

# Steel

---

## V-CLASS BRACING

**How Andy Powers  
reframed the future  
of acoustic tone**

---

## BUILDER'S EDITION

**A V-Class concept guitar  
reveals a new feel and sound**

---

## THE 2018 TAYLOR LINE

---



# Letters

Drop us a line.

Email us: [pr@taylorguitars.com](mailto:pr@taylorguitars.com)



lost in the waves of sound it produces, and it's still new! I just wish I had a bigger-bodied one to go with it. Over the years, I've become a real tone/construction snob, and I'm really proud to own this wonderful piece of playable art. I hope my daughter will eventually value it as much as I do.

**Patrick Buchanan**

## Tuneful Treasure

A few weeks ago I wrote to express my amazement at your fantastic K22e and promised that someday I would own one. That fabulous day is here, much sooner than I anticipated! (My wife, God bless her, finally relented once she had a chance to view it!) This is more than a guitar; it's a work of art, a collector's item, worthy of a home in a museum. I probably have more guitars than anyone should ever have: multiple Martins, Larivees, Huss & Daltons – you name it, I've probably got it. You might say that, like Sammy Ash, I have my GoD (Guitars of Distinction) room. Whichever of your luthiers came up with this concept is a da Vinci of guitars. Sometimes I would almost rather look at it than play it. It is by far the greatest treasure in my collection; it's beautiful and a dream to play. It's not a banjo killer; that's for Dreadnought-size guitars. Rather, it has the sweetest song I've ever heard. It rings like a chime, and the harmonics are gorgeous. And the neck and fretboard are literally like "silk and steel." It plays almost without effort. I will treasure this guitar always. I now know why my old, old friend, Dan Crary, was so taken with Taylor guitars.

**Dave Siler  
Fredericksburg, VA**

## Another 12-String, 12-Fret Fan

I bought my first 12-string, a Martin D12-20, in 1969. It was a special instrument, and my friends that played it still remember it. In the mid-'80s I sold it. I attempted to replace it in 1994 with [another guitar], but it was difficult to play and sounded just OK. I seldom picked it up. Last month, I got rid of it and got a Taylor 562ce via Acoustic Vibe Music in Tempe, Arizona. Oh my! It is very special. It plays like a dream

and sounds great. I became a fan of 12-fret guitars when I got my Santa Cruz 00-SKYE, a 12-fret, two years ago. I love the sound and the playability the 12-fret provides, and the smaller body is wonderful. With the 562ce, you have nailed it!

**Dan Griffith**

## The Perfect Bass

I purchased a GS Mini-e Bass a week ago and I love it. Finally, after 30 years of looking, I've found the perfect bass. The tone is perfect for the music I play, and I have smallish hands and fingers, so a full-scale bass has always been slightly difficult for me. I got this bass into the rehearsal room and suddenly I could play so much better just because it's the right size for me. Now I'm selling most of my other basses, and I'll be buying a couple more of this model for backups. Thank you so much for building such a great guitar.

**Woody**

## Thoughtful Support

This week I bought my second Taylor guitar, a 522. This is a wonderful guitar – unbelievably beautiful and it sounds twice as good as it looks. I also own two Martins and a Gibson acoustic, which are all great guitars, but I wanted you to know that I didn't choose to add another Taylor to the fold just because it sounded so great, but also because I admire what you are doing for our environment. I enjoy reading about your commitment in each issue of *Wood&Steel*. I think it's important that each of us understands who we are supporting, and why.

**Rick Hansen  
Griffith, IN**

## Taylor Convert

I came to be the custodian of my first Taylor after the wonderful folks at the Acoustic Guitar Forum tired me out recommending the GS Mini. I said, "Taylor makes some great guitars. They just aren't for me." I finally went into a local business to play one. Not seeing one on the wall, I was sure I had "dodged a bullet" and wouldn't be

playing a Mini that day. I asked the guy behind the counter if they had one, and he said, "I'm unboxing one right now!" So much for dodging that bullet!

