

PRECISION SEEDING » Air Carts & Drills



TABLE OF CONTENTS

4 ML SERIES AIR DRILLS

6 DH SERIES AIR DRILLS

10 AC SERIES AIR CARTS

16 SPECS » ML SERIES DRILLS

18 SPECS » DH SERIES DRILLS

19 SPECS » AC SERIES AIR CARTS

PRECISION SEEDING

Precision seeding equipment from Versatile follows the company's philosophy to build simple, durable equipment that is easy to adjust, operate and maintain. Versatile 'C' shank and independent shank air drills have been engineered from the ground up to be pinpoint accurate in a wide variety of field conditions. The result is consistent seed depth, better germination and uniform emergence which leads to maximum yields.

ALIVE TECHNOLOGY

ALIVE technology (patent pending) from Versatile takes precision seeding to a completely new level: where competitive independent shank air drills which use hydraulic cylinder(s) to control packing pressure and shank trip force can only adjust packing pressure, Versatile's ALIVE system (Accurate Level Independent Vertical Emergence) allows producers to choose a specific seed placement profile from the tractor cab and the ML Series drill will maintain that seed placement regardless of terrain/ soil type or how wet / dry / hard / soft the ground is. The result is precise seed placement, even germination, uniform emergence and better yields.

AIR CARTS

Versatile AC Series Air Carts have a simple, accurate metering system that provides for a wide range of application rates with no meter roller changes required. Choose between ground drive metering systems: mechanical quick-change sprockets or variable rate or hydraulic variable rate control that provides field mapping capability.





ML SERIES AIR DRILL **OVERVIEW**

- » Fully mechanical 1:1 parallel linkage means the opener reacts the same as the packer wheel to changing ground conditions to provide for accurate seed placement
- » Mechanical linkage provides the benefits of independent shank technology without the tractor hydraulic flow requirements demanded by competitive drills
- » A compact arch web design provides excellent strength to the parallel linkage and minimizes skewing in turns

The ML Series of parallel linkage air drills from Versatile are the ideal independent shank machine for simplicity and accuracy. ML Series drills use exclusive ALIVE technology to create a superior seedbed.

A-ctive L-evel I-independent V-ertical E-mergence

ALIVE technology incorporates three critical features to achieve optimum seed and fertilizer placement:

1. Independent Shank Technology
2. Mechanical Linkage
3. Seed Furrow / Placement Selection

1. INDEPENDENT SHANK TECHNOLOGY

Independent shank technology allows for more precise seed placement and consistent emergence. Each shank operates independently to maintain a consistent seeding depth. Improved seedbeds and seed placement result in more even and rapid emergence.

2. MECHANICAL LINKAGE

Unlike competitive independent shank air drills, ML Series Air Drills do not rely on hydraulic cylinder(s) to maintain consistent seed placement, packing pressure or shank trip force. Versatile's ALIVE control system automatically adjusts the position of the air drill frame up / down to increase or decrease packing pressure as needed to maintain chosen seed placement position which allows the drill to pass through soft areas or over harder knolls while maintaining consistent and precise seed placement.

3. SEED FURROW SELECTION

The ALIVE control system on Versatile ML Series drills allows operators to select from three seed furrow / placement profiles: 'Shallow' for small seeds such as canola, 'Medium' for cereal crops or 'Deep' for legumes. A gauge wheel is installed on the main frame of each air drill (optional on wing sections) with a potentiometer installed on the parallel linkage to compare the angle of the gauge wheel and adjacent shank linkages to define seed placement.



1 2



3

[1, 2] Independent shank with mechanical linkage [3] In-cab monitor with seed furrow selection



Versatile DH Series Air Drills have been proven accurate and are simple to operate and easy to maintain. Designed for consistent seed depths in a variety of field conditions, Versatile DH Series Air Drills maximize germination and ensure uniform emergence.

DH SERIES AIR DRILL **OVERVIEW**

- » Three and five section air drills
- » Widths from 33' to 60' (10.2 m to 18.3 m)
- » 350 lb or 550 lb (159 or 250 kg) initial breakout force
- » Single point depth control

3-SECTION AIR DRILL

For small to mid-sized operations, Versatile offers an air drill that will suit any farming style. Available in 33', 37' and 40' (10.1, 11.3 and 12.2 m) sizes.

