

**Vicon**

Four Rotor Rake



# Product Guide Book



*My way of Farming!*





## Program

# ***Four Rotor Rakes***

***The landscape for all agri businesses is continually evolving. In order to survive and prosper there is a relentless drive towards higher efficiency. Requirements are changing, with a move from smaller to larger machines. Even family farms are now investing in large four rotor rakes in order to get the best out of their forage.***

Due to these challenging times, Vicon has developed a full range of four rotor rakes to fulfill the needs of our customers. Our ambition is to make the move from a two rotor machine to a four rotor rake as easy as possible.

With the two entry level models Andex 1254 and Andex 1304 we offer rakes with a simple control unit. Easy to understand and allowing the operator to handle a 12.5 m working width in the same way as a twin rotor rake. For customers looking for more features we offer the Andex 1304 Pro and Andex 1505 with ISOBUS control and load sensing hydraulics.

The following pages will help you to find the right machine and obtain more experience and knowhow about the product. If you have further questions or require a quote, feel free to contact your local Vicon team.



## Four Rotor Rakes – *Main Customer Benefits*

Vicon four rotor rakes are targeted at making light work of tough and demanding operations. With impressive capacity and working widths of up to 15.0m, they incorporate straightforward design and the possibility to adjust both work and swath width, boosting the complete process of collection and pick-up, adapting to changing crop intensity during the season.

Vicon rotary rakes are designed to produce well-shaped and clean swaths, achieved by precision in every part of the rake. This gives you as customer the perfect row to get your crop harvested.

### ***Main Customer Benefits:***

- **Harvest in time**
- **Easy to use**
- **Maximum uptime and maintenance friendly**
- **Strong design with unique elements**

**Four Rotor Rakes – Perfect swath shape under all conditions**

We are well known in the market for our perfect swath quality. We achieve this on the 15 m rake with 13 arms on the front rotors and 15 arms on the rear rotors. Both rotors rotate at the same speed. Due to this set-up the transfer of the crop package from the front rotors is not disturbed, resulting in a perfectly shaped swath.

The 12.5m rakes use a different system. On these models the rear rotor is smaller. This increases the strength and reduces the load on the arms. In addition the rear rotor rotates faster than the front rotor. With this trick the smaller machine provides fantastic capacity on the rear rotor as it is able to handle higher crop volume more easily than other competitive machines, guaranteeing a well shaped swath for following machines.

A special and outstanding feature, on all ProLine rotor machines is that you are able to adjust the cam track to fine tune the swath shape in difficult conditions. This can be useful in sensitive crops like Alfalfa, or tough heavy silage crops. Vicon rakes always adapt perfectly to the prevailing crop conditions.



# CompactLine or ProLine?

**The Vicon 12.5m 4-rotor rakes are offered with a choice of either ProLine or CompactLine Gearbox**

Both machines are similar in construction. They are built up on the same frame concept. The Andex 1254 CompactLine version is an easy-to-use machine with substantial working width for efficient hay and medium silage use to get the best out of the drying time. It is a low cost start into the larger rake segment.

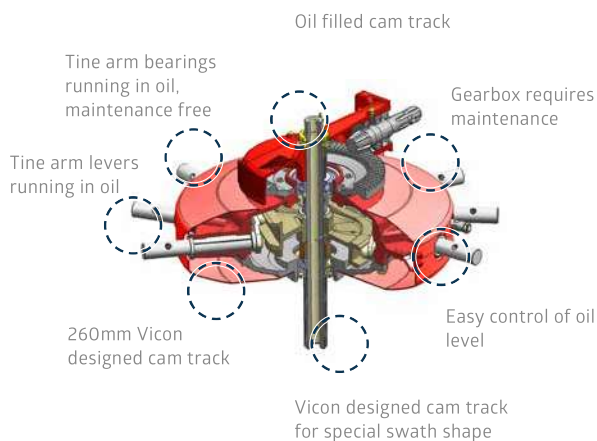
For heavy duty use, the Andex 1304 (Pro) machine has been developed for operation in all kind of crops. The benefits of the ProLine rotor head like the *adjustable cam track*\* allows complete customisation to the crop being harvested. What does this mean? For silage operations where a box shaped swath is desirable, Ideal for baler, loader wagon and chopper, which especially in heavy cuts, can be a challenge to produce it should be set to a later lifting. With hay and especially hay being made out of crops sensitive to leaf loss. For this reason the cam track can be adjusted to provide earlier lifting of the tines. The hay is not pressed against the swath and the leaves don't get broken or smashed. This allows harvest of the most important part of the plant, keeping the nutritional value high. In case of an accident the rotor is easy to repair, without disassembly of the full head.

**CompactLine rotor** - feature oil-immersed cam discs and guide rollers. Also, the tine arm bearings are fully lubricated, and hence absolutely maintenance-free. Both the rotor and pinion shaft are mounted on two bearings for maximum strength and long service life. The gearbox has three greasing spots. The cam track has a fixed position.

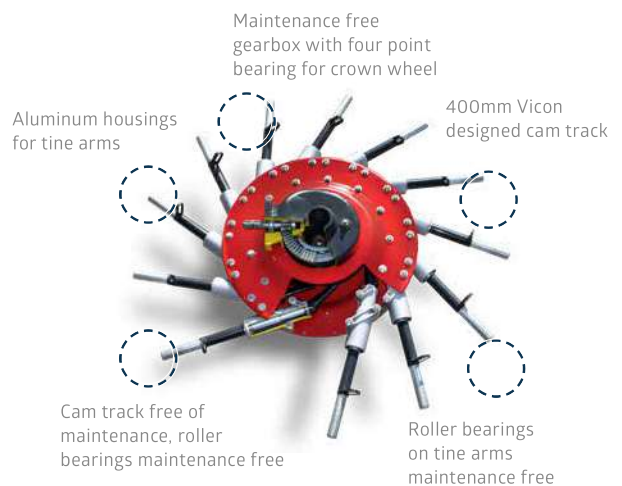
**ProLine\*** - feature a unique drive system, which comprises an oil-immersed gearbox. The fully enclosed design and lifetime greased bearings on the tine arms ensures full and permanent lubrication, and makes the entire system absolutely maintenance-free. In case of accident each arm can be replaced individually without opening the complete rotor. The *adjustable cam track* allows perfect adaptation to the harvesting conditions.

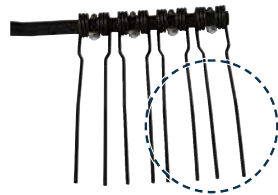
\*also used on the 15 m rake

### CompactLine gearbox



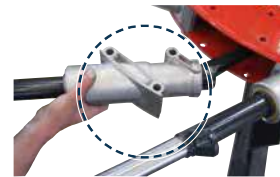
### ProLine gearbox





ProLine  
10mm  
diameter  
tines.

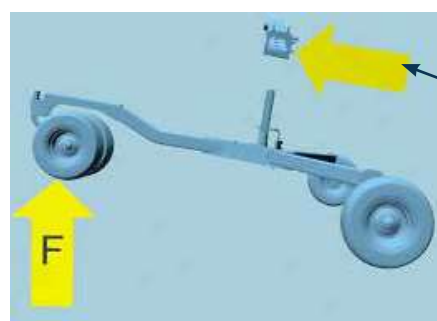
Each tine  
arm can be  
dismounted  
and repaired  
individually.



### TerraLink Quattro

Vicon TerraLink Quattro provides efficient ground contour following for each rotor, when raking grass in uneven fields.

The TerraLink Quattro system controls the rotor in 4 directions, with a unique combination of an undercarriage with 4 wheels and a specially designed rotor suspension system. This ensures superb raking performance, even at higher forward speeds. The principle behind is as well used on torsion bar suspensions known from smaller cars, car trailers and tracked vehicles. The big benefit is that the system on the rake is supporting permanent contour following also in tough conditions. Crop loss is reduced to a minimum. The partly opened frame cross section allows good flexibility.



