

# Valtra Team

CUSTOMER MAGAZINE 1 | 2013

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VALTRA N142

**VERSATILITY IS  
ITS STRENGTH**

page 6



EDITORIAL



**W**ith the introduction of the N93 and N103 Valtra has made an important step in completing the range of N series tractors. The whole N series, from 99–163 hp, consist now of 6 models available with different transmissions, hydraulics and engines. The base models are equipped with the well known and proven 3 step HiTech transmission. The next is the new HiTech 5 transmission, a five step powershift totally operated with push buttons, so no gear levers any more! Versu models also have this transmission but have different hydraulics. The third transmission available is our Direct continuously variable transmission, completely developed and produced by Valtra. The new HiTech5 and the Direct transmission have rapidly gained a high popularity among Valtra customers while the HiTech3 is still going strong for less demanding customers. HiTech 3 and 5 are equipped with a gear pump for hydraulics with an output of 73 or 90 litres/min while Versu and Direct models have a load sensing pump of 115 or even 160 litres/min for very demanding hydraulic operations.

All engines of 3 series are all according latest Tier 3b emission regulations. Six cylinder models of T series have recently had a face lift so all 3, 4 and 6 cylinders look like one big family again! The S series, with CVT transmission, and equipped with our own extremely performing 8,4 litres Agco Sisu Power engine has a very good market share in the class of 370 hp. The flow of novelties never stops because at this moment we are preparing the introduction of the new Autoguide 3000 system. Ask your nearest dealer for information or visit our website [www.valtra.nl](http://www.valtra.nl)

Stan Buijsrogge  
SALES MANAGER NETHERLANDS



**19** Valtra 100 years old.



**14**



**16**



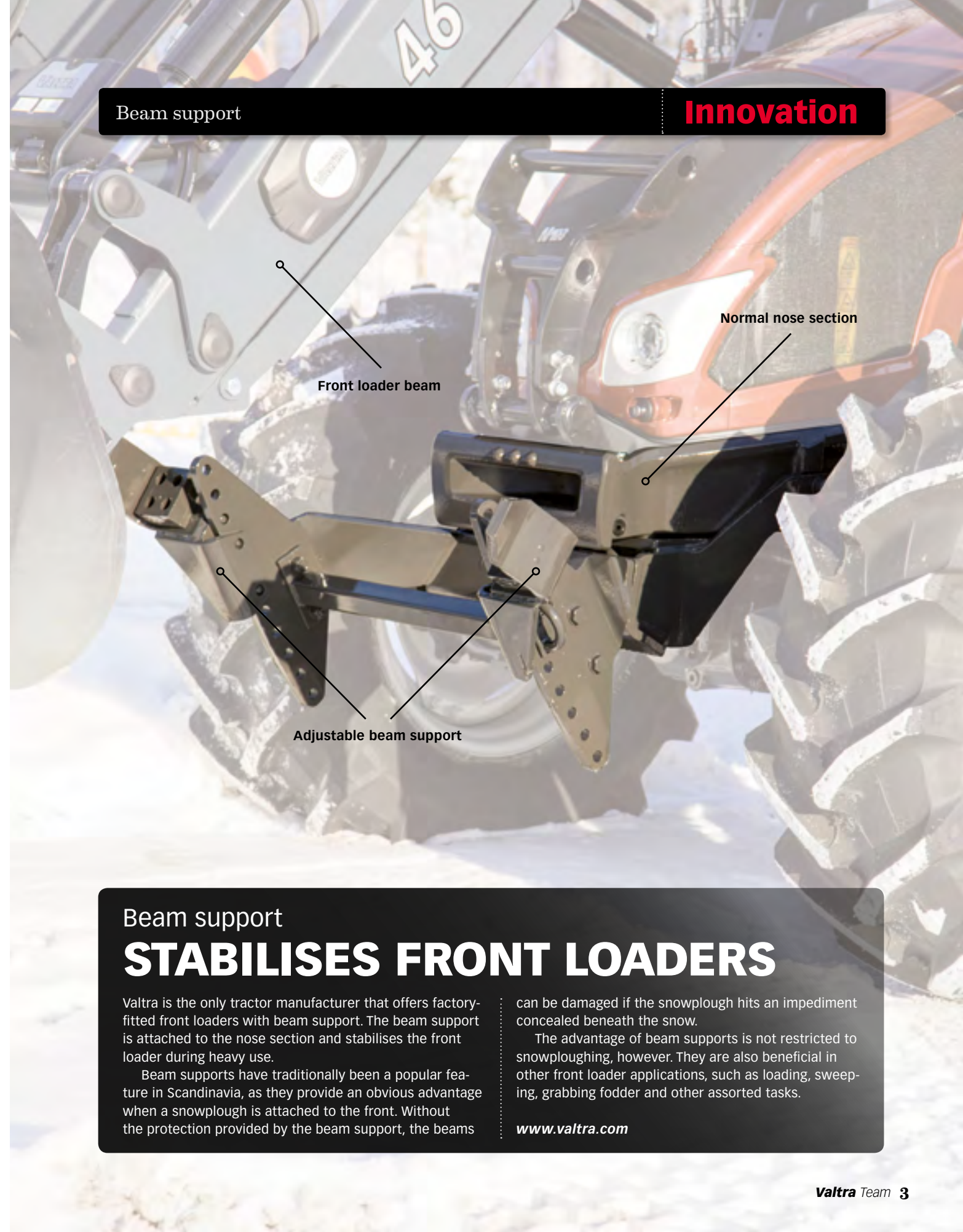
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**12**



Beam support

**Innovation**

Front loader beam

Normal nose section

Adjustable beam support

Beam support

## STABILISES FRONT LOADERS

Valtra is the only tractor manufacturer that offers factory-fitted front loaders with beam support. The beam support is attached to the nose section and stabilises the front loader during heavy use.

