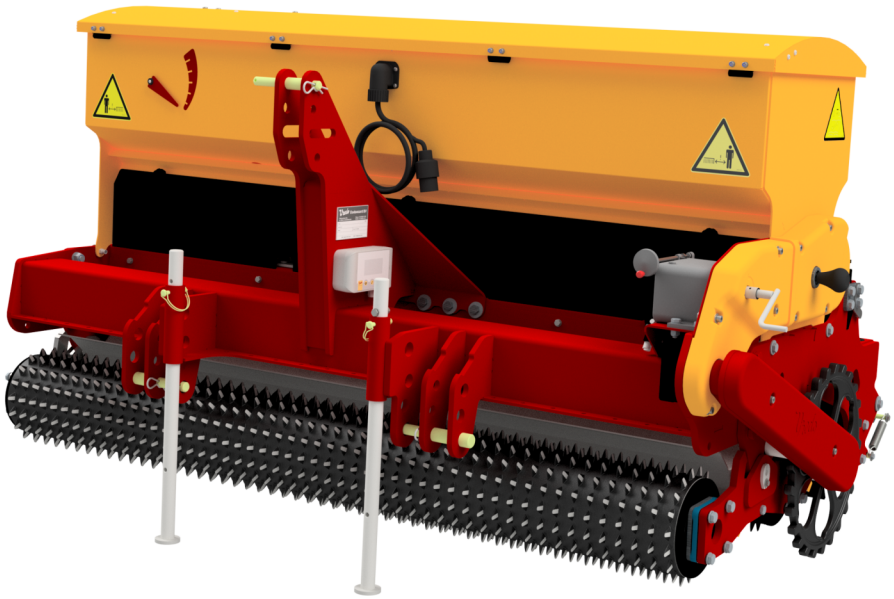
STITCH compact

Operator Manual



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Vredo
The fieldcare company

OPERATOR MANUAL

DZ5 - STITCH COMPACT

Manufacturer:

VREDO Dodewaard B.V.
Welysestraat 25a
6669 DJ DODEWAARD
PO Box 35
6670 AA ZETTEN
The Netherlands
Telephone:+31 (0)488 411 254
Fax: +31 (0)488 412 471
Email: info@vredo.nl
Internet: www.vredo.nl

Importer/dealer (stamp)

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2 Preface

This DZ5 Stitch compact Operator Manual has been prepared for the machine's user and/or operator and provides all necessary instructions for the general operation, functioning, and daily and regular maintenance.

This manual forms an integral part of the machine. If the machine is sold or traded in, this manual must be handed over to the new owner.

Aside from the usual instructions in this Operator Manual, there are no other instructions for example for complex repairs or other specific actions of this kind. For any repair work (see note), always consult an official or authorised VREDO dealer.

NOTE
All work, including maintenance, modifications, installations or any other work whatsoever, may only be carried out by certified, authorised and properly trained mechanics qualified by VREDO Dodewaard B.V.

2.1 General warnings and points of attention

This manual also identifies necessary areas for attention and safety measures. To avoid hazardous situations, it is important that marked descriptions are followed seriously. There is a distinction between the following points of attention:

DANGER!
This symbol warns of a hazardous situation that could result in immediate death or serious injury.

WARNING!
This symbol warns of a hazardous situation that could result in serious injury or even death.

CAUTION!
This symbol warns of a hazardous situation that could result in minor or moderate injury.

ATTENTION!
This symbol is a general warning. You are expected to remain alert.

TIP/ADVICE
This symbol gives the user a tip or useful advice.

3 Introduction

This Operator Manual should be read carefully before the overseeder is put into use, so that the user/operator is thoroughly familiar with its workings, operation and maintenance. This Operator Manual does not deal with repairs.

This Operator Manual contains an overview of the overseeder series together with the most important components and their respective names. In addition, a description and explanation are provided for most components, including their purpose and how they should be used.

This Operator Manual applies to the following overseeder models:

Overseeder Model	Operating width (m)	Configuration
DZ5 Stitch compact 100	0.93	Two tine rollers + pressure roller
DZ5 Stitch compact 140	1.35	Two tine rollers + pressure roller
DZ5 Stitch compact 180	1.77	Two tine rollers + pressure roller
DZ5 Stitch compact 220	2.2	Two tine rollers + pressure roller
For additional information see: Specifications		

3.1 Target groups

The target groups and/or the users or operators of the overseeders include contracting companies, contractors, field managers, greenkeepers, gardeners and landscapers. The user and/or operator is a person who has had demonstrable agricultural or other pertinent training and has expertise in the operation and functioning of various agricultural machines.

They are also familiar with the functioning and operation of towing vehicles with or without coupled machines.

3.2 The user

Users must have a valid driver's license for the applicable tractor or tractor-overseeder combination, in accordance with the road traffic legislation applicable in the relevant country.

While working with or while performing maintenance on the overseeder, users must wear suitable clothing in accordance with EU regulation 2016/425, as well as Class S2 or S3 safety shoes in accordance with NEN-EN 345-1.

3.3 Description of the overseeder

The DZ5 Stitch compact is provided with two rows of tine rollers, and a pressure roller.

In the DZ5 Stitch compact, the grass seed is dosed according to the ‘full field’ principle, which means there is no predefined sowing distance, but that the grass seed is dosed evenly over the total operating width of the machine.

This type of overseeder is primarily used for full new reseeding, for example of sports fields, or for regular overseeding in the autumn when cutting into the turf is no longer desired.

The machine can be used with a wide range of grass seeds, including seeds with a dry coating.

4 Specifications

4.1 Technical specifications

Overseeder Model	Operating width (m)	Configuration
DZ5 Stitch compact 100	0.93	Two tine rollers + pressure roller
DZ5 Stitch compact 140	1.35	Two tine rollers + pressure roller
DZ5 Stitch compact 180	1.77	Two tine rollers + pressure roller
DZ5 Stitch compact 220	2.2	Two tine rollers + pressure roller

Table 1 - Operating widths

Overseeder Model	Seed dosage	Seed hopper volume (l)	Weight (kg)
DZ5 Stitch compact 100	Full field	167	585
DZ5 Stitch compact 140	Full field	238	743
DZ5 Stitch compact 180	Full field	309	902
DZ5 Stitch compact 220	Full field	380	1060

Table 2 - Seed dosage, hopper volume and machine weight

Overseeder Model	Optional weights
DZ5 Stitch compact 100	16 x 20 kg
DZ5 Stitch compact 140	22 x 20 kg
DZ5 Stitch compact 180	28 x 20 kg
DZ5 Stitch compact 220	36 x 20 kg

Table 3 - Optional weights

4.2 Technical dimensions

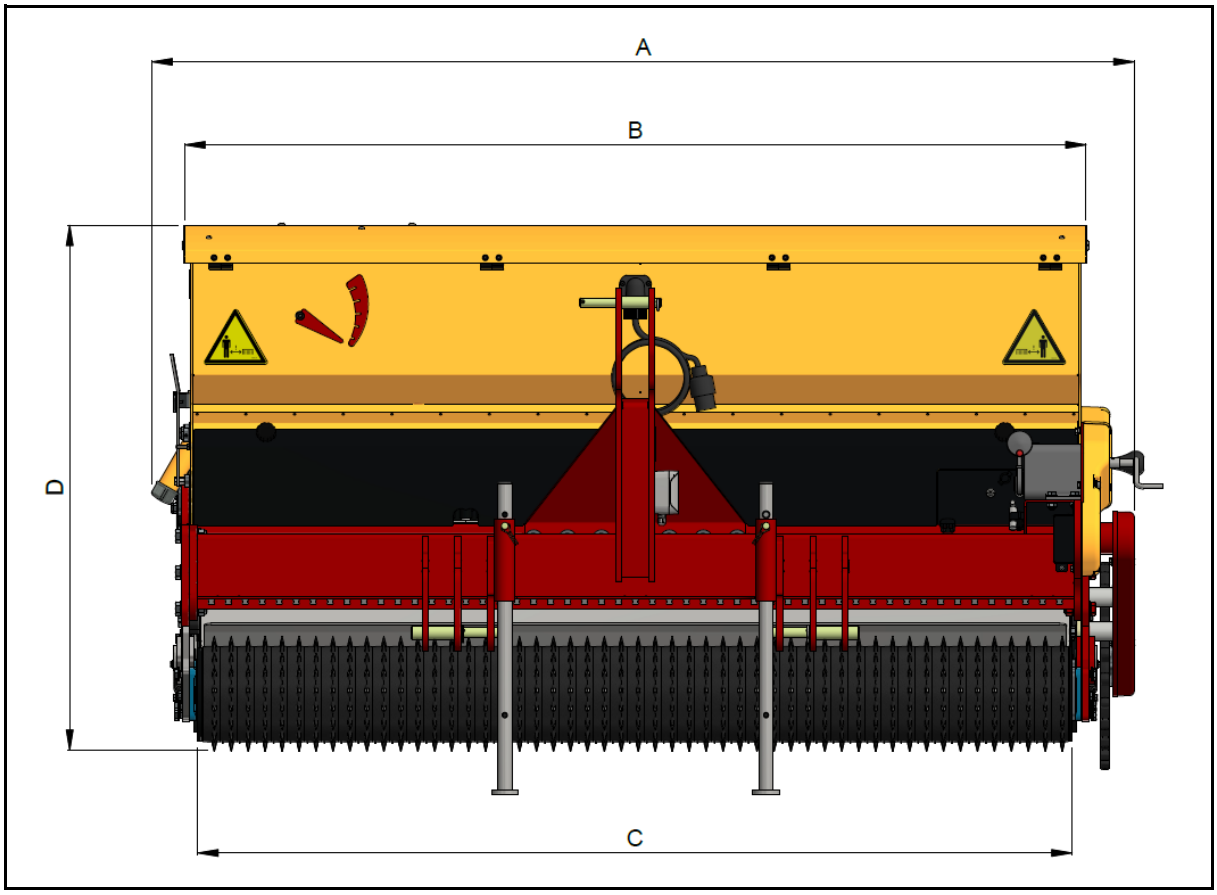

Figure 1 - DZ5 Stitch compact dimensions, front view

Sizes	Overseeder Model	Dimensions in mm
Dimensions are **reference dimensions**		**A B C D**
A-B-C-D	DZ5 Stitch compact 100	1187 x 1024 x 964 x 1085
A-B-C-D	DZ5 Stitch compact 140	1607 x 1444 x 1384 x 1085
A-B-C-D	DZ5 Stitch compact 180	2027 x 1864 x 1804 x 1085
A-B-C-D	DZ5 Stitch compact 220	2447 x 2284 x 2224 x 1085

Table 4 - Dimensions of DZ5 Stitch compact, front view

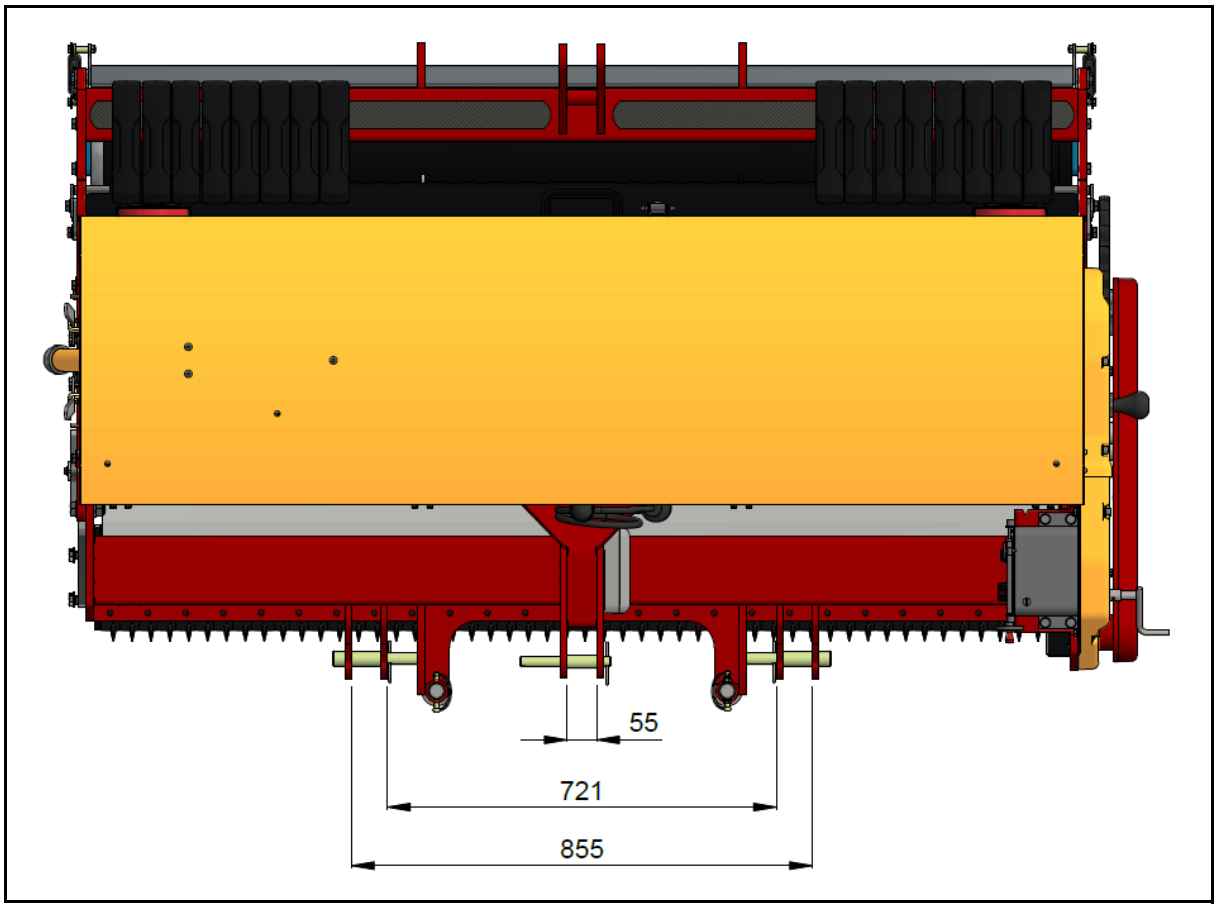

Figure 2 - Dimensions of DZ5 Stitch compact, top view

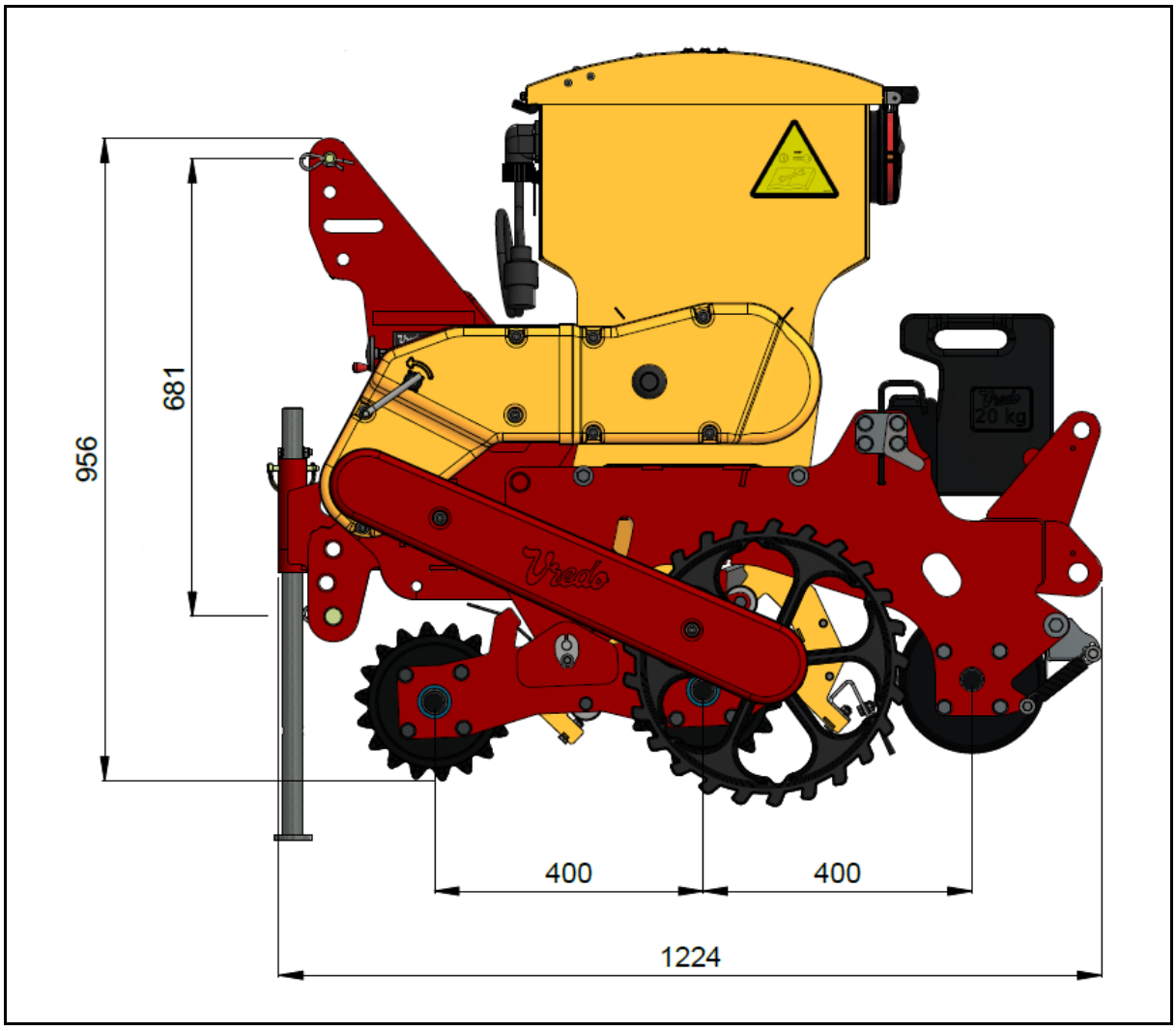

Figure 3 - Dimensions of DZ5 Stitch compact, side view

5 Safety Instructions

To be able to work safely and comfortable with the DZ5 Stitch compact, it is important to always take a number of essential safety instructions fully into account.

section 6 gives an overview of the warning stickers present on the machine together with the corresponding explanations.

