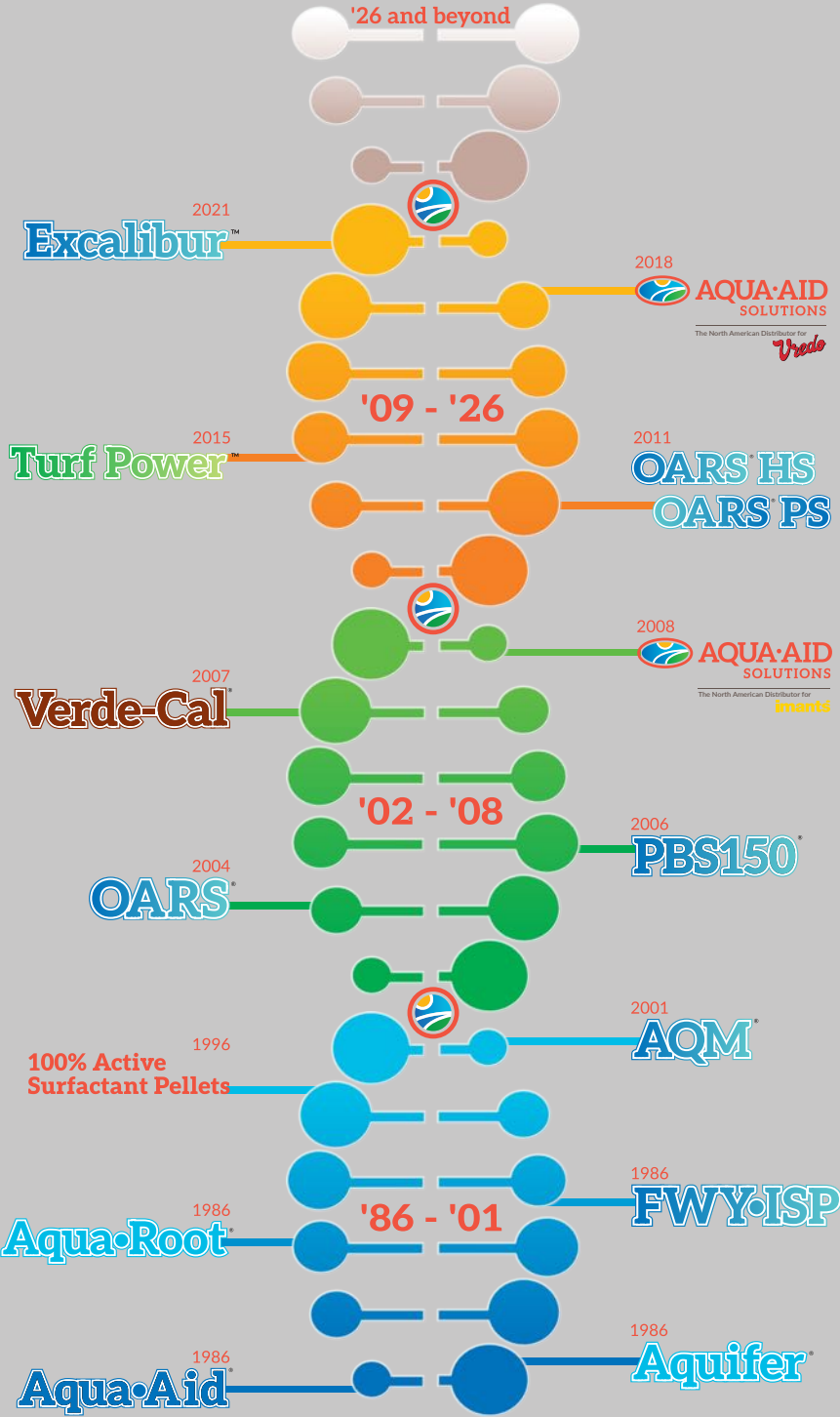
AQUA·AID
SOLUTIONS

The North American Distributor for

imant's *Vredo*

Innovation Driven by Research It's in our DNA

Committed to developing innovative, research-based surfactant technologies that drive reliable and sustainable turf solutions.



EST. **1986**



Solutions To Touch Every Part Of Your Agronomic Program

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CONVERSIONS

Metric	Imperial
4mm	5/32"
5 mm	3/16"
6 mm	1/4"
8 mm	5/16"
10 mm	1/8"
12 mm	1/2"
16 mm	5/8"

Visit AQUAAIDSOLUTIONS.COM for additional product information.

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 The CAMPEY™ UNIVERSE® rotor is covered by one or more of the following patents and/or patent applications:
 US Patents: US9,730,372 ; US9,820,422 ; US10,045,472
 US Patent Applications: US15/646,668 ; US16/034,979

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Vredo, Turf-Fix, Single Compact, Super Compact, and Turf Buddy are trademarks of Vredo Dodewaard B.V.

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ShockWave™

How it Works

Compact soils inhibit the soil's ability to move water and oxygen through the profile, decreasing the overall health of your turf.

Pre-cutter units come standard on all ShockWave models.

Pre-cutter discs, aligned with the ShockWave blades, cut/slice through turf and thatch, minimizing turf damage while promoting quicker turf recovery.



World's fastest PTO driven rotary, linear decompressor

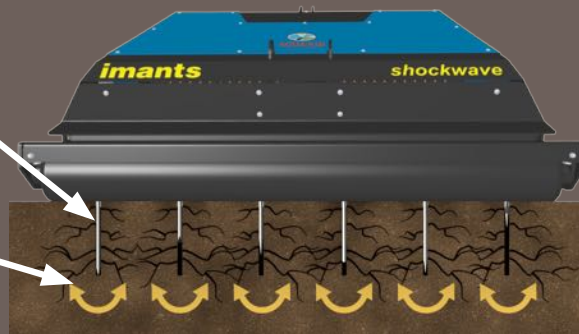
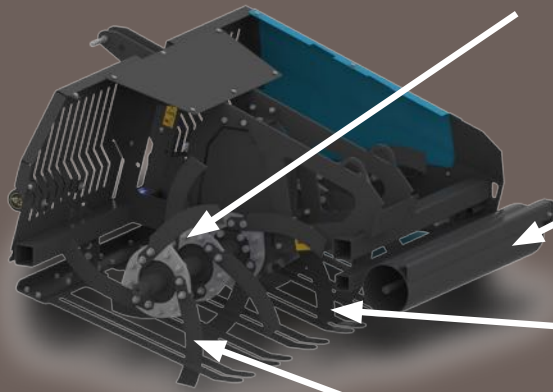
Adjustable rear roller provides quick aeration depth settings

Rotary action of blades will out perform vertical aeration

Interchangeable 4 mm and 12 mm blades

Provides continuous linear subsurface aeration with minimal surface disruption

Offset of blades provides shattering effect during rotary action in soil



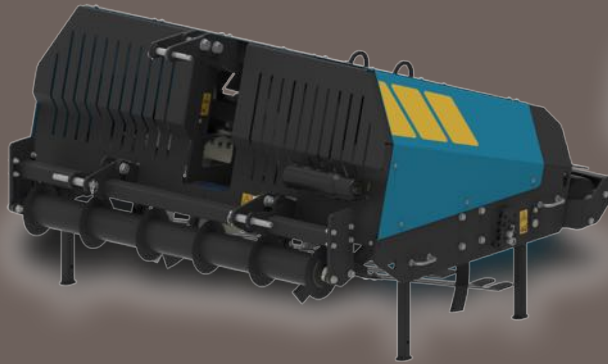
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ShockWave™

The Imants ShockWave is a linear decompactor designed to maintain both proper soil porosity and bulk density during the growing season and revitalize heavy wear areas by relieving soil compaction, improving aeration, and removing surface water. At a working depth of 4" to 10", the ShockWave provides maximum surface decompaction with minimal surface disruption. The ShockWave is reputed to be the world's fastest PTO driven rotary, linear decompactor. All ShockWave models feature a no-chains, direct drive design, and maintenance free "sealed for life" bearings. The ShockWave incorporates overload protection through a torque-limiting PTO shaft.