Beam supports have traditionally been a popular feature in Scandinavia, as they provide an obvious advantage when a snowplough is attached to the front. Without the protection provided by the beam support, the beams

can be damaged if the snowplough hits an impediment concealed beneath the snow.

The advantage of beam supports is not restricted to snowploughing, however. They are also beneficial in other front loader applications, such as loading, sweeping, grabbing fodder and other assorted tasks.

[www.valtra.com](http://www.valtra.com)





The new plant covers a total area of 9,200 square metres, including 6,600 square metres of heated area. The new plant can be seen at the top of the picture.

## Production begins at new AGCO Power engine plant

The new extension to the AGCO Power engine factory in Linnavuori, Finland, is now complete and series production is in full swing. The pace of construction was also fast; the decision was taken in mid-May 2012, and work began on the very same day. Series production of engines began at the start of March 2013, less than a year later.

The new plant manufactures 8.4-litre six-cylinder engines, 9.8-litre seven-cylinder engines and 16.8-litre V12 engines. These large engines produce between 300 and 700 horsepower. The capacity of the new plant is 8000 engines a year manufactured in two shifts. Total capacity at the Linnavuori factory is now 50,000 units a year.

Most of the engines built in the new plant are used to power AGCO tractors, harvesters and other machinery, but they are also used by other companies. AGCO Power is specialised in off-road applications, generators and marine engines. The Linnavuori factory does not produce engines for on-road applications in order to focus its expertise on demanding machinery. The Valtra tractor factory in Suolahti, Finland, has traditionally used engines produced exclusively by AGCO Power, formerly known as Sisu Diesel. •

### ELECTRONIC SHUTTLE AND FRONT LINKAGE ON ALL MODELS

Valtra offers a complete model line-up with its third-generation A, N, T and S Series models, all of which are now in full series production. Valtra's 3G models comply with Tier 4 Interim emissions regulations and offer many other new improvements. For example, all Valtra tractors manufactured at the Suolahti factory in Finland now feature an electrohydraulic forward-reverse shuttle, an electronic linkage and a multidisc clutch, and mechanically operated Classic models are no longer offered.

### OVER 10,000 VALTRA TRACTORS WITH SIGMA POWER

Valtra's legendary Sigma Power feature has been specified on over 10,000 tractors to date. Sigma Power has been available on the biggest models in the 8000 Series and the T Series.

Sigma Power was developed by Valtra and awarded the Gold Medal at the Agritechnica fair in Germany in 1997. Originally, the extra power was activated when the PTO axle began to twist under load. Mechanical sensors were used to measure the torque of the axle at both ends and increase the fuel flow when the axle began to wist. Although the mechanical sensors and fuel feed were later replaced by an electronic system, the basic concept has remained the same.

Read more: [valtra.nl](http://valtra.nl)



Rodney Fletcher personally enjoys driving the compact N142.

## Valtra in the Black Lands

Rod Fletcher and his family farm 1232 hectares made up of a mixture of owned, rented and contracted land; a mixture of black fenland peat and strong, heavy clay. The mix depending on the location of the various farms. Cropping ranges through spring and autumn beans, spring and autumn rape, winter wheat, triticale, spring oats, sugar beet, maincrop potatoes and 80 hectares of grass. As there is no livestock on Belmont Farms the grass is either let for grazing or sold as hay.

"We have eight tractors at Belmont Farms, five of which are Valtras: three six-cylinder T Series and a couple of four-cylinder N Series," reports Rod Fletcher. "We started converting to Valtra a few years ago and, provided quality and performance remain at the same high level, we will replace the remaining three older tractors with Valtra when their time comes."

Black fenland peat is extremely sensitive to compaction, which is why Valtra tractors, particularly six-cylinder models are popular. Valtra have designed their T Series models with the engine well forward over the front axle. As a result they are well balanced for four-wheel drive operation yet light in weight – ideal for weight sensitive operations.

Rod has also taken the considered step to remain with a higher number of smaller lighter tractors. "With potatoes and beet we can be harvesting well into November, and if it's a wet season heavy machinery will cause considerable dam-



Rodney Fletcher

age. If we were to get out of potatoes, well we'd think again but that's not on the agenda at the moment."

One of Belmont's main tractors, a T121 often fitted with dual wheels front and rear, is also equipped with Valtra's guidance system. "Although the system is very accurate and marking out a field is easy we still use bout markers on some equipment – satellite signals have been known to lead tractors astray!"

With about half the land around 13 miles away all the Valtra tractors are fitted with front suspension. "It makes life for the driver just that little bit more comfortable, which is good for staff morale – drivers also like the Valtra cab for a working environment."

Rod Fletcher is also happy with the various Valtra's fuel consumption. "Our latest machines come with an accurate fuel consumption meter, and we're utilising these to keep track of costs – not something we were able to do with previous machines. It's a useful management tool when costing the various crops." •



### GARETH JONES IS AREA SALES MANAGER FOR THE WEST AND SOUTH WEST REGION

Following the internal promotion of Alan Sanderson, Valtra has appointed Gareth Jones as Area Sales Manager for the West and South West area of England. Gareth joined Valtra in 2002 as Area Service Manager for the West and South West and is well known by Valtra dealers in that area and beyond.

Gareth (42) studied at Walford College of Agriculture in Shropshire before joining the workshop team at a well known Shropshire tractor dealer. In 1993 Gareth Gareth took up the position up the position of Workshop Foreman before joining machinery manufacturer Kuhn in 1998, a career path that has provided a wealth of experience.

Gareth is a key member of the Valtra-based tractor-pulling team 'Bear Essentials', having helped build from scratch and then piloted Baby Bear to win its class at the British Tractor Pulling Championships in 2007. Away from tractors Gareth has overseen the building of his own house and coaches youngsters in football.

Commenting on Gareth's appointment Valtra National Sales Manager, Mark Broom said: "Gareth is well known and respected by our dealers. His technical background is excellent and we are sure he will be successful, building on the foundations laid by Alan Sanderson".