- Replace damaged or illegible stickers on the machine.
- Keep all stickers with safety instructions and directions free from mud and dirt.
- Always stay away from moving parts while the machine is in operation.
- If the machine does require minor maintenance, make sure that towing vehicle is entirely shut down.
- Before performing any minor activities, always carefully read the Operator Manual first.
- All repairs and maintenance may only be performed by recognised, Vredo-trained service mechanics or dealers.
- Do not perform any activities in the vicinity of moving parts. Always make sure the machine has been shut down.
- Always use the right tools when performing any minor maintenance work.

DANGER!
This symbol warns of a hazardous situation that could result in immediate death or serious injury.

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This symbol warns of a hazardous situation that could result in minor or moderate injury.

6 Warning stickers

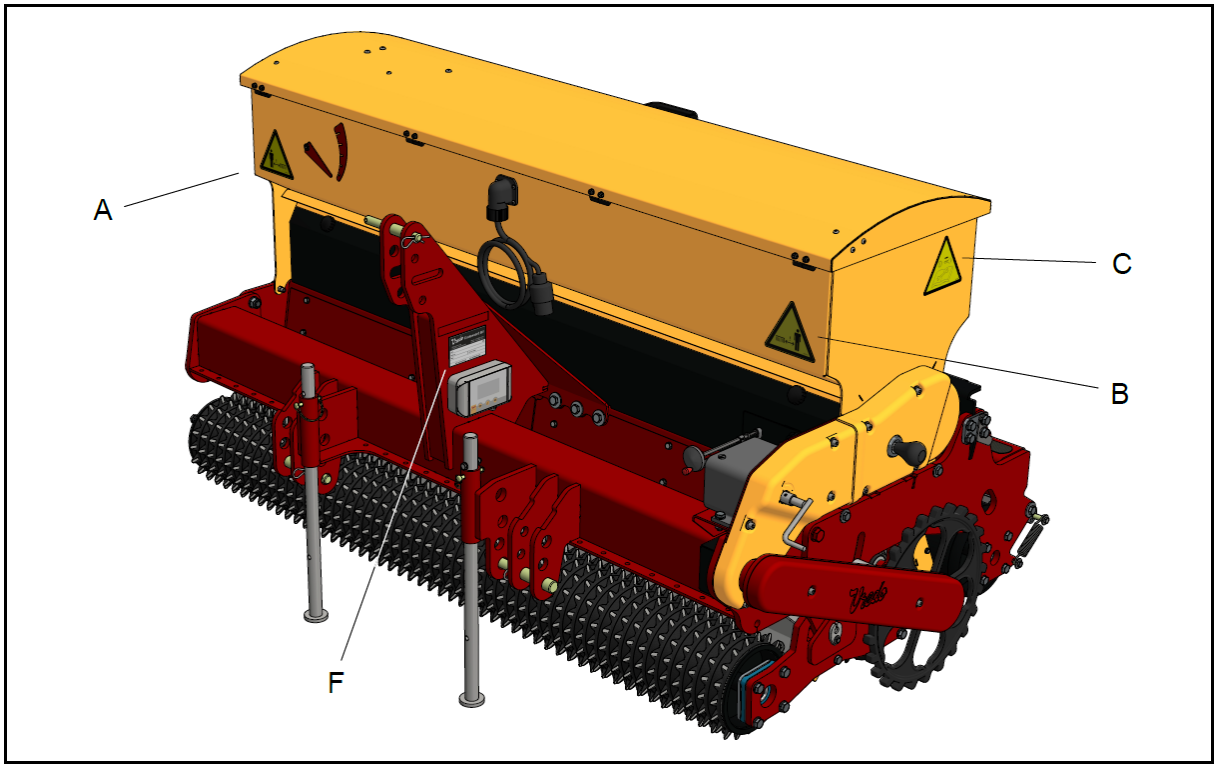


Figure 1 - Sticker location on linkage side, left side view

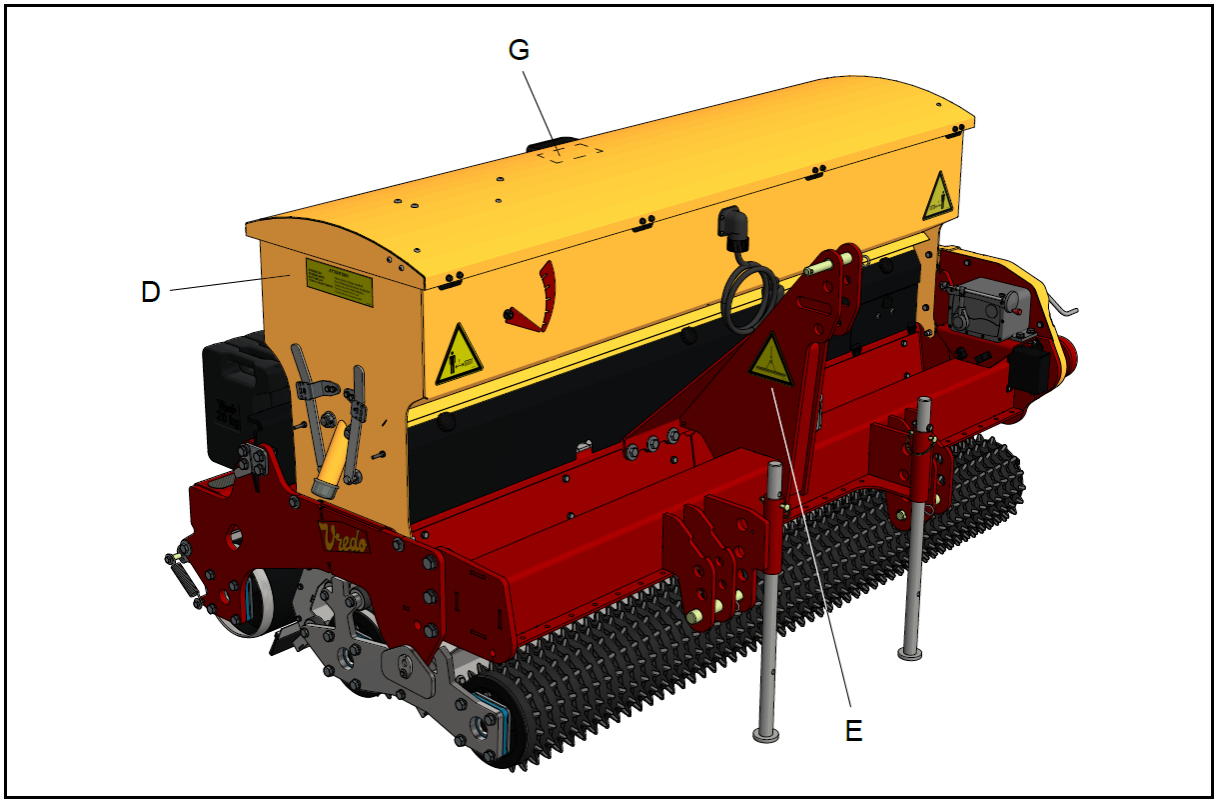
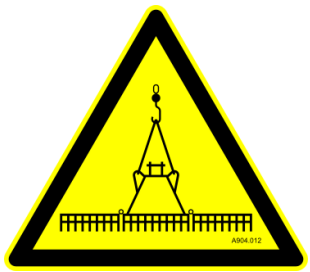


Figure 2 - Sticker location on linkage side, right side view

Type of warning sticker	Explanation	Location
	Maintain sufficient distance from the over-seeder to prevent accidents.	A
	Maintain sufficient distance from the over-seeder to prevent accidents.	B
	Remove the ignition key from the ignition of the towing vehicle before carrying out any maintenance work on the overseeder. Always consult the Operator Manual.	C
	Only close bottom flap when hopper is empty.	D
	Lifting recommendation for the overseeder. The overseeder can be hoisted with the aid of a chain attached to the top link assembly.	E

Type of warning sticker	Explanation	Location
	Standard machine nameplate with model type, serial number, weight and year of manufacture.	F
	Do not reverse or make any turns when the overseeder is in operation. (This sticker is located under the seed hopper cover)	G

7 General components

This section describes the most important components with the aid of the following illustrations and explanatory tables. Descriptions and explanations of the function and operation of a number of components are also provided.

7.1 Construction of the DZ5 Stitch compact

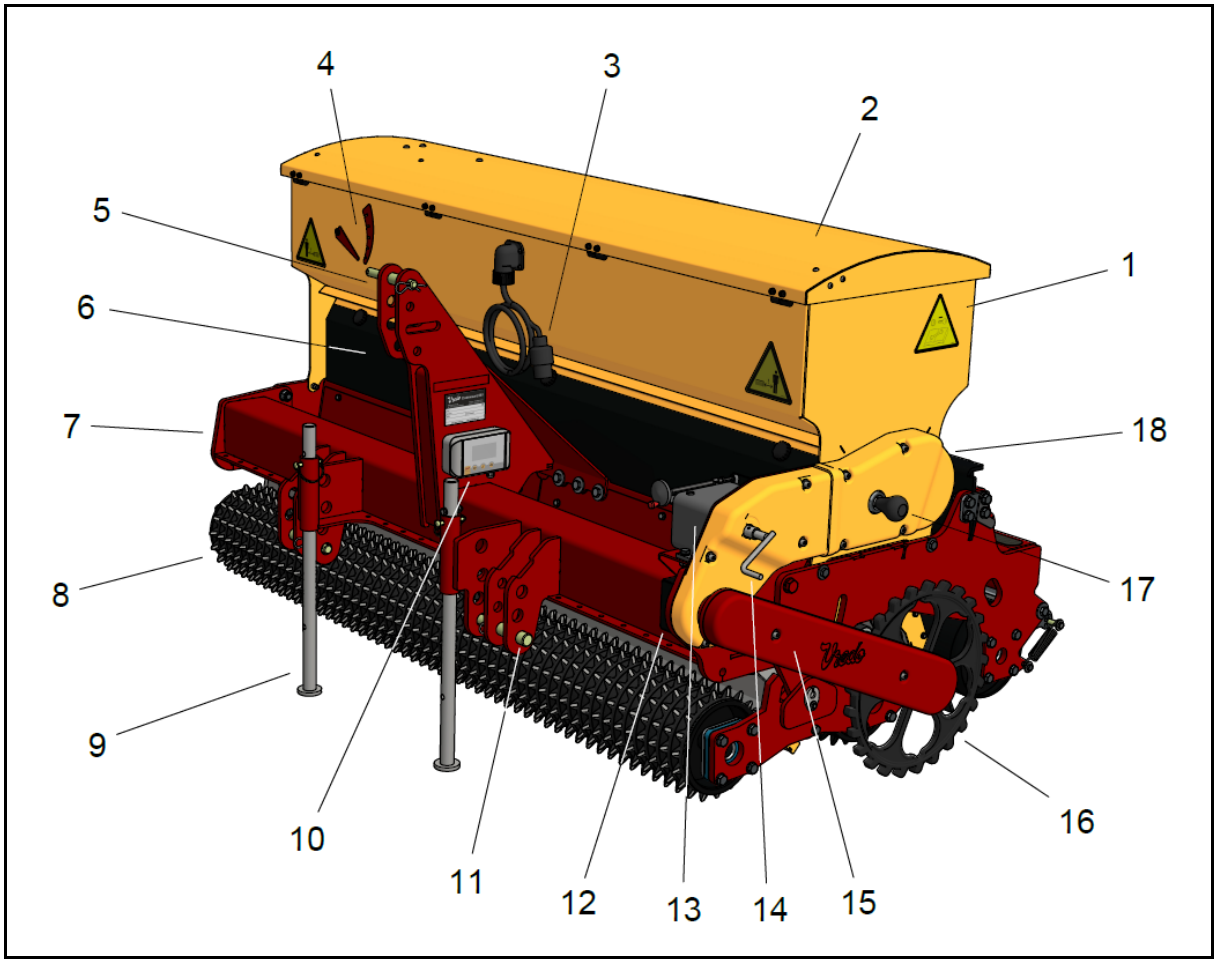


Figure 1 - DZ5 Stitch compact, front view

Item	Name
1	Seed hopper
2	Seed hopper cover
3	7-pin connection plug for rear lights
4	Seed level indicator
5	3-point hitch receiver for the top link assembly

Item	Name
6	Wind screen
7	Frame
8	Tine roller (2x)
9	Support leg
10	Digital acre counter
11	3-Point hitch receiver
12	Cover of the pulse generator for the acre counter
13	Variator
14	Calibration crank
15	Support wheel mount
16	Support wheel
17	Seeding axle release
18	Protective covers for sowing drive

Table 1 - DZ5 Stitch compact components, front view

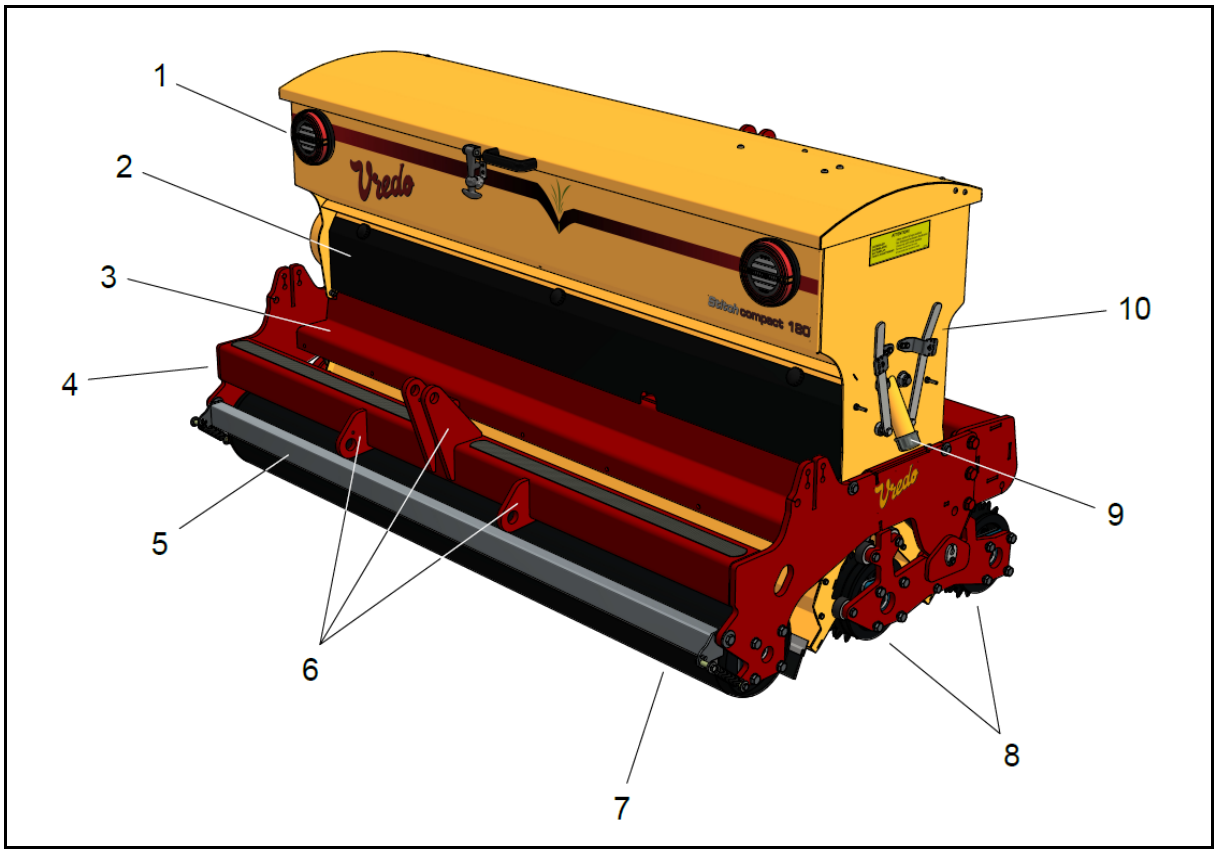


Figure 2 - DZ5 Stitch compact, rear view

Item	Name
1	Rear lights for use on the public road
2	Wind screen
3	Beam for profiled weight holder
4	Beam for 3-point mounting of wheel set
5	Roller scraper
6	3-point mounting for a wheel set (only for machines from 1.4 metres and larger)
7	Pressure roller
8	Tine roller (2x)
9	Outlet tube
10	Bottom flap handles