The functional principal of TerraLink



# Four Rotor Rakes Product Range *and Product Specifications*



**CompactLine Series**  
Working Width:

**Andex 1254**  
10.0-12.5m



**ProLine Series**  
Working Width:

**Andex 1304**  
10-12.5m



**ProLine Series**  
Working Width:

**Andex 1304 Pro**  
10-12.5m



**ProLine Series**  
Working Width:

**Andex 1505**  
9.80-15.0m



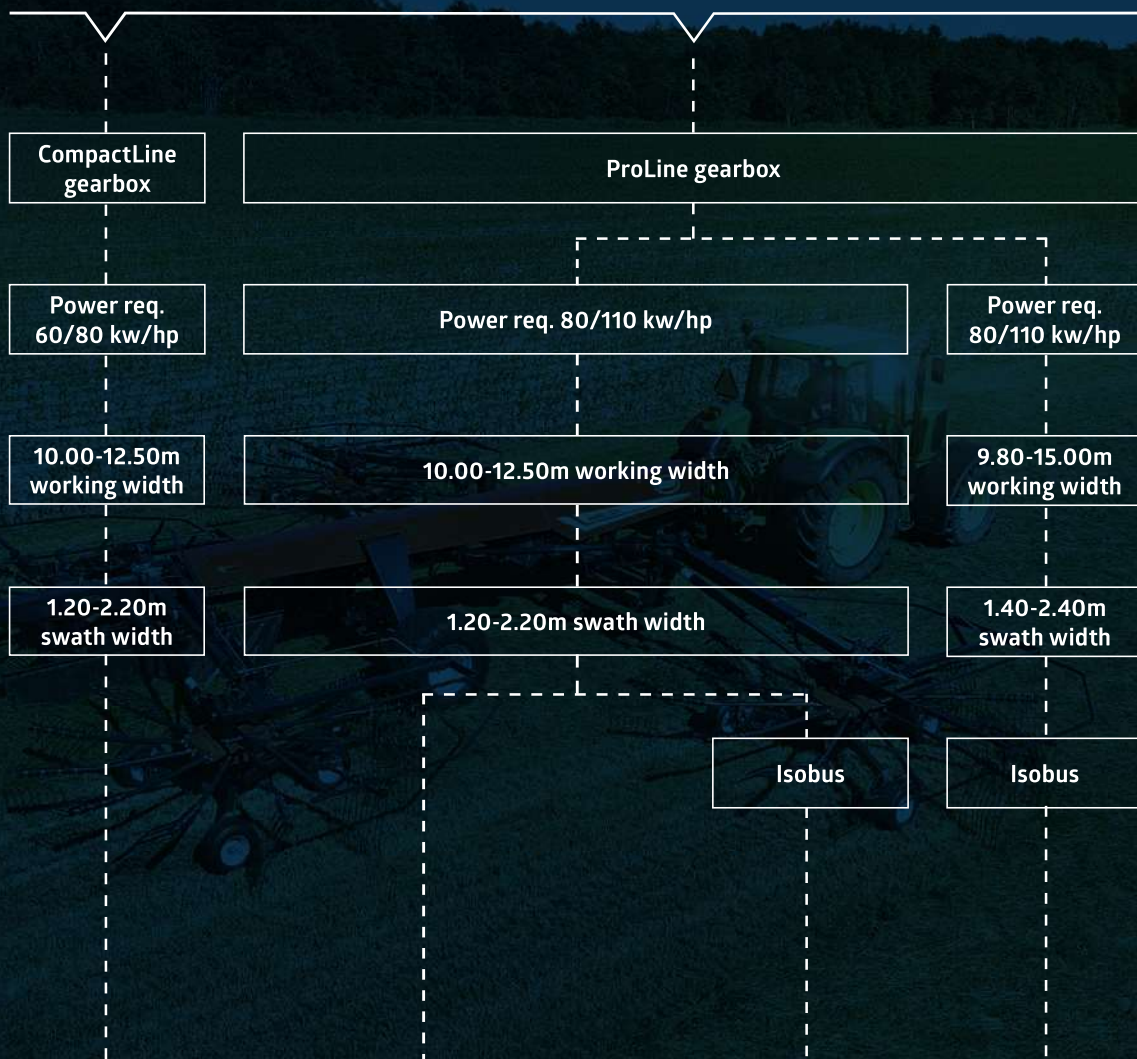




Model	Andex 1254	Andex 1304	Andex 1304 Pro	Andex 1505
Working width (m)	10.00-12.50	10.00-12.50	10.00-12.50	9.50-15.00
Transport width (m)	2.90	2.90	2.90	2.99
Transport length (m)	8.75	8.75	8.75	9.85
Transport height (m)	3.99	3.99	3.99	3.99
Weight approx. (kg)	4400	4700	4700	6000
Theoretical capacity (ha/h)	13.8	13.8	13.8	16.5
Swath width (m)	1.20-2.20	1.20-2.20	1.20-2.20	1.40-2.40
Rotor diameter (m)	3.05/3.35	3.05/3.35	3.05/3.35	3.85
Number of arms per rotor	4x12	4x12	4x12	13 front/15 back
Power req. (kw/hp)	60/80	80/110	80/110	80/110
Wheels	500/50-17	500/50-17	500/50-17	560/60-22.5

# What are your requirement *for working width and swath width?*

## Four Rotor Rakes: easily maintained



Andex 1254



Andex 1304



Andex 1304 Pro



Andex 1505



# What to sell – *When?*



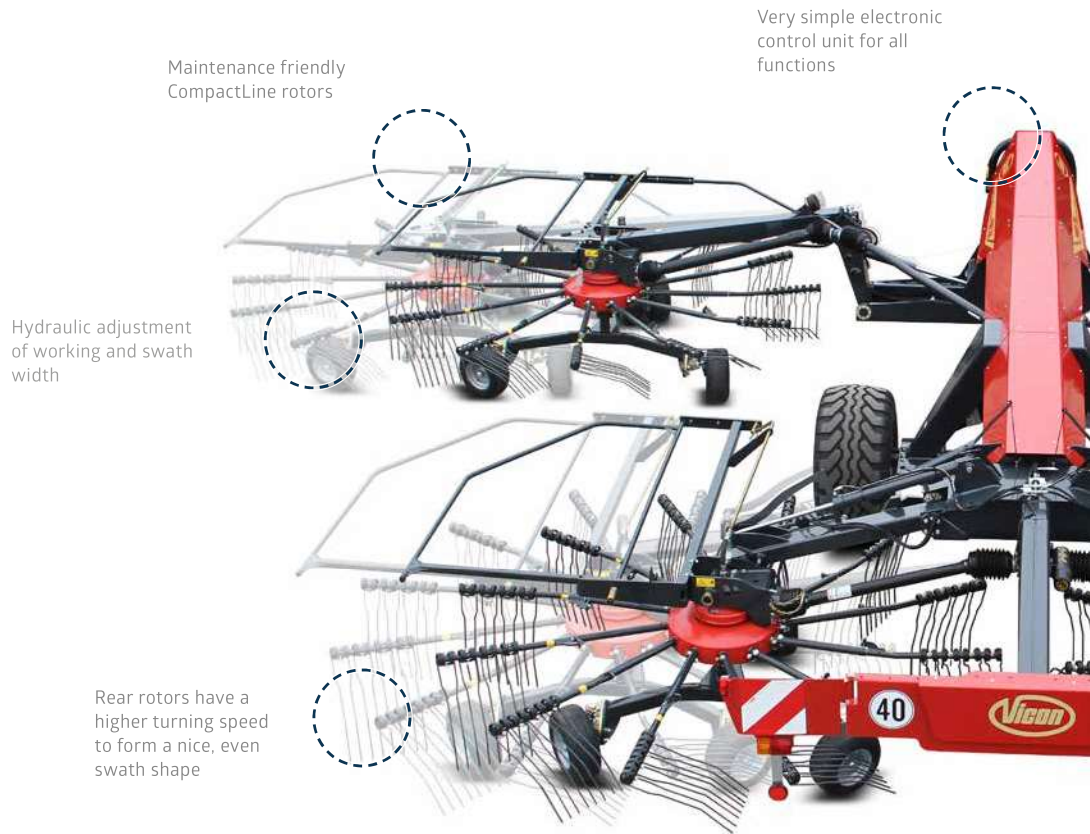
	Andex 1254	Andex 1304
<b>WHY</b>	<p>Ideal for farms <b>looking for a bigger rake.</b> Easily maintained. Comparable operation in field like a twin rotor rake. Time in front of the chopper or hay producer. Lovely fluffy even swaths.</p>	<p>Ideal for farmers and contractors, <b>looking for a simple heavy duty rake.</b> Easily maintained. Comparable operation in field like a twin rotor rake. Operation in front of the chopper. Heavy crop conditions. Lovely fluffy even swaths. Raking of very sensitive crops.</p>
<b>HOW</b>	<ul style="list-style-type: none"> <li>• Simple control unit</li> <li>• No sensors on the machine</li> <li>• Maintenance friendly compact line rotor head</li> <li>• Only one single and one double acting outlet needed</li> <li>• Smaller rotor with higher speed at rear to create fluffy even swaths</li> </ul>	<ul style="list-style-type: none"> <li>• Simple control unit</li> <li>• No sensors on the machine</li> <li>• Maintenance free rotor head</li> <li>• Only one single and one double acting outlet needed</li> <li>• Smaller rotor with higher speed at rear to create fluffy even swaths</li> <li>• Big tines secure a high capacity</li> <li>• Adjustable cam track</li> </ul>
<b>WHAT</b>	<ol style="list-style-type: none"> <li>1. Preselection control box</li> <li>2. Oil filled CompactLine rotor head</li> <li>3. Terra Link</li> <li>4. Difference in rotor speed and dimension prevent roping of material</li> <li>5. 12 arms, 9 mm tines</li> </ol>	<ol style="list-style-type: none"> <li>1. Preselection control box</li> <li>2. Maintenance free ProLine rotor head</li> <li>3. Terra Link</li> <li>4. Difference in rotor speed and dimension prevent roping of material at the rear</li> <li>5. 12 arms, 10 mm tines</li> </ol>



