



**ROJ**  
MECHATRONICS



# PCS FS

## Control system for pneumatic and mechanical seed drills

PCS FS is the pneumatic and mechanical seed drill control system developed by ROJ. This system is a new entry in the ROJ agricultural product range and benefits from the experience acquired with the PCS 200 system, developed for pneumatic precision planters.

### DMD 0

The PCS FS system is based on the rugged **Agri-Motion DMD 0** motor, controlled by the PCS FS ECU. The system can be scaled up adding **extra seed distributors units**, as well as **fertiliser hopper distributors**.



# AGRI Mate

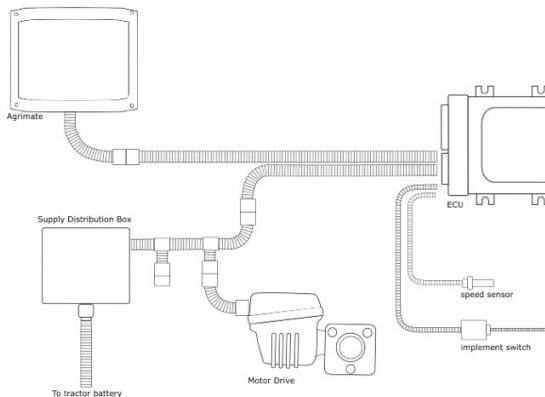
The easy-to-use PCS Agri Mate user interface allows you to configure and monitor the seeding job, providing all the necessary information at a glance.



## Key features

- Easy-to-use touch screen display
- Possibility to modify product quantity from the tractor cab
- Distributor pre-fill
- Calibration procedure and seeding test
- Partial and total hectare counter
- Hopper level monitoring
- Electronic rpm sensor with high/low pressure alert
- Tramline function
- Seeding job log on USB key for invoicing and statistical analysis
- Up to 4 motor groups with independent settings

## Basic system connection diagram





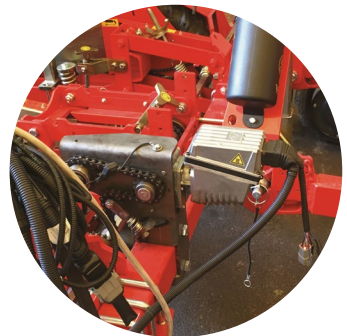
# PCS 150

## Transplanter control system

PCS 150 is the transplanter control system developed by ROJ. The aim of the system is to **replace the mechanical movement** of the distributor with an **electric motor** to achieve **greater operational flexibility** and provide **new functions** that are not possible with mechanical transmission.

### DMD 0

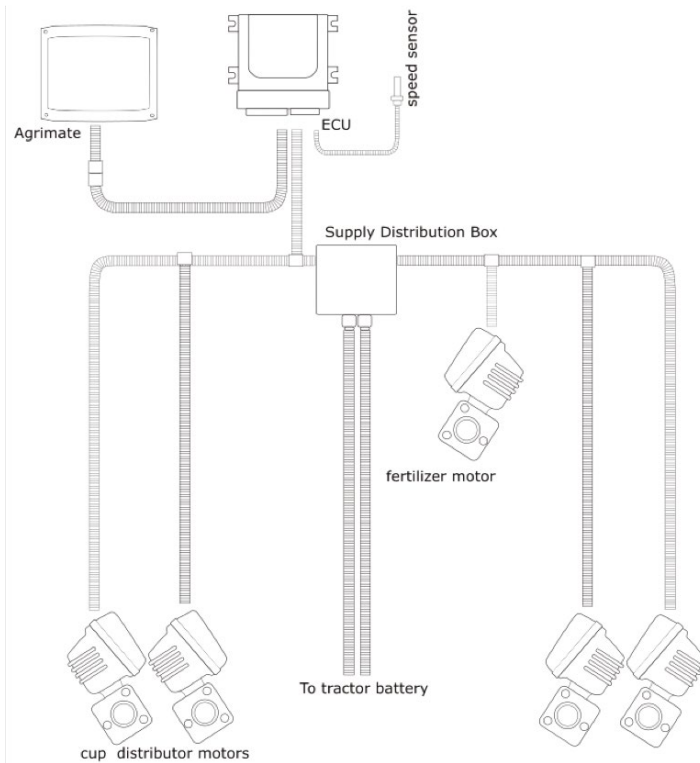
The PCS 150 is based on the rugged **Agri-Motion DMD 0** controlled by the PCS 150 ECU. It can be scaled up adding extra fertiliser hopper distributors.



## Key features

- Cam profile movement to make it easier to place the plant on the distributor
- USB key log for invoicing and statistical analysis
- Fertiliser and micro-granular management
- Support for alternator and battery use with high number of rows
- Optional plant counter and presence sensor

## Basic system connection diagram





# PCS 200

## Pneumatic precision planter control system

PCS 200 is the ROJ pneumatic precision planter control system. It allows you to **replace the mechanical transmission** of seeding discs with an electric motor to achieve **greater machine flexibility** and provide **new functions** which are not possible with the mechanical transmission.