Table 2 - DZ5 Stitch compact components, rear view

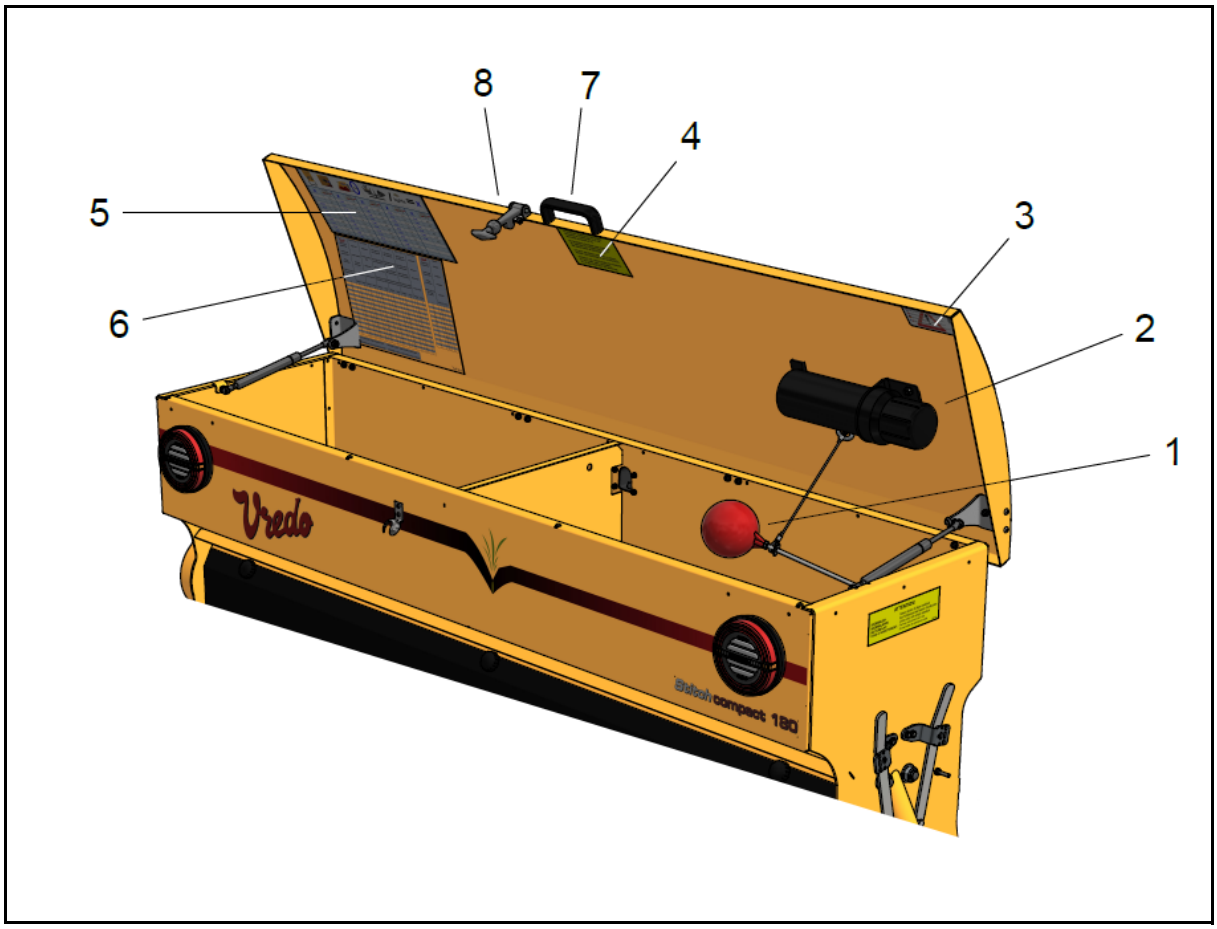


Figure 3 - DZ5 Stitch compact cover open

Item	Name
1	Float
2	Document holder
3	Registration sticker
4	Warning sticker ‘Do not reverse or make any turns when the machine is in operation’
5	Sowing table
6	Sticker with DZ5 Turf DUO basis table
7	Handle
8	Closure of seed hopper cover

Table 3 - DZ5 Stitch compact components cover open

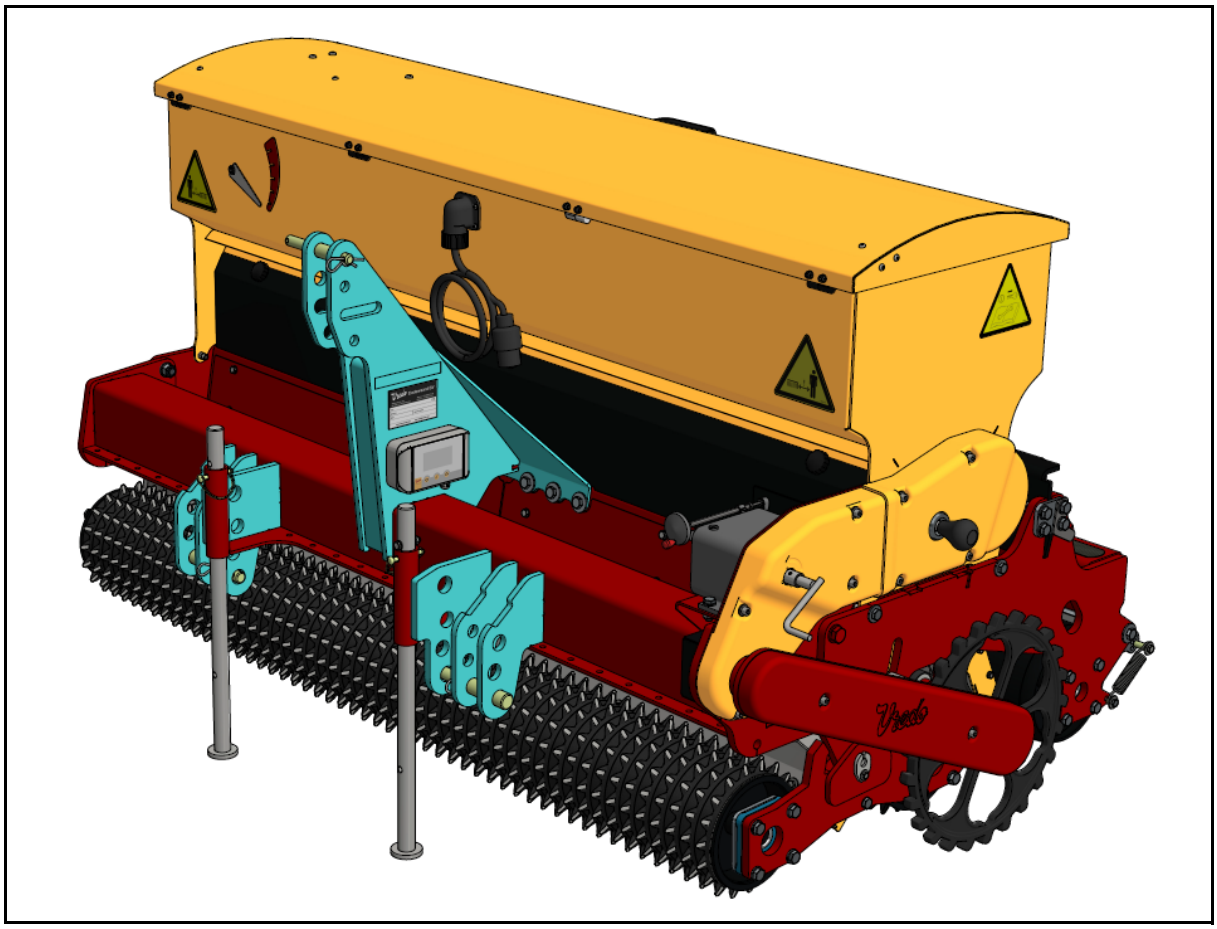


Figure 4 - 3-point hitch receiver

8 Controlls

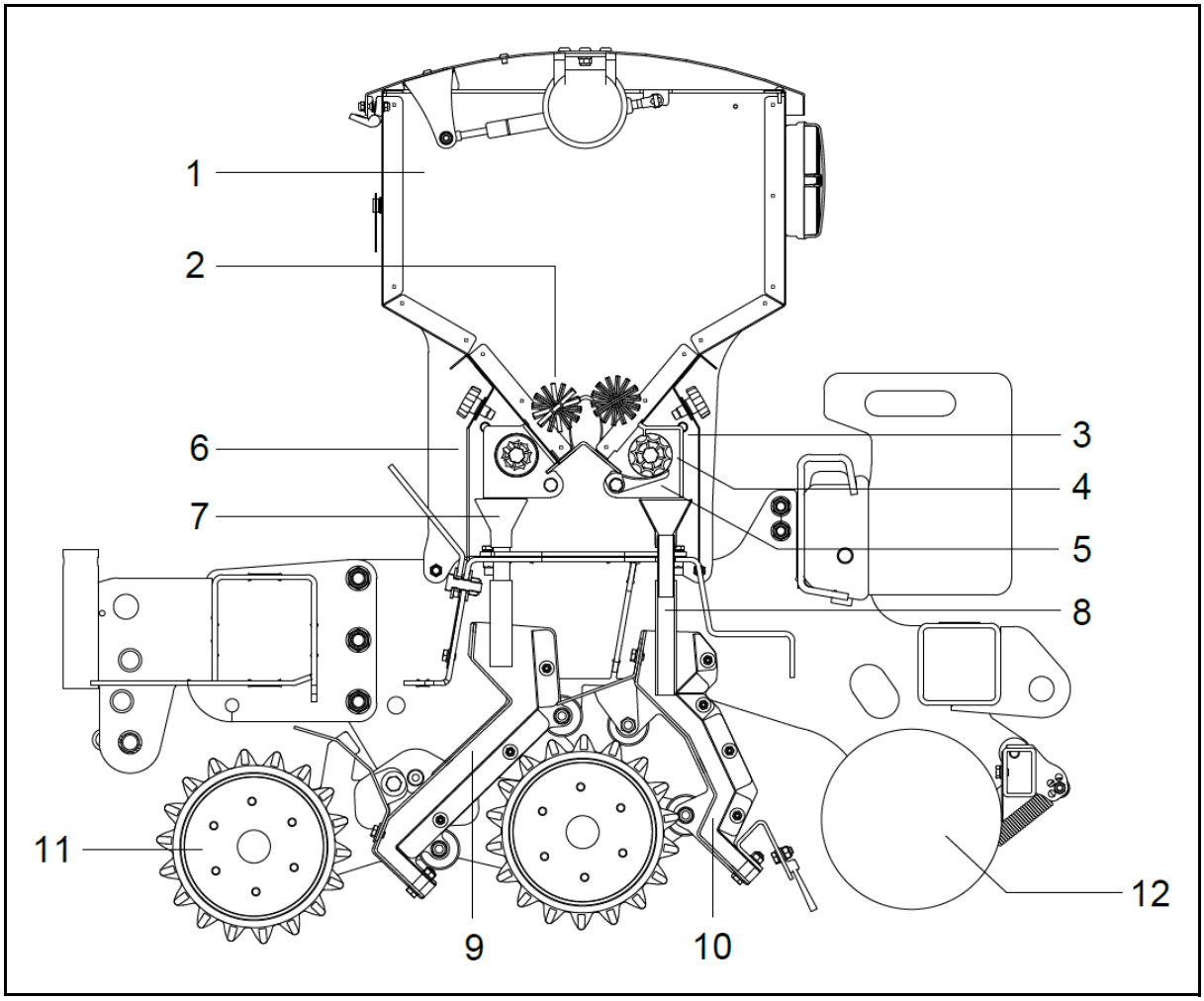


Figure 1 - Controlls of the DZ5 Stitch compact compact

Figure 1 shows an overview of the most important controlls of the DZ5 Stitch compact, presented according to their function in order to explain the general design of the machine.

The part numbers are explained further according to Table 1 "Description of the controlls".

Item	Name	Description
1	Seed hopper	The seed hopper varies in width for the 1.0m - 1.4m - 1.8m - 2.2.m models. The dimensions of the seed hopper depend on the operating width of the machine and therefore also have different volume capacities. The seed hopper has a cover with two sowing tables affixed on the inside. A table with information to adjust the variator by means of a calibration test, and a second table for standard settings per grass seed type.
2	Agitator shaft	The agitator shaft is located at the bottom of the seed hopper and is fitted along its full length with a series of dowel pins that each in turn is attached to the shaft at a specific angle. When the seed hopper is filled with grass seed, the agitator shaft rotates during the sowing process thus keeping the grass seed in motion. The agitator shaft is important to prevent ‘bridges’ forming and to create a constant flow of grass seed on the cam wheel. This type of motion is necessary because different types of grass seed can stick together inside the grass hopper, which can adversely affect the effectiveness of the sowing process.
3	Dosing system	A number of plastic dosing systems are mounted inside the overseeder. Depending on the width, there is a seeding-axle with a cam wheel mounted on it for each dosing sytem. During the sowing process, the seed is dosed to the seed funnel via the cam wheel and the bottom flap.
4	Cam wheel	The cam wheel is mounted on the seeding-axle and is enclosed inside the seed dosage body. During the sowing process, the rotation of the cam wheel will uniformly dose the seed, after which it ends up in the seed funnel by way of the bottom flap.
5	Bottom flap	Each seed dosage body contains a bottom flap, which is mounted on an adjustable shaft. During the sowing process, the grass seed dosed by the cam wheel will fall onto the bottom flap after which it will fall from the bottom flap into the seed funnel.
6	Wind screen	The wind screen is intended to keep the inside as dry and clean as possible during the sowing process while driving under various weather conditions so the seed is not adversely affected.

Item	Name	Description
7	Funnel	The funnel is located below the dosing system. The funnel is connected to the seed hose which goes to the distribution box.
8	Seed hose	The seed hose is connected to the funnel and goes to the distribution box. The grass seed enters the seed hose through the funnel, and during the sowing process the grass seed will go through the distribution box to land on the prepared soil.
9	Distribution box, front	The front distribution box is located between the two tine rollers directed towards the soil. This transports the grass seed.
10	Distribution box, rear	The rear distribution box is located between the Cambridge roller and the pressure roller directed towards the soil. This transports the grass seed.
11	Tine rollers	The machine has two tine rollers. While driving, the two tine rollers create a pattern of holes in the soil over the full operating width. The pattern of holes is then seeded with grass.
12	Pressure roller	Finally, the pressure roller is used to close the seeded soil.

Table 1 - Description of the controlls

9 Working with the DZ5 Stitch compact

9.1 The seeding principle

This overseeder has two tine rollers. For overseeders with cutting discs, the depth must be set, but this does not apply to the DZ5 Stitch compact.

If the calibration has been done correctly, the seeding or overseeding can begin. When the seed hopper is filled with grass seed, the two tine rollers prepare the soil and the grass seed is dosed into the soil in the same pass. After dosing the grass seed, finally the pressure roller will flatten the soil to cover the grass seed dosed into the soil.

9.2 Information about the calibration test

To prepare the DZ5 Stitch compact for use, it is calibrated beforehand. This is called the calibration test. For this example, English ryegrass is used with a seeding density of 80 kg/ha. This means that 80 kg English ryegrass seed is used for seeding or overseeing 1ha (100m x 100m).

TIP: During the calibration test, the calibration tray, which is placed behind the inspection hatch, is used. To weigh out the weight of the grass seed accurately, it is best to use a digital kitchen scale.

First weigh the calibration tray and set the scale to “0 grams”. Place the calibration tray back in the machine and perform the calibration test. Once the calibration test is complete, the calibration tray can be weighed together with the quantity of grass seed caught. The advantage is that no tray or other collection item is needed to catch the grass seed.

TIP: There is a standard statement of the weight of the calibration tray on the bottom of the calibration tray if you do not have a digital scale.

Furthermore, there are two tables that give values for setting the variator.
Table 1 - is used to set the variator during the calibration test. Table 2 - gives indicative values if a calibration test is not done, but the type of grass seed in relation to the number of kg per hectare is used.

NOTE
Always fill the seed hopper with 5% more grass seed than is needed for the area. To ensure optimal distribution/dosing of the seed, the agitator shafts must always be covered with grass seed during sowing.

9.3 Calibration

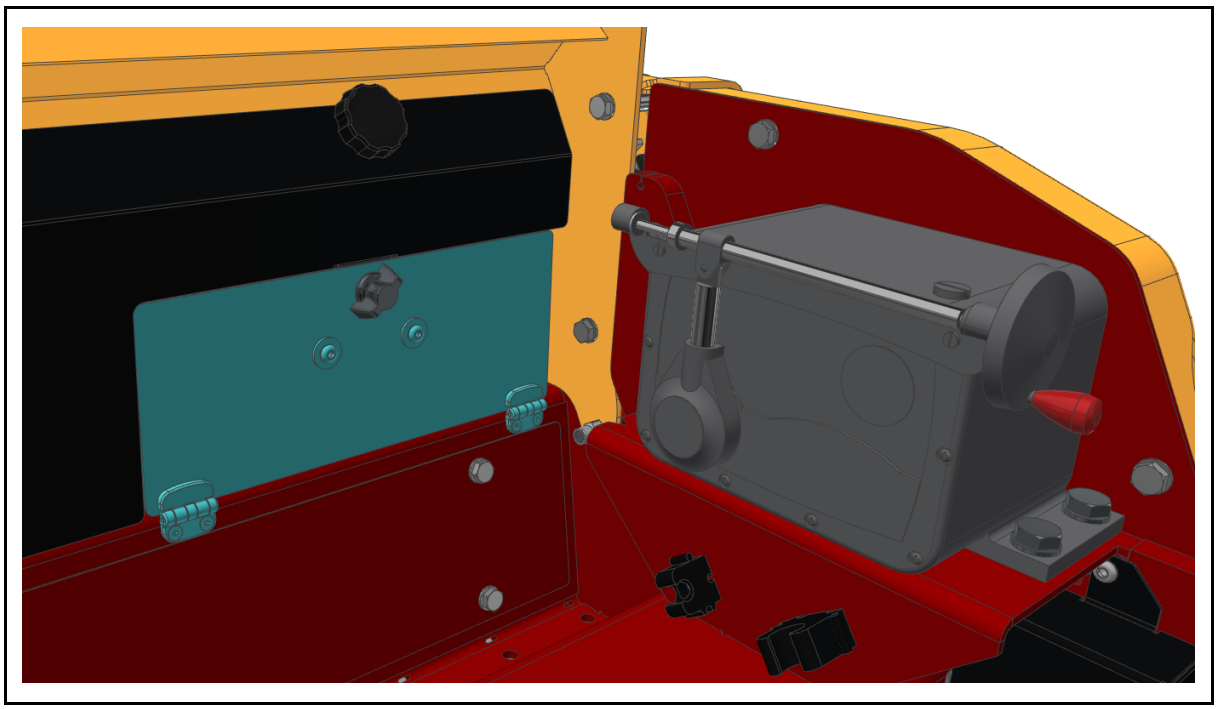


Figure 1 - Inspection hatch location

- For this example, fill the seed hopper with English ryegrass seed.
- Walk to the front of the machine and open the inspection hatch.

