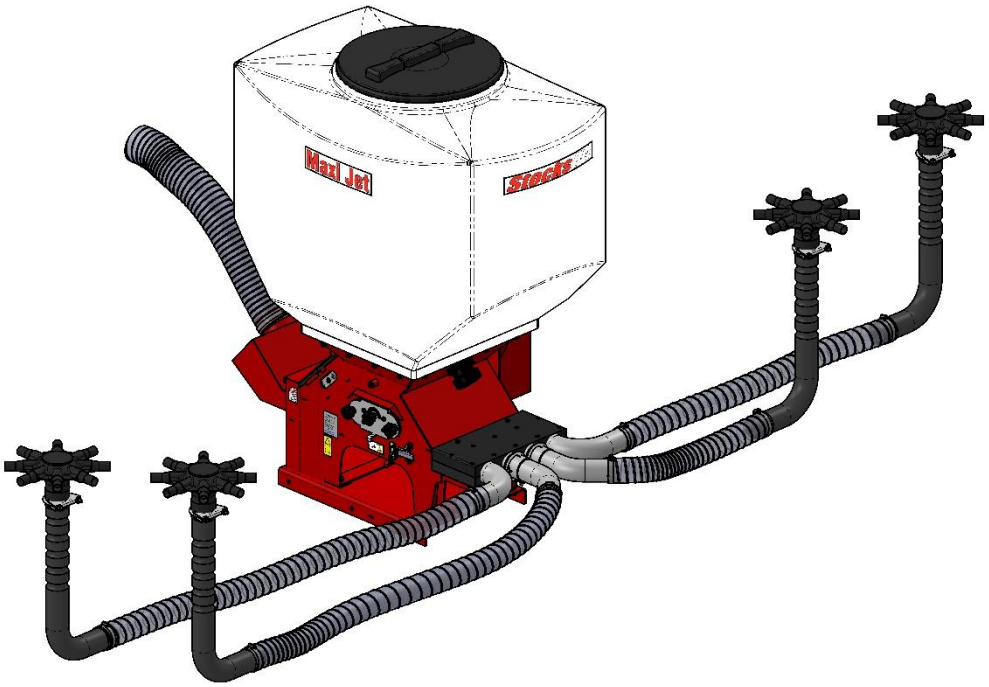
Maxi Jet 2 and 4 Jackal

ORIGINAL OPERATING MANUAL & PARTS LIST



Read carefully before installation and operation

MADE IN BRITAIN
EST.1977

Stocks Ag Limited.
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TABLE OF CONTENTS

StocksAG

E.C. DECLARATION OF CONFORMITY

Machine Type:	Mounted Agricultural Implement - Pellet and Seed application broadcasters	
Model(s):	Fan Jet Pro	All Variants and Versions
	Fan Jet Plus	All Variants and Versions
	Fan Jet Mini	All Variants and Versions
	Fan Jet Duo	All Variants and Versions
	Maxi Jet	All Variants and Versions
	Turbo Jet	All Variants and Versions
	Rotor Meter	All Variants and Versions
	Rotor Jet	All Variants and Versions
	Micro Meter	All Variants and Versions
	Maxi Meter	All Variants and Versions
Serial No.	.....	
Manufacturer:	Stocks Ag Ltd Cromwell Road Wisbech Cambridgeshire PE14 OSD United Kingdom	

This is to declare that the above machine conforms to the relevant Essential Health and Safety Requirements of the Machinery Directive 2006/42/EC, implemented in the United Kingdom by Statutory Instrument 2008 No. 1597 – The Supply of Machinery (Safety) Regulations 2008 as amended.

The following standards have been applied in the design and construction of this machine:

BS EN ISO 12100:	2010	Safety of machinery – General principles for design – Risk assessment and Risk reduction.
BS EN ISO 4254-1:	2015	Agricultural machinery – Safety - General requirements.
BS EN ISO 4254-8:	2018	Agricultural machinery. Safety - Solid fertiliser distributors.
BS EN ISO 13854:	2019	Safety of machinery – Minimum gaps to avoid crushing of parts of the human body.
BS EN ISO 13857:	2019	Safety of machinery – Safety distances to prevent hazard zones being reached by the upper and lower limbs.

The manufacturer stated above holds the technical file for this machine.

Signed on behalf of Stocks Ag Ltd

Name:..... J Woolway

Date: 06th August 2020

Position: Managing Director

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StocksAG

UKCA. DECLARATION OF CONFORMITY

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Signed on behalf of Stocks Ag Ltd

Name:..... J Woolway

Date: 01st December 2020

Position: Managing Director

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1.0 General Information

Congratulations on your Maxi Jet purchase.

Please check the machine for any transport damage upon receipt and advise your supplier of any problems immediately. Late claims regarding any damage may be rejected.

Specifications, descriptions and illustrations in this manual are accurate at the time of publication but may be subject to change. This manual is correct at the time of printing but we reserve the right to change and improve. This machine is designed with safety in mind. Maintenance and servicing in accordance with this manual will ensure safe operation and reliability of your machine for many years.

This Operating Manual forms part of the machine and must be readily available for the operator who must read and follow the points covered before use.

1.1 Technical Data

Model: Maxi Jet 2 and 4 Jackal

Hopper capacity: 240 litre or 400 litre

Max spreading width: Maxi Jet 2 – 8m

Maxi Jet 4 – 15m

Operating voltage: 12v

Power requirement: 30 amps

Motor output: 360 watt

Noise level: 90dB Hydraulic Fan

Power consumption of the motor: 35 amps when starting, up to 30 amps during normal operation

240 litre machine:

Net weight: 136kg

Dimensions: 65 x 130 x 109cm

400 litre machine:

Net weight: 146kg

Dimensions: 65 x 130 x 136cm

1.2 Intended Use

This Maxi Jet has been designed solely to apply small seed and granular products for use in the agricultural, horticulture and the amenity sector.

Any other use is considered to be non-intended and the manufacturer will not be liable for any resulting damage.

The manufacturer is not liable for any resulting damage if the machine is used for any other purpose than the intended use and also includes compliance with the conditions for operation, maintenance, and repairs prescribed within this instruction manual.

The applicable accident prevention regulations as well as the other generally safety-related, occupational health and road traffic regulations must also be observed.

NOTE: Do not operate this machine during adverse weather conditions, like rain or thunderstorms.

1.3 Unintended Use

This machine is not designed to apply abrasive materials such as sand and grit or for applying salt products.

The operator alone bears the associated risk if used for non-intended use.

1.4 Machine Identification

Example Decal Only

The machine can be identified by the serial number decal mounted on the steel chassis to the left of the feed cassette.

1.5 Warranty

We provide a 12 month warranty from the date of invoice (the invoice for the machine will serve as a warranty certificate).

This warranty is applicable for cases of material or construction faults and does not include parts that are damaged by normal or excessive wear

Warranty expires if damage is caused by external forces, operator error, modifications, jet washing or if the machine has been used for unintended use.

In the event of any problems, or before attempting any repair, please contact the company from where the machine was purchased. If the base machine or the controls system are modified in any way this will void any warranty claim.

Stocks Ag cannot be held responsible for any claims or injuries to the owner or any third parties while in the operation of Stocks Ag equipment.

On no account can Stocks Ag be held liable for accidental or consequential damages (including loss on anticipated profits) for any impairment due to failure or defect of the machine.

Please see our conditions of sale for full details, a copy of which available upon request.

Please record the machine serial number here: S/N .....

Purchase date: ..... Dealer .....

2.0 Safety

Ensure care is taken when lifting the machine.
Safe lifting practice to be observed when handling as the net weight is over 25kg.

We advise safety shoes and protective gloves are worn when handling the machine.

Assistance will be required when lifting or lowering the machine.

Care to be taken to avoid crushing due to the weight of the machine.

When lifting or fitting the machine on to a parent vehicle or implement ensure work is performed on level ground or flat surface to avoid slipping, stumbling or falling.

PERSONAL PROTECTION EQUIPMENT

It is the responsibility of the operator or maintenance engineer to ensure safe handling of the machine and the appropriate personal protection equipment must be worn for the material being applied and to prevent contamination to the machine or the environment.

⚠**WARNING! Ear protection required if working in close proximity to the machine as it exceeds 80dB.**

PRODUCT APPLIED

If applying slug pellets or other toxic material and the parent vehicle has a closed cab the operator must ensure the cabin is always closed and the air filter system is in good order. If fitted to a UTV vehicle ensure the stability of the parent vehicle is not affected when the machine is in use. If in doubt contact the vehicle manufacturer for more information. After working the machine ensure that any unused product is returned safely to its original packaging. Stocks Ag Ltd. does not accept any liability for the storage and use of the material being applied.

NOTE: If unsure contact your seed or product supplier for more information.

⚠**WARNING! Always observe all application standards and guidelines provided by the product manufacturer as some seed dressings and granular products may be toxic.**

OPERATION AND MAINTENANCE

The machine may only be used, maintained and repaired by persons who have relevant experience or a machinery dealer who is aware of any risks involved. The applicable accident prevention regulations as well as the other generally safety related, occupational health and road traffic regulations must also be observed.

The manufacturer is not liable for any damage resulting from unauthorised modifications and the use of

components and auxiliary parts. The machine must be checked regularly by the operator (before each use) for any damage, loose bolts or electrical connections, vibrations, unusual sounds and to ensure it functions correctly.

2.0 Safety- Continued

The machine must not be operated in wet weather conditions or during thunderstorms. Observe the generally applicable safety and accident prevention regulations. Always empty the hopper of toxic materials to prevent harm to humans and animals after each use and prior to storage.

⚠**WARNING! Do not put your hands inside the hopper when the agitator motor is turning as the agitator shaft inside the hopper rotates at high speed and is sharp and dangerous**.

⚠**WARNING! Always isolate the power supply if servicing or leaving the machine unattended.**

2.1 Safety Decals

⚠**WARNING!**
Read and understand the Operators Manual
instructions before operating this machine.
Operator errors can result in serious injury.

⚠**WARNING!**
Danger due to thrown or flying objects.
Always maintain a safe distance whilst the machine is in operation.

⚠**WARNING!**
Risk of injury. Possible trapping point when tipping hopper.

⚠**WARNING!**
Risk of injury.
Be aware the feed mechanism is powerful and can cause serious injury.

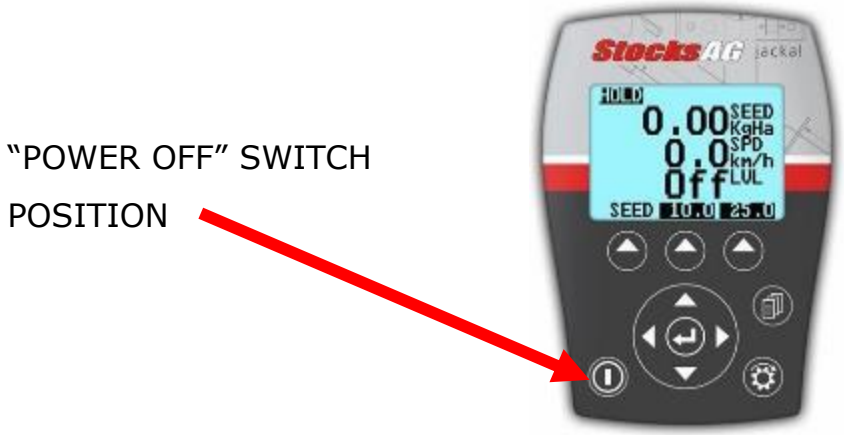
⚠**WARNING!**
Keep Clear!
Maintain a safe distance from the machine when in operation.
Wear the appropriate protective personal equipment.

⚠**WARNING!**
Do Not Jet Wash. This machine is not designed to withstand jet washing.

3.0 Emergency Stop Instructions

In the case of an emergency always switch off the main power switch on the control panel and isolate the power supply immediately by disconnecting the power cable.

1. Power down the control system immediately by switching the main power switch as shown below.
2. Disconnect the power supply by unplugging the power cable or removing the fuse.



4.0 Storage

Disconnect the power supply by unplugging the power cable or by removing the fuse fitted in the power cable.

It is the responsibility of the operator to ensure the hopper is empty after use and cleaned thoroughly before storage.

Store in dry conditions to protect the machine and control system from moisture.

Always clean and spray electrical connectors with a moisture repellent spray when not in use for long periods.

Fit the PVC waterproof cover (if available).

Ensure feed blocks are free to turn and all electrical cables checked following periods of storage.

5.0 PVC Waterproof Covers

240L Waterproof PVC Cover Part No. TJ240COVER 400L Waterproof PVC Cover Part No. TJ400COVER

Heavy Duty white PVC covers fitted with eyelets and bungie cord for easy attachment.

Please contact your local Stocks Ag dealer for more information

6.0 Disposal

Ensure that any persons handling the machine are aware that the machine may have been used to apply toxic chemicals and so the appropriate personal protection equipment should be worn.

Ensure the hopper contents have been removed and any toxic residue removed and put back into a sealed container or disposed of in accordance with the manufacturers guidelines to eliminate any possible contamination of others or the environment.

Always adhere to the local disposal regulations paying particular attention to the plastics, rubber, and electrical components.

7.0 General Maintenance

Ensure the parent machine is stationary and parked on level ground before working on the machine.

The machine must be checked regularly by the operator for any damage, loose bolts or electrical connections, vibrations, unusual sounds and to ensure it functions correctly.

⚠**WARNING! Always ensure the power supply is disconnected before any maintenance work or cleaning of this machine by unplugging the power cable or removing the fuse in the power cable.**

Always observe all guidelines provided by the product manufacturer with regards to handling, storage and disposal of products.

Take care not to spill any product that could contaminate the machine or the environment, ensuring any product removed from the machine is put back into its original container.

⚠**WARNING! Protective clothing must be worn when applying or handling toxic products.**

7.1 Before use

1. Ensure the machine is securely mounted.

2. Check the power supply and ensure the power cable is connected directly to the vehicle battery.

3. Check the feed block is configured correctly and free running before starting work.

7.2 Daily Checks

1. Check the feed motor and agitator motors are working correctly.

2. Check the hydraulic fan and air intake meshes are clean and free from any debris.

3. Check feed hoses for any blockages and all hose clips are tight.

4. Check the spreader plates are positioned correctly

5. Check the hydraulic hoses and connections to the fan motor.

7.3 After Each Use

1. Empty hopper and clean the machine thoroughly.

2. Disconnect the power supply.

3. Replace the PVC waterproof cover (if applicable).

4. Store in dry conditions to protect the machine and control system from moisture

⚠WARNING!

DO NOT JET WASH THIS MACHINE

8.0 Installation Guide

The Maxi Jet can be used for a wide variety of seeding applications in conjunction with a wide variety of parent implements.

It is not practical to supply tailored mounting brackets for every implement on the market, and so the final attachment of the Maxi Jet to the implement is the responsibility of the supplying dealer or end user.

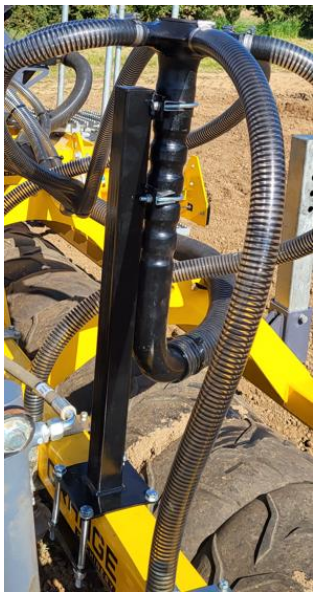
The position of the hopper, the spreader plate, the "C" section mounting rails will depend upon the type and design of the parent implement. Here are a few basic pointers to ensure the Maxi Jet performs correctly.

Position the Maxi Jet high enough above the implement to facilitate routing of the flexible tubes to the riser pipes, without severe bends or uphill runs. Try to route all tubes generally downhill. Do not block the air intakes to the hydraulic fans.

Ensure the wing sections do not foul the hopper or cause the riser pipes to clash. All hose runs are long enough to fold with the implement, without a restriction when in work.

Ensure you can access the hopper to fill, and are able to remove the feed block assembly and position the calibration tray underneath to calibrate or empty.

