

StocksAG

MAXI METER

FITTING AND OPERATING INSTRUCTIONS

- Simple, versatile and accurate. Ideal to use with rigid non-folding equipment.
- Use independently, or integrate with existing farm machinery.
- Will meter and spread most large seeds and Grass Seed.
- Full size granules and prilled fertiliser
- All electric 12V DC drive. 2 speed motor through a 2 speed mechanical gearbox to give 4 speed ranges.
- Stainless Steel Hopper..
- Each individual 1 metre unit can provide up to 1.5m overall coverage or more if seed or granules are in rows, or drills when band sowing in bands.
- 6 outlets with 40mm spouts to enable delivery hose to be attached
- Precision plastic fluted rollers with step-less sliding adjustment of the feed rollers, 0-100%.
- Offers a large range of application range.
- Simple calibration procedure, guides supplied.
- Supplied with a choice of “Vari Speed” or “Wizard” control systems.

Dimensions	1220mm Wide x 370mm Deep x 600mm High
Weight	Approx. 55Kg per metre (empty)
Hopper Capacity	165L
Outlet Spacing	166mm(6.5”)

SERIAL NO.

**Manufactured in 2011 by:-
Stocks AG Limited**

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SAFETY

- **Keep clear when operating.** The moving parts of this machine are powerful and can pull in fingers or clothing. The motor is so powerful you will not be able to stop it.
- Be especially careful whilst performing calibration tests or filling hoppers. If necessary fabricate and fit a work platform and steps, complete with handrails.
- If using agrochemicals, read the label before you buy and follow the manufactures instructions, use pesticides safely and wear suitable protective clothing and aspirators. Granules may be toxic be aware of what you are applying. Dispose of used containers correctly.
- Empty the hopper after use to avoid any risk to humans or wildlife. Run the feed rollers at maximum speed to empty into a suitable container.

ELECTRICAL CONNECTIONS AND CONTROLS

Control Console

Control console should be mounted in the vehicle cab.

Note: Do not drill the console.

The Vari Speed power cable connects directly to the vehicle battery to ensure adequate 12v supply. The inline fuse should be 15AMP. Ensure the fused wire to POSITIVE.

The Wizard power cable can be connected to a 3pin DIN socket if fitted or an optional cable is available to allow fitment to the tractor battery

FITTING HINTS

- Select a strong, rigid mounting point on your implement.
- You must fabricate suitable support brackets. Ensure they are positioned to support the weight of the micrometer without distortion. Use the existing holes under the hopper chassis end plates to attach to.

- If using the spreader assembly position the spreader assembly under the hoppers as required.

RADAR POSITIONING (WIZARD SYSTEM ONLY)

Please see following fitting instructions for fitting the radar to the implement or vehicle.

APPLICATION RATES AND CALIBRATION

APPLICATION RATES

Application rates are set by the speed of feed roller, plus the stepless sliding adjustment of the feed roller. The speed of the feed roller is set by selecting low or high motor speed in combination with low or high gearbox speed.

SLIDING ROLLERS

The feed rollers slide in their housings to expose between 0-100% of the roller to the material in the hopper. This adjustment is made by turning the screw type adjuster at the end of the hopper which once set can be locked in position to prevent accidental movement. .

Note:- For maximum feed rate (Kg/Ha) slide the feed roller wide open.

HINT

FEED ROLLER SPEEDS (VARI SPEED ONLY)

4 Shaft feed ranges are available.

1. Low motor and low gearbox	=	7	RPM (Approx)
2. High motor and low gearbox	=	10	RPM (Approx)
3. Low Motor and high gearbox	=	27	RPM (Approx)
4. High motor and high gearbox	=	42	RPM (Approx)

MOTOR

Select the low motor electrical connection for all calibration tests. (Except for grass seed which requires high motor speed). See "Electrical Connections".

GEAR BOX

Select the low gearbox setting for all calibration tests. (except for grass seed which requires high gearbox speed).

The motor and its mounting plate are held by two long bolts and spacers. Low gear is selected by fitting these bolts in holes A & B and connecting the socket to the low speed input shaft. High gear is selected by fitting these bolts in holes B & C and connecting the socket to the high speed input shaft.

