CROPLANDS

QUICK START GUIDE
QUANTUM VINE PRO
2500 - 3500

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STOP

BEFORE COMMENCING operation, **ENSURE** you read & understand this manual, its contents, and any additional information supplied.

HT-VPRO-QSG-A

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QUANTUM VINE PRO
QUICK START GUIDE

This quick start guide highlights the sprayers basic operational requirements. For broader or specific information refer to the full operators manual, HT-OMVPRO-A (or later). This startup guide, version (A), is dated 1/08/2024.

FEATURES

The VINE PRO range is a specialised horticulture sprayer from Croplands for vineyard spraying, with the following features:

- Choice of 2,500 or 3,500 litre main tank of which 800 litres sits below the chassis - designed to improve roll stability and lessen sloshing. Fully drain-able 2" sump.
- 300 litre flushing tank.
- 15 litre hand wash tank with remote tap.
- Probe, Agitation Tank Rinse functions are standard.
- Rugged, galvanised chassis, belly pan protection.
- New tandem walking beam axle. Different ride heights and axle widths are available by mixing and matching the available "modular" components.
- The base level sprayer connects to tractor via a "self steer" 3-point linkage drawbar which also incorporates the PTO driven AR185 spray pump.
- Mid-mounted main (over-row) booms with independent hydraulic row width positioning and folding. Hydraulic accumulator suspension.
- The booms can be set or opened to suit 2.4 ~ 3.6m row spacing or folded and parked to fit 2.5m road transport width. Short boom option = 2.2 ~ 3.0m
- Two or 3-row spraying with fans mounted into a protective "fan frame". Using 2 or 3 fans per frame, hence models will vary from 8 to 18 fans.
- Main boom features independent lift (terracing) height function via unique parallelogram geometry.
- Rear boom is row width and (terracing) height adjustable via mechanical or hydraulic options.
- Boom fold and lift functions are supplied via tractor hydraulics.
- Equipped with (patent pending) QM-420 spray heads (fans) with dual spray rings for 3 tiered spraying.
- Fans are driven by hydraulic oil supplied from the tractor (generally 8 or 12 fans), or via the independent PTO driven Micro Power Pack (generally 12 or 18 fans).

Models equipped with the Micro Power Pack (with gearbox & pump) use a new 4-drop leg linkage self-steer drawbar with integral AR185 or 250 diaphragm pump.

- All models (optional in NZ), feature the WindComp function, (left/right variable fan speed control.
- The ARAG IBX-100, ISOBUS controller interface is the preferred control system although the Fusion controller is the stand-alone "standard".

Both systems use full colour touch screen displays for programming, operating spray application functions, hydraulic boom and fan functions. Integrated joystick control of boom and spray functions.

All models equipped with an Arag electronic tank level sensor and Arag Atlas GPS speed sensor.

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SAFETY FIRST

Please read and understand all supplied manuals, guides and safety decals before operating this sprayer. This includes the **Croplands Operators Safety Manual** – as pictured here.

This manual is available on the Croplands website, or for printed versions contact Croplands customer support and ask for part number GP-SAFE-A (or later version if available).

HAND WASH TANK

This sprayer is equipped with an external 15 litre HAND WASH tank mounted to the Flushing tank.

Fill is via the lid - ALWAYS fill from a clean and trusted fresh water source.

The tap is mounted adjacent the left hand plumbing station.

HITCH SPRAYER TO TRACTOR (3-PT LINKAGE)

The tractor must be of a size and configuration suitable for towing this sprayer. The sprayer must be connected to the tractor's 3-point linkage before adding main tank water or opening the boom. Use safety chains and wheel chocks as required.

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WEIGHTS

3,500 Lt, 3-row, 18 fan model including 4-leg self- steer drawbar + Micro Power Pack.

EMPTY tanks, boom parked;

total weight = 2,730 kg
with 210 kg on the "drawbar" (3-point linkage).

FULL tanks, boom open;

total weight = 6,550 kg
with 1140 kg on the "drawbar" (3-point linkage).

Deduct 600kg for the empty 2-row, 8-fan, tractor hydraulics version of the 2,500 Lt model with "drawbar" weights ranging from 170 to 670 kg.

CONNECT PTO SHAFT

A new standard length PTO shaft is supplied with the sprayer. This will require cutting to a shorter length - specific to the tractor & sprayer dimensions.

The PTO shaft connects to the spray pump, which in turn (if applicable) drives the hydraulic pump.

Refer to the full manual for more information.

Remember to lift, fold or remove all (up to 6) parking legs before proceeding to spray.

CONNECT BOOM HYDRAULICS

All models use a single set of hydraulic hoses connected to the tractor for all boom hydraulic functions:

- Main boom arm row width & parking - all models.
- Main boom lift, (optional).
- Inner row boom fold, jointly left & right, (optional).
- Inner row boom lift (optional).

The hydraulic pressure line is identified with a double red band, return is a single red band.

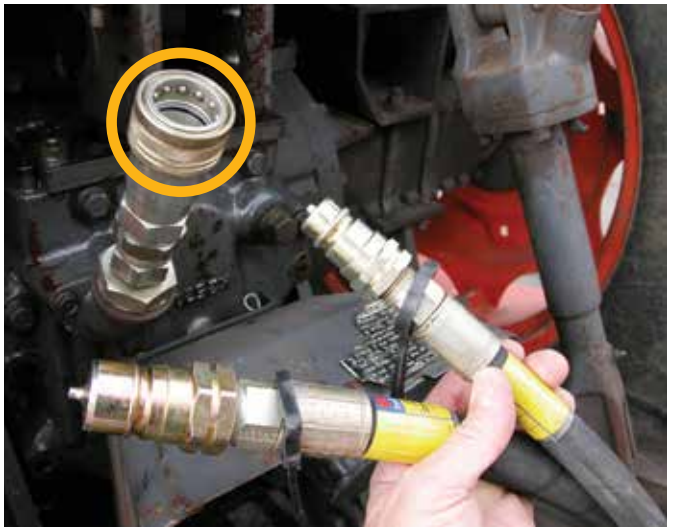
CONNECT FAN HYDRAULICS

Models equipped with the Micro Power Pack will be connected from the factory.

For models without a Micro Power Pack, oil supply to the fans requires a ½" pressure line connection to tractor remote (two yellow bands), and a ¾" return (single yellow band), DIRECT BACK-TO-TANK.

The (fan hydraulics) return line MUST always be connected to the "direct to tank" port. Refer to photo next column.

ALWAYS double check that the return line is properly connected before engaging hydraulics. Failure to comply with this instruction can lead to catastrophic hydraulic failure.



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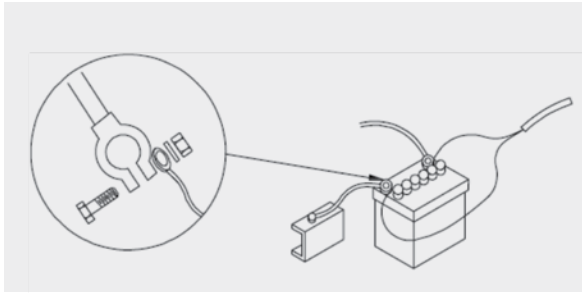
CONNECT ELECTRICAL/CONTROL LOOMS

Every sprayer will have 2 or 3 electrical/loom connections.

1. Connection to the to the chosen Auto rate controller/ virtual terminal.
2. 12-Volt Connection for the oil cooler.
3. Trailer plug type connection for the optional light kit and/or optional electric brakes.

A new installation of the Fusion controller will require a direct power connection to the tractor battery.