Internet: [valtra.nl](http://valtra.nl)

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Valtra is a worldwide brand of AGCO



Valtra N142

# A TRACTOR FOR ALL USES

Valtra N142 proves its worth on the Grom Agrar farm in Germany. Bernd Grom really puts his Valtra N142 to work on his 1,200-hectare farm in Saxony-Anhalt, Germany. Equipped with the Direct transmission, the tractor takes care of a wide range of tasks efficiently and economically.

TEXT AND PHOTO ANDREAS LUBITZ

Many powerful tractors overheated when pulling the large implement, but it was no problem for the N142

The Valtra N142 may not be the biggest, fastest or most powerful tractor on the market, but on the Grom Agrar farm it is still one of the favourites. Its appeal lies in its diversity; the N142 can be used for forestry work and for pulling heavy trailers just as well as it can be used for fertilising, spraying and ploughing.

“Initially the tractor made an impression on us thanks to its hydraulic output,” says **Bernd Grom**, who owns three farms in Bavaria, Thuringia and Saxony-Anhalt. “The hydraulic output demanded by some of our implements can make many of our tractors overheat, but not this one.”

The N142 soon proved to have been a wise purchase; over the past two years it has established its position as a versatile general tractor on the 1,200-hectare farm in Bad Lauchstädt, Merseburg.

“We always choose this tractor when we can’t or are unable to use a large →



## According to Bernd Grom, a lot of the credit goes to Valtra for separating the oils for the Direct transmission

specialised tractor, in other words quite often. The Valtra N142 is used year round on our farm.”

Bernd Grom tells us how the Valtra demonstrated its worth around a year ago on the Grom Agrar farm in Saxony-Anhalt. The farm uses an 8-tonne Güstrower manure spreader that demands up to 65 litres/minute of hydraulic output. Many powerful tractors overheated when pulling the large implement, but it was no problem for the N142 and its powerful 160 litres/minute hydraulics.

According to Bernd Grom, a lot of the credit goes to Valtra for separating the oils for the Direct transmission and the hydraulics, allowing sufficient cooling for the oils even in the most demanding tasks. “Thanks to this solution we can use our Valtra N142 to pull tipper trailers and even with the newest implements that require a lot of hydraulic output.”

In addition to the hydraulics, the 34-year-old farmer praises the power and low fuel consumption of the Valtra N142’s four-cylinder engine. Grom believes that the efficiency of the Valtra has a lot to do with the new Direct transmission. “The mechanical parts of the transmission clearly play a bigger role than the hydraulic parts at most speeds.”



The N142 Direct is a tractor for all uses on Grom’s 2,500 hectare Agrar farm.

The experienced tractor owner is right. The Direct transmission uses 100% mechanical drive in all four ranges at certain speeds, which ensures that the transmission and implements always function together at full power. In auto mode the system selects the biggest possible gear ratio to maximise efficiency.

Bernd Grom has also noted how economical the N142 is. “With this transmission the tractor is easy to drive economically in the right gear and at the right speed, which reduces fuel consumption and extends the life of the tractor.”

Overall, Grom is very impressed with the Direct transmission and control system. “The four gear rang-

es and the possible to set the engine speed or driving speed have proven to be really useful in day-to-day work.”

For example, when fertilising or spraying the driver can set the driving speed, and the transmission’s control system automatically adjusts the engine speed and gears according to the terrain and conditions. If extra fertiliser is needed in a certain area, a slower preset speed can be selected at the push of a button. With implements using the PTO, the driver can set the engine speed and control the driving speed using the transmission joystick.

“This tractor is really easy to use,” Grom says. “When you get used to



The N142 is well-suited for forestry work too.



Bernd Grom and his father Heribert run three farms in Germany.



## The Grom family’s farms

**Heribert Grom** began expanding the family’s farm in Hohenroth back in the 1960s, and over the years the original ten hectares have grown to 650 hectares of cultivated land. Following the reunification of Germany, the Grom family also acquired a 650-hectare farm in Kannawurf to the north of Erfurt. The family’s biggest farm was purchased in 1996 in Bad Lauchstädt, Merseburg and covers 1,200 hectares.

The Grom family business has 25 employees. The farm produces wheat, barley and rye, as well as oilseed rape, sugar beet and maize for energy production. On the family’s original farm in Hohenroth the Grom family also produces seeds and grows hay. Since the farms have no livestock of their own, the yield from the 30 hectares of hay is sold to other farms.

Altogether the Grom family’s farms have 25 tractors, including many Valtra tractors producing 160 to 370 horsepower. •

the controls, it is also really fun to drive.”

Not only is the tractor easy to control, it is also extremely agile. “It is always very easy to manoeuvre with the N142.”

The N142 has proven to be so easy to use, economical and efficient that it has become just about irreplaceable on the Grom family’s Bad Lauchstädt farm. The tractor is used for spraying and fertilising, for transporting during harvesting time, and sometimes also for pulling a cultivator and mower. The N142 and its Direct transmission also come in handy during the winter, when the tractor is used for forestry work and snow ploughing. •





The Valtra N143 with nosewheel.



Salesman Harrald Lijster from Valtra dealer Offringa, Creil hands over the keys of the two new Valtra's to farmer Jeroen Schutte.

cover 180 hectares, including 100 hectares of flowers (70 hectares of tulips and 30 hectares of gladioli) and 80 hectares of arable products (30 hectares of onions, 30 hectares of seed potatoes and 20 hectares of cereals). Maintaining the highest quality involves a lot of work.

To avoid structure damage, Schutte purchased a Valtra N121 on tracks two seasons ago. This is used in the autumn when planting the flower bulbs. After this work, the N121 is converted back into a standard wheeled tractor.



Valtra N121 of Schutte, on tracks, planting tulip flowerbulbs in the North-East Polder.