<p><b>Andex 1304 Pro</b></p>	<p><b>Andex 1505</b></p>	
<p>Ideal for <b>advanced farmers and contractors</b>.                      Easily maintained.                      Extended functionality for headland operations.                      Possibility to add electric height adjustment.                      Heavy crop conditions.                      Ideal swath shape for following machines.                      Raking of very sensitive crops.</p>	<p>Ideal for customers looking for an <b>advanced high capacity rake</b>.                      Easy cleaning of awkwardly shaped fields.                      Maximum functionality for operation.                      Hydraulic height adjustment.                      High manoeuvrability in field and on road.                      Overload protection for the frame.                      Hydraulically suspended front rotors.                      Protection of the grass surface.                      Raking of very sensitive crops.</p>	
<ul style="list-style-type: none"> <li>· ISOBUS control</li> <li>· Load sensing hydraulics</li> <li>· Maintenance free rotor head</li> <li>· Choice of headland management options</li> <li>· Upgrade from manual height adjustment to electric possible</li> <li>· Smaller rotor with higher speed at rear to create fluffy even swaths</li> <li>· Big tines secure high capacity</li> <li>· Adjustable cam track</li> </ul>	<ul style="list-style-type: none"> <li>· ISOBUS control</li> <li>· Load sensing hydraulics</li> <li>· Individual adjustable working width right and left</li> <li>· Choice of headland management options</li> <li>· Overload protection integrated into machine hydraulic</li> <li>· Hydraulic suspension adjustable in three steps</li> <li>· Optional hydraulic steering of transport axle</li> <li>· Adjustable cam track</li> </ul>	
<ol style="list-style-type: none"> <li>1. ISOBUS control</li> <li>2. Maintenance free ProLine rotor head</li> <li>3. Individual rotor lift</li> <li>4. Transport folding at the push of a button</li> <li>5. Optional electric height adjustment</li> <li>6. 12 arms, 10 mm tines</li> </ol>	<ol style="list-style-type: none"> <li>1. ISOBUS control</li> <li>2. Overload valve on outer arm</li> <li>3. Adjustable hydraulic suspension</li> <li>4. 360° free turning twin wheels on rotor</li> <li>5. Optional steering transport axle</li> <li>6. Individual adjustable working width</li> <li>7. 13/15 arms, 10mm tines</li> </ol>	

# Vicon Andex 1254

## Benefits



Maintenance friendly CompactLine rotors

Very simple electronic control unit for all functions

Hydraulic adjustment of working and swath width

Rear rotors have a higher turning speed to form a nice, even swath shape



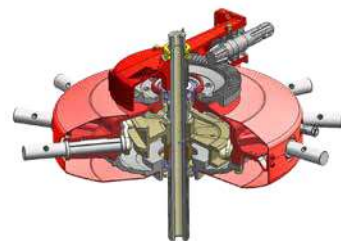
### 1. Swath Forming

The rear rotors are smaller in diameter and turn faster. This secures the additional capacity needed on the rear rotors for the double volume, and as the speed is different it also prevents roping.



### 2. Tandem Axle

Optional tandem axle available for front and rear rotors. The tandem axle has one fixed wheel for additional stability specially on hillsides, the other one can steer to reduce scrubbing of the grass sward in curves to a minimum.



### 3. Rotor

The CompactLine rotor head sets the standard in this low spec segment. Only three easy to access greasing spots on each rotor make this machine outstanding in this configuration.



Optional single side lift for front rotors

Front and rear rotors can be lifted separately (always right and left together)



**4. Ground Adaptation**

The maintenance-free TerraLink Quattro rotor suspension system, operating in four directions for excellent tracking, works in close combination with the four wheeled rotor to ensure high accuracy and stability on slopes. It is absolutely maintenance- and wear-free.



**5. Simple Control box**

Simple Control box for easy operation of the machine for all functions. It is available with optional individual lifting of front rotors and all functions are preselected and activated with tractor hydraulics.

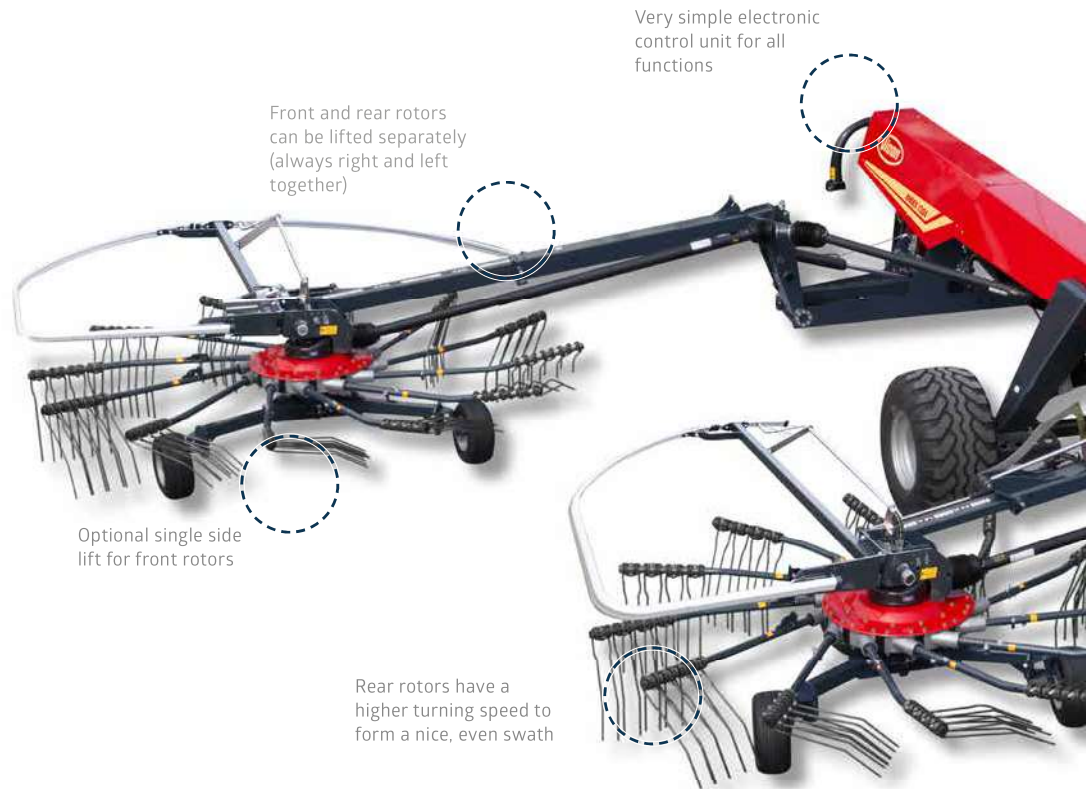


**6. Compact but efficient machine**

Compact but efficient machine can be operated with tractors starting from 80hp. In combination with BX mower there is possibility to collect up to 20m into one swath.

# Vicon Andex 1304

## Benefits



Very simple electronic control unit for all functions

Front and rear rotors can be lifted separately (always right and left together)

Optional single side lift for front rotors

Rear rotors have a higher turning speed to form a nice, even swath



### 1. Swath Forming

The rear rotors are smaller in diameter and turn faster. This secures the additional capacity needed on the rear rotors for the double volume, and as the speed is different it also prevents roping.



### 2. Rotorhead

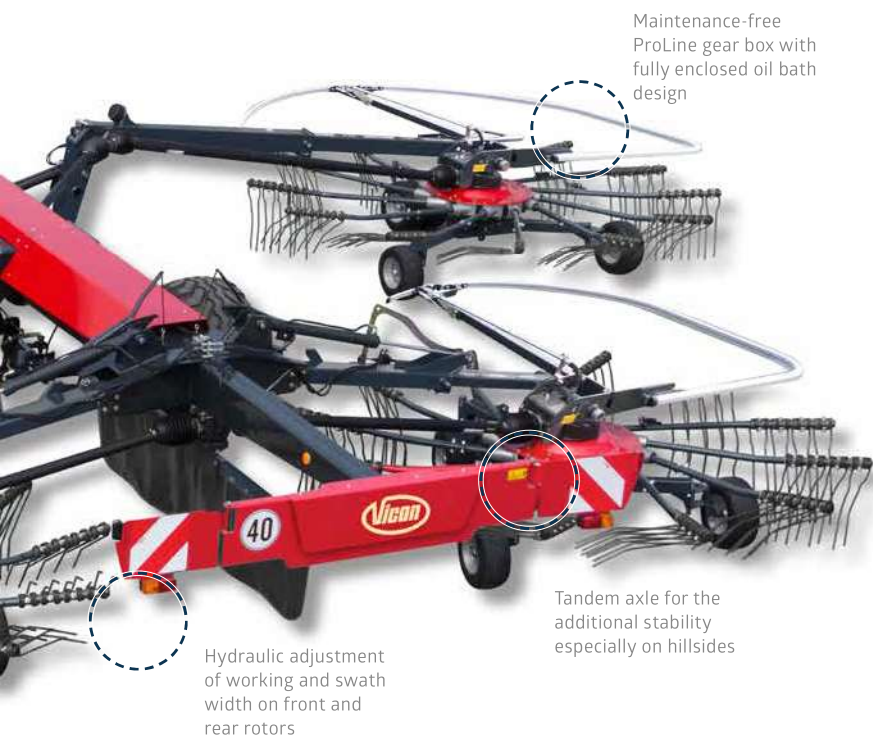
The maintenance-free ProLine gearbox with fully enclosed oil bath design with adjustable cam truck to cope with the largest amount of crop.