ARAG CONTROLS

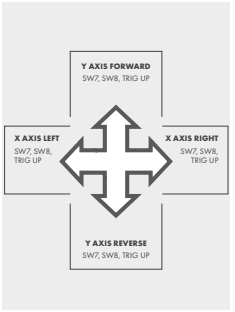
Below is the default function layout for customers selecting the HT-IBXJOYSTICK option.

Note the user can configure their function layout.

Refer to full manual for more details.

FUSION CONTROLS

Customers selecting the Fusion control option will be supplied with the Quantum Fusion control manual.



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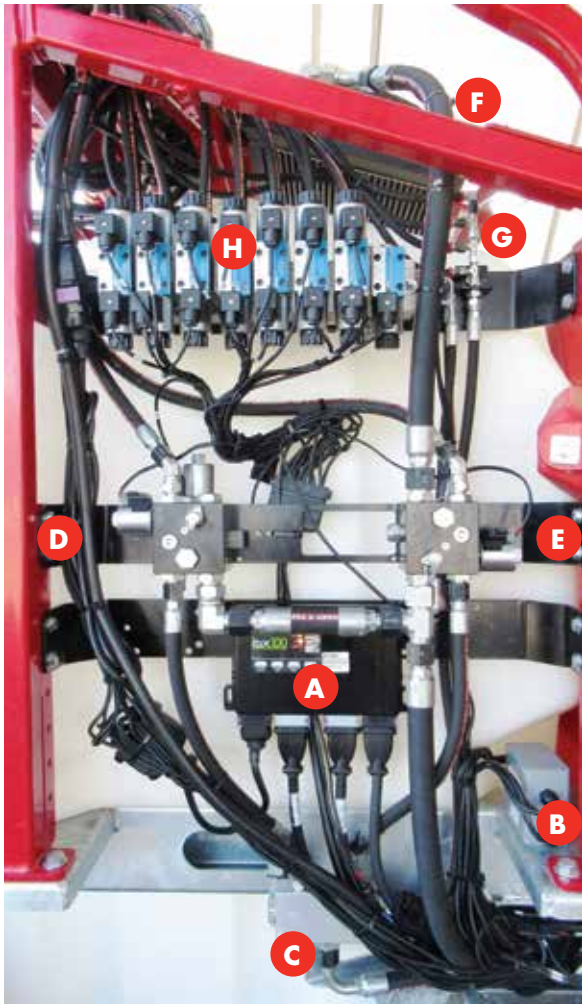
HYDRAULIC & CONTROL PANEL OVERVIEW



On the right-hand side of the sprayer are the hydraulic and electrical control functions - No operator input is required.

A. IBX-100 or Fusion control module.

B. Relay loom for the oil cooler fan (F).

C. Hydraulic divertor manifold. The main pressure line from the tractor or the Micro Power Pack (not visible in this photo), connects to the bottom of this block which splits the flow to (D) and (E).

D. Left-hand fan manifold. This manifold controls the flow of hydraulic oil to the left hand facing fans to enable the WindComp function.

Note left (or right) **facing** is different to left (or right) hand fans.

E. Right hand fan manifold. This manifold controls the flow of hydraulic oil to the right hand facing fans to enable the WindComp function.

Note the return line from the cooler (F) is running through this block back to tractor or Micro Power Pack.

F. Oil cooler/return line. Every sprayer is equipped with a fan forced oil cooler - with 50 degrees C thermostat. The return line goes "back to tank", as per page 4, **- never connect to a tractor remote.**

G. Case drain connection. This gaggle of hydraulic connections collect the case drain returns from each series of fans and returns them to the Power Pack's oil reservoir (Power pack models only).

H. CETOP manifold - the sprayer uses electric over hydraulic (CETOP) valves to enable all boom (fold & lift) functions to be operated from one set of tractor hydraulic remotes.

CHECK BOOM FUNCTIONS

The initial boom alignment has been carried out at the factory and checked by the dealer upon delivery. However, adjustments may be required to further suit changing conditions and new operators need to familiarise themselves with the available functions.

Activate the controller and check the following functionality .... adjust as required.

- Left main boom arm - open, close and set required spay width/turn fold widths.
- Right main boom arm - open, close and set required spay width/turn fold widths.
- Rear booms – open, close and manually set spray width. Note both arms are operated together. No auto set available.
- If fitted - check the independent left and right main arm lift/terracing functions. Manual set.
- If fitted - check the independent left and right rear arm lift/terracing function. Manual set.

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MAIN BOOM - ROW WIDTH

There are 3 ways to set the main boom arm to the required row width position.

1. Manual

Using the controller/joystick move the boom arm to the required position.

2. Controller Preset.

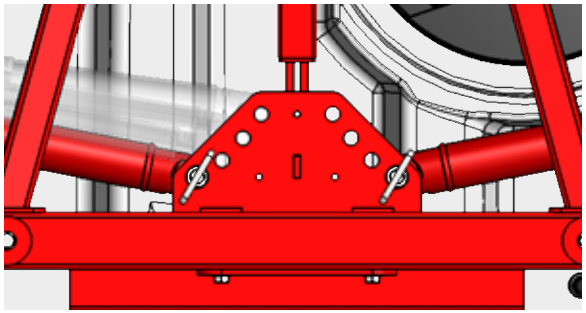
Use the controller to set the maximum row width. Thereafter is an one touch auto fold to that position (IBX).

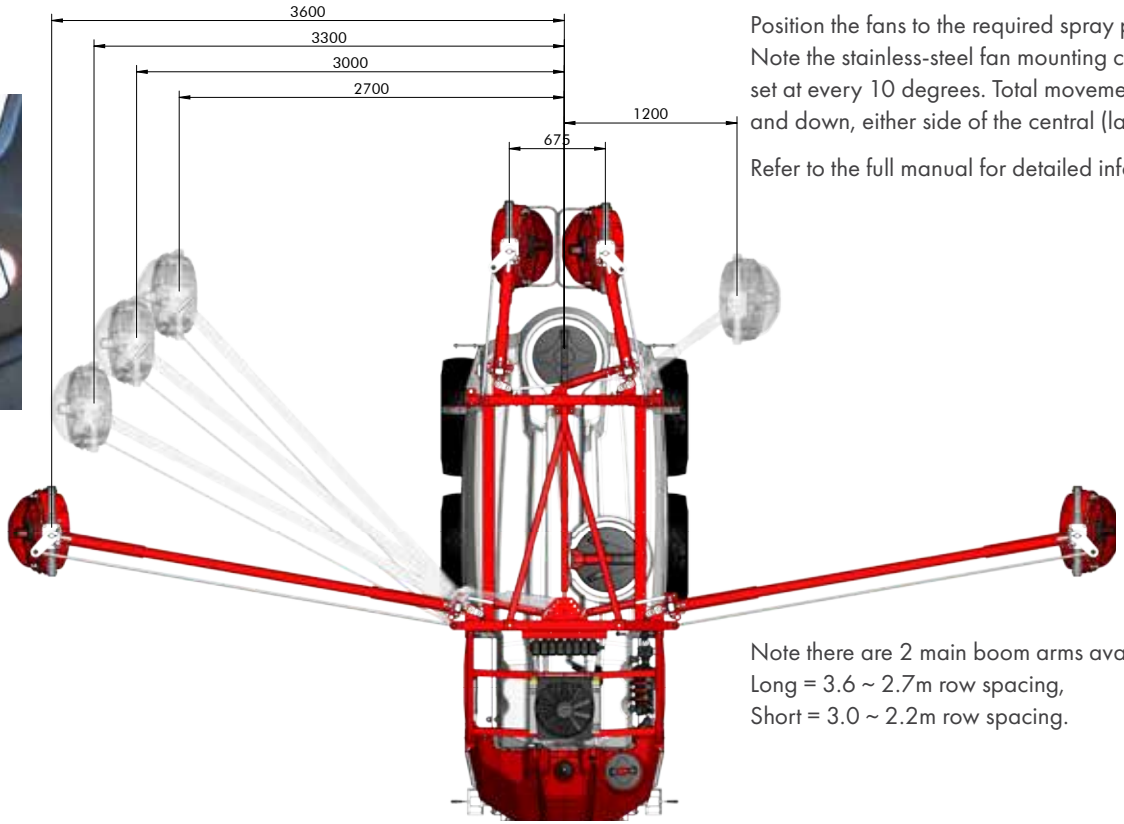
Refer to controller for more information.

