

# KIT

***PRECISION  
AGRICULTURE***

Complete Solution for Precision Agriculture



 **FALKER**

# KIT **PRECISION AGRICULTURE**

One of Falker's great differentials is to offer a complete and integrated solution, serving from the beginner in the use of precision agriculture to the customer with advanced needs and high demand in data collection and processing.

Robust and dimensioned equipment for use in the field, the Falker Precision Agriculture Kit provides everything you need for data collection from a single technology provider.

## COMPLETE SOLUTION FROM SAMPLING TO MAP



Falker has supported over a hundred companies to start working with Precision Agriculture.



### Training

In addition to providing the necessary equipment, we have experience in training the agronomic team of customers to use the new technologies.



### Support

The unique support for the entire Kit speeds up the solution of doubts and problems.



### Technical assistance

### Expansion

Compaction  
**SoloStar**



Conductivity  
**Terram**



NDVI  
**Flexum**



# SoloDrill

## Hydraulic Soil Sampler

Sampling quality is essential when it comes to precision agriculture. The SoloDrill soil sampler was developed to perform samples according to the measurement specifications, both in depth, **elimination of impurities and without loss of material.**

Easy to use and simple to maintain. To make it easier, the engine start is electrical by default

In addition, **drill sampling provides larger operating windows** as it operates in broader soil moisture conditions.

## Sampling quality Depth Reliability

**Sample protected from contamination**  
from the beginning of the operation through the straw cutter and internal collection pot



**Depth guaranteed**  
with a simple and efficient system that does not depend on ruler or operator



**High performance drills**  
SoloDrill has two types of drill, special high-strength alloys, adapted to different working conditions



SoloDrill has **optional box for soil samples and funnel** for sample storage



### Drill speed regulation

guarantees sampling in different soil conditions

**Guaranteed contact**  
with the ground through the turret's descent piston





Hydraulic  
Soil Sampler

# Installation Options

Each option has characteristics that allow it to better meet different needs for working conditions.

Trailer versatility, agility and ease of transport on the ATV, comfort on the van and tractor. The Precision Agriculture Kit adapts to every need.



Trailer



ATV



UTV



Pickup Truck



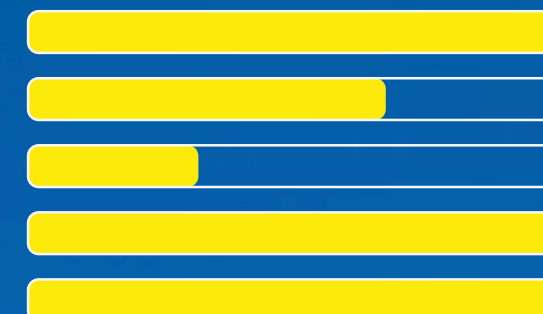
Tractor



Agility  
Transport  
Comfort  
Trafficability  
Sampling visibility



Leaves the vehicle free when sampling is not taking place



It presents good agility for field work and proximity to the sampling operator. It is the most usual option



Features good field travel capability and operator comfort



Ease of movement between different properties, with restrictions for movement in crops



Use vehicle already present in properties



## Command Options



**Hydraulic**  
The operator has manual control of each sampling step.



**Electric**  
Remote activation, for installations in vehicles with cab.



**Automated**  
Operation through the FieldBox, with complete record of the collection point information and sampler operating parameters.



Electronic configuration of sampling depth. Registration of subsamples, path traveled and all sampler parameters during each sampling

# FieldBox

GPS and  
Field Navigation

FieldBox is a practical and efficient solution to guide data collection work in the field. By combining a simple interface with powerful hardware, it allows a complete record of operations. GPS made for precision farming.

Very easy and intuitive to use

Software designed for use in the field

Metal body for field work, ensuring resistance in the most adverse conditions

Possibility of subsamples and management zones

**Made for the field**  
Metallic and water resistant body.

## Simplicity of use

Simple, intuitive software.



