The *Terrapro Guide* to innovative agricultural technology

As the sole importer and distributor of the unique Stocks AG range of applicator products we offer you this guide with pride.

Contact us by phone, fax or email or visit our website. Details appear on the back page of the guide.

- Lukas Rautenbach
Terrapro

Fan Jet broadcasters

A range of multipurpose 12 volt electric spinning disc broadcasters with hopper capacities of either 50 kg (65 l) or 100 kg (130 l) for the application of small seeds (teff and other types of grass), canola, lucerne, etc), slug pellets, rodent bait and granules (fertilisers and herbicides).
Can be fitted to the front of a tractor, the back of an ATV or bakkie or on a wide variety of implements - in fact any vehicle with a 12 volt power source - for time and money saving multi-applications.

FAN JET PRO

Ideal for the broadcasting of seed and other granular products, including fertilisers, herbicides, slug pellets and rodent bait - in fact, the Fan Jet Pro will spread any material that flows freely through the feed apertures. It can be mounted on ATV, tractor, sprayer or any other implement powered by a 12 V DC power source.

Spread widths

Spread widths will vary according to application rate, forward speed, wind speed and direction, product type and density: more dense = wider spread. For optimum results we recommend a minimum disc height of 1 m from the ground or crop canopy and calm conditions.

	Pro 65	Pro 130
Max. width (m)		
Slug pellets	18 - 24 (28*)	18 - 24 (28*)
Teff and similar types of grass seed	6+	6+
Canola	18	18
Lucerne	18	18
Net weight (kg)	33	35

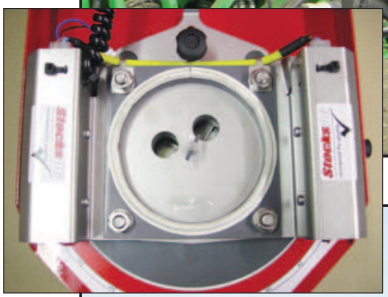
Both models available with either 65 ℓ (50 kg) or 130 ℓ (100 kg) hoppers.

Two feed apertures ensure a more even distribution onto the disc and thus a better and more even spread pattern, with an agitator providing consistent flow of material. The feed mechanism has a stepless adjustment of application rates by means of an easy to use graduated and lockable slide.

Spreading features

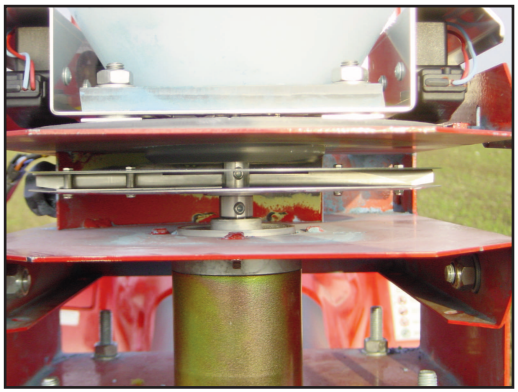
The stainless steel double skin disc has 2 long stainless steel vanes running from the centre of the disc to the outside. Products are collected gently in the centre and then accellerated along the vane between the top and bottom disc. The results in less breakage and a wider, more even spread of material with greater efficiency in the field and improved resistance to weathering.

Two adjustable deflector plates further enhance control over spreading widths.



Fan Jet Pro 65 & 130

Integral adjustable width deflectors are fitted to each side of the disc and can be used individually as a headland control to one side only, Stepless spread bias adjustment provides adjustment of the throw of product to the left or right to fine tune the pattern, and can also be used as a headland control - especially if used with the deflectors. Simply rotate the complete feed mechanism in the direction where you want more product.
All models are supplied complete with control console and standard cables.



Speed Controle Options:

FAN JET PRO STANDARD

Single Speed Control Console allows for on-the-move feed motor adjustment with instant start and stop spreading of material.

Single Speed Control

FAN JET PRO VARIO

12 Speed Control Console allows for on-the-move feed motor adjustment with instant start and stop spreading of material.
Spreading width can be adjusted to fit the required width of the implement or the type of operation.

12 Speed Control

FAN JET MINI

The Fan Jet Mini offers spreading widths of between 2 and 10 m, making it the ideal choice for spreading small seeds, slug pellets, fertilisers, herbicides, rodent bait, and other granular products in orchards, vineyards and other confined spaces.