HIGHLIGHTS

- Reduces bulk density
- Increases soil's ability to move water
- Increases aeration



Visit AQUAAIDSOLUTIONS.com for additional ShockWave pictures and videos.

Specifications

	Model 1.0	Model 1.6	Model 2.1	Model 2.2
Working Width	39"	63"	83"	87"
Transport Width	49"	69"	90"	96"
Working Depth	4" - 10"	4" - 10"	4" - 10"	4" - 15"
Weight (approx)	1,080 lb	1,400 lb	1,565 lb	2,955 lb
Weight with Pre-cutters	1,217 lb	1,589 lb	1,796 lb	3,245 lb
Blade Spacing	10"	10"	10"	10"
Blade Thickness	4 mm or 12 mm	4 mm or 12 mm	4 mm or 12 mm	16 mm
Number of Blades	12	18	24	24
Power Requirement	40 - 55 hp	50 - 65 hp	60 - 75 hp	75 - 90 hp
Coulters	4	6	8	8
Weight of Coulters Option	97 lb	110 lb	134 lb	134 lb

Tractor Requirement: 540 pto, Creep gear or hydrostatic drive required, 4-wheel drive recommended. Confirm individual tractor specification has adequate lifting capacity.

Operating Speed: 0.3 to 0.9 mph

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ShockWave™ Xtreme

Why a ShockWave Xtreme?

Imants invented the ShockWave in the late seventies with the goal of providing some form of tillage while leaving the top surface undisturbed. The target market was mainly for fine turf on sports fields and golf courses. As a world leader in rotary spaders, Imants took step towards designing a machine like a rotary spader but with slicing knives instead of digging blades. After some intense development, a new machine was born. It was astonishing to see what impact this new design had on soil decompaction.

In the years that followed, heavier and more durable machines were developed with greater working depths. The design and performance of the ShockWave drew the attention of competitors but "is often imitated, never duplicated"! As the originators of the Rotary decompactor, Imants developed a central drive gearbox which is a main advantage on maintenance and durability of the ShockWave.

Imants sells machines all over the world and these machines are used in very harsh conditions such as heavily compacted soils. Heavily compacted soils benefit greatly from the use of the ShockWave. Since contractors tend to use larger tractors with more horsepower, a void was filled by designing a machine capable of handling higher horsepower. This development from Imants called the ShockWave Xtreme is a 9 foot wide unit with the capability of working with tractors up to 160 horsepower.

- ShockWave Xtreme has successfully been used to significantly reduce the time needed to prepare a harvested field for revegetation or seeding to as short as one day!
- This quick turnaround enables multiple harvests from a single field in the same growing season, resulting in greater revenue without sacrificing the health of your soil.
- The wide 9 foot (2.75 m) working width and up to 1.9 mph (14.5 kph) operating speed makes the ShockWave Xtreme the ideal choice for sod farms, polo fields, contractors, and anyone maintaining large turf areas.



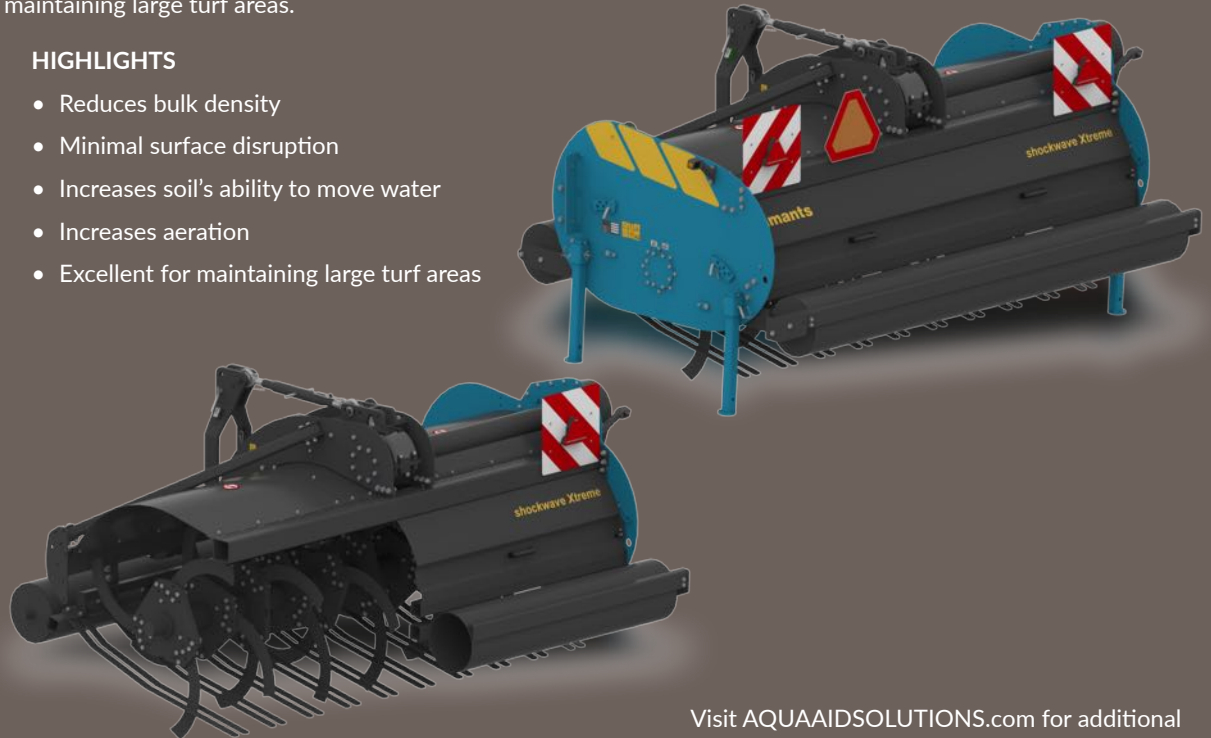
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ShockWave™ Xtreme

The Imants ShockWave Xtreme is a linear decompactor designed to both maintain proper soil porosity and bulk density during the growing season and revitalize heavy wear areas by relieving soil compaction, improving aeration, and removing surface water. At a working depth of 4" to 10", the ShockWave Xtreme provides maximum surface decompaction with minimal surface disruption. The wide 9 foot working width and up to 1.9 mph operating speed makes the ShockWave Xtreme the ideal choice for sod farms, polo fields, park districts, contractors and anyone maintaining large turf areas.

HIGHLIGHTS

- Reduces bulk density
- Minimal surface disruption
- Increases soil's ability to move water
- Increases aeration
- Excellent for maintaining large turf areas



Visit AQUAAIDSOLUTIONS.com for additional ShockWave Xtreme pictures and videos.