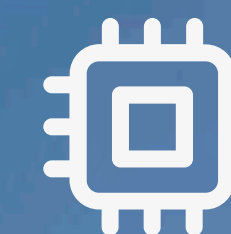
## Screen

7" screen that facilitates the operation and ensures visibility under various light conditions, including in the sun.



## Compatibility

By exporting and importing data in Shape format.



## Powerful hardware

Quad-core processor, 8GB internal memory, 1GB RAM and thumbdrive data transfer.



## Full integration

FieldBox can also work as an interface and data collector for **Automated SoloDrill, Terram, and Flexum.**



## GPS and Field Navigation

The self-explanatory interface, with clear and straightforward options, makes users have maximum productivity with minimal training. Possible options and configurations give flexibility for different ways of working.



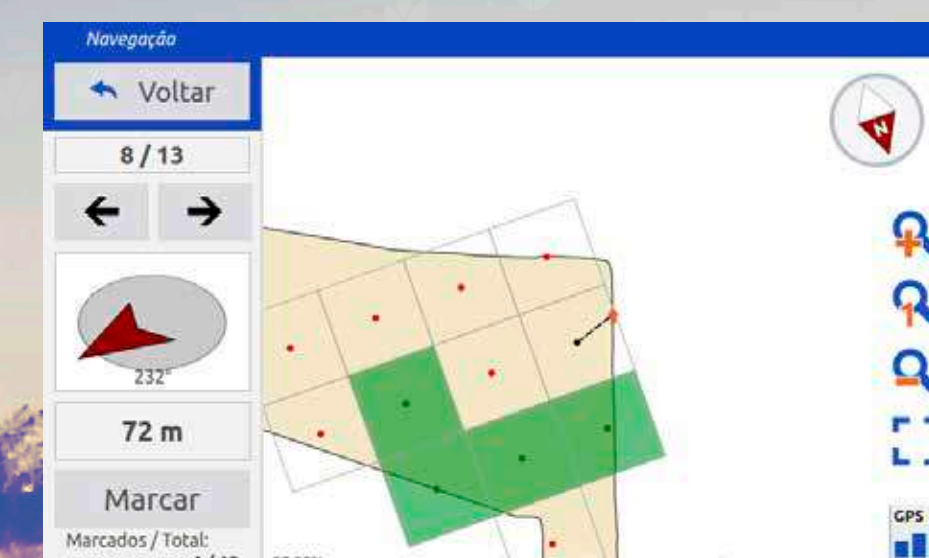
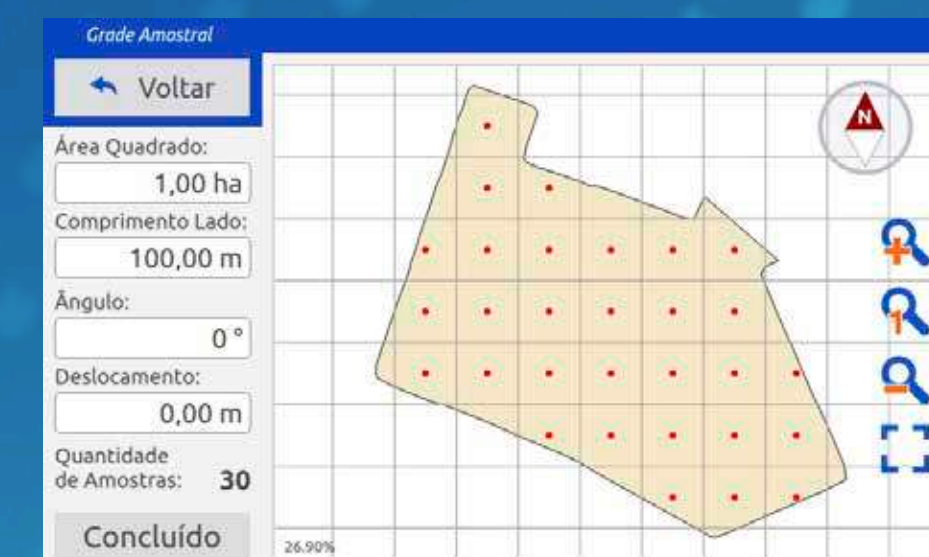
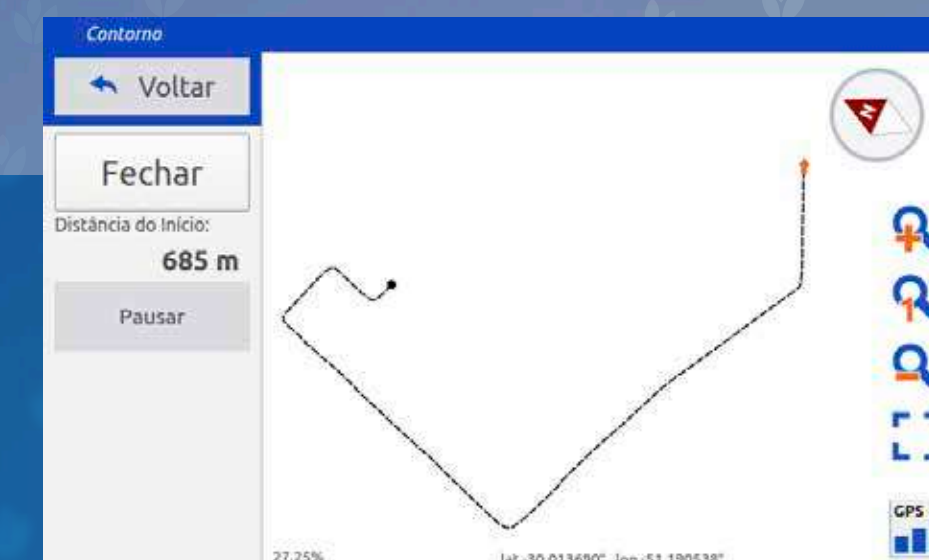
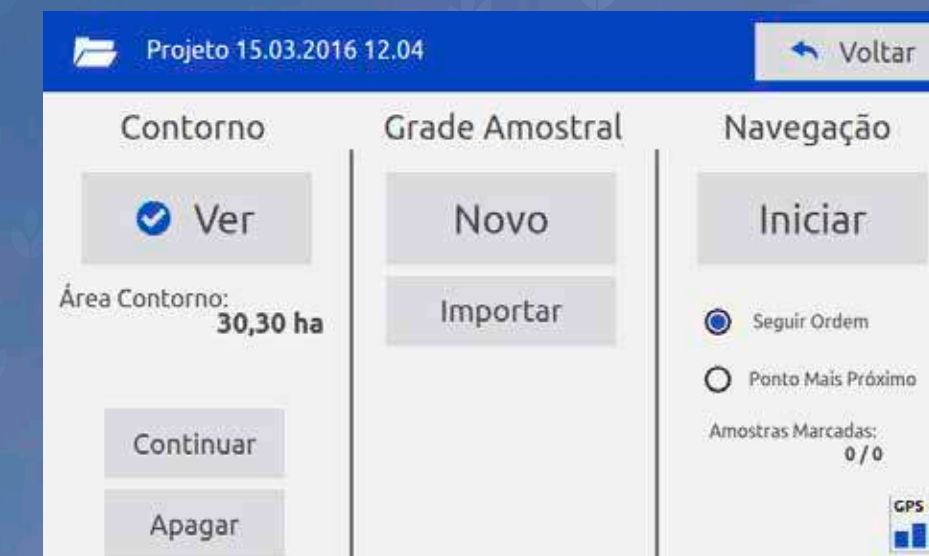
Creation of contours and grids

Editing sampling grids

Guide to the points

Grid and contour import

Record of the path taken





Map Generation  
Software

Simple  
Direct  
Intuitive

FalkerMap is an online system developed with a focus on the user and an efficient workflow for you to easily create fertility and prescription maps for variable rates.