3. Preset maximum row width.

Unique to the Vine Pro range is the ability to physically preset the maximum row width. This is very useful where the maximum row-width planting is say 3.0m.

Action via changing the inner hydraulic cylinder's mounting position. Maximum width shown below.





Note there are 2 main boom arms available;
Long = 3.6 ~ 2.7m row spacing,
Short = 3.0 ~ 2.2m row spacing.

NOTE

All references to fan position are taken from the centreline of the fan frame / centre of the row width.

POSITIONING THE FANS

Position the fans to the required spray positions and angles. Note the stainless-steel fan mounting clamps have "teeth" set at every 10 degrees. Total movement of 45 degrees up and down, either side of the central (larger "tooth").

Refer to the full manual for detailed information.

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PLUMBING OVERVIEW

Suction Plumbing;

A. **Tank Drain Valve.** Arrow to the right is drain, vertical is off, to the left (as shown) is supply to the spray system.

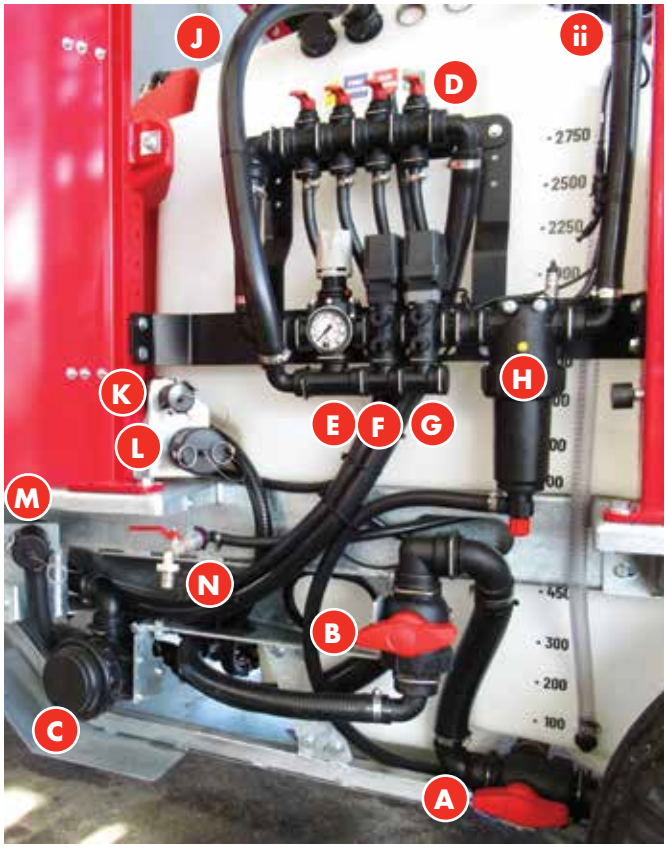
B. **Tank Selection Valve.** Arrow to the top is the MAIN tank, horizontal (as shown) is OFF and pointing down is drawing from the FLUSH tank.

C. **Suction Filter;** Liquid drawn from the tanks goes through the filter on the way to the AR185 or 250 pump. Uses a 50-mesh filter. Must be cleaned regularly.

Pressure Plumbing.

D. **Pressure Function Manifold.** From the pump's (pressure) output, the pressure circuit starts at the RINSE tap, then rear and front AGITATORS and finally PROBE (also refer to "K". Each activated via the red coloured "flick" taps.

E. **Manual Pressure Regulator.** The manual pressure regulator (via the manual knob) is used to set the maximum system pressure - usually around 10% higher than the intended spray pressure. There's a pressure gauge mounted at "O" which should also match the pressure gauge mounted on the 3-point linkage drawbar (not shown here).



F. **Electric Proportional Control Valve.** The "Servo" valve is used by the auto rate controller to regulate spraying pressure. Any excess pressure bleeds back to tank via the hose "J".

G. **Dump Valve.** Whenever the spray system goes into a hold mode, this valve dumps the pressure (and flow) back to tank via the hose at "J". Models fitted with an AR250 pump use dual dump valves.

H. **Pressure filter.** This filter should be cleaned regularly (80-mesh). Note the pressure takeoff ports at the top.

ii. **to the section valves....** (controlling on/off/ tier 1 & 2 or 3 to each set of fans) - positioned above the tank, between the main boom arms. Refer to the plumbing schematics for more details.

J. **Bypass hose,** - returns any excess pressure and flow back to tank.

K. **Chemical Suction Probe** 1" camlock connection. Probe supplied separately.

Fill Plumbing.

L. **Main Tank Fill**, via a 2"camlock fitting, direct to the top of the tank.

M. **Flushing Tank Fill**, via a 1.5"camlock fitting, direct to the bottom of the tank.

N. **Hand wash/fresh water tap.** Refer to page 3 re filling the "hand wash" tank.

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CHECK & CLEAN FILTERS

Filters are used to stop solids from entering the liquid system and blocking lines, nozzles or damaging the pump.

Filters should be checked and cleaned regularly (depending on water quality) plus before and after running the spray system.

If the filter screen is damaged, replace with a new screen.

Wear gloves and appropriate PPE.

WARNING

Always wear protective gloves when cleaning filters containing toxic chemicals.

1. Fill Station Filter.

If filling via the "fill camlock", direct to tank, the water source MUST be filtered before reaching the sprayer.

Hence there will usually be a filter at the fill station or nurse cart to be checked and cleaned.

2. Basket Filter

Always ensure the main tank basket filter (not shown) is in place if filling through one of the lids (not recommended/ refer to p. 7 re lid filling). If used, thoroughly clean after use.

3. Suction Filter

- Spray Pump must not be running.
- Place the Tank Selection Valve (B) in the closed (horizontal) position.

- Unscrew the outer filter ring and remove the bowl, then remove the (blue 50-mesh) filter. Thoroughly clean the filter and reassemble - checking the o-ring.

- Some spillage is likely, therefore perform this operation in an appropriate place, and with safety clothing.
- Remember to turn the selection valve back to SPRAY when finished.

4. Pressure Filter

- A quick flush can be performed, with the pump running, by opening the **(circled)** "self-cleaning drain valve".
- Spray pump must **NOT** be running when removing the outer filter **ring** and bowl to access the yellow 80-mesh filter.
- Some spillage is likely, therefore perform this operation in an appropriate place, and with safety clothing.

- Remember to re-tighten the drain valve.

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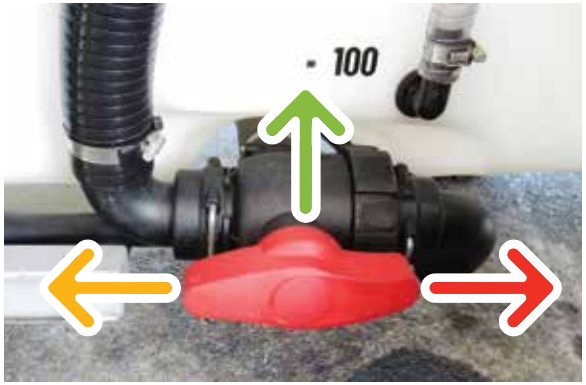
FILLING THE MAIN TANK

Filling is via filtered, pre-mixed/batched chemical solution or via freshwater to which chemical is added using the probe function.