This philosophy has been extended to the fieldwork in springtime. The light and soft soil is ploughed in spring. By using tires all across the full width of the tractor or implement, the soil is evenly compressed. Both the nose wheel and the two rear wheels have twin tyres, resulting in a perfect and uniform seedbed. The nose wheel can also be removed when required simply by unlocking 8 bolts. The wheels are the same as the standard wheels and can be mounted on the standard front axle.

### Satisfied customer for over 20 years

Schutte has been loyal to Valtra tractors and their Valmet predecessors since 1992. The new farm was near the national importer of those days. Area manager **Roel Hadders** visited Schutte and convinced him of the benefits of the Finnish tractors. The

powerful engine, the gearbox with good overlap, three-speed powershift, low fuel consumption and strong rear axle construction were decisive arguments.

Schutte considers the dealer a partner with whom he can talk with about technical matters. Offringa understands and is happy to make the desired adjustments to new tractors. The quality of agricultural products in the Netherlands is very high, so specialised tractors and implements are called for. Offringa responds to this challenge.

Schutte once tried another brand, but the new N143 now replaces the old John Deere. The company currently operates four Valtra tractors: a 6400, an N121 and two N143s. And the effects on the soil and the countryside? Well, just look at the wonderful countryside all around! •

Dutch dealer creates

# TRICYCLE VALTRA FOR CUSTOMER

TEXT AND PHOTO FRITS GEUT

In early March we visited **W. and J. Schutte** on their arable farm in Nagele, the Netherlands. The agricultural countryside in the North-east Polder region is beautiful, and the sun is shining. The company is making itself ready for the first fieldwork in springtime. The previous day the Schuttes took delivery

of two new Valtra N143 HiTech3 tractors, but they are not identical; on one, the front wheels have moved to the centre, creating a unique tricycle look.

"A tractor should suit its intended tasks perfectly," Schutte explains.

When purchasing a new tractor or implement, Schutte pays a lot

of attention to the finishing touches – and the Valtra tractor dealer Offringa in Creil was happy to oblige. Offringa made the tricycle conversion itself, constructing a special nose wheel for the tractor.

Schutte was looking for the ideal weight ratio to create pressure of 33% on each twin-tyre wheel. "Valtra was

the easy choice. Combining a four cylinder with a nose wheel creates a short combination." Schutte tells us.

Schutte is naturally very satisfied with his Valtra dealer. "At first we wanted to buy two new trailers with the right tires and weight distribution to create good pressure on the king pin."

Soon the discussion led to creating the ideal transport tractor, one that was strong like a bear, short and manoeuvrable.

Schutte knows what he is talking about when it comes to soil compaction, wheel tracks, weight ratio and structure deterioration. The light, fertile soil in Northeast Polder has been cultivated for only 70 years.

Schutte moved to the southwest coast of Northeast Polder in 1994. Since then his farm has grown to



# Tech

**TwinTrac** Reverse-drive system

The research was carried out by the impartial TTS Work Efficiency Institute with two T163 tractors as normally used by a contractor in Southeast Finland.



Mowing in reverse

## SAVES TIME, FUEL AND YOUR BACK

TEXT TOMMI PITENIUS PHOTO VALTRA ARCHIVE

According to research commissioned by TTS Work Efficiency Institute, using a tractor with the TwinTrac reverse-drive system for mowing requires 12 percent less time and 11 percent less fuel than when working in the forward direction. In addition, mowing in reverse puts significantly less strain on the driver's neck and back.

"For example, on a 110-hectare farm that is mowed twice a season, working in reverse can in practice save the equivalent of one day's

work. This can have a decisive impact on the quality and timing of the harvest in terms of weather conditions. In addition, the fuel savings in excess of ten percent are considerable," says **Timo Mattila**, Product Marketing Manager at Valtra.

Mowing in reverse significantly reduces the amount of overlap, and the size of the area left unmown is reduced by more than a half. According to the research, working in reverse was also found to be smoother, reducing the amount of vibration experienced by the driver. Similarly, the Auto-Guide steering

assist system reduced fuel consumption by 5 percent and the amount of time by 4 percent.

The research also studied the amount of twisting that the neck and back are subjected to during a typical mowing operation. It found that the amount of time spent driving with one's back twisted was eradicated almost totally, while the amount of neck turning was halved. When driving in the traditional forward direction, the driver spends over one-fifth of the work time with his back twisted. This twisting motion combined with vibration

can be extremely harmful to the back.

The research was carried out using two T163 tractors. One was fitted with a 7.3-metre Elho Duett mower conditioner that is used by driving in reverse. The other had a 3.7-metre Elho mower conditioner attached to the front linkage and a similar 3.7-metre mower conditioner at the rear. Altogether 70 hectares on six fields were mowed for the research last summer in Southeast Finland. The research was carried out by the TTS Work Efficiency Institute (Työtehoseura). The final report is available upon request from TTS. •

This twisting motion combined with vibration can be extremely harmful to the back



### TWINTRAC REVERSE-DRIVE SYSTEM

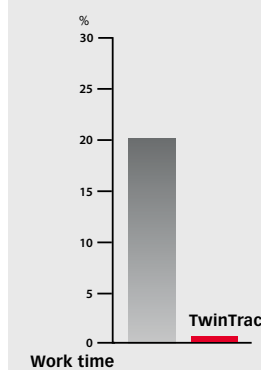
Offered by Valtra for the past 20 years

6500 tractors specified with TwinTrac

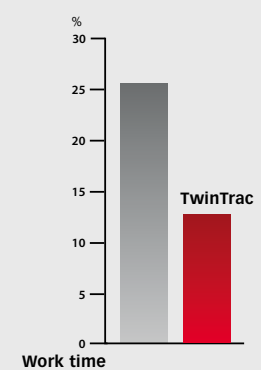
Available on tractors with 99–370 horsepower

Ideal for mowing, municipal contracting and forestry tasks

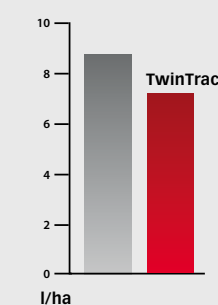
Total work time spent with back twisted



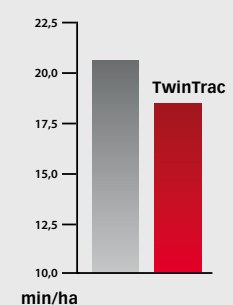
Total work time spent with neck twisted



Fuel consumption



Work time







Remanufactured transmissions are as good as new ones but with only with around 60 percent of the price.