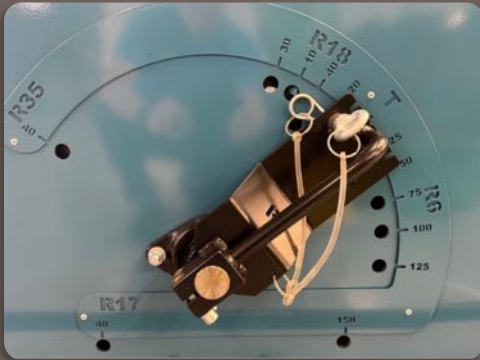
Specifications

	ShockWave Xtreme 2.75
Working Width	108"
Transport Width	118"
Weight (approx)	5,093 lb
Working Depth	6" - 13"
Blade Banks	10
Blade Spacing	11"
Blade Thickness	16 mm
Number of Blades	30
Power Requirement	125 - 150 hp

Tractor Requirement: 1000 pto, 4-wheel drive. Confirm individual tractor specification has adequate lifting capacity.
 Operating Speed: 0.3 to 1.9 mph

imant's RotoKnife™

Benefits of Koro RotoKnife



Quick, in-the-field, no tools required adjustment and setting of RotoKnife Operation.

Multiple number of discs in the ground and depth settings to address agronomic needs from cutting stolons and rhizomes, upper soil profile aeration, venting, or deep 6" linear aeration for enhanced gas exchange and drainage.



Optional spike shafts enable a quick and effortless way to vent your turf surface, pre-treat to maximize soil sprays & wetting agent applications, and incorporate fairway topdressing applications (when applied at the 7-10-ton rate).

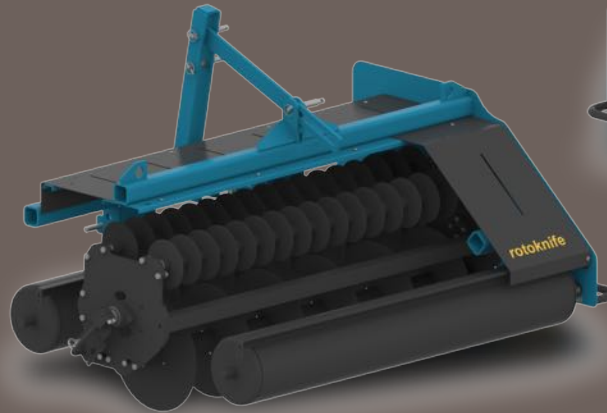
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RotoKnife™

The Imants RotoKnife is a versatile and effective linear disc-aerator designed to relieve surface compaction, improve aeration, reduce thatch buildup, and remove surface water. The RotoKnife is fast across surfaces and serves as a versatile root zone management tool. Rotor shafts can be set in five different positions, offering flexibility in working depth and linear spacing. Disc shafts allow for variable-depth slitting, ranging from 1" to a maximum depth of 6" at 12" spacing, or as shallow as 3/8" to 1 1/2" deep at 4" spacing. Spiker shafts are used prior to soil sprays to achieve deeper infiltration into the soil profile. When used after topdressing fairways and tees, spiker shafts help work sand into the canopy. One spiker shaft allows for variable-depth spiking from 3/8" to 1 1/2" deep at 4" spacing. Two spiker shafts can be used in tandem at a depth of 1 1/2" at 2" spacing. The RotoKnife can also be used as a roller to remove surface irregularities.

HIGHLIGHTS

- Minimal surface disruption
- Increases soil's ability to move water
- Increases aeration
- Excellent for managing thatch and black layer



Visit AQUAAIDSOLUTIONS.com for additional RotoKnife pictures and videos.

Specifications

	RotoKnife
Working Width	71"
Transport Width	89"
Weight (approx)	1,774 lb
Working Depth	3/8" - 6"
Disc Diameter	8" slit and spiker discs , 18" slit discs
Disc Spacing	2" , 4" , 12"
Disc Thickness	5 mm slit and spiker discs
Number of Discs	35 spiker , 17 x 8" , 6 x 18"
Power Requirement	45 - 60 hp

Tractor Requirement: 4-wheel drive recommended. Confirm individual tractor specification has adequate lifting capacity.
Operating Speed: Up to 6.2 mph

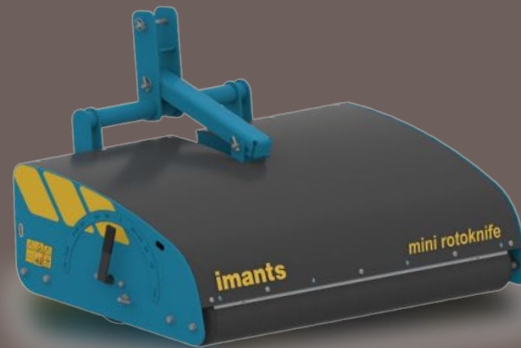
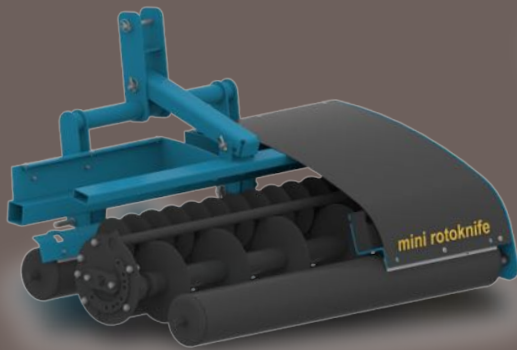
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Mini RotoKnife™

Designed as a smaller form factor RotoKnife, the **Imants Mini RotoKnife** is a linear disc-aerator designed to relieve surface compaction, improve aeration, reduce thatch buildup, and remove surface water. The **Mini RotoKnife** is fast across surfaces and a versatile root zone management tool. Rotor shafts can be set in three different positions, offering flexibility in working depth and linear spacing. The 12" disc shaft allows for variable-depth slitting from 1" to a maximum depth of 4" at 12" spacing. One 8" disc shaft allows for variable-depth slitting from 3/4" to 2 1/2" deep at 4" spacing. Two 8" disc shafts can be used in tandem at a depth of 1 1/2" with 2" spacing. The **Mini RotoKnife** is compatible with most compact tractors and can also be used as a surface smoothing roller.

HIGHLIGHTS

- Minimal surface disruption
- Increases soil's ability to move water
- Increases aeration
- Excellent for managing thatch and black layer



Visit AQUAAIDSOLUTIONS.com for additional Mini RotoKnife pictures and videos.

Specifications

	Mini RotoKnife
Working Width	60"
Transport Width	68"
Weight (approx)	1,335 lb
Working Depth	3/4" - 4"
Disc Diameter	8", 12", optional - 8" spiker disc
Disc Spacing	2", 4", 12"
Disc Thickness	3 mm (8"), 5 mm (12")
Number of Discs	29 x 8", 5 x 12"
Power Requirement	35 - 50 hp

Tractor Requirement: Confirm individual tractor specification has adequate lifting capacity.

Operating Speed: Up to 6.2 mph

ShockWave & RotoKnife in Action

Maximizing Agronomic Benefits with Minimal Surface Disruption



Late fall/early winter linear decompaction of bent/Poa fairways. Enables aeration when other methods would not be possible. Relieve soil compact and increase water infiltration and promote firmer early Spring start playing surfaces.

ShockWave is strong enough to provide 10" depth of linear decompaction, yet gentle on the playing surface of this damaged green.