I played that little guitar for the better part of an hour and started considering schemes to add one to my collection. I didn't buy the Mini that day. But I did think about it constantly. I eventually bought one from a gent who wanted to move up to a 114. I "played the brakes off it" for a couple of years, and I got the same jones as the original owner. That Mini got me to buy a 150e as my first 12-string. Then I gave it up to get a 110e. They have been my go-to guitars for praise and worship, living room concerts, and singing to nature on my back porch. I then made the tactical error of playing a 562ce. I think these two (and maybe some others) may be leaving the fold to make room for a 12-fret, 12-string. The Tecate Taylors are great "bait" for guys like me. I originally was not really a "Taylor guy"... right up to the moment I bought one... then another, and another. My hands love them. My ears love them. Keep up the good work.

**Gilbert Stevenson**

## Feeling It

I just purchased my first acoustic guitar, a GS Mini. Being a lefty, I usually have to settle for what's there at the time. My local Sam Ash had three left-handed guitars. The GS Mini was the last one I picked up. There was something special about how it sounded and felt. The only comparison is when I purchased my first persimmon wood driver from Louisville Golf in 2010. The GS Mini is way easier to use and just as rewarding. There is something about the wood like in the driver. When properly hit, you can feel the ball compress against the face and spring off, and when plucking a string on the GS Mini, the response is just as cool. I spent 10 years in the U.S. Army as UH-60 crew chief and currently maintain servers at a financial company. It isn't every day that a product or technology exceeds my expectations. I will remember the GS Mini for a long time. Thanks for putting together a great product.

**Neal Fortenberry**

## social circles

### Join the Taylor community

**Facebook:** @taylorguitars

**Instagram:** @taylorguitars

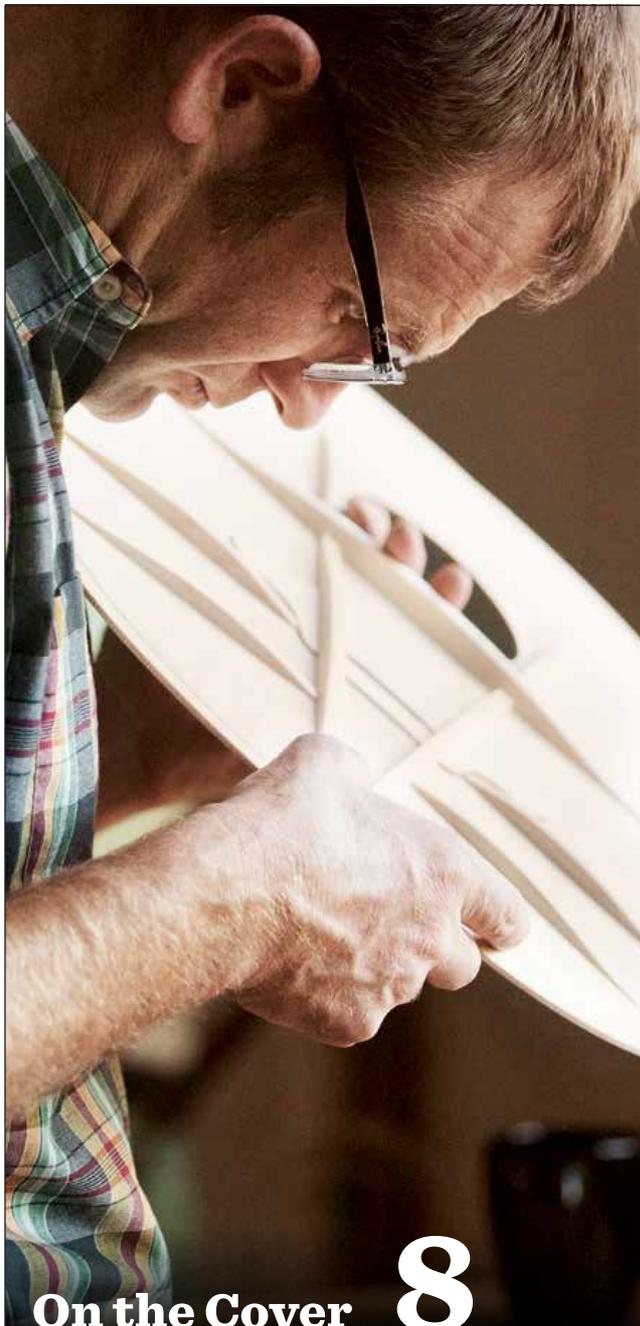
**Twitter:** @taylorguitars

**Youtube:** taylorguitars

**Google+:** taylorguitars

**Music Aficionado:** taylorguitars





On the Cover

8

## Taylor V-Class Bracing

Andy Powers continues Taylor's quest to give players a more rewarding guitar experience with a stunning evolution beyond traditional X-bracing. We reveal the creative process that fueled Andy's new acoustic "engine," and explain why V-Class bracing marks a watershed moment in steel-string acoustic guitar design.

