



TOOL **METRIX**

Laguna 14 | 12 Bandsaw

BENCHMARK STUDY



About this project

ToolMetrix provides this evaluation of the **Laguna 1412 Bandsaw** as an engineering consulting service to **Laguna Tools**. We have made every effort to ensure a fair, non-biased evaluation with the intention that the information provided within can fuel ideas for future innovation in the **Laguna** product line. We have also endeavored to provide useful, objective information to woodworkers who are interested in the capabilities of the *1412* bandsaw.

Laguna 14 | 12 Bandsaw

BENCHMARK STUDY

Overview

In 2013 *Laguna Tools* introduced the new 14|12 bandsaw, which is designed to provide a wide range of capabilities while working within the limitations of typical household 110 volt service. These attributes make it a good candidate for the serious hobbyist or small shop professional woodworker, who commonly works in a basement or garage environment where shop space is at a premium and 220 volt power availability is often limited. At the request of *Laguna Tools*, ToolMetrix put the *Laguna 14|12* bandsaw through an extensive battery of tests, simulating the conditions that we believe represent the likely scenarios under which the 14|12 will be used in the field. In this document we provide the results of our tests, and share our overall evaluation of this tool.



Our assumptions about serious hobbyists or small shop professional woodworkers

Based upon the feature set, price point and capabilities of the *Laguna 14112*, we believe that users who will find it most appealing will have the following characteristics:

Varied requirements for a bandsaw

The demands placed on a bandsaw in the small shop will vary. One day it might be used to rough out a blank for turning a bowl on a lathe, while the next project might require scroll cutting for a jigsaw puzzle. Also, we believe that anyone who is considering a bandsaw in this category has a desire to occasionally resaw planks to make thinner stock, book-match cuts for a showcase panel, or to make veneer.

Desire for a single bandsaw

Woodworkers who use a bandsaw for a variety of tasks require one of two things; either they must own multiple bandsaws so that they do not have to change blades very often, or they need a single bandsaw that allows them to change blades quickly without hassle. We believe that small shop owners would prefer a single bandsaw but are often compelled to own multiple saws, or commonly make cuts using an improperly configured blade for the operation, because of the hassle associated with changing blades.

Outgrown a previous bandsaw

Many woodworkers who consider upgrading to a bandsaw in this category have experienced frustrations with a lower end bandsaw in one or more of the following areas:

Inability to achieve adequate or consistent results in resawing

Resawing can be performed on many saws in the 12" to 14" range, but it can be a slow, frustrating process leading to wavy surfaces, barrel cuts, tapers, and ultimately a lot of wasted stock. Also, the power and height capacity restrictions of many of these saws can constrain the maximum resaw to 4-6". Many woodworkers have the ability to resaw up to 6" on their table saw (by flipping the board and making a second pass) so an effective resaw capacity of under 6" becomes meaningless.

Lack of power

Many hobbyist level bandsaws lack power for making cuts in wider/thicker hardwoods. When a saw is underpowered for the task it is performing, excessive wear is placed on the motor and the blade can tend to wander in the cut leading to poor cut quality. Underpowered saws also cause frustration on the part of the woodworker and, potentially, significant dissatisfaction with the tool.

Poor blade tracking

Even when using a sharp, high quality blade, it can be difficult to accurately follow a curved line, or achieve straight cuts on a saw that is plagued by an ineffective guide system. Also, many saws have poor overall structural integrity to carry the considerable stress placed on the saw during cutting operations.

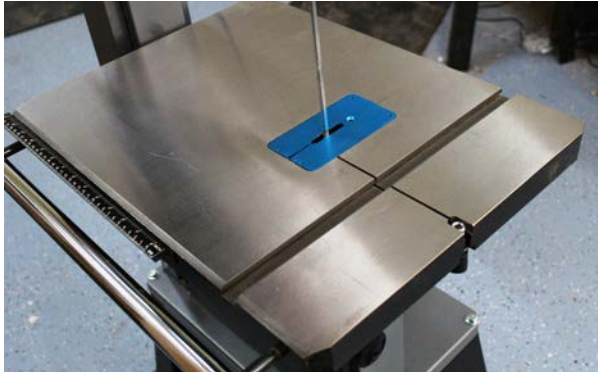
What we believe to be important in this tool category