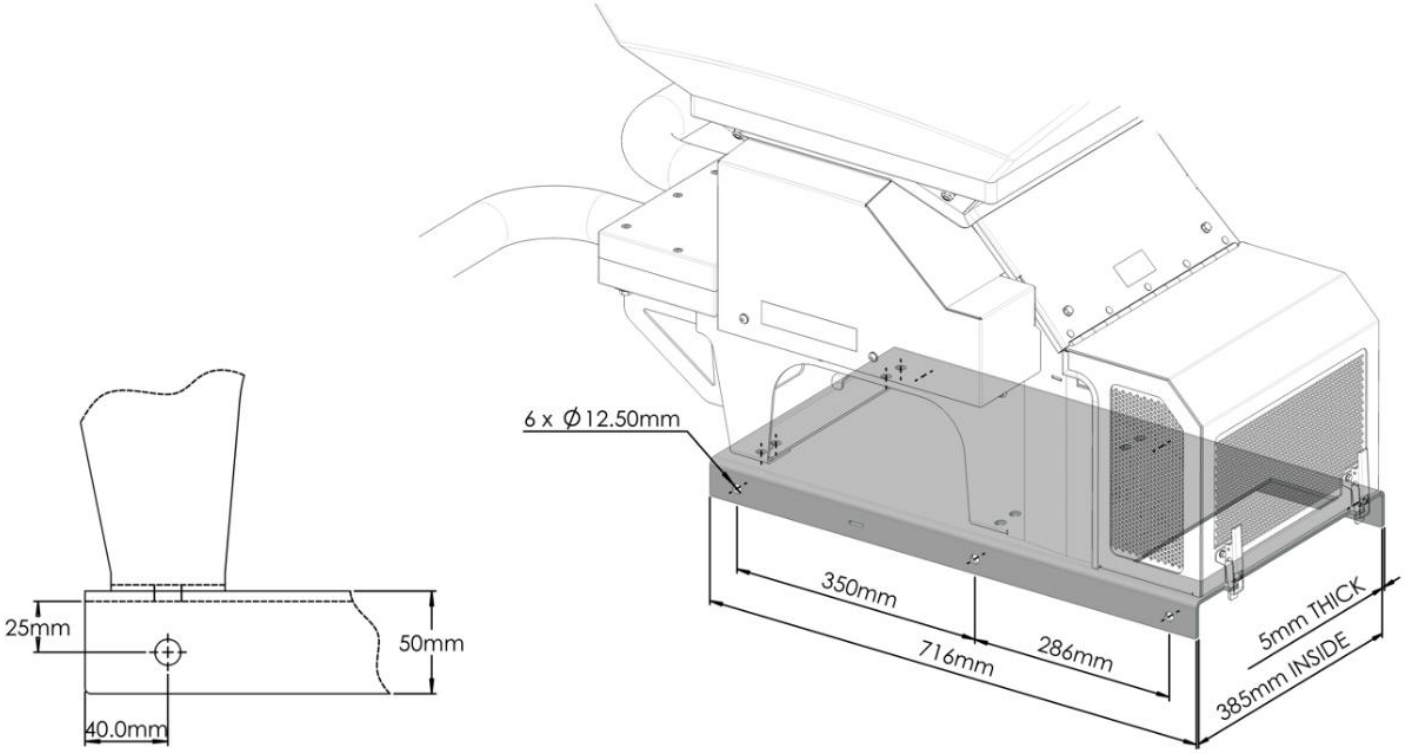
When filling, emptying or calibrating the Maxi Jet ensure you work safely. If necessary, fabricate and fit a work platform and steps, complete with handrails. The hopper may face forwards or backwards– whichever offers the easiest mounting and best flexible tube run. Select a strong, rigid position and use the heavy flat base plate provided to weld or bolt to your implement as per the example below. The 2 or 4 riser pipes will need mounting across the width of the machine. The support brackets for the riser pipe will require fabricating to a design that is suitable for the particular host machine.



Above right is an example of how to mount a riser pipe. Brackets not supplied.

8.1 Base Plate

Part No. TJ422 Dimensions and fixing hole detail



8.2 Spreader Plates

The Maxi Jet can be ordered with combinations of 12 to 64 outlets. Depending on the implement width and if you require a broadcast or band-sown effect.

Plan the position of the riser pipes and spreader plates to be equal distant across the width of your implement. Aim to route all hoses smoothly and generally downhill from the hopper to the riser pipes, then from the distribution heads down to the spreader plates, avoiding severe bends and uphill runs.

8.3 Riser Pipes and Distribution Heads

The Maxi Jet has either two or four riser pipes that are connected to the base machine with 63mm hose. Each riser pipe can be supplied with a choice of distribution heads. The six outlet heads use a 32mm hose, the 8, 10, 12 and 16 outlet heads all use 25mm hose.

8.4 Spreader Plate Set Up

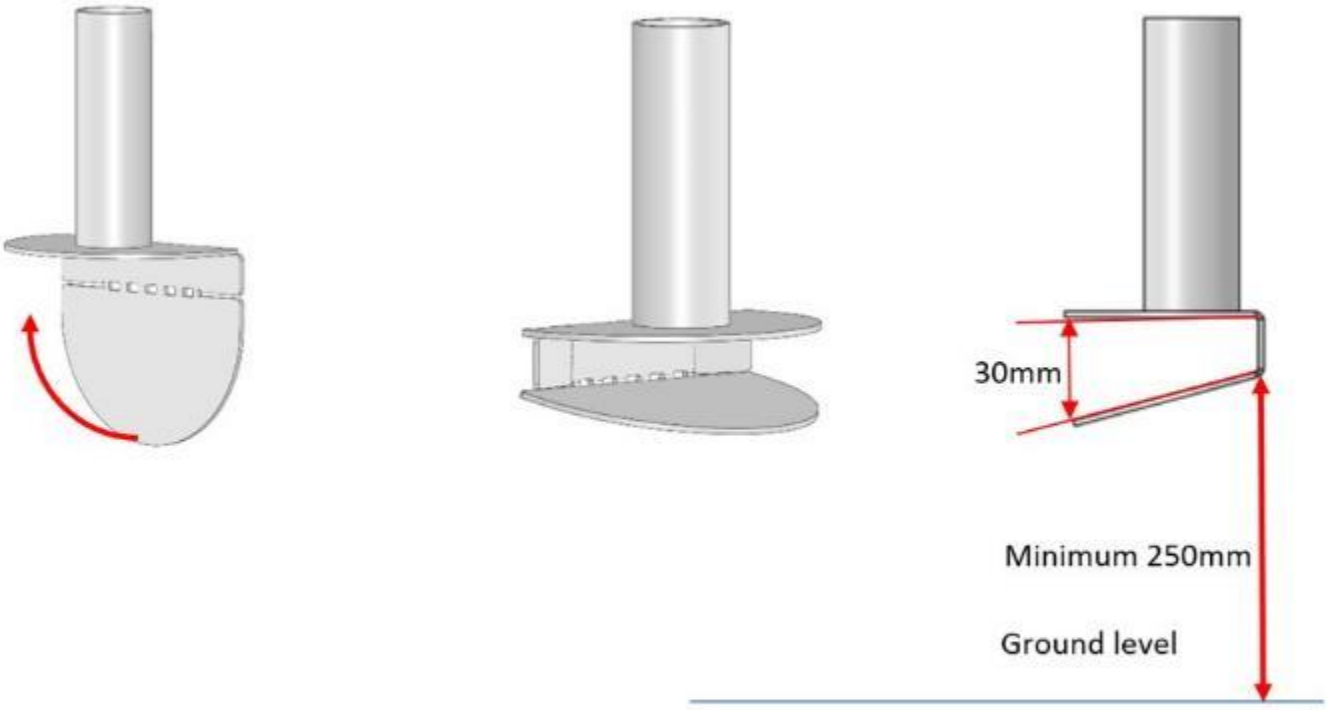
The Stocks Ag spreader plate was developed to allow a wider spread pattern while positioning the outlets closer to the ground.

For products such as grass seed, oil seed rape and Avadex, a spread width per outlet of 750mm is achievable from as low as 250mm above the ground (250mm to the bottom plate).

A 6m grass harrow only requires 8 evenly spaced outlets. In many circumstances reducing the need for Y piece splitters and having double the outlets.

The spreader plates have two main adjustments to set up the optimum spread pattern to suit a variety of products and machine fitments.

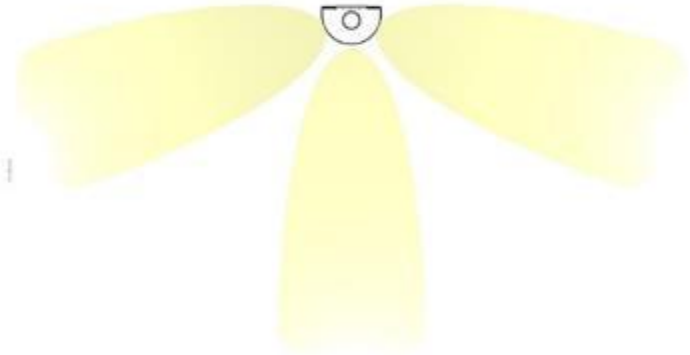
The main bottom plate requires bending into position. The angle of the bottom plate alters the spread width from each outlet. A common setup would be to bend from vertical to approximately 15° from parallel to the top plate (see below).



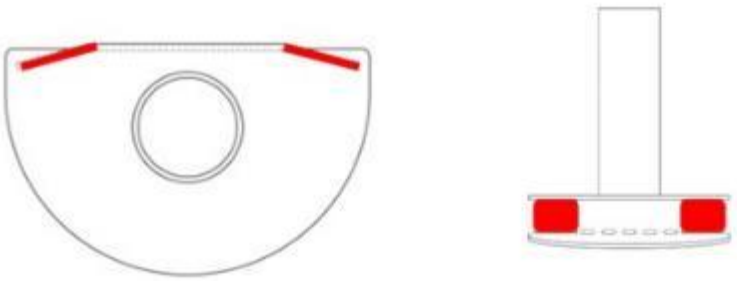
8.3 Spreader Plate Set Up (continued)

2) There are two adjustable tabs on the back plate of each outlet. These tabs are used to create an even arc shaped spread pattern and when required, to adjust overlap between outlets.

When the back plate is left straight, some products can produce a spread pattern similar to the diagram below.



By bending the back plate tabs in slightly (see diagram below).



The coverage of product over the ground can be made much more uniform.

These recommended settings are an initial guide, set up vary between different products and machines fitments and required further adjustment.

8.5 C Section Rail

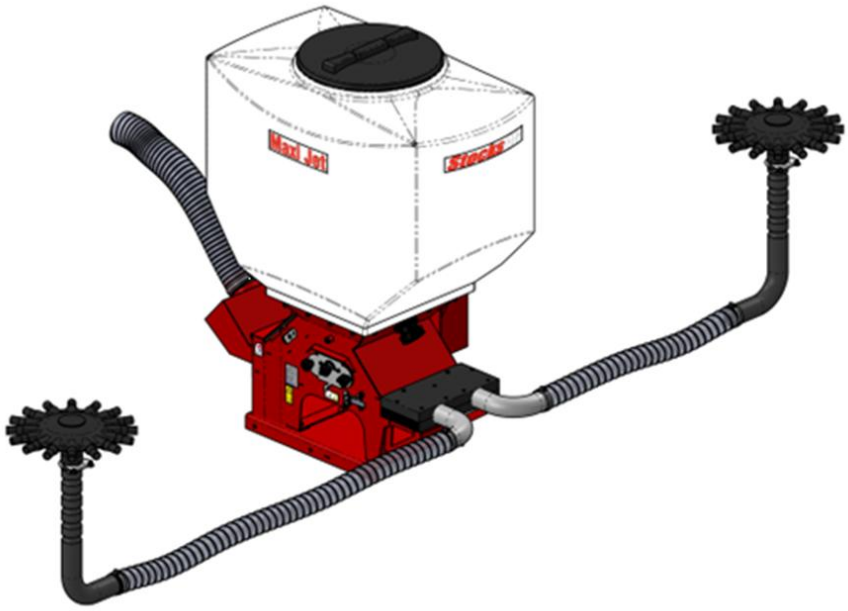
The spreader plates themselves are mounted to the "C" section rails, these can be ordered in 2m lengths as an option. **Part no. 47TJT5008**. These can be cut down to suit the implement width. The "C" section rails can be attached to the implement using the supplied straight brackets, two per rail, which can be welded or bolted into position.

The spreader plates slide along the rails to give the planned spacing and lock into position using the integral bolts. It is generally better to position the spreader plates facing to the rear of the implement as this can prevent wet mud or tilth being thrown up into the mouth of the spreader causing blockages, especially if positioned close behind the tractor wheels, roller or discs.

8.6 Feed Hose

The feed hose comes in 30m long coils, to be ordered as an option with a new machine. Extra rolls can be ordered as a spare part, **part no TJ222-30M**. This requires cutting into lengths according to the positioning of the hopper and spreader. Ensure all hose runs are as short as possible whilst giving a smooth downhill route to the spreader plates. Avoid kinks, severe bends or uphill runs. Plan and measure the individual hose runs before cutting..

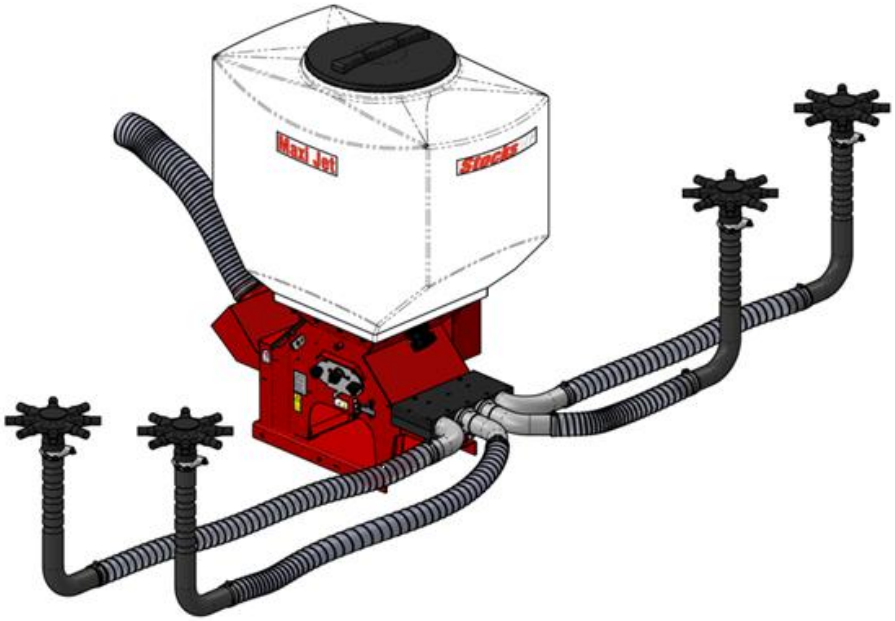
9.0 Maxi Jet Configuration



Maxi Jet 2 with 2 x 16 outlet distribution heads, 32 outlets in total

The Maxi Jet is available in a 2 or 4 outlet configuration. This refers to the number of 63mm diameter hose outlets on the air outlet manifold. Each of the outlet hoses is connected to a riser pipe with a choice of distribution heads mounted on the top. The options for the distribution heads are 6, 8, 10, 12 or 16 outlets on each riser pipe. The 6 outlet distribution head has 32mm hose tails, all the rest are 25mm. This gives a range of 12 to 64 outlets across the full range.

The images on this page show both machines with 32 outlets in different configurations. Selecting the correct option will depend on the design of the host machine, working width, folding method and accuracy required. A machine with 4 x 8 outlet distribution heads, will have increased accuracy over a 2 x 16 head machine. All the distribution heads fitted to the Maxi Jet must have the same number of outlets.

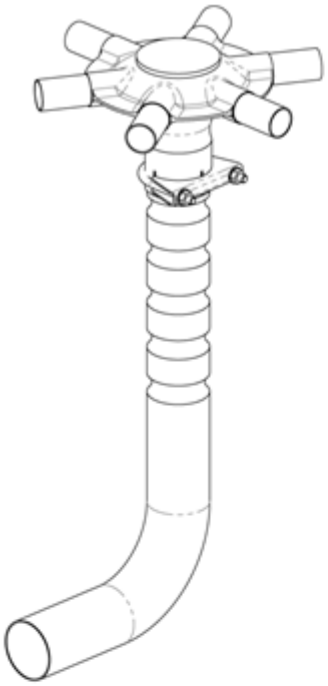


Maxi Jet 4 with 4 x 8 outlet distribution heads, 32 outlets in total

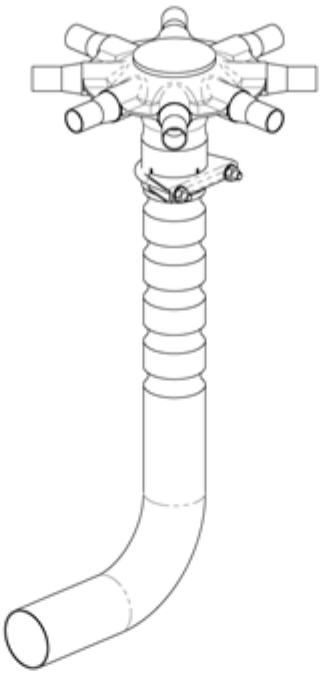
10.0 Distribution Head

These images show all five options of different distribution heads, mounted on top of the riser pipe.

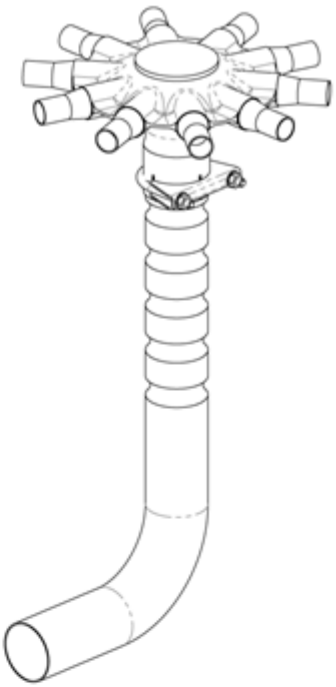
The distribution heads are secured to the riser pipe with an M8 U bolt clamp. To mount the riser pipe onto the host machine, the threads of the U bolt can be used to secure it to a bracket (not supplied).