With a simplified interface, all functions are easily accessible, improving performance in the generation of maps and prescriptions through the exclusive graphic system for editing agronomic formulas.

From creating maps to remote consultation, FalkerMap is the ideal tool for those who want to know their crops in depth in search of the best performance.

The security and flexibility  
of a fully online system



Multi User



Online Access  
for Customers



Ease to Use



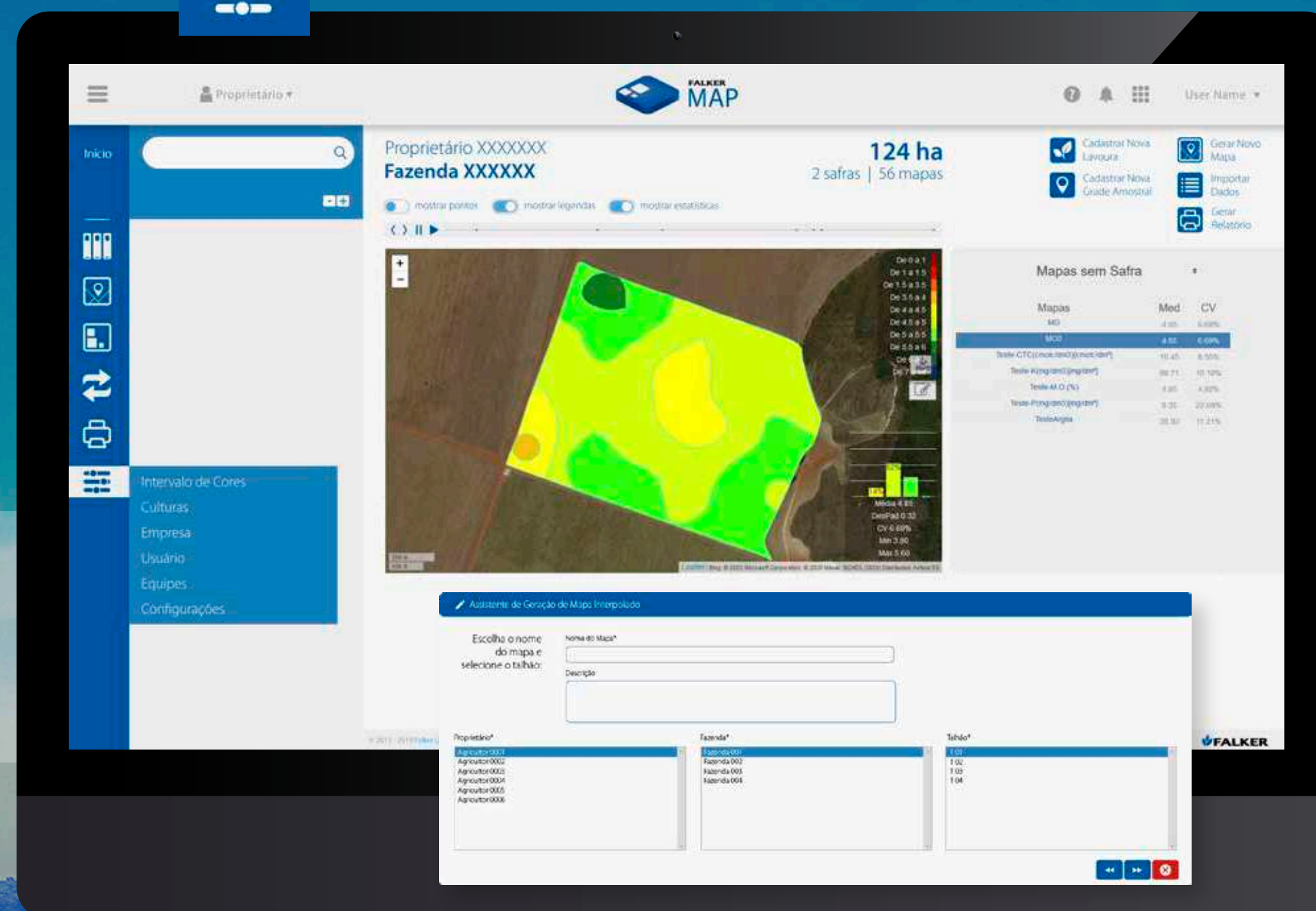
Usability



Configurable



With FalkerMap, your data stays online all the time and you don't have to worry about backup copies and a safe place to store your maps.



Multiplatform

Being completely online, FalkerMap eliminates installation and care with backup copies of the database. It can be accessed from a computer, tablet or smartphone, maintaining all its capabilities on different platforms.



Map Generation  
Software

**Focus on agronomic work, with access from  
anywhere, without wasting time with  
programming of formulas and repetitive routines**

FalkerMap has all the necessary tools for generating fertility maps, agronomic formulas for application prescription up to variable rate maps, providing a rational use of inputs and resources.

An essential tool for those who want to make precision farming results, based on reliable data that accurately represent the variability of the crop.

With two versions available and licenses depending on the size of the areas you are going to work on, FalkerMap is the right solution.