Mechanics Sami Liimatainen and Kari Pitkänen together with Jari Luoma-aho, the head of remanufacturing operations, have set up a workshop of 120 square meters.



The Valtra S233 was dressed up a little for our visit.

## Dutch farmer impressed with his Valtra S AND T SERIES TRACTORS

TEXT AND PHOTO FRITS GEUT

### Valtra offers

# REMANUFACTURED TRANSMISSIONS

TEXT TOMMI PITENIUS PHOTO TONI KALLIOMÄKI AND TOMMI PITENIUS

Remanufactured gearboxes are a good alternative for possible transmission repairs. Customers can receive a gearbox that is good as new, expertly assembled and equipped with all the latest upgrades for around 60 percent the price of a comparable new gearbox.

“Installing a remanufactured gearbox is often faster and more cost effective than taking apart an old gearbox, ordering the parts and making the repairs. Customers will be able to reserve a time in advance so that the remanufactured gearbox is ready waiting for them when they bring in their tractor,” says **Jari Luoma-aho**, who is heading the

project at Valtra.

At Suolahti the old gearbox is taken apart, washed and inspected. Any defective parts and all bearings are replaced with new ones by professionally trained transmission specialists. Undamaged parts that are still in good condition are reused if possible. The gearbox is then re-assembled, painted and tested. All available upgrades are also made. Remanufactured gearboxes come with the same one-year warranty as new ones.

Valtra currently offers around 20 types of remanufactured gearboxes, including those for the N and T Series, 6000 and 8000 Series,

and A and 100 Series. In order to reduce the number of variations, all remanufactured gearboxes come with a ground speed PTO and creep gear. In addition to Mezzo, Mega and HiTech gearboxes, also Versu and Direct gearboxes will be offered in the near future.

Remanufactured parts are a big part of the spare parts service in the machinery and auto industries. For example, over twenty mechanics at AGCO Power remanufacture engines at the Linnavuori engine plant. In addition to all the other benefits, remanufactured gearboxes also help save the environment. •

It is hard to find a more typically beautiful Dutch landscape than in the “Land van Maas en Waal”. This is the region between the large rivers that divide the Netherlands into north and south. Today, we are visiting the area just south of the River Maas, a winding river with a floodplain dammed by a winding dike. On top of the dike is a small road with willows along the side. And somewhere far below, on the foot of the dike, one can see the stately farms.

We have been invited to Loonbedrijf **Timmermans**, a farm half a mile inland in Maren-Kessel. We find a modern house accompanied by large and practical implement sheds. The only nostalgic thing about this farm is a BM Volvo 320, once repainted by Timmermans himself.

The Timmermans farm has 80 hectares of arable land. He also does contracting work, mainly for livestock, baling straw and harvesting cereals. Ploughing work is per-

formed using a Valtra S233, which we have come to see at work. Although the region by the rivers is normally characterised by heavier oily clay, the land on the Timmermans farm has rather light soil.

Forty years ago the farm ordered a Volvo tractor, mainly because of its spacious cabin. After running other brands, Timmermans returned to Scandinavian tractors in 2012 when he decided to purchase a Valtra S233.

### Two new Valtras

While waiting for the S233 to be delivered, the tractor ran a Valtra T202. This tractor made such a positive impression that it was allowed to stay after the arrival of the S Series.

Having had the new Valtra for a short time, the modest Dutchman gives his short verdict: “Not bad really!”

He is absolutely convinced by his choice of colour: black. This gives the tractor exactly the look it

deserves: “tough and stately.”

The tractor was supplied by the dealer Leenders in Liessel. The dealer is convincing more and more customers about the advantages of reliable Valtra tractors. “Retaining customers is not a problem, but gaining new ones is always quite a challenge,” admits **Dries Leenders**.

When we enter the field with the new Valtra S233, the five shield plough enters the soil immediately. The S233 can pull it “on its tail”. The tractor has relatively narrow wheels. To turn the soil properly, the tractor is operated at a low speed. As a result, we hardly hear the engine. The tractor runs smoothly just above idle.

Timmermans is waiting for the right moment to spread the manure. This should be ploughed under immediately. The S233 is ready to do this and the other springtime tasks it was bought for.

Timmermans invites us to come back again next year to prove what a great job the S233 has done. •



This older Valtra is to be replaced with a new N101 with loader for general work on the site including clearing fire breaks.



Here, human activity over thousands of years has shaped what we see today

introduced. During the summer the system worked well, but there was little room to grow winter fodder and overwintering became a problem. Today a herd of 35 Galloway cows with calves are shipped in for the spring flush and returned to a farm for overwintering. Initially the cattle will eat the new green grass shoots, but as these decrease they tackle other plants, including silver birch and other saplings. The actions of their feet, trampling scrub, also helps control and promote the growth of plants.

Unfortunately the cattle do not do a complete job controlling unwanted plants, so to help them along four groups of hardy Dartmoor and Exmoor ponies are employed, numbering around twenty in all. Both are endangered breeds, and the animals on loan from their breed trusts.

There is, of course, scrubland and trees that are unsuitable for both the



Maintaining

# THE BALANCE

Valtra tractors are being used to help restore the natural landscape in the UK.