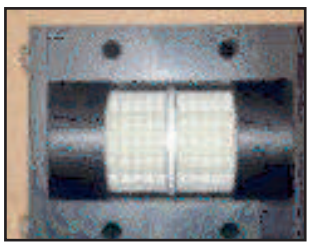
Spread widths

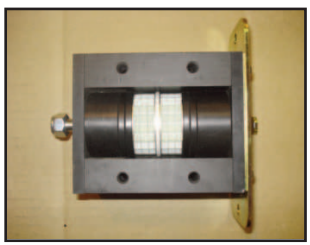
Spread widths will vary according to product density: more dense = wider spread. For optimum results we recommend a minimum disc height of 1 m from the ground or crop canopy and calm conditions.

	Mini 65	**Mini 130**
Max.width (m)	2 - 10 (12*)	2 - 10 (12*)
Slug pellets	6	6
Teff and similar types of grass seed	3	3

Both models available with either 65 ℓ (50 kg) or 130 ℓ (100 kg) hoppers.

A 24-speed roller deposits the seed on the disc. Spreading width is further enhanced by two adjustable deflector plates. Rotating fluted feed rolls agitate the material to ensure an even flow. Application rates are set by the combination of feed roll type and the rotation speed and may be changed on the move from the driver's seat.





"Problem" seed like Smutsfinger, Blue Buffalo and Bristle Grass (Borseltjiegras) should be mixed with coarse material - or use AgriCOTE seed (see AgriCOTE in the top menu of our website, www.terrapro.co.za).

Electric controls

Remote control console with instant start and stop of spreading as well as on-the-move rate change. 3,5 m fused battery power lead and 6 m connector cable standard. Extension cables optional.

Fan Jet Twin

The Twin is a low cost machine designed to spread a large, dense slug pellet typically from 20 m up to a maximum of 30 metres. It is suitable to fit to any vehicle powered by 12 V DC, making it ideal to use with most UTV's (utility vehicles) as well as front mounted to tractors, and self propelled sprayers.

It uses 2 Fan Jets, handed left and right, which are used together but have individual LH and RH controls, allowing either side to be shut off independently.The feed mechanisms, discs and disc motors are reversed on one machine to give contra-rotating discs.

Independent left and right hand control are used to shut off one side for short work and as a headland control.
Variable disc speed control is used as the primary method of spread width setting and is ideal to use as headland control by simply dialing down the disc speed as required.
Stepless spread bias adjustment provides adjustment of the throw of product to the left or right to fine tune the pattern, and can also be used as a headland control. Simply rotate the complete feed mechanism in the direction where you want more product.

Electric Controls

Individual LH and RH controls provide variable disc speed and individual start and stop of spreading, and a master switch starts and stops both machines together. Control consoles, 3 m fused battery power lead and a 6 m connector cable are supplied.

Fan Jet Mini 65, 130 & 240

Width and Headland Control

Variable disc speed control is used as the primary method of spread width setting and is ideal to use as headland control with slug pellets, simply dial down the disc speed as required.

Integral adjustable width deflectors are fitted to each side of the disc. These can be used individually as a headland control to one side only, or together to give fine tuning or overall reduction of the spreading width.

PRICING CHOICE - Model & Cost Options

Fan Jet Mini 65, 130, and 240.
All models are supplied complete with control console and standard cables.

COST OPTIONS

ATV Fitting Kit. Suitable for the 65 model only - A universal, all steel, quick fit bracket and attaching mechanism to fit the Fan Jet to the rear luggage carrier. The bracket elevates the Fan Jet above the rear carrier to maximise the disc height, and jacking bolts adjust the angle of pitch of the Fan Jet to compensate for suspension deflection of the ATV under load. Short 2 m power and 2.5 m connector cables minimise power drop to maximise disc motor speed and spread width. A rear shield bolts to the Fan Jet to protect the operator.

Calibration Chute. To assist when calibrating the machine, the chute quickly and simply attaches to the Fan Jet to safely collect and channel the pellets or seed into a collection bag for weighing.

Extension connector cables are available for all models in 2.5 m, 6 m, 10 m lengths.

Micro Meter

The Micro Meter is a modular machine, built up in metre lengths as required and used to accurately meter and distribute small seeds and microgranules, and is available with either Vari-Speed or Wizard controls. It is usually attached to rigid non-folding implements to give low cost and reduced pass operations, and is ideal to apply seeds such as rape, mustard, stubble turnips, and deawned grass, and many microgranular materials such as OSR micro-granular fertiliser, and herbicide granules, through to full size slug pellets and low rate prilled fertilizer.