Stepping up to a bandsaw upgrade can be a significant investment for many woodworkers. As we developed a test plan for this tool we took into consideration the items that we believed were most important to woodworkers who would consider an investment in a premium 14" bandsaw. Based upon our analysis of woodworkers' requirements, the critical areas that we examined in our testing include:

- Quality of construction
- Tolerances from factory
- Power
- Blade guide design and quality
- Vibration
- Blade change process
- Dust collection
- Fence quality and versatility
- Results: Resawing, ripping, angled cuts, gentle curved cuts, tight scrolling
- Overall fit and finish

Initial observations

Large work surface



The 344 square-inch cast iron table provides plenty of working real estate. The system for attaching the table also includes a unique undocumented leveling mechanism that allows the table flatness to be perfected at installation time if any variance was present at the time of manufacturing. The table on the saw that we received was within .002" across its width so we did not find it necessary to make adjustments.

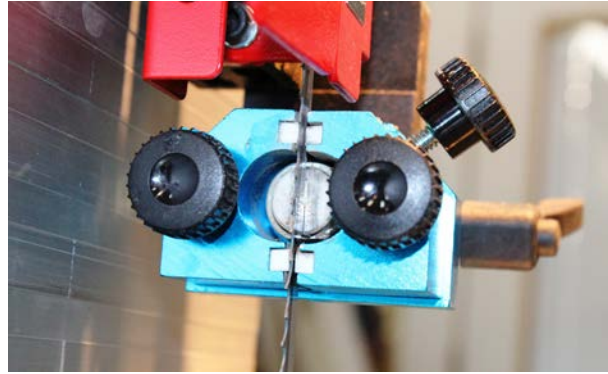
The removable aluminum table insert includes four independent leveling screws which allow it to be set flat with the table surface so that a work piece will pass over it smoothly during cutting operations. Using a straight edge and a hex wrench, we found it easy to adjust the insert to be precisely flat with the table surface.

Substantial European-style frame



One of the keys to high performance resawing is for the bandsaw to provide a rigid frame, which serves to absorb much of the tensioning pressure that is applied to large resaw blades. 14" bandsaws tend to be marginal in this area, but the frame on the 1412 is exceptionally stout. Throughout our tests we could not detect any flexing in the heavy gauge steel frame as a 3/4" blade was fully tensioned, suggesting that the 1412 is up to the task of delivering the support necessary for accurate resawing.

High performance ceramic guides



One of the items that sets the *Laguna* saw apart from others in its class is the design of the stock guides, referred to as *Laguna Guides*. These guides provide 10 durable ceramic support points, supporting the blade solidly under pressure while maintaining a cool operating temperature. Compared to the traditional European style guides, we found the *Laguna Guides* to be superior in a few important aspects:

Simpler setup

Rather than trying to maintain an optimized distance of a couple thousandths of an inch as you do with European style guides, the *Laguna Guides* are set up by placing them directly against the blade which is much quicker and easier to establish.

Better support

By supporting the blade at 10 contact points, and maintaining full contact with the blade at all times, these guides are designed to provide better blade tracking resulting in superior cut quality.

Enable faster blade changes

Because the *Laguna Guides* are so simple to adjust, they significantly shorten the time it takes to change from one size blade to another. We believe that this is a critical factor for the small shop woodworker who prefers to perform a variety of functions on a single bandsaw, therefore needing to change blade sizes and tooth configurations on a regular basis.

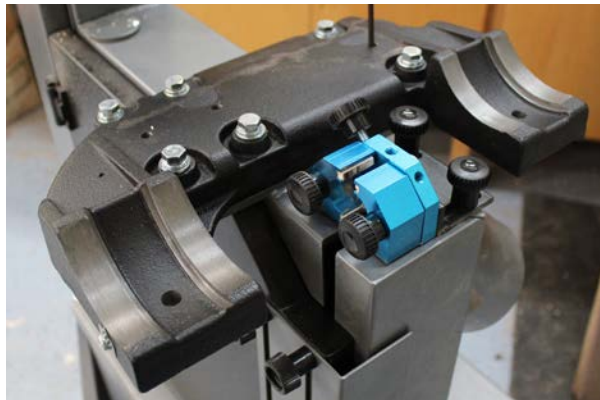
During our testing we noted some sparks being generated at points of contact between the blade and the ceramic guides. Concerned by this, we contacted Laguna's support team who assured us that this was normal and not problematic.

