# It's time to see red. Now.\*



<sup>\*</sup> If you want to see green in the future, too.



In times of growing demands for environmentally friendly, sustainable agriculture and rapidly rising production costs, new approaches to farming are needed. Time has come for a new generation of farmers who have understood that only healthy soils will lead to healthy lives – and healthy profits.

Novag takes farmers into the future: Modern no-tillage seed drills designed and produced in France ensure greater yields and reduced costs.





























 $-\!\!\!\!-\!\!\!\!-\!\!\!\!-$  Agriculture is constantly on the move. Keep up! Invest in your future with the best no-tillage technology on the market.

T-ForcePlus 45c











— Sheer power where it's needed. Novag T-ForcePlus no-till drills are capable of automatically adjusting their downforce to match actual soil resistance in real time

T-ForcePlus 650









 $\slash\hspace{-0.6em}\longmapsto\hspace{-0.6em}$  Sometimes things are quite simple. A machine for every application, for every soil and every crop.

T-ForcePlus 350





## Your future starts here





### With the power of nature

It has always been like this: For success to show at the surface you have to pay attention to the foundations! Even more in agronomy. The key for outstanding yields is right under your feet: healthy soils!







The margin per hectare is significantly higher in no-tillage, for all crops.

#### Novag – your professional introduction to conservation agriculture

No-till methods are a fundamental building block for Conservation Agriculture and also for Regenerative Agriculture. Doing away with the plough and cultivator is a cut for many farms.

With Novag's no-till seed drills, we give you the best possible technology for this transition. Because our unique T-SlotPlus concept guarantees perfect sowing quality even in difficult conditions and thus maximum security when starting out in no-till farming.

All you need is Novag and the power of nature. It's as easy as this: With Novag direct drills you're able to activate the soils microbiology. The results are simply astonishing:

less machinery, less fuel consumption, less fertilizer, less working hours, less erosion, greater crop yields!

> 15 % greater crop yields can be achieved while saving up to 80 % fuel





Discover how less gets more with the help of Novag.

#### Healthy soils for healthy yields

In one hectare of healthy arable soil live about 15 tons of multicellular organisms, mainly microorganisms, fungi, worms and insects. Why is this important for you? Because the work of these inconspicuous soil organisms plays a decisive role in determining the quality of your soil.

They break down dead plant residues into elementary nutrients such as nitrogen or phosphorus, build up valuable humus and help plants absorb nutrients by forming symbiotic relationships in the root zone.

The result: good soil structure, high water storage capacity, improved natural drainage and optimum nutrient availability. The best conditions for high yields in the long term.

#### Soil preservation strengthens soil life

The less the soil is moved, the better for soil life - and the performance of your field!

Regular disturbance by cultivation, on the other hand, impairs the performance of soil organisms and thus their numerous positive effects. This is visible in the field and has been proven by scientific studies comparing no-till and tillage over a period of 20 years.

For example, the number of earthworms and important mycorrhizal fungi was up to four times higher where the no-till method was used for many years. At the same time, it was possible to save up to 40 mm of water per square meter compared to regular ploughing, while fertilizer use was reduced by up to 50 percent. And all this led to stable and slightly increasing yields!



Let the worms work for you.



#### Increasing margins and more quality of life

Stable yields and significantly lower input costs both enable higher margins for all crops. And that's not all: those who convert their farming to a no-till system can reduce their tractor hours by up to 40 percent.

That means less working hours, more time for farm projects and a better quality of life.



400

earthworms work in one cubic meter of healthy soil





100% of yield potential can be reached from the first year of no-till thanks to Novag. Then yields will improve.

#### Your soil in the best hands

In addition to low soil disturbance, the second essential factor for the success of conservation agriculture is a soil cover that is as continuous as possible with emergent or organic material. This organic plant material provides food for soil organisms and protects the soil from weeds, water loss and erosion.

However, in conservation agriculture, cover crops and especially stubble or straw residues place the highest demands on the seeding operation. For example, conventional no-till openers with discs often encounter problems when it comes to seed-to-soil contact.

This is because stalks pressed into the soil can catch the seed like a net and prevent soil contact. This is called "hair-pinning".

The seed placement with Novag is not affected by residues, like you would expect from a real no-till drill, even with larger amounts of crop residue. It is true that overlying straw is also partially pressed into the furrow here. But thanks to the special T-shape of the slot, it does not come into contact with the seed.

The seed is dropped by the blade on the side of the slot, away from the residues pinched by the disc, and the seed does not fall directly into the disc furrow.