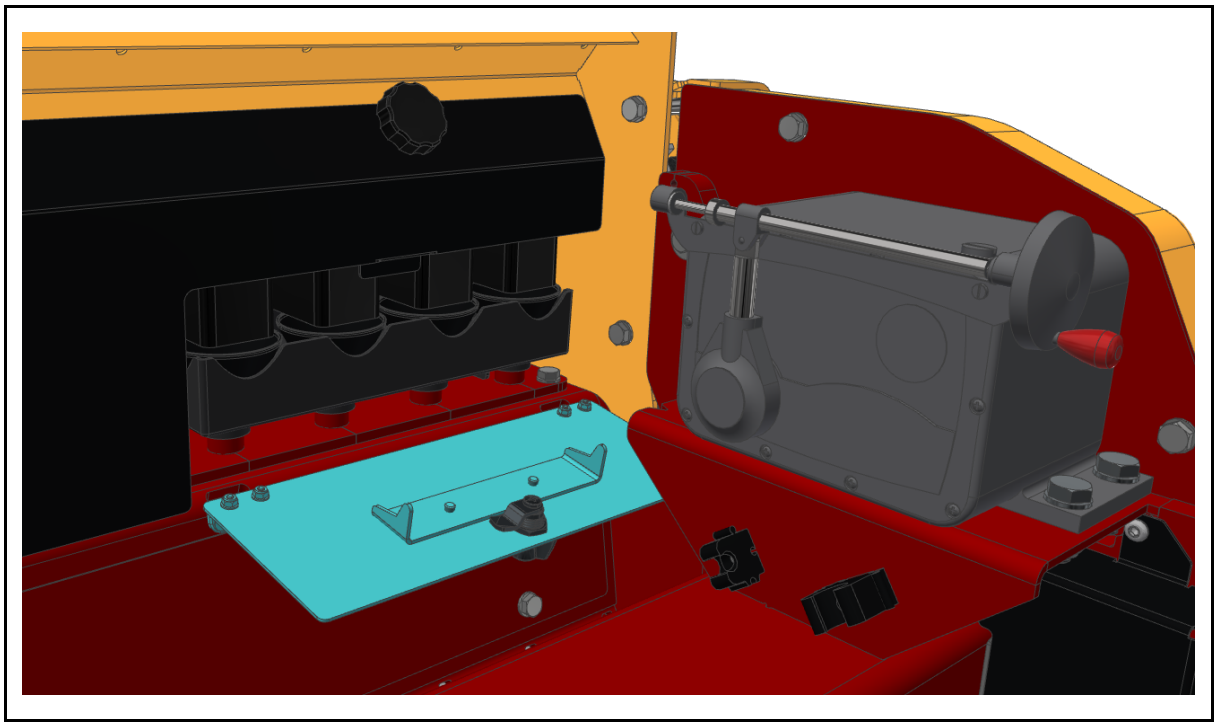


Figure 2 - Inspection hatch opened

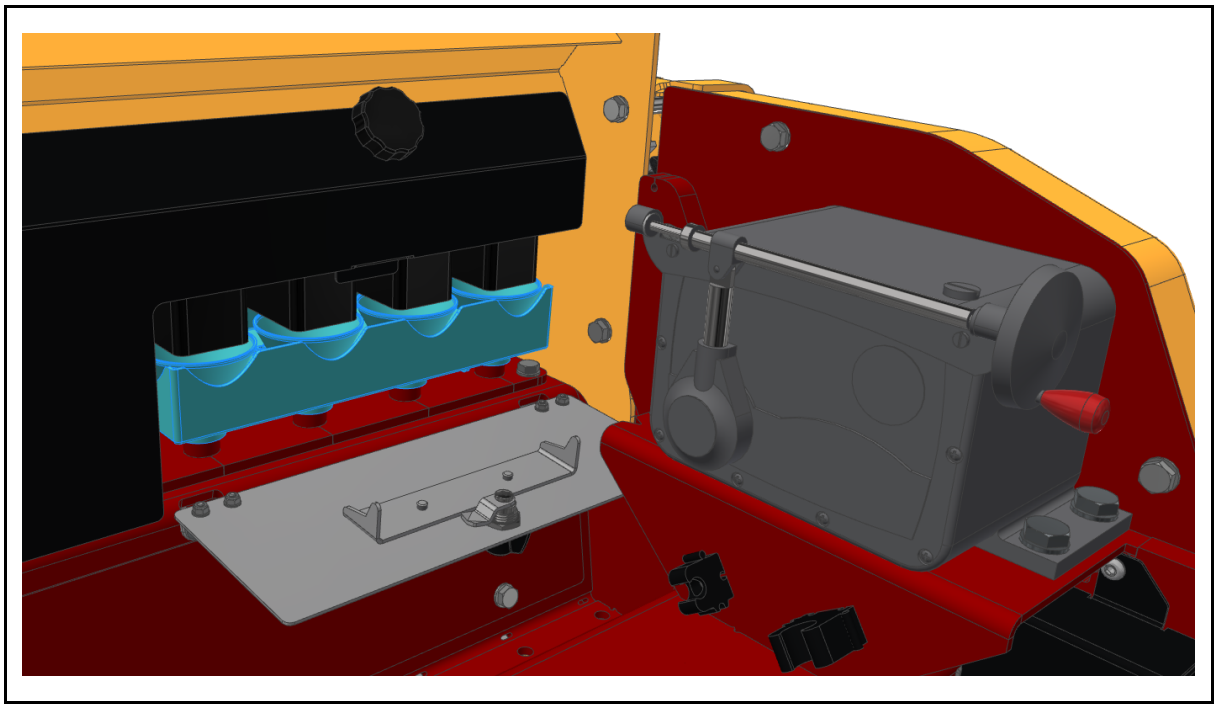


Figure 3 - Calibration tray location

- Check that the calibration tray is present.

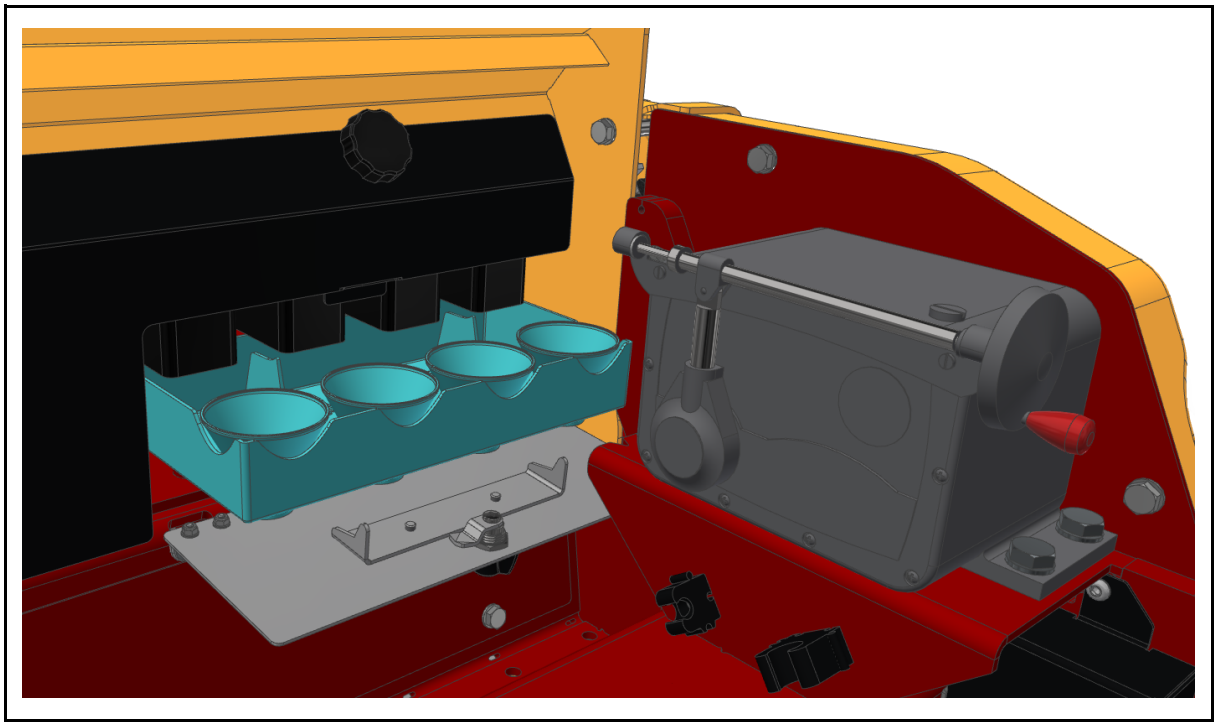


Figure 4 - Removing the calibration tray

- Slide out the calibration tray about 10 cm until the four (4) funnels are clearly visible.

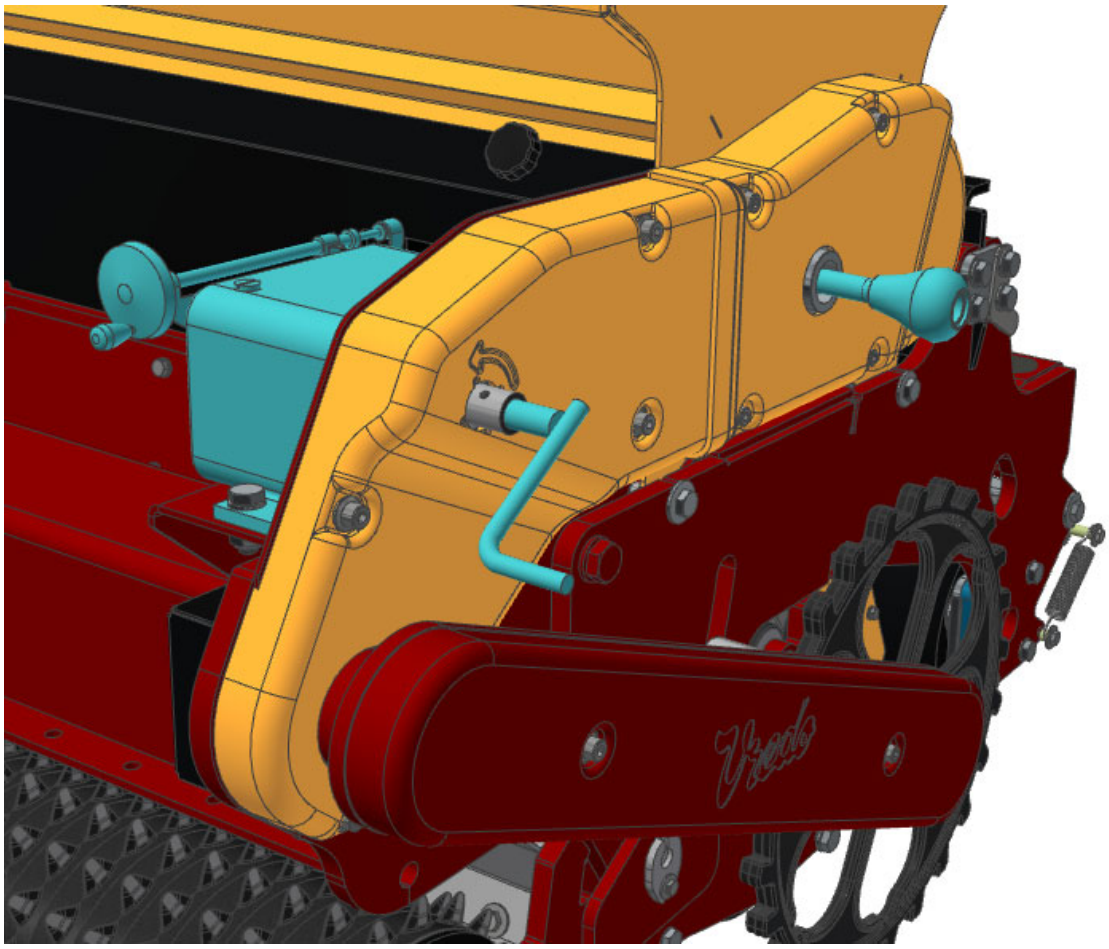


Figure 5 - Location of calibration control elements

- Pull the seeding-axle release outwards.
- Remove the calibration handle under the variator from the holder and place it in the holder at the side of the frame.
- Then turn the calibration crank 10 turns anticlockwise (left) so the dosing systems and cam wheels are filled with grass seed.
- Empty the calibration tray and repeat the previous step.
- After calibration, remove the calibration tray from the machine and weigh the quantity of grass seed collected. Note the weight.
- Throw the grass seed back into the seed hopper and place the calibration tray back in the machine and close the inspection hatch.
- Push the seeding-axle release back into the machine.
- Remove the calibration handle and place it back into the holder under the variator.

Now that the calibration test has been completed and the quantity of grass seed collected is known in grams, consult the upper table located on the inside of the cover.

Suppose that 110 grams of grass seed was weighed during calibration: the setting value of the variator for good dosing is then determined using a formula.

FORMULA: x grams grass seed / x kilogram/hectare = Set value of the variator

It was noted in this section that English ryegrass seed would be used for this example. The recommended dosing per hectare was **80kg**. In formula form, this becomes:

FORMULA: 110 grams grass seed/80 kilogram/hectare = 1.375

This dimensionless value must be approached as closely as possible using Table 1 -. According to the table, the value 1.375 in the second column is between 1.32 and 1.41. This would mean that the set value for the variator is between 1.7 and 1.8 (see figure Figure 6 -).