5-SECTION AIR DRILL

Available in widths of 48', 52' or 60' (14.6, 15.7 or 18.3 m), Versatile DH Series Air Drills offer maximum productivity and results for larger operators that need to cover more acres in less time.



ACCURATE SEEDING

Every Versatile DH Series Air Drill is engineered using high quality components and innovative features.

SHANK ASSEMBLY

The rugged, spring cushion shank is 3.5" (89 mm) full width nylon-graphite bushing. Self-lubricating, these bushings have a long service life with no maintenance required. Shank assemblies have dual springs with a choice of 350 lb (159 kg) or 550 lb (250 kg) initial breakout force.

WALKING BEAM PACKER GANGS

The walking beam design provides positive packing pressure by allowing individual gangs to roll over obstructions in the field without affecting the adjacent gangs.

SEED BOOTS

Four seed boot choices with varying spread patterns are available for single shoot. A wide variety of after-market double shoot boots are also available from your Versatile dealer.

NARROW CONTOUR DEPTH

A shallow contour depth provides unbeatable land-hugging characteristics, even in rolling terrain.



DEPTH CONTROL

Single cylinder depth control guarantees accurate seeding depth control. All 3-section air drills use mechanical depth control.

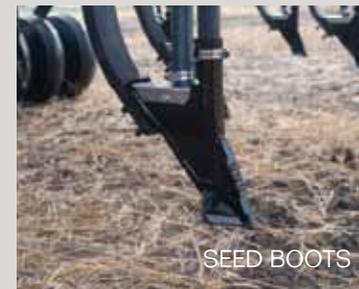
Dual hydraulic cylinders allow for simple and accurate depth control adjustments. All 5-section air drills feature hydraulic depth control.



SHANK ASSEMBLY



WALKING BEAM PACKER GANGS



SEED BOOTS



NARROW CONTOUR DEPTH

FRONT/REAR LEVELING

Front to rear leveling is accomplished quickly and easily with adjustable pusharms connected to the rockshaft.

QUICK WING LEVELERS

To ensure accurate depth is achieved, the levelness of the toolbar is crucial. A single person can level the wing sections side to side by extending or contracting these quick wing levelers.

FLEX-WING HINGES

A flex-wing hinge system gives the fore / aft travel needed to follow the ground and reduce torsional stress without any maintenance required. The fixed hinge on the second row of each section provides weight transfer from frame to frame to ensure proper depth penetration from each section.

IN-FRAME CASTERS

Front caster wheels are placed inside the first row of the drill frame. This enables the air drill to follow uneven ground very accurately because it shortens the contour depth. Large 11L and 12.5L tires are standard in order to offer maximum flotation.

UNDER FRAME CLEARANCE

35" (889 mm) of opener to frame clearance allows trash to flow through the drill with ease. 46" (1.2 m) of clearance is achieved when the drill is lifted completely.

FRAME

A fully welded 5-row frame design ensures no two shanks are placed closely on the same row, or front to back, leaving smooth field finish.



FRONT / REAR LEVELING



QUICK WING LEVELERS



FLEX-WING HINGES



IN-FRAME CASTERS

BUILT TO LAST

Versatile DH Series Air Drills feature a rugged frame design and heavy duty construction that will keep your drill in the field throughout the planting season.





AUTOMATIC TRANSPORT LOCK

In transport, both front casters and rear transport wheels are automatically locked with over-center, mechanical linkages. Hydraulic pressure unlocks the drill from the transport position.

LOCK-OUT VALVES

Lock-out valves can be engaged during transport to prevent the wings from unfolding, even if the operator accidentally moves the hydraulic levers.

PACKER CHOICES

Semi-pneumatic rubber will flex and shed wet, sticky soil. Steel packers, with industry leading 1/4" (6 mm) face, are better suited to rocky conditions. 3" or 5" semi-pneumatic rubber, 3.5" or 5" steel available.



AUTOMATIC TRANSPORT LOCK



LOCK-OUT VALVES



PACKER CHOICES



PACKER CHOICES

OPTIONAL EQUIPMENT

END SHANK GAUGES

Economical end shank gauges provide visual indication of the field position of the drill and can help prevent costly overlaps. They are fully adjustable and offer spring breakaway protection against impact.

ROCK DEFLECTORS / MUD SCRAPERS

Rock deflectors are available to prevent rocks or stumps from lodging between packer wheels. Steel packers have adjustable, hardened mud scrapers available to strip off mud and ensure consistent packer performance.