Switch



The switch design on the 1412 caught our attention. It is not the “run of the mill” two button unit that is found on most bandsaws, but rather an innovative single button design with a convenient light that indicates when the unit is powered. The operation requires a simple but conscious pulling action to ensure safe starting, and provides a large contact surface for easy “elbow operation” to halt the saw in a panic situation.

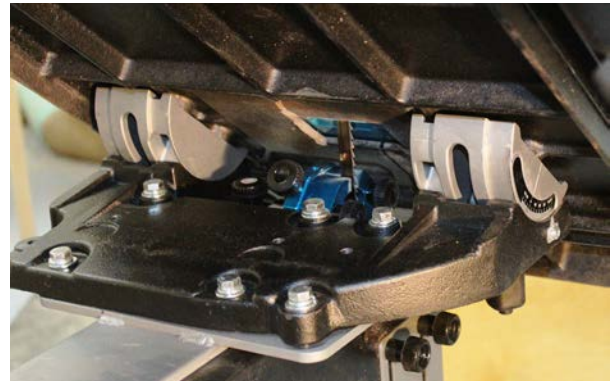
Trunnions



The trunnion system on a bandsaw is critical to delivering consistent cut quality, but it is often overlooked because it is largely hidden from view during normal operation. The trunnion design on the 1412 stands out in its class for a multiple reasons. First, the trunnions are substantial, incorporating heavy cast iron construction which serves to dampen vibration to the table and minimize flex, which in turn improves the quality and precision of resaw cuts. Second, instead of positioning only a single trunnion which can present a weak link in many small and mid-size bandsaws, the 1412 incorporates a dual trunnion system that supports the table more solidly. Finally, the trunnion system on this saw has a large footprint, distributing the workload support evenly across a wide span of the table’s surface. On many bandsaws, even those with dual

trunnions, the footprint is much smaller, allowing the outer portions of the table to flex under heavy loads such as log to lumber operations. The robust trunnions of the 1412 bring a design element to the mid-size bandsaw market that was previously reserved for higher end production class bandsaws.

Table tilt mechanism



The table angle is adjusted by releasing two mechanisms that hold the table solidly against each trunnion. Each mechanism is released independently, and when loosened, the table is easily pivoted smoothly into position and re-locked. We checked the table’s angle gauge with a digital angle gauge and it proved to be accurate to $\pm .2$ degrees.

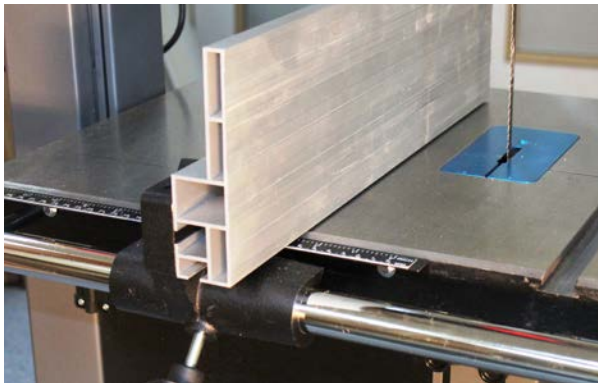
A positive stop can be configured to set the table to precisely 90 degrees to the blade. This adjustment was easily made, and once set, we were able to successfully return the table to 90 degrees each time following a series of twenty angle adjustments with cutting performed at each angle. This is particularly important when setting the saw for resawing thin material where it is critical to consistently position the table at 90 degrees to the blade. There is also a clever mechanism in place to allow the table to bypass the positive stop and be set at a negative angle of up to -7 degrees, a great boon to woodworkers who wish to cut dovetails on the bandsaw.

Motor



Rated at 1-3/4 horsepower, the motor delivers considerable resaw power for a bandsaw that can be used with normal household 110V 20 amp service. We performed our tests using a 20 amp circuit and measured actual amperage draw at 4.5 amps when running idle, and approximately 16 amps when we pushed it through a heavy resaw cut. The motor can also be optionally wired for use on a 220V service.