TEXT AND PHOTOS ROGER THOMAS / COLIN SCOTT / RSPB

In Aylesbeare Common in the south of England, the Royal Society for the Protection of Birds is employing horses, cows and Valtras to help restore the fragile balance between flora and fauna. The common is a very visible part of 3500 acres of Southern Lowland

Heathland that can be seen when driving along the A3052. The significance of this increasingly rare habitat was recognised back in 1969 when the entire area was designated a Site of Special Scientific Interest (SSSI).

The area is part of the East Devon

Pebble Bed Ridge running roughly North-South between the Exe and Otter rivers. Here, human activity over thousands of years has shaped what we see today. Early man denuded the landscape of trees for building and fuel, and as a result the thin top-soil eroded, leaving behind a landscape that has changed little. The soil, such as it is, is acid and will only support acid grasses, bog, marsh and scrub – land that modern farmers would balk at trying to farm.

The Royal Society for the Protec-

tion of Birds (RSPB) owns just 60 acres of the total area but has management influence over a great deal more, most of which is in the ownership of Clinton Devon Estates. Years ago the estate allowed employees to graze livestock on the common, a tradition that has since died away. The livestock kept the scrub under control, but today there is a danger that the unique balance of flora and fauna will disappear.

As a result the RSPB and other conservation organisations have de-

veloped a regime of land management that includes the removal of certain trees and shrubs, some re-landscaping to correct the privations of aggregate removal, plus scraping, mowing and controlled burning to regenerate heather. To assist with this land management, the RSPB has enlisted the help of both animals and machinery.

**Cows, horses and Valtra tractors**

Initially native Devon cattle were



The rare Dartford Warbler can be seen on Aylesbeare's heathland. Photo: Colin Scott.



Stonechats also frequent the heathland. Photo: RSPB.



”They are an excellent all-round tractor and with their Scandinavian heritage ideal for our type of work – no dangly bits underneath to get snagged on scrub”

cattle and ponies, and for this the RSPB resorts to machinery. Valtra tractors are used for a variety of maintenance tasks, from mulching scrub and timber extraction and clearing fire breaks. The land, which is being scheduled as a common, required government permission before fencing to contain the livestock could be erected.

#### Valtra to the rescue

**Toby Taylor**, RSPB Warden at Aylesbeare explains why they chose Valtra tractors. “They are an excellent all-round tractor and with their Scandinavian heritage ideal for our type of work – no dangly bits underneath to get snagged on scrub.”

As the RSPB relies quite considerably on volunteer labour, the ease with which they can be driven is also appreciated. “We run training courses before staff or volunteers are let loose with machinery of any sort, but it’s an obvious advantage when the machine is simple to operate.”

The RSPB’s first Valtra tractor to arrive at Aylesbeare was a used low hours 110 hp 6650 in 2005, which is still in operation today, mostly with a timber trailer and crane. “We’ve several blocks of mature trees which need attention, thinning or complete removal, and this is an ongoing operation. We sell sawing timber and firewood as a method of generating income.”

The Valtra 6650 worked well and was augmented by a 100 hp N92, which is being swapped for a four-cylinder N101 complete with a forestry fuel tank, front linkage and PTO, air compressor and V46 loader. The N101 is a good all-round



A used Valtra 6650 was an early arrival and is mainly used to maintain for tree management with felled timber sold for sawing or firewood.



Native breeds of ponies and cattle are used to help maintain the plant life balance.

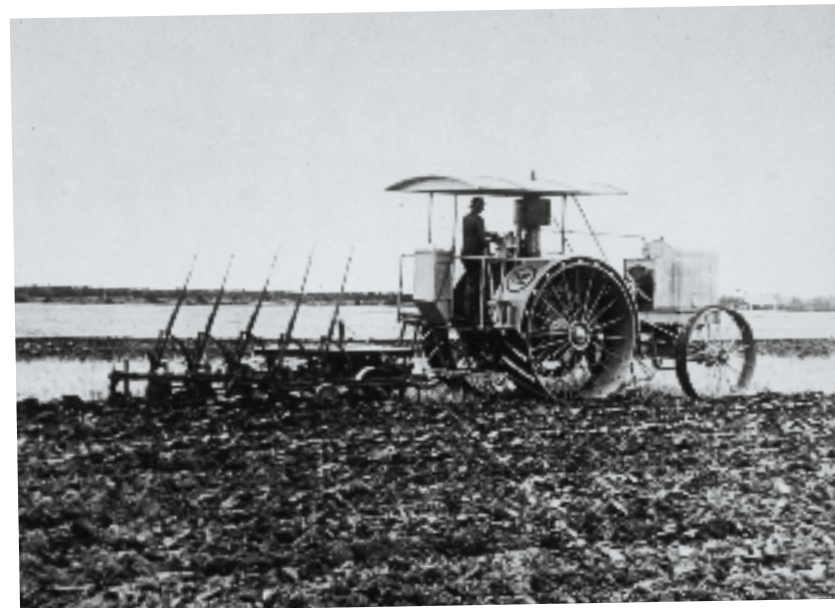
machine ideal for the type of work undertaken now and in the future.

#### A beautiful habit worth preserving

Despite the income from timber, the sites absorb more cash than they generate, a situation eased in part by funding from Natural England and their Higher Level Stewardship Scheme. But the value of the area cannot be counted in terms of money. The sites are home to many rare and diminishing species, including the rare Dartford Warbler, the silver studded blue butterfly, the Southern Damselfly and Kuglean’s ground beetle. Stonechats are often seen, as are nightjars and a host of other

unusual flora and fauna.

The area has attracted the attentions of the European Union and is both a Special Area of Conservation and a Special Protection Area. It is home to many species that have evolved, along with us, over an extended period of time. They are part of the food chain, gene pool and much more. In certain areas of the world many species have been lost, and now there is a battle to stop a complete collapse in local ecological systems. Unfortunately there is no laboratory with a fast forward button to see if the efforts will be successful. We just have to wait and see and maintain what we have here in the UK for the future. •



#### OLDTIMER

TEXT HANNU NISKANEN PHOTO VALTRA ARCHIVE

The first tractor in Valtra’s family tree was the Munktell 30-40 from 1913. It was a truly large tractor that weighed around eight tonnes and had rear wheels 2.1 metres in diameter. The tractor was powered by a two-stroke two-cylinder hot bulb engine. Altogether 31 units of this model were manufactured.