CENTRAL GREASE BANKS

High pressure grease hose, located at the front of the air drill, leads to each rockshaft bearing located in the middle of the frame.

WALKING FRONT CASTERS

To increase flotation, mainframe dual caster wheels are standard equipment on drills 40' (12.2 m) and larger and optional on all smaller 3-section drills.

IN-FRAME HARROWS

Optional 2-row in-frame harrows provide a more level field finish and better seed-to-soil contact. Operators can adjust the angle and down pressure of the 16" (406 mm) tines to match varying field conditions.



UNDER FRAME CLEARANCE



Versatile AC Series Air Carts are available in both tow-between and tow-behind models. Air carts range in size from 315 bu to 390 bu. Accurate seeding results are achieved no matter what type of seed is used.

FEATURES **OVERVIEW**

- » Mechanical or Variable Rate Systems
- » Requires no metering roller changes
- » V-PAS

	AC315	AC400
Configuration	Tow behind or tow between	Tow behind or tow between
TANK		
Total*	315 bu. (11,100 L or 8.4 t)	386 bu. (13,590 or 10.4 t)
Front	95 bu. (3,348 L or 2.6 t) = 30%	108 bu. (3,792 L or 3.2 t) = 28%
Rear	120 bu. (4,229 L or 3.2 t) = 38%	156 bu. (5,497 L or 4.3 t) = 40%
Auxiliary	100 bu. (3,524 L or 2.7 t) = 32%	122 bu. (4,301 L or 3.2 t) = 32%
Canola tank	-	-

*Tonnes calculated assuming that 1000 L of wheat = 0.76 tonnes.



ENGINEERED FOR MAXIMUM PERFORMANCE

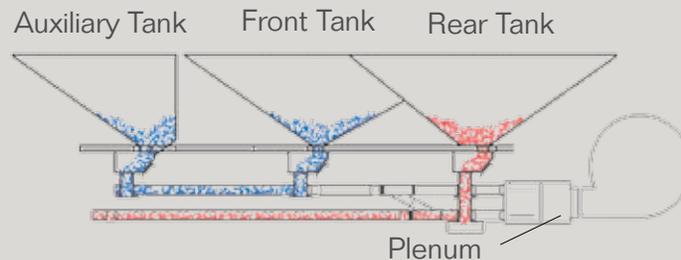
Simple, accurate seeding results start with an air delivery system designed for dependable, consistent results.

DISTRIBUTION SYSTEM

Versatile offers single and double shoot capability as standard equipment. Simply moving two levers per primary run changes the air cart from single to double shoot. Adjusting the air plenum in front of the fan completes the process.

SINGLE / DOUBLE SHOOT

While double shooting, product from the rear tank travels through the bottom set of hoses and product from the front tank(s) travels through the top set of hoses. To single shoot, simply flip two levers per primary run and product from the rear tank is directed to the top set of hoses and mixes with product from the front tank(s).



13" FAN

A 13" (330 mm) Crary fan is dynamically balanced and highly efficient. This fan develops sufficient air volume to allow for double shooting large application rates. Standard equipment on the AC315.

17" FAN

A 17" (432 mm) fan delivers large volumes of air at slower speeds, minimizing seed damage. The efficient use of air flow allows the operator to single or double shoot sizeable application rates with a single fan. Standard equipment on the AC400.



PRESSURIZED LID SEAL

Pressurized Lid Seal - Accurate product application is dependant on maintaining constant pressurization within the tank. This unique seal uses air pressure from inside the tank to provide a consistent seal against the lid.

METERING SYSTEM

An easy to use mechanical metering system allows for consistent accurate metering of all seed types.

METERING ROLLERS

(Limited Lifetime Warranty) Versatile air carts feature polyurethane, fluted metering rollers. Not only is changing rollers unnecessary when switching from one product to another, but this design also ensures a constant flow of product.

RANGE SPROCKETS

Each metering roller is equipped with a range sprocket cluster that eliminates the need to change metering rollers when switching from one product to another. This adjustment is completed in a few seconds and no tools are required. The metering drive is shear bolt protected.

MAIN DRIVE TRANSMISSION

Metering transmissions are powered off the left rear wheel, therefore application rates remain constant even when increasing or decreasing ground speed. The air cart's implement width can be set by installing two applicable sprockets on this transmission.