It is supplied in 1 metre widths, each with an integral steel chassis that are easily bolted together to form 1 m, 2 m and 3 m units as required. A 12 volt motor drives fluted feed rolls that meter product through 6 outlets per metre hopper, gravity fed down delivery tubes for band sowing or to the supplied spreaders for broadcast effect. Blanking plates are supplied to reduce the number of outlets as required to match implements.

Specifications (per metre)

Choice of Wizard or Vari-Speed control systems. Please see pages 23-24.

Power requirement 12 volts DC – 25 amp.

Hopper capacity 60 litres each. (Approximately 40 kg rape).

Outlet spacing 166 mm
Net weight 1m = 36 kg, 2 m = 61 kg, 3 m = 86 kg.

Dimensions each unit - mm.
W 1020 x D 320 x H 480 less spreader or 900 including spreader.

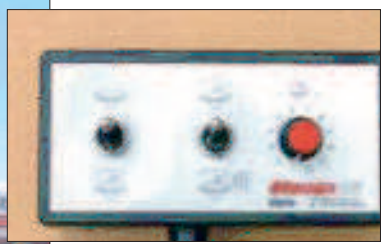
PRODUCT RANGE & SPREADING PERFORMANCE

1 METRE MICRO METER – Vari-Speed or Wizard controls. **Band sow up to 6 rows, or spread 1.5 m.** Hopper capacity 60 litres, 6 outlets, 2 m spreader kit with 6 spreaders, 10 m of delivery tube, 3 blanking plates.

2 METRE MICRO METER – Vari-Speed or Wizard controls. **Band sow up to 12 rows, or spread 3 m.** Hopper capacity 120 litres, 12 outlets, 3 m spreader kit with 12 spreaders, 20 m of delivery tube, 6 blanking plates.

3 METRE MICRO METER – Vari-Speed or Wizard controls. **Band sow up to 18 rows, or spread 4 m.** Hopper capacity 180 litres, 18 outlets, 4 m spreader kit with 18 spreaders, 30 metres of delivery tube, 9 blanking plates.

Electric Controls

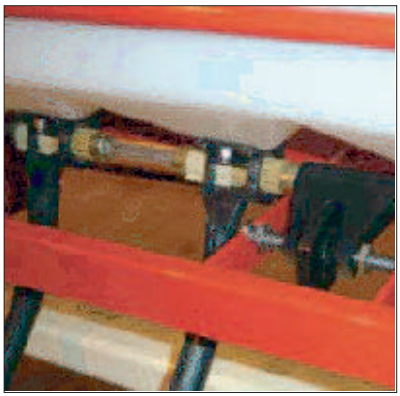


Two systems are available. Vari-Speed or Wizard. Each supplied with control console, 6 m connector cable from the control console. Vari-Speed supplied with 3.5 m fused battery lead, Wizard supplied with 7 m power lead to connect to tractor 3 pin DIN plug. If no 3 pin plug available, a fused battery lead is a cost option. Extension cables available as a cost option.

Micro Meter

Application Rate

Each hopper has 6 outlets. Product is metered by a precision moulded plastic fluted feed roll driven by a stainless steel feed shaft powered by a 12 volt motor driving through a 2 speed reduction gearbox. The feed rolls slide through their housings to provide stepless rate adjustment by opening or closing the feed aperture using a simple rotary wheel and the feed shaft speed can be increased or decreased as required.



The application rate is set by a combination of feed aperture setting and shaft speed - which in turn is a combination of gearbox setting (high or low speed) and feed motor speed. For 2 or 3 metre units, each hopper has its own adjuster to slide the 6 feed rolls together.

A simple calibration catch and weigh test will determine the rate and settings.

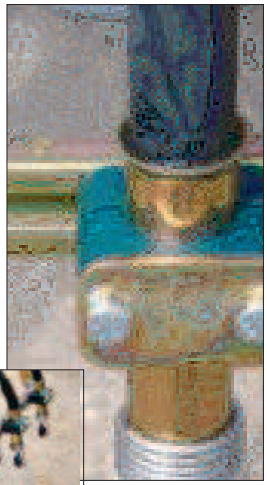
Cost option of deep groove feed rolls is available for higher output, eg, grass seed, fertiliser. **Please enquire.**

Blanking Plates

Use these to reduce the number of outlets per hopper as required. For example if band sowing behind a 5 leg sub-soiler, use a 1 m Micro Meter with 6 outlets and blank off 1 outlet, leaving 5. If using a 7 leg subsoiler, use a 2 m Micro Meter with 12 outlets, and blank off 2 in one hopper and 3 in the other hopper to leave 7, and so on.

