# INSTRUCTION MANUAL AND SAFETY MEASURES

## Z 300 SEEDER



## 1. INTRODUCTION

This instruction manual is intended for people who work with the machine or who perform daily maintenance on the machine.

It must be read carefully before performing work with or on the machine for the first time.

This instruction manual describes how to use the Z300 Seeder, which safety measures to take and how to service and transport the machine.

This instruction manual may include components that are optional extras. Any deviations between the text and/or diagrams in this instruction manual and your machine may, therefore, result from a difference in design. They may also stem from changes as a result of continuous development and innovation.



Not observing the following instructions may result in a dangerous situation and the manufacturer's warranty may become invalid.

#### Explanation of the warning symbols

• Read the instruction manual before using the machine.





• Caution. Rotating parts.

## 2. TECHNICAL NOTICE

- Chassis epoxy painting
- Dimensions 670 large x 1000 long x 800 high, weight 60kgs (300 Liter)
- The blower works with an electric 12 volts motor
- The rotor rolls by an electric motor, five sorts of rotor exist
  - White: slug pellet, insecticide (very small flow)
  - Green: rape, alfalfa, clover, mustard, luzern (small flow)
  - Yellow/stainless: phacelia, radish, mixing seeds (medium flow)
  - Red: rye grass, corn (big flow)
  - Black: cereals (very big flow)
- An electronic control box is included with three switches:
  - To start or stop the blower
  - To start or stop the rotor
  - A handling button with a 0 to 30 graduated scale for the flow, set directly in cabin
- And a green light for working
- The blower blasts the seeds through the flexible pipes of 30 mm
- Two Motors: 12 volts
- Blower motor: 140 watts
- Rotor motor: 100 watts

### 3. FITTING

- Fit the Z300 on the tool chassis, it should be placed on the stubble middle
- Check the solidity of your installation. Position the machine so that there is no danger for the operator being injured while it is being filled
- When fitting the machine on the tool it is essential to install a guard rail
- Install a platform with a handrail and access stairs to allow the hopper to be filled in complete safety
- Use perforated anti-slip metal
- The spreader plates should be fitted so that the seeds fall just behind the ploughshare of the stubble or the discs and before the roll between 30 and 70cm. The spreader plates spread the seeds at a distance between 50 to 1.40m. Small seedsshould be covered by the roll of the stubble. It is necessary to have a slope down for the hoses and avoid reverse slope
- Before working, check that the machine is not electronically connected

### 4. CONNECTION

- Electric thread and control command are included with the Z300
- N°1513 (on technical doc): for starting the blower system
- N° 1514 (on technical doc): for starting the rotor
- The handle button N° 1512 graduated from 0 to 30 to set the electric flow
- Supply protected connection of 30 amperes is necessary
- Connect the red thread with the positive plug + (brown thread) and the blue one with the negative plug -
- Check the blower rolls in the right direction (arrow direction)

### 5. SECURITY RULES

After fitting the Z300 on the tool, check the different points of fixation, all the fixation holes of the chassis should be used to insure a good stability of the Z300 on the tool. Depending on the highness of the fitting you should provide a "passerelle" to access easily to the Z300 with no slipping steps large from 28 to 35cm and high from 50 to 55cm from the ground. To prevent any respiratory problems, please fill and empty the tank with adapted protection (mask...) Before any manual work on the machine plug it off.

### 6. FITTING THE FLOW

The flow is regulated by a rotor working with an electric motor combined with an electronic control command fitted in the cabin which permits the kg/hour set.

A graduated scale regulates the flow. A switch is used for the stop/go set.

As the Z300 is checked, the rotor motor and the blower system work in the right direction. As the hopper is under pressure, use the Z300 with closed hopper.

EMPTYING THE HOPPER: a trap at the rotor end is dedicated for emptying.\*

CHANGING THE ROTOR: unscrew the two buttons, take off the trap, pull the rotor, put in the new rotor with the square side first, then close the trap, and screw the buttons. STOCK THE DRILL COVERED..

### 7. FLOW SET:

The table set is given in flow/hour: Working width x speed x weight/hectare

### 8. USE:

Set flow: the Z300 can be used with any drills or stubbles, it is necessary to have a slope down for the rolls and avoid reverse slope.

Start with the N°1514 + green light.

The set flow is done by the handle button N°1512 on the electronic command box in cabin. The blower works with the N° 1513.

At the end of the field stop the sow with the button in cabin N°1514 (let the blower works). The Z300 is an electric tool, the flow is calculated by hour. Width work multiplied by the speed equal to an hour sowing surface. Take the hour sowing surface and multiply it to the weight per hectare.

Take the table set.