METERING HOUSING

Each metering housing has a built-in stone trap to collect foreign material such as small pebbles and fertilizer lumps etc. that have passed through the tank screen. This feature eliminates possible jamming of the metering system or premature roller wear.

3-STEP RATE TEST

Rate tests can be time consuming, but not with Versatile Air Carts. The air cart monitor calculates and displays each application rate setting; therefore no charts, decals or calculators are required.

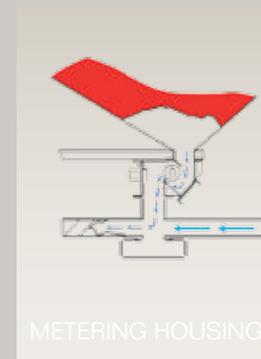
Step 1: Input desired application rate into monitor.

Step 2: Crank out product sample into rate pan, weigh product and input weight into monitor.

Step 3: Install displayed Quick-Change sprocket combination (Mechanical Systems). Zero-Max transmission (Variable Rate Systems) will position itself.



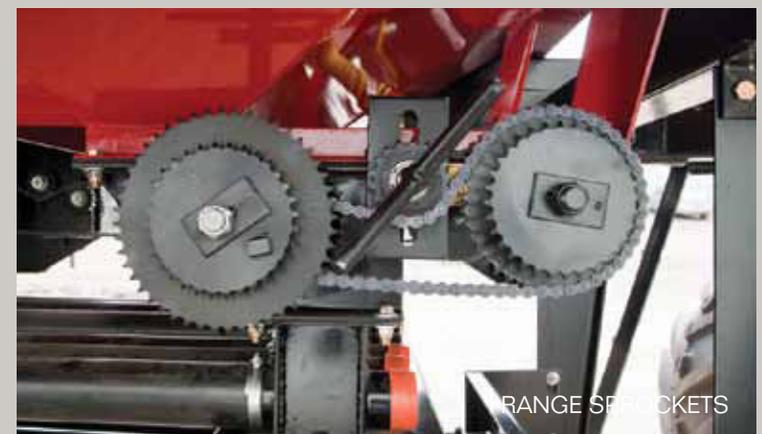
METERING ROLLERS



METERING HOUSING



MAIN DRIVE TRANSMISSION



RANGE SPROCKETS

MONITORING SYSTEM

Mechanical or Variable Rate Systems - Versatile air carts are available with either mechanical or variable rate set-ups.



FLASH MONITOR

Viewing all air cart functions from in the cab is critical to ensure trouble free seeding. Digital application rates, fan rpm, area per hr/field/season and ground speed can all be viewed by the operator while seeding. Bar graphs for each bin level are controlled by 4 bin level sensors to allow operators the ability to plan ahead for fills.



IN-CAB RATE CONTROL MONITOR

An In-Cab Rate Control Monitor allows the operator to adjust the metering rates on-the-go from the tractor cab. An Electric Actuator located on each variable speed transmission increases or decreases application rate.



CLUTCH CONTROL

All models feature heavy-duty Warner 12 volt electromagnetic clutches as standard equipment on both the main drive and each individual tank. The main drive clutch can be either manually controlled by the operator, or in placed Auto mode.



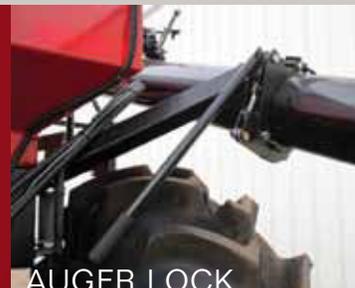
BLOCKAGE MONITORING

This option provides an operator with the ability to monitor the flow of product from the cab and will create an alarm if a hose should become plugged. The Optical Blockage Sensors do not rely on contact as competitive pinstyle sensors do, which can result in plugging.



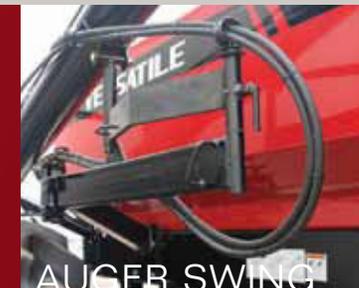
BOTTOM / TOP AUGER CONTROLS

All models feature both top and bottom auger controls as standard equipment. Spring-loaded controls automatically return to neutral position when not engaged and provides the operator with full Forward / Neutral / Reverse functions.