## Ancestor of the Valtra tractor

# 100 YEARS OLD

In 1913 Valtra’s ancestor Munktell unveiled its first tractor, the “30-40 hk”. In 1932 Munktell merged with engine manufacturer Bolinder to form AB Bolinder Munktell (BM), which was acquired by Volvo in 1950. In the 1970s Volvo and Valmet agreed to begin transferring Volvo’s tractor operations to Valmet, which later changed its name to Valtra. This is how today’s Valtra tractors are related to the very first Munktell tractor.

Johan Theofron Munktell was born the son of a priest in 1805. At the age of 17 he entered a technical college in Stockholm. In 1826 he was employed by the Royal Mint (Kungliga Myntverket), where he made improvements to the machinery minting coins. He was also a member of the team that designed and manufactured Sweden’s first printing machine. Munktell was invited to establish a mechanical workshop in Eskilstuna. “Eskilstuna Mekaniska

Werkstad” began operations in 1832, and this is considered the beginning of the industrial history of both Valtra and Volvo Construction.

#### Introducing the “30-40 hk”

Entering the 1900s, Munktell already had a lot of experience with locomotives. By combining its hot-bulb engine with a radiator and the transmission from a locomotive between two longitudinal beams, an impressive looking tractor was created. The first tractor was manufactured in 1913.

The engine was made by combing two single-cylinder two-stroke hot-bulb engines. The total displacement was 14 litres. Almost any liquid fuel, even tar, could be used as long as it was dissolved in 25 % methanol. The engine was started by heating the bulbs with a torch for about 10 minutes.

The engine ran at a set speed of 550 rpm and developed 30 horse-

power. With water injection power could be increased to 40 horsepower, hence the name “30-40 hk” (hk=hästkraft). The cooling system was colossal and could hold 380 litres of water. On the left side was a much-needed pulley for rotating the threshing machine.

The transmission was quite advanced compared to other tractors of the day. The speed in first gear was 2.8 km/h, in second 3.6 km/h and in third, which was used for transfer journeys, 4.4 km/h. There was also a reverse gear. The tractor weighed between 7.9 and 8.3 tonnes, and the diameter of the rear wheels was 2.1 metres.

The tractor was certainly productive. With a five blade plough, the tractor could work 5 hectares a day, and with a spring harrow up to 2 hectares an hour were possible. The advertising claimed that the tractor did the work of 16 horses and eight men. •

#### MUNKTELL 30-40 MY. 1913

Horsepower	30 (40 with boost)
Displacement	14 litres
Weight	7.9-8.3 tonnes
Max speed	4.4 km/h
Fuel	Any liquid fuel dissolved in methanol



Mister Zwaan and some of his employees being proud of there Valtra tractors.



The Volvo tractors are neatly lined up during the twenty fifth anniversary. Last year fa Zwaan had her 60 years jubilee.



The Valtra's of fa Zwaan are used for the most diverse tasks.

Dutch contractor loyal to his

# DOZEN SCANDINAVIAN TRACTORS

When we visit the contracting company Zwaan & zonen in Wijdenes, North Holland, we are greeted with warmth and enthusiasm. They are very friendly and obviously proud that someone from "their Valtra" is visiting them today.

TEXT AND PHOTO FRITS GEUT

The company is run by three brothers and two sons (cousins) and has 15 employees. In the canteen you notice the sound of enthusiasm from the mechanics. Some employees pose in front of their Valtras.

The company was founded back in 1952. The first Volvo BM was purchased in 1960 to operate a mower conditioner. While the PTO clutch in previous brands did not endure this



heavy job, the Volvo did it without any trouble. The company's affection for Scandinavian tractors was born.

With the exception of just a few other brands for small tractors with up to 50 horsepower, Zwaan relies entirely on Valtra tractors these days. The fleet includes 12 Volvo BM, Valmet and Valtra tractors: a Volvo BM350, a Valmet 405, a Valmet 8100, two Valmet 8150s, two Valmet 900s, and a Valtra T130, T131, T152, N121 and N141.

All of the company's tractors are expected to put in at least 10,000 hours. The 8100 and 8150 in particu-

lar are real work horses. "No key has ever touched the tractor. It runs forever. Maybe it can do some simple pulling job on its old age. Valtras are good at that," Mr. Zwaan comments.

The company has many customers, carrying out harvesting operations for livestock, cutting grass and doing inspection work on dikes and canals – everything from work for individuals up to major municipal projects. The versatile Valtra tractors are perfect for handling such a wide range of tasks.

## "Betrouwbaar"

The municipal contracts are very demanding. At the moment a CO<sub>2</sub> reduction project means that employees are being made aware of the most environmentally friendly techniques. For example, idling stationary is avoided as much as possible.

When asked why he chose Valtra, **Mr. Zwaan** explains using the Dutch

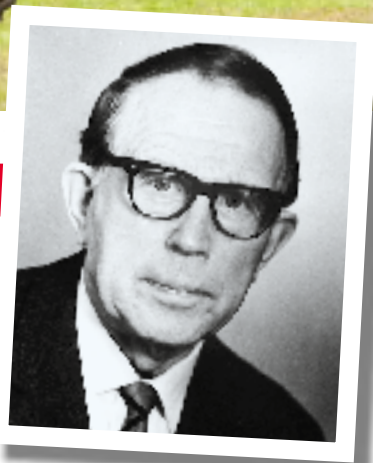
word "betrouwbaar", which means loyal, reliable, trustworthy and faithful all at the same time. Valtra is reliable. Zwaan is loyal to his customers, and his customers are loyal to him. Zwaan is loyal to the brand and to the supplier. And the brand and the supplier are loyal to him. For Zwaan the motto is reliability. Zwaan has faith in the Valtra brand.