#### Examples:

N°1: sowing density 0.95: green rotor. For a 6 row drill, width work 4.80 metres, distance between spreader plates 80 cm, and a sowing speed of 4km/hour: 4.80m x 4 km/hour =1.92 ha/hour. Weight per hectare wanted: 10 kg Sowing surface:  $1.92 \text{ ha} \times 10 \text{ kg/ha} = 19.2 \text{ kg per hour.}$ Take table set, fit 19.2 kg = number N°2: sowing density 0.95: green rotor. For an 8 row drill, width work 6.40 metres, distance between spreader plates 80 cm, and a sowing speed of 5 km/hour:  $6.40m \times 5 \text{ km/hour} = 3.20 \text{ ha/hour}.$ Weight per hectare wanted: 9 kg. Sowing surface: 3.20 ha x 9 kg/ha = 28.8 kg per hour.Take table set, fit 28.8 kg = number N°3: sowing density 0.65: yellow /stainless rotor. For mustard sowing on stubble, width work 5 metres, speed of 7 km/hour for a 10kg/hectare sowing.  $5m \times 7000m/hour = 35000m^2/hour = 3.5 ha \times 10 kg = 35 kg/hour.$ Take table set, fit 35kg/hour 6 issues, number N°4: sowing density 0.95: yellow /stainless rotor. For mustard sowing on stubble, width work 6 metres, speed of 8 km/hour for a 12kg/hectare

sowing. 6m x 8000m/hour =  $48000m^2$ /hour = 4.8 ha x 12 kg = 57.6 kg/hour. Take table set, fit 57.6kg/hour, number

Before any sowing, calculate the flow by hour, divide it by 60 minutes and check the flow/minute before sowing. You can do the check in fix position with the seeds spread in a bucket.

## 9. HOW TO CHANGE ROTOR DISTRIBUTION



Right fitting of the string.



) Take the string off:

Right fitting of the down string :6H00 Right fitting of the up string : 12H00



2) The string does not press the strips rotor anymore.



3) Unscrew the both buttons to take off the greasing rotor. \*



The greasing rotor and its two buttons.



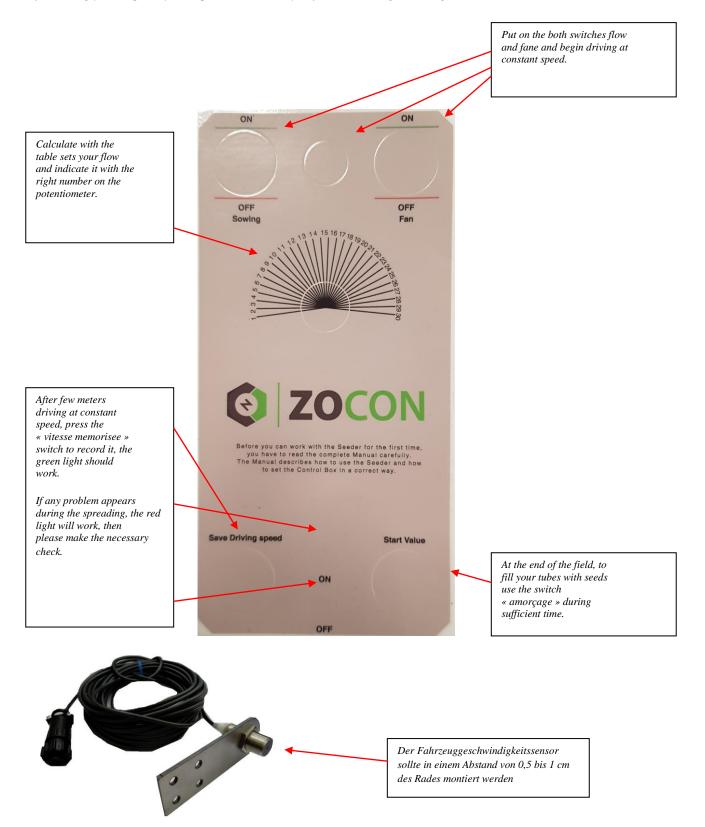
Take off the rotor and change it, be careful with the axe distribution motor connect it well.



The right fitting of the both strips is very important to prevent any problems of flow in the tank. Fit again the greasing rotor, its both buttons and the string

## **10. SENSOR CONTROL**

Before using your captor system, please calculate you flow according to the right table sets.