AUGER LOCK

Augers feature an adjustable locking mechanism. This secures the auger to the air cart for transport. The additional safety strap is provided to secure the auger should the transport lock accidentally unlatch.



AUGER SWING LOCK

This lock prevents the auger from moving once it is placed into 1 of 3 positions. This feature is helpful when filling on sidehills or on days that are exceptionally windy.

AUGER

An 8" (203 mm) diameter load / unload auger is standard on all air cart models. A larger 10" (254 mm) diameter auger is optional for the AC400. Balanced for a one-man operation, the 8" auger will fill 315 bushels in 7 minutes.

SIMPLE SERVICEABILITY

The simple design of Versatile air carts allows you to spend less time in the yard and more time in the field. Easy to fill, easy to adjust and easy to clean out the air carts maintain the simplicity you expect from Versatile.

FOLD DOWN RAILINGS

Fold down railings and a low tank height allow for off-season storage in sheds with less clearance.

PLATFORM/LADDER

A large platform with a ladder on each side, provides convenient access to the top of the tank.





TANK OPENINGS

Large 22" x 26" (559 x 600 mm) tank openings provide operators with faster filling times. The adjustable over-center lid locks maintain positive air pressure within each compartment. Tank screens are standard to keep out unwanted debris.



TANK OPENINGS

TOTAL TANK CLEANOUT

Removing product from any tank compartment is as simple as positioning the auger under the tank and then opening the total tank cleanout door.



TOTAL TANK CLEANOUT



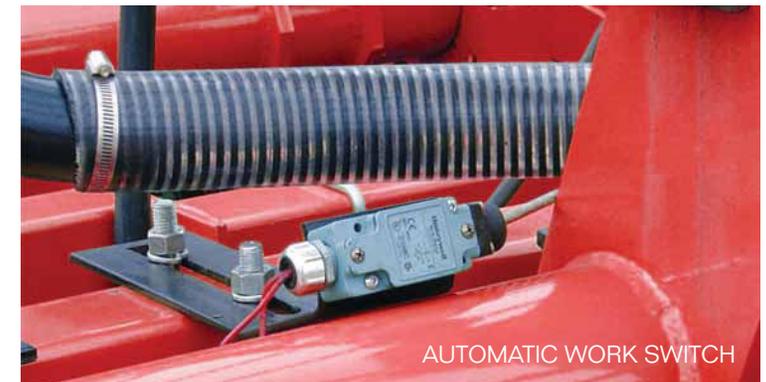
ROLLER SYSTEM

ROLLER SYSTEM

Versatile has designed the metering roller system so operators can conveniently inspect the roller when tanks are either empty or full.

AUTOMATIC WORK SWITCH

Included as standard equipment, this industrial switch will engage and disengage the main drive clutch automatically when lowering or raising the seeding implement. A manual position is also provided to give clutch control to the operator.



AUTOMATIC WORK SWITCH

OPTIONAL EQUIPMENT

WORK LIGHTS

Work lights are available for all air carts and provide additional illumination while seeding at night.

QUAD AXLE

Designed primarily for controlled traffic farming this 3m quad axle is available for all air carts. This Bolster style axle is designed to oscillate 10 degrees up and down.

REAR TOW HITCH

All models can be equipped with an optional rear tow hitch. This clevis style hitch is designed for towing liquid fertilizer wagons or NH₃ tanks.

ENGINE DRIVE FAN

Available on the AC315, the engine drive fan allows for air seeding with tractors that have limited hydraulic capacity. The gasoline powered 27 hp Kohler engine provides sufficient air volume and pressure to double shoot up to 40' (12.2 m).