# Let's go for intelligent farming



### The Novag T: key to your no-till success

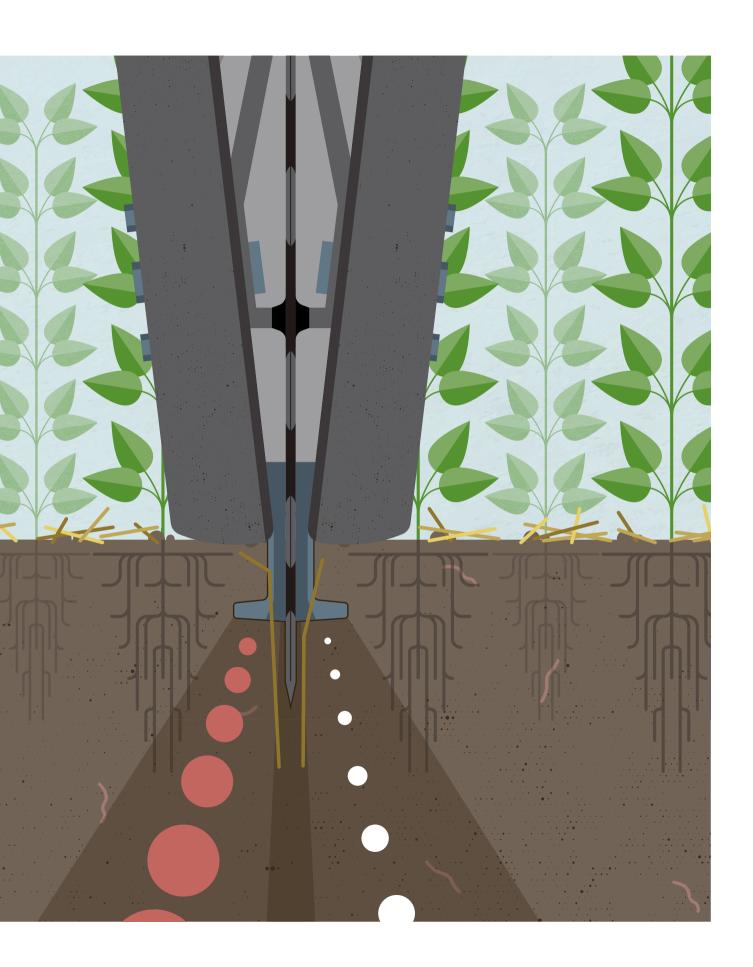
Novag's unique T-SlotPlus system guarantees optimum seed placement even in difficult no-till conditions, laying the foundation for reliable yields.

The seed micro-environment is obtained by the combination of two winged blades, one at each side of a central notched disc. The straight, flat, notched disc starts forming the slot by cutting through the vegetation or the residue cover. The horizontal furrow is then formed by the two blades, which are mounted into close contact against the disc. The seed and fertilizer are separately placed into the cavities created by the wings on each blade.

The special feature of Novag openers is their special shape. Instead of a V- or U- shape (vertical slot), they cut an inverted-T into the soil (horizontal slot). This offers tangible advantages:

- ⊢ The soil surface is only minimally disturbed. This protects the soil from drying out and significantly reduces weed pressure.
- ightharpoonup The slot is very easy to close thanks to its horizontal shape. Moisture is retained next to the seed.
- ⊢ Seed and fertilizer are precisely placed and are located at the optimum distance from each other. The slot isn't smeared, thus water infiltrates easily and roots can develop faster.
- ⊢ Seeding through stubble or green cover is safe, without the risk of hairpinning, in a wide variety of soil types.











#### Novag – the new standard in no-till technology

Straw, green cover crops or other organic residues are the cornerstone of conservation agriculture. Because they protect the soil. However, crop residues on top of the soil cause major problems for conventional seed drills. Poor seed-soil contact and, above all, regular clogging of the machines lead to poor seeding results, which also result in poorer yields.

Novag seed drills, on the other hand, define a new standard in no-till technology. For example, when sowing a catch crop into a cereal stubble, around 90 % of the overlying straw remains untouched, even at high speeds.

At the same time, there is no need to remove the straw and no need for time-consuming tillage with heavy soil movement. This not only saves costs, but also valuable working time. In addition, soil organisms are hardly affected, so that the process of soil improvement continues.

15 mm

of water are lost with each pass of soil preparation





Conservation agriculture is good. Conservation agriculture with Novag is even better.

#### Let's move to zero soil movement

The combination of the disc and the very narrow design shape of the T-blades allows the opener to drill with minimal disturbance.

Novag no-till drills are capable of very low soil disturbance, even at high speed. Approximately 90 % of the surface residues stay in place after drilling into chopped straw.

This successful management of the residues is very desirable during hot summer or in case of heavy rainfall, and it helps in the fight against weeds.

less herbicides are needed because of low disturbance

••••

Novag's system gives the ability to place fertilizer more accurately and reduce fertilizer losses.