### 3. Hydraulic

Also the heavy duty execution operates with only one single and one double acting valve.





Maintenance-free ProLine gear box with fully enclosed oil bath design

Tandem axle for the additional stability especially on hillsides

Hydraulic adjustment of working and swath width on front and rear rotors



**4. Tandem Axle**

Optional tandem axle available for front and rear rotors. The tandem axle has one fixed wheel for additional stability specially on hillside, the other one can steer to reduce scrubbing of the grass sward in curves to a minimum.



**5. Simple Control box**

Simple control box for easy operation of the machine for all functions. It is available with optional individual lifting of front rotors and all functions are preselected and activated with tractor hydraulics.



**6. Compact but efficient machine**

Compact but efficient machine can be operated with tractors starting from 110hp. In combination with BX mower there is possibility to collect up to 20m into one swath.

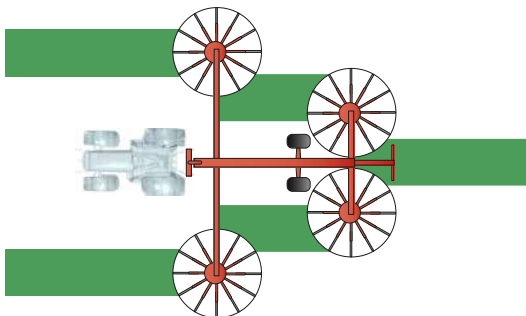
# More *Uptime*



### Easy Headland Management

Four Rotor rakes come with enhanced headland management. In addition to high ground clearance of rotors during headland turns, it is possible to tailor time delay between lifting/lowering the front and rear rotors to driving speed and field conditions. This is done mechanically in an easy and uncomplicated way.

Vicon Andex 1254 and Andex 1304 will do sharp turns of up to 80°, both on headlands and during transport when passing narrow gateways. The rotors can, as a standard feature, lift pairwise which is convenient for raking also triangular shaped fields in an optimal way. Optionally the front rotors can be lifted individually.



### More Uptime with max 4m Transport Height

No reasons for wasting time, not even when moving between fields. Just raise the rotors and off you go, safely below 4.00m transport height no need to leave the tractor for removing tine arms. Large transport wheels and brakes are standard. For storage all tine arms are detachable on Vicon Andex 1254 to allow a storage height as low as 3.40m. A strong and stable storage foot ensures fast and trouble-free coupling and uncoupling. For Vicon Andex 1304 and Andex 1505 tine arms are generally fixed, but the top 4 are optional detachable, to reach same low storage height.

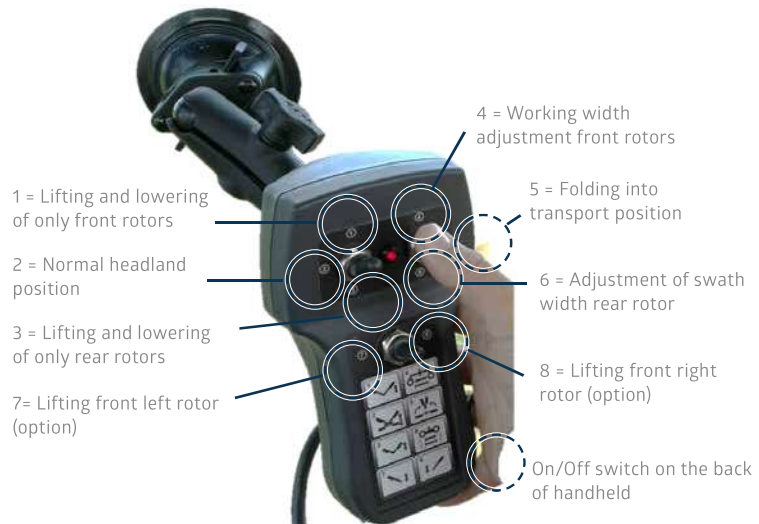


Compact but efficient machine  
– in combination with BX mower there is possibility to collect up to 20m into one swath.

# Setting and Control *In Comfort*

### Control box

All function are preselected with handheld and operated with tractor hydraulic.



## Everything under Control – with ISOBUS Technology

### Extended Operation of the Machine

The benefit of using ISOBUS control is the extended operation of the machine, starting with the folding and unfolding process or the possibility to adjust the height. Depending on the model, additional functions are integrated. In regards to comfort, it releases the customer from preselecting on the handheld and activating with the hydraulic. In combination with the standard load sensing system you just press a button and the function gets active.



IsoMatch Tellus Go+

### Also Settings can be Stored and Recalled

On top the ISOBUS system allows due to the standardised protocol the operation with tractor brand terminals and joysticks that are as well on ISOBUS. That means you don't need an additional terminal in the cabin. If the tractor is offering not the top end comfort in regards to operation due to ergonomic or other things, our terminal can be for sure added. As well if your tractor is without ISOBUS, we can deliver all needed elements.



IsoMatch Tellus PRO

The Isomatch Tellus Go+ is for forage machines the most recommended due to the blister buttons in addition to the touch screen. Operation without watching the screen is due to the real buttons possible. Also, our terminal can be used with other ISOBUS implements, like for example, sprayers and spreaders. Not only out of our product range, as well from competition, as long they comply to the ISOBUS standard.

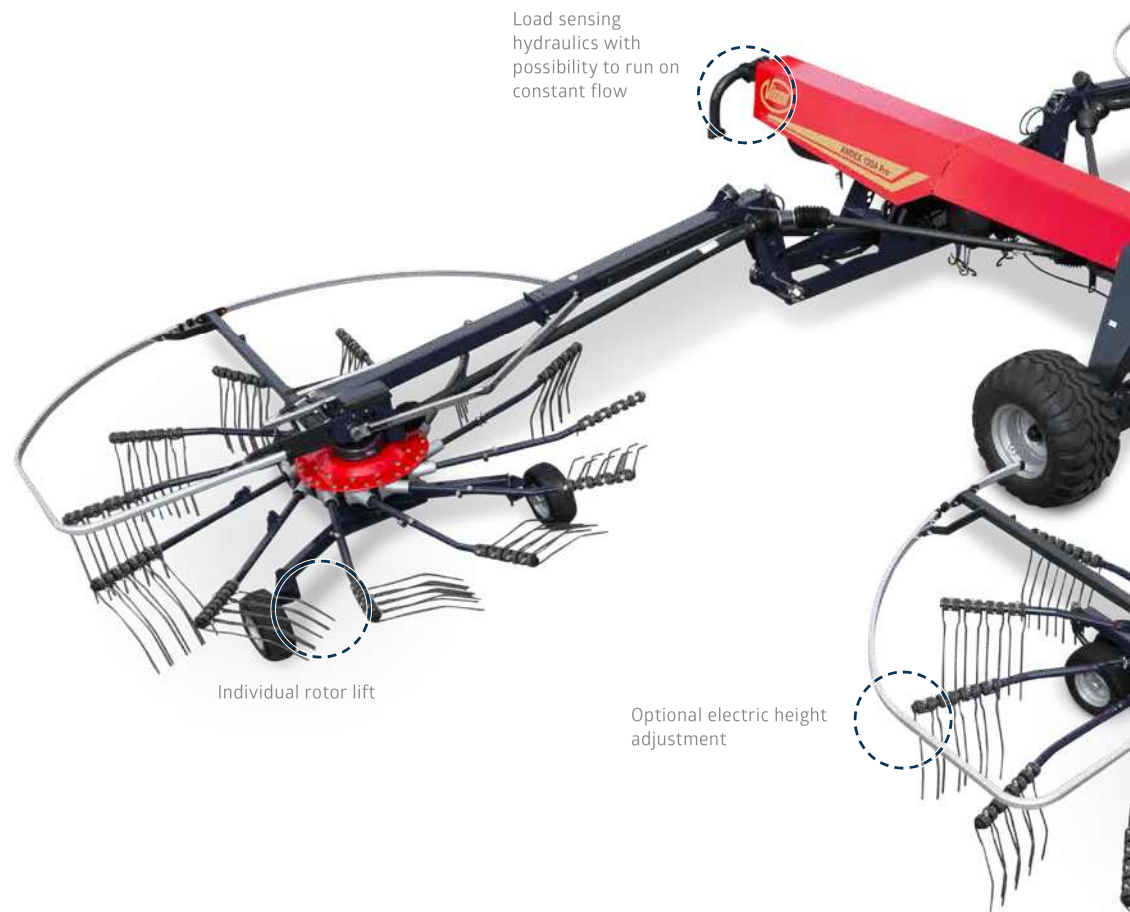
To increase the comfort with the terminal further, joysticks can be added to bring the control even closer to the driver. Our joystick Isomatch Grip can be programmed and allow a fully customised interface.