Freshwater (preferably rainwater), should be free of suspended organic matter or clay as some chemicals are de-activated when they contact these materials.

Note; Do not use the main tank lids as a fill point unless the operator has a purpose-built platform to allow safe access to the lids.

1. Before filling the main tank, ensure the Tank Drain Valve is in the off (up) or spray (left) positions.



Left	Pump/spraying
Up	OFF
Right	Drain

2. The main tank is filled via 2”camlock fitting (refer to “L” on page 8), direct to the top of the tank. Note there is no filter on the “camlock” fill line.

The fill line is equipped with a one-way valve to prevent splashback.

Do not overfill past the designated volume. The extra volume in the tank is required for control of any foam that might occur.

Note any overfill will be captured and flow to ground via the spill trench down the middle of the tank.

3. Once filling is completed, disconnect the fill hose and re-cap the Camlock.

DRAINING THE MAIN TANK

1. Ensure the site for draining, flushing and cleaning the sprayer meets with environmental and statutory regulations.
2. Open main tank drain valve to drain the remaining spray mixture from the tank

FILLING THE FLUSH TANK

Note; Always use fresh water.

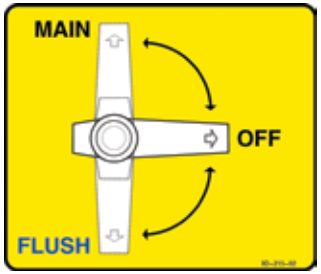
The tank may be filled via the (opened) lid, or via the camlock fitting (refer to “M” on page 8).

1. The flush tank is filled via 1.5”camlock fitting, direct to the bottom of the tank. The camlock fitting is equipped with a one-way valve to prevent splashback.

Do not overfill/past the 300 Lt mark on the sight gauge.

DRAINING THE FLUSH TANK

There is no direct drain tap at the bottom the flushing tank therefore the only (and normal) way of emptying the flush tank is via the flushing and rinsing functions.



Tank selection valve is set to draw water from the flush tank.

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CHECK/SETUP SPRAY FUNCTIONS

If starting up for the first time, or the first start-up of a new spray program, a freshwater run-through of all boom, pump and spray functions and a check for leaks, should be performed.

- Throughout a spray program – perform a walk around to visually check for leaks or unusual wear and tear.

Clean the filter before or after running the spray system. Wear GLOVES and appropriate PPE.

1. Pre-operation Checklist

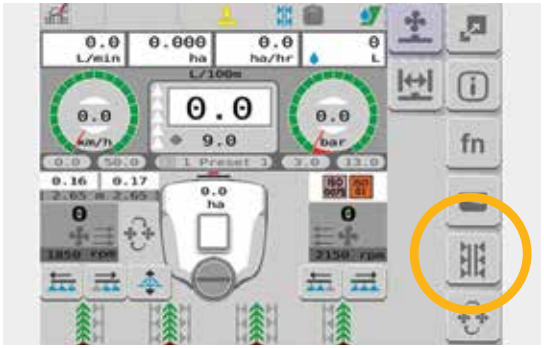
- Before operating the sprayer, please check the following items.
- Sprayer hitched,
- Hydraulics connected,
- Spray controller connected, and powered up,
- Filters checked and cleaned,
- Main Tank Drain Valve; **Set to Pump/spray.**
- Water in the hand-wash, flush and main tanks,
- Tank Selection Valve set to; **Main** (or Flush as required). Never select off whilst the pump is running.
- Pressure Manifold Taps are all set to OFF. (Probe, Front & Rear Agitators or Tank Rinse).

2. Turn on the Controller

Powered on, set the **MASTER to OFF.**

This will open the "dump" valve(s) (refer to "G" on page 8), allowing pumped liquid to bypass back to tank.

Alternatively, the Master can be on and all **spray sections OFF** - this avoids excessive back pressure on the spray pump and helps prevent sediment build-up.



3. Start the tractor, engage PTO at idle.

Adjust the tractor until PTO speed = no less than 350 rpm. The spray pump (AR185/250) will now be pumping water through the system, back to tank.

Check for leaks. Cycle through all sections OFF and Master on - check for leaks again.

Pump speed can now be increased as required for the next set-up stage of setting up the spray pressure.

4. Set-up Spray Pressure

Croplands recommends setting the maximum system

pressure to be 10% above the chosen spray pressure. For example, if the required spray pressure is 7 Bar, set the maximum system pressure to 7.7 Bar.

With the maximum pressure set, the finer adjustments are controlled by the auto rate controller via the "servo" valve/electric proportional control valve (refer to "F").

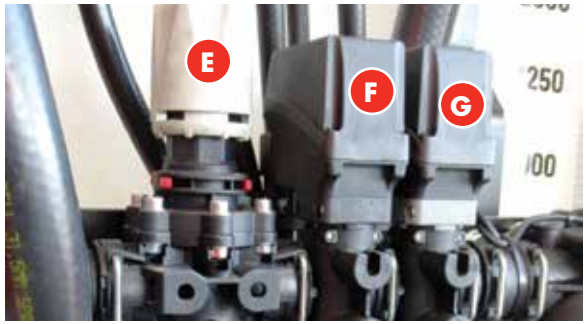
The system pressure is set via the white knob of the manual Pressure Regulator Valve (E). Refer to next page for setting the first time.

The manual regulator will need to be adjusted from time to time as spray rates vary throughout the year.

DO NOT set and forget at a high pressure as this will put undue stress/wear and tear on the system.

Maximum recommended spray pressure is 12 bar, with 5 ~ 8 bar as the most common range.

Refer to the full manual for further information re calculating spray rates vs speed vs pressure etc.



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To set spray pressure for the first time:

- Ensure that the nozzles fitted on the sprayer are applicable to your desired rate & recommended operating pressure.
- Wind the pressure control knob anticlockwise to ensure the sprayer starts up with limited pressure.
- Main tank valve set to PUMP/SPRAY,
- Tank selection valve set to MAIN,
- Tractor running,
- Controller set to Master ON - Spray sections OFF,
- PTO set to operating rpm, usually 430 to 540 rpm,

Note: The Quantum Mist fans do not have to be running during this process.

- Engage both Front and rear Agitators.

- With the (Fusion/IBX) controller in MANUAL mode, select the appropriate Tier for the application rate and turn on all the sections.
- Once the unit is spraying press and hold the pressure "UP" arrow on the screen (or joystick) for 10 seconds to ensure the servo valve is in the closed/pressurised position (note the servo valve is a 7-seconds valve).
- Slowly wind the manual pressure control knob clockwise (if needing to increase pressure) until your required operating pressure is reached, and add a further 10% surplus pressure.
- When completed return the controller back to AUTO.

5. Confirm Agitators

As per column 1 of this page, independently check that each of the agitators is operating.

Both agitators should be ON whenever there is chemical in the tank. If there is excessive foaming, turn off one of the agitators.

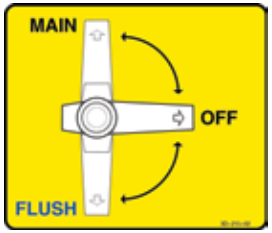
Note the tank will also receive a lesser degree of agitation via pressure manifold bypasses, especially when in "dump" mode.

6. Confirm Tank Rinse

The main tank is fitted with a pair of tank rinse, spinning nozzles for internal washing of the tank.

Turn on via the red "flick" taps.

Always use fresh water for this operation - drawn from the flushing tank.