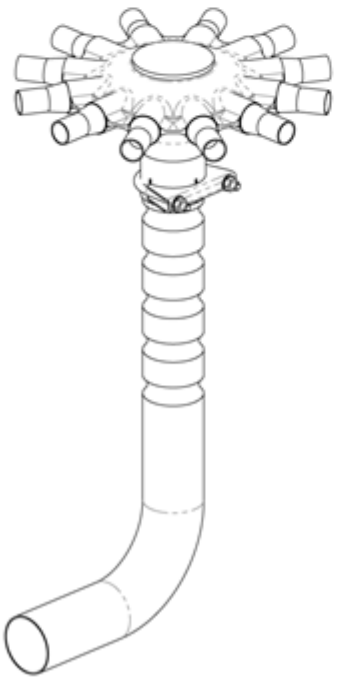
6 outlet distribution head



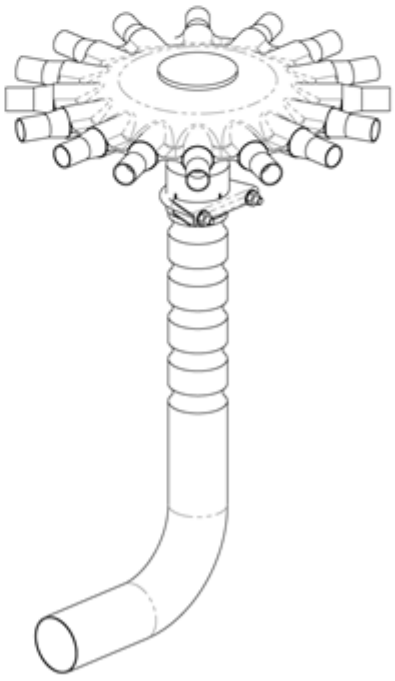
8 outlet distribution head



10 outlet distribution head



12 outlet distribution head



16 outlet distribution head

11.0 Machine Components

11.1 Feed Motor

The feed motor can be turned ON or OFF, either manually via the head unit, or automatically using the linkage position sensor through the 7 pin plug. Alternatively, through an optional remote mounted spring type finger switch, which can be fitted to the linkage or the implement.

11.2 Hopper Agitator

The internal agitator is powered independently by a separate motor. Its purpose is to prevent seed becoming compacted in the hopper and bridging (not flowing). It is recommended for all grass and grass seed mixes, or other seed that may bridge in the hopper, but it is not required for free flowing seeds such as OSR, clover, stubble turnips or similar, or granular products.

NOTE: If using the agitator in the field, also have it turned on for calibration.

11.3 Hydraulic Fan

The hydraulic fan unit must be mounted close enough to the tractor to allow the hydraulic hoses to reach the rear remote valves. The fan blows air to the Max Jet through a 100mm diameter ducting. Air is drawn through the mesh intakes on the sides of the fan. The fan must be mounted in a position where dust and debris ingress will be kept to a minimum. The fan is switch on and off via the tractors hydraulic remote (spool) valves.

11.4 Main Power Cable

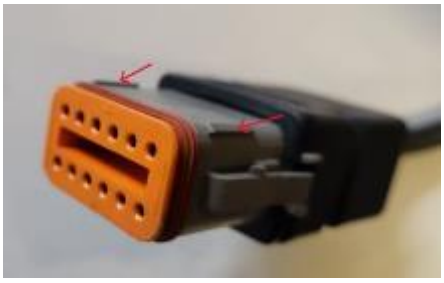
The heavy duty power cable must be connected directly to the vehicle battery posts to ensure adequate 12v supply and is fitted with a 40 amp fuse to protect the control system.

This cable should be long enough to give a break point at the rear of the tractor so that the 5m power extension cable, also supplied (and any additional extension cable needed), can then be connected to the power input fly lead on the machine.

11.5 Instrument Lead

The 5m instrument lead connects to the junction box to the control panel in the tractor cab.

Ensuring the multi pin connector on the instrument cables are connected the correct way around, as shown.


NOTE: Extension power and instrument cables are available if required.

Please contact your local Stocks Ag dealer for more information.

12.0 Inspection

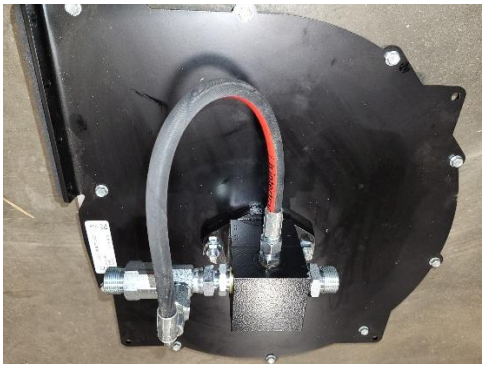
12.1 Hydraulic Fan Inspection

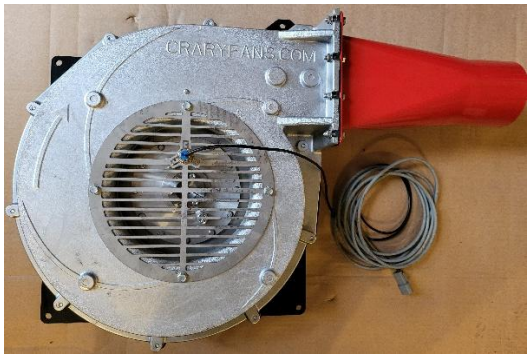
⚠**WARNING**! **Always isolate the power before inspecting or servicing the machine.**

Daily inspection of the hydraulic fan is recommended. Check the hydraulic hoses between the tractor and the fan motor. Look for oil leaks and damage to the hose and fittings around the fan motor.

Check the air inlets to the fan blades, looking for build up of dust or foreign objects that could restrict air flow.

Check the 100mm ducting pipe from the fan outlet to the air inlet manifold on the Maxi Jet for cracks or loose clamps.





12.2 Feed Block Assembly Inspection

⚠**WARNING**! **Always observe all application standards and guidelines provided by the product manufacturer as some seed dressings and granular products may be toxic!**

NOTE: If unsure contact your seed or product supplier for more information**.**

1. Empty the hopper completely to prevent spillage, release the two over-centre catches and drop the hinged panel under the feed rolls and position the plastic collection tray directly underneath to catch any remaining seed or product.

2. Undo and remove the 2 black plastic knobs holding the mechanism in place and slide out the feed block assembly.

Be aware that the feed block assembly may retain some seed product.

3**.** Use an airline and brush to clean the feed block and internal components checking for any wear or damage replacing any worn or damaged parts as necessary. When doing this wear appropriate PPE.

4. Before re-fitting the feed block ensure that the feed shaft can easily be turned by hand using the black PVC knob fitted to the end of the shaft. If difficult to turn remove the end cap at the opposite end of the feed block assembly and remove all spacers and feed rollers by sliding each one off the shaft.

5. Check the drive shaft engages correctly when sliding the feed block back into the machine by slowly rotating the central black plastic knob before re-fitting the outer black plastic retaining knobs.

12.3 Agitator Shaft Inspection

Check the internal agitator shaft to ensure it is clear of any debris and free to rotate.

13.0 Hopper Emptying Procedure

NOTE: The 12v fan has a self detection feature which shuts the fan off if it is out of balance.

The hopper drain cap can be removed to help empty the hopper. Any remaining product is best removed by using an industrial vacuum before the feed block is removed from the machine.

Once the feed block has been removed from the machine dispose of any remaining product held in the feed block. Release the bottom calibration door and check the air chambers for any sign of debris or build up of product and clear as necessary.

14.0 Clearing a Feed Hose Blockage

In the unlikely event of a blockage, remove the hose and clear any obstruction from within the hose or manifold on the machine. Remove the feed block and check the air chamber below the feed block opening and clear any debris. Re-position the feed hoses if this has been the cause of the problem.

⚠**WARNING Always observe all application standards and guidelines provided by the product manufacturer as some seed dressings and granular products may be toxic**.

NOTE: If unsure contact your seed or product supplier for more information.

15.0 Checking the Feed Motor

Firstly empty the hopper then remove the feed block assembly. Remove the motor guard by releasing the fixing screws.

Check to see if the feed motor shaft rotates when pressing the prime button.

If the shaft is not rotating this may indicate the motor is faulty or has been damaged and needs to be replaced.

WARNING This procedure must be carried out by a competent person who is aware of any risks involved as moving parts of this machine are powerful and can cause injury.

For any parts or if no faults found and the alarm persists contact your local Stocks Ag dealer.

16.0 Jackal Control System Overview

All control system components integral to the applicator are factory fitted.

The instrument has a 128mm x 64mm Mono Graphic LCD Screen which has multiple functions.

Separate heavy duty power cable and head unit leads interconnect the tractor and the Seed Applicator Unit.

Electrical components supplied with the machine:

- Jackal Instrument (fitted with 3m instrument lead) c/w fly lead to connect to a 7pin tractor cab socket
- Instrument mounting kit
- 5m instrument cable
- 5m fused power cable (machine junction box has a 3m fly lead attached)

All components packed inside the hopper from factory.

16.1 Jack Control System Options

1. **Feed Cut Out Switch** - this can be mounted in a suitable place on the implement or linkage of the tractor, thus deflecting the spring, and automatically switching the feed motor off or on accordingly as the circuit is made or broken.

2. **GPS Speed Sensor Kit** - to avoid any over applying of product this offers speed proportionate metering of product, maintaining the pre-set application rate in line with forward speed changes. If the system is then not able to maintain the rate it will alarm and alert the operator.

3. **Hopper Level Sensor** - alarms to warn the operator if the hopper contents are getting low.

4. **Power and Instrument extension cables** - available in 5m lengths.

Please contact your local Stocks Ag dealer for more details.

16.2 Control System Operation

1. Power On/Off button

Power is turned on by pressing the **ON/OFF** button for 1 second.

Power is turned off by holding the **ON/OFF** button for 2 seconds.

2. Run/Hold button

The **RUN/HOLD** button has a dual function.

Press **RUN/HOLD** once to place the 'Metering unit ON HOLD'.

Press **RUN/HOLD** again to resume operation.

The **RUN/HOLD** state is indicated in the top left-hand corner of the screen. When the metering unit is in **RUN** mode, the unit displays **RUN** to signify that the metering unit is active (turning).

When the metering unit is in **HOLD** mode the unit displays the word "**HOLD**" & "beeps" every 2 seconds.

3. Page button

The **PAGE** button is used to scroll through function screens.

4. Select buttons

The Jackal has 3 buttons placed directly under the LCD. These buttons will change function in different menus.

The function of the button is indicated at the bottom of the screen directly above the button.

5. Navigation button (Up, Down, Left, Right, Enter)

The round navigation (**NAV**) buttons are used to navigate **UP/DOWN/LEFT/RIGHT** in calibration screens as well as scrolling through the display lines on the main screen.

ENTER is used to select the option highlighted onscreen.

16.3 Machine Junction Box

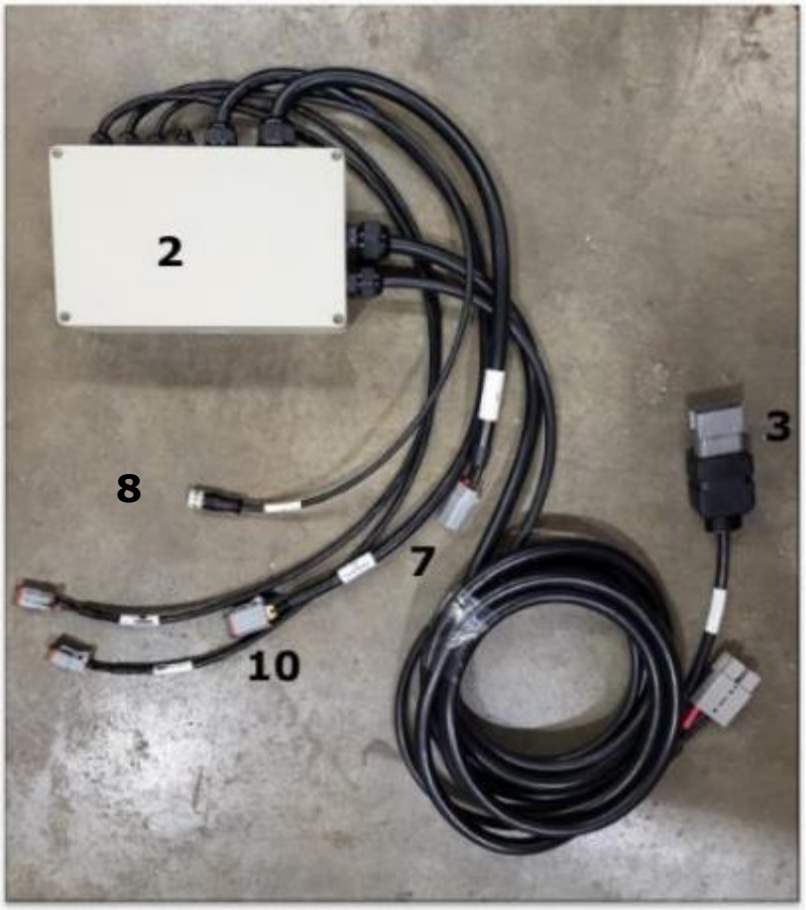
The Jackal Junction box (MMD) is located underneath a panel, which is the top half of the fan guard.

The single button on the side is for calibrating the Turbo Jet.

See Jackal control box instructions.

17.0 Electrical Components

1



1. Cab control panel
2. Junction box (machine mounted)
3. Control cable connection
4. GPS sensor connection - Optional (not shown)
5. Cut out switch connection - Optional
6. Power cable connection
7. 12v fan connection
8. Hopper level sensor connection - Optional
9. Agitator motor connection
10. Feed motor connection
11. 6m control extension cable (not shown)
12. 5m fused power cable (not shown)
13. 5m power cable extension (not shown)

17.1 Run Hold/Cut Out Switch – Optional

This optional switch can be mounted in a suitable place on the implement or linkage of the tractor, thus deflecting the spring, and automatically switching the feed motor off or on accordingly as the circuit is made or broken.

Part No: 47TJT50025

Position the optional finger switch so that the tip of the spring comes into contact with the moving part of the implement or linkage when lifted out of work and remains deflected until the implement is lowered back into work.

NOTE: Ensure that there is sufficient and positive deflection on the spring to prevent accidental switching ON or OFF if the implement moves slightly up or down in work. The standard wiring as supplied for this switch is when the spring is at rest, the feed motor will run normally. If required the switch can work in the opposite mode by changing the setting on the head unit, see manual page 29 (section 16.3).

17.2 Hopper Level Sensor – Optional

There is an optional hopper level sensor is available. This option is useful when the hopper of the applicator is out of view of the operator. The alarm will sound once the product in hopper drops below the level of the sensor

For more information please contact your local Stocks Ag dealer.