Linear aeration of fairway playing surface using the Rotoknife R-6 Discs at a 6" depth. Increasing the aeration and gas exchange of the soil profile while enhancing the drainage for an intense and extended rainfall event.



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KORO® Recycling Dresser®

Benefits of Koro Recycling Dresser



Generate and recycle sand or loamy sand soil on fairways, sports fields, and polo fields. Mitigate layering issues, manage organic matter, improve drainage, and use material to topdress and smooth the playing surface.



Attack underlying layers in the soil. Homogenizing the soil profile, creating channels to break up and remove the layers while improving drainage and gas exchange.



Reducing labor costs and creating savings in sand topdressing material costs.

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KORO® Recycling Dresser®

The Imants KORO Recycling Dresser is a heavy-duty aerator and root zone recycler. The Recycling Dresser aerates vertically and horizontally, removes the underlying soil from the root zone, and redistributes soil as a topdressing across the playing surface. This vertical and horizontal aeration mitigates layering and compaction, increases biological activity, and allows for better utilization of existing fertilizers in the soil. The Recycling Dresser reduces the amount of new topdressing required, thus saving labor and material costs while promoting sustainable maintenance. The Recycling Dresser is best used on loamy to sandy soils.

HIGHLIGHTS

- Mitigates layering and compaction
- Reduces time and labor over traditional cultural practices
- Recycles current root zone, saving on topdressing required



Visit AQUAAIDSOLUTIONS.com for additional Recycling Dresser pictures and videos.

Specifications

	RD 1600	RD 1900	RD 2200
Working Width	65"	75"	89"
Transport Width	75"	87"	97"
Weight (approx)	2,227 lb	2,447 lb	2,712 lb
Working Depth	1/2" - 7"	1/2" - 7"	1/2" - 7"
Blade Spacing	11 7/8"	11 7/8"	11 7/8"
Blade Thickness	4 mm or 8 mm	4 mm or 8 mm	4 mm or 8 mm
Number of Blade Hubs	5	6	7
Number of Blades	20	24	28
Power Requirement	60 - 75 hp	75 - 90 hp	85 - 100 hp

Tractor Requirement: 540 pto, Creep gear or hydrostatic drive required, 4-wheel drive recommended. Confirm individual tractor specification has adequate lifting capacity.

Operating Speed: 0.3 to 1.9 mph (contingent upon ground conditions)

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KORO® Recycling Dresser 1.3®

Designed on a smaller platform, the **Imants RD 1.3** is a heavy-duty aerator and root zone recycler which can be used on greens and tighter areas where the larger Imants KORO Recycling Dresser will not fit. The **RD 1.3** aerates vertically and horizontally, removes the underlying soil from the rootzone, and redistributes soil as a topdressing across the playing surface. This vertical and horizontal aeration mitigates layering and compaction, increases biological activity, and provides topdressing material to smooth the playing surface. The **RD 1.3** reduces the amount of new topdressing required, thus saving labor and material costs while promoting sustainable maintenance. The **RD 1.3** is best used on loamy to sandy soils.

HIGHLIGHTS

- Smaller platform design for use on greens, approaches, tees, and sports fields.
- Mitigates layering and compaction.
- Reduces time and labor over traditional cultural practices.
- Recycles current rootzone material, saving on topdressing required.



Visit AQUAAIDSOLUTIONS.com for additional Recycling Dresser 1.3 pictures and videos.

Specifications

	RD 1.3
Working Width	52"
Transport Width	74"
Weight (approx)	985 lb
Working Depth	3" - 7" (in 1" increments)
Blade Spacing	10 3/16"
Blade Thickness	4 mm or 8 mm
Number of Blades	20
Power Requirement	45 - 60 hp

Tractor Requirement: Confirm individual tractor specification has adequate lifting capacity.

Operating Speed: Up to 3.5 mph

imants[®] SandCat™

The Imants SandCat is a compact, one-pass soil modification system ideal for greens, tees, and sports fields built on loamy to sandy soils. The SandCat moves lightly over the turf, slits the surface to a depth of 6", and introduces kiln-dried sand to a depth of 5" to improve drainage and enhance the properties of the root zone. The SandCat will inject 1 pound of kiln-dried sand per square foot, equating to approximately 4 pounds of sand for every linear foot the machine travels. The SandCat features overload protection by a torque limiting PTO shaft.

HIGHLIGHTS

- One-pass soil amendment system
- Increases soil's ability to move water
- Provides labor savings over traditional amendment processes



Visit AQUAAIDSOLUTIONS.com for additional SandCat pictures and videos.

Specifications

	SandCat
Working Width	42"
Transport Width	53"
Weight (approx)	935 lb 2,100 lb (full hopper)
Working Depth	6" (cutting blades) 5" (kiln-dried sand injection)
Number of Blade Hubs	7
Blade Spacing	6"
Blade Thickness	8 mm
Number of Blades	21
Number of Coulters	4
Power Requirement	45 - 60 hp

Tractor Requirement: 540 pto, Creep gear or hydrostatic drive required, 1 x double acting spool, 4-wheel drive recommended. Confirm individual tractor specification has adequate lifting capacity.

Operating Speed: 0.3 to 0.9 mph

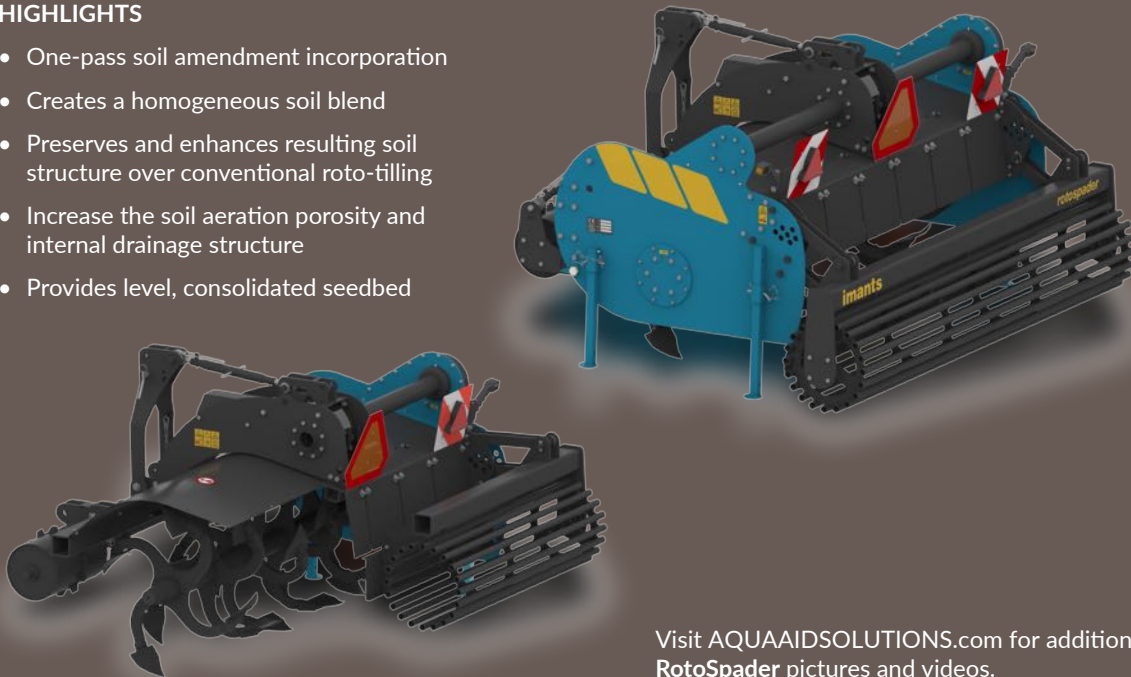
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RotoSpader™

Over the past 70 years, Imants has developed and offered rotary spaders with working depths up to 50" and working widths from 3' to 20', specifically for agricultural and horticulture. With a working width of 7' and a working depth of 6" to 13", the **Imants RotoSpader** is designed for the turfgrass market. The **RotoSpader** enables the incorporation or homogeneous blending of organics, compost, or soil amendments throughout the root zone mix in a simple one-step pass. The spading action of the **RotoSpader** does not destroy natural soil aggregation. This spading helps to increase the air and water porosity of the soil while creating a level and consolidated seedbed ready for seeding.

