

VALTRA
Power Partner

Valtra shows the way

YOU SAVE MONEY
YOU SAVE FUEL
YOU SAVE NATURE
YOU SAVE YOURSELF





Valtra shows the way

True to the Nordic tradition, Valtra's operations and products emphasise functionality and respect for nature. Our products are custom made to suit the individual needs of our customers, which saves work, raw materials and the environment. Quality and environmental certification at our factory and award-winning logistics are the result of many years of systematic development work. Valtra is also an industry leader in the occupational health and safety of our employees.

Valtra and Sisu Diesel engine manufacturer share the same goal: to help tractor operators gain greater benefits, productivity and satisfaction from their investment. Our products and processes are continuously honed to maximise precision, efficiency, safety and environmental friendliness. Achieving our goal saves working time, resources, fuel and our operating environment.

The product innovations help make the Valtra tractors easier to use. Many routine tasks of tractor operators have been automated, which in turn has increased the productivity and cost efficiency of tractor implement combinations.

Better fuel economy

Lowering fuel consumption is a key factor these days in helping preserve the environment. Over the years the Sisu Diesel engine plant has produced a long line of innovations that improve engine efficiency and durability while also reducing emissions. The latest common rail (CR) engines with electronic engine management (EEM) offer Valtra tractors many new and advanced functions and properties.

- Fuel burns more efficiently
- Exhaust gases are cleaner
- CR engines are quieter
- Engine noise is more pleasant to the ear
- 650 rpm low-idle saves fuel
- EcoPower saves fuel
- EcoSpeed saves fuel



Low rev philosophy

Valtra's N111e and T151e EcoPower tractor models fully utilise the sturdiness and high-torque characteristics of SisuDiesel engines at low revs. Compared with standard engines, the engine speed has been reduced by 400 rpm while maintaining maximum torque in this range. This reduces fuel consumption by up to 10 percent. At the same time, the transmission and hydraulic pumps also operate at lower speeds, which reduces power losses and lowers costs in relation to the horsepower produced.

Benefits of low rev engines:

- Rated speed of 1800 rpm
- Low operating speed
- Max. torque at 1100/1200 rpm
- Very high torque, even at 1000 rpm
- Wide constant torque range
- Low fuel consumption, approx. 10 % lower than engines with similar output
- Low emissions
- Lower noise levels
- Less waste oil
- Less vibrations
- Low piston speed: longer engine life
- Long oil change intervals

Low idle

A great Valtra innovation is the low-idle feature that comes as standard on CR models. When the driver stops the tractor and applies the handbrake, the engine speed automatically drops to just 650 rpm. This immediately lowers fuel consumption and creates a pleasant engine noise. No unnecessary fuel consumption, no unnecessary noise, no unnecessary engine wear.



REDUCE YOUR COSTS WITH ECOPOWER

VALTRA ECOPOWER - TWO TRACTORS IN ONE

POWER MODE

- Rated speed of 2200 rpm
- Transport boost
- 50 km/h option

N111e HiTech
Max power with
Power Mode 128 hp/2000 rpm

T151e HiTech, Advance
Max power with
Power Mode 163 hp/2200 rpm

By applying the latest CR engine technology, Sisu Diesel has introduced its third generation of engines in Valtra N111e and T151e models. Now tractor operators have the unique opportunity to choose between two different engine settings at the push of a button.

Valtra EcoPower models offer two tractors in one. Depending on the task, the operator can choose either the EcoPower model, which offers maximum torque at around 1100 rpm, or at the push of a button return to normal model, where maximum torque is offered at around 1500 rpm.

ECO MODE

- Rated speed of 1800 rpm
- High torque already at 1000 rpm
- Fuel savings of up to 10 %
- Lower, pleasant noise
- Lower piston speed
 - extends engine life
 - lowers oil consumption
- Environmentally friendly

N111e HiTech
Max power with
Eco Mode 124 hp/1800 rpm

T 151e HiTech, Advance
Max power with
Eco Mode 159 hp/1800 rpm

POWER MODE is recommended:

- For hilly terrain
 - smooth driving, high average speed
- When high hydraulic output is needed
- Excellent power and torque features for transport driving and heavy PTO-use

ECO MODE is recommended:

- For changing working conditions
- Excellent power and torque features on the field





ECOPOWER – A NEW WAY TO DRIVE



Special driving technique

The EcoPower requires its own driving technique to achieve the maximum benefits. It is surprising how low operating speeds are needed for partial loads in many tasks. A whole new world of driving is opened while working at low revs.

Use low rpm

Drivers are strongly encouraged to use low engine speeds down to 1000 rpm, where the torque is still 25 % higher than at the rated speed of 1800 rpm. The engine noise is also lower and changes into a pleasant murmur.

Keep cool and save

At lower engine speeds the losses in both the engine and the transmission are smaller and the oil temperature is lower. EcoPower engines are most cost-effective in changing working conditions and with partial loads. Considering the continuous rise in fuel prices, the economic benefits of EcoPower tractors are substantial.

No stress

EcoPower brings a new feeling to work. Driving is easy and fuel is saved without sacrificing productivity.

ECOSPEED

Optional **N Series** HiTech, Advance
Optional **T Series** HiTech, Advance



EcoSpeed is especially suitable for countries with a speed limit of 40 km/h for tractors. EcoSpeed is based on the 50-km/h transmission, but the highest speed is limited to 40 km/h. As the maximum speed is achieved in EcoSpeed tractors at a low engine speed of just 1800 rpm, and lots of driving is done at this speed, considerable advantages are created.