Spreader Kit

Each 1m hopper is supplied with a spreader kit consisting of 6 inverted nylon cones attached to steel tubes, in turn attached to a length of steel channel section which is suspended below the Micro Meter hopper on supplied brackets. These spreader assemblies may be joined together if using 2 or 3 hoppers. The spreaders slide along the channel to the required spacing where they are locked in place. 10 m of rubber delivery tube per hopper is supplied to be cut to length as required.



Use the nylon cones to broadcast, or remove them for band sowing. The spreader kit is easily user modified as equired.

Micro Meter

What width Micro Meter is required?

This is determined by the implement width, the number of feed outlets needed, hopper capacity required, and the decision to broadcast or band sow.

Broadcast

Typically used for small seeds or herbicide granules if all the bout width has been cultivated. Broadcast width using the spreader cones. Each 1 m hopper has 6 spreaders and will broadcast most granules and small seeds evenly up to 1.5 m (max), so 2 hoppers with 12 spreaders = 3 m even broadcast (max) and 3 hoppers with 18 spreaders = up to 4.5 m even broadcast (max). Height of the cones approx 300 - 400 mm from the ground and spread widths will vary according to product being metered – establish width before use.

Band Sow

Typically used when sowing rape from a sub-soiler with no other cultivation and band sowing behind or just to each side of the legs over the wings, or applying microgranular fertiliser in bands.

Fitting to the Implement

The chassis' simply and easily bolt together to form a rigid structure and spare holes are provided in the chassis' to facilitate fitting to the parent vehicle with suitable user supplied brackets. The hoppers need to be mounted high enough to ensure gravity feed of product down the delivery tubes.

PRICING CHOICE - Models & Cost Options

Micro Meter Wizard 1 m, 2 m or 3 m.
Complete with all controls and standard cables, and spreader kit.

Micro Meter Vari-Speed 1 m, 2 m or 3 m.
Complete with all controls and standard cables, and spreader kit.

COST OPTIONS
Extension connector cables - (both)
Battery lead - (Wizard only)

Micro Meter Combi-drive

Micro Meter Combi-Drive

The Combi-Drive is designed to fit behind, and take a mechanical drive from the existing Stocks Micro Meter Wizard OSR seeder, and is used to band sow or broadcast slug pellets or growth promotion granular fertiliser, whilst OSR seeding using a cultivator. The pellets or fertiliser are placed exactly where required, reducing costs, and contamination of water at field margins and focuses nutrients whilst aiding compliance of NVZ regulations. The application rate will be proportionate to the forward speed using the existing radar based RDS Wizard control system to control both Micro Meters. Using a separate hopper, feed units and delivery tubes from the OSR seeder enables independent application rates to be used, and the placement of the slug pellets or fertiliser granules can be positioned wherever is required for maximum effect. For example slug pellets can be banded over the seed, behind the roll, on the surface where they will be most effective, and fertiliser can be placed in front of or behind cultivator legs, or with the seed.

Specifications (per metre)

Power requirement. Mechanical drive taken from Wizard Micro Meter.

Hopper capacity. 60 litres each (Approx 45 kg slug pellets, 70 kg typical microgranular fertiliser.)

Outlet spacing. 166 mm

Net weight. 1m = 40 kg

Dimensions each unit - mm. W 1070 x D 320 x H 480 less spreader or 900 including spreader.

Spreader kit and blanking plates as the Wizard Micro Meter.

Application rate. Once each Micro Meter is calibrated independently, the radar based Wizard control system ensures accurate and reliable application in proportion to forward speed.

Both Micro Meters (Wizard and Combi-Drive) have individual stepless calibration using different feed aperture settings, thus each Micro Meter can apply the required application rates of seed, slug pellets, or fertiliser. (OSR typically 2.5 - 5 kg/ha, Slug pellets typically 3-15 kg/ha, Granular fertiliser typically 10 - 30 kg/ha.)