COVER PHOTO (CHRIS SORENSON): ANDY POWERS WITH A GUITAR SOUNDBOARD FEATURING V-CLASS BRACING

## Features

### 16 Builder's Edition

To celebrate the launch of V-Class bracing, Andy designed a next-level concept guitar that boasts an array of new player-friendly features, including our most comfortable cutaway ever.



### 20 A Guide to the 2018 Taylor Guitar Line

#### Taylor Body Shapes

An overview of our five body styles, plus a guide to neck specs like nut width and scale length.

#### Taylor Tonewoods

Learn more about the unique sonic flavor profiles of the woods that comprise our line.

#### The Taylor Line at a Glance

A simple breakdown of our series framework, including the woods used for each series, plus a guide to our model numbers.

#### The Taylor Line By Series

A closer look at the wood pairings and aesthetic details that give the models in each series a unique personality.

**"All of a sudden I found myself falling in love with acoustic tone all over again." –Bob Taylor 8**

## Columns

### 4 Kurt's Corner

Kurt reflects on the significance of Andy's new bracing design and why it fits perfectly into Taylor's heritage of innovation.

### 5 BobSpeak

What do Andy's latest guitar designs have in common with our ebony forestry work in Cameroon? A problem-solving creative spirit.

### 45 The Craft

Andy offers a note of gratitude for the wellspring of collective knowledge that informed his development of V-Class bracing.

## Departments

### 6 Ask Bob

The tonal nuances of layered woods, compensated nuts, unpolishing a neck, and fret size.

### 18 Sustainability

Director of Natural Resource Sustainability Scott Paul reports on our efforts to amend CITES rosewood regulations and a new public-private partnership agreement with the government of Cameroon to support the replanting of ebony.

### 46 TaylorWare

Taylor apparel, guitar accessories and more.



## Kurt's Corner

### A Big Step Forward

Our future, and I believe the future of acoustic guitars, has been imagined and created by Andy Powers. We've named his latest design breakthrough "V-Class bracing."

Bob and I have been on a path of continual improvement and innovation since we met and started working together in 1973. We've always focused on making progress, taking the next step, even though our early steps were small but necessary ones: a better template for laying out a guitar on a piece of wood, or a better clamp for gluing two pieces of wood together. A new saw blade or a different router bit that would do the job better.

Over many decades, this path has resulted in a complete reimagining of how to make a guitar, and the invention of new technology that has enabled us to make higher-quality guitars more efficiently. The instruments we've made obviously followed the designs of instrument builders of the past two hundred years, though our instruments are of much more modern construction techniques. However, one design element of our and other steel-string guitars has remained constant until now: the X-brace. That is about to change as we begin implementing Andy's breakthrough V-Class bracing design, which replaces the X-brace and makes a vastly improved instrument.

In our industry, a huge number of guitars are made, by large and small

operations alike. Individual luthiers craft high-end boutique guitars that present fine examples of design and workmanship. Excellent instruments are made by large producers such as Taylor and Martin. There are also factories around the world that pump out high volumes of mediocre guitars – made with the intent to produce something they can sell and thereby earn a living. Yet only a small percentage of the guitars made would be considered inspirational instruments by a top artist or guitar opinion leader. Andy's new V-Class guitars certainly qualify.

We are an innovation-driven guitar company. We've responded to trends, we've experimented and invented new designs, and in the process we've created a market for our guitars that has enabled us to grow into a major presence in the guitar industry. And in the several years since Andy joined the team, we've continued to push the envelope, exploring the limits of tone that the venerable X-brace design will allow. Now we're starting over, with a better, entirely new design. A complete reset, if you will. A brand-new guitar engine to work with.

## Taylor is not a legacy guitar company. We are an innovation-driven guitar company.

Taylor is not a legacy guitar company. We didn't inherit iconic guitar designs that helped define popular music as we know it. In many ways that would have made for an easier journey, as legacy instruments enjoy strong established demand. On the other hand, when you're a legacy brand it can be harder to innovate and introduce new designs that are accepted and become popular. People tend to want what you've become famous for, just like concert goers want to hear the classic hits that made an artist famous.