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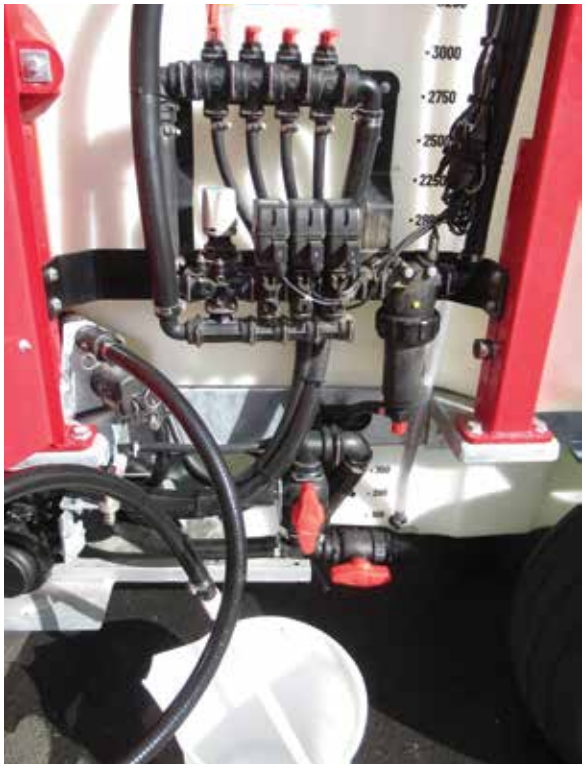
7. Confirm Suction Probe

The chemical probe is designed to suck liquid chemical, via a venturi system, straight from containers and into the main tank.

- Always wear gloves. Be especially vigilant of chemical safety.
- Connect the probe to the sprayer as pictured making sure the ball valve (as circled) is in the off position.

- Start the Tractor
- Make sure the Controller is NOT in Spray mode
- Engage the PTO/Pump. Set to operate at your required rpm, usually between 450 and 540 rpm. Higher rpm will give better suction.
- Open (flick UP) the PROBE valve.

- Place/hold the probe's tube into the chemical source (usually a drum of chemical) - (or a bucket of fresh water for testing/cleaning).
- To suck chemical from the drum to tank, turn on the probe connection ball valve (circled in yellow, shown in the off position). Use the ball valve to control the suction. Turn to off when finished.



- When the chemical transfer is complete, flush the probe lines by sucking from a clean water source.

CONFIRMING FAN FUNCTIONALITY

The controller system features an electronic 4 ~ 6 second "soft start/soft stop" function to protect the fans against excessive loads on start-up and shut down.

From the factory, the fan system will have been tested to at least 2,500 rpm. Some models will be capable of operating closer to 2,800 rpm.

For an initial start-up, use low tractor/PTO rpm and gradually increase speed as required.

Full operating rpm will not be available until the hydraulic oil is at operating temperature/until the thermostat controlled oil cooler fan has switched in (at around 50 degrees C). This is normally around 5 minutes running but can be 30 minutes or more on cold mornings.

Fan speed and Windcomp settings are set via the controller. Fans are turned on/off via the screen (IBX) or via the joystick (Fusion).

Left/Right Windcomp is switched via the Joystick.

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READY TO SPRAY

Once the pre-operation checks on the preceding pages

have been completed, and chemical mixture is in the tank, proceed to spray (use fresh water or dye if checking the functionality or spray coverage).

- Anyone operating this sprayer must be conversant with the Croplands Safety manual.
- Spray operations should be done in conjunction with an agronomist/spray manager/someone skilled in the art of spraying and operating machinery.

The spray manager will have predetermined the job requirements, such as the following example ....

- The block to be sprayed, and hence row width and any special instruction on the setup or conditions (such as suitable weather/drift restrictions,
- Operating speed (often around 6 ~ 8 Kph),
- Application rate (for example 500 L/Hectare),
- The nozzles to be used,
- Spray pressures to be used (normally around 5 bar).

STOP; FINAL CHECKS

- Check that all tank lids are closed,
- Check all valves are in the SPRAY position.

Go Spray ....

⚠WARNING

SAFETY INSTRUCTIONS

1. Read your operator's manual thoroughly before operating the sprayer.
2. Inspect hoses, connections and nozzles daily.
3. Clean filters regularly.
4. Always follow correct maintenance schedules outlined in operator's manuals.
5. Always read chemical manufacturers labels before use.
6. Always observe all warnings on chemical products.
7. Regularly check all nuts and bolts are tight.
8. Always wear appropriate gloves and wash sprayer down before doing any repair or maintenance work.
9. Do not ride on sprayer when moving.
10. Keep clear of moving parts when sprayer is operating.
11. Always keep guards in place when sprayer is operating.
12. Be sure tank lid is closed before operating basket mixing facility.
13. Stand well clear of sprayer when operating.
14. Do not disconnect hoses, nozzles or filters while sprayer is operating.

Croplands Equipment Pty Ltd XD-123V

FAILURE TO FOLLOW THE ABOVE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH.

EMERGENCY ACTION PLAN

Never operate the sprayer without an action plan in place for when things go wrong ...

"Take 5" to evaluate the risks

Actions for most foreseeable machine issues such as breakages start with ...

"Drop the speed"

"Dump the pressure"

then evaluate further.

To stop spraying at any stage, flick the switches to

DRAIN

Ensure the site for draining, flushing and cleaning the sprayer meets with environmental and statutory regulations.

Open the main tank drain valve to drain the remaining spray mixture from the tank.

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CALCULATE WATER & CHEMICAL QUANTITIES

Before spraying it is necessary to calculate the exact quantities of water and chemical needed to spray the required area of orchard or vines.

For **CHEMICAL required** expressed in litres or kg per hectare (land area), use the following formula:

Chemicals required (Litres) =

Tank Volume (L) x Recommended Chemical Rate (L/ha)

Spray Application Rate (L/ha)

eg. $\frac{1500 \times 5 \div 400}{}$

= 18.75 litres

For **tank VOLUME OF MIXTURE required** to spray the selected area,use the following formula:

Tank Volume Required (Litres) =

Area (ha) x Spray Application Rate (L/ha)

eg. $\frac{3.75 \times 400}{}$

= 1500 litres

NOTE

Important: Be sure to mix only enough spray mixture to cover the area required. Avoid wastage and problems of needless chemical disposal.

For **AREA COVERED (ha),**

= Tank Volume (litres) + Spray Application Rate (l/ha)

eg. $\frac{1500 \div 400}{}$

= 3.75 Ha

For **CHEMICAL RATES** expressed in Litres or kg per 100 litres of water (water volume), use the following formula:

Chemicals Required (Litres) =

Tank Volume (Litres) x Recommended Chemical Rate (L/100 litres)

100

eg. $\frac{1500 \times 3 \div 100}{}$

= 45 litres

CALIBRATION & NOZZLE SELECTION

Consult the full manual (HT-OMVPRO-A) for information on calibration, spray calculations, nozzle selection etc.

Formula

Target rate (L/ha)	650	Speed (km/hr)	7.5
Row spacing (m)	3	Number of rows	1
Number of nozzles	40		
Total L/min =	24.375	L/min per nozzle	0.61

OPERATIONAL POINTERS

- Always drive to the conditions taking into account the load, the terrain and the weather.
- In mixed terrain, spray the flat ground before spraying the hills.

- While spraying, continually confirm that:
  - Recommended speeds are correct
  - Correct operating pressure is being maintained
  - Ground conditions/speed is suitable and safe
  - The Spray sections/nozzles are operating correctly.

