



On row packing provides excellent seed to soil contact. Rubber packer wheels are effective in minimizing soil build-up.



Packer wheel options: a 4.80 x 16 semi-pneumatic and pneumatic, a 5.50 x 16 semi-pneumatic and a 4.00 x 16 "V" Crown.



Twine guards are standard on all models to protect the hub bearings from mud and debris.

Morris Contour Drill Specifications and Options

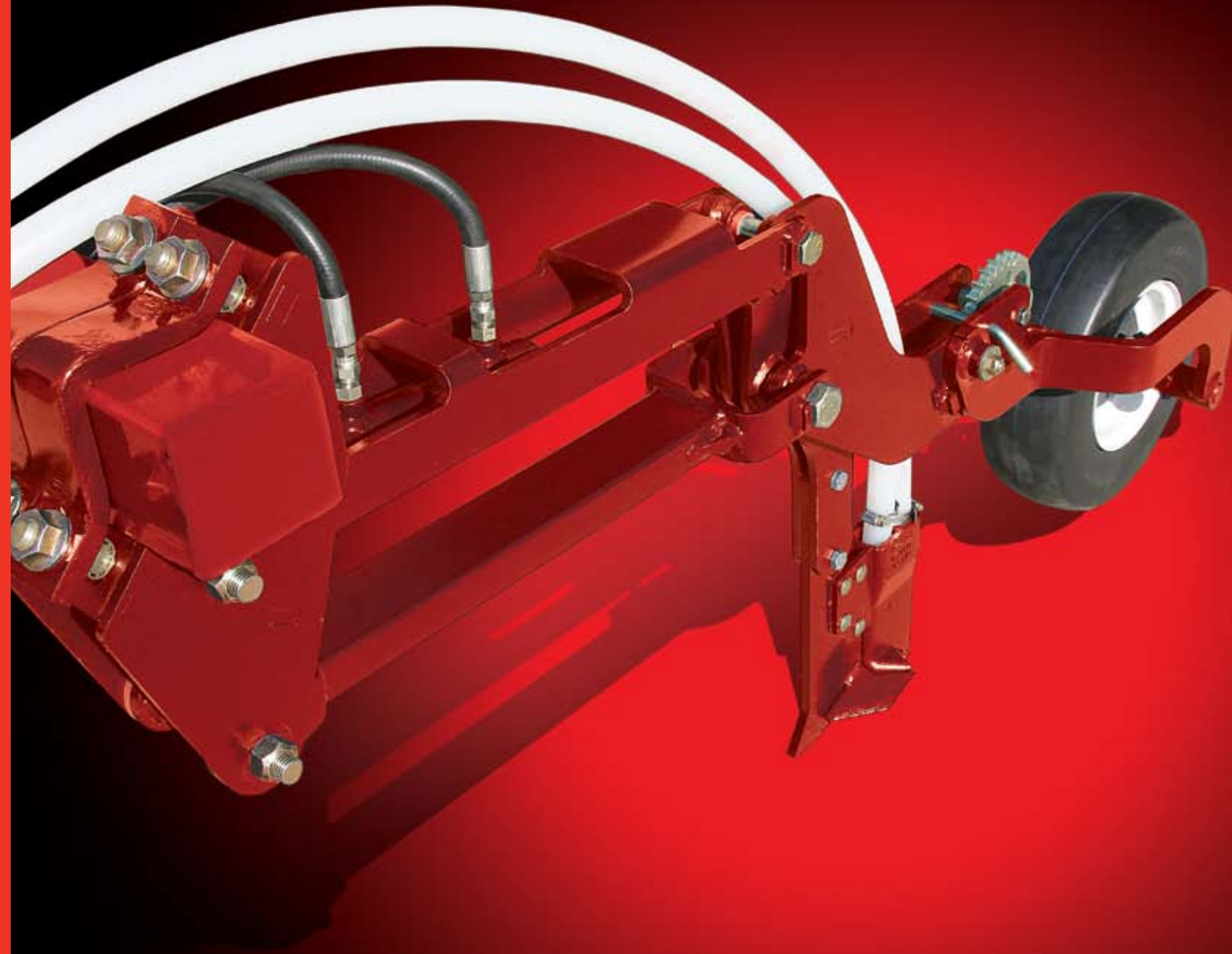
Base Size	3 Frame Models			5 Frame Models				
	41' (12.5 m)	47' (14.32 m)	51' (15.54 m)	61' (18.59 m)	71' (21.64 m)	80' (24.38 m)	86' (26.21 m)	
Weight	- 10" Spacing	20,928 lb	22,873 lb	24,622 lb	31,392 lb	35,441 lb	NA	NA
	- 25.4 cm Spacing	9,470 kg	10,350 kg	11,168 kg	14,239 kg	16,109kg	NA	NA
	- 12" Spacing	19,572 lb	21,366 lb	23,137 lb	29,358 lb	33,264 lb	38,140 lb	41,000 lb
	- 30.5 cm Spacing	8,856 kg	9,668 kg	10,495 kg	13,317 kg	15,120 kg	17,300 kg	18,600 kg
Working Width	- 10" (25.4 cm) Spacing	41.67' (12.70 m)	46.67' (14.22 m)	50' (15.24 m)	60' (18.29 m)	70' (21.34 m)	NA	NA
	- 12" (30.5 cm) Spacing	41' (12.5 m)	47' (14.32 m)	51' (15.54 m)	61' (18.59 m)	71' (21.64 m)	80' (24.38 m)	86' (26.21 m)
Number of Shanks	- 10" (25.4 cm) Spacing	50	56	60	72	84	NA	NA
	- 12" (30.5 cm) Spacing	41	47	51	61	71	80	86
Frame Width	- Main	16' (4.88 m)	16' (4.88 m)	16' (4.88 m)	16' (4.88 m)	16' (4.88 m)	21' (6.40 m)	21' (6.40 m)
	- Wing Inner	12' (3.66 m)	15' (4.57 m)	17.5' (5.334 m)	12' (3.66 m)	15' (4.57 m)	15' (4.57 m)	15' (4.57 m)
	- Wing Outer	N/A	N/A	N/A	10' (3.05 m)	12' (3.66 m)	14.45 (4.4 m)	17.75' (5.41 m)
Transport Position	- Width	20' 6" (6.25 m)	20' 6" (6.25 m)	20' 6" (6.25 m)	20' 6" (6.25 m)	20' 6" (6.25 m)	25' (7.62 m)	25' (7.62 m)
	- Height	15' 2" (4.62 m)	18' 2" (5.54 m)	15' 2" (4.62 m)	15' 2" (4.62 m)	17' 10" (5.44 m)	17' 10" (5.44 m)	17' 10" (5.44 m)