Isomatch Grip

# Vicon Andex 1304 Pro

## Benefits



### 1. Swath Forming

The rear rotors have a higher turning speed and they are smaller to form a nice and even swath. With BX mower up to 20m can be raked into one row.



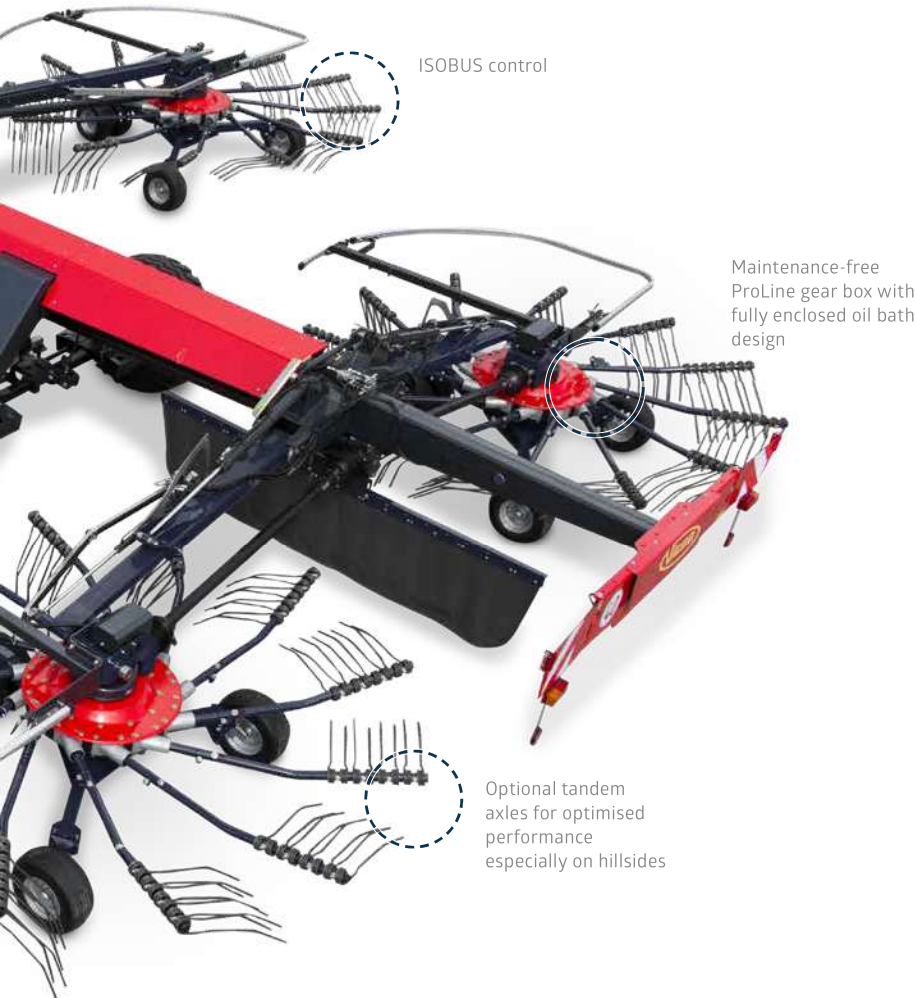
### 2. Driveline

The maintenance-free ProLine rotor head is lifetime maintained. The PTO of the driveline requires maintenance only every 100 hours. Compare to hydraulic driven systems we save 24 greasing spots on the machine.



### 3. Hydraulic

The hydraulics are operating on load sensing. This is good for low fuel consumption compared to constant flow. If tractor is not equipped with load sensing hydraulics, constant flow is as well possible.



**4. Tandem Axle**

Optional tandem axle available for front and rear rotors. The tandem axle has one fixed wheel for additional stability specially on hillside, the other one can steer to limit the scrubbing of the grass sward in curves to a minimum.



**5. iM Farming ISOBUS**

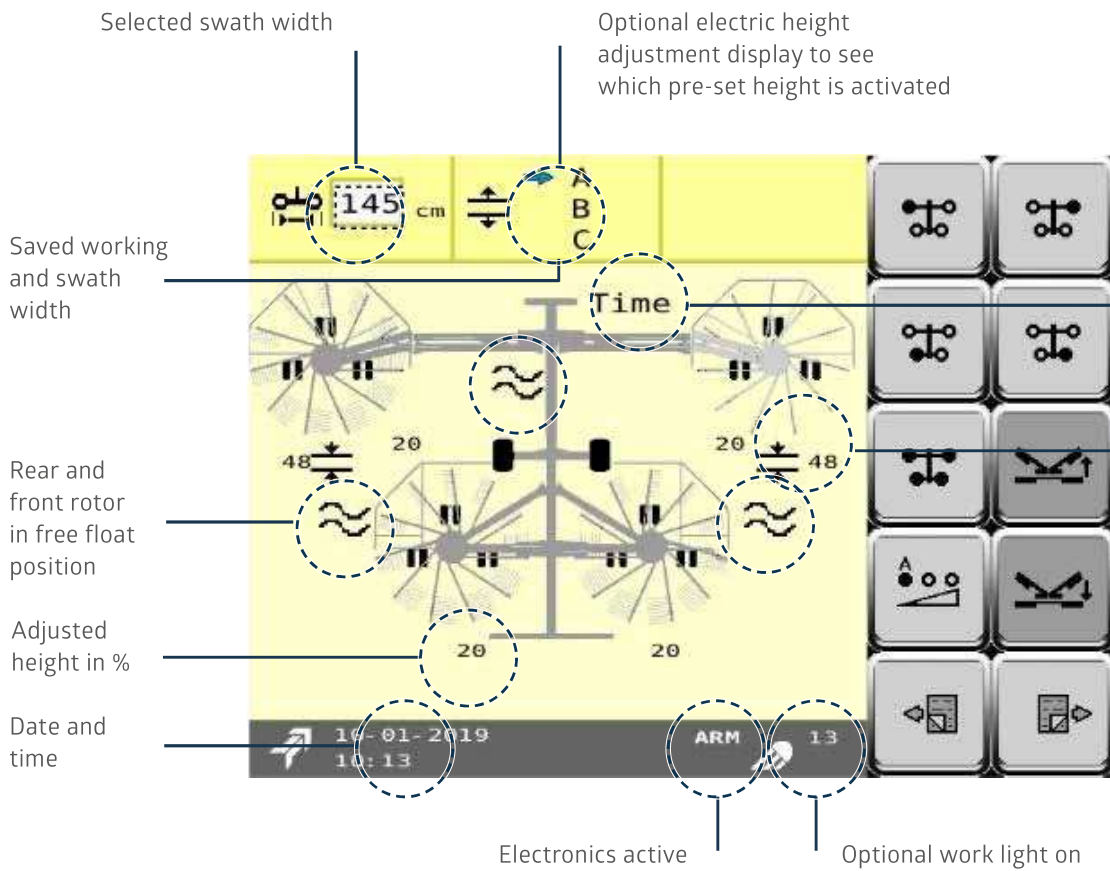
Advanced operation possibilities: Individual lifting, working width, height adjustment functions are controlled easily from each Isobus ready Terminal or Isomatch Tellus Go+/- Pro. If more comfort is needed also a joystick such as the Isomatch Grip can be added.



**6. Electric height adjustment**

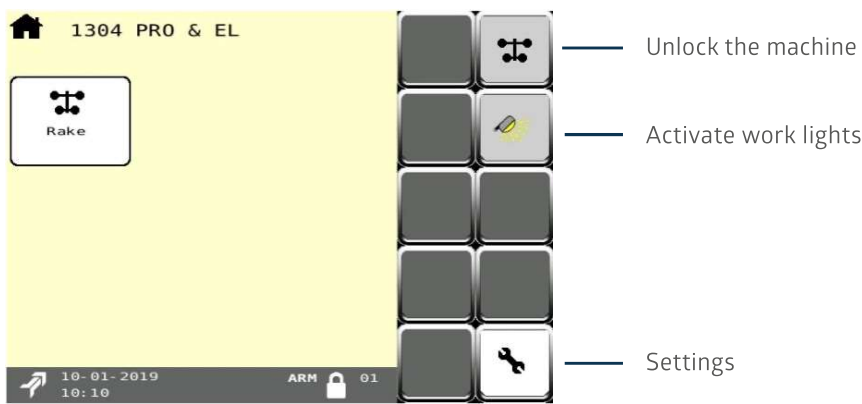
Andex 1304 Pro is optionally available with electric height adjustment. Three heights can be preset and stored, allowing the user much faster changeover compared to 'master-slave' systems when changing from one to the other field condition, as setting can already be changed on the way.