CALIBRATION

You will need a collection tray or sheet, a watch and an accurate set of scales to weigh kilograms and grams. The calibration is a static catch test of seed or granules over 3 minutes. Position the tray or sheet under the Micro Meter to catch the seed or granules.

CAB CONTROL CONSOLE

VARI SPEED CAB CONSOLE

1. Turn power switch to off
2. Select low or high motor speed as required.

WIZARD CONTROL

1. Refer to separate instruction manual

VARI SPEED CAB CONSOLE

1. Switch power on. The feed roller will run and meter material into tray or sheet.
2. If using Vari Speed Control set dial at No 8 setting.
3. Run the feed roller for 3 minutes and collect the material.
4. Switch power off the feed roller will stop.
5. Weigh the collected amount in kilograms.
6. Refer to CALIBRATION GUIDES.

Calibration Guides

These guides work for all materials. Use the guide appropriate for your width of machine.

NOTE If your machine is not in whole metre widths or wider then the guides allow for, proceed as follows, plus "Wider Width" section.

Using the Guides

VARI SPEED (Without Radar). Using the tractor speedometer.

1. Select your intended application rate in kilograms per hectare.
2. Select the correct calibration table to establish the amount of seed or granule to be collected over the 3-minute catch test period to give the intended application rate.
3. Compare the collected weight to the amount indicated in the guide. You will see if you need to increase or decrease output.
4. Increase or decrease the roller aperture by sliding the rollers accordingly and repeat the catch test until the correct output for your machine width and forward speed is reached. Note the settings for future reference.

Note If you cannot achieve the output you need, you may have to change the combination of high/low motor speed and high/low gearbox speed.

Hint If the amount being collected is too much to fit into the collection tray, then reduce the collection time to 2 minutes, or 1 minute.

If reduced to 2 minutes, you must multiply the actual amount collected by 1.5 (2 x 1.5=3).

If reduced to 1 minute, you must multiply the actual amount collected by 3 (1 x 3=3).

Note These corrected figures are the ones you should use with the calibration guides, as the collected weight.

WIDER WIDTHS

If your machine is wider than the quoted width of the calibration guides, you have to collect more material during the 3-minute catch test to compensate.

The amount indicated on the guide must be increased by a factor relevant to your machine width. To obtain that factor:

1. Divide your actual width 4.5m divided by 4 = 1.125 FACTOR
EXAMPLE Actual width 3.25m divided by 3 = 1.083 FACTOR
EXAMPLE Actual width 5.75m divided by 5 = 1.15 FACTOR
2. Using the Calibration Guide for the nearest whole metre width below yours:
Multiply the indicated amount to be collected (using the guides) by the factor for your machine width.
The resultant figure is the actual amount you need to collect over 3 minutes.

3. EXAMPLE

Actual width 4.5m = FACTOR	1.125
Intended application rate	24Kg/Ha
Intended speed	11Kph
Indicated amount from 4M guide	5.28 Kg
5.28 x FACTOR 1.125 =	5.94

Therefore, 5.94Kg is the amount to be collected over 3 minutes.

VARI SPEED

1. Cab console. Switch power on or off to start and stop the micro-meter at headland turns etc.
2. The Vari Speed control enables on the move motor/shaft speed adjustment, however calibration for each dial setting will be required to ascertain the application rate change.
3. Without radar, you must maintain your chosen forward speed or your application rate will vary.

FIELD OPERATION

Before Starting Work

Take the trouble to calibrate the machine as described.

Make a note of the settings for future reference.

Note or memorize the correct travel speed for the settings you have chosen.

On Starting Work Ensure that you are travelling at the correct chosen speed. After travelling a short distance - **Stop**.

Check

That the seeds or granules are spread evenly.

That the application looks correct in or on the soil.

Repeat

All the above checks at regular intervals until you are certain the job is being done correctly.

Please

Do clean out the machine at the end of the day.