Hopper level sensor - Part No: 47TJT5037

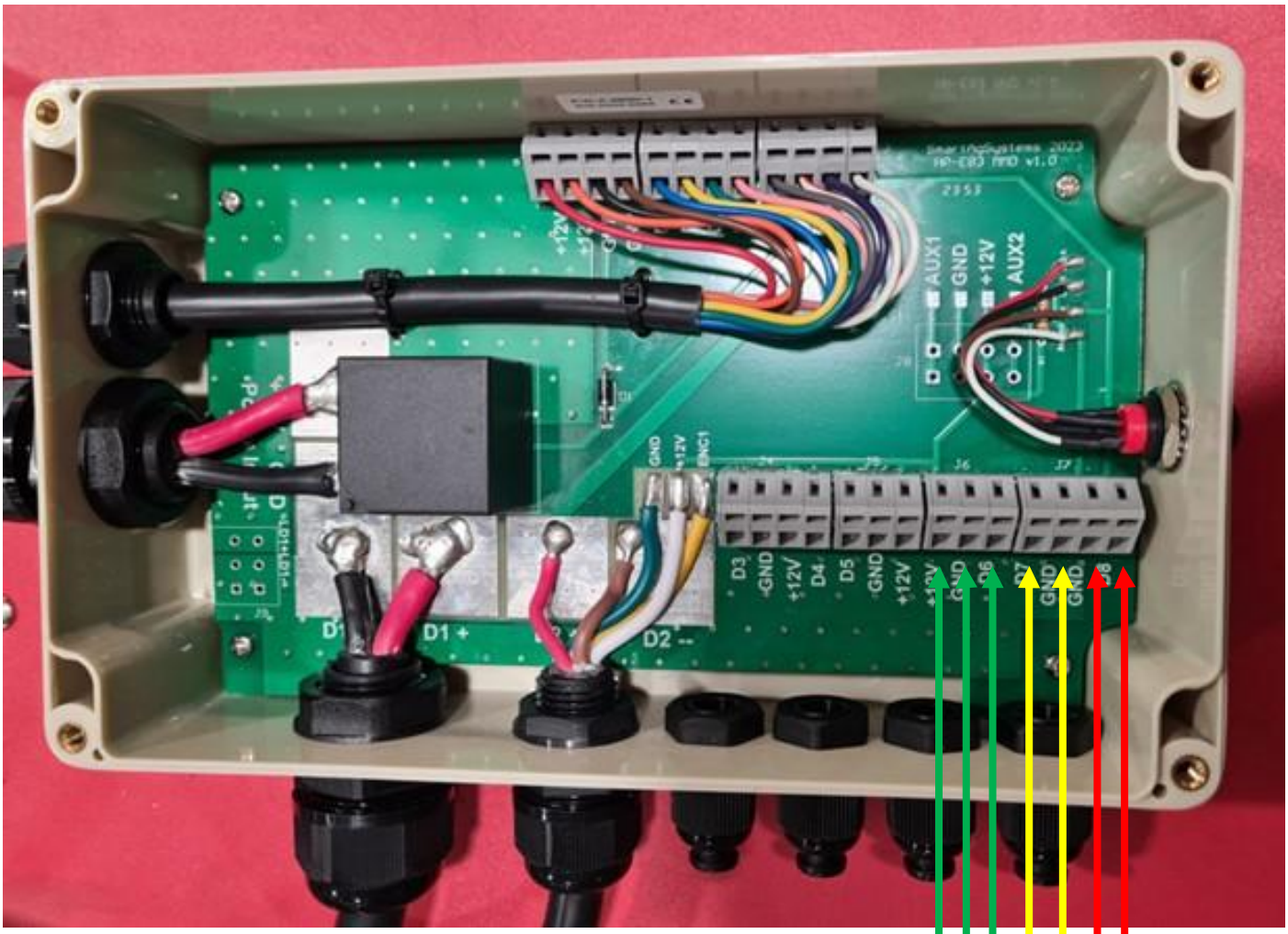
17.3 GPS Speed Sensor Kit – Optional

When a tractors 7 pin implement socket is not available for a forward speed signal, the Jackal can be fitted with this optional GPS sensor kit. This will give speed proportionate metering of product whilst maintaining the pre-set application rate in line with changes in forward speed. The fly lead is required to connect the GPS receiver to the plug on the back of the head unit.

GPS receiver - Part No: 47TJT5036

GPS fly lead - Part No: 97APC0048

17.4 Wiring for Optional Extras



Hopper Level Sensor wire connections

BROWN = +12V

BLUE = GROUND

YELLOW / GREEN = D6

Agitator Motor wire connections

BROWN = D7

BLUE = GROUND

Cut Out Switch wire connections

BLUE = GROUND

BROWN = D8

18.0 Power Connection

Power connection must come direct from the battery terminals, **WARRANTY VOID** if power is not connected as described in this section.

Connect power cable supplied **DIRECTLY TO BATTERY**

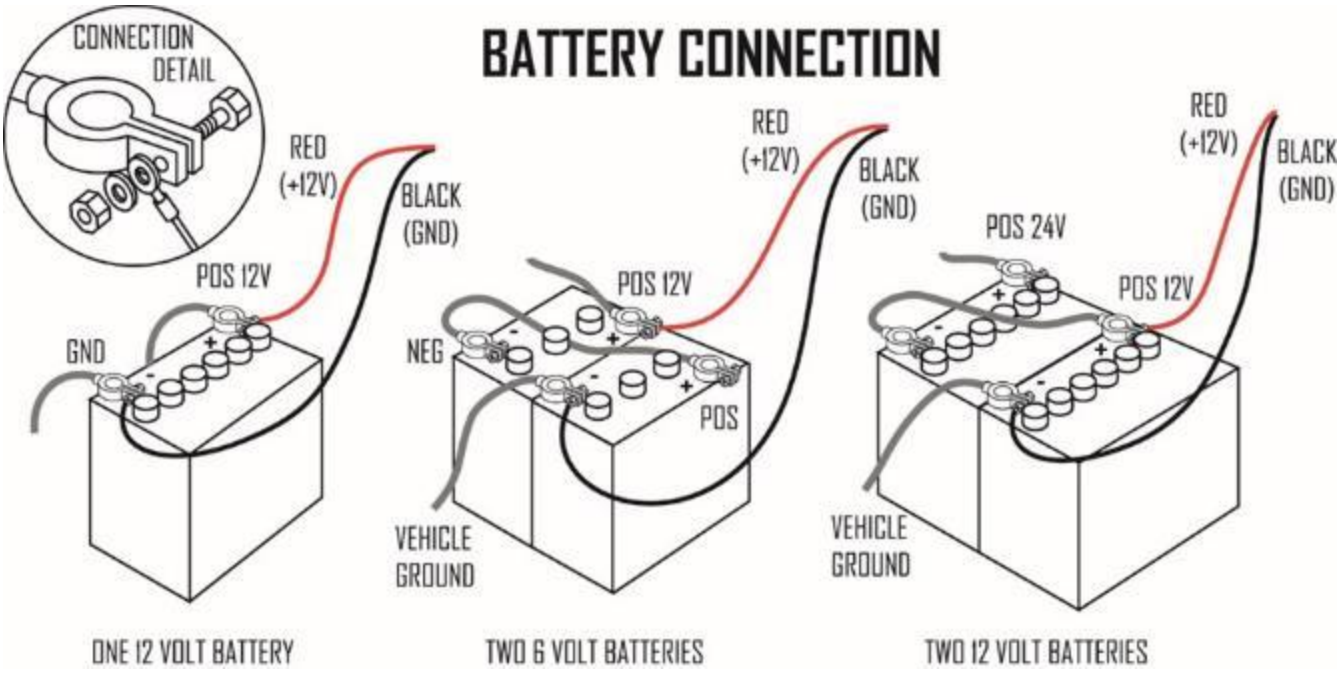
Ring terminals are used for battery connection and the bare end used to connect to the rear Jackal instrument

(Refer to the image below for power connection)

Connect Ground to BATT (-V) **Terminal A11** using the **RED** with **BLACK** stripe wire

Connect +12 Volts (+battery terminal) to BATT (+V) **Terminal A10** using the RED wire

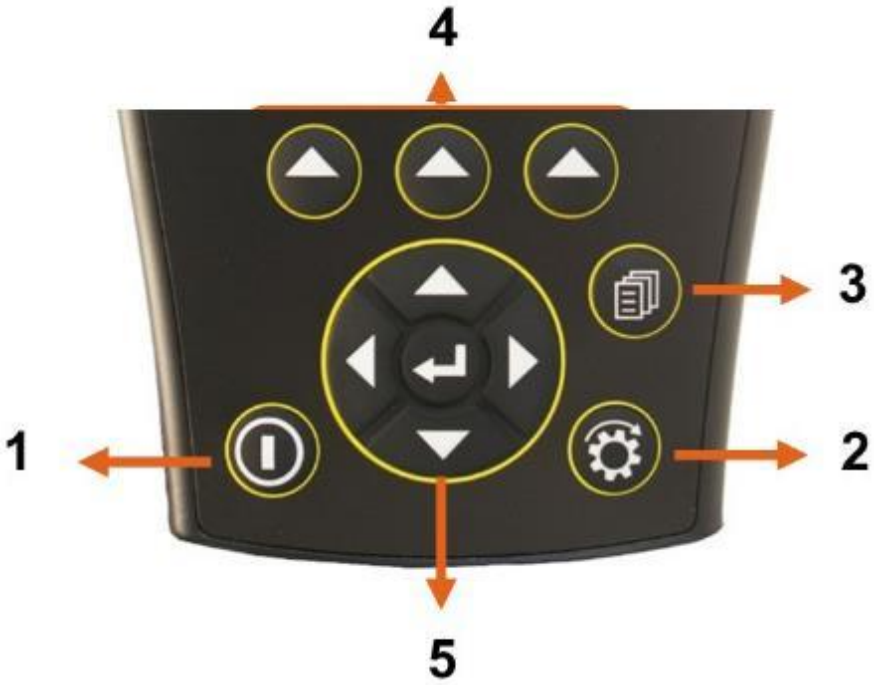
Ensure that the battery connection to the Jackal is +12 Volts



Connecting 24v to the Jackal will damage the system and also VOID WARRANTY

WARNING **Disconnect the terminal plugs from the Jackal if ARC WELDING on machinery**

18.1 Instrument Button Functions



1. **Power On/Off button**

   Power is turned on by pressing the **ON/OFF** button for 1 second.

   Power is turned off by holding the **ON/OFF** button for 2 seconds.

2. **Run/Hold button**

   The **RUN/HOLD** button has a dual function.

   Press **RUN/HOLD** once to place the 'Metering unit ON HOLD'.

   Press **RUN/HOLD** again to resume operation.

   The **RUN/HOLD** state is indicated in the top left-hand corner of the screen. When the metering unit is in **RUN** mode, the unit displays **RUN** to signify that the metering unit is active (turning).

   When the metering unit is in **HOLD** mode the unit displays the word "**HOLD" & "BEEPS"** every 2 seconds.

3. **Page button**

   The **PAGE** button is used to scroll through function screens.

4. **Select button**

   The Jackal has 3 buttons placed directly under the LCD. These buttons will change function in different menus.

   The function of the button is indicated at the bottom of the screen directly above the button.

5. **Navigation button (Up, Down, Left, Right, Enter)**

   The round navigation (**NAV**) buttons are used to navigate **UP/DOWN/LEFT/RIGHT** in calibration screens as well as scrolling through the display lines on the main screen.

   ENTER is used to select the option highlighted onscreen.

18.2 Initial Instrument Setup

This display is called the **RUN** screen and displays the information required when the machine is in normal use.

It displays on a scrolling list:

Application Rate

Forward Speed

Hopper Level sensor

SCROLL DOWN TO VIEW

Fan Current (as a % of battery voltage)

Area Meter

Setting the Working Width

Using the **PAGE** button scroll through until the **SETUP** option displays over the select buttons.

Press the SELECT button to enter the SETUP Menu.

Using the DOWN Arrow on the Navigation key pad, scroll down to **Other Settings.**

Using either the ENTER button on the Navigation key pad or the right hand **SELECT** button, with SELECT above it, to confirm.

16.2 Initial Instrument Setup Continued

Using the navigation keys, scroll down to implement width.

Press the left navigation button to highlight the numerical value to be adjusted.

Press **EDIT**

On the next screen enter the working width in meters.

To adjust the value, use the navigation up and down buttons to change the value.

Use the left and right buttons to select to the unit to be adjusted.

The example across shows a working width of 8.5 meters being entered.

Press **EXIT** to save and go back to settings menu

18.3 Run/Hold Automatic Switch

The Jackal has 3 main methods of switching the metering roller on and off. On is referred to as **Run** to apply product and off is referred to as **Hold** to stop the metering roller.

The **Run** or **Hold** button on the bottom right of the control box can be used to manually switch the metering motor on and off.

When using an implement attached to the 3 point linkage, the 7 pin implement socket in the cab can be used to provide an on/off signal for the **Run/Hold** function.

To use the 7 pin input as the **Run/Hold** function, the **Input#** must be set to **9**.

Note: This input may require changing, please contact Stocks for technical assistance to unlock this function.

There is also an optional cut out finger switch available.

This is set from factory to be in the **Hold** position when not activated (in its central rest position) and when the finger is moved, the metering motor will start or **Run**.

The set up for this function is displayed in **SET UP/Other Settings**, scroll down to **Extern.Run/Hold**

This will be shown on the screen as **Normally Off..**

If required, the operation of the **Run/Hold** can be made to operate the opposite way round to suit a particular tractor or position of the optional finger switch.

Finger switch and 7 pin implement switch setting:

In **Set Up, Other Settings, Extern.Run.Hold.**

By changing the setting to **Normally On**, the machine will meter product with the **Run/Hold** finger switch in the rest position and then switch off when the **Run/Hold** finger switch is moved.

19.0 First/New Product Calibration

From the front screen, select **SETUP**, by pressing the arrow directly below.

Then select **Inputs** by pressing **SELECT** or them Enter button in the middle of the navigation keys.

17.0 First/New Calibration continued

Important! – On the first ever calibration run or when changing product types. Leave the target set to 0.000kg, do not enter a target weight.

To prime, first release the calibration door on the bottom of the machine and place the calibration tray underneath.

Press and hold the arrow button below **START** on the Jackal Instrument or the button on the applicator junction box.

Once product is dispensed, release the button. The screen will AUTO RESET for the calibration run.

To start calibration, you can either press and hold the arrow button under the word **START** on the screen.

Or press and hold the button on the junction box on the side of the machine.

The calibration run will stop when the button is released.

17.0 First/New Calibration continued

Weigh the product dispensed with scales that weigh in grams or kgs to 3 decimal places.

The TARGET line will now read **Actual.**

With **Actual** highlighted. Press the arrow key below **EDIT** and enter the weight of product dispensed.

A new screen opens to allow you to enter the weight of product dispensed.

Example: If you weighed 256 grams, you need to enter this as 0.256kg on the screen.

Using the left and right navigation key pad to highlight the figure that needs adjusting, use the up and down to change the figure.

To save and exit, press the arrow below **EXIT.**

DEL is to delete a digit and **INS** is to insert a digit..

To confirm the actual weight that has been entered, now press **CALC** to work out the new ratio.

Note: *This ratio is the number of pulses from the encoder on the metering motor per kg of product.*

For reference, the calculated ratio can be recorded along with the product type and feed roller set. This ratio can be entered manually to quickly change between products in the future.

Scroll down to highlight Manual Ratio press **EDIT** and enter the recorded figure.

To save and exit, press **EXIT.**

19.1 Product Calibration

From the front screen, to select **SETUP** press the arrow directly below.

Then select **Inputs** by pressing **SELECT** or the Enter button in the middle of the navigation keys.

Once the first calibration run has been completed and calculated, the manual ratio will change.

A target rate can now be entered.

Using the Navigation keys, scroll down to highlight **Target.**

Press the arrow key below **EDIT.**

17.1 Product Calibration continued

This is the weight you want to dispense during your calibration. This is usually 0.100kg (100 grams) up to around 0.800kg (800 grams).

Example: Set to 300 grams or 0.300 kg.

To prime, first release the calibration door on the bottom of the machine and place the calibration tray underneath.

Press and hold the arrow button below **START** on the Jackal Instrument or the button on the applicator junction box. Once the product is dispensed, release the button. The screen will auto reset for the calibration run.

To START the calibration, you can either press and hold the arrow button under **START** or press and hold the button on the side of the applicator junction box.

The calibration run will stop when the target rate is reached or when the button is released.

17.1 Product Calibration continued

Weigh the product dispensed with scales that weigh in grams or kgs to 3 decimal places.

The TARGET line will now read **Actual** with **Actual** highlighted. Press the arrow key below **EDIT** and enter the weight of product dispensed.

Example: If you weighed 256 grams, you need to enter this as 0.256kg on the screen

To save and exit, press the arrow below **EXIT**

17.1 Product Calibration continued

To confirm the actual weight that has been entered, now press **CALC** to work out the new ratio.

***Note**: This ratio is the number of pulses from the encoder on the metering motor per kg or product.*

For reference, the calculated ratio can be written down along with the product type and feed roller set. This ratio can be entered manually to quickly change between products in the future.

Scroll down to highlight **Manual Ratio** press **EDIT** and enter the recorded figure.

To save and exit, press **EXIT.**

20.0 Hydraulic Fan rpm display

The hydraulic fan speed is displayed on the front screen. The metering motor will not turn and no product will be applied unless the fan is running.

The Hydraulic fan is switch on through the tractors hydraulic remote/spool valves.

The fan rpm is governed by engine speed and oil flow to the remote/spool valves, set by the tractor hydraulics.

21.0 Spreading/Applying Product

For the machine to operate, the **RUN/HOLD** in the top left of the screen, must display **RUN.**

This is either switched by the linkage position switch/sensor. (This is either on the 7 pin plug or external finger switch, if supplied).

Alternatively, if there is no 7 pin input or external finger switch, the **RUN/HOLD** button on the bottom right of the keypad can be used to switch the metering unit on and off.

As the machine is about to start work, set the application rate required. This can be done by selecting one of the two preset "**quick rate**" buttons, as highlighted opposite.

See Quick Rate section to adjust the preset rates.

Until the machine is moving, **STOP RATE** will be displayed in the top right of the screen.

Alternatively, the rate can be set manually on the **RATE+** or **RATE–** page.

Once the machine starts to move, the forward speed will be displayed and the **STOP** message will change to **OK**.

The applicator should now be applying product.

22.0 Simulated Speed

Simulated speed is used when no forward speed input is available, or if you need to run the machine while stationary for testing.

If simulated speed is switched on, it will override any external speed input.

Select the Other Settings page by selecting **SETUP** then **Other Settings**, scroll down to **SimulSpeed**.

The simulated speed can be switched on or off by highlighting **YES** or **NO** and pressing the arrow key below **EDIT** or the Enter Button.