	- Length	31' 6" (9.6 m)	31' 6" (9.6 m)	31' 6" (9.6 m)	34' 10" (10.62 m)	34' 10" (10.62 m)	34' 10" (10.62 m)	34' 10" (10.62 m)
Opener to Ground Clearance	12" (30.5 cm)	12" (30.5 cm)	12" (30.5 cm)	12" (30.5 cm)	12" (30.5 cm)	12" (30.5 cm)	12" (30.5 cm)	
Tires	- Main Frame Wheels	(8) 11L x 15 FI Load Range F	(8) 11L x 15 FI Load Range F	(8) 11L x 15 FI Load Range F	(8) 12.5L x 15 FI Load Range F	(8) 12.5L x 15 FI Load Range F	(8) 16.5 x 16.1 FI Load Range E	(8) 16.5 x 16.1 FI Load Range E
	- Wing Frame Front Castor Wheels	Dual Castor (4) 11SL x 15 12 Ply Rating	Dual Castor (4) 11SL x 15 12 Ply Rating	Dual Castor (4) 11SL x 15 12 Ply Rating	Dual Castor (8) 12.5SL x 15 12 Ply Rating	Dual Castor (8) 12.5SL x 15 12 Ply Rating	Dual Castor (8) 12.5SL x 15 12 Ply Rating	Dual Castor (8) 12.5SL x 15 12 Ply Rating
	- Wing Frame Rear Wheels	(1 per wing) (2) 11SL x 15 12 Ply Rating	(1 per wing) (2) 11SL x 15 12 Ply Rating	(1 per wing) (2) 11SL x 15 12 Ply Rating	(1 per wing) (4) 12.5SL x 15 12 Ply Rating	(1 per wing) (4) 12.5SL x 15 12 Ply Rating	(2 per wing) (8) 12.5SL x 15 12 Ply Rating	(2 per wing) (8) 12.5SL x 15 12 Ply Rating
Opener	- Trip Out Force	Increases proportionally with Packing Force to a maximum of 600 lbs (272 kg)						
	- Packing Force	Adjustable from 70 lbs to 170 lbs (31.7 kg - 77.1 kg)						
	- Packer Wheel	4.80" x 16" Semi Pneumatic or Pneumatic 5.50" x 16" Semi-Pneumatic 4.00" x 16" "V" Crown						
Frame to Ground Clearance	32" (81 cm)							
Frame Depth	94" (238.8 cm) center to center							
Rank to Rank Spacing	47" (119.4 cm) center to center							
Number of Ranks	3 Rows							
Shank to Shank Spacing	30" (76.2 cm) on 10" (25.4 cm) Spacing 36" (91.4 cm) on 12" (30.5 cm) Spacing							
Weight Kit	Optional							
Safety Lights	Standard							
Safety Chain	Standard							