#### Better right from the start: the Novag fertilizer placement system

The decomposition of organic matter into plant-available nutrients takes time, especially at low temperatures in spring. In no-till systems, this can lead to deficiencies in early growth phases, especially for nitrogen. This makes starter fertilizer very important for successful crop establishment.

With the unique Novag technology, you can ensure that the starter fertilizer is applied precisely to each crop. The fertilizer is placed exactly where it is needed: directly next to the seed. Thanks to the T-shape, fertilizer is placed at an optimum distance of two to three centimeters from the seed.

Furthermore, at placement, the disc acts as a wall between the seed and fertilizer, separating each into its own branch of the T-slot.

30%

of fertilizer can be saved with precise placement into the slot







The seeds are in good contact with the soil, regardless of soil type.

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#### High rates of fertilizer can be applied without burning the seedling.

Depending on the site conditions and the selected crop, you can flexibly adjust the fertilization with Novag seed drills at any time. For example, thanks to the different length of the blades of the T-slot system, fertilizer can also be placed slightly below the seed if required. Liquid fertilizer or compost extract can also be used without any problems. For this purpose, a steel injection pipe can be attached directly to the blade on all Novag seed drills.

#### Reliable slot closure for all soils

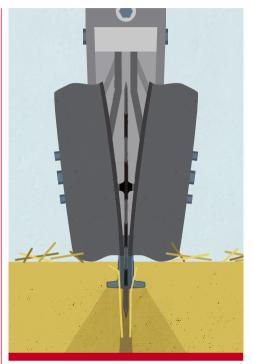
The T-shape of the seed blade guarantees a well closed slot in all conditions, whether on light or heavy soils.

The slanted press wheels immediately following the blades close the slot perfectly. This means that the deposited seed always has optimum contact with the soil and is protected against drying out. Particularly in dry seeding conditions, this is an important factor for uniform emergence of the crop. In addition, the seed is protected from birds.

The sowing depth can be individually adjusted from one to eight centimeters, by using the press wheels as gauge wheels. This makes it possible to sow a wide variety of crops when using the appropriate sowing blades. Even sowing mixtures with seed of different sizes is possible without any problems with the Novag system.

The opener configuration is important for the quality and efficiency of your daily work.

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#### The right soilution for every soil

Every location is different. A good no-till technology should therefore always be flexible enough to adapt to the specifics of different fields, even different sectors of the same field.

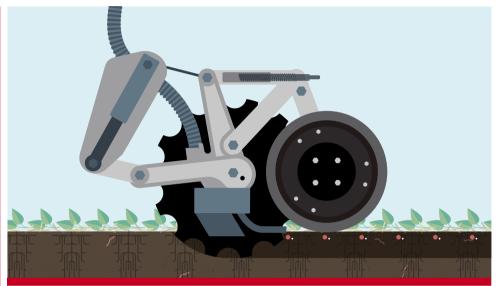
Above all, the seeding blades and press wheels must be well matched to each other. Wide press wheels, for example, guarantee excellent flotation and depth control on lighter soils that lack structure. They are particularly suitable for the transitional period until full conversion of farming to conservation agriculture.

Novag delivers countless soilutions for countless types of drilling conditions.

Narrow press wheels allow for more precise slot closure and are well suited to firmer and healthier soils that benefit from an established root system.

For further fine-tuning, the two side blades and the size of the cutting discs can be optimally combined. Novag's T-SlotPlus technology means there is a suitable solution for every challenge.





The disc's most important function is cutting the vegetation and residues.

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#### Outstanding penetration: make the right choice of discs

It would be useless to create the perfect type of slot, if the opener were not able to penetrate the soil and to follow the natural undulations of the ground. The parallelogram on each T-SlotPlus Opener, powered by a hydraulic cylinder, is capable of delivering up to 500 kg downforce and 430 mm of vertical travel.

This pressure will be used by the large discs, to cut through any type of residue cover. The opener can reliably work in hard conditions, even in summer when every drop of water counts. The Novag opener can be either equipped with small notched discs or bigger notched discs.

Both discs have their advantages. The big discs cut better and perform better over thick residue mattresses, especially if the soil is soft and not well structured. The small discs perform better in stony, hard, or sticky soils and require less weight on the machine.

The disc height can be adjusted on the opener, by using one of three optional positions. A lower disc position improves traction and cutting ability.





#### Putting pressure on intelligently – the Novag IntelliForcePlus-Control system

Soil resistance changes from field to field and even within each field. This can be due to compaction, stones or different soil types.

It presents a challenge for uniform seeding, especially with no-till methods. This is because areas with greater resistance require higher coulter pressure to achieve the desired seeding depth. Conversely, coulter pressure should not be too high when resistance is low, so that the seed is not laid too deep with too much compaction.