Versatile fence



The stock fence that comes with the 14112 serves the user well for both resawing and lower profile ripping operations. It can be positioned upright for resawing, where its impressive 5-1/2" height provides exceptional support for resawing wide boards. The height of a resaw fence is critical to both quality and safety, as it provides support for a board as it engages the blade during cutting. (It is ill-advised to attempt resawing with a fence that is not tall enough to adequately support the work piece, as this can lead to a precarious operation with unpredictable results.) When it is required to rip narrow strips, the fence can be repositioned in only a few seconds to a low profile orientation, allowing the blade guard to be positioned closer to the work piece. Also, for woodworkers who prefer this approach to resawing, the fence can also be positioned such that the rear of the fence is placed just behind the

rear of the blade, providing a longer "runway" leading into the cut.

The fence slides easily and engages solidly into position along its rail, and the thoughtful incorporation of a brass tip on the end of the fence support locking mechanism ensures that the rail does not become marred though repeated adjustment.

Another design element that we appreciated is the ability to position the fence to either the left or right of the blade. While right handed operators normally prefer that the fence be positioned to the blade's left side, left handed operators might appreciate the option to move it to the right. Also, even for right handed operators it is occasionally desirable to position the fence to the right of the blade for angled cuts, as the fence can better support the work piece on the "downhill side" by taking advantage of gravity to assist in holding the piece through the cut.

One aspect of this fence that could be improved upon would be the addition of a fine adjustment as a convenience for dialing in an exact thickness on resaw cuts. This feature would be particularly beneficial when making veneer, where more precise tolerances are required. We found, however, that the adjustment capabilities in the stock fence are adequate for typical resaw and ripping requirements where +/- 1/32" are generally deemed acceptable.

Blade installation



Installing a blade on a bandsaw can be a frustrating experience, which leads many woodworkers go out of their way to avoid it, doing things such as using the wrong

blade for a cut or even buying a second bandsaw so that multiple blades are available simultaneously. In our tests we were able to perform complete blade changes, including resetting the guides to a different blade size, in only a few minutes. In a non-scientific test we compared the 14112 blade swap time to other bandsaws in the ToolMetrix shop that have European style guides, and with the 14112 it took about half as long to swap blades and prepare the machine to cut.

This is an area where we believe that the 14112 stands out from other bandsaws, with the primary advantage being the design of the upper and lower guides which makes the adjustment process simple. This is particularly advantageous when setting the lower guides as this can be problematic on saws with European style guides as it is tricky to make the fine adjustments necessary when the table is in the way. Because of the inherent awkwardness of adjusting lower European style guides, some woodworkers don't bother adjusting them; a decision that is certain to lead to poor resaw results.

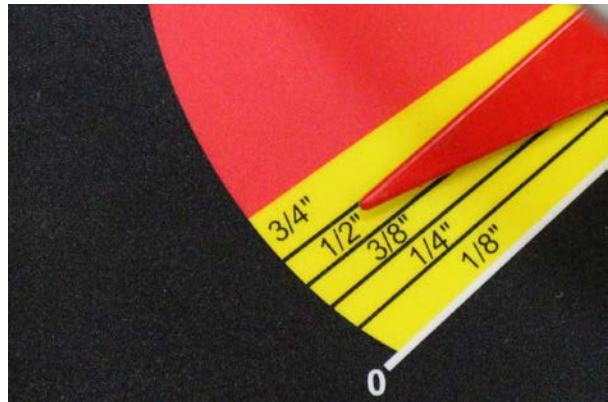
Blade tensioning process

Blade tension is adjusted by turning a hand wheel that is located underneath the upper wheel housing. We prefer this location to tension adjustments on some bandsaws that are positioned on top of the saw as those can be a challenging reach and ergonomically awkward to apply the torque necessary to properly tension a large blade.



