

The ***Terrapro Guide*** to innovative agricultural technology

Turbo Jet Pneumatic Applicators



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

This booklet also contains details about our other Stocks AG products.

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Terrapro

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 kgs/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 drilled 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 6m wide, or 3m wide mounted stubble cultivators, to 8m wide x 20m long tillage trains. It is suited to both folding or rigid equipment and will work up to 30m from the power source. It is adaptable for broadcasting 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 for a 9 leg cultivator or for ultra-high rate grass seeding in the amenity sector, eg, for golf courses, playing fields or parks.



Specifications

Choice of Vari-Speed Plus , Wizard or Precision VR controls.

Supplied with 5m fused battery power cable and 6m connector and power cables from console to Turbo Jet. Extension cables as a cost option.

Hopper capacity 240ℓ (150 kgs rape or 85 kgs grass or 180 kg slug pellets).

Optional 400ℓ Hopper.

Net Weight 125 kg.

Power requirement 12 volts DC - 30 amps.

Dimensions - (mm) W 700 x D 1 200 x H 1 200.



Electric Controls

Three systems are available Vari-Speed Plus, Wizard or Precision VR.

Each supplied with control console, 6m connector cable from the control console.

5m fused battery lead to connect from the battery to the back of the cab, and join the 6m power lead = 11m total power lead. Extension cables available as a cost option. (See page 5)





Spreader Kit

Each Turbo Jet is supplied with 16 (TJ8) or 20 (TJ10) spreaders and 8m of steel channel rail and brackets (4 x 2m 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.

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 become 16, 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.



Broadcast or Band Sow effect

The spreaders have a detachable spread plate which is retained for broadcasting and simply removed for band sowing.

Broadcast

Broadcast width of each spreader will vary with different product being spread, but typically up to 4m wide single tubes are often used without being split, and over 4m it is usual to fit the Y connectors. The tubes and spreaders are fanned out to suit.



Typical height approx 250 - 300mm and will vary according to product being metered. The spreader kit is easily user modified as required, and extra lengths are available as a cost option.



Band Sow

Simply position the delivery tubes as required across the implement width.

Blanking Spacers and air stoppers are supplied to reduce the number of outlets for band seeding with a 9, 7 or 5 leg sub soiler for example.



Feed Mechanism

Small seed and grass seed rolls are supplied as standard.

Fluted feed rolls on a stainless steel shaft are driven by a 12 volt electric motor. The application rate is set by the combination of feed roll type and shaft speed.

Simple calibration catch and weigh test to establish application rate, a calibration tray is supplied.



Small Seeds

Individual feed rolls for each outlet ensure accuracy down to very low rates



or 2kgs/ha or below of rape seed. These feed rolls are assembled on the shaft in combination with spacers to give the required application rate and forward speed range.

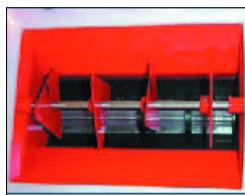
They are easily changed as required.

Grass Seed and Mixes

High capacity feed rolls are supplied to meter high rates of grass up to 40 kgs/ha, 6m wide at 12 kph.



An agitator powered by a separate electric motor is fitted inside the hopper base and used with grass seeds to prevent difficult seeds bridging, and ensure a constant flow of seed to the feed rolls.



Airflow

Twin high capacity electric fans and large bore

tube deliver powerful airflow for reliable spreading and the fans are totally enclosed by mesh air intakes to prevent the ingress of straw and chaff.

The fans are extremely reliable IP 68 rated waterproof and dustproof, and the meshed intakes are easily accessible to clean down if required. The complete fan cover hinges upwards to expose the fans for cleaning.



The **Turbo Jet** has variable speed feed rolls driven by 12 volt electric motors - choose **Vari-Speed, Wizard or Precision VR control systems.**

VARI-SPEED PLUS 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, 5m fused battery power lead, 6m connector cable from cab console to machine. Extension cables available as a cost option.



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, 6m connector and power cable from cab console to machine. Power lead: 5m fused lead to connect from the battery to the back of the cab, and join the 6m power lead = 11m 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 (Kph 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



PRECISION VR CONTROL

PRECISION FARMING READY CONTROL

- GPS BASED RDS MAC8000 SYSTEM

- The Stocks AG Turbo Jet is available with a GPS based MAC8000 control from RDS
- This has all the features of the familiar radar based RDS Wizard control plus is capable of Precision Farming automated variable rate application, working from a seeding plan - simply load the pre-defined seeding plans via the SD card.
- Integrated SD card reader allows basic data logging to produce field records - upload directly onto a spreadsheet or a yield map propriety software package.
- The Precision VR control can also be used to operate single or multiple Stocks applicators on one implement, for example, 2 x Turbo Jets on one cultivator, 1 x TJ band sowing oilseed rape in front of the roller, and 1 x TJ applying slug pellets evenly across the working width behind the roller - both at different rates from a seeding plan.
- The Precision VR control can be used with other Stocks Applicator models - please enquire for details.



Fan Jet

A range of cost effective multi purpose 12 volt electric spinning disc broadcasters for the application of slug pellets, small seeds and granules. These versatile implements can be used on their own or in tandem with a host of other implements



Micro Meter

A modular machine, built up in metre lengths as required and used to accurately meter and distribute small seeds and microgranules.



Rotor Meter

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.

**StocksAG**

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

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