Free license  
up to **200ha**

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

## Features



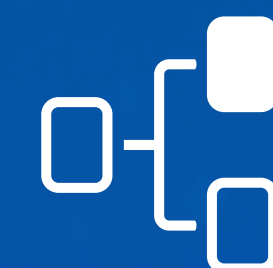
**Fertility  
Maps**



**Variable Rate  
Maps**



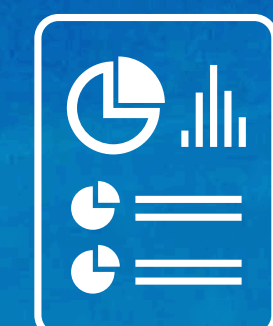
**Seed Population  
Maps**



**Agronomic  
Formulas**



**Interpolation**



**Reports**

exclusive

**PRO**  
version



**High Density  
Maps**



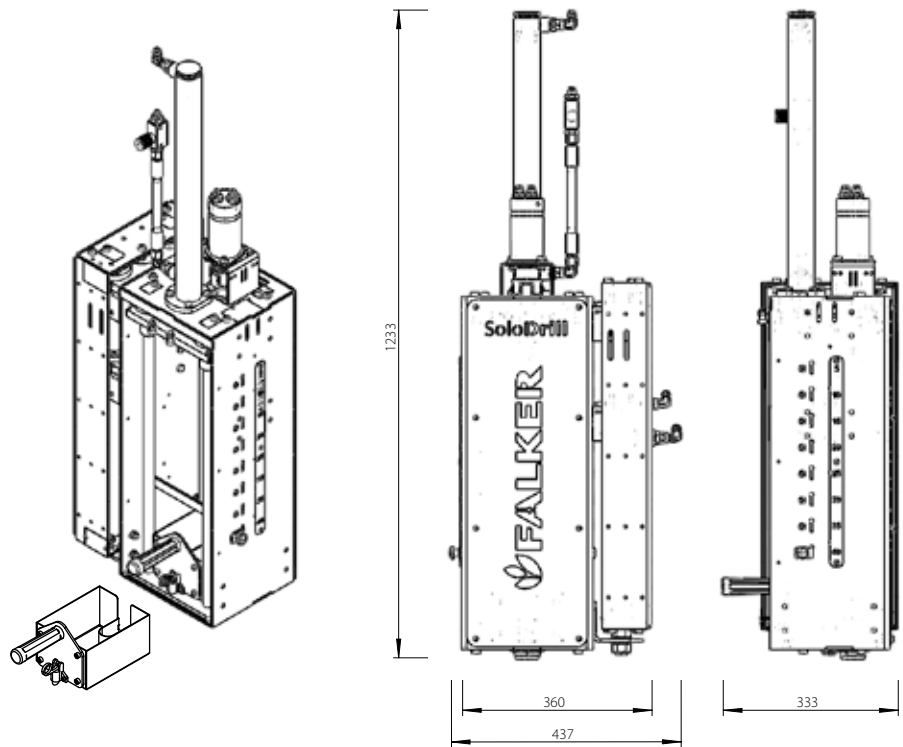
**Working with  
Management Zones**

SoloDrill		
	Hydraulic	Automated
Maximum Sampling Depth	40 cm 60 cm adjustable from 5cm to 5cm	40 cm, adjustable every 1 cm via software
Nominal Drill Insertion Speed	Adjustable (2 cm / s recommended)	
Command	3 control levers	Control panel (push button)
Hydraulic Unit	Hydraulic pump driven by: - gasoline stationary engine and electric starter (standard) - engine power outlet (only for Honda TRX420 ATV)	
Drill Rotation Speed	Adjustable (200 to 950 rpm, approximately)	
Drill Diameters	7/8 "or 1"	
Diagnostic Instruments	- Manometer (block pressure) - Thermometer (oil temperature in the tank) - Oil level in the tank - Stationary engine oil level sensor	- Hydraulic fluid pressure and temperature - Pump and drill rotation speed - Instant sampling depth - Instant turret and drill position
System Weight	63 Kg - Sampling tower 66 Kg - Complete Hydraulic Unit <small>Weight of fixings not included. They vary according to the installation.</small>	
Total Equipment Height	125 cm	

Electrical supply for modules  
FieldBox and electronics AMS45XX:  
Standard 12V  
Tolerable 10 to 14V

### Auxiliary Technical Information Table

Type of stationary engine oil	20W50 (4T engine oil)
Crankcase oil capacity	0.5 liters
Stationary Engine´s Fuel tank capacity	3.6 liters (3 to 4 hours in full gear)
Oil type - hydraulic system	ISO 68 or ISO 46
