

An aerial photograph of a yellow excavator operating on a construction site. The ground is covered with a white grid pattern, likely representing a machine guidance system. A green arrow points upwards from the left side of the grid, and a red arrow points downwards from the right side. The excavator's arm and bucket are visible, positioned over the grid. The entire image is framed by a yellow border with a jagged, geometric shape.

**Xsite PRO 2D
MACHINE GUIDANCE
FOR EXCAVATORS**

WELCOME TO THE WORLD OF INTELLIGENT MACHINE CONTROL

WHAT IS MACHINE CONTROL?

PRECISION AND PRODUCTIVITY

The excavator's machine control system guides the machine's operator to reach the target level quickly and easily. When the job is carried out properly the first time, you save time, materials and fuel. The increased productivity gained will show in improved profitability which, in turn, enables cost savings and increased competitiveness.

For any earthwork contractor, it is important to perform work with quality, precision and on schedule. Using machine control enables optimisation of the different phases of the earthwork process, from planning all the way to the upkeep phase.

THE BENEFITS OF 2D MACHINE CONTROL

- + **The work gets done more efficiently** and quickly as the operator can concentrate more on doing productive work. Less time spent on the contract means cost savings in terms of employees, fuel and machinery.
- + **No grade checking** and jumping off the machine.
- + **No excess cutting or filling.** Material and transportation costs decrease and transporting extra materials is no longer necessary.
- + **A higher level of accuracy** results in more uniform quality of work throughout the contract. Machine control turns a good machine operator into a great operator!
- + **Improved job site security** as surveying close to work machinery or during excavations is reduced.
- + **The system guides the operator** in all weather conditions, thereby making the work easier, especially in poor conditions such as in the rain or in darkness.



Xsite[®] PRO



EQUIP YOUR EXCAVATOR TODAY TO MEET THE DEMANDS OF TOMORROW

” Xsite® PRO 2D is a perfect way to prepare for the requirements of 3D machine control. The system includes comprehensive 2D features and can be quickly upgraded to a 3D machine control system.

The system includes all the necessary components, such as a powerful computer with a large touch screen. All you need ” for a precise 3D system are GNSS receivers and 3D software.

XSITE® PRO 2D - VERSATILE 2D SYSTEM



EASY TO USE

Simple navigation and an intuitive user interface makes the Xsite PRO very easy to use. The system's in-built guide offers step-by-step instructions for different functions.

2D⁺

SIMPLE YET VERSATILE

Having an Xsite PRO 2D system is not going to set any limitations to your desired way of working. Extensive features and functionalities guarantee you'll get the job done in time.

2D^{3D}

GENUINELY 3D READY

Xsite PRO 2D can be quickly upgraded to a 3D machine control system. All you need for a precise 3D system are GNSS receivers and 3D software.

Xsite® PRO 2D is a versatile yet easy-to-use machine control system with extensive features. The system can also be quickly upgraded to a 3D machine control system.

XSITE® PRO SYSTEM CAN BE INSTALLED ON ANY EXCAVATOR!

SYSTEM FEATURES



ALWAYS KNOW THE **BUCKET HEIGHT**

Forget constant manual grade checking! The Xsite PRO 2D's clear reading gives you exact information about your bucket's height and distance compared to your target level.



WORK WITH **SLOPES**

Working on slopes is easy with the Xsite PRO. Just enter the target slope into the system, reset your height value and start working!



WORK **UNDERWATER - DIGGING/DREDGING**

Xsite PRO uses next generation G2 sensors that are fully waterproof. G2 sensors also have an internal heating element, ensuring accurate measurements.



CREATE **SIMPLE MODELS** YOURSELF

Utilize the easy-to-use built-in model tool to make simple 3D-models, such as ditches or barriers, and use them as a reference when working.



GET GUIDANCE VIA **REMOTE SUPPORT**

With remote support, your local reseller can provide you with guidance without having to visit the site. Remote support connects your system to the service centre and can be used to offer training, advice or troubleshooting.



INCREASE SAFETY WITH **WARNING LEVELS**

Be safe when working under power lines or bridges, for example. With the Xsite PRO you can set a warning if your boom or bucket is rising too high or going too far.



USE **A LASER** AS A REFERENCE

The system's laser receiver enables you to move your machine at the site without losing the original level. The laser can also act as a reference level.

CONNECTABILITY



SUPPORT FOR **TILTROTATORS**

Connect your tiltrotator to the Xsite® system and make precise measurements, regardless of the bucket's angle or position.



JOYSTICK **INTEGRATION**

Save time and use functions such as resetting the height or heading value straight from your machine's joystick buttons.



GNSS **COMPASS**

Make work on dual slope projects easier. The accurate GNSS compass supports multi-constellation systems so it uses all types of satellites.



Increase your working efficiency and use functions such as resetting the height or heading value straight from your machine's joystick buttons.*

EASE OF USE FOR EVERY TASK

1. QUICK SELECTION BUTTONS

Change quickly between different models. Don't waste time browsing through complicated selection menus.

2. PROFILE VIEW

The profile view shows you the shape of the selected model in a single glance. The profile view can be easily changed by swiping.