Loyalty generates advantages in terms of maintenance, filter packages, software programs and relationships with the dealer. Zwaan has a good connection with his dealer, Nanne Kooiman, who once even worked as an assistant to Zwaan. The Valtra dealership has a modern and neat appearance. In addition to Valtra tractors which are presented very good, Kooiman offers a wide range of implements, mostly planting machines. Customers can always count on Kooiman, and Mr. Zwaan has full confidence in Valtra. •





Silage fodder was invented by the Finnish scientist Artturi Ilmari Virtanen in 1928.



Artturi Ilmari Virtanen

A.I. Virtanen awarded Nobel Prize in Chemistry in 1945

# THE FINNISH SCIENTIST WHO GAVE HIS INITIALS TO AIV FODDER

Surprisingly few farmers know that silage fodder was invented by the Finnish scientist Artturi Ilmari Virtanen.

TEXT TOMMI PITENIUS PHOTO VALTRA ARCHIVE

**V**irtanen even received the Nobel Prize in Chemistry in 1945 “for his research and inventions in agricultural and nutrition chemistry, especially for his fodder preservation method.”

Virtanen earned a Master’s degree in chemistry from the University of Helsinki in 1916 and a Doctoral degree in organic chemistry in 1919. He went on to study physical chemistry at ETH Zürich, Switzerland, the chemistry of fats at the University of Münster, Germany, and bacteriology at the University of Stockholm, Sweden. He later became a professor at the University of Helsinki and

the Helsinki University of Technology and President of the State Academy of Science and Arts in Finland. Throughout his career, from 1921 onwards, he was also Director of the Laboratory of Valio, the Finnish Cooperative Dairies’ Association.

The variation in the amount of vitamins in milk due to the quality of the fodder in wintertime was a big problem in the 1920s, both for the dairy industry and for public health. In the spring of 1928 Virtanen discovered that fresh fodder can be preserved over the winter if its acidity was reduced rapidly after harvesting to less than 4pH and if it was stored

in airtight conditions. This innovation was patented in 1932, but it took the growing use of plastic to wrap the fodder in to gain widespread use.

The great scientist was not immune to controversy, however. For example, he studied the biological nitrogen fixation of plants, but his theory was later dispelled. Politically he was fervently anti Soviet, and his views occasionally got him into trouble during the Cold War era.

His passion for biochemistry was founded on very pragmatic grounds, as four of his six brothers died before reaching the age of one. Virtanen surmised that the reason was a deficiency in Vitamin A. His humble family was used to buying inexpensive skimmed milk that was deprived of Vitamin A when the fat was removed. •

**VALTRA COLLECTION FOR 2012–2013** is available. Contact your local Valtra dealer or check out the products online at [www.valtrashop.com](http://www.valtrashop.com) and order them easily direct to your home!

See all Valtra products: [www.valtrashop.com](http://www.valtrashop.com)

**Valtra** Collection



**Wall mount**  
Made from durable metal, size 30x40 cm. Ready drilled holes in corners make it easy to hang up.



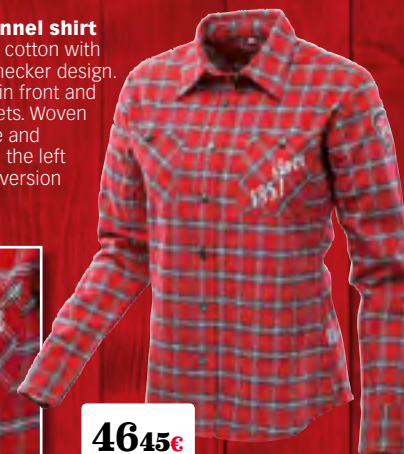
1742€

**Football**  
Match and training ball. Size 4. Made from hand-stitched synthetic leather. Comes with ball pump.



3677€

**Women’s flannel shirt**  
100% brushed cotton with Valtra’s own checker design. Jeans buttons in front and on chest pockets. Woven label on sleeve and embroidery on the left pocket. Men’s version also available.



4645€

**Men’s shirt**  
100% cotton shirt with Valtra’s own checker design. Logo woven on the front and ANTS appliqué letters on the back. Women’s version also available.



3870€



**Women’s t-shirt**  
Stretchy and soft cotton-spandex blend. Long style. Embellished with prints and rhinestone.

2225€



**Men’s t-shirt**  
Pigment dyed material with a slightly worn look. Print on the front. 100% cotton.

2129€



**Wristwatch**  
Aluminium casing with Miyota 2453 movement. Water-resistant to 5 ATM. Hour, minute and second hands. Date display. 22 mm watchband. Watch diameter 46 mm.

7643€



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**Valtra** Models



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### A SERIES

MODEL	MAX. HP/NM
A83 HiTech	88/325
A93 HiTech	101/370



### S SERIES

MODEL	MAX. HP/NM
S233	270/1195
S263	295/1310
S293	320/1455
S323	350/1540
S353	370/1540



### T SERIES

MODEL	MAX. HP/NM
T133 HiTech	141/580
T153 HiTech	155/640
T173 HiTech	180/660
T193 HiTech	190/680
T153 Versu	155/640
T163e Versu	166/740
T183 Versu	187/770
T213 Versu	215/850
T153 Direct	155/640
T163e Direct	166/740
T183 Direct	187/770
T203 Direct	204/800



### N SERIES

MODEL	MAX. HP/NM
N93 HiTech	99/430
N103 HiTech	111/465
N113 HiTech	124/510
N123 HiTech	135/540
N143 HiTech	152/600
N93 HiTech 5	99/430
N103 HiTech 5	111/465
N113 HiTech 5	124/510
N123 HiTech 5	135/540
N143 Versu	152/600
N163 Versu	163/650
N143 Direct	152/600
N163 Direct	163/650

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