Maximum operating pressure of the hydraulic system	120 bar
Maximum oil operating temperature in the hydraulic reservoir	70°C



FieldBox	
	FBX3150
Screen	7 "Touch-screen visible in the sun
Screen Resolution	800x480 pixels
User Interface	Touch-screen
Processor	Quad-core
RAM Memory	1GB
Internal Memory	16GB*
Format of Saved Data	Shape Format
Data Transfer	By USB flash drive
Power	External 12V
Maximum Consumption	1 A
Protection	Water resistant (IP54) **
Weight	2,5 Kg
GPS Communication Protocol	NMEA 0183

\* Total memory, partially occupied by the system. User available memory is approximately 12 Gb

\*\* Resistant to water splash, not resistant to water jets or immersion in water. Be careful when transporting and washing the vehicle where the FieldBox is installed.

FALKER MAP		
	Basic	Pro
Fertility Maps	✓	✓
Calculation of Recommendation Formulas	✓	✓
Variable Rate Export	✓	✓
Compaction Maps	✓	✓
Printing Multiple Maps	✓	✓
Online Data Protection	✓	✓
High Density Sensor Maps (conductivity, NDVI)	✗	✓
Harvest Maps	✗	✓
Aerial Images	✗	✓
Management Zones (UGDs)	✗	✓*

\* Extra module for the Pro version

# Technical Information

# Expand the data layers used in decision making to achieve maximum productivity



## SoloStar

### Automated Soil Compaction Meter

Equipment for performance in large areas. Efficient and robust, it can be installed in different vehicles.

**The best solution for  
compaction maps**

**Ideal for large quantities  
of measurements**

**Fully automated  
operation**



## Flexum

### NDVI Active Reflectance Meter

It performs the optical analysis of the development and nutritional status of the crop during field operations, in any climatic condition.

It allows diagnosing problems for immediate fertilization adjustments.