3. MEASUREMENT VALUES

The Xsite[®] PRO system's dashboard shows you the numerical values of your measurement. e.g. how far the bucket is from the desired level. This view can also be easily customized by the user.

4. PROJECT INFORMATION

The status bar shows you the project name, selected bucket and other important information about your current project and the system.



5. MAP VIEW

The customizable map view shows you your project and the location of your machine. You can change and adjust the view by just one touch on the screen.

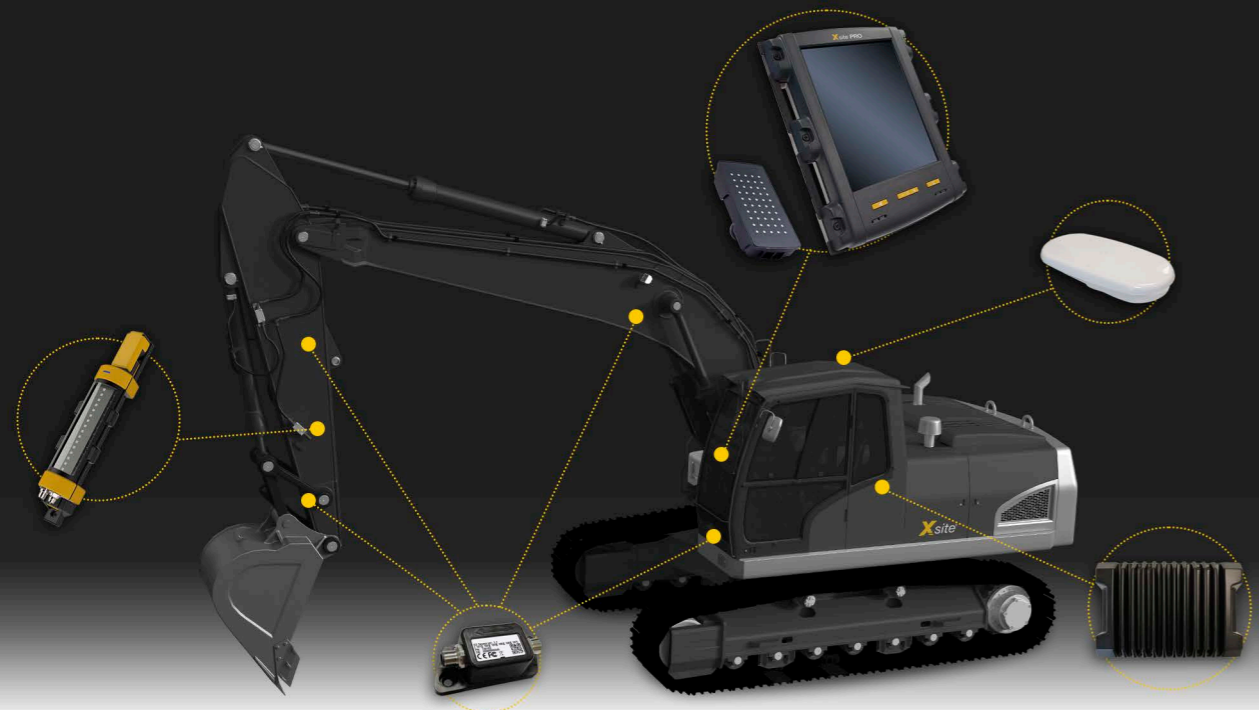
6. BUCKET CORNER VALUES

Bucket corner indicators give you constant information about the height difference between the bucket and the model. A bucket tilt indicator guides you in tilting your bucket to the correct angle of your model.