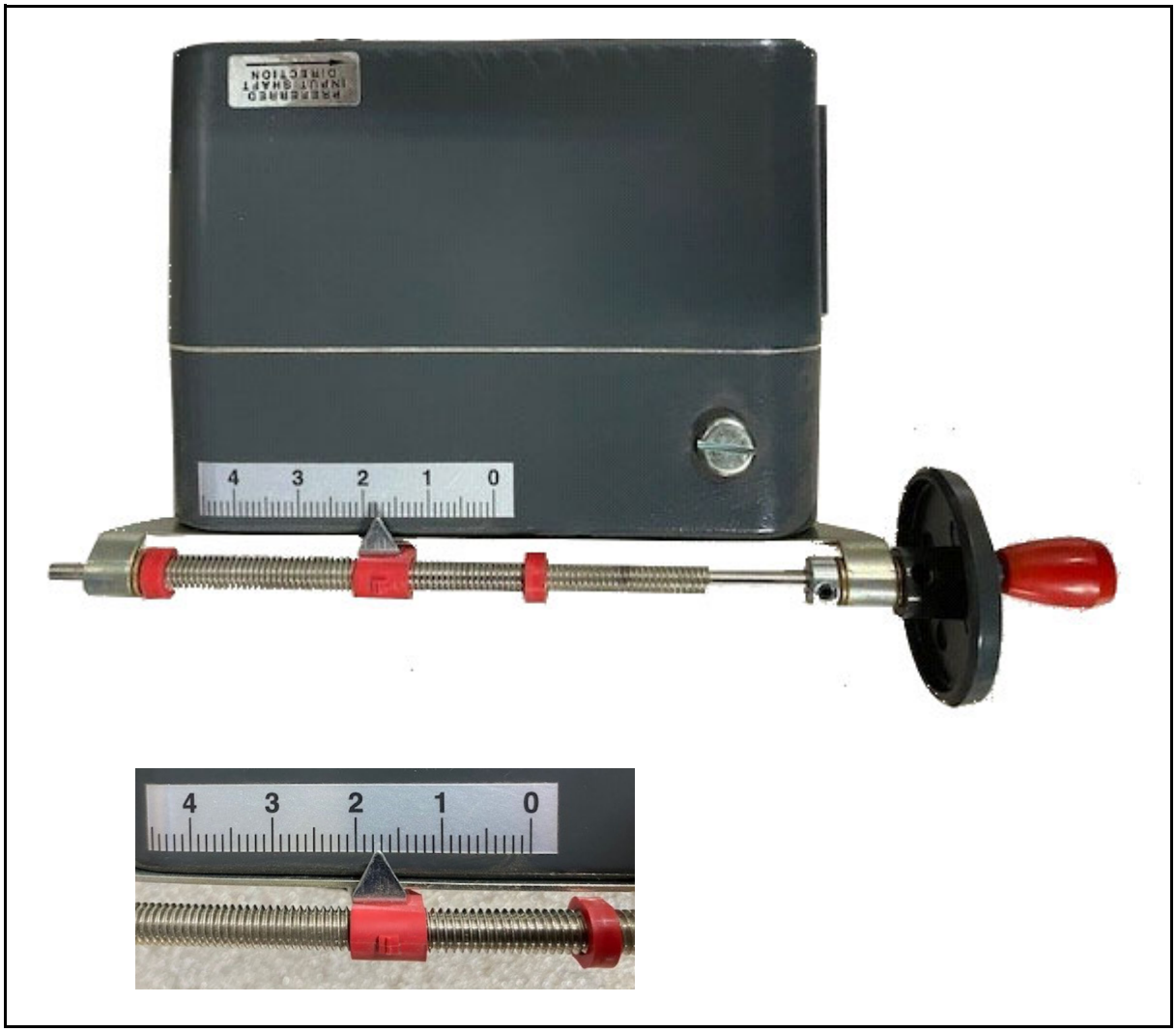


Figure 6 - Setting the variator

9.4 Bottom flap handles

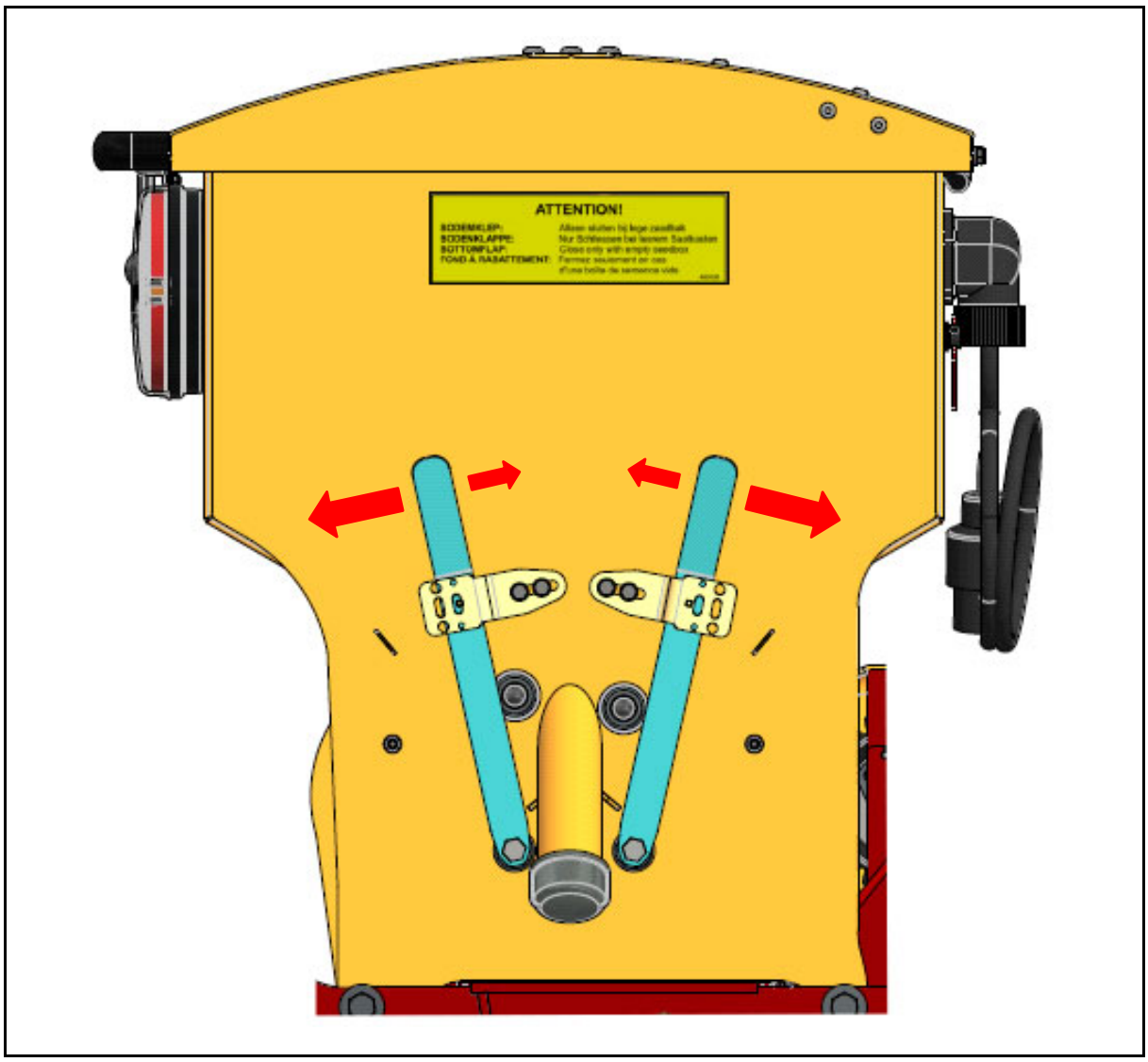


Figure 7 - Bottom flap handles

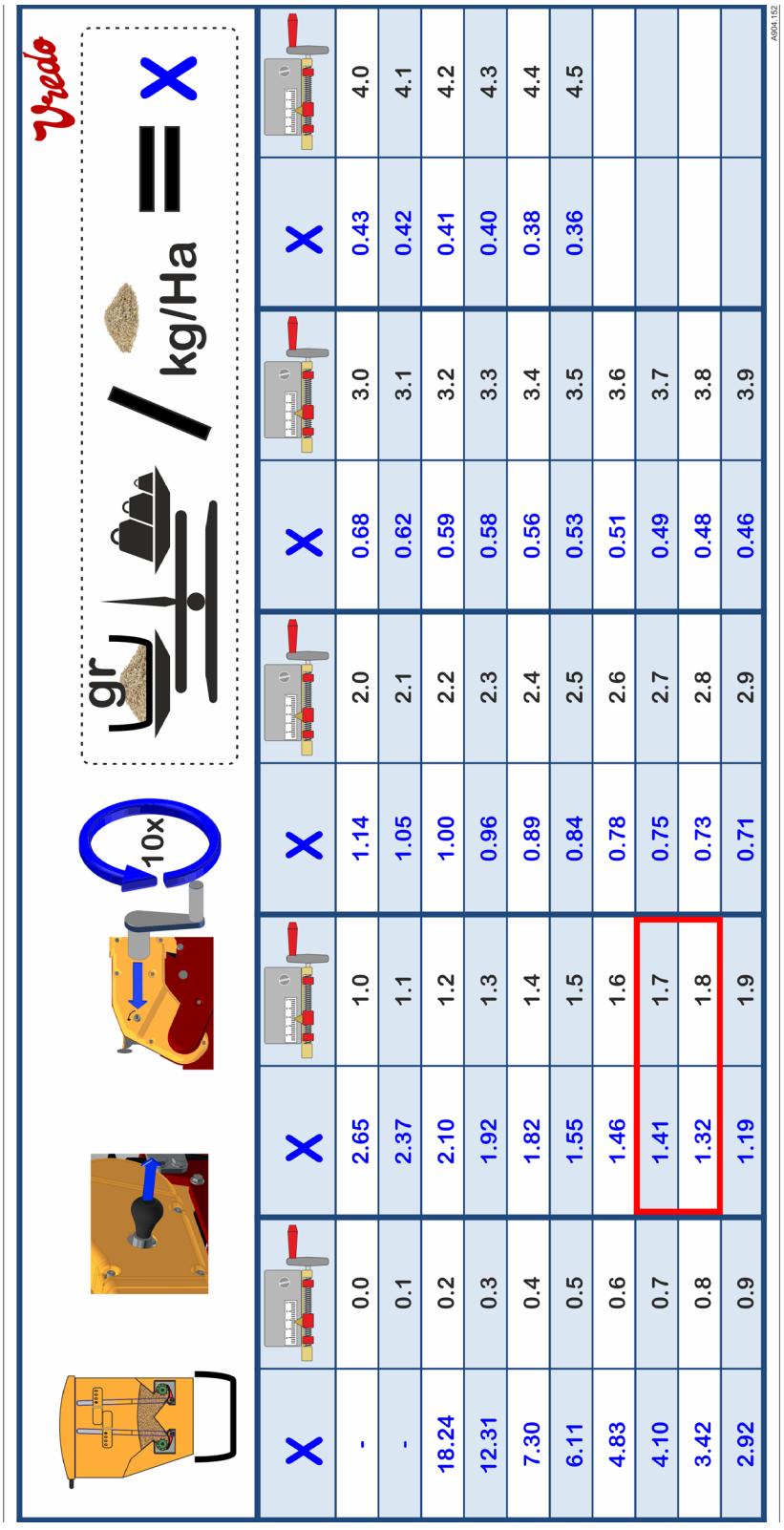
There are two bottom flap handles at the side of the overseeder. In this image, they are shown in blue.

The bottom flap handles are used to set the positions of the bottom flaps in relation to the cam wheels. The setting of the handles is determined by the coarseness of the seed.

When the two handles are placed in the 2nd position of the clip (large red arrow), the overseeder is set for coarser seeds. When the two handles are set inwards (small red arrow), then the setting is for finer seed.

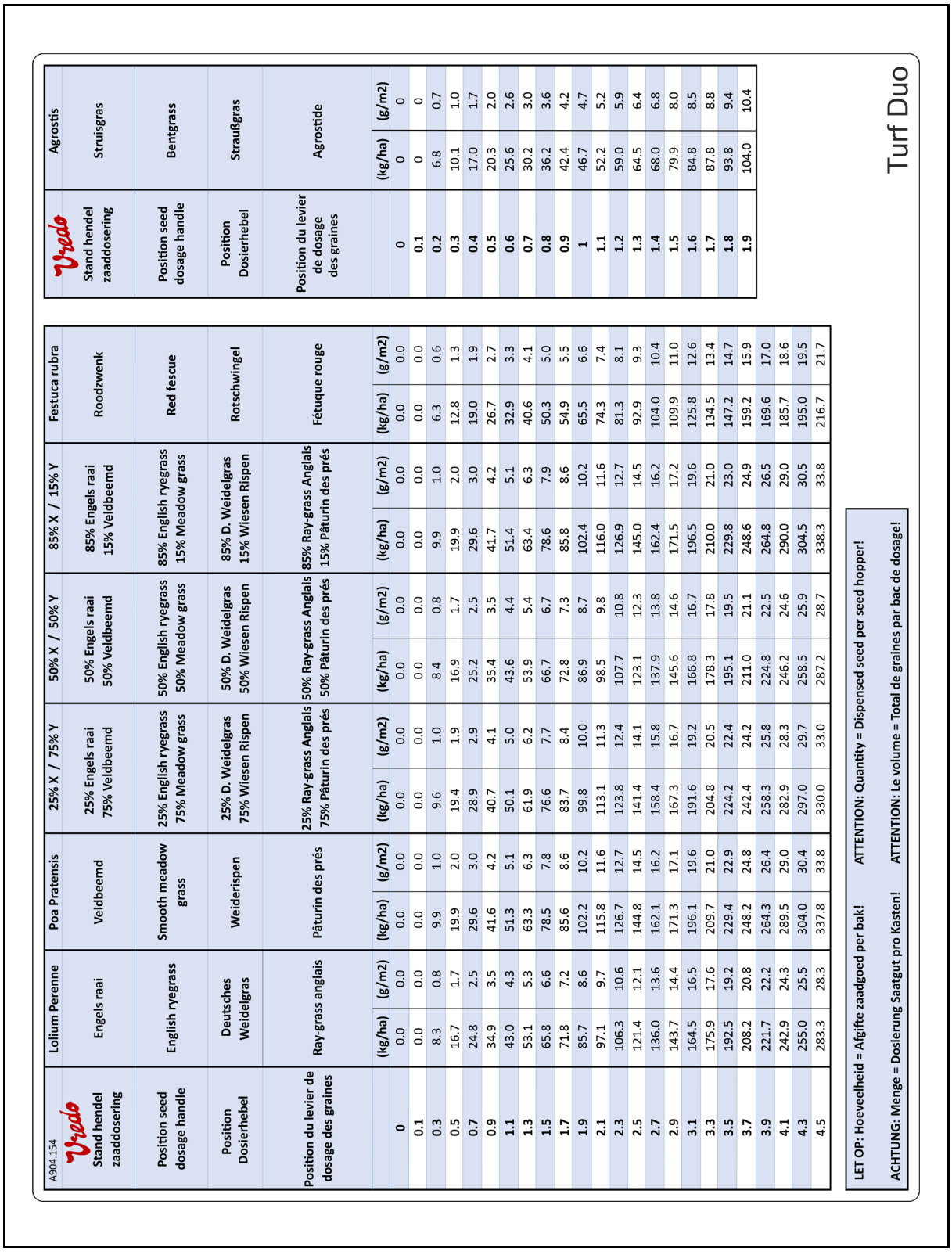
The bottom flap marking brackets are provided with a coarseness indicator by means of holes. The small holes are for fine seed and the large holes for coarse seed.

9.5 Tables



X		X		X		X		X	
-	0.0	2.65	1.0	1.14	2.0	0.68	3.0	0.43	4.0
-	0.1	2.37	1.1	1.05	2.1	0.62	3.1	0.42	4.1
18.24	0.2	2.10	1.2	1.00	2.2	0.59	3.2	0.41	4.2
12.31	0.3	1.92	1.3	0.96	2.3	0.58	3.3	0.40	4.3
7.30	0.4	1.82	1.4	0.89	2.4	0.56	3.4	0.38	4.4
6.11	0.5	1.55	1.5	0.84	2.5	0.53	3.5	0.36	4.5
4.83	0.6	1.46	1.6	0.78	2.6	0.51	3.6		
4.10	0.7	1.41	1.7	0.75	2.7	0.49	3.7		
3.42	0.8	1.32	1.8	0.73	2.8	0.48	3.8		
2.92	0.9	1.19	1.9	0.71	2.9	0.46	3.9		

Table 1 - Set values for the variator after the calibration test



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Vredo Stand hendel zaaddosering	Lolium Perenne		Poa Pratensis		25% X / 75% Y		50% X / 50% Y		85% X / 15% Y		Festuca rubra		Agrostis	
	Engels raai		Veldbeemd		25% Engels raai 75% Veldbeemd		50% Engels raai 50% Veldbeemd		85% Engels raai 15% Veldbeemd		Roodzwenk		Struisgras	
Position seed dosage handle	English ryegrass		Smooth meadow grass		25% English ryegrass 75% Meadow grass		50% English ryegrass 50% Meadow grass		85% English ryegrass 15% Meadow grass		Red fescue		Bentgrass	
Position Dosierhebel	Deutsches Weidelgras		Weiderispen		25% D. Weidelgras 75% Wiesen Rispen		50% D. Weidelgras 50% Wiesen Rispen		85% D. Weidelgras 15% Wiesen Rispen		Rotschwingel		Straußgras	
Position du levier de dosage des graines	Ray-grass anglais		Pâturin des prés		25% Ray-grass Anglais 75% Pâturin des prés		50% Ray-grass Anglais 50% Pâturin des prés		85% Ray-grass Anglais 15% Pâturin des prés		Fétuque rouge		Agrostide	
	(kg/ha)	(g/m2)	(kg/ha)	(g/m2)	(kg/ha)	(g/m2)	(kg/ha)	(g/m2)	(kg/ha)	(g/m2)	(kg/ha)	(g/m2)	(kg/ha)	(g/m2)
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
0.3	8.3	0.8	9.9	1.0	9.6	1.0	8.4	0.8	9.9	1.0	6.3	0.6	6.8	0.7
0.5	16.7	1.7	19.9	2.0	19.4	1.9	16.9	1.7	19.9	2.0	12.8	1.3	10.1	1.0
0.7	24.8	2.5	29.6	3.0	28.9	2.9	25.2	2.5	29.6	3.0	19.0	1.9	17.0	1.7
0.9	34.9	3.5	41.6	4.2	40.7	4.1	35.4	3.5	41.7	4.2	26.7	2.7	20.3	2.0
1.1	43.0	4.3	51.3	5.1	50.1	5.0	43.6	4.4	51.4	5.1	32.9	3.3	25.6	2.6
1.3	53.1	5.3	63.3	6.3	61.9	6.2	53.9	5.4	63.4	6.3	40.6	4.1	30.2	3.0
1.5	65.8	6.6	78.5	7.8	76.6	7.7	66.7	6.7	78.6	7.9	50.3	5.0	36.2	3.6
1.7	71.8	7.2	85.6	8.6	83.7	8.4	72.8	7.3	85.8	8.6	54.9	5.5	42.4	4.2
1.9	85.7	8.6	102.2	10.2	99.8	10.0	86.9	8.7	102.4	10.2	65.5	6.6	46.7	4.7
2.1	97.1	9.7	115.8	11.6	113.1	11.3	98.5	9.8	116.0	11.6	74.3	7.4	52.2	5.2
2.3	106.3	10.6	126.7	12.7	123.8	12.4	107.7	10.8	126.9	12.7	81.3	8.1	59.0	5.9
2.5	121.4	12.1	144.8	14.5	141.4	14.1	123.1	12.3	145.0	14.5	92.9	9.3	64.5	6.4
2.7	136.0	13.6	162.1	16.2	158.4	15.8	137.9	13.8	162.4	16.2	104.0	10.4	68.0	6.8
2.9	143.7	14.4	171.3	17.1	167.3	16.7	145.6	14.6	171.5	17.2	109.9	11.0	79.9	8.0
3.1	164.5	16.5	196.1	19.6	191.6	19.2	166.8	16.7	196.5	19.6	125.8	12.6	84.8	8.5
3.3	175.9	17.6	209.7	21.0	204.8	20.5	178.3	17.8	210.0	21.0	134.5	13.4	87.8	8.8
3.5	192.5	19.2	229.4	22.9	224.2	22.4	195.1	19.5	229.8	23.0	147.2	14.7	93.8	9.4
3.7	208.2	20.8	248.2	24.8	242.4	24.2	211.0	21.1	248.6	24.9	159.2	15.9	104.0	10.4
3.9	221.7	22.2	264.3	26.4	258.3	25.8	224.8	22.5	264.8	26.5	169.6	17.0		
4.1	242.9	24.3	289.5	29.0	282.9	28.3	246.2	24.6	290.0	29.0	185.7	18.6		
4.3	255.0	25.5	304.0	30.4	297.0	29.7	258.5	25.9	304.5	30.5	195.0	19.5		
4.5	283.3	28.3	337.8	33.8	330.0	33.0	287.2	28.7	338.3	33.8	216.7	21.7		

Vredo Stand hendel zaaddosering	Position seed dosage handle	Position Dosierhebel	Position du levier de dosage des graines
			(kg/ha)
0			0
0.1			0
0.2			6.8
0.3			10.1
0.4			17.0
0.5			20.3
0.6			25.6
0.7			30.2
0.8			36.2
0.9			42.4
1			46.7
1.1			52.2
1.2			59.0
1.3			64.5
1.4			68.0
1.5			79.9
1.6			84.8
1.7			87.8
1.8			93.8
1.9			104.0

LET OP: Hoeveelheid = Afgifte zaadgoed per bak! ATTENTION: Quantity = Dispensed seed per seed hopper!