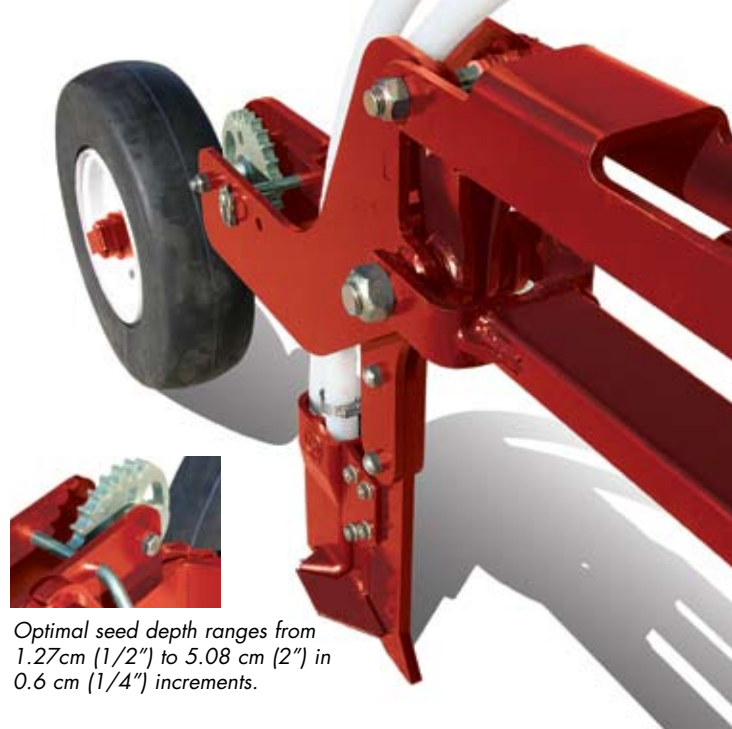
Specifications are estimates and subject to change.



Contour Drill [®]

Independent Opener Drill





Optimal seed depth ranges from 1.27cm (1/2") to 5.08 cm (2") in 0.6 cm (1/4") increments.

The Morris Contour Drill gets your crops off to the best start possible.

The independent contour opener with TRUE parallel linkage maintains a constant opener angle relative to the soil and constant opener depth in relation to the packer wheel throughout its range of travel (Opener contour range is 25.4cm [10"] above ground level to 17.8cm [7"] below ground level). This provides consistent ground penetration and constant seeding depth control over changing field terrain, resulting in quick, even germination.

The single shank design has lower draft requirements than most double-shoot air hoe drills. Less horsepower equals significant fuel savings. Opener spacing options are 25.4 cm (10") and 30.5 cm (12").



Optional high pressure anhydrous kits for use with VRC anhydrous application system from Maxquip®. A 1/8" OD stainless injector pipe with a 1/8" ID compression fitting firmly holds the pipe in a centered position under paired row or side band openers. High pressure is maintained up to the injection point to reduce chances of knives freezing up and also helps to prevent gassing off. NOTE: High pressure NH3 shank or heavy duty shank option required with these kits.

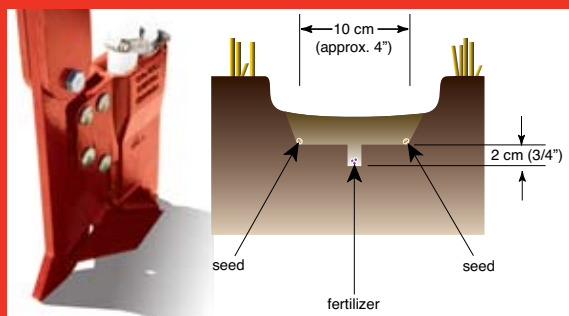


Pressure is maintained on the opener cylinders through a passive hydraulic system that uses a hydraulic accumulator. This unique hydraulic accumulator system acts as a hydraulic cushion for the trips, and being a passive system, it greatly reduces the demand on the tractor hydraulics compared to the continuous flow required by similar drills. By adding or subtracting oil from the accumulator circuit, through a tractor remote, pressure in the accumulator system can be raised or lowered, which provides a corresponding increase or decrease in trip out force and packing pressure.