# What is shown *on the screen?*

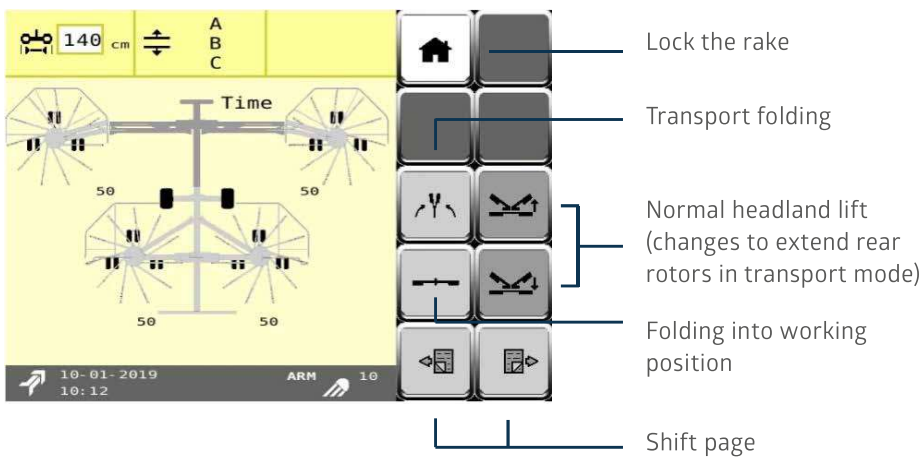


# Extended Functionality, *Easier to Use*

*With only 5 pages it is possible to have more functionality per page and less shifting of pages (start screen)*



*(transport folding)*



# Extended Functionality, *Easier to Use*

## *(Operation page)*

The screenshot shows the 'Operation page' of the VICON ANDEX 1304 PRO. The main display area features a top status bar with '140 cm', 'A B C', and a double-headed arrow icon. Below this is a schematic diagram of the tractor's rotor system, labeled 'Time', with '50' indicating rotor positions. The bottom status bar shows the date '10-01-2019', time '10:13', and 'ARM 11'. To the right of the main display is a vertical control panel with 10 buttons. Lines connect these buttons to their respective functions:

- Top two buttons: Front left/right rotor up and down
- Next two buttons: Rear left/right rotor up and down
- Next two buttons: Front rotors together up and down
- Next two buttons: Normal headland lift
- Next two buttons: Rear rotors together up and down
- Bottom two buttons: Shift page

## *(Working and swath width)*

The screenshot shows the 'Working and swath width' page of the VICON ANDEX 1304 PRO. The main display area features a top status bar with '140 cm', 'A B C', and a double-headed arrow icon. Below this is a schematic diagram of the tractor's rotor system, labeled 'Time', with '50' indicating rotor positions. The bottom status bar shows the date '10-01-2019', time '10:13', and 'ARM 12'. To the right of the main display is a vertical control panel with 10 buttons. Lines connect these buttons to their respective functions:

- Top two buttons: Adjust working width in and out
- Next two buttons: Adjust swath width in and out
- Next two buttons: Lift and lower front right rotor
- Next two buttons: Normal headland lift
- Next two buttons: Lift front rotors together
- Bottom two buttons: Shift page



# Extended Functionality, *Easier to Use*

## *(Height adjustment)*

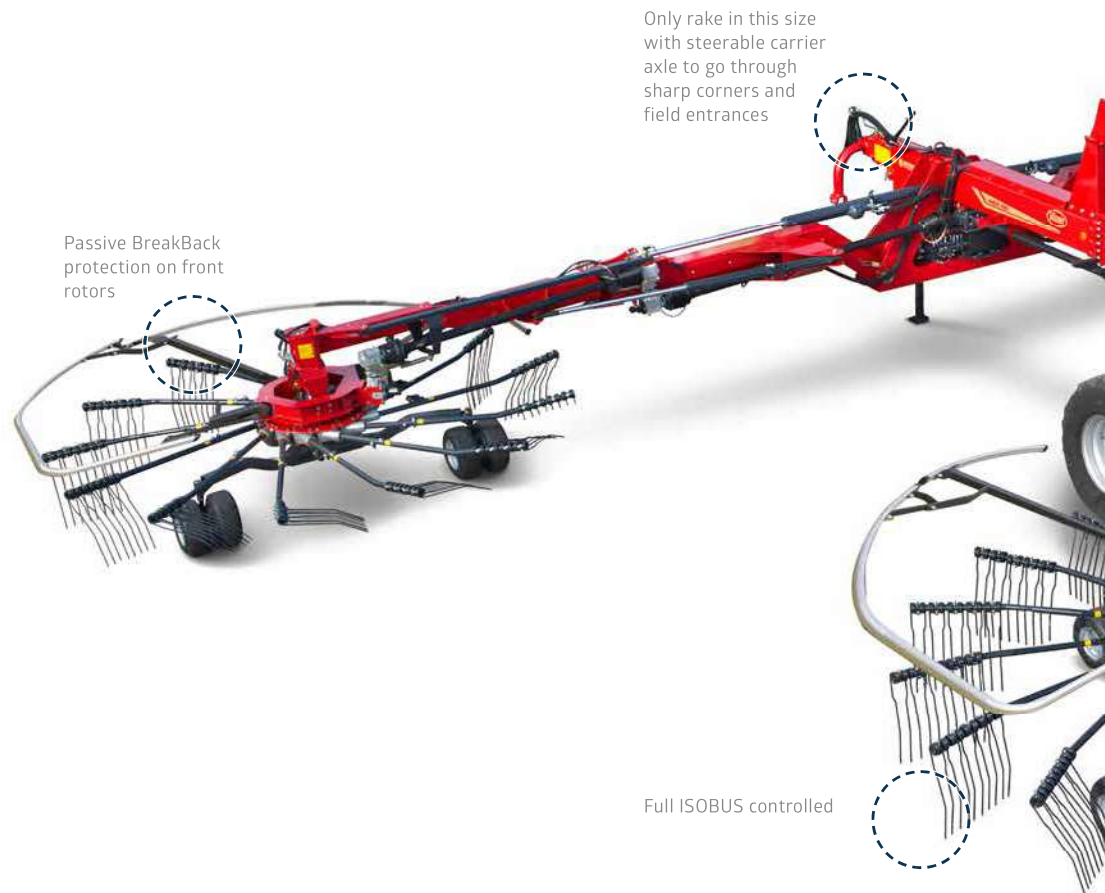
The screenshot displays the control interface for rotor height adjustment. On the left, a diagram of the harrow's rotors is shown with height indicators (145 cm, 48, 20) and a 'Time' label. The right side features a 4x2 grid of buttons:

- Row 1:** Two buttons with rotor icons for selecting one or more rotors to adjust the height.
- Row 2:** Two buttons with rotor icons for selecting all 4 rotors directly.
- Row 3:** Two buttons with up/down arrows for headland lift, used to adjust rotor height after selection.
- Row 4:** Two buttons with rotor icons and 'A', 'B', 'C' labels for activating preset working heights (3 levels).

At the bottom of the grid, two additional buttons are shown, labeled 'Shift page'.

# Vicon Andex 1505

## Benefits



### 1. Break Back Protection

The unique design of the front arms is protected with a break back system. In case the outer frame is stressed due to a collision it will be released rearwards to protect the frame structure. The system is integrated in the working width adjustment.



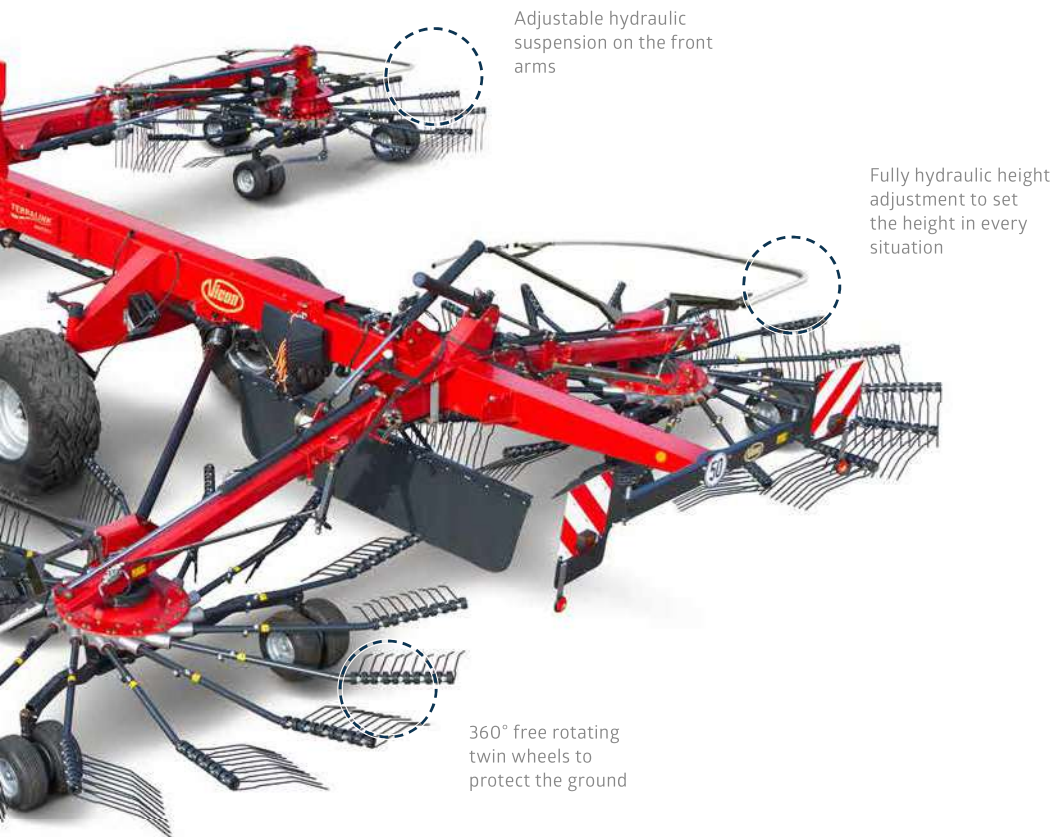
### 2. Hydraulic Suspension

Adjustable hydraulic suspension on the front arms takes the weight of the support arm away from rotor. The hydraulics are operated on load sensing reducing fuel consumption, but also with possibility to run on constant flow.