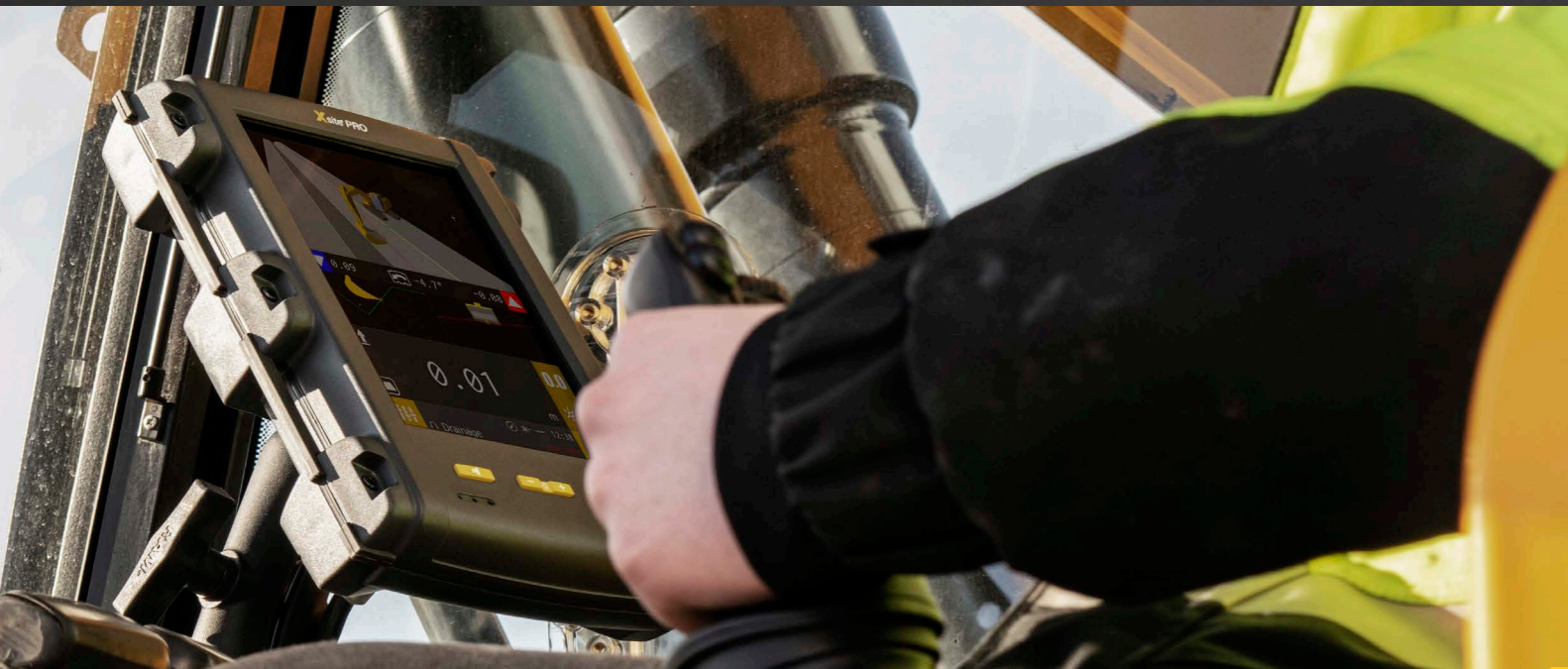
7. QUICK BUTTONS

You can set different functions for quick buttons (e.g. resetting height value or changing the bucket measuring point) to be used quickly without needing to access the menu.

XSITE® PRO - OPEN AND COMPATIBLE



The **Xsite® PRO** machine control system ensures you are always equipped for every requirement of a construction project. Whether it is traditional foundation or levelling work, or a larger, more complex project, the Xsite® PRO system guarantees pinpoint accuracy and ease of use.



DISPLAY

- » Bright and clear colour display
- » Large 8.4" touchscreen
- » Easy to read graphics
- » 2 x USB port



01

CONTROLLER MCC

- » Powerful machine control computer
- » Robust design for rough environments
- » Comprehensive connectivity



02

SENSOR G2

- » Fast and accurate 3D orientation sensor
- » Internal heating unit for ultimate accuracy
- » Next generation sensor fusion technology
- » Extremely durable and reliable



03

LASER RECEIVER EL3 (optional)

- » Quick-fix system for easy mounting/dismounting
- » Large laser reception area (150 mm)
- » Status indicator LED



04

GNSS COMPASS (optional)

- » Compact design
- » Reliable and accurate
- » Multi-constellation support



05

LED-DISPLAY XD2 (optional)

- » RGB LED extra display
- » Arrow indicators for excavation levels
- » Correct height at a glance



06

CUSTOMER CASE

MAKING A DRAINAGE DITCH USING A GNSS COMPASS AND A LASER

Veljekset Korkala Oy, a Finnish earthmoving contractor, had to construct a 2.5-kilometre long drainage ditch for a peat swamp in Northern Finland. The challenge was that a 1.5 percent slope was required for 2.5 kilometres and all excess cutting had to be avoided.

To meet the requirements of the project, the contractor equipped its machine with an Xsite® PRO system and utilized the EL3 laser receiver and Xsite® GNSS compass.

The model for the excavation was made using the Xsite® PRO's in-built profile tool.



HOW IT WAS DONE? SIX SIMPLE STEPS:

- Step 1.** Set up a 1.5 percent slope for the rotating laser
- Step 2.** Create the desired profile using the built-in profile tool
- Step 3.** Set a laser reference for the profile
- Step 4.** Reset the profile's direction
- Step 5.** Catch the laser beam with the machine's stick
- Step 6.** Start working.

"The system shows you the target level, height and position of your bucket, so you'll always know how much to cut or fill"

CASE EXAMPLE

BUILDING HOUSE FOUNDATIONS USING A LASER



Training Videos in Youtube:
Xsite Training Academy



Even though Xsite systems are suitable for the most complex projects, they also strive to perform more "classic" machine guidance operations.

-Teemu Virtanen, Product Manager - Xsite®

FIVE SIMPLE STEPS

- Step 1.** Set up the rotating laser for any height
- Step 2.** Enter the job site height of the system
- Step 3.** Add a plane model from the menu and enter the planned height into system
- Step 4.** Catch the laser beam with machine's stick
- Step 5.** Start working.

The system shows you the target level, height and position of your bucket, so you'll always know how much to cut or fill.



The **EL3** laser receiver has a wide 15 cm receiving area, so you won't have any trouble catching the laser beam. The shock absorbing and robust design of the receiver will ensure that your equipment is fully functional even in the roughest environments.

Xsite

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