ACHTUNG: Menge = Dosierung Saatgut pro Kasten! ATTENTION: Le volume = Total de graines par bac de dosage!

Turf Duo

Table 2 - Standard settings per grass seed type for the variator

10 Storage

10.1 Short-term storage

When storing the overseeder for a short period of time, make sure that it is clean when putting it away. The most important thing is that the seed hopper is completely empty and no remaining grass seed is left behind.

Furthermore, be sure to place the overseeder on for example a large pallet or on some other unhardened/soft surface. It is important to avoid exerting a load on the tine rollers caused by having them rest on a hard surface, such as a concrete floor or paving stones.

10.2 Long-term storage

When storing the overseeder for an extended period of time, there are several points that must be taken into account.

- Make sure the seed hopper is thoroughly cleaned and that no grass seed is left behind. This is because grass seed can germinate under certain humid conditions. This can create blockages, which makes cleaning the overseeder difficult.
- Check to ensure that all bolts and nuts are still tight and in place. Loose fasteners must be tightened to the correct torque (see section: Tightening Torques Table).
- Provide a good protective surface for storage.

ATTENTION!!
If an overseeder is not cleaned in good time and is stored under unfavourable conditions, there is a high chance that any remaining seeds will germinate, affecting the functioning of the overseeder. This can result in malfunctions and due to the germination will also make cleaning the hopper more difficult.

11 Service and maintenance

This section has two tables that give an overview and advice on the best practices to maintain the DZ5 Stitch compact.

11.1 General inspection points

Component	Check for:	Frequency
Seed hopper	- Condition of the agitator shafts - Check that the agitator shafts rotate - Check for leakage of the grass seed	Before use
During overseeding	- Strange noises - Monitoring of the dosage results - Check that the grass seed is being dosed	Constantly
General components	- Visible forms of damage - Visible play in hinged parts	Regularly
Drive	- Play of the chain - Condition of or damage to the gear wheels	Regularly
Nuts and bolts	- Play, loose nuts and bolts	Regularly
General bearings	- Play or unusual noises	Regularly
Optional wheel set	- Tyre pressure (minimum 1.2 bar) - Hitch ball or drawbar eyelet for cracks/ breakage - Hydraulic hoses, cracks/breakage	Regularly
Warning stickers	- Legibility - Damage - Presence	Regularly

Table 1 - General inspection points

11.2 Lubrication of components

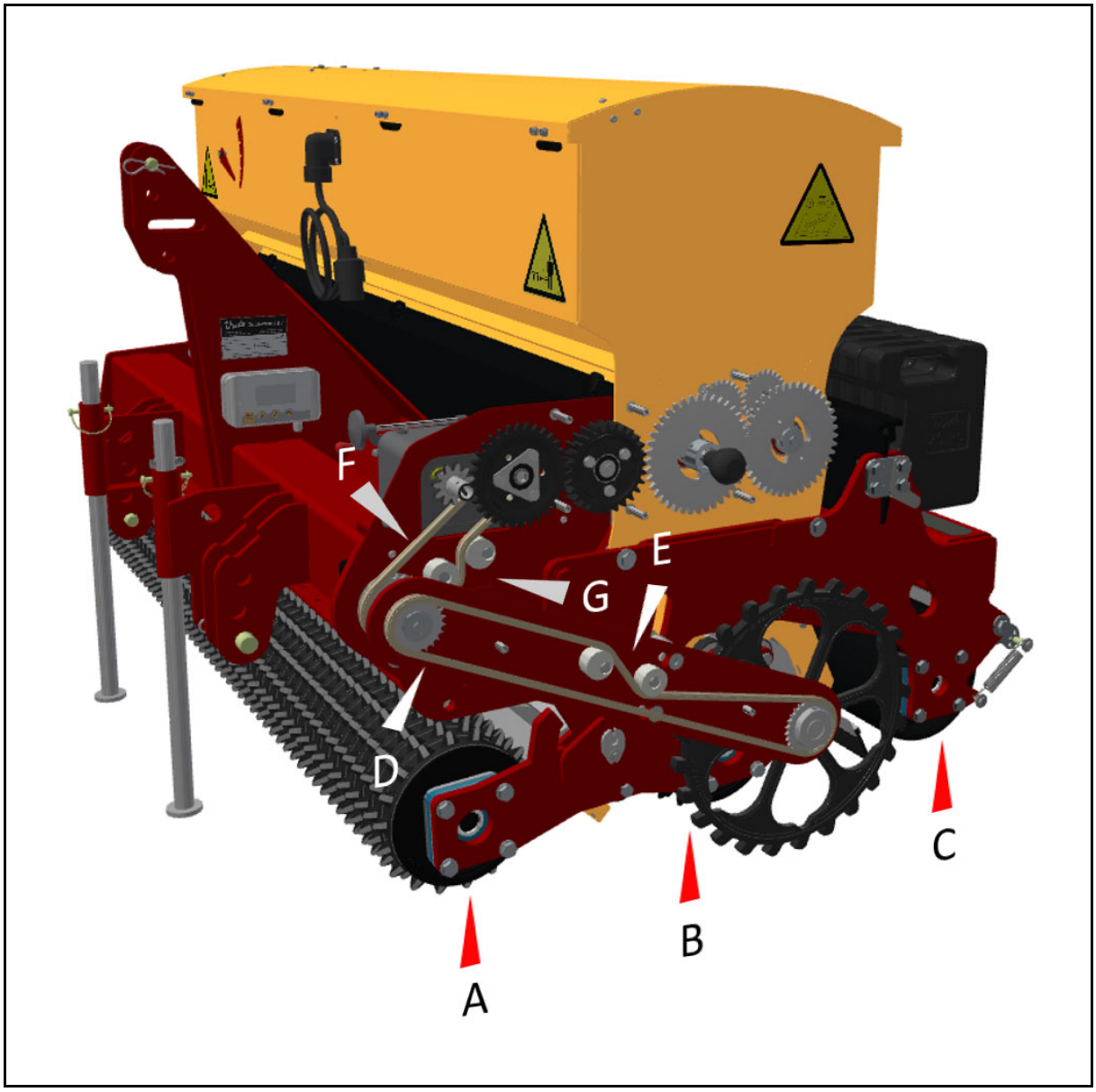


Figure 1 - Location of overseeder lubrication points

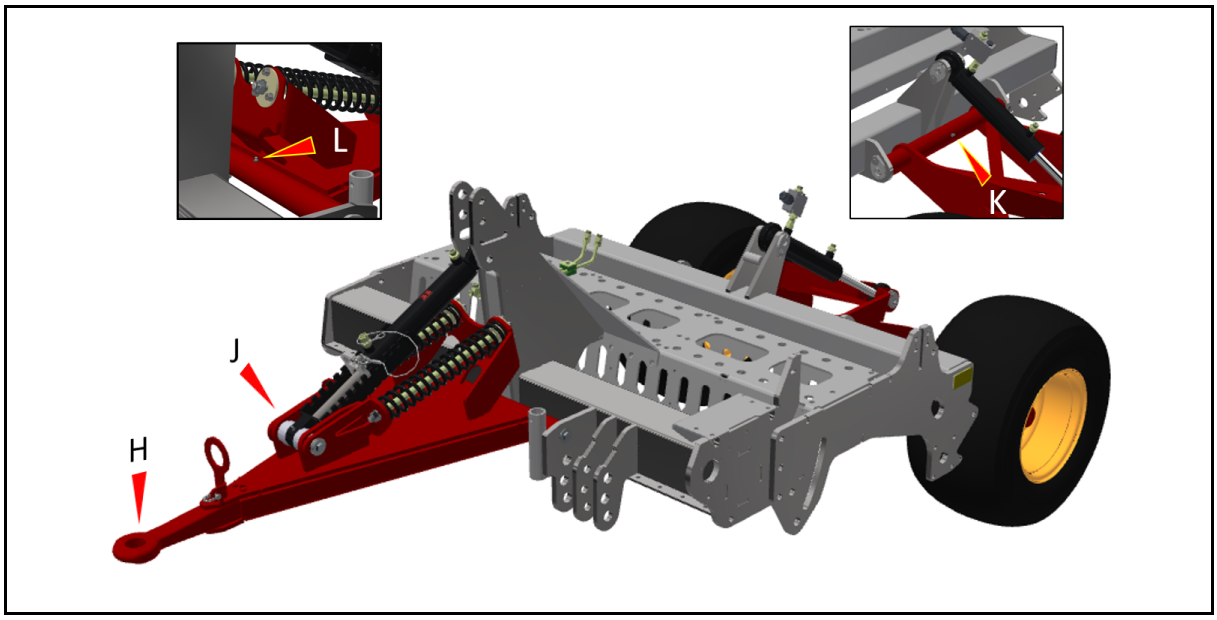


Figure 2 - Location of lubrication points for (optional) wheel set

Component	Lubricant	Frequency
Tine roller bearings (A + B), left and right side	Grease	Regularly
Pressure roller bearings (C), left and right side	Grease	Regularly
Drive chain cog (D)	Grease	Regularly
Chain cog guide rollers (E)	Grease	Regularly
Variator drive chain (F)	Grease	Regularly
Variator chain guide rollers (G)	Grease	Regularly
Variator transmission box	Maintenance-free	None
Drawbar eyelet for drawbar (H)	Grease	Regularly
Drawbar slotted holes (J + L)	Grease	Regularly
Wheel set slot holes (K)	Grease	Regularly

Table 2 - Parts to be lubricated

ATTENTION!!
In case of defects or damage found, have them inspected by an authorised Vredo dealer and repaired if necessary.

12 Cleaning the machine

12.1 General cleaning

When the overseeder is used for work, it is important to maintain the machine properly and clean it regularly.

The advantages of regular cleaning are:

- Preventing dirt accumulation
- Preventing corrosion or serious rust
- Detecting defects or damage at an early stage
- With frequent cleaning, the machine will also continue to function properly
- Cleaning the machine promptly also maintains an aesthetically professional look
- This also extends the lifespan of the machine

12.2 Cleaning of specific components

The overseeder is made up of a large number of both fixed and moving parts with a variety of types of materials. Because of this, it is important that cleaning the machine is done with the utmost care.

Vredo does not recommend cleaning the overseeder with water. In extreme cases with stubborn dirt that is difficult to remove, a pressure washer can be used. However, if the overseeder is cleaned with a pressure washer, the machine must then be dried completely.

There are a number of important points of attention:

- If an extreme case makes pressure washing necessary, always use a flat jet and keep the nozzle at least 20 - 30 cm from the object. The high water pressure can cause damage to parts if sprayed from close range. An appropriate distance is particularly important for rotating parts and their bearings.
- When using a pressure washer, compressed air or cleaning agents in general, it is recommended to wear safety glasses. While cleaning, small dirt particles can come loose forcefully.
- To clean larger surfaces manually, it is best not to use aggressive industrial cleaning agents that are made with detergent solutions.
- After cleaning, make sure the machine is dried completely. Pay particular attention to spaces where absolutely no water may be present, such as the seed hopper and the seed guides.
- Do not perform this cleaning work in periods when there may be frost. Frost and water can cause irreparable damage to many components.

13 The digital acre counter

The DZ5 Stitch compact overseeder has a digital acre counter as standard. This acre counter is located at the right of the 3-point hitch receiver for the top link and is controlled by a pulse generator mounted under the variator.

This section explains a number of important issues such as the layout of the acre counter with the setting functions, explanation of the display and the functions in general.

13.1 Construction of the digital acre counter

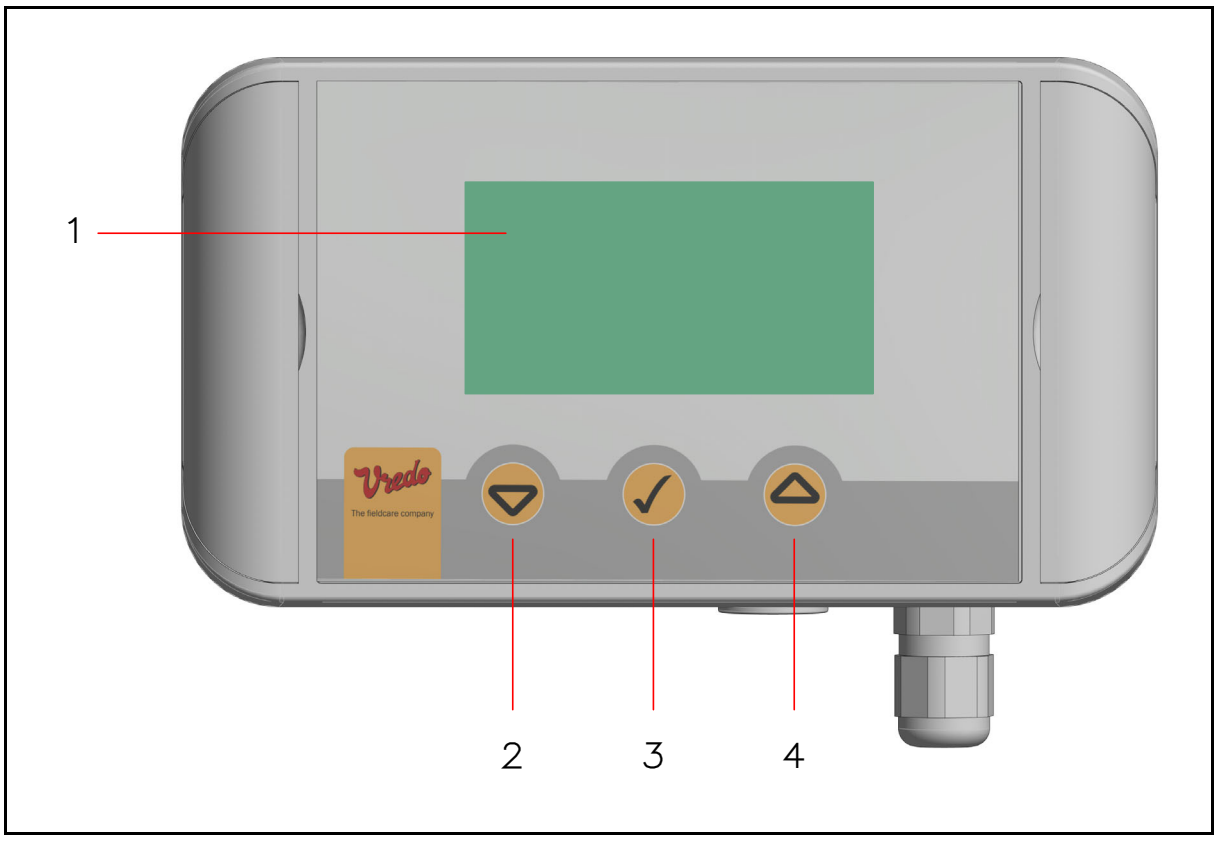


Figure 1 - Construction of the digital acre counter

Item	Name
1	Display
2	Down-button to navigate through the menu
3	Selection confirmation button
4	Up-button to navigate through the menu

Table 1 - Control buttons for digital acre counter

13.2 Operating width settings

The table below shows values of the operating width of the DZ5 Stitch compact that the user can enter into the digital acre counter.

Overseeder	Operating width (m)	Acre counter set value
DZ5 Stitch compact 100	0.928	95
DZ5 Stitch compact 140	1.348	137
DZ5 Stitch compact 180	1.768	179
DZ5 Stitch compact 220	2.2	221

Table 2 - Operating width inputs

13.3 Control functions

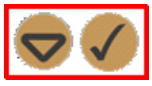
Function	Description	Remark(s)
Welcome	Welcome message with Vredo logo	
Language	Select the desired language	English ENG German DE Dutch NL
Contrast	For good readability, change this value to brighten or darken the display.	
Display	Precision of the read-out in decimal points.	Only 2 or 3 decimal points.
Notation	Selection between hectare or acre.	
Step	1 pulse is equal to 108 cm	Set the standard value to 108 in.
Width	Setting the operating width of the overseeder.	Consult Table 2 - to determine the correct operating width. The width dimensions are values in cm.
	Press both buttons simultaneously.	Only applicable to the Step and Width functions.

