

Darwin

N.M. BARTLETT INC.

PROVIDE AGRO

"A BARTLETT COMPANY"

mechanical blossom thinner



Ensure Profitable Harvests with Increased Fruit Quality and Reduced labour Bill!

- Effective chemical-free thinning
- Reduces biennial tendencies
- Better fruit size and quality by increasing the availability of carbohydrates to fewer fruit
- ONLY FEED THE FRUIT YOU ARE GOING TO SELL!
- See the results of your thinning right away
- Fast travel speed ensures high treated area per hour
- Thin in all weather conditions (warm, cool, rainy, night time)
- Can be used for all varieties of tree fruit and their cultivars

www.provideag.ca

Excellent fruit size and quality achieved by mechanically thinning with **Darwin**



Mechanical thinning with **Darwin** is safer and can be more effective than thinning with chemical substances. It's also quicker and less labor intensive than manual thinning.

The chemicals used to thin pome fruit are costly, and the success of the thinning depends very much upon weather conditions, the ambient temperature and many other unpredictable factors. A second round of chemical thinning is often necessary and is usually followed thereafter by manual thinning. There are currently no reliable chemical thinning techniques used in stone fruit.

With **Darwin** you can see your thinning results immediately. You can adjust the level of thinning achieved the first time through the orchard to best fit your production goals.

The machine is powered by the hydraulic system of the tractor. It requires at least 25 l/min. (6 US gal/min) of oil flow to run properly. The hydraulic adjustment of the spindle inclination allows the adaptation to the tree form or to the ground.

The tractor drives closely along the tree rows with the front-mounted spindle directly in the canopy of the tree, and will indiscriminately remove random buds, flower clusters, or individual blooms – leaving behind your desired amount of flowers to set fruit.

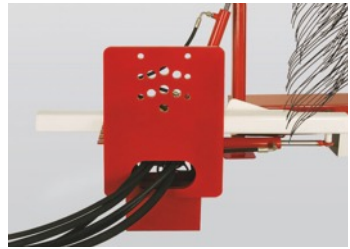
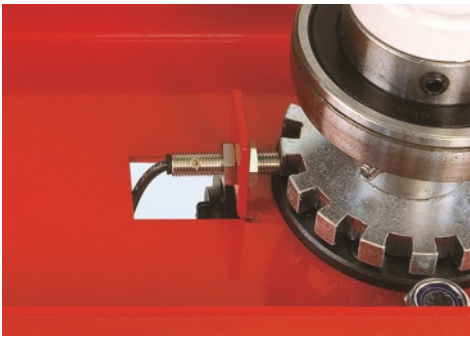
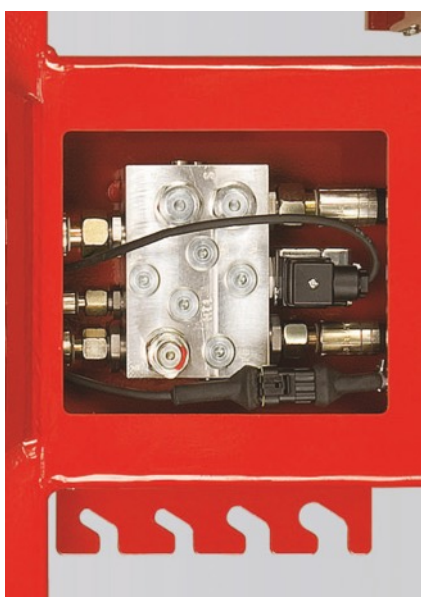
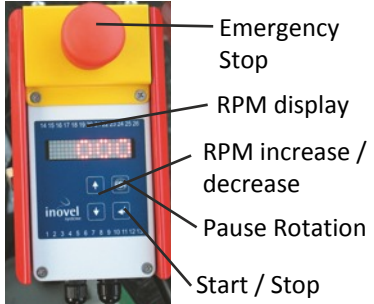
Darwin was developed from practical experience and in its almost 20 years of evolution has constantly been optimized and adapted to our customers' requirements. So today you can benefit from a patented, mature system that can help you to produce quality harvests with reduced labor costs and minimized environmental impact year after year!

The innovative control unit for **Darwin**

Spindle speed RPM can be a critical factor in the efficacy of your treatments. It can be altered on the fly easily with the hand-held control unit.

The Sensor provides feed-back from the spindle to the hydraulic block to keep rotation constant. This is also critical as the rpm will stay where you want it, even when there is high load on the spindle when thinning a particularly heavy tree or branch.

By pushing the ESC key, the spindles rotation instantly pauses. This is key when using the machine to reduce biennial tendencies as some trees are in their 'on' year, and the tree beside it may be in it's 'off' year.



3 mounting options - 3 point, bolt-on, fork mount (not shown)

Optional hydraulic offset not intended for constant use.

Technical Data

Darwin 200

Darwin 250

Darwin 300

Working height in cm (ft.)	193.5 (6'5")	239.5 (7'10")	285 (9'5")
Machine height in cm (ft.)	228.5 (7'6")	274 (9')	320 (10'6")
Approximate weight in Kg (lb.)	148 (326)	155 (341)	165 (363)A
rea performance		1,5 - 2,5 ha/h	
Driving speed		6 - 18 km/h	
Spindle speed (RPM)		150 - 450 1/min	
String length		600 mm	
Number of strings		variable	
Required oil quantity		20 l/min	
Tractor mounting	Mounting to the front right side with or without front hydraulic system		
Manual lateral shift		stroke 595 mm	
Hydraulic lateral shift		stroke 400 mm	

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same technology, new ways of getting it done...



Darwin PT

This design is aimed at providing open centre style peach growers the ability to thin the tops of the trees. Using a unique hydraulic ram and scissor arm combination, the PT has a spindle range of 180 degrees! It also incorporates a different hydraulic block that allows the grower to plug only one set of hoses to the machine and the block diverts flow to the motor or cylinder that requires it.

Darwin SOLO

This design was created with versatility in mind. The SOLO has all of the high quality components of the original Darwin, but incorporated directly into the frame. The SOLO can be mounted to any lift, frame, or arm that a grower may already own to best fit their use. For instance, a hedger arm used in large canning peaches could be used to hold the Darwin Solo

Darwin SS

This design is the future of Darwin. It has been driven by the USDA funded SCRI research group who is looking to incorporate sensors and computers into the Darwin thinner technology to automate the process as well as increase efficacy. For now the Darwin SS will incorporate a manual joy-stick to move the frame in and out of trees to increase efficacy by better moderating the number of strikes/branch the Darwin will deliver versus the traditional machine.

Edward

The Edward is a mechanical hedger that was designed with precision agriculture and the new 'fruiting wall' style of planting in mind. This is not your Grandfather's hedger. What makes this machine exciting is the double-knife reciprocating blades for both the sides and top, feeler arm for retracting top blade from posts, easy-to-use touch screen control, a complex hydraulic block that makes use easy (one plug in, one out), and the ability to remove the blades and attach a Darwin thinner head when it's time to thin.



POWERED BY;



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