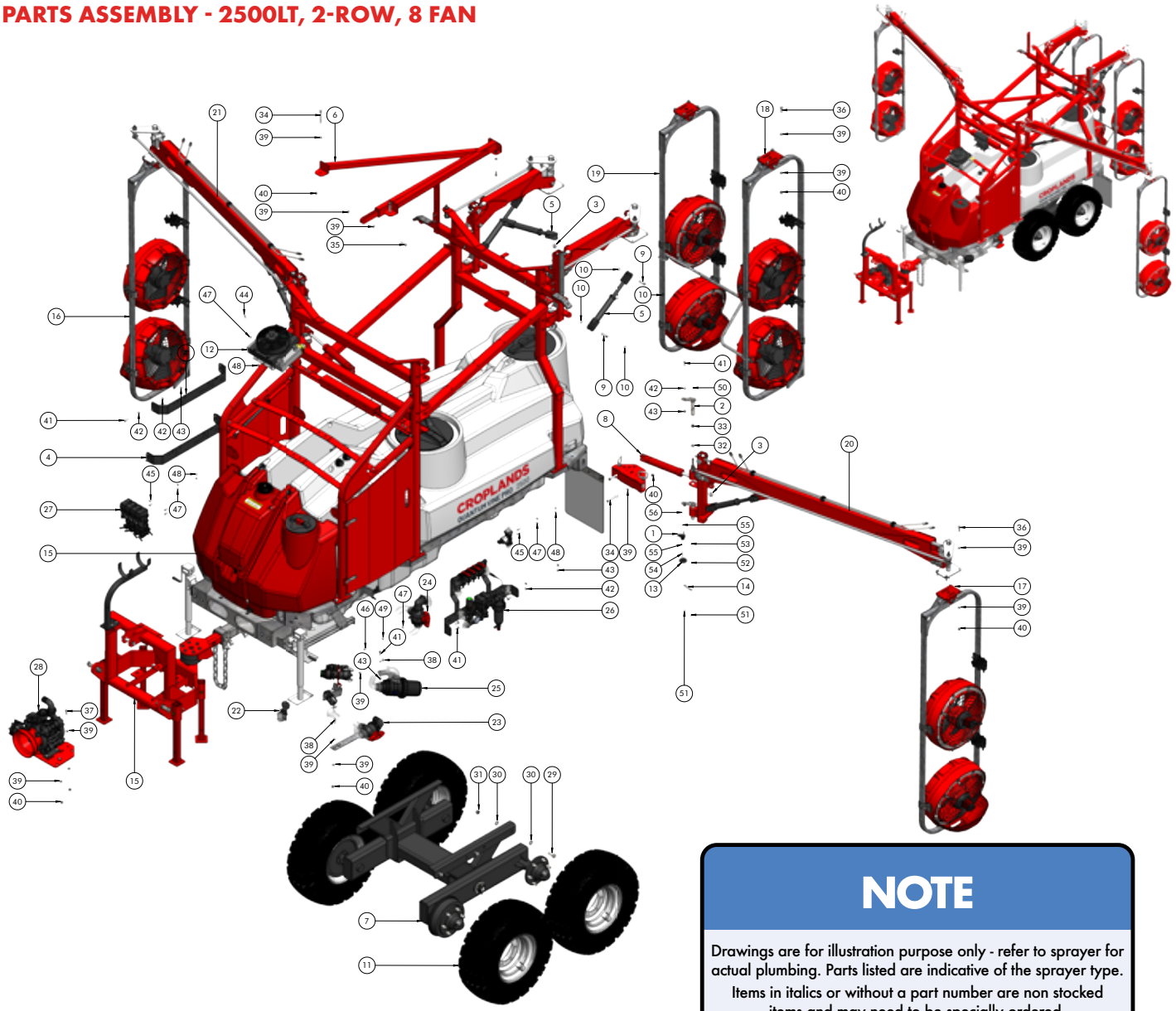
To stop spraying at any stage, flick the MASTER to OFF

NOTE

Contact Croplands Technical Support for further information: 1300 650 724

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

PARTS ASSEMBLY - 2500LT, 2-ROW, 8 FAN



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	A4679003.502	POSITION ANGULAR SENSOR 0 TO 120 DEG	2
2	BP-700-9AA	PIN 30MM X 155MM HAYLITE	4
3	HPA-0004-13	HINGE BUSH	3
4	HPA-0004-22	VINE PRO PANEL MOUNTING BRACKET	2
5	HPA-0004-25	VINE PRO TURNBUCKLE FIXED BOOM	5
6	HPA-0004-26	VINE PRO TOP BRACE	1
7	HPA-0005	VINE PRO NARROW AXLE ASSEMBLY	1
	HPA-0005A	VINE PRO WIDE AXLE ASSEMBLY	option
8	HP-015	HYDRAULIC CYLINDER 2.0 X 8	2
9	HP-016-4	CLEVIS PIN	10
10	HP-016-5	CIRCLIP FOR 3/4" PIN S/STEEL	20
11	HP-200	TYRE & WHEEL AWT 11.5/80-15.3	4
	HP-202V	WHEEL 31X13.5-15 HF1 RIB	option
12	HP-298-15A	OIL COOLER 12V AIR TYPE HYDAC	1
13	HP-318-08-1	POSITION SENSOR DISK	2
14	HP-318-08-2	POSITION SENSOR LINK ARM	2
15	KH-0001A	VINE PRO KIT PRE ASSY 2500 NARROW	1
16	KH-0002LA	VINE PRO KIT 2 FAN FRAME 6.5CC LH	1
17	KH-0002RA	VINE PRO KIT 2 FAN FRAME 6.5CC RH	1
18	KH-0002LC	VINE PRO KIT 2 FAN FRAME 6.5CC LH SENSOR	1
19	KH-0002RC	VINE PRO KIT 2 FAN FRAME 6.5CC RH SENSOR	1
20	KH-0004LA	VINE PRO KIT 2 ROW BOOM ASSY SHORT LH	1
21	KH-0004RA	VINE PRO KIT 2 ROW BOOM ASSY SHORT RH	1
22	KH-0005A-01	VINE PRO FILL PANEL KIT	1
23	KH-0005A-02	VINE PRO DRAIN VALVE KIT	1
24	KH-0005A-03	VINE PRO TANK SELECTION VALVE KIT	1
25	KH-0005A-04	VINE PRO SUCTION FILTER KIT	1
26	KH-0005A-05	VINE PRO CONTROL MANIFOLD 180 ISO	1
27	KH-0005A-06	VINE PRO KIT 2 SECTION MANIFOLD ISO	1
28	KH-0008A	NON POWER PACK AR185	1
	KH-0008B	MICRO POWER PACK AR185 x STD x 48CC PUMP	option
29	M20X55	M20 X 55 SET SCREW HT ZP	6
30	M20FWASHER	M20 FLAT WASHER ZP	12
31	M20NNUT	M20 NYLOC NUT HT ZP	6
32	M16FWASHER	M16 FLAT WASHER ZP	2
33	M16NNUT	M16 NYLOC NUT HT ZP	2
34	M12X110BOLT	M12 X 110 HEX HEAD BOLT HT ZP	4
35	M12X50	M12 X 50 SET SCREW HT ZP	1
36	M12X40	M12 X 40 HEX HEAD SET SCREW HT ZP	16
37	M12X35	M12 X 35 SET SCREW HT ZP	4
38	M12X30	M12 X 30 SET SCREW HT ZP	6
39	M12FWASHER	M12 FLAT WASHER ZP	62
40	M12NNUT	M12 NYLOC NUT HT ZP	31
41	M10X30	M10 X 30 SET SCREW HT ZP	20
42	M10FWASHER	M10 FLAT WASHER ZP	40
43	M10NNUT	M10 NYLOC NUT HT ZP	20
44	M8X30	M8 X 30 SET SCREW HT ZP	6
45	M8X25	M8 X 25 SET SCREW HT ZP	6
46	M8X20	M8 X 20 SET SCREW HT ZP	3
47	M8FWASHER	M8 FLAT WASHER ZP	21
48	M8NNUT	M8 NYLOC NUT HT ZP	12
49	M8SWASHER	M8 SPRING WASHER ZP	3
50	M6GNIPPLE	M6 GREASE NIPPLE	4
51	M5X16BHSCREW	M5 X 16 BUTTON HEAD SCREW S/S	4
52	M5FWASHER	M5 FLAT WASHER ZP	4
53	M5NNUT	M5 NYLOC NUT HT ZP	4
54	M4X45BHSCREW	M4 X 45 BUTTON HEAD SCREW	4
55	M4FWASHER	M4 FLAT WASHER ZP	8
56	M4NNUT	M4 NYLOC NUT HT ZP	4

NOTE

Drawings are for illustration purpose only - refer to sprayer for actual plumbing. Parts listed are indicative of the sprayer type.