Novag's unique IntelliForce-Plus-Control system compensates for these differences by continuously adjusting the pressure on each individual coulter automatically via a hydraulic cylinder. The hydraulic cylinders can provide a downforce of up to 500 kilograms on each opener, with a vertical travel of 430 millimeters.

The electronics record the depth control information required for this via sensors on the press wheels. The force required to close the slot is automatically adjusted from the cab on the basis of the sensor data. The result is an absolutely uniform seeding depth and perfect soil-seed contact, even in highly variable soils.

**3,500 kg** weight can be added on a Novag T-ForcePlus 950

On variable soils the IntelliForcePlus

does a great job and keeps seed depth consistent.

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Almost all the settings can be changed

from the cab.

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#### Full control in the operator's cab

The software for setting and controlling all functions was developed and optimized by Novag. The monitor clearly and comprehensibly displays all the machine's important functions, from automatic depth control to tramline planning and metering speed for multiple seeds and fertilizer application rates.

All essential settings for seeding can be made from the tractor cab, using ISOBUS. The seeding openers can be adjusted either by touch display, conveniently via the tractor's multifunction lever, or, if necessary, manually via a joystick.

4 x
less time is spent on the field with
Novag no-till drills







#### Everything neatly separated – the Novag hopper

The large tank of the Novag machines has a partition wall that neatly separates different seed types or seed and fertilizer. The contents of the individual sections can be directed to each individual row as required. The split between the compartments is adjustable according to product volumes. For maximum versatility, two optional additional hoppers are available. They are designed for particularly fine seed, slug bait or specialized fertilizer.

All Novag seed drills have a hydraulic system for variable application control on each tank, including the additional tanks.

55 \ 45 %

Volume ratio adjustable between front and rear compartments

Up to four hoppers with different contents can be used simultaneously. For example, two different crops, fertilizer and slug pellets can be applied in one operation.

The metering system is hydraulically driven and therefore more powerful than conventional electric drives. This is because with hydraulic motors, there is no undesirable loss of torque or overheating even at low speeds.

This hydraulic design is especially useful for seeding cover crops, with varied rates and seed sizes. Calibration is simple and controlled electronically, like you expect on any sophisticated seeder in todays market.





#### Wherever you have to go

Thanks to the central axle design, the turning radius is impressively small despite the size of the machine. This allows for shorter headlands and maximised utilisation of the full potential of the field. Load transfer onto the tractor is well balanced and makes for a good compromise between traction and weight on the openers in any circumstance. Additional ballast can be easily installed or removed, so the weight of the frame can match the field condition and potential compaction is reduced.

The main flotation tires, or even the tracks on the wider models, carry the heavy weight of the machinery while providing the lowest contact pressure against the soil.



The narrow transport width of 3 m provides fast and safe transport. Further, the folding wings are automatically locked with a mechanical hook when raised for the road.

No matter what your task is – your Novag is up to the job.

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150



#### Conservation agriculture for vineyard and orchards

Conservation farming is another way of thinking. Instead of working the soil between the rows of trees, vines or plants can do a much better job, whether it is to control pests in an ecological way, keep soil erosion under control, increase pollination rates, improve the fertility of the soil – or all these benefits at once.

The advantages brought by cover crops are well known and well documented. But how could you establish them in your fields? And more importantly, when you are successful, how can you seed the next cover crops reliably into the green mass?

The T-ForcePlus 150 is the companion you were waiting for: You can rest on the proven T-SlotPlus openers, and use the four product delivery system to create the most "exotic" cover crop cocktails.



1.12 - 2 m Working width



**16.66 \ 18.75 \ 25 cm**Rowspacing



> 60 HP Tractor power



550 | \180 | Main hopper capacity





**250** 



#### **Uniquely versatile**

Designed to meet the diverse needs of agriculture, the T-ForcePlus 250 is a revolutionary drill. Whether for orchards or fields, for flat or steep terrain, this machine is at home anywhere, thanks to its compact design with a low center of gravity and custom ballasting. Its excellent handling characteristics make it ideal for seeding between trees.

Novag's unique T-SlotPlus system guarantees optimum seed placement even in difficult no-till conditions, laying the foundation for reliable yields. The IntelliForcePlus Control System does an excellent job keeping the seeding depth constant.







**16,67 \ 18,75 \ 25 cm**Rowspacing



> 100 HP Tractor power



1,600 | \700 | Main hopper capacity





350



#### The tool for professionals

The T-ForcePlus 350 is a very well built and compact drill, offering a broad choice of row spacings, and useful multiples. Thanks to its reasonable working width of 3 m, the T-ForcePlus 350 takes advantage of the IntelliForcePlus system and is one of the most precise seeders on the market in terms of seeding depth consistency. Lighter than its bigger counterparts, and thanks to its wide transport tires, this model is an excellent choice when you must avoid any kind of compaction in the field.