	ML930		ML950	
	3 SECTION		5 SECTION	
Size	42' (12.8 m)	52' (15.8 m)	62' (18.9 m)	70' (21.3 m)
FIELD WIDTH				
Spacing	10" (254 mm) Spacing / 12" (305 mm) Spacing		10" (254 mm) Spacing / 12" (305 mm) Spacing	
Frame sections	3	3	5	5
FRAME WIDTH				
Main	16' (4.9 m)	16' (4.9 m)	16' (4.9 m)	16' (4.9 m)
Wing	13' 6" (4.1 m)	13' 6" (4.1 m)	13' 6" (4.1 m)	13' 6" (4.1 m)
Outer wing	-	4' 6" (1.4 m)	9' (2.7 m)	13' 6" (4.1 m)
TRANSPORT				
Width	22' (6.7 m)	22' (6.7 m)	22' (6.7 m)	22' (6.7 m)
Height	19' (5.8 m)	19' (5.8 m)	17' 10" (5.4 m)	17' 10" (5.4 m)
TIRES				
Main	15.0/55-17	15.0/55-17	15.0/55-17	15.0/55-17
Wing Frames	12.5Lx15 FI *	12.5Lx15 FI *	12.5Lx15 FI *	12.5Lx15 FI *

* wing frames may use 9.5Lx15 FI or 11Lx15 FI tires, as required

- » Seed boot depth position is set at the factory to approximately 5/8" (the distance between the tip of the opener and the bottom of the packer wheel). This can be adjusted or fine-tuned by the operator to suit local conditions, in increments of 3/16" from 0" to 3".
- » Operator selects desired seed placement profile from the monitor in the tractor cab.
- » The ALIVE control system then maintains seed placement profile by comparing data from the position of the linkage on the gauge wheel(s) to the linkage on the adjacent opener/shank. If the angle of the parallel linkages is more than 1/2 of a degree different between the two, then the control system either raises or lowers the drill frame to bring the parallel linkages back into tolerance. Raising or lowering the drill frame add or subtracts force on the packer wheel to maintain selected seed placement.





	AC315	AC400
Configuration	Tow behind or tow between	Tow behind or tow between
TANK		
Total*	315 bu. (11,100 L or 8.4 tonnes)	390 bu (485 cu ft; 13,743 L; 10.5 tonnes)
Front	95 bu. (3,348 L or 2.6 tonnes) = 30%	110 bu. (3,3792 L or 3.2 tonnes) = 31%
Rear	120 bu. (4,229 L or 3.2 tonnes) = 38%	160 bu. (5,497 L or 4.3 tonnes) = 41%
Auxiliary	100 bu. (3,524 L or 2.7 tonnes) = 32%	120 bu. (4,301 L or 3.2 tonnes) = 28%
DIMENSIONS		
Hand rail, up	12' 6" (3.8 m)	12' 6" (3.8 m)
Hand rail, down	11' 0" (3.4 m)	11' 3" (3.4 m)
Length, w/auger	25' 0" (7.6 m)	25' 0" (7.6 m)
Width, w/auger	12' 6" (3.8 m)	12' 6" (3.8 m)
AIR SYSTEM		
Type	Type B Distribution	Type B Distribution
Tank design	Fully welded, independently pressurized	Fully welded, independently pressurized
Primary outlets	4/8, 6/12 or 8/16 primary runs	4/8, 6/12 or 8/16 primary runs
Primary / Secondary hoses	2.5" (64 mm) diameter / 1" (25 mm) ID	2.5" (64 mm) diameter / 1" (25 mm) ID
METERING SYSTEM		
Main clutch, auto/manual	Yes	Yes
Meter clutches, standard	4	4
Transmission / Rate adjustment	Mechanical, Quick-Change sprockets or Variable rate Zero-Max	Variable rate Zero-Max with choice of manual or in-cab control
Monitor Down seeding mode ability	Yes	Yes
Meter ranges	Hi, 1:1, Lo	Hi, 1:1, Lo
Roller changes required	No	No
Meter rollers	Polyurethane	Polyurethane
Calibration	Rate pan & crank	Rate pan & crank
FAN		
Type	Hydraulic 14 to 40 hp req. (engine drive opt.)	Hydraulic 15 to 40 hp req.
Rotor diameter	13" (330 mm)	17" (330 mm)
Outlet size	6" (152 mm)	8" (152 mm)
Tractor requirements	1 set of remote coupler (+ Case Drain) up to 20 GPM (75.7 L/min) closed center or pressure compensating	1 set of remote coupler (+ Case Drain) up to 20 GPM (75.7 L/min) closed center or pressure compensating
AUGER		
Diameter	8" (203 mm)	8" (203 mm) / 10" (254 mm) optional
Length	20' (6.1 m)	20' (6.1 m)
Controls	Top and bottom	Top and bottom
Balanced	Yes	Yes

*Tonnes calculated assuming that 1000 L of wheat = 0.76 tonnes.



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