Items in italics or without a part number are non stocked items and may need to be specially ordered.

For further parts information refer to: www.croplands.com.au

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

HP-319-31
QM-420 SPRAY FAN ASSEMBLY

NOTE

Drawings are for illustration purpose only - refer to sprayer for actual plumbing. Parts listed are indicative of the sprayer type.
Items in italics or without a part number are non stocked items and may need to be specially ordered.
For further parts information refer to: www.croplands.com.au

PAT.PEND.

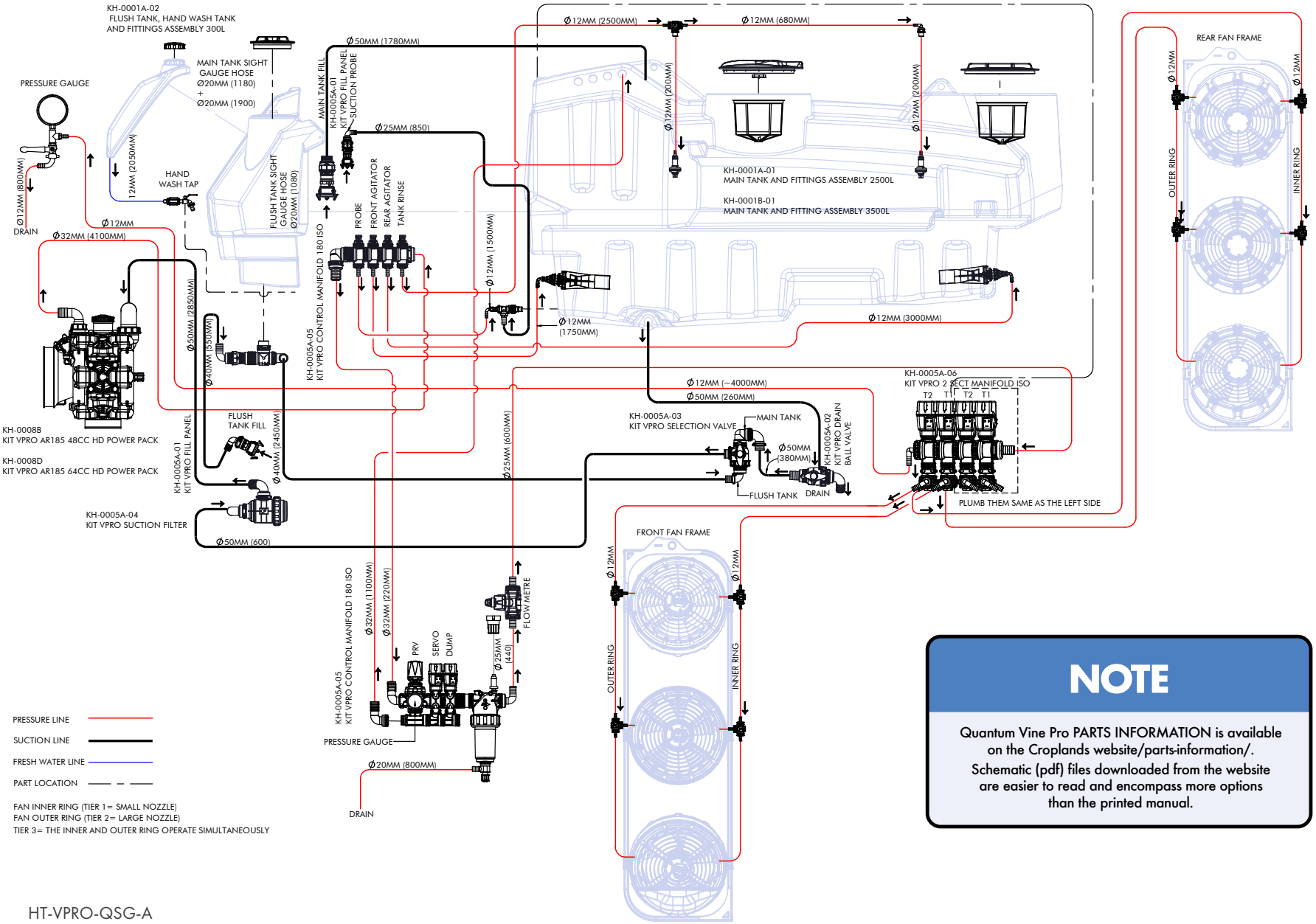
PATENT PENDING

QM-420 XD-196

ITEM NO.	PART NUMBER	DESCRIPTION	
1	HP-119-20	WASHER 10X30 STAINLESS STEEL	1
2	HP-119-23	HEP WASHER 5PIN X 2.4	2
3	HP-219-18	WASHER KIDNEY SHAPED S/S	3
4	HP-219M6.5CE-2	HYDRAULIC MOTOR KIT ASSEMBLY 6.5CC	1
5	HP-219-1C	COUPLING INSERT SUIT CH48	1
6	HP-319-3	COWL QM420	1
7	HP-319-5S	SPRAY RING QM420 INNER	1
8	HP-319-5L	SPRAY RING QM420 OUTER	1
9	HP-319-6	GUARD FRONT QM420	1
10	HP-319-7	GUARD REAR QM420	1
11	HP-319-9	MAIN DRIVE BODY ASSEMBLY SERIES 2 HYD	1
12	HP-319-10	FAN PROPELLER QM420	1
13	HP-319-15	COVER FRONT QM420 FAN	1
14	HP-319-15R	COVER REAR QM420 DRIVE BODY	1
15	HP-319-27	CLAMP QM420 GUARD AND RING	8
16	XD-195	LABEL FAN DANGER	1
17	*M8X100SSBOLT*	*M8 X 100 S/S BOLT*	3
18	*M10X25SHSCREW*	*M10 X 25 ALLEN HEAD SCREW HT ZP*	1
19	*M5X15SSSCREW*	*M5 X 15 S/S SCREW*	1
20	*M4X50SSSCREW*	*M4 X 50 S/S SCREW*	9
21	*M4.2X19SSSCREW*	*M4.2 X 19 S/S SCREW*	20
22	*M10SWASHER*	*M10 SPRING WASHER ZP*	1
23	*M4SSFWASHER*	*M4 FLAT WASHER S/S*	24
24	*M6SSSWASHER*	*M6 SPRING WASHER SS*	4
25	*M6X25SSSCREW*	*M6 X 25 HEX HEAD S/S SCREW*	4