The frame is 3 m wide, without the need for folding on the road. This makes this model very cost effective, given the outstanding results you can expect from it.



3 m Working width



**16.66 \ 18.75 \ 25 cm**Rowspacing



> 120 HP Tractor power



**4,200 I**Main hopper capacity





450



#### The workhorse for your farm

The T-ForcePlus 450 is Novag's most produced drill for good reasons. Thanks to a good balance between size and power requirements, this model is appealing for most farms and contractors, including bigger operations during the transition phase to no-till. At an average working speed of 8 km/h, a lot of ground can be covered in many less hours than a conventional tillage system!

The 450 platform can be specified from two variants: the standard 450 has a working width of 4 m, and the "controlled traffic" model, the 450CT, has an extended work width of 4.5 m.



4 m - 4.5 m Working width



**16.66 \ 19 \ 25 cm**Rowspacing



> 160 HP Tractor power



**4,200 I**Main hopper capacity







#### An investment that pays off

The T-ForcePlus 650 is the Novag unit that will address the needs of medium to large farming operations. This machine appeals to farms well engaged in the conservation agriculture dynamics, who are looking for ways to improve their existing seed establishment or to push further the boundaries of their cropping rotation. The T-ForcePlus 650 is an investment that has the potential to generate a high return, in a short time frame, when it becomes part of the Conservation Agriculture journey. The Novag technology already delivers benefits even from the early stages of the transformation process.

The frame is compact. Nevertheless the machine is comfortable to use thanks to the folding system and its simple layout.

The large hoppers are easily accessible, and the opener configurations are versatile with a good choice of row spacing options. The toughness and low maintenance of the seeder and the openers significantly reduces the downtime.







**16.66 \ 18.75 \ 25 cm**Rowspacing



> 250 HP Tractor power



**5,400 l** Main hopper capacity





950



#### Taking on the challenge of larger operations

The transformation to Conservation Agriculture creates challenges that are even harder to manage when the farm covers a large area, on various soil types. The Novag T-ForcePlus 950 is the piece of machinery that your agronomists, engineers and drivers were waiting for. The low disturbance is the smart choice to reduce the input costs at the scale of the whole operation. Cover crop programs can be ambitious, and the risk of failure will be minimized thanks to the benefits of the Novag openers and the IntelliForcePlus depth control.

The implement is heavy duty, because it is necessary to cope with a variety of soils at a convincing working speed.

Its weight is carried on the field and on the road by a set of tracks developed in cooperation with Michelin and Camso. Thanks to this system, the machine becomes compact when folded and is easily transported on the road, despite the range of working widths of 8, 9, or even 10 m.



8\9\10 m Working width



18.75 \ 25 cm Rowspacing



> 360 HP Tractor power



**7,700 l** Main hopper capacity





# The way it's yours: specifications & optional systems



#### Get more from your T-ForcePlus no-till drill

The unique Novag option system assists users in their most important tasks. Rate monitoring immediately comes to mind, but also blockage sensors or tramline system. We put our experience and dedication at your service. Extend the capabilities of your Novag T-ForcePlus drill to plant virtually all the crops of your rotation, including row crops. Do you need a loading crane to speed up your work at different locations? Just go ahead.



#### Spreader ramp

Get new possibilities from your machine and add rear spreader to our customizable auxiliary product system. Use it to broadcast small seeds or slug bait, and save even one more pass!



#### **Seed monitoring system**

Our integrated seed counting and blockage detection system offers you safety and accuracy, for both seed and fertilizer rates and is also an option on the semi-precision auxiliary kits.



#### **Auxiliary bins**

Most seeders apply one seed variety or mix at a time and, at best, one type of fertilizer. Break the limit with your Novag, and add one or even two auxiliary bins to get an impressive four product delivery system. The four tanks are controlled by our monitor and they all come with a broad capacity hydraulic metering unit, calibration settings and empty bin detection. Our precise auxiliary metering units are multipurpose. Most of all, they can do wonders in dispensing very small rates of companion or cover crop seeds, inoculant or specialized micro-nutrient.



#### Intelligent display

The IntelliRatePlus system is the Novag gateway to the possibilities offered by Precision Agriculture. Use our ISOBUS connectivity to pair the seeder to your tractor and take advantage of the most recent features. Alternatively, upload your field maps for product rates into our Android-based monitor and export the data resulting from your seeding operations into your farming management solution. Thanks to the synergies with the IntelliForcePlus system, analyze your soil resistance profiles and get valuable insights on your soil structure or existing compaction issues.