Table 3 - Control functions

13.4 Screen display

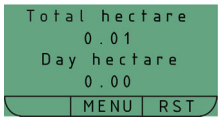
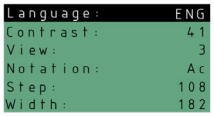
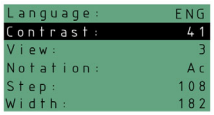
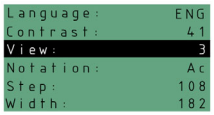
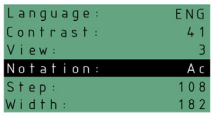
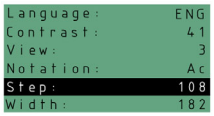
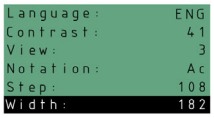
Step	Function	Push button	Screen display
1	Welcome		
2	Menu		
3	Language		
4	Contrast		
5	View		
6	Notation		
7	Step		
8	Width		

Table 4 - Setting functions of digital acre counter

13.5 Removal or installation of the batteries

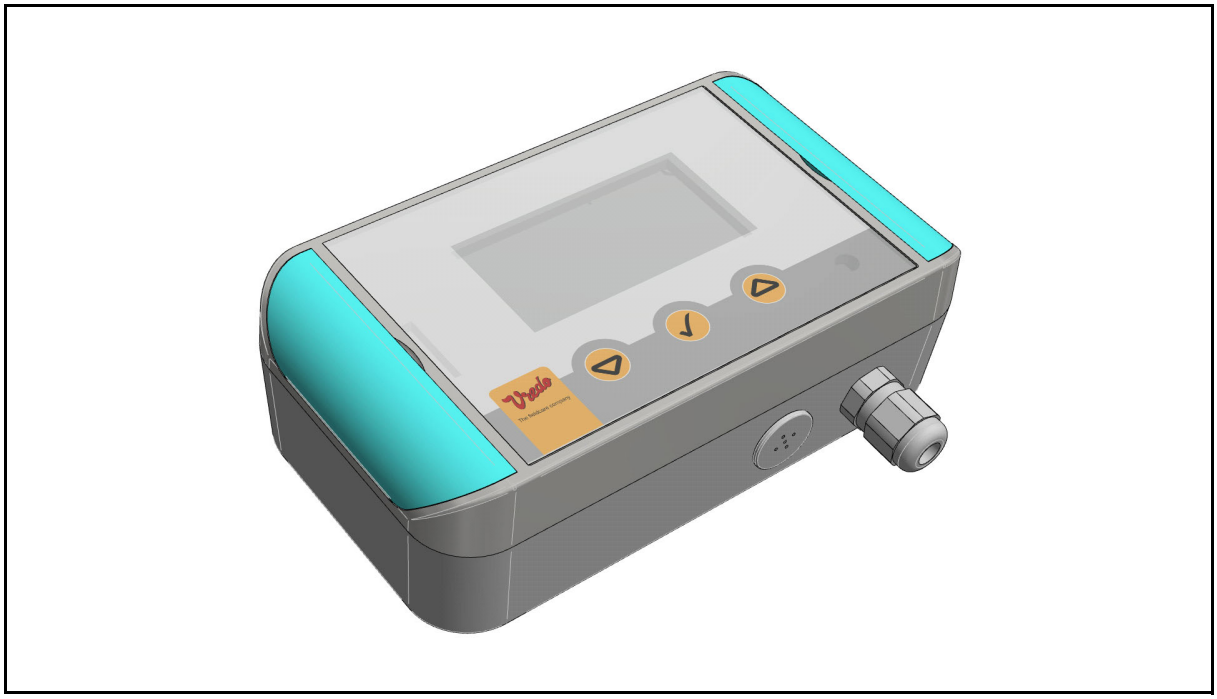


Figure 2 - Location of clasps

- Locate the two clasps

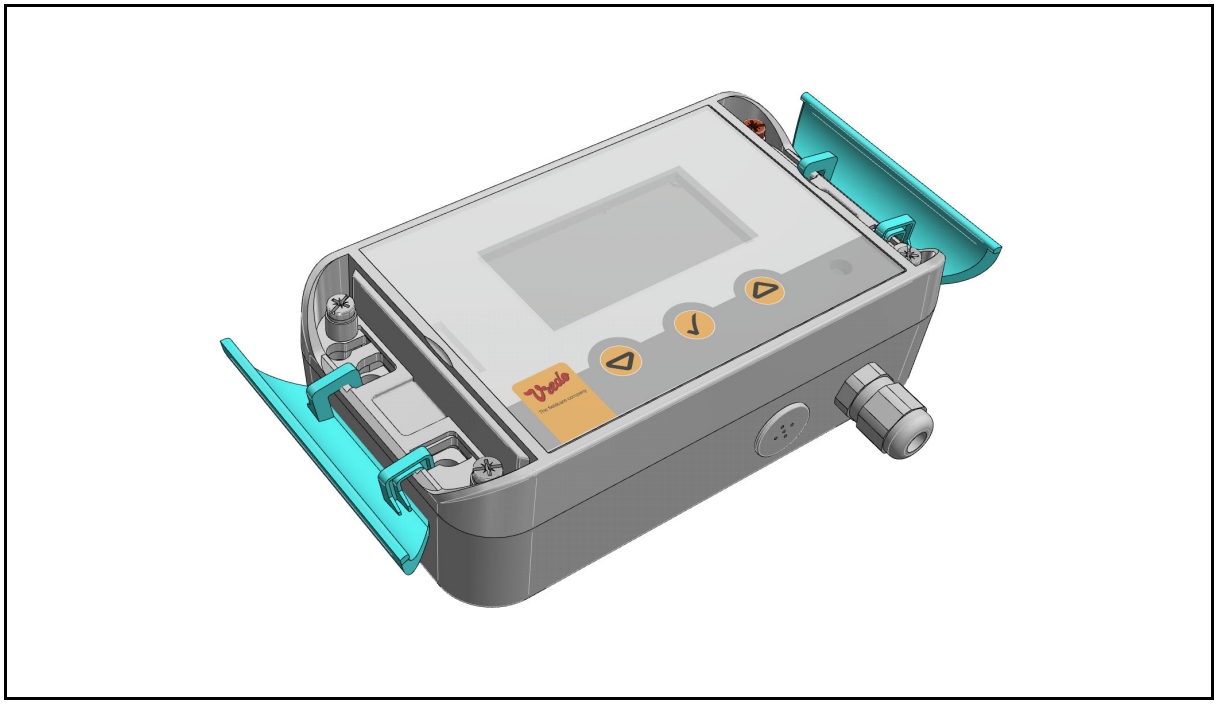


Figure 3 - Undo clasps

- Fold the two clasps carefully outwards

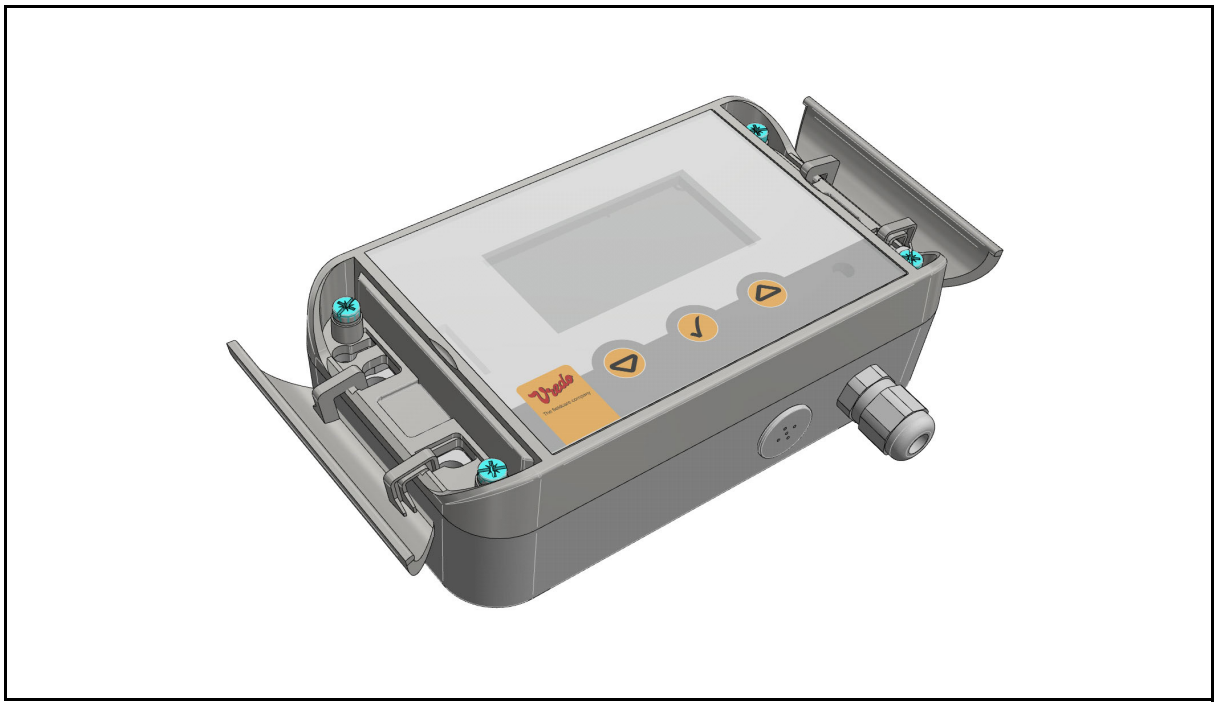


Figure 4 - Unscrew mounting screws

- Unscrew the four mounting screws and swing the display side upwards.

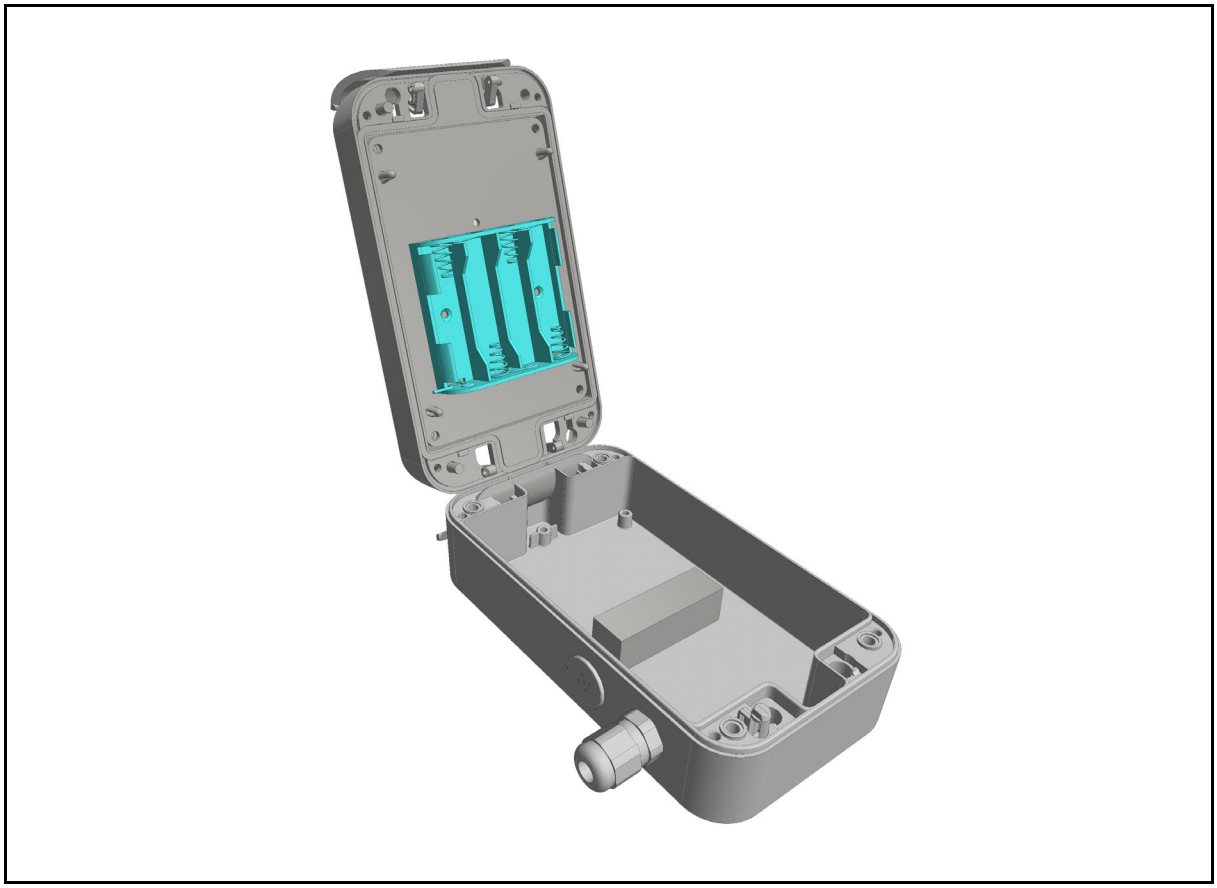


Figure 5 - Swing display side

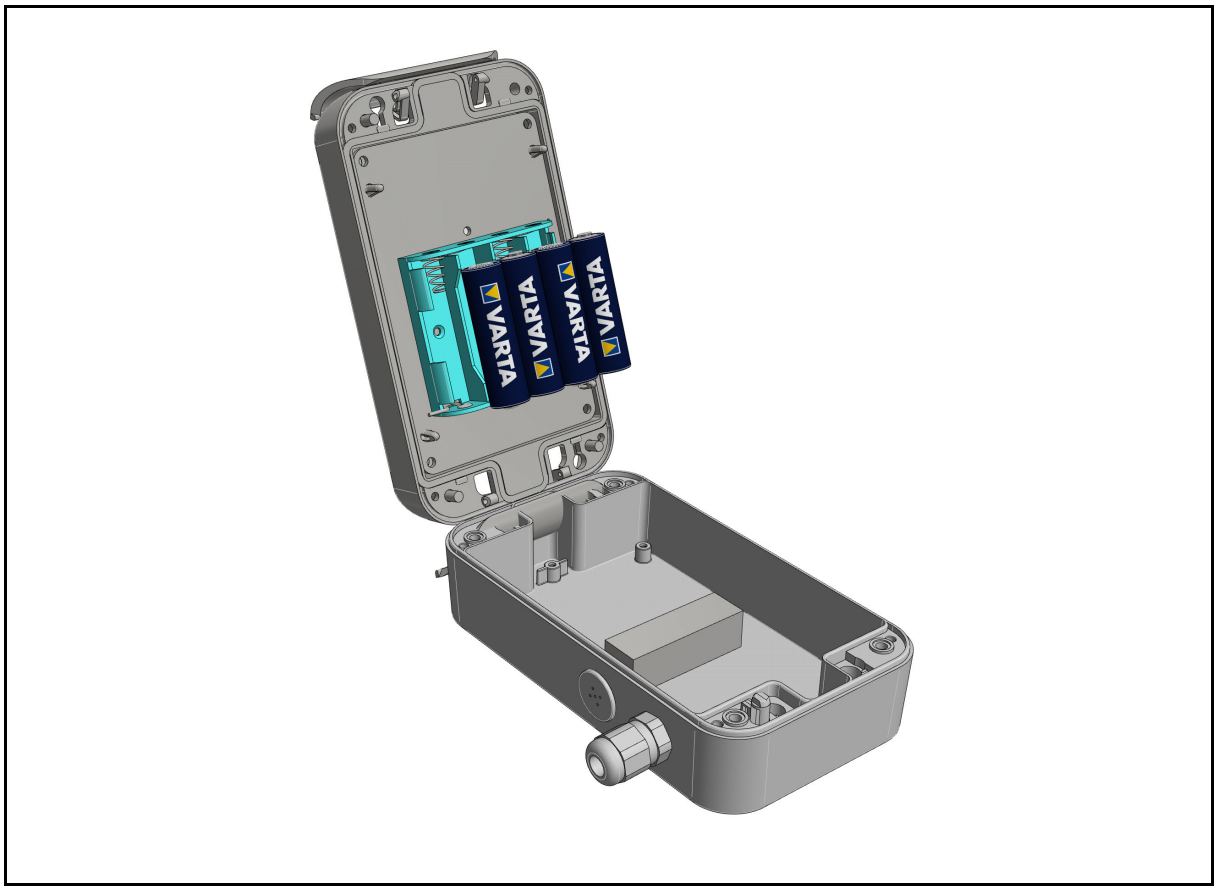


Figure 6 - Take out or put in batteries

- Remove or install the four batteries.

ATTENTION!!
Note the correct polarity when installing the batteries. This is also shown on the inside of the battery holder. **Use only Alkaline penlight batteries, type AA LR6 - 1.5 Volt.**

14 Options

For the DZ5 Stitch compact, a number of options are possible.