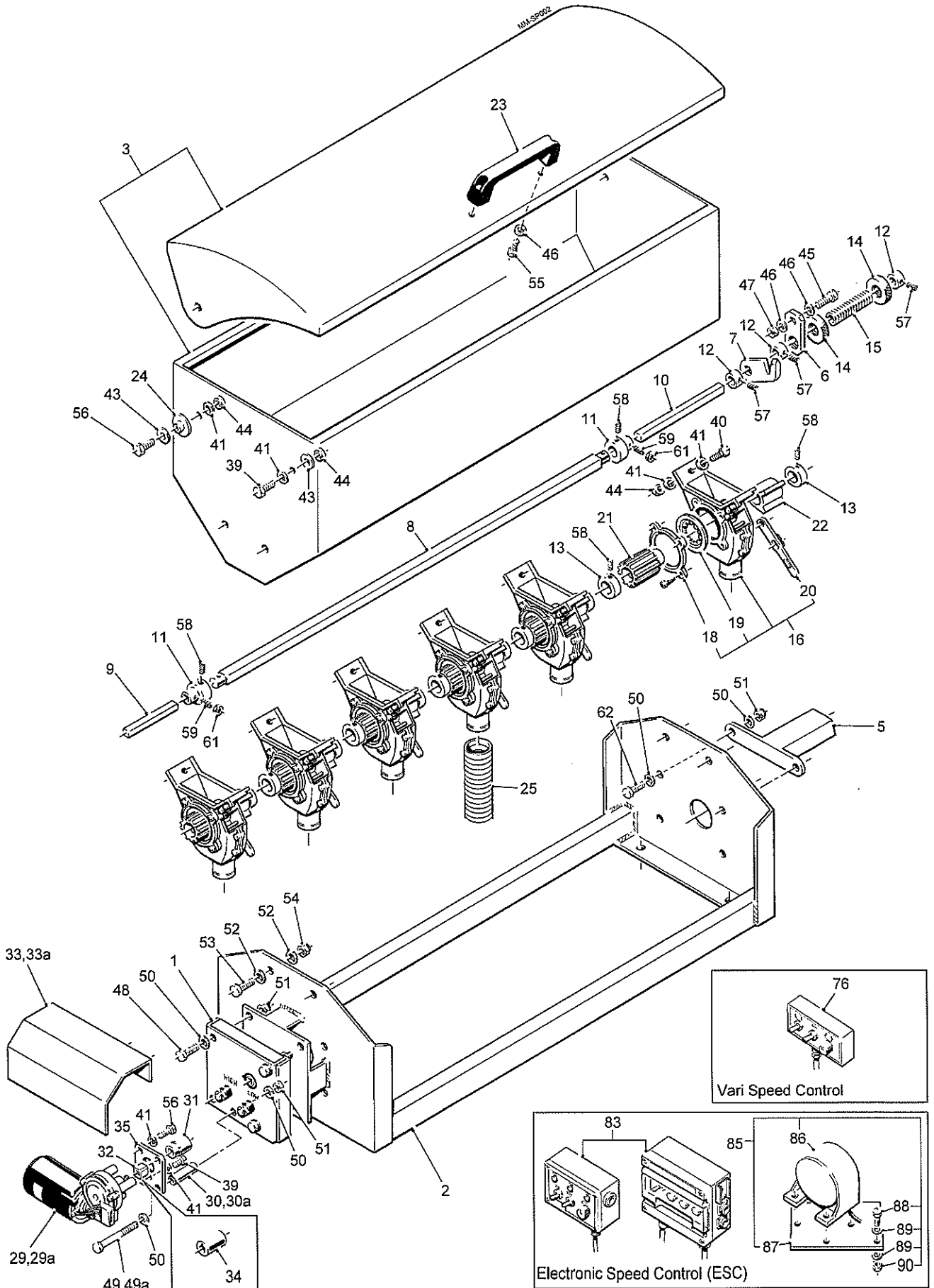
Do use a brush not your hand to sweep out the bottom of the hopper.

NOTE The metering units are capable of pulling in fingers, hair or loose clothing. The motor is so powerful you will be unable to stop it.

MAINTENANCE

Do not pressure wash the motor, gearbox or any electrical control or calibration consoles. The gearbox is lubricated for life. Clean out all hopper contents and use an air line to blow out the feed units before storage. Ensure electrical connections are clean and dry- spray with WD40 or similar.