### DMD 0

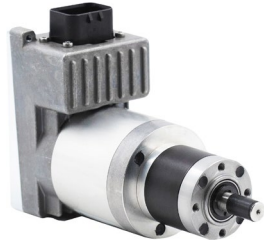
The PCS 200 system, based on the rugged **Agri-Motion DMD 0** motor, is controlled by the PCS 200 ECU. The system can be scaled up adding extra seed distributors units as well as fertiliser hopper distributors, **covering virtually any machine configuration**.



PCS 200 can be also applied to **vegetable planters**. Thanks to the **individual row population settings**, it is possible increase seed population on external rows and achieve higher yields.

## DMD 2

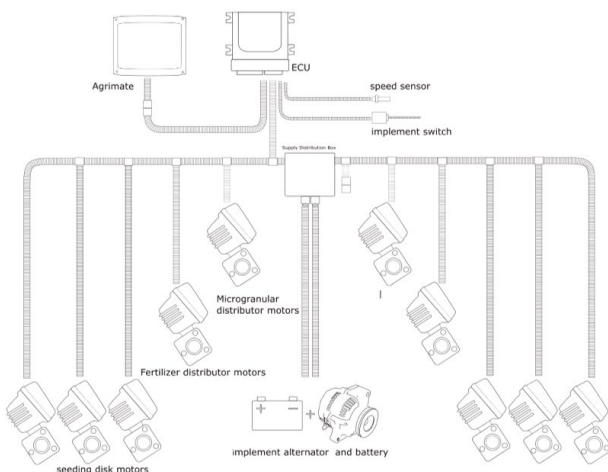
Possibility of mixed installation with DMD 2 motor.



### Key features

- Easy-to-use colour touch screen display
- Manual section control
- Individual row population setting
- Seed monitoring
- Vacuum pressure sensor control
- Tramline function
- Seed job log on USB key

### Basic system connection diagram



Agri Mate



ECU





## Kit for motorised hoppers with wireless control

Following customers' suggestions and market demands, ROJ has improved the previous version of the PCS W1 developing **Agri-Motion X-Tend**, a kit that allows to manage seeding and fertilization with a wireless mode, **widening the range of possible applications**, thanks to the extension of control to **more than one motor**.

### DMD-0

X-Tend is based on the **Agri-Motion DMD-0** system, a highly reliable **12V brushless motor** with **integrated drive board and gearbox**.





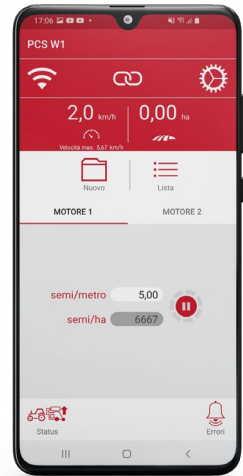
## Installation

The X-Tend kit can be installed in a short time and allows to control more than one hoppers via mobile phone or tablet.

Thanks to a **miniaturised wi-fi access-point**, which provides a wireless connection to the motors, it is possible to provide settings and monitor, in real time, the activity of each hopper.

The configuration menu allows you to calibrate the speed sensor and the distributor volume.

The main screen shows, for each motor, the working speed, the quantity of product distributed per hectare and the hopper status.



App Agri-Motion X-Tend

## Main features

- Application compatible with Android devices (soon also on iOS)
- Improved user experience
- Guided machine configuration
- Possibility of changing the quantity and density of the product being distributed for each motor
- Operating speed indicator
- Seed sensor and distributor calibration
- Partial hectare counter
- Estimate of quantity of product distributed
- Warning and error notifications



## COMING SOON

The new X-Tend kit will also be available alternatively with the **Agri-Motion DMD-2**, a **compact and economical motor for low-power applications**.





# Application portfolio

The **PCS DMD 0** is a rugged brushless motor with integrated electronics and gearbox, developed specifically for agricultural applications.

Thanks to its robustness and its compact design, it can be used on any type of agricultural application where it is necessary to dynamically control a mechanical shaft, a hopper distributor or a seeding disk.

The motor can be controlled through a PCS ECU control unit and the AgriMate touch-screen terminal, or through a mobile device, thanks to the **Agri-Motion PCS W1 App**.

Its great flexibility has allowed to use it in many applications, often carried out independently by our customers. Here are some examples.



### Belt potato planter

Developed by **Kramer (Netherlands)**, it allows to plant potatoes by controlling the distance directly from the terminal of the **PCS 150** system.

**KRAMER**



### 3 row, wireless controlled precision planter

Designed by **Martin Wiethaler (Germany)**, allows to control the planting job by means of the **PCS W1 wireless hopper kit**.

Biogemüsebau  
**WIETHÄLER**



### Vegetable precision planter

Another application from **Kramer (Netherlands)**. It allows to control the whole planting and fertilization process directly from the terminal of the **PCS 200** system. The control of the **individual planting distance** for each planter row allows to maximize the production.

**KRAMER**



### Kongskilde front hopper

Integration carried out by **Zusso Diego S.r.l (Italy)**, it allows to control by smartphone the distribution of granular fertilizer, thanks to the use of the **PCS W1** system.

**ZUSSO DIEGO**



### Sulfur System

This system, developed thanks to the partnership with the company **FertiSystem (Brazil)**, allows to distribute a special sulfur-based fertilizer in an **extremely accurate way**.

FertiSystem<sup>®</sup>  
by AGRIMAC

**Driving precision agriculture**



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