HIGHLIGHTS

- One-pass soil amendment incorporation
- Creates a homogeneous soil blend
- Preserves and enhances resulting soil structure over conventional roto-tilling
- Increase the soil aeration porosity and internal drainage structure
- Provides level, consolidated seedbed



Visit AQUAAIDSOLUTIONS.com for additional RotoSpader pictures and videos.

Specifications

	RotoSpader 2.1
Working Capacity	Up to 1.5 acre/hr
Working Width	83"
Transport Width	98"
Weight (approx)	2,505 lb
Working Depth	6" to 13"
Hub Spacing	13 1/4"
Blade Width	8"
Number of Blades	24
Power Requirement	70 - 90 hp

Tractor Requirement: 540 pto, 4-wheel drive. Confirm individual tractor specification has adequate lifting capacity.
 Operating Speed: 0.3 to 1.9 mph

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KORO® TopDrain™ 1000

The Imants KORO TopDrain 1000 provides a complete one-pass drainage system. The TopDrain is a unique, multi-functional machine that trenches, removes spoils, injects sand, and re-compacts all in one operation. Specifically designed for sports fields, golf course fairways, and large turf areas, the sand grid created by the TopDrain complements existing drainage systems.

HIGHLIGHTS

- Material and labor savings
- Faster application
- Less surface disruption and contamination than traditional systems



Visit AQUAAIDSOLUTIONS.com for additional TopDrain 1000 pictures and videos.

Specifications

	TopDrain 1000
Working Width	40"
Folded Transport Width	89"
Operational Unfolded Width	157"
Weight (approx)	5,180 lb 9,880 lb (full hopper)
Working Depth	10"
Number of Rotors	2
Rotor Spacing	40"
Number of Rotor Blades	16
Rotor Blade Thickness	1 1/2"
Power Requirement	100 - 130 hp

Tractor Requirement: 540 pto, Creep gear or hydrostatic drive required, 6 hydraulic vales, 2 x double acting spool, 1 x single acting spool, 12 volt plug, 3000 lb recommended tongue capacity

Operating Speed: 0.3 to 2.5 mph



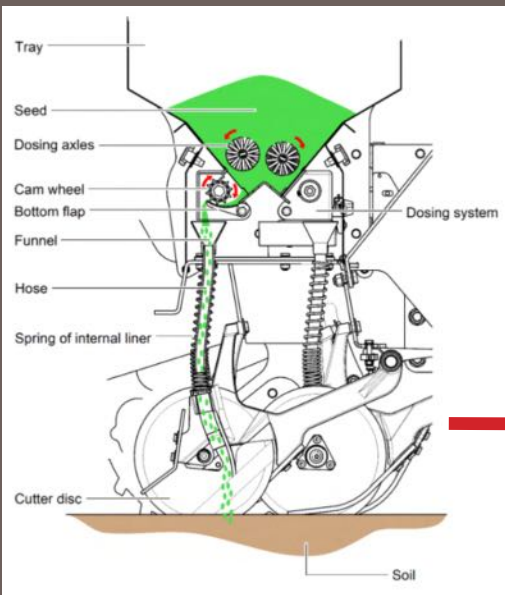
How it works

Every seed is unique and demands its own specific adjustment on the machine with the aid of our Seed Rate Calculator.

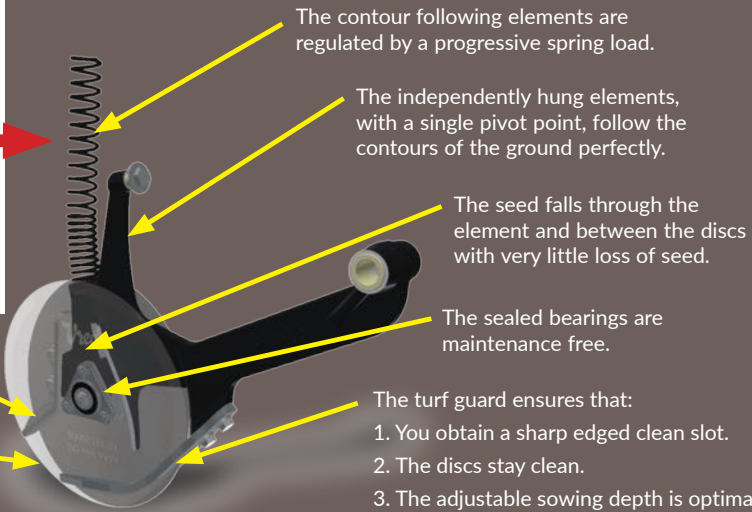


Image reflects Super Compact model

Vredo DZ5 Calculator for Determining 'Value' factor for Variator Setting when Calibrating the Vredo DZ5 Series Seeders	
1. Determine desired seeding rate in pounds per 1,000 sq. ft. or pounds per acre (A). Use appropriate calculator below and insert seeding rate value in box (A). or A.7.	
2. Follow the instructions on pages 23-26 of the Vredo Operator Manual for the DZ5 Series to collect the seed in the calibration tray. Enter the weight (B grams) of the seed only in box (B).	
When using a Pounds per 1,000 square feet Seeding Rate Calculator	
A. <input type="text" value="2.6"/>	Desired seeding rate of pounds per 1,000 square feet.
B. <input type="text" value="115"/>	Weight of seed (grams) collected in tray after 10 revolutions of the crank grip.
C. <input type="text" value="2.90"/>	Value Number to determine Position Variator
When using a Pounds per acre Seeding Rate Calculator	
A. <input type="text" value="0"/>	Desired seeding rate of pounds per acre
B. <input type="text" value="0"/>	Weight of seed (grams) collected in tray after 10 revolutions of the crank grip.
C. <input type="text" value="2000"/>	Value Number to determine Position Variator
3. Use the Calculated Value (B/C) to determine the Position Variator Setting using the Vredo Charts on page 14 of the Operator's Manual. Use the correct chart to match your seeder. Single or Duo.	



The seed is conveyed from the hopper to the cam wheel. This is continuously driven, so the seed is transported over the bottom flap towards a V-shaped edge, which spreads the seed evenly into the seed tubes.



The scraping block scrapes clean the inside of the discs.

Sharp self-maintaining discs are manufactured from very durable material.

The combination of the double discs, pressurized spring, and the turf guard, makes sure that the seed is being deposited at the correct depth for the most efficient use of expensive grass seed.





Turf-Fix™

The Vredo DZ5 Turf-Fix series are super compact, accurate, and efficient disc seeders designed for inter-seeding into prepared seedbeds or existing stands of turf. At a spacing of 1 3/8", seed is placed in a V-shaped slit at a controllable depth of 3/16" to 1" deep, directly in contact with the soil for maximum germination rate. The Turf-Fix series includes precision calibration and a ground driven system, allowing inter-seeding to be completed with a small utility vehicle. Seed will be accurately sown at a set rate independent of ground speed.