To return to the Run/Home screen press **EXIT** to save and **EXIT** each screen.

When simulated speed is turned on, this function is now available when scrolling through the screen functions using the **PAGE** button.

The simulated speed function must be switched off to allow an external forward speed input to alter the application rate as the tractors speed changes.

The speed can be adjusted on the move and the feed rate will adjust accordingly.

22.1 Alarms and Trip Functions

ALARMS

The Alarms page is accessed from the home screen, using the left hand select arrow.

The Alarms are listed and show which alarms are active.

The alarm function should be set to AUTO.

=AUTO: As soon as the value moves back within the min and max range the monitor will automatically reset the alarm.

=ON: When the alarm is activated it will remain ON until you enter the ALARM menu and manually reset.

=OFF: You can disable the alarm altogether.

TRIPS

The Trips page allows accumulating area (hectare) values to be saved and recalled at a later time.

From the front-page press **TRIP,** the screen opposite allows you to SAVE/RESET individual trips or view SAVED TRIPS.

By pressing the **SAVE/RESET** you have the ability to Reset Trip | Save Trip | Reset All.

By pressing **2. Save Trip** it will be stored in the SAVED TRIPS option.

You can now view the **SAVED TRIPS**. You also have the ability to **EDIT** and name the Trip or **DEL ALL** (Delete All Trips).

When you return to the TRIPS page the Trip will continue to accumulate.
You will need to SAVE/RESET the trip if you want to start from Zero (0) again

22.2 Quick Rate and Step Size Adjustment

The preset quick rates can be set to whatever is required.

From the front screen settings, the size of the step rate can be adjusted.

To get to the Front Screen, use the page button until SETUP is displayed. Select SETUP, then scroll down to Front Screen and select.

When the Front screen is displayed, as opposite, select **1: SEED** by highlighting and press **EDIT**.

Scroll down until **Step:** is visible.

To adjust the Step size, scroll down to highlight **Step**

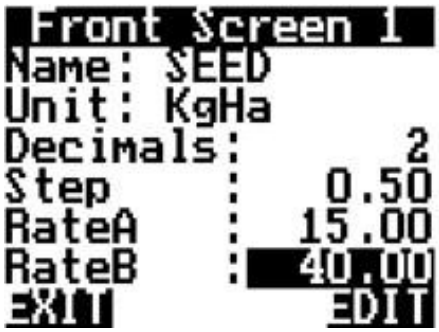
Press **EDIT** and set the required **Step** size in kg/ha (screen opposite shows steps of 0.50 kg/ha)

Press **EXIT** to save and exit.

0.50000 is a 500 grams or 0.5 kg step size.

To adjust **RateA** and/or **RateB**, scroll down and highlight the one to be altered. Then press **EDIT**.

Enter the required rate and press **EXIT** to save and exit.



22.3 Flush/Hopper Empty

The Jackal has a Flush or Hopper Empty function.

Use the Page button to scroll through the function until **SEED** and **Flush** are displayed above the arrow buttons.

Open the calibration door and place a suitable bucket or container underneath.

To begin emptying, press the arrow button under Flush.

The Flush icon will begin to flash and the metering unit turns.

Press again to stop.

22.4 Diagnostics

The Diagnostics page is accessed from the **SETUP** page and scroll down to Diagnostics.

This page will display supply voltage and current being drawn.

Each input and output set up on the Jackal is displayed. When switched on or operated it will show a voltage or hertz reading.

23.0 Feed Block Assembly Guide

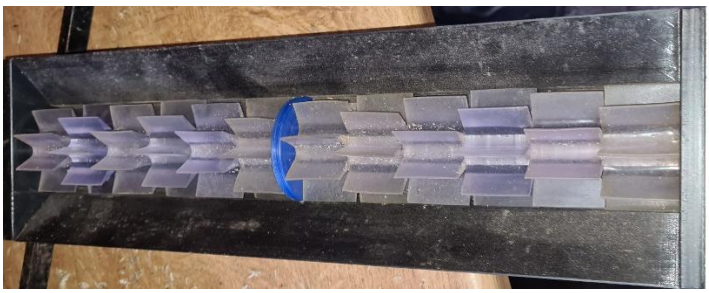
⚠**WARNING! The moving parts of this machine are powerful and can cause injury. Be especially careful whilst performing calibration tests.**

⚠**WARNING! Always observe all application standards and guidelines provided by the product manufacturer as some seed dressings and granular products may be toxic.**

NOTE: If unsure contact your seed or product supplier for more information.

NOTE: Before applying very fine seeds or product please contact your local dealer or Stocks Ag directly to ensure the machine is suitable. Failure to do so could invalidate your warranty.

23.1 Feed Roller Configuration



The most versatile feed roller is the 50mm diameter 8 vane. The Maxi Jet feed block can have a maximum of 12 segments fitted. For the Maxi Jet 2 this is 6 segments per outlet and the Maxi Jet 4 has 3 segments metering per outlet. By substituting segments for blanks, the number per outlet can be altered.

The Maxi Jet is capable of very high outputs, and also very low application rates. Each distribution head can have product fed to it and metered by just one segment. That product metered is then split through each of the outlets on the distribution head.

Example: One 8 vane segment over an outlet could be suppling up to 16 spreader plates.

NOTE: If you cannot achieve the required rate using just a single 8 vane flexible segment. The yellow or white segments, or multiple of segments per outlet can be used to achieve the required rate.

The choice of roller fitted will be determined by a number of factors, including product type, application rate, working width and forward speed.

NOTE: Before applying very fine seeds or product please contact your local dealer or Stocks Ag directly to ensure the machine is suitable. Failure to do so could invalidate your warranty.

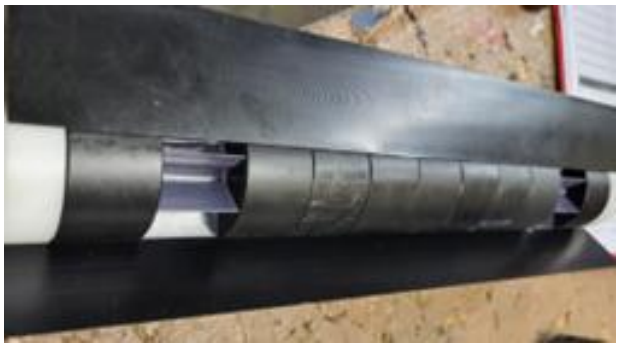
The feed rollers are easily exchanged by removing the feed mechanism as follows:

1. Ensure the hopper is completely empty.

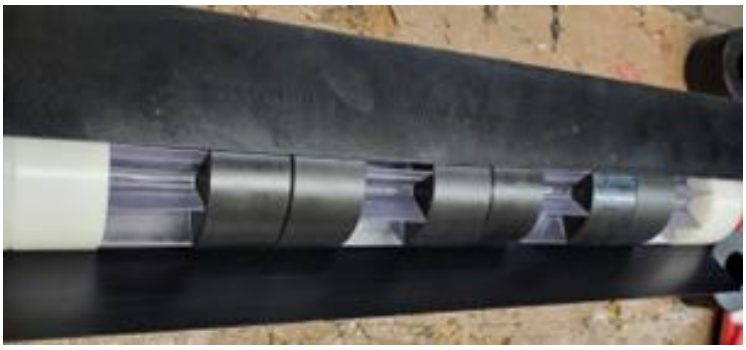
2. Undo and remove the 2 black plastic knobs holding the mechanism in place and slide out the feed block.

3. Undo and remove the 4 socket head screws on the end of the housing and remove the end plate. Slide the feed rollers and spacers off the shaft and replace with the alternative rollers required.

23.2 Feed Roller Configuration – Continued



1 segment per outlet on Maxi Jet 2



1 segment per outlet on Maxi Jet 4, or 2 segments per outlet on Maxi Jet 2

NOTE: When re-fitting the end plate to the feed block after changing the feed roller configuration. Some seeds or other products can force there way in between the feed roller segments.

In time this will cause the roller to become increasingly difficult to turn and will ultimately lead to a machine fault.

To reduce the chance of this occurring, it is important to make sure the feed rollers are tightly fitted into the feed block. When assembling, it is advised the segments are under a small amount of compression. It is acceptable for the end plates to compress a gap of 3 to 4mm when securing the end plate. To check the correct feed roller and spacer configuration, the roller should rotate within the feed block by just using two fingers and a thumb to turn. Once re-assembled, slide the feed block assembly back into the machine ensuring the drive shaft engages correctly by slowly rotating the feed shaft. Once engaged secure the two black plastic retaining knobs.

WARNING! It is the responsibility of the operator to ensure the feed block assembly is suitable for the product being applied.

23.3 Precision Small Seed Feed Block Kit

Part Number: **47MJT5002**

For some applications, such as applying very small seed or granular product, a low rate feed block assembly is recommended. This block has been developed to eliminate finer products from leaking around the feed

rollers and into the airstream. These feed blocks can be used with the standard feed rollers supplied with the machine when applying very small seeds at low rates.

The possible configurations of feed rollers in the Maxi Jet differ from other pneumatic applicators, like the Turbo Jet, by only requiring one segment per distribution head, unlike a Turbo Jet that requires a segment per outlet. This means a single 8 vane grass seed segment that is usually too large for small seeds, can now be fitted to meter product to between 6 and 16 spreader plates.

In some situations, this can still give an application rate that is too high, this is where a small seed roller would be used.

The small seed block is used for low application rates, small seeds like oil seed rape (canola), clover, slug pellets etc. These segments can be supplied in the low rate precision feed block, or fitted into the standard feed block.

NOTE: Stocks Ag does not currently recommend using the Maxi Jet for Avadex application. For the application of Avadex at wider working widths, please speak to the office about the Hydraulic Turbo Jet.

Avadex ®* is a Trademark used under licence by Gowan Crop Protection Ltd.

⚠**WARNING! It is the responsibility of the operator to ensure the feed block assembly is suitable for the product being applied.**

NOTE: Before applying very fine seeds or product please contact your local dealer or Stocks Ag direct to ensure the machine is suitable. Failure to do so could invalidate your warranty.

23.4 Granular Feed Kit

Designed for fine granules at higher application rates and can also be used for fine seed work where high outputs are required.

Part Number: **47TJT5021**

NOTE: If replacing the feed rollers always ensure the outer two rollers are positioned so that the blank end of the feed roller faces each of the black PVC end plates.

23.5 Stainless Feed Block Kit

Designed for applying abrasive granular products such as starter fertiliser or low rates of standard prilled fertiliser. (Supplied with 3 sizes of 5mm wide stainless feed rollers for different application rates).

NOTE: For higher standard fertiliser application rates our large seed block kit may be suitable.

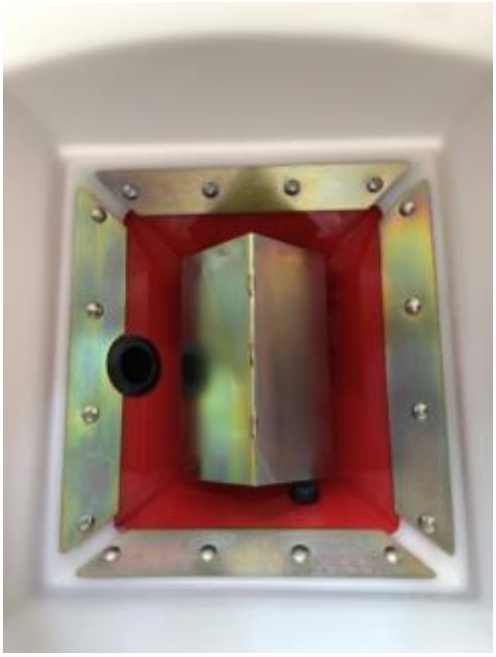
Please contact your dealer for more information.

Part Number **47TJT5023**

WARNING! It is the responsibility of the operator to ensure the feed block assembly is suitable for the product being applied.

NOTE: Before applying very fine seeds or product please contact your local dealer or Stocks Ag directly to ensure the machine is suitable. Failure to do so could invalidate your warranty

24.0 Hopper Baffle Plate



Turbo Jet 8 Hopper Baffle Plate
Part number: **TJ471**

Turbo Jet 10 hoper baffle plate
Part number: **TJ472**

WARNING A Hopper Baffle Plate must be fitted when applying fertiliser or any other dense product to reduce the pressure on the feed block assembly and so reduce strain on the feed motor. Failure to do so may damage the feed motor and invalidate the warranty.

NOTE: All 400L machines are supplied with a hopper baffle plate as standard.

25.0 Ready for Work

Once calibrated your machine is ready for work

1. Remove the calibration tray and store away safely.
2. Close the hinged drop down panel and secure with the over centre catches.
3. Ensure the agitator is running if required.
4. Check all outlet pipes are seeding correctly.
5. Ensure that you are travelling at the correct chosen speed if not using the optional GPS Kit.
6. Stop after a few metres – check for even distribution, spread and application rate.
7. Commence work checking periodically to ensure the machine is working correctly.

If you are unable to calibrate correctly or you have any other questions about the machine please contact us.

CAUTION. The feed rolls and agitator can pull in hair or loose clothing. The motor is so powerful that you will be unable to stop it.

Always clean out the machine at the end of the day, use a brush not your hand to sweep out the hopper

⚠**WARNING! Always observe all application standards and guidelines provided by the product manufacturer as some seed dressings and granular products may be toxic.**

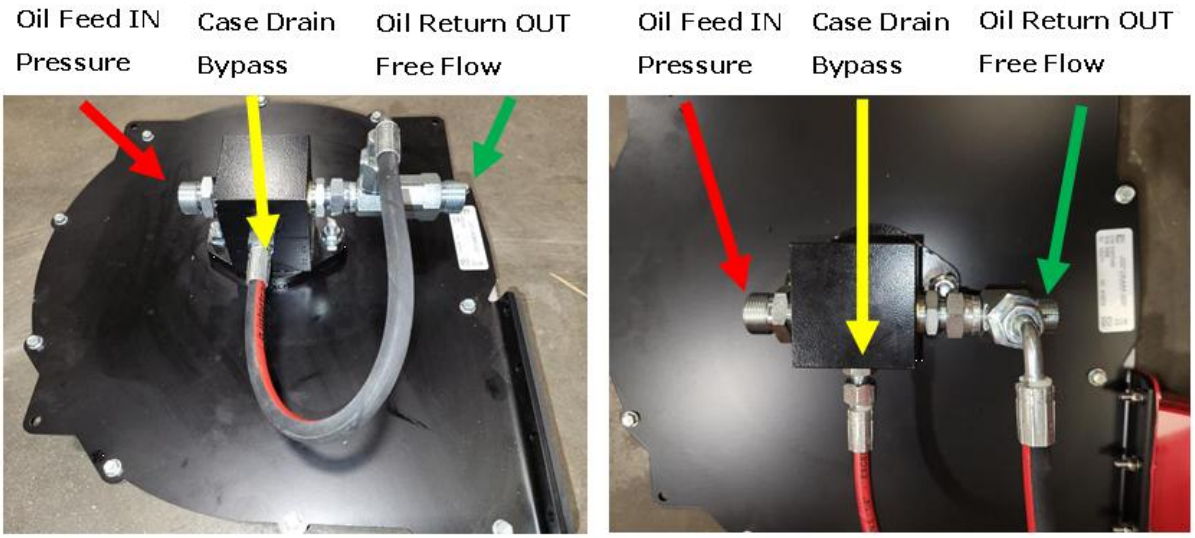
NOTE: If unsure contact your seed or product supplier for more information**.**

26.0 Hydraulic Fan (Optional) – Specification

Hydraulic Fan Specification		
Model	FC4	
Max RPM	7000	rpm
Max Operational RPM	6000	rpm
Max Pressure	210	bar
Max Operational Pressure	172	bar
Displacement	4.1	cc
Flow	27.3	L/min
Power	9.54	NM
Weight	16	kg

26.1 Hydraulic Fan – Motor

The 4cc hydraulic fan motor on the Maxi Jet is connected to the tractors hydraulic remote (spool) valves via 3/4 hydraulic hose. The oil pressure hose connects to the side of the motor marked with IN stamped into the housing, using a 3/4 BSP adaptor. The return side is marked with an OUT stamp and connects to a T piece (see photos below). The 3/4 BSP side of the T piece is the free flow return to the tractor. The T hydraulic piece fitting, is to allow the smaller hose for the case drain, which also acts as the bypass for the motor safety protection.



26.2 Hydraulic Fan Safety

The hydraulic system on the machine operates under high pressure. (Maximum of 210 bar). Pressurised hydraulic oil is dangerous so connecting/disconnecting the fan must only be undertaken with the tractor engine turned off and the pressure in the hoses released. Before operating the machines hydraulics, always inspect the hoses and fittings to ensure there is no damage or loosened parts. If you find any damaged hoses, you must contact your dealer to have them replaced immediately.

Never try to block leaking hydraulic hose pipes with your hand or fingers! Hydraulic oil leaking out under high pressure may enter the skin and bloodstream and cause serious injuries. If injuries caused by hydraulic oil occur, immediately contact the medical services.