Once the tension is appropriately set for a given blade, the tension can be released and reset using the quick-release blade tension lever. While this has become a popular feature on many bandsaws in recent years, there are a couple noteworthy advantages to the implementation on the 14112. First, the handle is much longer than the handle found on many other bandsaws in this class, delivering

greater leverage and providing a motion that is smooth and easy. Secondly, the lever position is down when the tension is released, which means that it is plainly visible to the operator from the front of the saw. This provides an obvious warning that the blade is sitting loose on the saw and helps to minimize the chance of starting the machine in this state.



Differing from those found on most other bandsaws, the tension scale on the 14112 is easily readable, solidly constructed, and in our tests it actually proved to be a reliable guide for tensioning blades. Many woodworkers have differing philosophies on how a bandsaw blade should be tensioned, but regardless of the approach used, the tension gauge on the 14112 can serve as a good starting point or means of validation, eliminating much of the time and guesswork from the blade setup process.

Blade guard mechanism



The blade guard on a bandsaw is not only an important safety factor but serves as a key component to supporting the blade as it is stressed during cutting operations.

The blade guard design on the *14112* has several positive attributes:

High-end Worm Gear

The mechanism used to raise and lower the blade guard incorporates a true worm gear design rather than the typical rack and pinion design used on many saws in this class. This feature is normally found only on more expensive saws, and it delivers smoother as well as more precise operations by maintaining greater contact area across gears as it moves.

Consistent Travel

The blade guide travels in parallel with the blade as it is raised and lowered. This means that the guide blocks and fence do not need to be repositioned as the height of the blade guard is adjusted, and the angle of the fence to the blade remains consistent, which is critical to resaw quality.

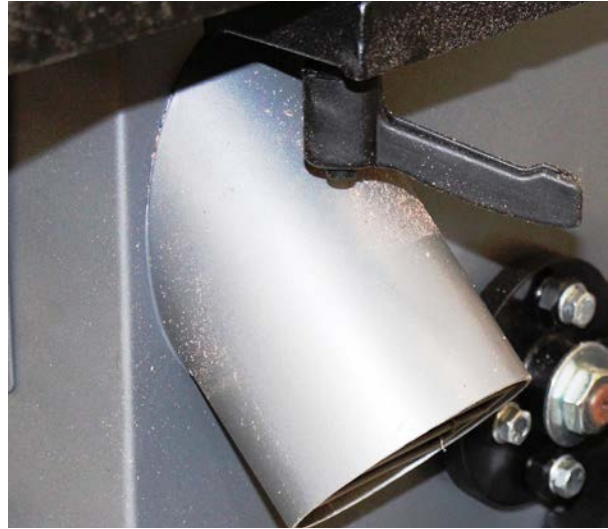
Solid Construction

The parts are substantial and precisely machined so that the blade guard remains rigid through its full range of travel. With the blade guard full extended to its lowest position we placed moderate pressure on the lower portion of the guard and measured only .022" of deflection. In practical terms, this is nothing (we measured movement as much as 5 times greater on other 14" bandsaws in the ToolMetrix shop), and explains the impressive ability of the *14112* to maintain proper vertical blade orientation as it is stressed during a curved cut. Also, given that the blade guides are attached to this mechanism, it ensures rock solid blade support during the most demanding cutting operations.

Convenient Access Door

The magnetic locking mechanism holds a metal shield in place to protect the operator while running the saw, and allows the guard door to be quickly opened when changing blades.

Dust collection



There are a few noteworthy attributes to the dust collection design of the *14112* that make it effective. First, the construction quality on the dust port stands out, as the welded steel design ensures that the dust port will hold up to the abuse that it needs to endure in a workshop environment. Second, and more importantly, the dust port is attached to the lower wheel housing at a 45 degree angle, providing a gentle "on-ramp" for dust as it enters the wheel housing through the throat plate. Third, the path from the port to the dust source is unobstructed thereby providing non-disrupted air flow in the wheel housing. This open path is important because it minimizes the air-flow turbulence in the wheel housing and does not reduce airflow delivered by the dust collection system.

Throughout our tests we maintained roughly 800 CFM of actual dust collection air flow at the dust port and found that both the upper and lower wheel housing remained virtually free of visible dust accumulation which is unusual for a bandsaw, particularly for those with only a single dust port. This suggests that the over the life of the tool the *14112* will be less prone to problems associated with internal dust accumulation than bandsaws that do not perform as well in this area. It is also noteworthy that the *14112* will create a less dusty work environment than many other bandsaws.