HIGHLIGHTS

- Industry-leading germination rate
- Minimal surface disruption – no clean-up needed
- Proper seed to soil contact to maximize germination
- Super compact design ideal for small areas



Visit AQUAAIDSOLUTIONS.com for additional Vredo Turf-Fix pictures and videos.

Specifications

	65 T	95 T
Working Width	25"	39"
Transport Width	31"	45"
Weight (approx)	457 lb	590 lb
Recommended No. of Weights	6 (44 lb per wgt)	10 (44 lb per wgt)
Weight With Recommended Weights	721 lb	1030 lb
Sowing Depth	3/16" - 1"	3/16" - 1"
Row Spacing	1 3/8"	1 3/8"
Disc Diameter	6"	6"
No. of Disc Sets	18	28
Seed Hopper Volume	1.48 cu. ft.	2.33 cu. ft.
Power Requirement	15 - 20 hp	20 - 25 hp



Single Compact™

The Vredo DZ5 Single Compact series is an accurate and efficient range of disc seeders designed for inter-seeding into prepared seedbeds or existing stands of turf. At a spacing of 2 3/4", seed is placed in a V-shaped slit, at a controllable depth of 3/16" to 1" deep, directly in contact with the soil for maximum germination rate. The slits are then closed by a roller, and a level surface is re-established. The Single Compact series includes precision calibration and a ground driven system, allowing inter-seeding to be completed at speeds between 1 and 12 mph. Seed will be accurately sown at a set rate independent of ground speed. The Single Compact series is 3-point mounted and has four widths available to suit tractor overlap.

HIGHLIGHTS

- Industry-leading germination rate
- Minimal surface disruption – no clean-up needed
- Proper seed to soil contact to maximize germination
- Each disc is independently suspended allowing continuous disc to soil penetration over undulating ground



Visit AQUAAIDSOLUTIONS.com for additional Vredo Single Compact pictures and videos.

Specifications

	DZ5 100	DZ5 140	DZ5 180	DZ5 220
Working Width	39"	55"	72"	88"
Transport Width	46"	62"	79"	95"
Weight (approx)	885 lb	1,109 lb	1,336 lb	1,565 lb
Recommended No. of Weights	4 (44 lb per wgt)	6 (44 lb per wgt)	10 (44 lb per wgt)	12 (44 lb per wgt)
Weight With Recommended Weights	1,058 lb	1,374 lb	1,777 lb	2,094 lb
Sowing Depth	3/16" - 1"			
Row Spacing	2 3/4"			
Disc Diameter	9 7/8"			
No. of Disc Sets	14	20	26	32
Seed Hopper Volume	5.8 cu. ft.	8.3 cu. ft.	10.7 cu. ft.	13.2 cu. ft.
Power Requirement	25 - 30 hp	35 - 50 hp	45 - 60 hp	60 - 75 hp

Tractor Requirement: Confirm individual tractor specification has adequate lifting capacity.



Super Compact™

The Vredo DZ5 Super Compact series is an accurate and efficient range of disc seeders designed for inter-seeding into prepared seedbeds or existing stands of turf. At a spacing of 1 3/8", seed is placed in a V-shaped slit, at a controllable depth of 3/16" to 1" deep, directly in contact with the soil for maximum germination rate. The slits are then closed by a roller, and a level surface is re-established. The Super Compact series includes precision calibration and a ground driven system, allowing inter-seeding to be completed at speeds between 1 and 12 mph. Seed will be accurately sown at a set rate independent of ground speed. Two different widths are available to suit tractor overlap. Models can be 3-point mounted or converted to towed-mount by the addition of an optional trail kit.



HIGHLIGHTS

- Industry-leading germination rate
- Minimal surface disruption – no clean-up needed
- Proper seed to soil contact to maximize germination
- Each disc is independently suspended allowing continuous disc to soil penetration over undulating ground



Visit AQUAAIDSOLUTIONS.com for additional Vredo Super Compact pictures and videos.

Specifications

	DZ5 100	DZ5 140 / 140T	DZ5 180 / 180T	DZ5 220 / 220T
Working Width	37"	55"	72"	88"
Transport Width	46"	62"	79"	95"
Weight (approx)	1,191 lb	1,528 lb	1,980 lb	2,317 lb
Recommended No. of Weights	10 (44 lb per wgt)	14 (44 lb per wgt)	18 (44 lb per wgt)	22 (44 lb per wgt)
Weight With Recommended Weights	1,632 lb	2,145 lb	2,597 lb	3,111 lb
Sowing Depth	3/16" - 1"			
Row Spacing	1 3/8"			
Disc Diameter	9 7/8"			
No. of Disc Sets	27	40	52	64
Seed Hopper Volume	5.8 cu. ft.	8.3 cu. ft.	10.7 cu. ft.	13.2 cu. ft.
Power Requirement	45 - 50 hp	50 - 60 hp	65 - 75 hp	75 - 90 hp

Tractor Requirement: Confirm individual tractor specification has adequate lifting capacity.

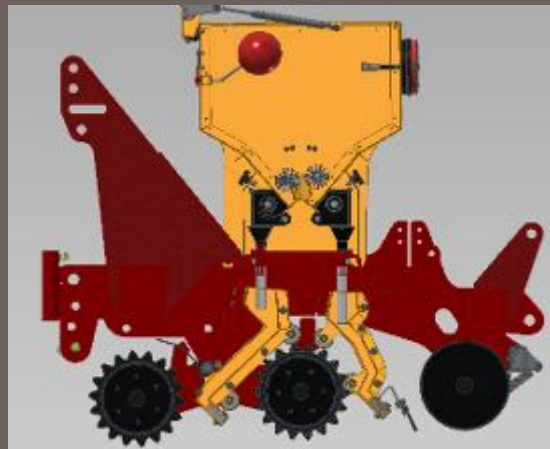


Stitch Compact Seeder™

The Vredo Stitch Compact Seeder is the ideal seeder to implement when the recovery capacity of the turf is minimal, or the ground is too loose to seed with the double disc principle. The Stitch Compact seeder provides an improved seeding technique without cutting the turf but with the quality and germination associated with the Vredo seeder line. Excellent seeder option for seeding range tees, in-play sports fields and overseeding warm season grasses. Two Stitch Rollers make interrupted incisions with the thin sharp “shark-like” teeth, in which the fallen seed is clamped in place. There are approximately 1600 small incisions per square yard, making the Vredo Stitch Compact seeder the best dimple or speed seeder on the market.

HIGHLIGHTS

- Two (2) Stitch rollers with shark-tooth design to assure more seed-to- soil contact.
- Maintenance-free transmission to ensure desired seeding rate is maintained.
- Seed distributed in two locations close to the ground. Twice the amount of seed getting into the ground.
- Brush knocks any seed caught on the grass leaf and moves to soil surface.
- Back Smooth Roller presses in any soil surface seed and completes the seeding process.



Visit AQUAAIDSOLUTIONS.com for additional Vredo Stitch Compact pictures and videos.