### 3. Individual Working Width

The working width can be pre-set in the system. Some situations require adaptations. To not loose too much efficiency we can change working width for each side individually. With just one button the machine is returning back to the pre-set configuration.



**4. Free Rotating Twin Wheels**

The undercarrier of the rotors is equipped with three twin wheels rotating 360°. This allows narrow turns without scrubbing the grass sward. On top an fast adjustment of the working width is possible under all conditions. The twin wheels also precisely guide the rotor also in difficult conditions.



**5. Steered Transport Wheels**

With the unique and patented steered transport wheels it is much easier to access narrow field entrances. In addition, the steered wheels are outstanding in hilly conditions to compensate any downhill drift. Automised functions for headland lift and transport folding ensures the wheels are straight again.



**6. iM Farming ISOBUS**

Fully ISOBUS compatible, with no separate control terminal needed. It will plug directly into an ISOBUS compatible tractor. Easier connection between tractors and implements (Plug & Play).



# What is shown *on the screen?*

Adjusted working and swath width

Set up suspension

Red bar shows set suspension level. Green the real suspension

Saved working and swath width

Rear and front rotor in free float position

Hydraulic activated

Joystick connected

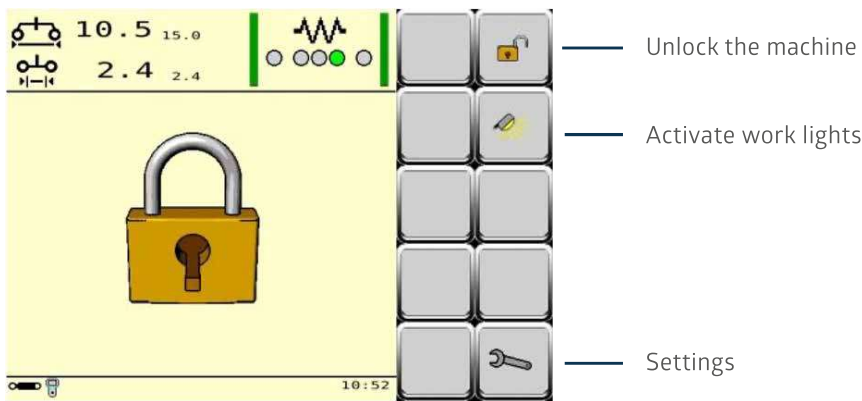
Time

Set up headland-Management:

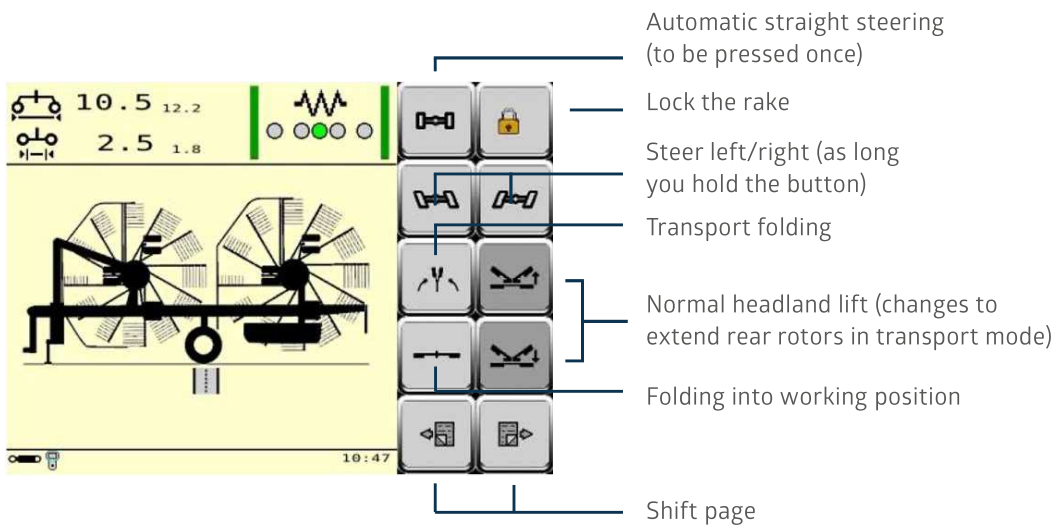
- Time: use a time delay
- Wheel: use wheel speed
- Ground: use ground speed (Radar/GPS)
- Manual: Manual lifting of front and rear rotor with two times pressing of lifting or lowering button.

# Extended Functionality, *Easier to Use*

*With only 6 pages it is possible to have more functionality per page and less shifting of pages (start screen).*

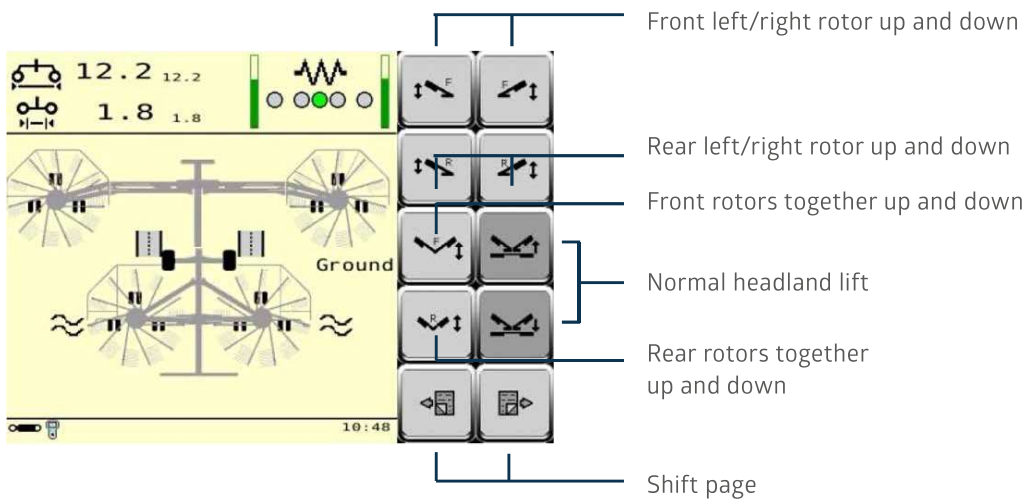


## *(Special operations)*

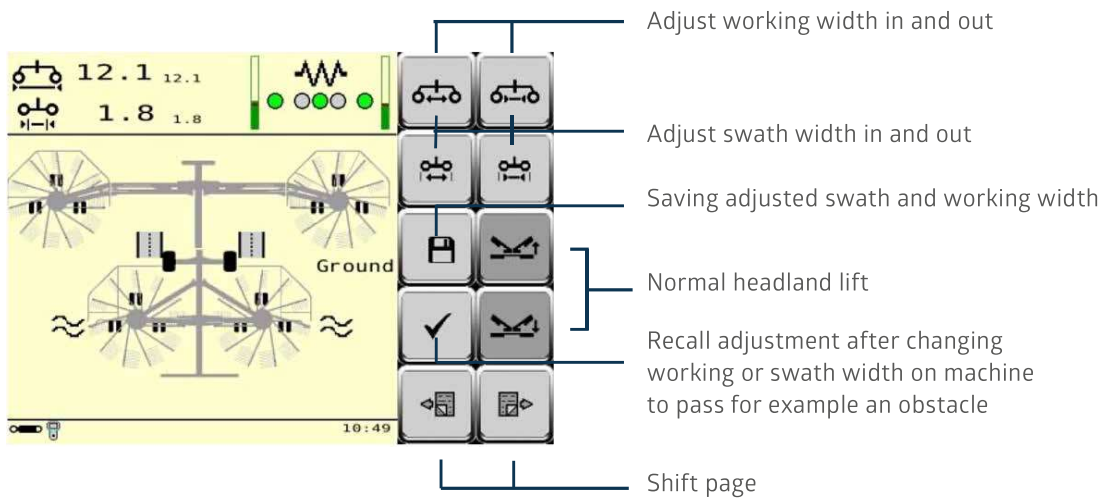


# Extended Functionality, *Easier to Use*

## *(Operation page)*



## *(Working and swath width)*



# Extended Functionality, *Easier to Use*

## *(Raking the headland)*

The screenshot shows the control interface for raking the headland. The top left displays two sets of numerical values: 15.0 and 2.4. The top right shows a green progress bar and a waveform icon. The main display area features a schematic of the harrow with four rotors and a 'Ground' label. The control panel on the right includes several buttons with icons for rotor movement and headland adjustment.