How could dust collection on the *14112* be better? One simple way would be to include a second dust port, as *Laguna* provides on its higher end band saws, enabling the dust collector to capture a great portion of the dust that is destined for the lower wheel housing. Additionally, however, it is our opinion that most bandsaws generally

“under-deliver” with respect to dust collection, focusing mainly on keeping the upper and lower wheel housings clear of dust and debris (lesser designs do not even do this much), but they miss the mark when it comes to keeping dust off of lower guides, the table, and more importantly, out of the user’s lungs. As the health risks associated with breathing fine wood particles are becoming better known, we implore all woodworking tool manufacturers to deliver innovation aimed at keeping the air in our shops safer to breathe. We believe that dust collection will be one of the key battlegrounds in the increasingly competitive woodworking tool market, and companies who lead in this area will be rewarded with more patronage from the increasingly health-conscious woodworker. While we believe that over the next five years other bandsaw manufacturers will follow suit with the innovations that *Laguna* has introduced in bandsaw dust collection with the 14112, we also hope that *Laguna* will continue to raise the bar in this area.

Heavy duty cast iron wheels



The hefty, precision balanced cast iron wheels on the 14112 are critical to helping the saw to deliver high performance cutting with minimal vibration. The refined appearance of the wheels provides obvious clues as to the high grade of cast iron used, and our instrumentation could detect only the slightest trace of run-out. This precision balance translates to a smoother running bandsaw which minimizes wear on the machine and helps to deliver impressive cut quality. Also, the inclusion of polyurethane tires is a nice bonus, as these allow the blade to run cooler, are easier to replace and last longer than traditional rubber tires.

Task Light

The optional integrated light is thoughtfully designed. It is positioned exactly where you want it; on the right side of



the fence where the user spends the most time, and out of the way so that it won’t interfere with cutting operations. We also like the rugged design which is appropriate for shop use, and the saw’s built-in convenience outlet for the light which means that a single power cord extends from the saw to the wall for less tangle and clutter. Finally, the use of halogen lighting technology with a built in transformer delivers high quality, durable lighting.

Mobile base



In small shop environments tool mobility is critical, as woodworkers are constantly reconfiguring the shop for various tasks during the course of a project. The optional mobile base on the 14112 is perfectly matched to the machine for hassle-free setup, and the single foot lever operation for raising and lowering the saw makes short work of frequent saw moves. It also provides ample clearance so that it can easily roll over common dust and debris found on a workshop floor without interruption. When the saw is lowered, it is supported by stationary feet which hold it in a stable position for secure cutting operations. While a three wheel base feels slightly less stable than a four wheel design, overall we like the maneuverability of this base. It can practically rotate in its own footprint, for easy jockeying in a small shop, or storing in a tight corner.

Performance Tests

We structured a set of tests to reflect the demands that might be placed on the 14112 in a typical shop environment. We worked with a variety of domestic hardwoods, including white oak, maple, walnut and cherry, and performed a set of tasks including resawing, low profile ripping, gentle curved cuts and tight scroll cuts.

Resaw

The resaw capabilities of the 14112 exceeded our expectations. Within minutes of setting up the saw and installing a 3/4" carbide-tipped Resaw King blade we were executing flawless resaw cuts on a variety of domestic hardwoods, on sizes all the way up to the full 13" capacity of the saw where we sliced up a plank of rock maple while the saw showed no sign of stress. Throughout our tests we were able to obtain high quality, repeatable results without fuss, with power that we found to be simply astounding for a 110 volt saw.