Specifications

	Stitch 100	Stitch 140/ Stitch 140T	Stitch 180/ Stitch 180T	Stitch 220/ Stitch 220T
Working Width	37"	55"	72"	88"
Transport Width	46"	62"	79"	95"
Weight (approx)	1334 lb	1,682 lb / 2,134 lb	2,033 lb / 2,485 lb	2,380 lb / 2,832 lb
Recommended No. of Weights	10 (44 lb per wgt)	14 (44 lb per wgt)	18 (44 lb per wgt)	22 (44 lb per wgt)
Weight With Recommended Weights	1,775 lb	2,300 lb / 2,752 lb	2,826 lb / 3,278 lb	3,350 lb / 3,802 lb
Sowing Depth	Up to ¾"	Up to ¾"	Up to ¾"	Up to ¾"
Row Spacing	11/16"	11/16"	11/16"	11/16"
Seed Hopper Volume	5.8 cu. ft.	8.3 cu. ft.	10.7 cu. ft.	13.2 cu. ft.
Power Requirement	35 hp	45 - 60 hp	60 - 75 hp	70 - 90 hp



Turf Buddy™

The **Vredo Turf Buddy** is a quick and easy way to repair thinning or damaged turf areas using the precision cutting and delivery system of the renowned Vredo. At an approximate spacing of 1 3/8", seed is placed in a V-shaped slit at a controllable depth of 3/16" to 1" deep, directly in contact with the soil for maximum germination rate. The **Vredo Turf Buddy**, with its compact design ideal for small areas, places seed directly in contact with the soil to offer a minimal surface disruption.

HIGHLIGHTS

- Minimal surface disruption – no clean-up needed
- Proper seed to soil contact to maximize germination
- Super compact design ideal for small areas



Visit AQUAAIDSOLUTIONS.com for additional Vredo Turf Buddy pictures and videos.

Specifications

	Turf Buddy
Working Width	6"
Transport Width	24" x 9" x 20"
Recommended No. of Weights	1 (44 lb per wgt)
Weight With Recommended Weights	108 lb
Sowing Depth	3/16" - 1"
Row Spacing	1 3/8"
Disc Diameter	6"
No. of Disc Sets	4
Seed Hopper Volume	0.8 gallon
Power Requirement	Walking

Operation Speed: Walking speed



RootPruner™

The **Imants RootPruner** is a one-pass root pruning system that can prune roots up to 6" in diameter with minimal surface disruption and no need for clean-up. The **RootPruner's** unique action of cutting the root in two areas prevents root encroachment into vital areas, eliminates loss of valuable water and nutrients, and prevents surface damage. It also has the ability to decompact tight, narrow areas with ease. The **RootPruner** includes a unique patented triple-reduction planetary gearbox for smooth, maximum torque drive to rotor shaft. The **RootPruner** also features a factory-set, torque-limiting PTO shaft.

HIGHLIGHTS

- Labor and time savings with one-pass system
- Unique dual cutting eliminates the root's ability to reconnect
- No clean-up with minimal surface disruption



Visit AQUAAIDSOLUTIONS.com for additional **RootPruner** pictures and videos.

Specifications

	RootPruner
Working Width	11"
Transport Width	35"
Working Depth	10"
Weight (approx)	1,125 lb
Blade Spacing	11"
Blade Thickness	14 mm
Number of Blades	6
Power Requirement	40 - 65 hp ◊

Tractor Requirement: 540 pto, Creep gear or hydrostatic drive required, 4-wheel drive recommended. Confirm individual tractor specification has adequate lifting capacity.

Operating Speed: 0.3 to 0.9 mph

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RootPruner™

The Imants RootPruner has several other uses and benefits besides eliminating the competition between tree roots and turf for water and nutrients. It can also provide the following benefits.

- Prevent cracking and heaving of cart paths.
- Preserve strategically-plant trees and enable trees and turf to coexist.
- Protect hard surfaces i.e., parking lots, sidewalks, walking trails.
- Ensure the integrity of expensive bunker systems and/or liners.

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QuickDrain™

The Imants QuickDrain is an attachment for the RootPruner, creating a one-pass soil modification system ideal for small ancillary areas on golf courses, sports fields, and small turf areas. The QuickDrain attachment improves drainage and enhances the properties of the root zone by introducing kiln-dried sand to a depth of 7" at a spacing of 11". The QuickDrain attachment must be removed if using the RootPruner for the more traditional function of cutting roots.

HIGHLIGHTS

- One-pass soil amendment system
- Increases the ability of soil to move water
- Quick and minimally disruptive process for improving drainage



Specifications

	QuickDrain
Working Width	11"
Transport Width	35"
Coulter Depth	7"
Weights (approx)	200 lbs (Quick Drain Attachment) 1,325 lbs (RootPruner + Quick Drain attached) 1,660 lbs (RootPruner + Quick Drain + full hopper of Kiln dried sand)
Coulter Spacing	11"
Coulter Thickness	16 mm
Number of Coulters	2

Tractor Requirement: 1 x Double acting hydraulic spool
Operating Speed: 0.3 to 0.9 mph

Sand Requirement: Kiln-dried sand only

Visit AQUAAIDSOLUTIONS.com for additional QuickDrain pictures and videos.

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KORO® FTM™

History of the FTM

The brainchild of Ko Rodenberg, the KORO Field TopMaker® (KORO FTM) came to market in 1997 as the key machine in a renovation program designed to improve turf quality and extend playing hours on natural turf soccer fields.

The largest contributing factor to the failure of sports fields has typically been excessive thatch and *Poa annua* contamination. Ko Rodenberg designed the Field TopMaker to “fraise” or remove the very top part of the plant. This process was found to remove the shallow rooted *Poa annua* and excessive thatch accumulations leaving the crown of the desired plant. This allowed for faster and more uniform regrowth to occur. A single fraise mowing pass far exceeded the results of available scarification processes.

The acquisition of the manufacturing rights by Imants in 2009 and the fine-tuning of fraise mowing renovation practices has led to the design of a new range of rotors.

The indisputable success of the KORO FTM across all sports surfaces has helped produce healthier turf through greatly improved surface hygiene and the remastered 1.2 (48”), 1.6 (63”), 2.0 (79”) and 2.5 (99”) models build on that success.

Imants has turned KORO FTM into a system that can be used on a wide range of surfaces for a number of different renovation practices.



Understanding Fraise Mowing

A modern approach to managing excessive thatch buildup in warm season grasses is “CAMPEY™ UNIVERSE® fraise mowing”.

Most warm season grasses are prone to the rapid accumulation of thatch. Conventional verticutting and scarification only remove around 7 - 10% of the surface matter and unless done on a regular basis cannot keep up with the buildup of thatch.

A radical approach is to remove all the organic buildup in one pass. The unique feature of the CAMPEY™ UNIVERSE® rotor is that it can be set accurately to leave rhizomes and stolons in place, thus eliminating the need to re-sprig.

Once exposed to sunlight by removal of the canopy, regeneration is rapid with full recovery often in 3 - 4 weeks. Removing the thatch and organic debris minimizes water retention at the surface and ensures that any available water passes directly to the root zone.

In transitional zones, fraise mowing with the CAMPEY™ UNIVERSE® rotor speeds up the transition from winter grasses to warm season grasses. The CAMPEY™ UNIVERSE® rotor will take out the cool season grass and any organic buildup, but leave rhizomes and stolons in place. By removing the competition for water and nutrients and exposing them to light, the transition period is dramatically reduced.