#### **GREEN ROTOR**

#### YELLOW ROTOR

Speed 1

### Speed 2

### Speed 1

### Speed 2

	Kg /Hour		Kg /Hour		Kg /Hour		Kg /Hour
N°4	5.31Kg	N°4	6.90Kg	N°4	6.64Kg	N°4	8.95Kg
N°5	7.44Kg	N°5	9.67Kg	N°5	7.08Kg	N°5	9.74Kg
N°6	8.50Kg	N°6	11.04Kg	N°6	7.97Kg	N°6	10.63Kg
N°7	9.72Kg	N°7	12.63Kg	N°7	9.74Kg	N°7	12.40Kg
N°8	11.96Kg	N°8	15.55Kg	N°8	11.51Kg	N°8	15.94Kg
N°9	14.27Kg	N°9	18.56Kg	N°9	13.28Kg	N°9	17.71Kg
N°10	17.43Kg	N°10	22.65Kg	N°10	15.94Kg	N°10	21.25Kg
N°11	20.40Kg	N°11	26.52Kg	N°11	18.60Kg	N°11	24.79Kg
N°12	23.99Kg	N°12	31.18Kg	N°12	22.14Kg	N°12	29.22Kg
N°13	29.44Kg	N°13	38.27Kg	N°13	25.68Kg	N°13	34.53Kg
N°14	32.87Kg	N°14	42.74Kg	N°14	29.22Kg	N°14	39.85Kg
N°15	37.79Kg	N°15	48.62Kg	N°15	33.65Kg	N°15	45.16Kg
N°16	39.85Kg	N°16	51.80Kg	N°16	37.19Kg	N°16	50.47Kg
N°17	43.93Kg	N°17	57.11Kg	N°17	40.73Kg	N°17	54.90Kg
N°18	47.73Kg	N°18	62.09Kg	N°18	45.16Kg	N°18	60.21Kg
N°19	50.44Kg	N°19	65.58Kg	N°19	48.70Kg	N°19	65.53Kg
N°20	52.02Kg	N°20	67.63Kg	N°20	52.24Kg	N°20	69.95Kg
N°21	53.13Kg	N°21	69.07Kg	N°21	55.79Kg	N°21	74.38Kg
N°22	53.97Kg	N°22	70.16Kg	N°22	58.44Kg	N°22	77.04Kg
N°23	54.55Kg	N°23	70.90Kg	N°23	61.10Kg	N°23	81.46Kg
N°24	56.45Kg	N°24	73.38Kg	N°24	63.75Kg	N°24	85.89Kg
N°25	57.56Kg	N°25	74.32Kg	N°25	68.18Kg	N°25	91.20Kg
N°26	59.22Kg	N°26	76.98Kg	N°26	70.84Kg	N°26	96.52Kg
N°27	60.32Kg	N°27	78.42Kg	N°27	76.15Kg	N°27	101.83Kg
N°28	63.76Kg	N°28	82.88Kg	N°28	79.69Kg	N°28	107.14Kg
N°29	64.20Kg	N°29	83.46Kg	N°29	84.12Kg	N°29	112.02Kg
N°30	65.89Kg	N°30	85.62Kg	N°30	89.43Kg	N°30	119.54Kg



#### **RED ROTOR**

#### **BLACK ROTOR**

### Speed 1

### Speed 2

### Speed 1

### Speed 2

	Kg /Hour		Kg /Hour		Kg /Hour		Kg /Hour
N°4	15.50Kg	N°4	18.82Kg	N°4	26.56Kg	N°4	38.74Kg
N°5	19.92Kg	N°5	23.24Kg	N°5	30.99Kg	N°5	44.27Kg
N°6	24.35Kg	N°6	28.77Kg	N°6	38.74Kg	N°6	56.45Kg
N°7	28.77Kg	N°7	34.31Kg	N°7	43.16Kg	N°7	63.09Kg
N°8	33.21Kg	N°8	39.85Kg	N°8	48.70Kg	N°8	69.73Kg
N°9	37.63Kg	N°9	44.27Kg	N°9	58.66Kg	N°9	84.12Kg
N°10	42.06Kg	N°10	49.81Kg	N°10	69.73Kg	N°10	99.62Kg
N°11	46.49Kg	N°11	55.34Kg	N°11	79.69Kg	N°11	115.11Kg
N°12	50.92Kg	N°12	60.88Kg	N°12	90.76Kg	N°12	130.61Kg
N°13	54.79Kg	N°13	64.19Kg	N°13	101.83Kg	N°13	146.10Kg
N°14	58.66Kg	N°14	69.73Kg	N°14	112.90Kg	N°14	161.60Kg
N°15	62.53Kg	N°15	74.16Kg	N°15	123.97Kg	N°15	177.10Kg
N°16	66.41Kg	N°16	79.69Kg	N°16	133.93Kg	N°16	192.59Kg
N°17	70.28Kg	N°17	81.91Kg	N°17	145.00Kg	N°17	208.10Kg
N°18	74.16Kg	N°18	87.44Kg	N°18	156.07Kg	N°18	223.59Kg
N°19	77.48Kg	N°19	89.65Kg	N°19	166.00Kg	N°19	327.98Kg
N°20	80.80Kg	N°20	95.19Kg	N°20	174.88Kg	N°20	251.26Kg
N°21	84.12Kg	N°21	98.51Kg	N°21	184.85Kg	N°21	264.54Kg
N°22	87.44Kg	N°22	68.62Kg	N°22	193.70Kg	N°22	277.82Kg
N°23	90.76Kg	N°23	105.15Kg	N°23	199.24Kg	N°23	284.46Kg
N°24	94.08Kg	N°24	109.58Kg	N°24	212.52Kg	N°24	304.39Kg
N°25	97.40Kg	N°25	112.90Kg	N°25	221.37Kg	N°25	317.67Kg
N°26	100.72Kg	N°26	117.33Kg	N°26	230.23Kg	N°26	329.85Kg
N°27	104.04Kg	N°27	120.65Kg	N°27	237.98Kg	N°27	340.92Kg
N°28	107.36Kg	N°28	125.07Kg	N°28	236.87Kg	N°28	350.88Kg
N°29	110.68Kg	N°29	129.50Kg	N°29	251.26Kg	N°29	359.73Kg
N°30	114.00Kg	N°30	132.82Kg	N°30	257.90Kg	N°30	368.59Kg