Following is a representative data sample from our resaw performance tests:

ATTRIBUTE	VALUE	COMMENTS
Blade used	3/4" Laguna Resaw King	We performed tests using the carbide tipped Resaw King blade as well as a traditional steel 1/2" resaw blade and the results were similar. We believe that the primary benefit of a carbide tipped blade is longevity of the cutting edge.
Species	Black Walnut	
Size	2" thick x 11.5" wide x 24" long	At 11.5" this board was just under the recommended maximum resaw size of 12".
Feed rate	It took 34 seconds to resaw a 24" long piece of 11" wide walnut (.71 inches per second).	The saw allowed us to feed it stock faster than we expected in a 110 volt saw, without noticeably impacting cut quality.
Variance of thickness across board's width (TOP TO BOTTOM OF RESAW CUT)	.004"	For all practical purposes these were perfect. After a single pass through a planer the board was ready for use in a project.
Variance of thickness across board's length (TOP TO TOP OF RESAW CUT)	.002"	
Power draw during cut	15.8 amps	No problems operating on a 20amp circuit

Rip cuts



While most woodworkers prefer to use a table saw for the majority of ripping operations, there are scenarios where a bandsaw is utilized for this purpose as well, such as:

- Establishing a straight edge on warped stock
- Convenience rip when the table saw is set up for another function such as dado
- Ripping thin strips which can be more dangerous on a table saw due to kickback
- Making cheek cuts on tenons
- Ripping expensive stock, as the kerf on a bandsaw blade is significantly smaller than that on a table saw blade

We performed a series of tests in which we ripped boards both freehand following a scribed line, as well as using the rip fence. We found it simple to achieve satisfactory results when freehand ripping (cutting to a line), with the objective of establishing an edge that was straight enough to place against the fence on a table saw for a safe, accurate rip.

When ripping stock using the fence, we wanted to assess the usefulness of the 1412 for performing low profile rip cuts on its own (without the assumption that a table saw will complete the clean-up cut). Overall the 1412 performed well in this area, and we believe that the saw will serve this function well for situations where the woodworker's table saw is configured for other applications such as milling dados. To be clear, we do not suggest that the 1412 should replace the table saw in a wood shop, but it can serve the purpose of rip cutting within its capacity as a convenience when needed.

Angled rip cuts



We set the table at 22.5 and 45 degree angles and ripped a number of boards with this setup, measuring the angle of the fence to the blade, and comparing to the angle of the cut on the work piece. We consistently found the cuts to be within +/- .3 degrees of the table's angle (respectable for a bandsaw), with only minor variation along the length of the board. These tests indicate both a solid trunnion system that hold the table solidly in position as well as a good quality fence to support the work piece as it progresses through the cut. While a well tuned table saw would typically be better equipped to perform this task, we were impressed with the accuracy of the 1412 for this application. Also, the ability to configure the fence on the right side of the blade made this process much simpler and more effective.

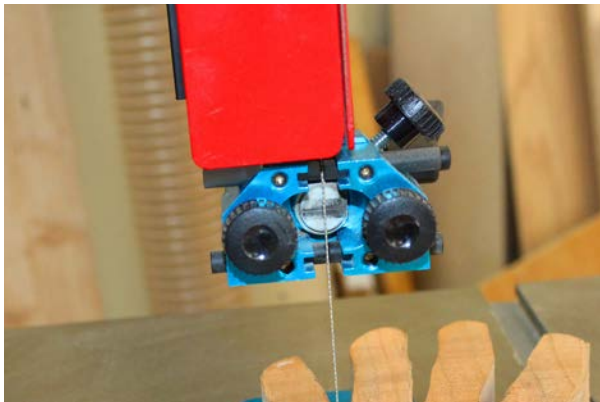
Curved cuts



Band saws are commonly called upon to make gentle curved cuts in a work piece. While the radius of curve that can be cut is predominately determined by the width of blade, the cut quality is also influenced by the quality of guides, rigidity of the frame, and the structural integrity of the blade guard.

We put the *1412* through a series of tests to determine how well it would perform in making the typical curved cuts that woodworkers would expect from a band saw. We looked particularly closely at the saw's ability to hold the blade firmly in place without flexing as torque was applied when the work piece changed directions. The results here were impressive, as the *1412* delivered glue-line quality cuts in most curved cut tests. This means that the blade flex did not cause excessive variance in the cut from top to bottom, and therefore the cut could be directly incorporated into a glue joint in most cases using only slight clamping pressure without further modification to the cut surfaces. (This test was performed by stacking two pieces together and cutting them simultaneously, then alternating and matching up the mating pieces.)