Fitting to the implement. The Micro Meter Combi-Drive uses robust brackets to simply bolt to the existing OSR Micro Meter Wizard, and a simple chain drive to transfer the drive from the Micro Meter Wizard. Each hopper has 6 outlets which may be blanked off as required. The Combi-Drive is available to fit both 1 and 2 m Micro Meter Wizards typically used with rigid cultivators up to 3 m wide.

PRICING CHOICE - Models & Cost Options

Micro Meter Combi-Drive 1 m or 2 m.
Complete with drive brackets and spreader kit.

Rotor Meter 2 & 3 Outlet Applicators

The Rotor Meter is available as a 2 or 3 outlet sealed and water resistant applicator to accurately and safely meter micro and full size granular material, and small seeds in controlled placement applications in agricultural and horticultural situations, and is available with Vari-Speed or Wizard controls. It is typically used for placement of sulphur granules, slug pellets or fertiliser whilst planting potatoes, or the safe application of chemical micro granules for incorporation whilst bed forming or planting vegetables, or the accurate placement of granules into growing salad and vegetable crops. Often used to introduce slug pellets into the main airflow of an air drill to be blown down with the seed, or silage inoculant granules into a forage harvester, etc. Use for accurate drilling or placement of seeds in rows or beds. Alternative feed rolls are available for different materials and application rates. Hopper capacity 65 litres (approx 50 kg slug pellets, 75 kg micro granular fertiliser, 100 kg sulphur granules). A option of a larger hopper is available - please enquire. 2 or 3 Rotor Meters can be fitted to one machine and used together *to give multiple row applications – please enquire for details.*

Specifications

Choice of Wizard or Vari-Speed control systems. Please see page **16.**

Choice of 2 or 3 Outlets.

Easy empty hoppers Simply pull a pin and the complete machine tips through 90 degrees for quick, safe emptying of contents

Weight Net 30 kg. Gross – variable according to contents – Fertiliser and Sulphur are far more dense than slug pellets!

Power requirement. 12 volts DC 15 amps.

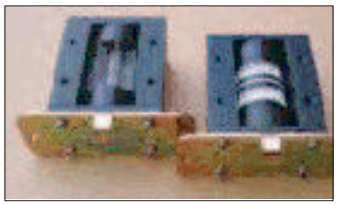
Dimensions - mm. W500 x D560 x H 870 (65 ℓ)

Electric Controls

Two systems are available Vari-Speed or Wizard. Each supplied with control console, 6 m connector cable from the control console. Vari Speed supplied with 3.5 m fused battery lead, Wizard supplied with 7m power lead to connect to tractor 3 pin DIN plug. If no 3 pin plug available, a fused battery lead is a cost option.
Extension cables available as a cost option.

Feed Mechanism

Water resistant leak proof hoppers and feed mechanism for safe application of chemical granules, fertiliser, etc.



Will meter almost any granule or seed from fine micro-granules to rough trace element fertiliser, and clover to maize. (Product must free-flow)

Product is metered via rotating fluted feed rolls powered by an electric motor, and gravity fed down 2 or 3 delivery tubes as required.

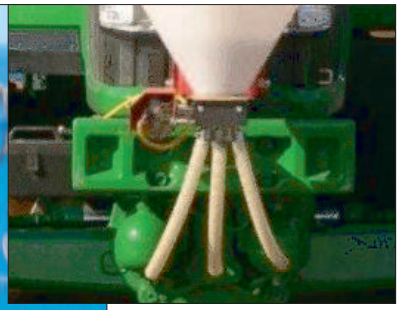
Supplied with 3 m delivery tube per row to integrate with parent implement. **(Note: no spreaders are supplied.)**

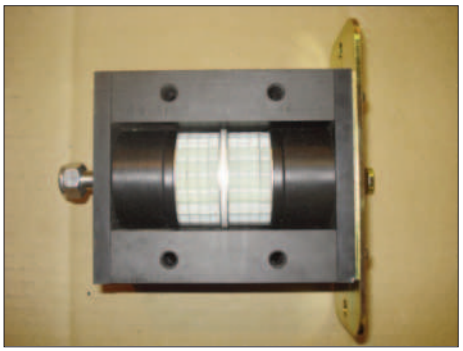
Alternative feed rolls are available for different products and application rates, and are easily changed. The complete feed block can be removed in seconds with no tools required. The feed motor is switched on and off for instant positive start and stop.
Application rates are set by the combination of feed roll type and speed of rotation.