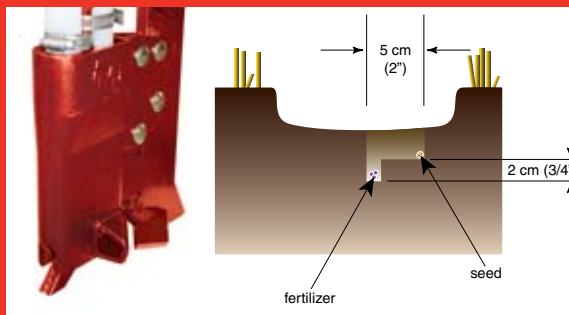
Trip out force can be adjusted from 45.3 kg (100 lbs) to 272 kg (600 lbs), the opener packing force increases proportionally from 31.7 kg (70 lbs) to a maximum of 77.1 kg (170 lbs).



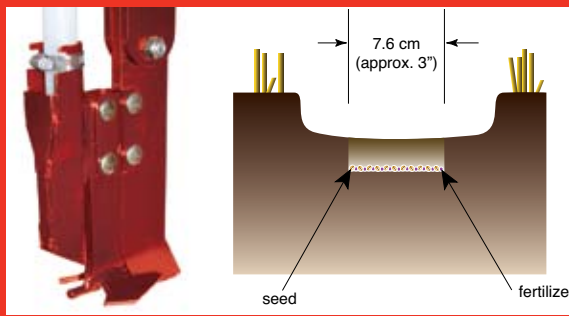
The Morris paired row opener provides better seed bed utilization - on 25.4 cm (10") spacing the distance between rows is approximately 15.2 cm (6") and on 30.5 cm (12") spacing the distance is approximately 20.3 cm (8"). And, the paired row ensures an excellent stand for swathing.



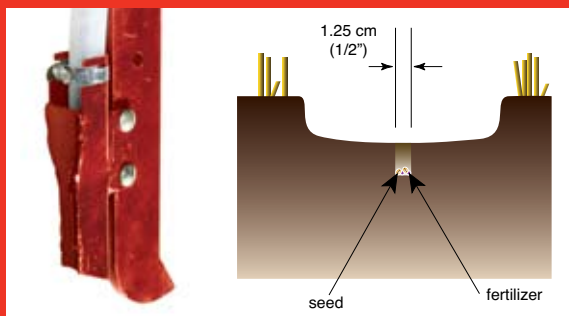
The **paired row double shoot opener** places 2 distinct rows of seed 10 cm (4") apart. Seed is first placed in two distinct rows 5 cm (2") to each side of the knife followed by a fertilizer band that is placed directly behind the knife and 2 cm (3/4") below the seedbed. This patented design results in outstanding fertilizer - seed separation and improved seed bed consistency through minimizing soil fracturing.



The **side band double shoot opener** first places a distinct seed row 5 cm (2") to the side of the knife followed by a fertilizer band which is placed directly behind the knife and 2 cm (3/4") below the seedbed. This patented design results in outstanding fertilizer - seed separation and improved seed bed consistency by minimizing soil fracturing.



The **spread tip single shoot opener** places a 7.6 cm (3") wide ribbon of seed in each seed row. This opener cuts a smooth level seedbed resulting in very consistent seed placement and has been designed to minimize soil disturbance. The spread tip opener, with its high seed bed utilization is an excellent choice for farmers who apply low to moderate fertilizer rates with the seed.



The **narrow knife single shoot opener** is a single shoot opener that places a narrow 1.25 cm (1/2") ribbon of seed in each seed row. This opener cuts a smooth narrow channel for seed to be placed, and has the lowest soil disturbance of the openers available on the Morris Contour Drill. This opener has proven to be a popular choice with growers with sticky, high clay content soils.



The carbide wear tail option features a beveled carbide insert on the wear tail face. The heavy duty shank features a thicker bottom carbide along with additional carbide further up the tip. Both options provide extended life in abrasive soil conditions.



A double acting hydraulic cylinder raises and lowers the opener from working to transport position.



Initial trip out pressure and packing pressure is dialed in and locked on the drill.



Once set, pressure can be adjusted from the tractor cab on a convenient digital display.



Narrow transport width for transport safety and convenient storage.