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

PARTS ASSEMBLY - 2500LT, 2-ROW, 8 FAN

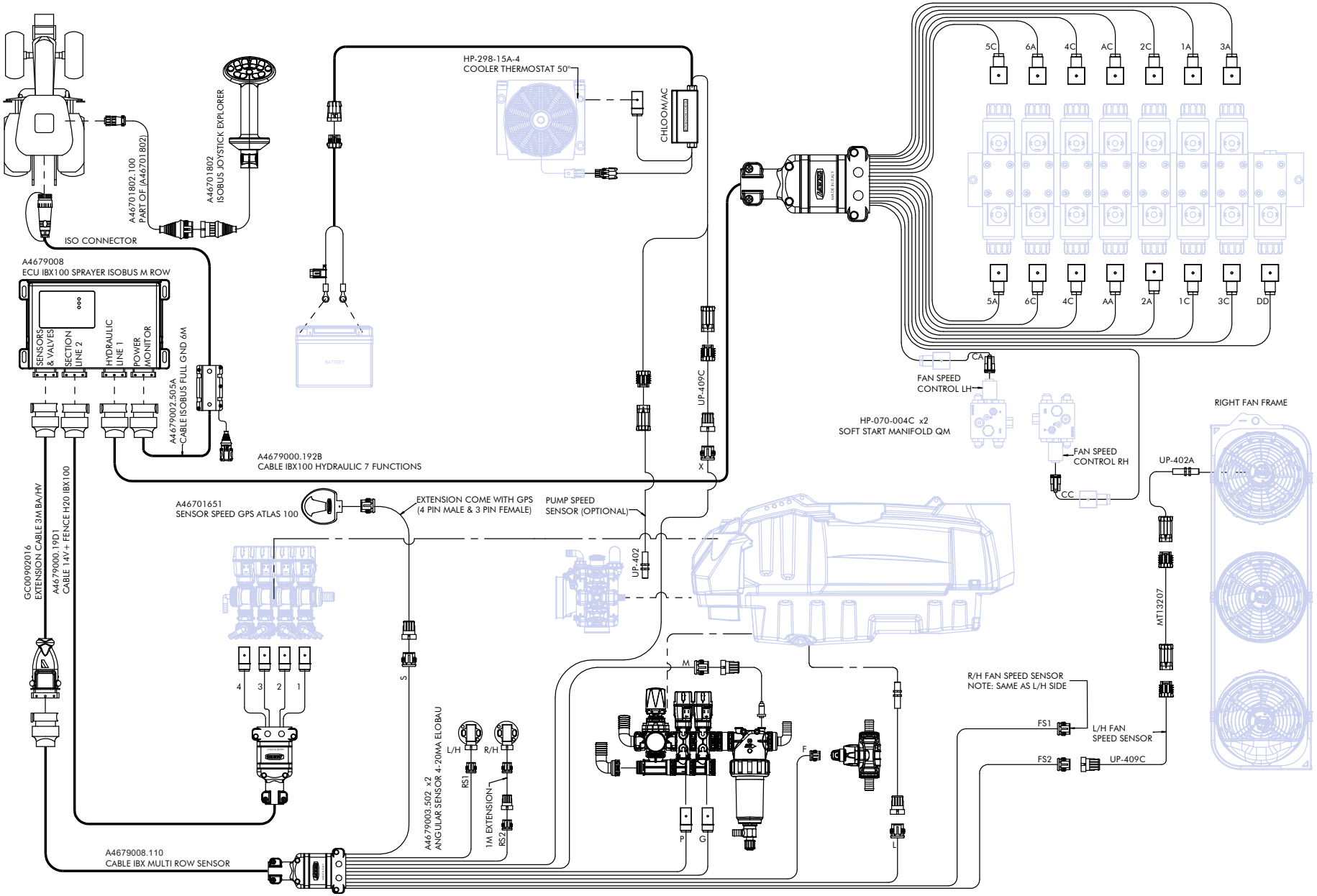


NOTE

Quantum Vine Pro PARTS INFORMATION is available on the Croplands website/parts-information/.
Schematic (pdf) files downloaded from the website are easier to read and encompass more options than the printed manual.

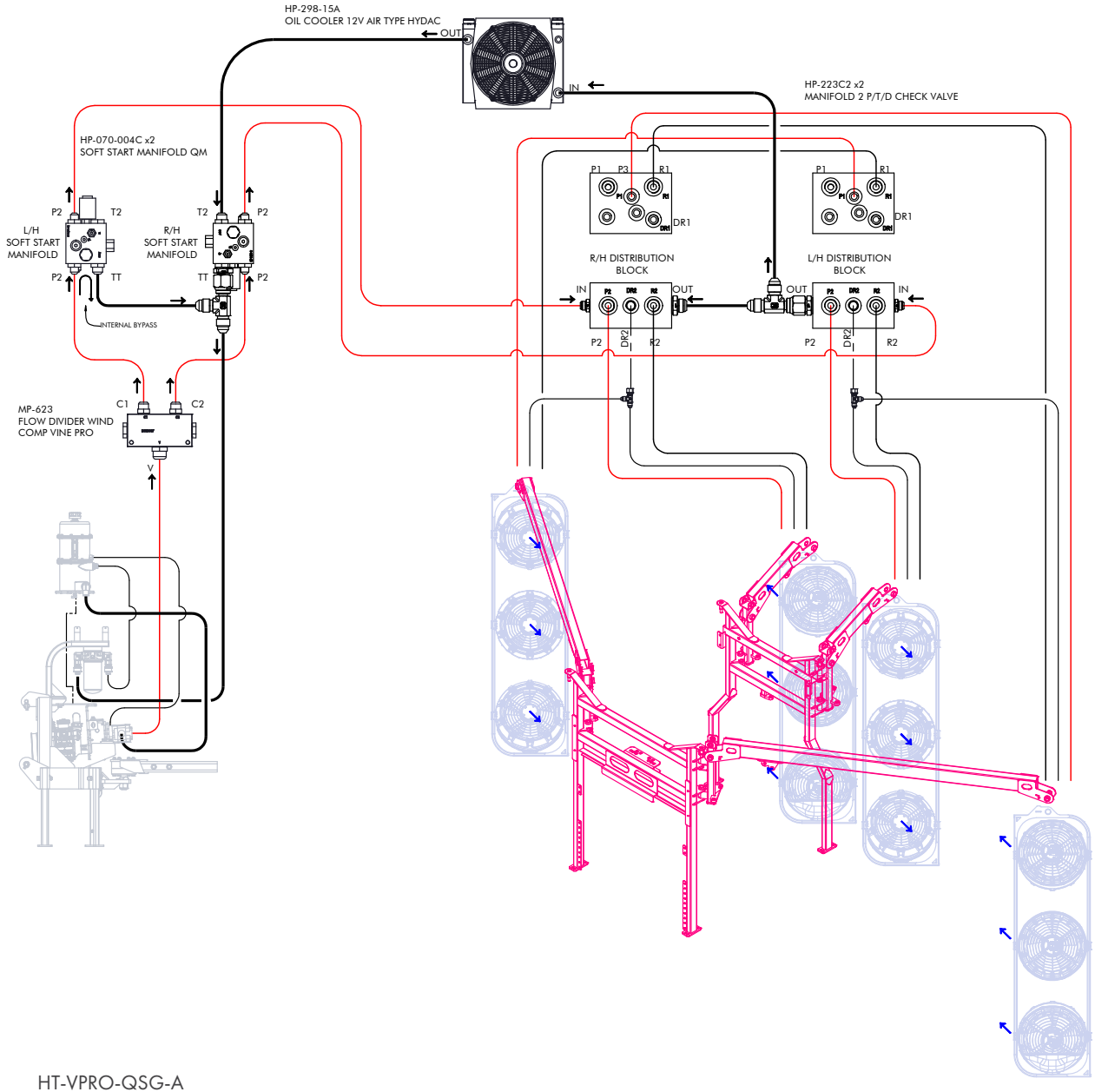
ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

ELECTRICAL SCHEMATICS - IBX100 - AR250 - MICRO POWER PACK



ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

HYDRAULICS SCHEMATICS - 12-ROW, 12 FAN + MICRO POWER PACK



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NOTES

CROPLANDS

CROPLANDS

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For details not covered by this quick start guide or the full operators manual(s), please contact Technical Support, ph. 1300 650 724

All Quantum Vine-Pro PARTS INFORMATION is now available on the Croplands website.

- Go to croplands.com.au
- Search in the Parts Information section linked to the home page.