- Front left rotor in and out
- Front right rotor in and out
- Lifting of right front rotor
- Headland lift, and lowering
- Recall of pre set working and swath width
- Shift page

## *(Height adjustment)*

The screenshot shows the control interface for height adjustment. The top left displays numerical values 15.0 and 2.4. The top right shows a green progress bar and a waveform icon. The main display area features a schematic of the harrow with four rotors and a 'Ground' label. The control panel on the right includes buttons with icons for rotor height and suspension level adjustment.

- Rotor height adjustment, select one or more rotor to adjust the height
- Adjustment of suspension level
- Headland lift, replaced by arrows up and down to adjust height of rotors after selecting a rotor
- Possibility to select all 4 rotors directly
- Shift page

# Accessories, *Vicon Andex 1254*



Starter kit



Spare wheel



Tandem axle for two rotors



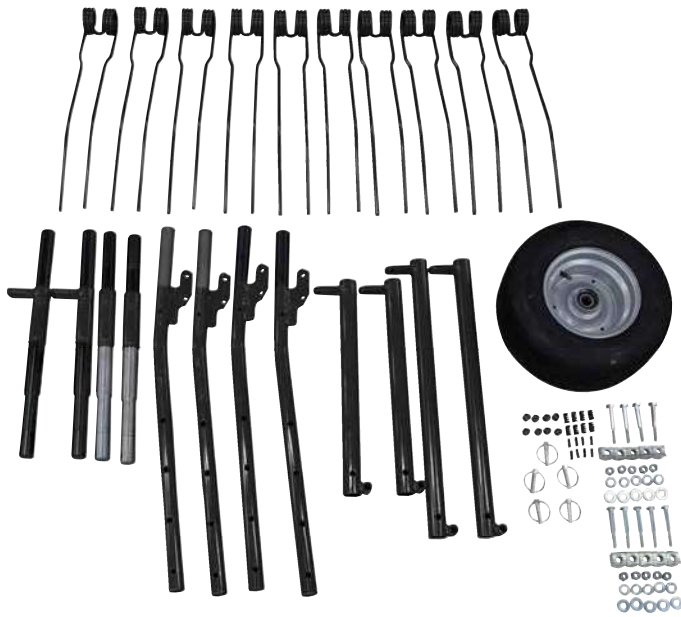
Tine savers



Single side lift front rotors



# Accessories, *Vicon Andex 1304*



**Starter kit**



**Spare wheel**



**Tandem axle for two rotors**



**Detachable tine arms**



**Tine savers**



**Single side lift front rotors**

# Accessories, *Vicon Andex 1304 Pro*



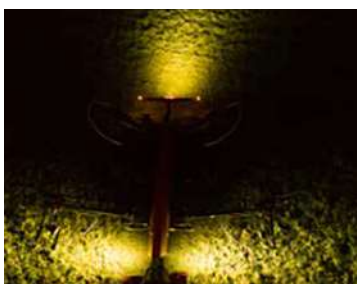
Starter kit



Detachable tine arms



Spare wheel



3 work lights



Tine savers



Tandem axle for two rotors



IsoMatch Tellus GO+

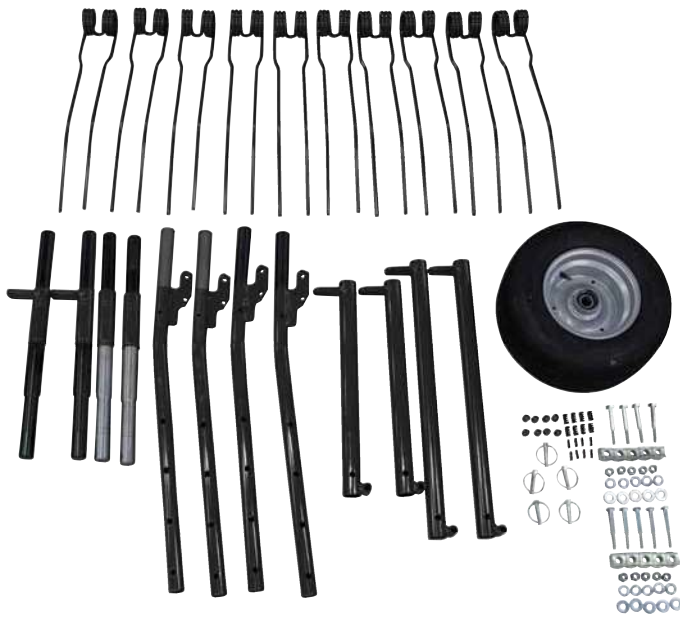


IsoMatch Tellus Pro



IsoMatch Grip

# Accessories, *Vicon Andex 1505*



**Starter kit**



**Detachable tine arms**



**Spare wheel**



**3 work lights**



**Hydraulic steering**



**Tine savers**



**IsoMatch Grip**

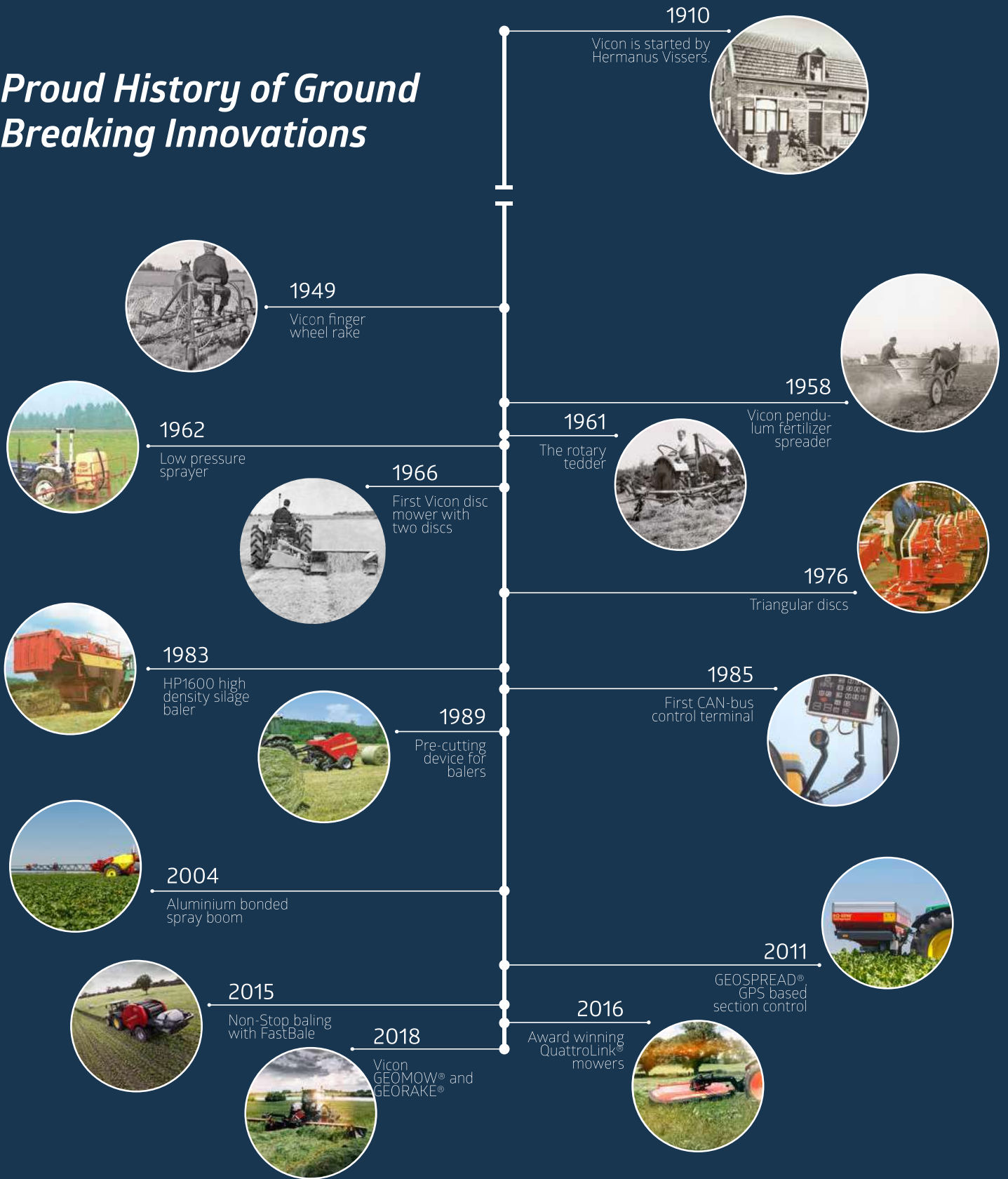


**IsoMatch Tellus Pro**



**IsoMatch Tellus GO+**

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