Maxi-Meter Assembly



Maxi-Meter Assembly

Item	Part No.	Description	Qty.	Remarks
1	MM002G	Gearbox Complete	1	
2	FS200A	Chassis	1	
3	FS210A	Hopper c/w Lid	1	
4				
5	FS115	Adjuster Bracket	1	
6	FS119	Adjuster Plate	1	
7	FS114	Pointer	1	
8	FS110	Feed Drive Shaft	1	
9	FS111	Adaptor Shaft (short)	1	
10	FS112	Adaptor Shaft (long)	1	
11	FS109	Shaft Adaptor	2	
12	MM517	Locking Collar (small)	3	
13	FS108	Locking Collar (large)	11	
14	FS117	Knurled Adjuster Knob	2	
15	FS116	Threaded Adjuster	1	
16	FS100	Feed Cup Complete	6	
17				
18	FS098	Flange	6	
19	FS099	Inner Ring	6	
20	FS097	Lever	6	
21	FS101	Feed Roller	6	
22	FS102	Feed Cut-off Sleeve	6	
23	FS103	Lid Handle	1	
24	FS104	Top Hat Washer	2	
25	FS222	Ø40mm Bore Hose	a/r	
26				
27				
28				
29	MM044	Metering Motor	1	Used with Vari Speed
29a	TJ044A	Metering Motor	1	Used with ESC
30	MM047	Motor Mounting Bush	2	Used with Vari Speed
30a	MM042	Motor Mounting Bush	2	Used with ESC
31	MM048	Drive Socket	1	
32	MM049	Square Drive Block	1	Used with Vari Speed
33	MM055A	Metering Motor Guard	1	Used with Vari Speed
33a	MM060A	Metering Motor Guard	1	Used with ESC
34	TJ043	Motor Coupling	1	Used with ESC
35	TJ035	Motor Mount	1	Used with Vari Speed
36				
37				
38				
39	M6-004	M6x16 Hex Head Setscrew	5	
40	M6-006	M6x20 Button Head Setscrew	12	
41	M6-015	M6 Flat Washer	35	
42				
43	M6-018	M6 Repair Washer	4	
44	M6-023	M6 Nyloc Nut	16	
45	M8-003	M8x20 Hex Head Setscrew	1	
46	M8-010	M8 Flat Washer	4	
47	M8-019	M8 Nyloc Nut	1	
48	M10-009	M10x40 Bolt	3	
49	M10-014	M10x100 Bolt	2	
49a	M10-015	M10x130 Bolt	2	
50	M10-016	M10 Flat Washer	11	
51	M10-024	M10 Nyloc Nut	7	

MAXI-METER SPARE PARTS**1.1b****Maxi-Meter Assembly**

Item	Part No.	Description	Qty.	Remarks
52	M12-008	M12 Flat Washer	8	
53	M12-002	M12x25 Hex Head Setscrew	4	
54	M12-014	M12 Nyloc Nut	4	
55	M8-001	M8x16 Hex Head Setscrew	2	
56	M6-005	M6x20 Hex Head Setscrew	4	
57	FJ008A	M6x6 Grub Screw	3	
58	M6-031	M6x12 Grub Screw	13	
59	M6-032	M6x16 Grub Screw	2	
60				
61	M6-021	M6 Nut	2	
62	M10-004	M10x25 Setscrew	2	
63				
64				
65				
66				
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71				
72				
73				
74				
75			1	
76	GA115B	Vari Speed Cab Control Box	1	
77	MM107	Vari Speed 3.5m Power Cable	1	(not shown)
78	MM108	Vari Speed 6m Connector Cable		(not shown)
79				
80				
81				
82			1	
83	MM003C	ESC Control System	1	
84	MM316	Mounting Plate for ESC Panel	1	(not shown)
85	TJ237	ESC Ground Speed Radar Complete	1	
86	TJ233	ESC Ground Speed Radar	1	
87	TJ231	ESC Radar Bracket	3	
88	M10-004	M10x25 Bolt	6	
89	M10-016	M10 Flat Washer	3	
90	M10-024	M10 Lock Nut		
	M5-017			
		Control Panel		
		M5 Nyloc Nut		