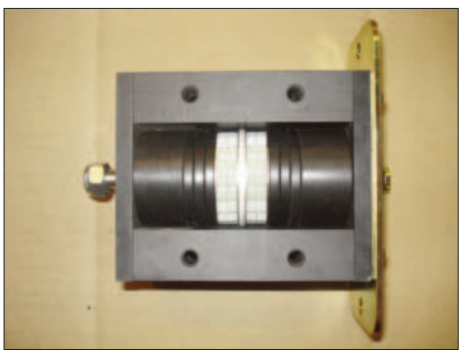
Application rate can be changed on the move from the tractor seat.

Simple calibration catch and weigh test to establish application rate.

Rotor Meter 2 & 3 Outlet







Fitting

Use the bolt holes provided in the tipping bracket. Mount hoppers high enough to ensure gravity feed of product down the delivery tubes.
Use 2 or 3 Rotor Meters together if required.
Please enquire for details.

PRICING CHOICE - Models & Cost Options

Rotor Meter Vari-Speed complete with control console and standard cables and 3 metres or delivery tube per outlet.

Rotor Meter Wizard complete with control console and standard cables and 3 metres or delivery tube per outlet.

NOTE. Specify No. of outlets - 2 outlet or 3 outlet.

COST OPTIONS

Extension connector cables - are available.

Alternative feed rolls - for different rates and product.

Larger hopper - 130 litre hopper.

Turbo Jet 8 & 10 Applicators

The Turbo Jet is a versatile and accurate pneumatic applicator to meter and spread most small seeds up to 8m wide. It is available with 8 or 10 outlets, and with either Vari-Speed Plus, Wizard or Precision VR controls.
It is typically used to sow small seeds such as rape, mustard, turnips, etc, at very low rates down to 2 kg/ha or below, through to full rate grass seeding at 40+ kgs/ha. It is also suitable to apply slug pellets prior to or post drilling , fertiliser - both prilled and micro-granular, herbicide granules such as Avadex (R), and cereal seeds used to stabilise blowing soil. (Alternative feed rolls are available to enhance performance with micro-granular products.) Two Turbo Jets may be used together to apply OSR and fertiliser or slug pellets at the same time. It is usually fitted to cultivation equipment of all types such as tined grass harrows up to 6 m wide, or 3 m wide mounted stubble cultivators, to 8 m wide x 20 m long tillage trains. It is suited to both folding or rigid equipment and will work up to 30 m from the power source. It is adaptable forbroadcasting or band sowing and the 8 or 10 outlets can be doubled to 16 or 20 for the ultimate broadcast effect, or can be individually blanked off to band sow with a 5, 7 or 9 leg subsoiler. Use it with tined grass harrows to undersow or re-seed pasture, or with almost any cultivator as a low cost one pass seeder. A 12 volt motor drives fluted feed rolls that meter seeds into the individual air tubes. High capacity electric fans ensure a reliable spread, and the versatile feed mechanism easily adapts for different rates and products, and a selectable agitator prevents difficult grass seeds from bridging. The Turbo Jet is supplied as standard with everything that should be required, and the only cost options are extra extension cables when fitting to long cultivators.
NOTE. The TJ8 is the most popular model, with the TJ10 being especially useful fora 9 leg cultivator or for ultra-high rate grass seeding in the amenity sector, eg, for golf course, playing fields or parks.

Specifications

Choice of Vari-Speed Plus , Wizard or Precision VR controls.
Supplied with 5 m fused battery power cable and 6 m connector and power cables from console to Turbo Jet. Extension cables as a cost option.
Hopper capacity 240 ℓ (150 kg rape or 85 kg grass or 180 kg slug pellets).

Optional 400ℓ Hopper.

Net Weight 125 kg.
Power requirement 12 volts DC - 30 amps.
Dimensions - mm W700 x D1200 x H1200.

Electric Controls

Three systems are available Vari-Speed Plus, Wizard or Precision VR.
Each supplied with control console, 6 m connector cable from the control console.
5 m fused battery lead to connect from the battery to the back of the cab, and join the 6 m power lead = 11 m total power lead.
Extension cables available as a cost option.

Spread Width

Maximum width 8m from 8 or 10 outlets and delivery tubes. (TJ8 or TJ10)
Each delivery tube may be split into two using supplied ' Y ' connectors that are positioned near the spreaders, so 8 outlets become16, and 10 becomes 20. The number of tubes will depend on the product being applied, the implement width and type, and the decision to broadcast or band sow.