The tractor must be equipped with a free-return flow hydraulic connector (NO BACK PRESSURE). The oil flow necessary to drive the fan is taken from the tractor hydraulic remote valves, through a 3/4 inch delivery hose with BSP male fitting. The rotational speed of the hydraulic motor, and therefore the fan, is connected to the oil flow adjustable from the tractor's controls. The hydraulic motor safety valve makes it possible for the device to keep on turning by momentum, even after the system has been shut off. It is important to connect the return hose of the hydraulic motor to a free flow connection on the tractor; this free discharge cannot generate any back-pressure exceeding 2 bar.

Failing to follow these instructions will increase the risk of motor failure and increase the risk of premature failure.

26.3 Hydraulic Fan – Fitting Position

The hydraulic fan will draw in large quantities of air when running. The air inlet to the fan must be kept clear of obstructions. Where possible, mount in a location that will minimise the amount of dust being drawn in, as this will impede the performance of the applicator.

The hydraulic fan is supplied with a pair of 4 metre long hoses, for pressure and return to reach from the fan motor to the remote (spool) valves on the tractor. For trailed implements, please allow some extra slack in the hoses, which will be required when making sharp turns.

The hydraulic fan is supplied with a 2 metre hose that connects the fan outlet to the air inlet manifold of the applicator.

26.4 Hyrdraulic Fan - Speed Setting

The hydraulic fan generates a greater volume of air flow at higher speeds than the 12v electric fans, allowing higher volumes of material to be conveyed over wider working widths.

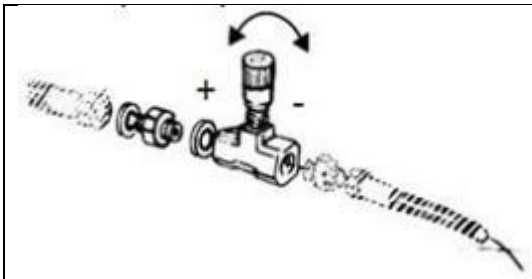
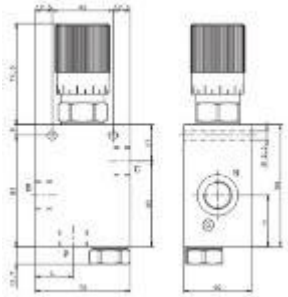
The fan is driven by a hydraulic motor, which is powered by the tractor hydraulic system.

The hydraulic motor has a overrun protection built in.

The rpm of the fan in measured by a NPN (Negative Positive Negative) sensor with a two pulse pick up point (2ppr).

The fan speed determines the volume and speed of air used to deliver product to the outlets. The correct speed required varies depending on product size, application rate and overall working widths. Fan speed is altered by adjusting the flow control on the hydraulics of the tractor.

If the tractor is not equipped with variable flow control on the hydraulic remote (spool) valves, there is a flow control valve available as an optional extra. This valve fits on the pressure hose at the tractor end. The speed is adjusted by restricting the oil flow to the fan.

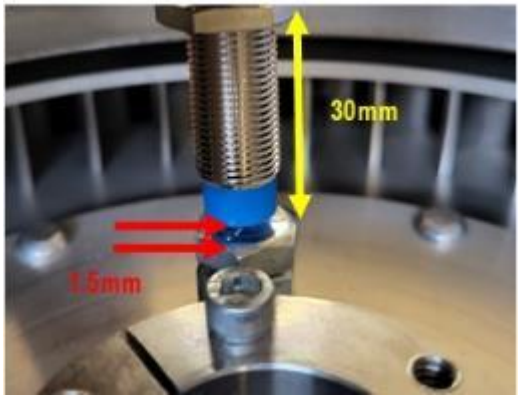
	Optional flow control valve for adjusting fan speed	

26.5 Hydraulic Fan Speed Guide

The fan speeds in the table below are just an rough guide. The correct speed required will alter greatly between varying setups depending on machine location, hose length and hose routing.

Fan Speed rpm	6m	8m	12m	15m
3500	Small seeds, OSR, Clover	Small seeds, OSR, Clover		
4000	Slug pellets	Small seeds, OSR, Clover		
4800	Barley, Wheat, Fertiliser	Slug pellets	Small seeds, OSR, Clover	Small seeds, OSR, Clover
5500	Larger Seeds, Peas	Barley, Wheat, Fertiliser	Slug pelle	Slug pellets
6000	Larger Seeds, Peas	Larger Seeds, peas	Barley, Wheat, Fertiliser	Barley, Wheat, Fertiliser

27.0 Hydraulic Fan – Speed Sensor

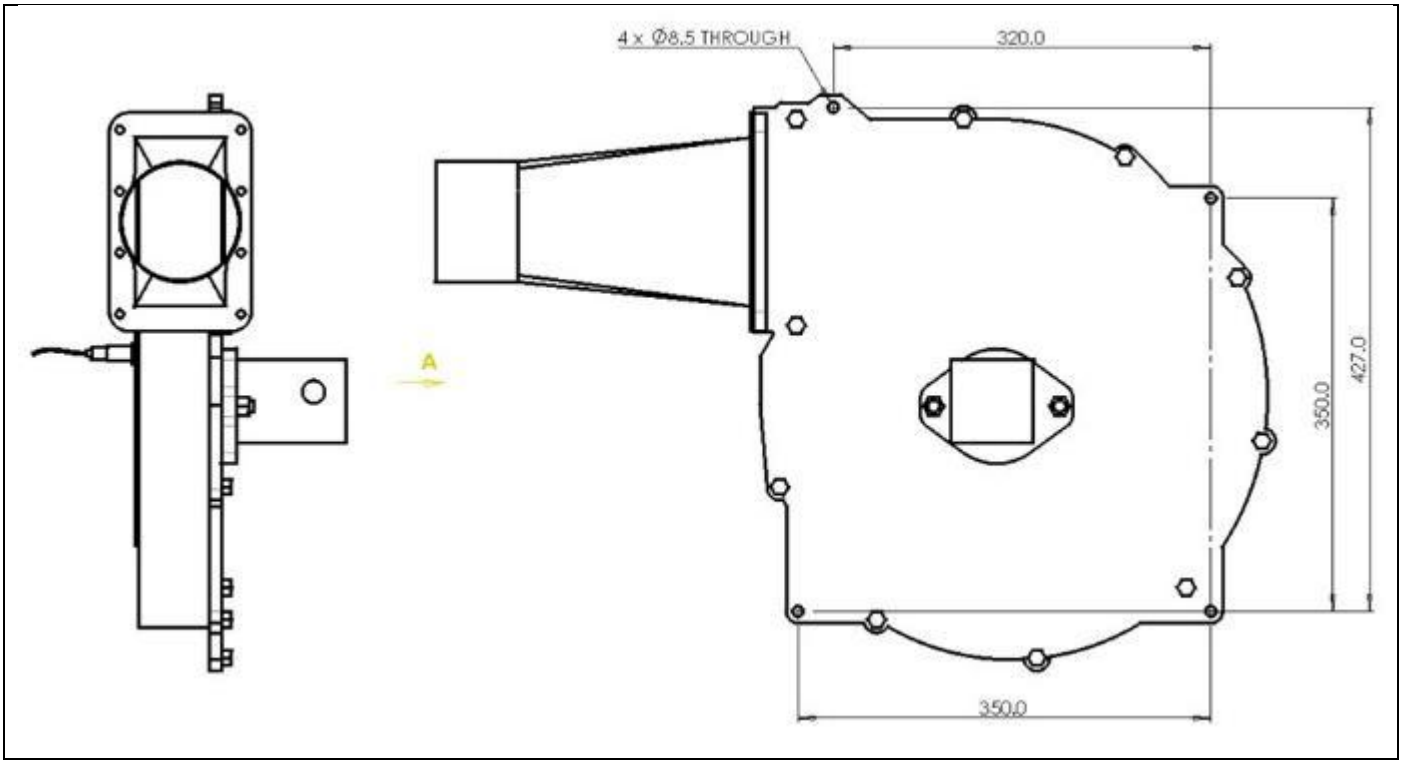
The fan speed sensor requires mounting in the grill over the fan inlet, using the hole provided. Each time one of the bolt heads mounted on the fan blade passes in front of the sensor, it generates a pulse and the LED on the back flashes red.	
The picture opposite shows the two bolt heads that are used as the pick up points for the fan speed sensor. The grill over the fan inlet has to be removed to fit the sensor. The grill is held in place with four M8 bolts.	
It is vital to install the fan speed sensor in the correct position. The sensor has an M12 fine thread with two nuts and lock washers to hold it in place. The blue tip to the sensor is roughly 30mm from the underside of the grill cover. The critical measurement is the 1.5mm clearance between the sensor tip and the bolt heads. If the distance is to great, the LED will not flash. If it too little, there is a risk of permanent damage to the sensor.	

27.1 Hydraulic Fan – Mounting

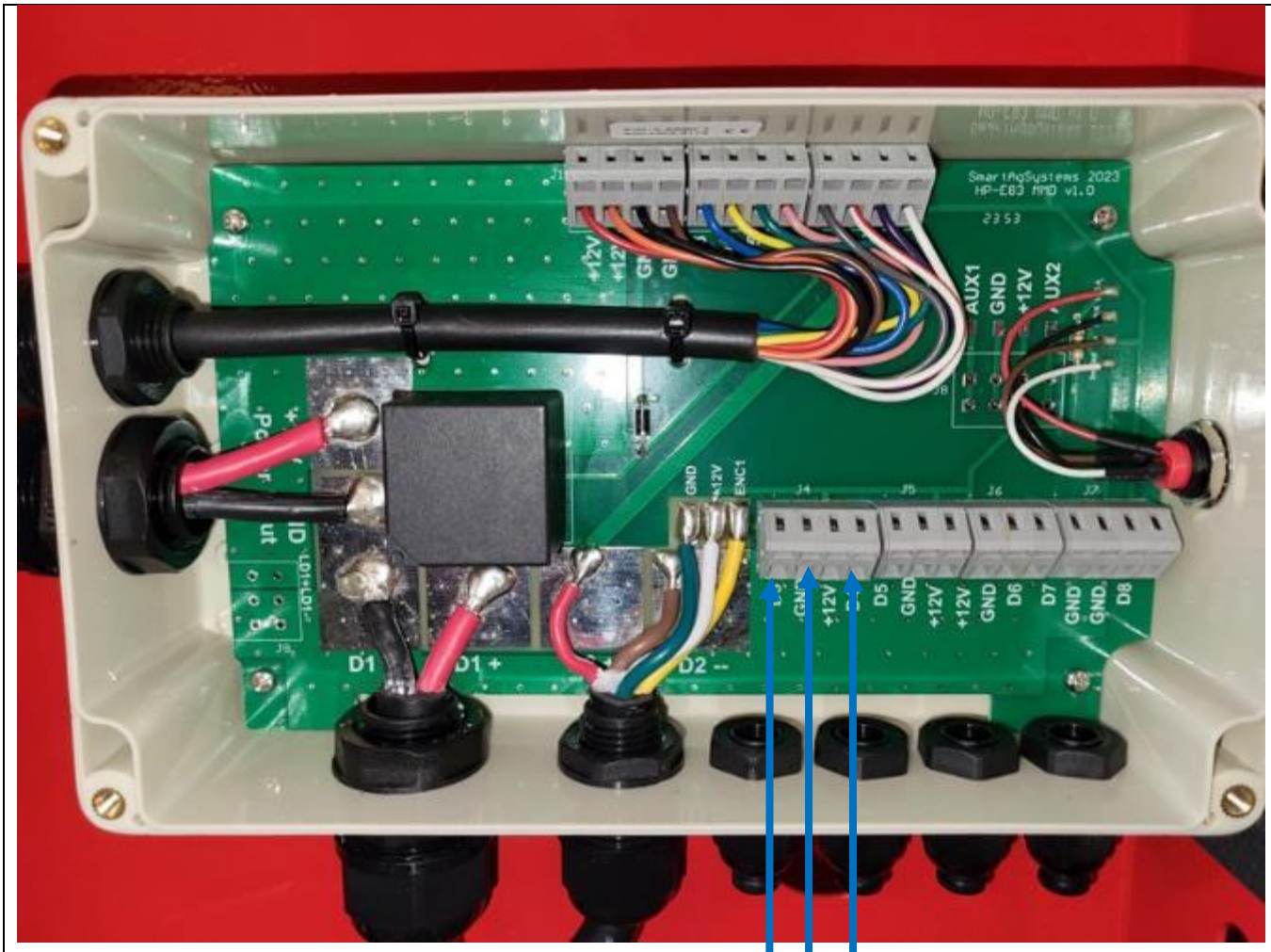
To mount the hydraulic fan, the back plate is pre drilled with four M8 bolt holes.

It is recommended that all four bolt holes are used to mount the fan on a frame to support the fan securely.

The diagram below gives the dimensions for the hole location and spacing.



27.2 Hydraulic Fan Speed – Fly Lead Wiring



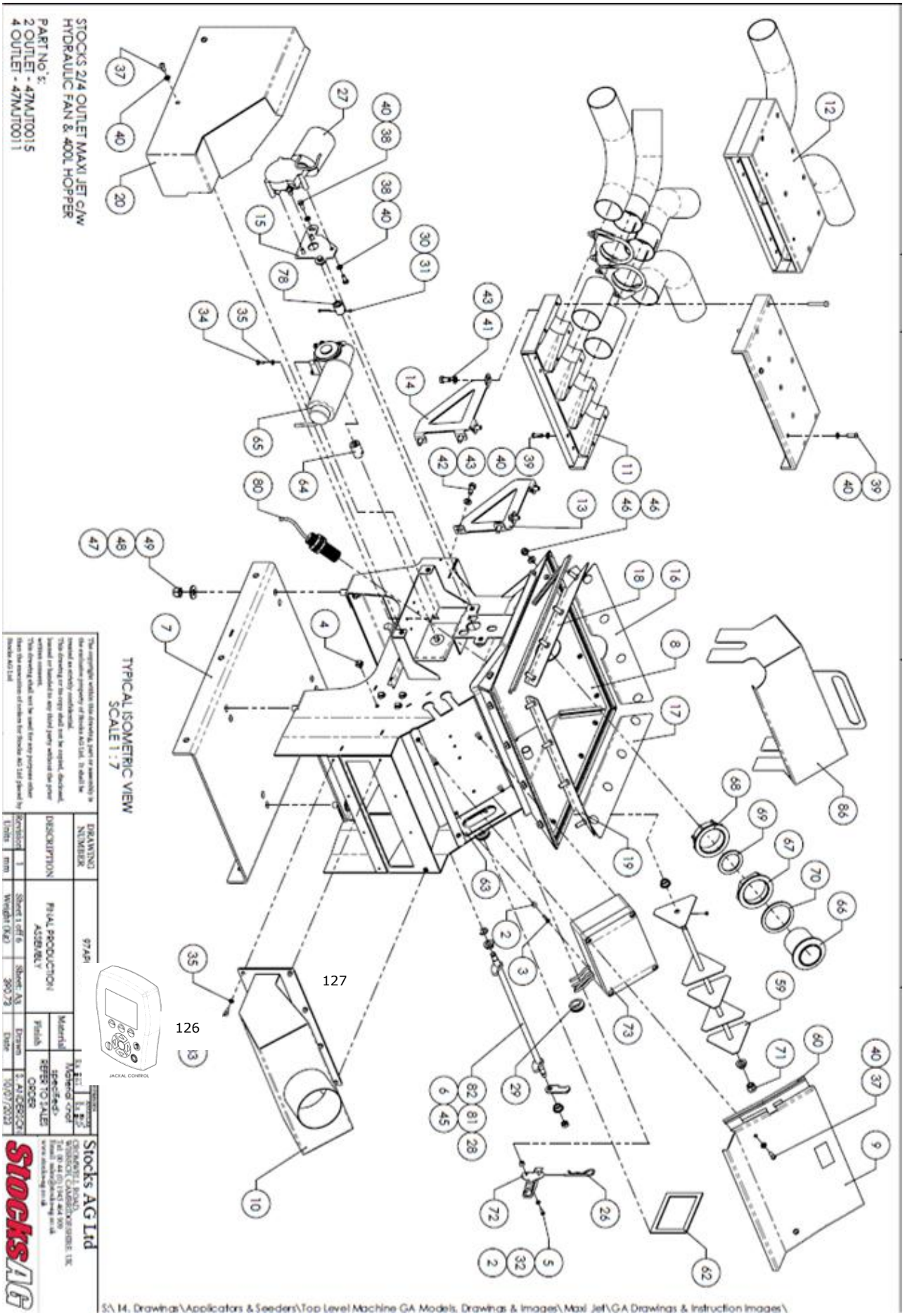
Hydraulic Fan Speed Sensor wire connections