#### Semi-precision kit

Thinking ahead and closing the loop of your crop rotation in Conservation Agriculture, give your farm the ideal tool for establishing your row crops in your no-tilled fields. With the Novag T-SlotPlus openers, you are halfway there! Yield of your spring crops will take off thanks to the exceptional seed microenvironment, depth control, and fertilizer placement. Configure your Novag T-Force with our semi-precision kits: plant crops such as corn, at 50 cm or 75 cm, with row-by-row seed selection, directly from the Novag auxiliary metering units!

#### **Specifications**

Quality is not a question of size. But the right size might be important for the quality and efficiency of your daily work. Consequently Novag offers its no-tillage drills in different working widths. No matter what your task is - we've the work-horse for you.

#### Hitch

- ⊢ Tow eye
- ⊢ ball hitch
- ⊢ Lower linkage hitch

#### **Hoppers**

⊢ Capacitive sensor on each hopper

#### **Metering system**

- ⊢ Pneumatic system
- ⊢ drive with Variable Rate Control

#### **Electronics**

- ⊢ IntelliForcePlus System
- ⊢ optional ISOBUS joystick and 7" monitor

#### **Axle and tyres**

- ⊢ Heavy duty axle with hydraulic or pneumatic brakes
- ⊢ Wide flotation tyres with radial design
- ⊢ Track undercarriage (850 \ 950)

#### **Hydraulics**

- ⊢ Configurable load sensing system
- ⊢ Oil cooler, air warmer

#### **Dimensions**

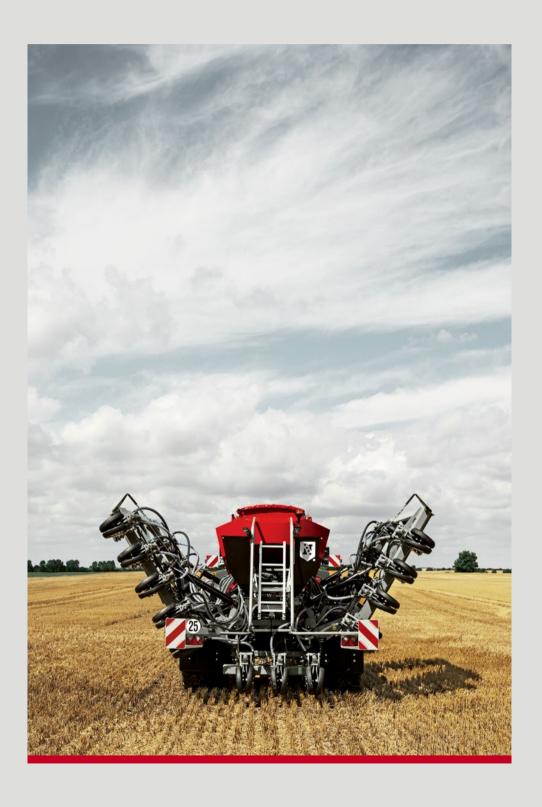
- ⊢ Compact and agile design
- ⊢ Transport width 3 m

#### **Openers**

- ⊢ Downforce applied by a hydraulic cylinder on each opener, from 100 to 500 kg
- ⊢ Hardened notched discs and blades
- ⊢ Two press\gauge wheels arranged in V, fitted with semi-pneumatic tyres
- ⊢ Fully adjustable seeding depth on a o - 8 cm range

#### Hopper with inner value

- ⊢ The big hopper has a dividing wall that separates its two sections. These sections can be used either for seed or fertilizer. Products from each of the two compartment are conveyed separately towards each opener, both on the front toolbar and on the rear toolbar. Fertilizer and seeds can thus be completely separated. Each are put into the soil by their own blade, one of each side of the central disc of the opener.
- ⊢ For full versatility, up to two optional auxiliary bins can be mounted. These bins are connected to the main pneumatic circuit. They are designed for slug bait, small seeds, or more.