I think you'll discover that V-Class bracing is more than a minor improvement. It's possibly the biggest advancement in acoustic guitar design since the mid 1800s, when the X-brace design was invented. That's a bold statement, but one that I believe is true.

I hope you enjoy reading about Andy's remarkable new discovery and invention in this and future issues of *Wood&Steel*. We can't wait for you to play a V-Class guitar!

– Kurt Listug, CEO

Wood&Steel Volume 90  
Winter 2018

QUALITY  
Taylor  
GUITARS

Produced by the Taylor Guitars Marketing Department

**Publisher** Taylor-Listug, Inc.

**Vice President** Tim O'Brien

**Editorial Director** Jim Kirlin

**Art Director** Cory Sheehan

**Photo Manager / Designer** Rita Funk-Hoffman

**Photographer** Tim Whitehouse

#### Contributors

Jonah Bayer / Colin Griffith / Kurt Listug / Shawn Persinger  
Andy Powers / Chris Sorenson / Bob Taylor / Glen Wolff

#### Technical Advisors

Ed Granero / Gerry Kowalski / Crystal Lawrence / Andy Lund  
Rob Magargal / Monte Montefusco / Andy Powers / Bob Taylor  
Chris Wellons / Glen Wolff

#### Printing / Distribution

Courier Graphics / CEREUS (Phoenix, AZ)

#### Translation

Lingua Translations (Swansea, Wales, UK)

**Wood&Steel** is distributed to registered Taylor guitar owners and Authorized Taylor Dealers as a complimentary service.

### Manage Your Subscription

#### Subscribe

To receive a subscription, please register your Taylor guitar at [taylorguitars.com/registration](http://taylorguitars.com/registration).

#### Unsubscribe

To unsubscribe from *Wood&Steel*, please email [support@taylorguitars.com](mailto:support@taylorguitars.com). Please include your name and mailing address as they appear on this issue, plus the subscription number located directly above your name.

#### Change of address

To change your mailing address, please visit [taylorguitars.com/contact](http://taylorguitars.com/contact)

#### Online

Read this and other back issues of *Wood&Steel* at [taylorguitars.com/wood-and-steel](http://taylorguitars.com/wood-and-steel)

©2018 Taylor-Listug, Inc. All Rights reserved. TAYLOR, TAYLOR (Stylized); TAYLOR GUITARS, TAYLOR QUALITY GUITARS and Design; BABY TAYLOR; BIG BABY; Peghead Design; Bridge Design; Pickguard Design; ACADEMY SERIES; 100 SERIES; 200 SERIES; 300 SERIES; 400 SERIES; 500 SERIES; 600 SERIES; 700 SERIES; 800 SERIES; 900 SERIES; PRESENTATION SERIES; GALLERY; QUALITY TAYLOR GUITARS, GUITARS AND CASES and Design; WOOD&STEEL; ROBERT TAYLOR (Stylized); TAYLOR EXPRESSION SYSTEM; EXPRESSION SYSTEM; TAYLORWARE; TAYLOR GUITARS K4; K4, TAYLOR K4; TAYLOR ES; DYNAMIC BODY SENSOR; T5; T5 (Stylized); BALANCED BREAKOUT; R TAYLOR; R TAYLOR (Stylized); AMERICAN DREAM; TAYLOR SOLIDBODY; T3; GRAND SYMPHONY; WAVE COMPENSATED; GS; GS MINI; ES-GO; V-CABLE; FIND YOUR FIT; and GA are registered trademarks of Taylor-Listug, Inc. V-CLASS; NYLON SERIES; KOA SERIES; GRAND AUDITORIUM; GRAND CONCERT; TAYLOR SWIFT BABY TAYLOR; LEO KOTTKE SIGNATURE MODEL; DYNAMIC STRING SENSOR; GRAND ORCHESTRA; GO; TAYLOR ROAD SHOW; JASON MRAZ SIGNATURE MODEL; NOUVEAU; ISLAND VINE; CINDY; HERITAGE DIAMONDS; TWISTED OVALS; DECO DIAMONDS; and SPIRES are trademarks of Taylor-Listug, Inc.