- Lower fuel consumption when driving on roads
- Lower emissions help save the environment
- Less stress on transmission
- Extended engine life
- Extended life of components
- Lower oil consumption
- Lower noise levels

BIODIESEL IN VALTRA TRACTORS



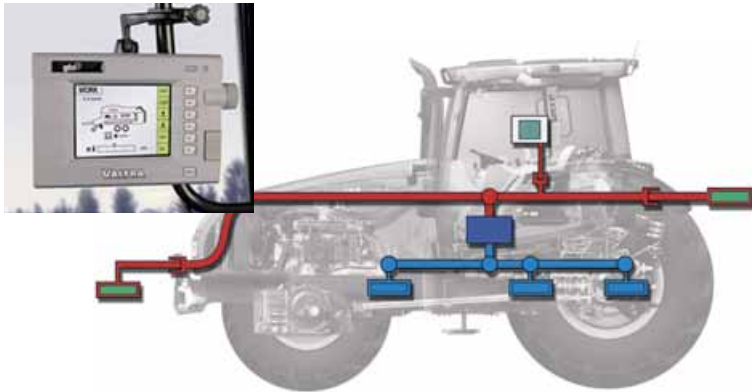
The use of biodiesel in agriculture is increasing rapidly. Valtra has a long tradition of testing and using biodiesel in tractors. In Brazil alcohol distilled from sugarcane has been used to a large extent in Valtra tractors for a long time already. In Finland the use of biodiesel in Valtra tractors has been tested over the last couple of decades with good success. Sisu Diesel's CR engines satisfy Tier III emissions regulations, also in terms of biodiesel. Valtra tractors, with CR engines, can already run on a maximum mix of 20% biodiesel (03/2007), and this will increase in the future. Older non CR engine models can run on 100% biodiesel..

New technology offers increased productivity and cost efficiency



ISOBUS

Optional **T Series** HiTech, Advance
Optional **N Series** HiTech, Advance (later)



Valtra's ISOBUS communication system shares data between the tractor and the implement. A virtual terminal inside the cab is used to control implements, display input data and save information. ISOBUS makes it easy to control modern implements, especially those with many features and a high level of automation. The number of ISOBUS compatible implements is increasing rapidly.

Benefits:

- Performance of the tractor and implement is similar to self-propelled machines
- Connecting the tractor and implement is easy
- The implement can adapt itself automatically to the current situation
- Increases productivity
- Improves cost efficiency
- Ideal for precision farming
- Helps driver's work

AUTO-GUIDE

Optional **N Series** HiTech, Advance
Optional **T Series** HiTech, Advance



Auto-Guide is a fully automated steering assist system based on GPS navigation system. The system steers the tractor on the field along virtual waylines. Auto-Guide allows three types of automated steering: parallel, pivot and contour.

Benefits

- Generates savings on fuel, time and chemicals by limiting overlap and underlap
- Permits accurate operation in darkness, dust and fog 24 hours a day
- Reduces operator fatigue and delivers consistent performance
- Reduces chemicals and seed usage by eliminating costly overlap
- Reduces weed growth by avoiding missed areas during herbicide application
- Decreases spray burn caused by spray overlap of herbicide
- Enables repeatable farming and reduced soil compaction
- Increases operator focus on system capability and operation
- Increases operating speed
- Allows more efficient use of tractor assets
- Eliminates the need for row marker system.

U-PILOT HEADLAND MANAGEMENT SYSTEM

Standard **T Series** 151e-191



Headlands, where the tractor and implement is turned around ready for another run up the field, are areas where time can be lost while the driver spends valuable time controlling the implement and tractor. U-pilot has been developed to help the driver in these tricky situations. Valtra's U-Pilot significantly reduces the amount of repetitive work on the headland, increasing productivity while reducing fatigue. The system also reduces the risk of human error.

Tractor operations that can be controlled by U-Pilot:

- Three-point linkage
- Auxiliary hydraulics valves
- 4WD
- Differential lock
- PTO (front/rear)
- Cruise control
- Powershift
- DIN electrical connectors

Benefits:

- Significantly reduces the amount of work and time
- Better control in field and headland operations
- Makes turning around faster
- Helps to keep the driver alert
- Reduces the risk of human error when managing many functions

TWINTRAC



Valtra's factory-fitted TwinTrac reverse-drive system is absolutely unique in the tractor world. It is ideally suited for many kinds of agricultural, contracting and forestry tasks. The system is highly efficient and productive: Many tractor-implement combinations work best when driven in reverse, and many heavy-duty implements are always attached to the rear. The system includes a rear steering wheel with forward-reverse shuttle in the middle, plus rear clutch, accelerator and brake pedals.

Optional **N Series** 121,141, HiTech, Advance
Optional **T Series** HiTech, Advance



Benefits:

- Spacious cab is ideal for working reverse
- Driver's seat can rotate 180° without having to get up
- Excellent visibility over rear mounted implements and the working area
- High productivity
- High cost efficiency
- Less fatigue

Ideal TwinTrac applications:

- Mowers • Mower conditioners • Silage forks
- Buckrakes • Forage harvesters • Brush sweepers
- Municipality equipment • Snow blowers
- Row crop implements • Grinders • Mulchers
- Shredders • Forest work