T-ForcePlus	150	250	350
Dimensions  Working width	1.12 - 2 m	2-3 m	3 m
Transport width	1.2 - 2.1 m	2.1-3 m	3 m
Total length with drawbar	4.7 m		
Height with std equipment			
Empty Weight	1.8-3.2t	3-4t	
Additional weight: Ballast	Optional, 300 - 800 kg	Optional, 300 - 1,950 kg	
Max. Technical Weight	4-6t	7t	- <u>- 12</u> t
Openers	_	<u> </u>	
Row spacing (cm)	16.66\18.75\25	16,67\18,75\25	16.66\18.75\25
Nb of rows	max. 8	max. 16	18\16\12
Recommended power	> 70 HP	> 100 HP	> 120 HP
Downforce	Appli	ed by a hydrl. cylinder on each opener, from	100 to 500 kg
Discs	Hardened notched discs 575 × 5 mm or 520 × 5 mm		
Blades	Pair of hard chrome iron blades NiHard. Optional Carbide		
Press Wheels	2 press wheels arranged in V; semi pneumatic tyres 410 × 75 mm or 400 × 115 mm		
Seeding depth	Fully adjustable on a 0-8 cm range		
Hitch			
Tow Hitch	3 pt linkage (Cat. 1\2\3)	3 pt linkage (Cat. 2\3)	Tow eye, ball hitch K80 or 3 pt linkage syster
Drawbar	-	-	Hydraulic adjustable drawbar
Metering System	<u> </u>	<u> </u>	
Туре	Pneumatic System	Pneumatic System	Pneumatic System
Drive		Hydraulic drive with Variable Rate Con	ntrol
Hoppers		<u> </u>	
Main Double hopper	550I\180I		4,2001
Adjustable wall ratios		-	2,300\1,900  or 1,400\2,800
Auxiliary bin	Optional, up to 2 × 30 l	Optional, up to 2 × 80 l	Optional, up to 2 × 120 l
Empty hopper sensor		Capacitive sensor on each bin	
Spreader counts front\rear		Optional, 2\2	Optional, 4\2
Singulation; IntelliRowPlus	Optional, 37.5 \ 50 \ 75 cm	37.5\50\75 cm	Optional, 37.5\50\75 cm
Electronics			
Depth control	IntelliForcePlus System	IntelliForcePlus System	IntelliForcePlus System
Monitor and VRA	Configurable, ISOB	US Ready controls", Opt. Variable Rate Appl	ication (VRA) IntelliRatePlus
Blockage monitor + seed		Optional, fully integrated to the moni	tor
Axle	_	<u> </u>	
Track	1,200 -1,500 mm	1,600-1,800 mm	2,200 mm
Туре	Optional, hydraulic brake	Hydraulic or pneumatic brakes	Hydraulic or pneumatic brakes
Standard tyres \ tracks sizes	420\65 R20	500\45 R22.5 or 650\40 R22.5	710\50 R26.5
Hydraulics			
Distributors	1 distributor	LS-System. 2 distributors	LS-System. 2 distributors
Oil cooler \ Air heater	<u>-</u>	<u> </u>	Included in basic model
Hydraulic flow requirement	> 20 l/min	> 30 l/min	> 40 l/min

450	450CT	650	850\950\950X
4 m	4.5 m	6 m	8-10 m
3 m	- 3m	3m	- 3m
6.5 m	- 6.5 m	7.5 m	9.5 m
3 m	- 3m	3.7 m	3.95 m
7.5t	- 8t	- 12 t	- <del>0.00                                    </del>
Optional, 1,200 kg	Optional, 1,700 kg	Optional, 1,300 \ 2,500 kg	Optional, 3,500 kg
12t	12t	17t	26t
16.66\19\25	18.75\25	16.66\18.75\25	18.75\20\25
24\21\16	24\18	36\32\24	max. 48
> 160 HP	> 200 HP	> 250 HP	> 360 HP
	Pair of hard chrome iron b	cs 575 × 5 mm or 520 × 5 mm plades NiHard. Optional Carbide neumatic tyres 410 × 75 mm or 400 × 115 m le on a 0 - 8 cm range	m
	Tow eye, ball hitch K80 o	r 3 pt linkage system (Cat. 3 \ 4)	
	Hydraulic ac	ljustable drawbar	
Pneumatic System	Pneumatic System	Pneumatic System	Pneumatic System
	Hydraulic drive wit	th Variable Rate Control	
4,2001	4,2001	5,4001	7,7001
2,300\1,900  or 1,400\2,800	2,300\1,900  or 1,400\2,800	3,000\2,400  or 1,800\3,600	3,650\4,050  or 5,000 \2,700
Optional, up to 2 × 120 l	Optional, up to 2 × 120 l	Optional, up to 2 × 120 l	Optional, up to 2 × 350 l
	Capacitive s	ensor on each bin	
Optional, 6\4			
	Optional, 6\4	Optional, 6\4 or 6\6	Optional, 12\6
<u> </u>	Optional, 6\4 Optional, 37.5\75cm	Optional, 6\4 or 6\6 Optional, 50\75 cm	Optional, 12\6 Optional, 75 cm
Optional, 50 \ 75 cm	Optional, 37.5\75 cm  IntelliForcePlus System	Optional, 50 \ 75 cm  IntelliForcePlus System	Optional, 75 cm IntelliForcePlus System
Optional, 50 \ 75 cm	Optional, 37.5\75 cm  IntelliForcePlus System onfigurable, ISOBUS Ready controls", Option	Optional, 50 \ 75 cm  IntelliForcePlus System	Optional, 75 cm IntelliForcePlus System
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# Find out about





#### Time to see red – time for the next re(d)volution

We've understood that the French revolution was quite a long time ago. So why not starting a redvolution? A redvolution of agronomy. Sounds like a crazy fairy-tale, but could become real very soon.