YELLOW / GREEN = D4

BLUE = GROUND

BROWN = +12V

28.0 Maxi Jet Parts Drawing



28.1 Maxi Jet Part List

Item	Part No.	Description	Qty.	Remarks
1	TJ400A	Chassis (8 outlet)	1	
	TJ400B	Chassis (10 outlet)	1	
2	TJ422	Base Plate (8 & 10 outlet)	1	
3	TJ425A	Fan Guard (8 outlet)	1	
	TJ425B	Fan Guard (10 outlet)	1	
4	TJ418	Motor Guard (8 outlet)	1	
	TJ459	Motor Guard (10 outlet)	1	
5	TJ429	Agitator Motor Plate	1	
6	TJ465	Support Plate Kit	1	Set of 4 plates
7	TJ101A	Feed Block End Cap	2	Counter Bored
8	TJ102	Feed Block (8 outlet)	1	
	TJ098C	Feed Block (10 outlet)	1	
8a	TJ102A	Low Rate Feed Block (8 outlet)	0	Cost Option
	TJ098D	Low Rate Feed Block (10 outlet)	0	Cost Option
9	TJ103	Fastener Assembly	4	
10	TJ104D	Metering Shaft (8 outlet)	1	
	TJ099C	Metering Shaft (10 outlet)	1	
11	TJ033	Gasket	1	
12	TJ124C	Double Fan Unit (8 & 10 outlet)	1	
13	TJ126A	Hopper (240L)	1	
	TJ125A	Hopper (400L)	1	
14	TJ138	Agitator Shaft (8 outlet)	1	
	TJ138A	Agitator Shaft (10 outlet)	1	
15				
16	TJ219	Blanking Plug (8 & 10 outlet)	3	
17	TJ218A	Feed Unit Manifold (8 outlet)	1	
	TJ217A	Feed Unit Manifold (10 outlet)	1	
18	TJ220– Assembly	"Y" Connector—Assembly	8 or 10	8 or 10 outlet
20	TJ222	Ø32mm Hose	30m	Not shown
21	TJ223	Clamp Assembly		
22	TJ224	Spreader Plate (Assembly)		8 or 10 outlet
23	TJ227	Ø40mm BZP Hose Clip		8 or 10 outlet
24	TJ038	Strip Seal	2.4m	
25	TJ021A	Agitator Paddle (8 outlet)	4	
	TJ021A	Agitator Paddle (10 outlet)	5	

28.2 Maxi Jet Parts List Continued

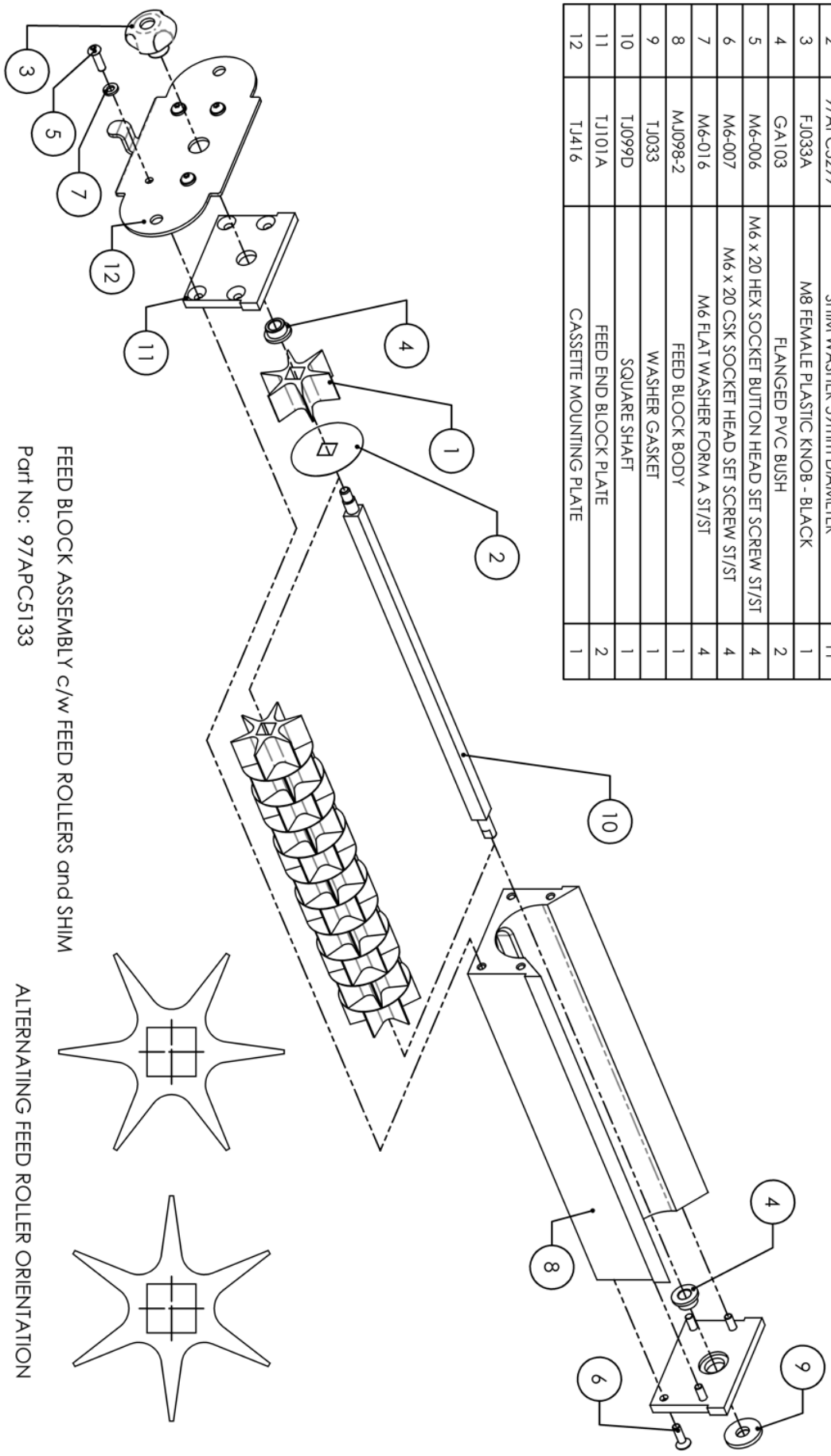
Item	Part No.	Description	Qty.	Remarks
26	TJ137	Coupler	1	
27	TJ131	4mm Allen Key	1	
29	TJ416	Cassette Mounting Plate	1	
31	TJ128	Hopper Lid	1	
32	TJ129	Neck Ring	1	
33	TJ130	PVC Calibration Tray	1	
34	FJ033A	M8 Fem Knob	3	
35	GRO03	Rubber Grommet	2	
36	TJ053	Rubber Washer	1	
37	TJ054	Rubber Washer	1	
39	GA046B	Agitator Motor	1	
41	TJ040	Feed Block Gasket	1	
42	TJ041	Junction Box Gasket	1	
44	GA103	PVC Flanged Bush	6	
45	TJ055-1	PVC Plug	1	
47	TJ430	Hinge Guard (8 outlet)	1	
	TJ431	Hinge Guard (10 outlet)	1	
48	TJ044B	Feed Motor	1	
49	TJ039	Rubber Grommet	1	
50	TJ043A	Coupler	1	
51	M10-004	M10x25 Bolt	3	
52	FJ419A	R' Clip	4	
53	M6-003	M6 Setscrew	2	
54	M6-016	M6 Flat Washer	2	
55	M5-011	M5 Setscrew	4	
56	M5-014	M5 Flat Washer	4	
57	M6-004	M6x16 Bolt	2	
58	M6-004	M6x16 Bolt	3	
59	M6-007	M6x20 CSK Setscrew	4	
60	M6-016	M6 Flat Washer	6	
61	M6-008	M6x25 Button Head Setscrew	4	
62	M8-004	M8x20 Dome SQ Bolt	16	
63	M8-010	M8 Flat Washer	16	
64	M8-012	M8 Penny Washer	2	
65	M10-001	M10x16 Bolt	a/r	
66	M4-004	M4 Lock Nut	4	
67	M10-016	M10 Flat Washer	a/r	
68	M10-024	M10 Lock Nut	3	
69	M12-003	M12x35 Bolt	4	

28.3 Maxi Jet Parts List Continued

Item	Part No.	Description	Qty.	Remarks
70	M12-008	M12 Flat Washer	8	
71	M12-014	M12 Lock Nut	4	
72	M4-001	M4x6 Socket Head Setscrew	8	
73	M4-006	M4 Flat Washer	8	
74	M8-019	M8 Lock Nut	16	
75	TJ150	'C' Rail 2 metre length	4	
76	TJ151A	Channel Nut	a/r	
77	TJ152-1	Short Clamp Plate 2 Holes	a/r	
78	TJ153	Long Clamp Plate 3 Holes	a/r	
79	TJ050	Tank Outlet	1	
80	TJ051	Nut	1	
81	TJ052	Blanking Cap	1	
82	TJ251A	i-CON Hopper Level Sensor	1	
83	M4-006	M4 Flat Washer	8	
84	M4-003	M4 Setscrew	8	
85				
86	TJ1285	Self Tapping Screw	2	
87	M5-015	Washer		
88	MM019	Loop Link Chain	1	
89	TJ471	Tank Baffle (8 outlet)	1	400L models only
	TJ472	Tank Baffle (10 outlet)	1	400L models only
90	TJ196A	8 Outlet Feed Block Assembly	1	
	TJ196E	10 Outlet Feed Block Assembly	1	
	TJ196B	8 Outlet Low Rate Feed Block Assembly	1	Cost Option
	TJ196F	10 Outlet Low Rate Feed Block Assembly	1	Cost Option
93	TJ435A	Door Release Shaft TJ8	1	
	TJ440A	Door Release Shaft TJ10		
94	TJ437A	Door Release Catch Plate	1	
95	TJ433	E-clip	1	
100	M3-003	M3 Bolt	1	
101	M3-008	M3 Lock Nut	1	
102	TJ117C	i-CON Instrument Control Panel	1	
103	TJ118C	i-CON Instrument Connector Cable	1	Not shown
104	TJ119D	i-CON Junction Box	1	
107	TJ252	Finger Cut Out Switch	1	
108	TJ254	6m Switch Cable	1	Not shown
109	TJ235	Instrument Mounting Bracket	1	Not shown

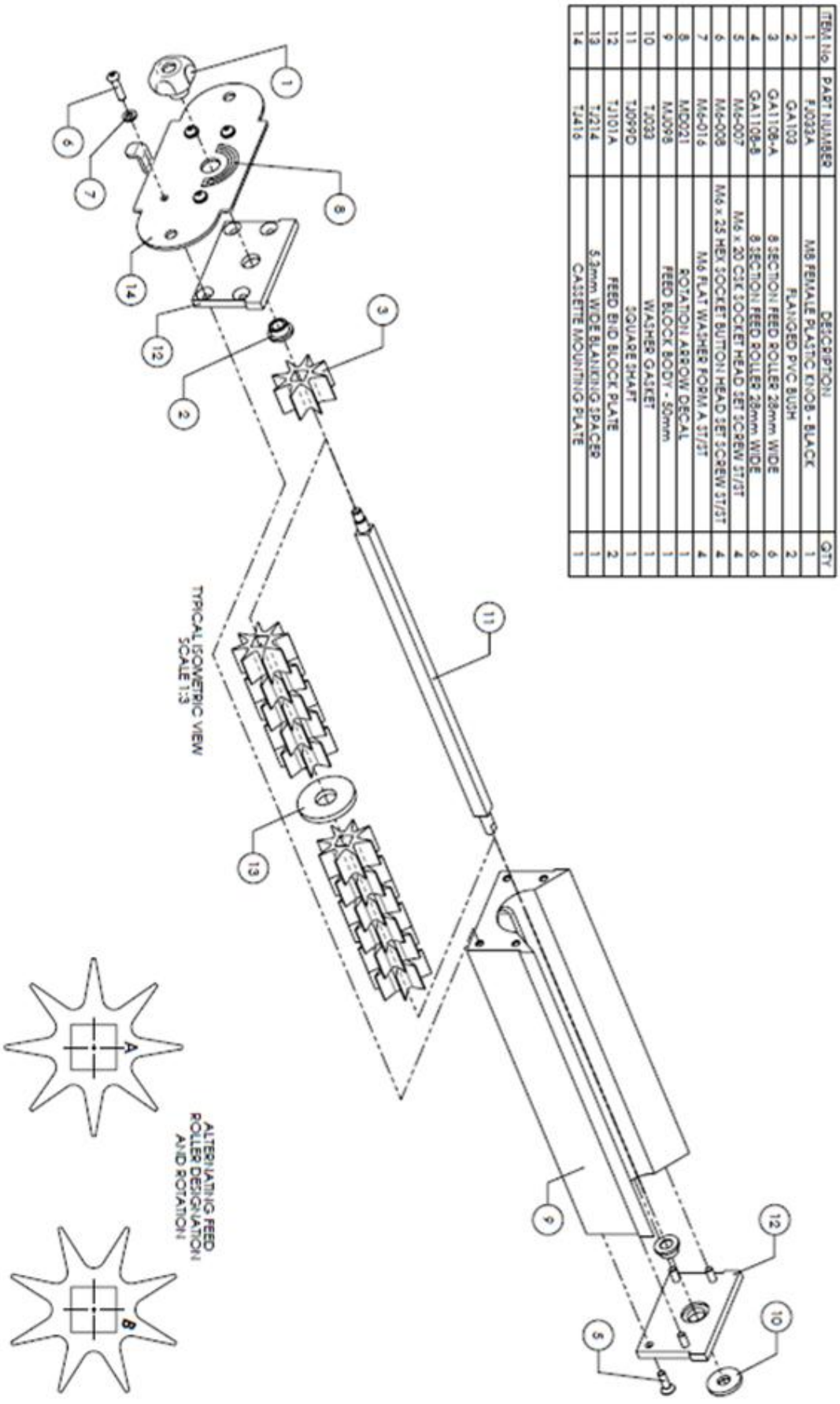
29.0 High-Capacity Feed Roller

ITEM No	PART No	Description	Qty
1	97APC5196	59mm DIAMETER- 6 VANE - 28.0 WIDE FEED ROLLER	12
2	97APC5299	SHIM WASHER 59mm DIAMETER	11
3	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	1
4	GA103	FLANGED PVC BUSH	2
5	M6-006	M6 x 20 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
6	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
7	M6-016	M6 FLAT WASHER FORM A ST/ST	4
8	MJ098-2	FEED BLOCK BODY	1
9	TJ033	WASHER GASKET	1
10	TJ099D	SQUARE SHAFT	1
11	TJ101A	FEED END BLOCK PLATE	2
12	TJ416	CASSETTE MOUNTING PLATE	1



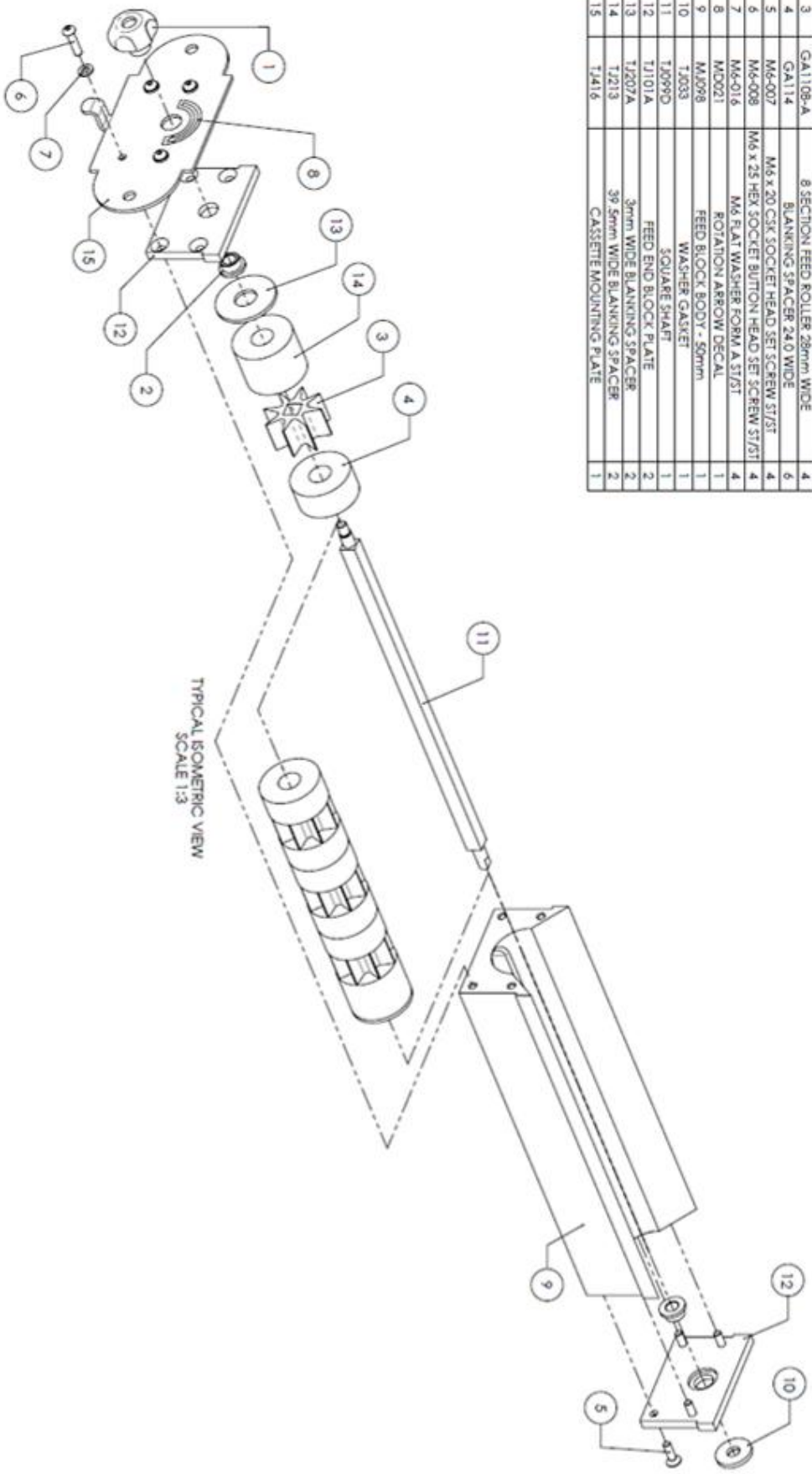
29.1 Standard Feed Roller – Full Set

ITEM NO	PART NUMBER	DESCRIPTION	QTY
1	FJ032A	M8 FEMALE PLASTIC KNOB - BLACK	1
2	GA103	FLANGED PVC BUSH	2
3	GA1108-A	8 SECTION FEED ROLLER 28mm WIDE	6
4	GA1108-B	8 SECTION FEED ROLLER 28mm WIDE	6
5	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
6	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
7	M6-016	M6 FLAT WASHER FORM A ST/ST	4
8	MD021	ROTATION ARROW DECAL	1
9	MJ095	FEED BLOCK BODY - 50mm	1
10	TJ033	WASHER GASKET	1
11	TJ099D	SQUARE SHAFT	1
12	TJ101A	FEED END BLOCK PLATE	2
13	TJ214	5.2mm WIDE BLANKING SPACER	1
14	TJ416	CASSETTE MOUNTING PLATE	1