ELIXIR and NANOWEB are registered trademarks of W.L. Gore & Associates, Inc. D'ADDARIO PRO-ARTE is a registered trademark of J. D'Addario & Co., Inc. NUBONE is a registered trademark of David Dunwoodie.

Prices, specifications and availability are subject to change without notice.



## BobSpeak

### Creative Spirit

I know how my guitars sound, having heard them thousands of times over a span of more than four decades. I've heard the evolution of their voice with the changes I've made along the way, and those that Andy Powers made after arriving here to join me. When I sit down with a Taylor guitar, all my nerve endings are expecting to receive those familiar inputs. So when Jay Parkin, who produces and manages our social media content, walked by with a new V-Class 914ce fresh off the fledgling production benches to use in a video, I asked him to detour into my office so I could play a real production model version for the first time.

My office is 12 feet square, without windows, and for the past year or two it's been stacked high with my ideas of what to make from our Crelicam ebony that doesn't make the final grade for a guitar or violin but still has tremendous worth, beauty and potential to be used elsewhere. Since my office is right off the front door, often I can be the receptionist for the guests coming into our design building, where I work with Andy, Ed and Wayne, and our crack team of tinkerers, machinists and engineers, who by my thinking make the best team in the guitar industry!

So Jay hands me the 914ce, and I strum the chords. What arrives at my ears is a new and undeniably better sound. To me and so many others who've played one, it's a whole new

ballgame. There's something missing in the sound, and what's missing are the mistakes, which leaves room for the good notes to swell into a chorus and develop over those seconds that they last. They start, swell, seem to get organized and sing, hold long enough for me to notice, and then slowly fade. These notes live longer. They harmonize with each other in a way that I've not experienced with an acoustic guitar before. I feel no urge to reach for the tuners to make small adjustments. Notes on the fretboard that normally don't measure up to the stronger notes play with the same gusto and beauty as their big brothers. This is not *my* 914ce; this is better, and inside I smile because I knew Andy had it in him to design something new and good, but to what extent I wasn't sure. It made me feel relaxed and eager for the future, almost like, "my work here is done." What a feeling!

But then I looked at my ebony pieces, and the examples we've made of cool things we can make from them: the beautiful cutting boards, pepper mills, knife handles, chisel handles, guitar slides (yes, they sound fantastic!) gorgeous wall tiles, all so lovely and unique. I think of our team members in Cameroon who have so much less than us, but how much progress we've made in their lives, and how I want them to learn to make products with their ebony, something more than a

wood blank. I think about how I've stated in the past that the first step to sustainability is true legality, which we've achieved. Next came fair wages and safe conditions, with reliable machines, water, showers, healthy food, and even hope for the future. And now we're deep into the next step, which is twofold, one being replanting, and the other being much less waste. Then I remember that my work isn't done at all, but rather is just beginning.

I've always marveled at creativity and worked hard to be creative in my life. Often we think of the word in only an artistic sense, but here we want to be creative in how we solve problems as well. Production problems need new ideas. Social problems need them too. Without a creative spirit, we'd surely cut down the last tree because we wouldn't be able to think of a way to alter our use, management or value of the wood the trees provide. To me there's nothing more fantastic than someone saying, "Hey, I have an idea, why couldn't we...?" and then from their lips flows a new solution. It's even more exciting to me when it is a substantive change that requires out-of-the-box thinking in order to implement the idea.

I thought all this while playing that 914ce that day, surrounded by examples of our past, present and future in my office, but those new sounds that came from Andy's creative thinking

pulled me back to focusing on the guitar's voice. What a pleasure to hear this bona fide production model. I sang a song and noticed it was the easiest singing I'd ever done with a guitar because the notes were better and they prompted my voice to the correct pitch. I've talked to people since then, and they've told me that they had the same experience when they sang with the V-Class guitar. How can a guitar make me a better singer? I wonder if Andy had that in mind.

Yes, I'm proud of the work Andy did on the V-Class-braced guitars. It's a

whole new direction that took creativity, confidence and courage to develop. The importance goes beyond the player because it reaches deep into the tropical forest of Cameroon by allowing me to focus attention in these areas. Andy and I often look at each other and say, "Divide and conquer," which to us means, "Go ahead, I got this, I'll take care of it while you're solving the other thing." To know that you can rely on someone to make things better is a great feeling.