Spreader Kit

Each Turbo Jet is supplied with 16 (TJ8) ***or 20*** (TJ10) ***spreaders and 8m of steel channel rail and brackets*** (4 x 2 m lengths). These are fitted to the implement, and the spreaders slide along the channel to the required position where they are locked in place. Product is metered by the feed rolls down individual delivery tubes to the spreader kit.

A 30m reel of tube is supplied as standard to be cut to length as required.

The Micro Meter, Maxi Meter, Rotor Meter all have variable speed feed rolls driven by 12 volt electric motors – choose Vari-Speed or Wizard control systems.

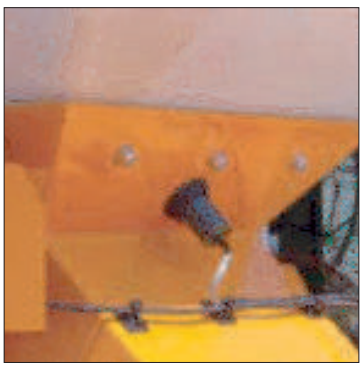
VARI-SPEED CONTROL
MANUAL - NON SPEED RELATED

This is a simple low cost manually operated electric control used to instantly start and stop the feed motor at headlands, and uses a dial control to set the feed motor speed and thus the application rate. It is not linked to forward speed so once calibrated the operator drives at a consistent forward speed to maintain the rate, or can manually increase or decrease application rates on the move using the dial.

Supplied with cab console, 3.5 m fused battery power lead, 6 m connector cable from cab console to machine. Extension cables available as a cost option.

Vari-speed cab console

RDS Wizard option



Wizard Hopper Sensor

Wizard Radar

WIZARD CONTROL
AUTOMATIC - RADAR BASED - SPEED RELATED

This is an extremely comprehensive radar based automatic system with numerous features.

• The RDS Wizard system automatically maintains a preset application rate as forward speed varies, with on-the-go manual up and down adjustment of rate from the target. (Adjustable increments of 5, 10, 15, 20 or 25%)

The Wizard monitors forward speed by radar and controls the feed roll speed as required with a reliable, high quality, 12 volt encoder motor with integral reduction gearbox. Constant comparison and balancing of forward speed versus feed motor speed ensures an extremely accurate and reliable seeding rate is maintained.

Supplied with cab console (Wizard instrument), terminator and switch box, remote implement mounting finger switch, radar and mounting bracket, 6 m connector and power cable from cab console to machine. Power leads ; MICRO METER ONLY – 7 m of 3 core power lead fitted with 3 pin DIN COBO to connect to 3 pin plug on rear of tractor OR TURBO JET ONLY - 5 m fused lead to connect from the battery to the back of the cab, and join the 6 m power lead = 11 m total power lead. Extension cables available as a cost option.

FEATURES

• The Wizard has an extremely simple and accurate programmed calibration procedure for stepless rate setting.
• Indicates the attainable speed range available during the calibration.
• The junction box on the machine has a priming switch used for calibration.
• A switch in the cab can be used to manually switch the feed motor on and off, or it may be done automatically via the supplied implement or lift-arm mounted cutout finger switch as the implement is raised and lowered.
• A Pre-Start feature can start the feed mechanism whilst stationary to help when working out of corners.
• Area count is suspended when the feed motor is off. Area totals and all calibration data are automatically stored in memory when the instrument is powered off.

The Wizard measures and visually displays the following features:

• Forward Speed (km/h from the radar)
• Part Area and Total Area worked (h/a)
• Seed Application Rate (kg/ha) and deviation from target rate

There are audible and visual display alarms for:

• Low Hopper Level (contents low)
• Minimum / maximum forward speed (beyond which the programmed seed rate cannot be maintained).
• Feed motor stopped (power on but no feedback signal - manually switched off or fail)
• Feed motor stalled (no power or mechanical stall)
• Low electrical power supply.
• Fan Status and switched manually off or fail (Turbo Jet only)

PLEASE NOTE

Separate booklets covering individual product can be viewed and/or downloaded by visiting terrapro.co.za

With the compliments of Terrapro, the sole distributer of Stocks applicator products in South Africa

For more information, contact Lukas Rautenbach at 082 88 111 33 or 021 551 1739 or send an e-mail to terrapro@telkomsa.net.

Terrapro

Products that lead the field

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