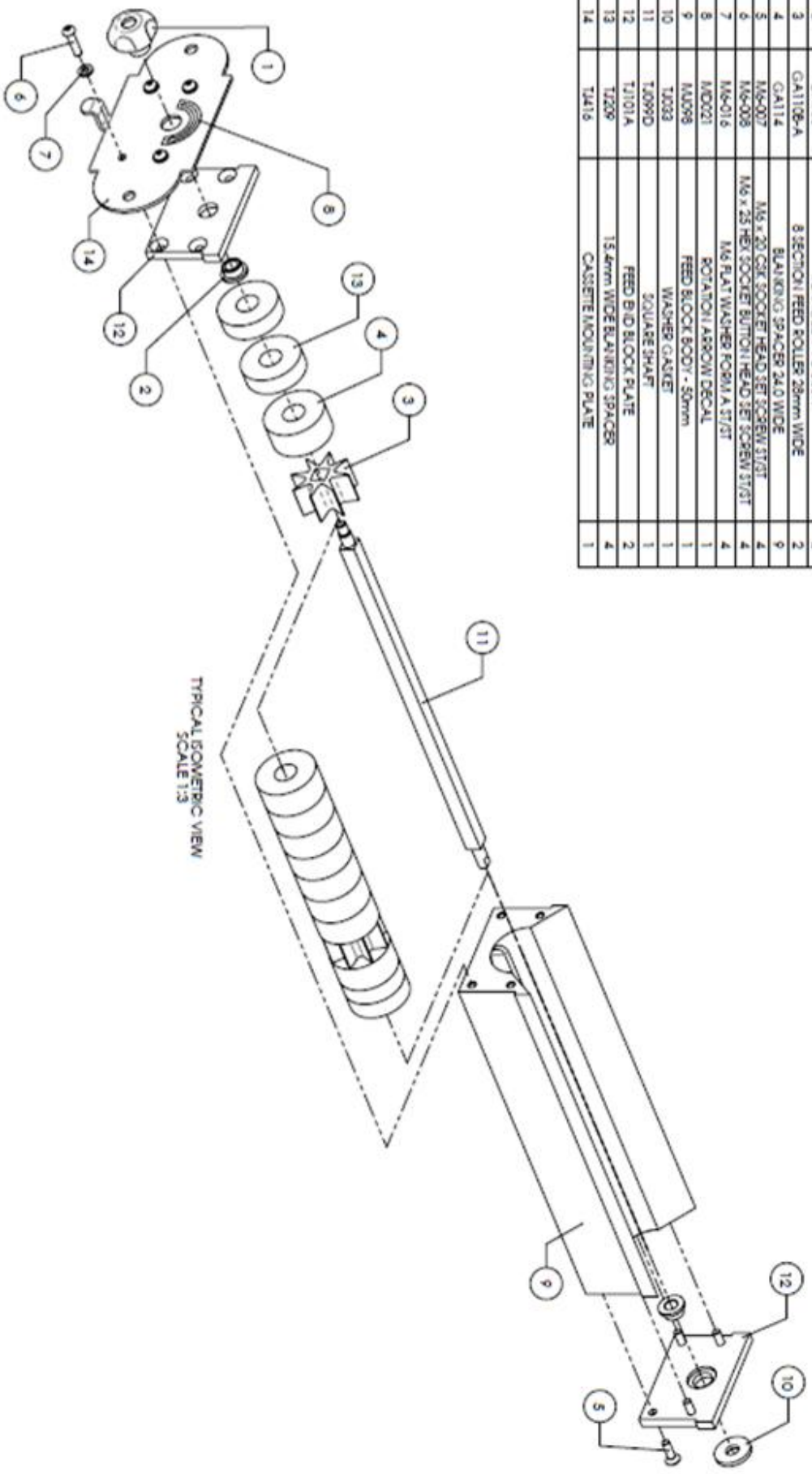
29.2 Standard Feed Roller – 4 Segments

ITEM No	PART NUMBER	DESCRIPTION	QTY
1	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	1
2	GA103	FLANGED PVC BUSH	2
3	GA1108-A	8 SECTION FEED ROLLER 28mm WIDE	4
4	GA114	BLANKING SPACER 24.0 WIDE	6
5	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
6	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
7	M6-016	M6 FLAT WASHER FORM A ST/ST	4
8	MD021	ROTATION ARROW DECAL	1
9	MJ098	FEED BLOCK BODY - 50mm	1
10	TJ033	WASHER GASKET	1
11	TJ099D	SQUARE SHAFT	1
12	TJ101A	FEED END BLOCK PLATE	2
13	TJ207A	3mm WIDE BLANKING SPACER	2
14	TJ213	39.5mm WIDE BLANKING SPACER	2
15	TJ416	CASSETTE MOUNTING PLATE	1



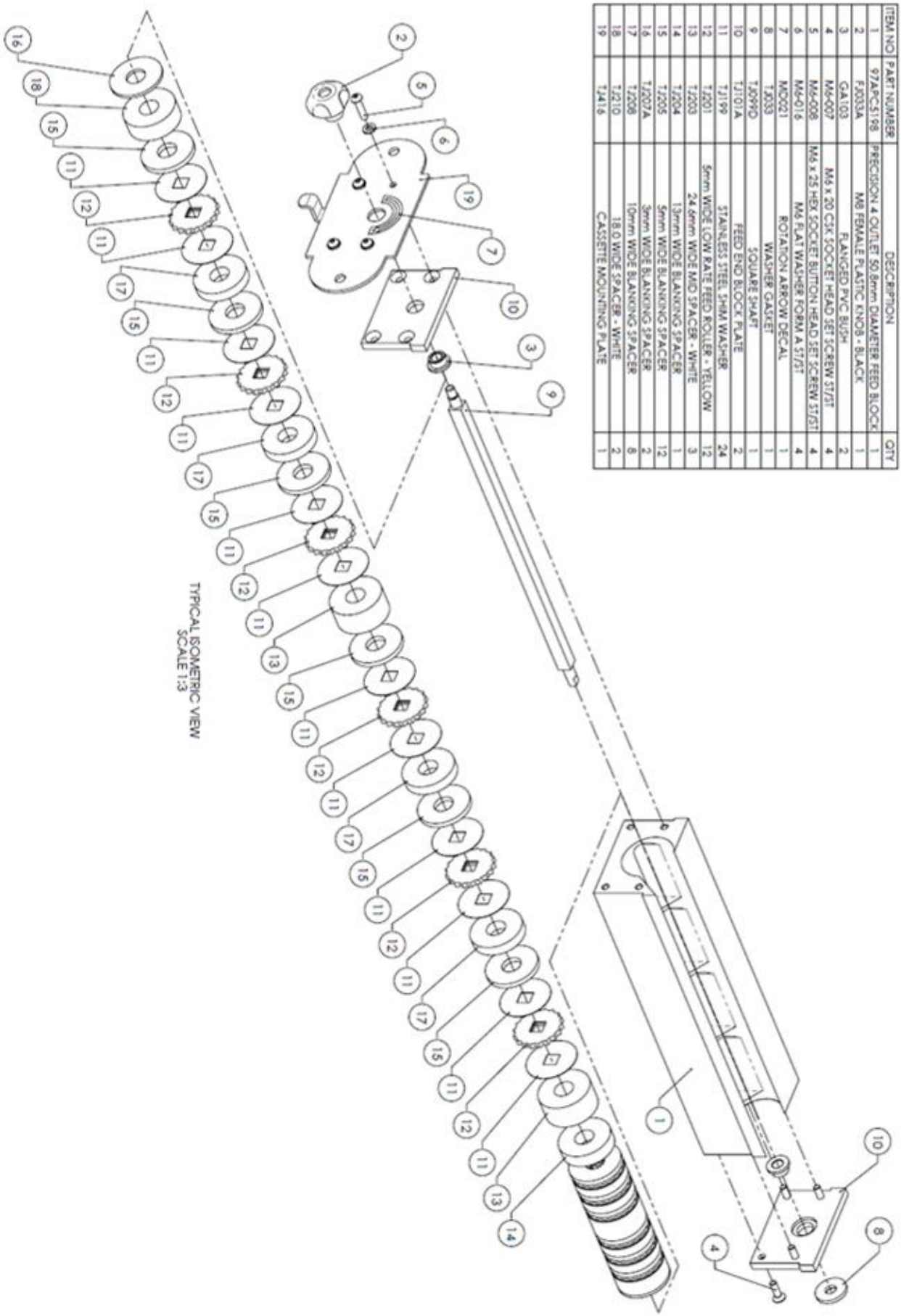
29.3 Standard Feed Roller – 2 Segments

ITEM No	PART NUMBER	DESCRIPTION	QTY
1	FJ033A	M8 FEMALE PLASTIC KNOB - BLACK	1
2	GA103	FLANGED PVC BUSH	2
3	GA1108-A	8 SECTION FEED ROLLER 28mm WIDE	2
4	GA114	BLANKING SPACER 24.0 WIDE	9
5	M6-007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
6	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
7	M6-016	M6 FLAT WASHER FORM A ST/ST	4
8	MD021	ROTATION ARROW DECAL	1
9	MJ098	FEED BLOCK BODY - 50mm	1
10	TJ033	WASHER GASKET	1
11	TJ099D	SQUARE SHAFT	1
12	TJ101A	FEED END BLOCK PLATE	2
13	TJ209	15.4mm WIDE BLANKING SPACER	4
14	TJ416	CASSETTE MOUNTING PLATE	1

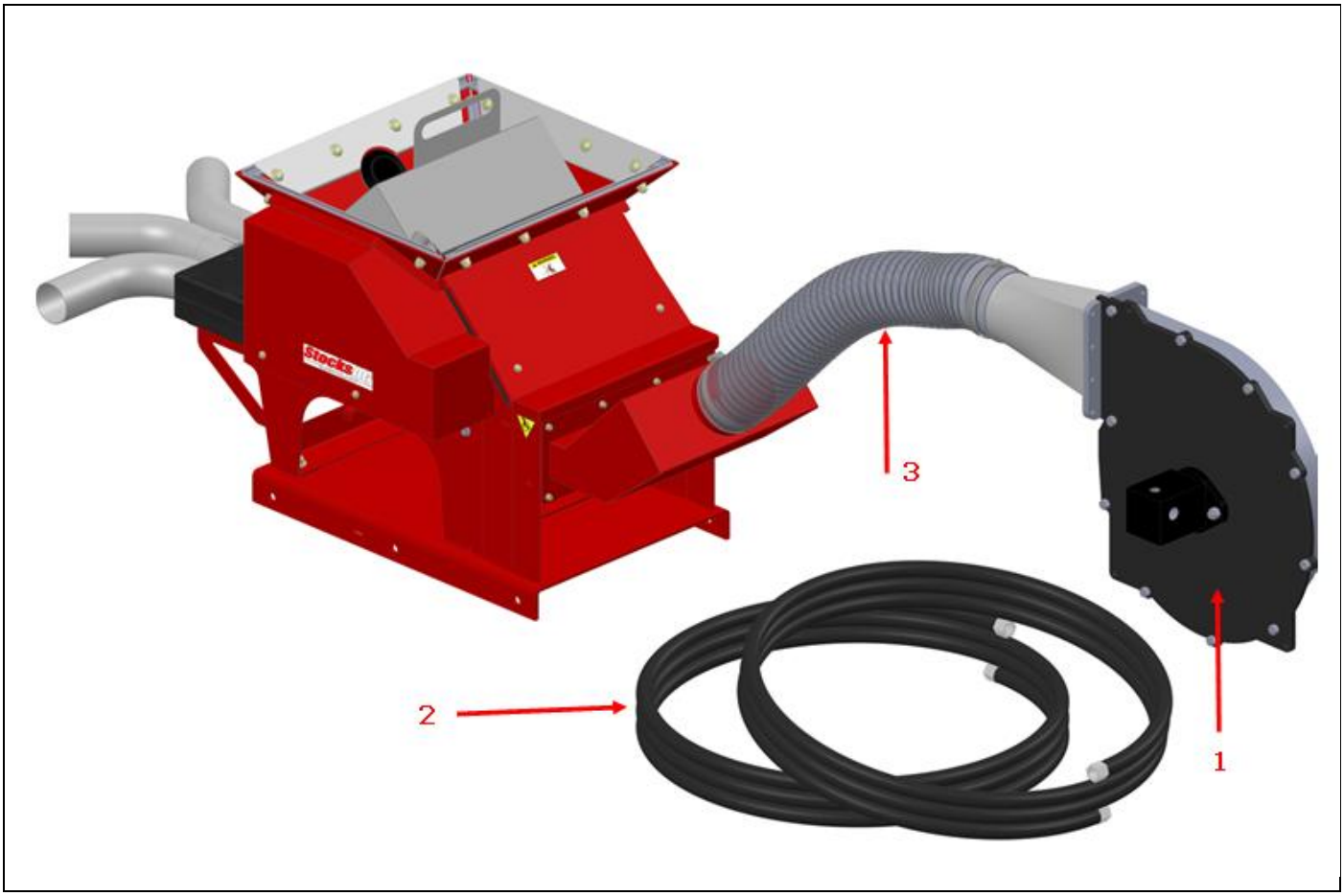


29.4 Small Seed Feed Roller

ITEM NO	PART NUMBER	DESCRIPTION	QTY
1	97APC5198	PRECISION 4 OUTLET 50.8mm DIAMETER FEED BLOCK	1
2	FA033A	M8 FEMALE PLASTIC KNOB - BLACK	1
3	GA103	FLANGED PVC BUSH	2
4	M6-0007	M6 x 20 CSK SOCKET HEAD SET SCREW ST/ST	4
5	M6-008	M6 x 25 HEX SOCKET BUTTON HEAD SET SCREW ST/ST	4
6	M6-0116	M6 FLAT WASHER FORM A ST/ST	4
7	MD021	ROTATION ARROW DECAL	1
8	TJ033	WASHER GASKET	1
9	TJ099D	SQUARE SHAFT	1
10	TJ101A	FEED END BLOCK PLATE	2
11	TJ199	STAINLESS STEEL SHIM WASHER	24
12	TJ201	5mm WIDE LOW RATE FEED ROLLER - YELLOW	12
13	TJ203	24.6mm WIDE MID SPACER - WHITE	3
14	TJ204	13mm WIDE BLANKING SPACER	1
15	TJ205	5mm WIDE BLANKING SPACER	12
16	TJ207A	3mm WIDE BLANKING SPACER	2
17	TJ208	10mm WIDE BLANKING SPACER	8
18	TJ210	18.0 WIDE SPACER - WHITE	2
19	TJ416	CASSETTE MOUNTING PLATE	1



30.0 Hydraulic Fan – Parts (Diagram)



30.1 Hydraulic Fan – Parts List

Item	Part Number:	Description	Qty
1	97APC5452	CRARY HYDRAULIC FAN	1
2	97APC5454	HYDRAULIC FAN HOSE KIT (Pair)	1
3	97APC5456	4 INCH PVC DUCTING	1

NOTES