Scroll cuts



Many users appreciate the flexibility that a bandsaw has to be used for intricate scroll cutting operations. It is common, however, for bandsaws to be challenged on scroll cutting operations when using blades smaller than $\frac{1}{4}$ ". The narrower blades are difficult to align properly to the side guides, and these smaller blades flex too much for the rear guides to provide adequate support. To address this challenge, *Laguna* offers an optional set of purpose-built *Mini Guides* that enable users to effectively utilize $\frac{1}{8}$ " blades on the *1412*. Like the standard *Laguna Guides*, the *Mini Guides* maintain ten points of contact to support the blade solidly through cutting pressure. Where the *Mini Guides* differ is in the material used to support the blade, which is a phenolic resin rather than the ceramic used in the standard *Laguna Guides*. With smaller blades it is nearly impossible to avoid having the teeth come in contact with the guides because the gullet is small and the blades flex quite a bit during cutting. If a blade were to come into contact with a ceramic guide the blade would be destroyed quickly as the hard ceramic

would flatten the tooth set and dull the teeth. Therefore, the phenolic resin on the *Mini Guides* makes sense as it is softer than the blade and won't alter the tooth set or sharpness from contact.

We gave the *Mini Guides* a test drive and found them to be a convenient way to extend the capabilities of the *1412* for cutting along modest curved lines. The *Mini Guides* utilize the same innovative design of the standard *Laguna Guides*, allowing easy setup and adjustments. We cut several intricate patterns during our tests and the blade maintained its sharpness throughout these operations. The guides also provide a generous allotment of extra material so they will last a long time as they are periodically pushed inward to compensate for wear.

Summary

We believe that *Laguna* has raised the bar in the premium 14" 110 volt bandsaw category with the introduction of the *14112*. In particular we believe that it stands out in the following areas:

- Quality components throughout, including the table, wheels, adjustment mechanisms, fence, frame and stand
- Substantial power for resawing wide boards with the convenience of a 110 volt power requirement
- Innovative guide system provides great blade support, easy adjustments and enables quick blade changes
- Trunnion design and tilting mechanism holds table solidly and dampens vibration
- Ability to hold the blade solidly through curved cutting operations
- Impressive blade guard mechanism offers smooth adjustments and remains rigid throughout full range of motion
- With adequate airflow provided, the dust collection design helps to keep upper and lower wheel housing clear of dust buildup.
- Fence versatility; smooth lateral adjustments and easy switching between low profile for ripping and tall orientation for resawing
- High quality integrated task lighting improves visibility during critical cutting operations
- Integrated mobile base allows users to easily relocate the machine when not in use

To *Laguna* we offer the following recommendations to improve the overall user experience with the *14112*:

- Add a fine adjustment mechanism in the fence which could be used for dialing in precise thicknesses when slicing veneer
- Include a miter gauge in the package as this is a commonly used item
- Utilize the internal capacity of the base for storage of blades and accessories, as this empty space can be utilized to help de-clutter a shop
- Given the power and balance of this saw, the blade remains spinning quietly for a long period of time after power is turned off. Given that, we feel that this saw would be a good candidate for a brake that could quickly stop the blade and avoid a dangerous free-spinning condition.
- While the height of the table seemed ideal for resawing, we would prefer a taller work surface for detail work. We suggest providing a simple accessory that sits on top of the table surface and acts as a "riser table" for detailed cutting operations.

Overall we believe that...

The power, versatility and meticulous attention to detail on the *14112* make it a compelling bandsaw option for the serious hobbyist and small shop professional woodworker. The "sweet spot" for this saw is in the shop where a single bandsaw is desired that can perform a range of tasks, including resawing, ripping and curved cutting with a high degree of precision and consistency, while budget or power constraints prevent the consideration of 220 volt saws. The *14112* performed extremely well throughout our extensive tests in which we subjected it to a range of tasks that we believe it could be expected to perform, and the high quality construction throughout suggest that the *14112* will earn its keep in a demanding workshop environment for many years.





PEAK PERFORMANCE MATTERS

About ToolMetrix

ToolMetrix Group, LLC provides engineering services for manufacturers of woodworking and DIY tools to assist in product development, market research, and quality assurance.

For more information about ToolMetrix please visit our website:

www.toolmetrix.com

or email us: info@toolmetrix.com