Find out about Novad





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From the makers of champagne, the Eiffel tower and the French revolution – nothing more, nothing less.



# Better soil than sorry

In urban culture soils often are considered as dirt. Certainly one reason why they've been mostly neglected by politics so far. The global drama was overlooked: Soil which was once very fertile dries up, and gets blown away. It loses its capacity to store water; groundwater levels fall.

The loss of highly fertile ground harms two of the central missions of humanity: feeding the world's growing population and fighting climate change.

Healthy soils with their humus layer are a huge  $CO_2$  store. Conservation agriculture together with Novag machines will be part of restoring incomes for farmers and saving the planet for next generations.

Find out about Novag





### From the bottom up

Since 2011 in the Charentes Maritime and Deux Sevres countryside, close to the Atlantic ocean, we have been determined to build our business based on ambition, innovation, teamwork and durability.

Those values explain the way we work, the quality we offer, and the unsurpassed treatment you get as a customer, investor or employee.

At the beginning of our story, Ramzi and Antoine started working with a drill manufacturer from New Zealand to source openers for the first complete machines they designed. This partnership wasn't working, so they decided to invest a great deal of their time and money to create new openers. This is how Novag was born.





## Innovations made to last

Novag machines are advanced and innovative, and this is no accident: The company founders thrive on experimentation and invention.
Novag is all about next generation's farming, where agronomy has a renewed importance.
And where technology is used for the soils.

Novag has been created to last through time. The machines we design and build are based on this approach: They are robust and durable.



#### Sustainability – with heart and soil

What if the most efficient technology for modern agriculture was the earthworm?

Novag precision seeders and the pillars of conservation agriculture protect the soil, contribute to carbon sequestration, and are a viable solution for the ecological transition.

Soil is the most important resource in agriculture, so protecting it is of the highest priority. To do this, you have to understand the subject of soil, know it and make the right decisions. One of those crucial decisions to achieve true sustainability is to end mechanical tillage. Because this is the main reason for degraded and dwindling soils.

Find out about Novag 81







#### From dreamwork to teamwork

Coming from a world of engineering and science, Ramzi Frikha together with Antoine Bertin founded the company out of passion for machine design. Learning on the move as a company founder, Ramzi shaped Novag's product range and knows every bolts and nuts of Novag's business.

Ramzi's father (picture above) got caught in the business at the earliest stage of the company. Lotfi's experience as an computer engineer and as a former business manager is very useful to support the team and Novag's ambitious development.

With Jessica Simon (top) Novag's historically first employee entered the company. Jessica deals with Novag's suppliers and partners. She manages procurements, logistics and she makes sure that Novag drills can be manufactured and delivered right on time.

More people have followed.
We ask them to share our
values and qualities. We want
our team to be innovative,
strong and durable.

Novag takes farmers into the future: modern no-tillage seed drills ensure greater yields coupled with reduced costs and less soil damage.





Novag sas Za de la Croix Ganne 79370 Fressines \ France TEL +33 5 49 24 65 43

www.novagsas.com

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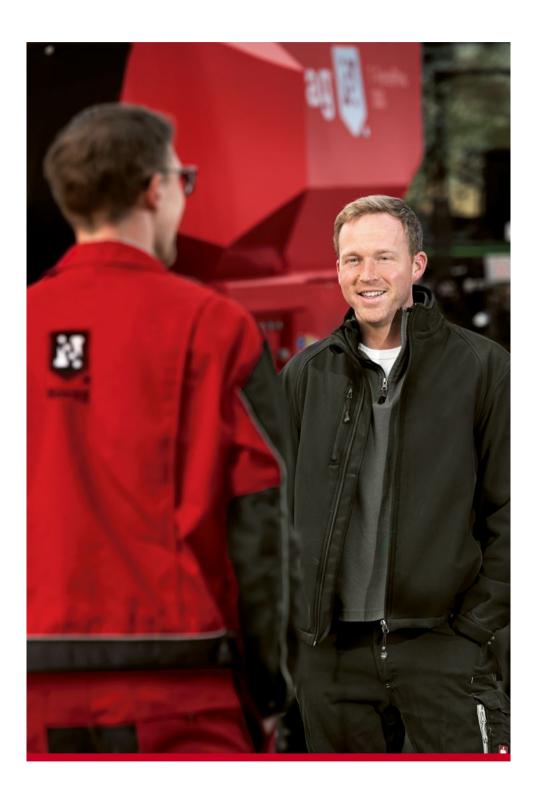














Concept and design Heine Warnecke Design www.heinewarnecke.com

Copy writing Heine Warnecke Design & Jürgen Beckhoff

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Drone photography Euromediahouse

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