**High data density for  
high resolution map generation**

**Effective and practical**

**Can be installed in several  
types of vehicles, taking advantage of  
the operations already programmed**



## Terram

### Soil's Electrical Conductivity Meter

It allows to know the variability of the field in a quick way, mapping with high density of data the characteristic of the soil.

**Efficient in the field,  
compact in transport**

**Allows use in different  
types of vehicles**

**Essential for creating  
management zones**

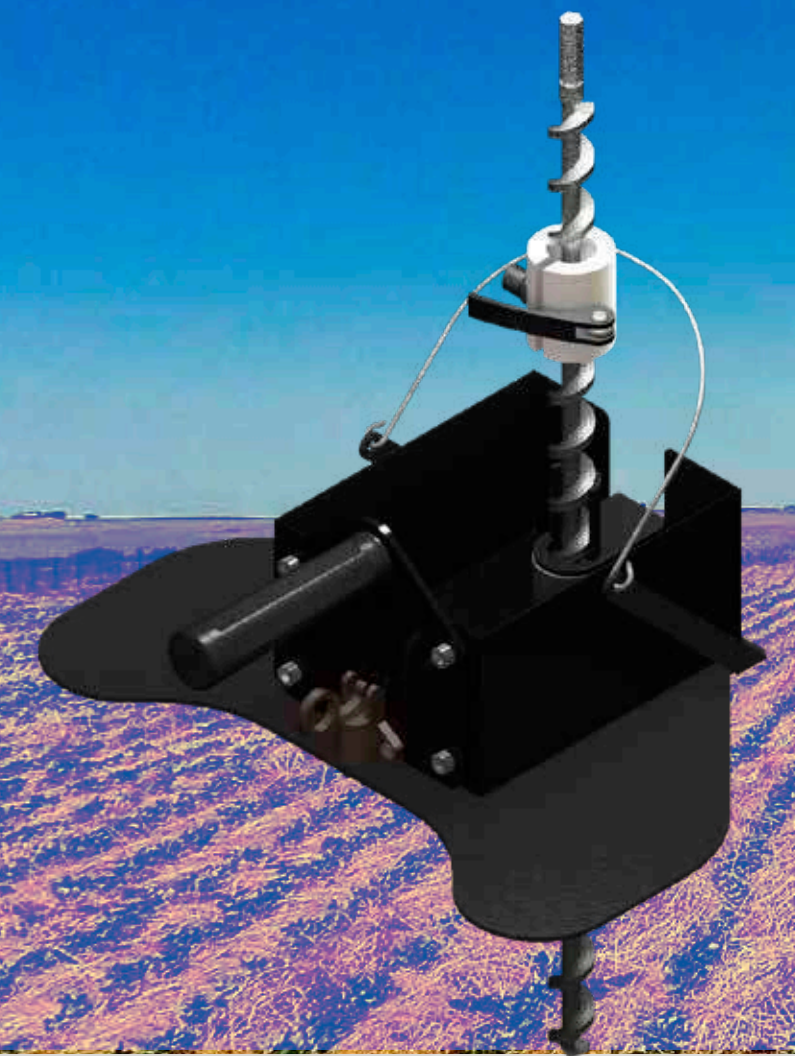
For use with gasoline  
or electric drills

## Starter Kit

AMS 9700

Composed by the sampling drill, high durability steel collection pot, base and depth limiter, it allows an agile and quality sampling, with low initial investment.

An option for those who want to start small and grow with technology.

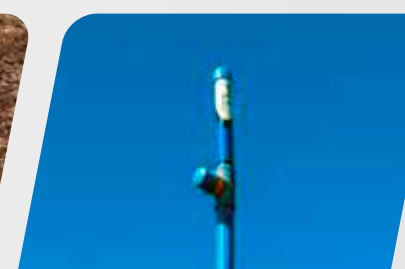


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The Most Complete  
Precision Agriculture Line