Day of Fraise Application



Day 7



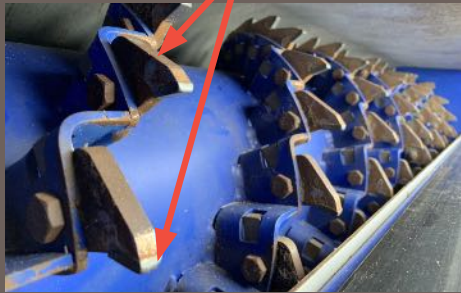
Day 14

There is only ONE patented CAMPEY™ UNIVERSE® rotor

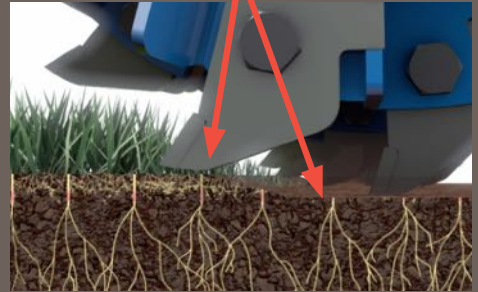
Fraise mowing natural grass utilizing the CAMPEY™ UNIVERSE® rotor achieves excellent surface hygiene without damaging rhizomes and stolons. The CAMPEY™ UNIVERSE® rotor will extend the life of your natural grass surface by managing organic matter levels, removing weed seeds, and increasing the tinsel strength of your existing stand.

When the fraise mowing application is completed on hybrid playing surfaces, the CAMPEY™ UNIVERSE® rotor will not damage the fibers. Fraise mowing on hybrid surfaces allows turf professionals to maintain the original quality of the surface.

Patented blade of the CAMPEY™ UNIVERSE® rotor with 3/8" tungsten tipped blades



The blade of the CAMPEY™ UNIVERSE® rotor allows for a "combing" effect causing minimal damage to remaining turf, natural or hybrid



Research and testing on different sports turf and grasses, to see how long the recovery time was in different situations, led to the development of different thicknesses of CAMPEY™ UNIVERSE® blades. 3/16" and 1/8" blades were developed for CAMPEY™ UNIVERSE® finesse mowing, which will deliver a more refined finish. The working depth of the rotors can be set with infinite precision.

All three blades can be used on natural turf and both cool and warm season grasses for CAMPEY™ UNIVERSE® finesse mowing or CAMPEY™ UNIVERSE® fraise mowing.

3/8" (10 mm)



3/16" (5 mm)



1/8" (3 mm)






The Imants KORO FTM, with the patented CAMPEY™ UNIVERSE® rotor, is the industry-leading fraise mower. The FTM removes unwanted surface matter, such as Poa annua, thatch, weeds, or the entire surface, to a depth of 2". A side conveyor removes debris directly into a trailer, leaving a level and even surface. The FTM 1.2 and FTM 1.6 are designed and built for fine turf applications, such as golf courses, sports fields, and small turf areas. An optional mid-mounted roller can be used for more aggressive undulations. The FTM 2.0 and FTM 2.5 are designed for maximum efficiency for sports fields and sod farms. All FTM models can be fitted with CAMPEY™ UNIVERSE® rotor, Terraplane® rotor, Scarifying rotor, or Digging rotor.



Visit AQUAAIDSOLUTIONS.com for additional FTM pictures and videos.

Specifications

	FTM 1.2	FTM 1.6	FTM 2.0	FTM 2.5
Working Width	47"	63"	79"	98"
Folded Transport Width	80"	90"	100"	120"
Operational Unfolded Width	127"	151"	177"	213"
Weight w/ CAMPEY™ UNIVERSE® Rotor	1,746 lb	1,951 lb	2,987 lb	3,329 lb
Working Depth	0" - 2"			
No. of CAMPEY™ UNIVERSE® Blades	121 (3/8")	161 (3/8")	202 (3/8")	252 (3/8")
No. of CAMPEY™ UNIVERSE® Finesse Blades	121 (1/8" or 3/16")	161 (1/8" or 3/16")	202 (1/8" or 3/16")	252 (1/8" or 3/16")
No. of Terraplane Blades	36	48	60	75
No. of Scarifying Blades	68 (1/16" or 1/8")	92 (1/16" or 1/8")	112 (1/16" or 1/8")	144 (1/16" or 1/8")
No. of Digging Blades	40 (20 LH, 20 RH)	52 (26 LH, 26 RH)	64 (32 LH, 32 RH)	80 (40 LH, 40 RH)
Power Requirement	50- 65 hp	55 - 75 hp	70 - 120 hp	90 - 120 hp

Tractor Requirement: 540 pto, Creep gear or hydrostatic drive required, 2 x double acting spool, 4-wheel drive recommended. Confirm individual tractor specification has adequate lifting capacity.

Hydraulic Flow: 13.2 gpm min. (FTM 1.2 & FTM 1.6), 15.8 gpm min. (FTM 2.0 & FTM 2.5)

Operating Speed: CAMPEY™ UNIVERSE® rotor: 0.3 to 2.5 mph, CAMPEY™ UNIVERSE® Finesse rotor and Scarifying rotor: 0.3 to 3.7 mph, Terraplane rotor and Digging rotor: 0.3 to 1.2 mph

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KORO® FTM™ Rotor Options

CAMPEY™ UNIVERSE® Rotor

- Remove organic debris from hybrid / semi-synthetic turf
- Modern fraise mowing on warm and cool season grasses
- Tungsten tipped blades for increased durability



Terraplane Rotor

- Accurate planning of surface down to 2" depth
- Unrivaled surface hygiene for a clean, smooth surface
- Tungsten faced blades for increased durability and reduced down-time

Scarifying Rotor

- For conventional scarifying and verticutting
- Available with 1/16" or 1/8" tungsten tipped blades
- Includes adjustable brush strips for increased surface hygiene



Digging Rotor

- Original digging blade for fraise mowing and surface removal
- Suitable in lower quality turf areas
- Ideal for stripping prior to re-turfing

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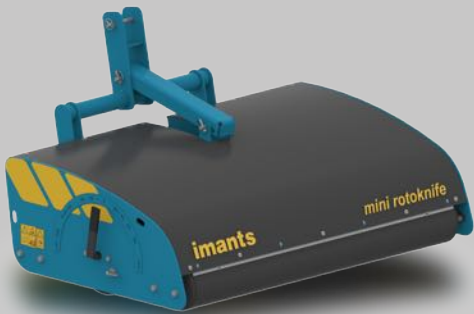
AERATION



SHOCKWAVE



SHOCKWAVE XTREME



MINI ROTOKNIFE



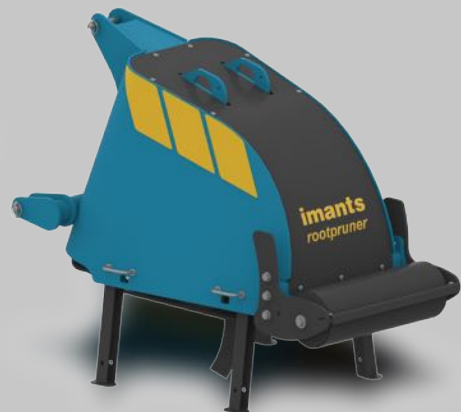
ROTKNIFE

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SURFACE HYGIENE



KORO
FTM



ROOTPRUNER

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CULTIVATION



KORO
RECYCLING DRESSER 1.3



KORO
RECYCLING DRESSER



TOPDRAIN



SANDCAT



QUICKDRAIN



ROTOPSPADER

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