14.1 The wheel set combination

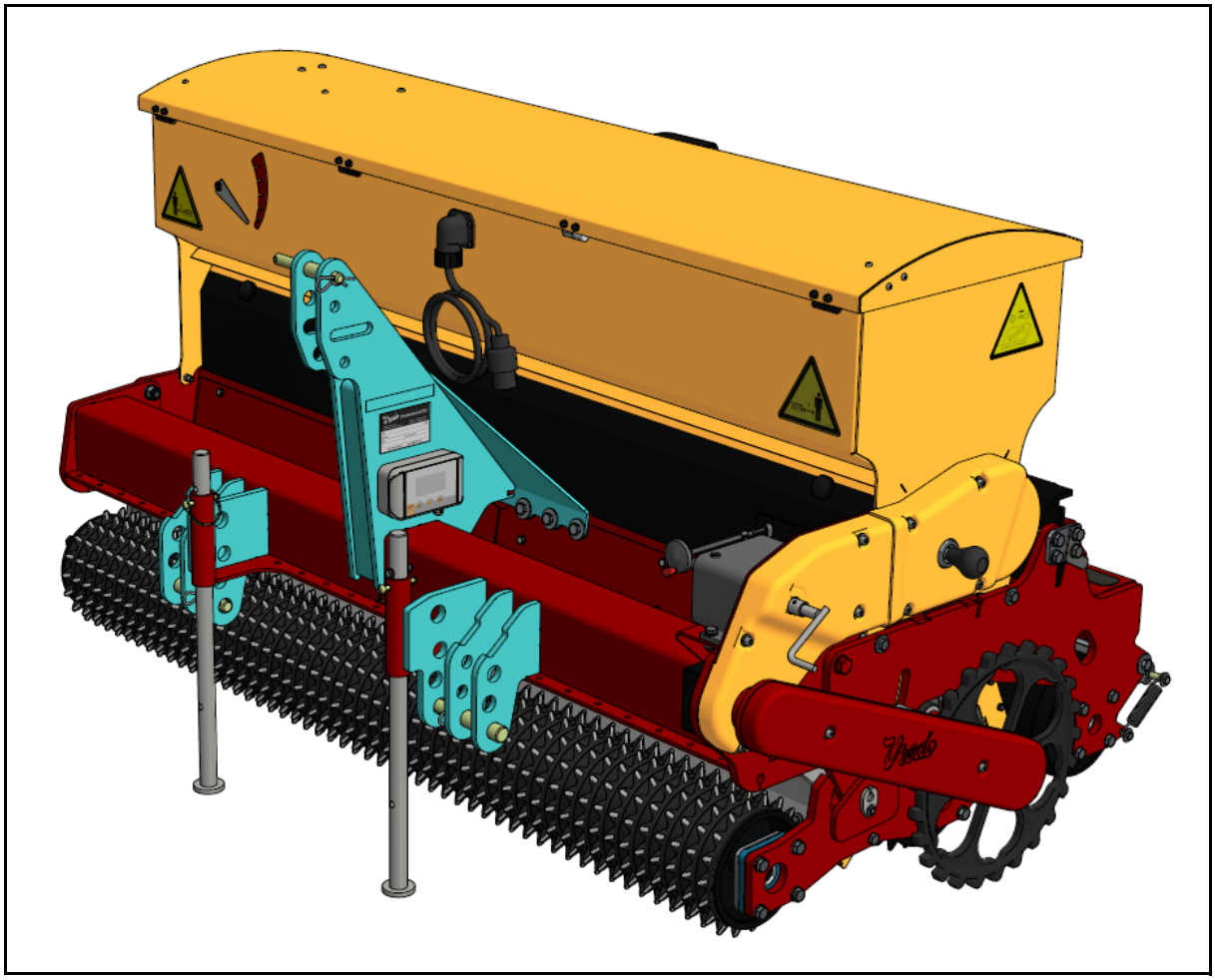


Figure 1 - Location of 3-point hitch receiver for wheel set combination

The optional wheel set combination is available for the DZ5 Stitch compact 140 and larger operating widths of overseeders. The draw bar of the wheel set combination is coupled to the 3-point hitch receiver of the overseeder and the wheel set at the rear, see figure 2.

This wheel set combination works as follows: When the towing vehicle arrives with the overseeder at the plot to be seeded, the hydraulic system is activated from the towing vehicle and the wheel set is raised first and then the draw bar. This will lower the overseeder.

By removing the cylinder stop from the stop holder, it can be placed closer to or farther from the cylinder in steps. When the cylinder stop is placed farther from the cylinder in the stop holder, this will create higher spring pressure (see see figure 3).

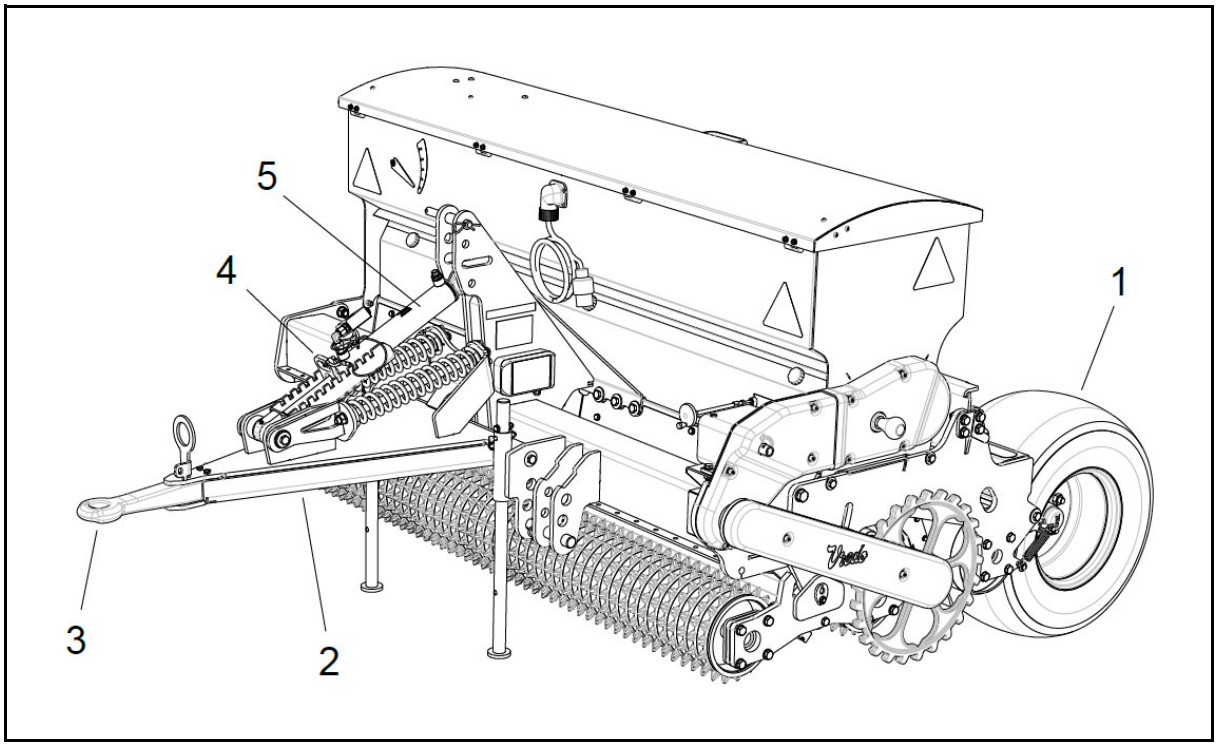


Figure 2 - Wheel set combination

Item	Name
1	Wheel set
2	Draw bar
3	Drawbar eyelet
4	Cylinder stop (see see figure 3 for explanation)
5	Cylinder

Table 1 - Components of wheel set combination

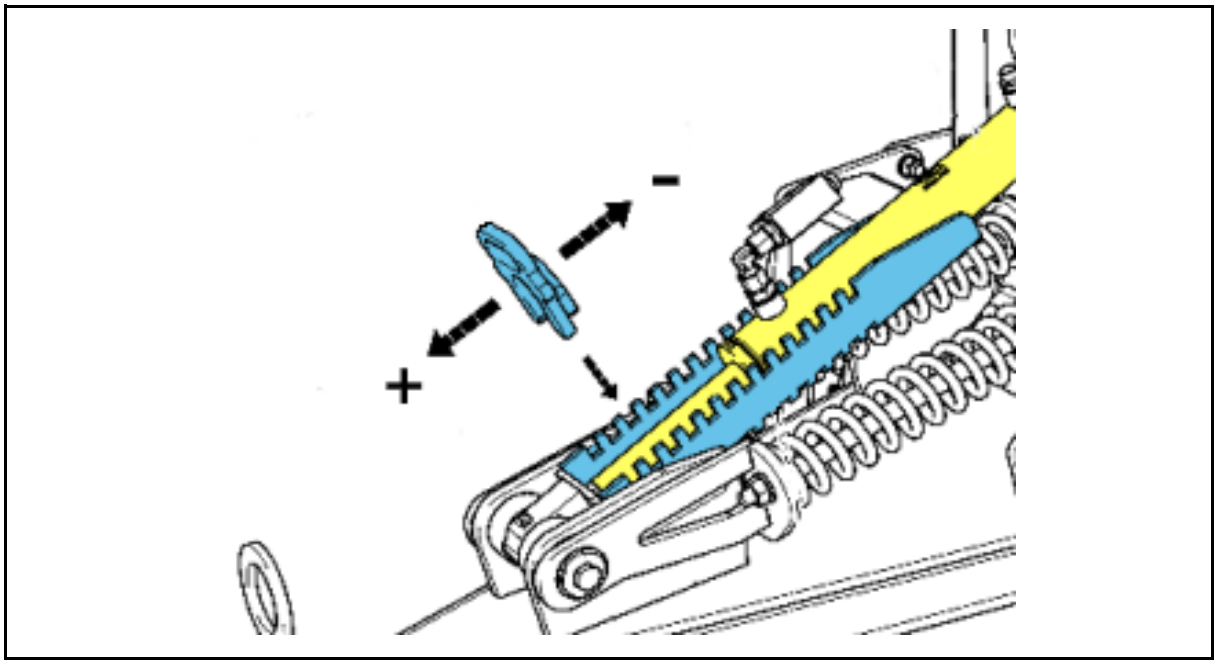


Figure 3 - Detail of cylinder stop

ATTENTION!
Before disconnecting the overseeder, first close the ball valve and then depressurise all the hydraulic hoses.

14.2 Weights

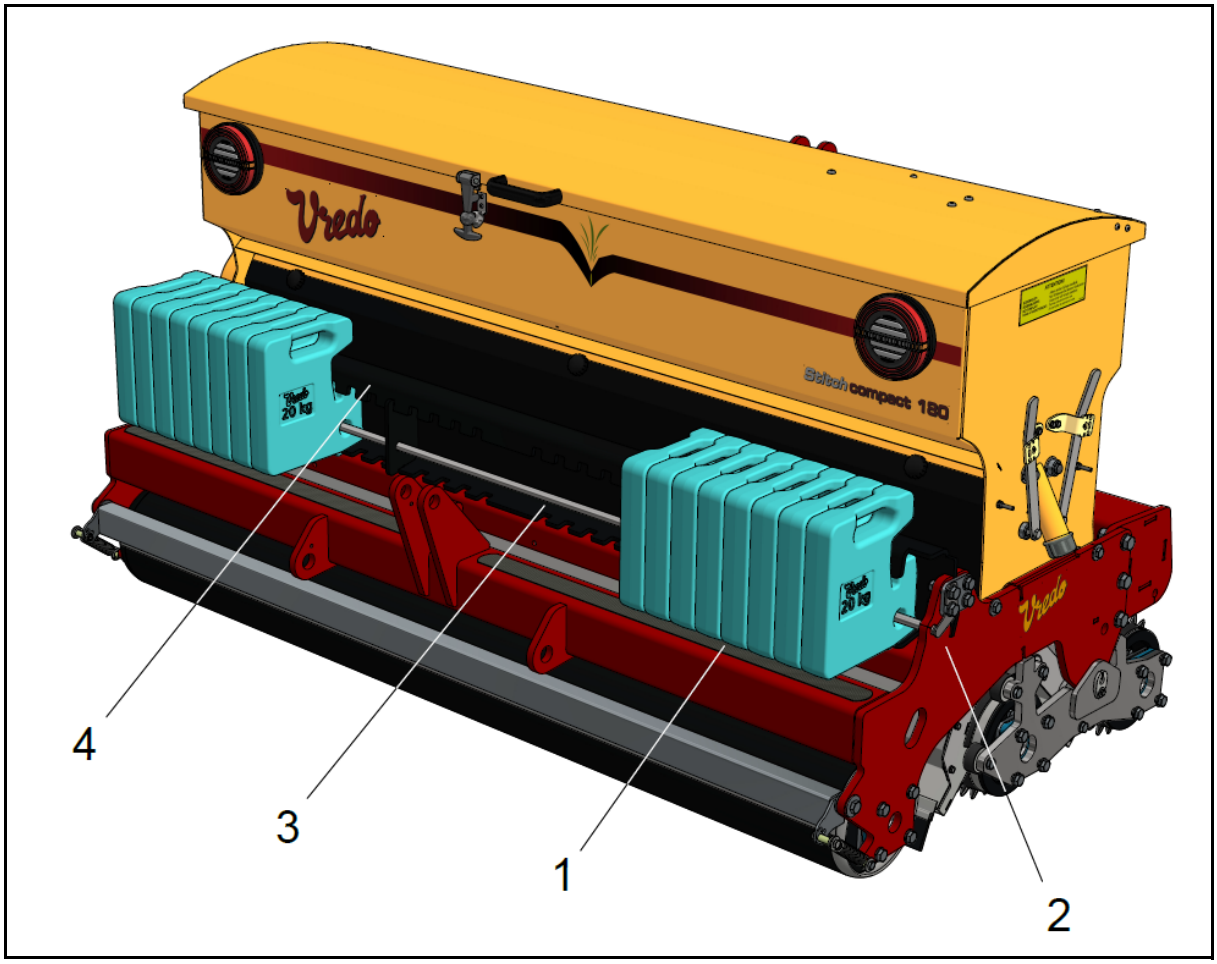


Figure 4 - Location of extra weights

Item	Name
1	Optional 20 kg weights
2	Lock shaft clasp
3	Lock shaft
4	Fastening bar for the weights

Table 2 - Components for installation of extra weights

The option is available to provide the overseeder with extra ballast by adding 20 kg weights at the rear.

Follow the procedure below to install or remove extra weight.

- Unscrew the two hex-head bolts of the lock shaft clasp (2).
- Slide the lock shaft clasp (2) to the right.
- Slide the visible lock shaft (3) all the way out.
- Install or remove the desired number of weights (1).
- Slide the lock shaft (3) all the way back in and make sure it also passes through the holes of each weight.
- Slide the lock shaft clasp (2) back in place.
- Tighten the two hex-head bolts again.

ATTENTION!
Do not exceed the number of weights. Consult Tabel 3 - Optionele gewichten in **section** 4.1 "Technische specificaties".

15 Tightening Torques Table

	8.8		10.9		12.9
	BOLT CLASS				
	Oil	Dry	Oil	Dry	Oil
	Nm	Nm	Nm	Nm	Nm
M6	8.9	11.3	13	16.5	15.5
M8	22	27.5	32	40	38
M10	43	55	63	80	75
M12	75	95	110	140	130
M14	120	150	175	220	205
M16	190	240	275	350	320
M18	265	330	375	475	440
M20	375	475	530	675	625
M22	510	650	725	920	850
M24	650	820	920	1150	1080
M27	950	1200	1350	1700	1580
M30	1290	1630	1850	2300	2140
M33	1750	2200	2500	3150	2900
M36	2250	2850	3200	4050	3750

Remark: All steel threaded rods and bolts used are in accordance with Bolt class 8.8

Important rules for A2-70 and A4-70 stainless-steel bolts:

- **Never replace a steel bolt with a stainless-steel bolt!**
- **Never use stainless-steel bolts in heavily loaded mechanical or frame connections.**
- **Always apply Never Seeze copper paste to the screw thread for assembly.**

			A2-70				A4-70		
M6	M8	M10	M12	M14	M16	M18	M20	M22	M24
8.4 Nm	20.6 Nm	40.7 Nm	70.5 Nm	112 Nm	174 Nm	242 Nm	342 Nm	470 Nm	589 Nm

Tightening torque for bite-type fittings 'LIGHT series' (DIN 2353) DO NOT EXCEED SPECIFICATION!					Tightening torque for bite-type fittings 'STRONG series' (DIN 2353) DO NOT EXCEED SPECIFICATION!				
									
10L	12L	15L	18L	22L	8S	10S	12S	16S	10L
30 Nm	45 Nm	60 Nm	90 Nm	120 N m	45 Nm	55 Nm	65 Nm	95 Nm	30 Nm

16 EC Declaration

EC DECLARATION OF CONFORMITY FOR MACHINERY
(in accordance with machinery directive 2006/42/EC, Annex II.1.A)

We,

VREDO Dodewaard bv
Welysestraat 25a
NL-6669 DJ Dodewaard
The Netherlands

hereby declare, fully under our own responsibility, that the machine:

Machine: VREDO Overseeder
Series/family: DZ5-Stitch compact
Type number: DZ5-(FINE TURF)

to which this declaration pertains, complies with the provisions of the following directive(s)

Machinery Directive 2006/42/EC

complies with the following standard(s) or other normative document(s):

NEN-EN-ISO 12100-2010
NEN-EN-ISO 4254-1: 2015
NEN-EN-ISO 14018+A1:2009

The Netherlands, Dodewaard, 01/12/2022

J. de Vree, Director

Vredo Dodewaard B.V.
Welysestraat 25a
6669 DJ Dodewaard
The Netherlands
T: +31 488 411254
F: +31 488 412471
E: info@vredo.nl
W: www.vredo.com