– Bob Taylor, President

### 2018 Taylor Factory Tours & Vacation Dates

A free, guided tour of the factory is given every Monday through Friday at 1 p.m. (excluding holidays). No advance reservations are necessary. Simply check-in at the reception desk in our Visitor Center, located in the lobby of our main building, before 1 p.m. We ask that large groups (more than 10) call us in advance at (619) 258-1207.

While not physically demanding, the tour does include a fair amount of walking. Due to the technical nature, the tour may not be suitable for small children. The tour lasts approximately one hour and 15 minutes and departs from the main building at 1980 Gillespie Way in El Cajon, California.

Please take note of the weekday exceptions below. For more information, including directions to the factory, please visit [taylorguitars.com/contact](http://taylorguitars.com/contact).

We look forward to seeing you!



### Factory Closures

**Monday, February 19**  
(Presidents' Day)

**Monday, May 28**  
(Memorial Day)

**Monday, July 2- Friday, July 6**  
(Independence Day/Company Vacation)

# Ask Bob

Tonal nuances of layered woods, compensated nuts, and unpolishing a neck

Bob, you've said several times that when layered (laminated) woods are used for backs and sides, the differences are only cosmetic, and that basically, the tonewood veneer doesn't affect the sound. I did an experiment recently, playing two different 214ce DLXs in my local guitar shop: layered koa and layered quilted maple 214ce-QM DLX. They really didn't sound at all the same. The maple was so strikingly distinctive that I think *anyone* could have heard the difference – it had that characteristic maple-ish lightness, sweetness and clarity. It was nothing like the rich bass monster sound of the koa, and nothing like any of my other guitars (one is a layered rosewood 210e DLX). After playing it for several hours, I bought it.

I've since had the pleasure of playing another example of the 214ce-QM DLX, and it too had very similar acoustic characteristics to mine, so I know it wasn't just a one-off (caused by a random variation in the top, for instance). It's so easy to identify the characteristically different tone of it that I honestly don't believe I'm being psychologically affected by its distinctive appearance. Everyone notices how different it sounds.

Is this something to do with the fact that the guitars in the DLX series have the same tonewood layer outside *and* inside? I assume the layers in the maple 214ce-QM DLX are maple-poplar-maple, but is that right? Could you tell me how *thick* the three layers are, please? Is there something about the way you're using the layers in the 214ce-QM DLX that would allow the outer and inner layers to "speak" more clearly that one might expect, and thus explain this distinctively different maple-ish sound? It's a strikingly beautiful guitar, by the way!

Alan Davis

Alan, this is an interesting letter and the first one I've received with comments like this. That's amazing when one considers that we've made about a million guitars from layered wood. However, I'm not going to argue with you. In fact, I'll admit you might be more right than me.



I'd rather err on the side of under-promising when it comes to guitar sound, finding it much more palatable to have someone tell me that I'm wrong and they hear a big difference than perhaps many more tell me that they don't hear the difference. That disclaimer aside, we can always depend upon the truth that any change between guitars is perceivable to the ear, or at least to some ears, and that the wood difference in a three-ply layer can be heard. And as you say, as both inside and outside use the same woods in some models, that there is more influence of that wood. But it's also true that making plies of wood evens out a lot of differences in wood, especially when the inner layer is always the same, the glue is always the same, and the visible layers are .5mm or .7mm in thickness. The important part for me

is that you find pleasure in hearing the differences, and that makes me happy. I'll try to do a listening test here at Taylor to mirror yours. Thank you for writing in with your experiences!

**My wife and I own about 30 guitars (mostly electric) including two Taylors that we love. We live in the tri-state region of West Virginia, Kentucky, and Ohio. I have noticed that every fall and every spring all the guitars are out of tune. In the fall they are sharp about a quarter to a half step, and in the spring they are flat about the same. Do you know what is causing the change?**

Charles Vance  
Barboursville, WV

## How can I clean fretboard inlays on the Presentation Series models?

Gerald Althage

Gerald, I like to just rub briskly with a cloth and follow up with a little fretboard oil or bore oil, rubbed on and off with the same cloth.

**Ed. Note:** Our Customer Service Manager, Glen Wolff, says another option that we recommend with other models is to clean them using super-fine 0000 steel wool. If you're concerned about scratching the intricate inlays, don't worry, it won't hurt them.

Charles, I'm afraid I can't really answer your question definitively, especially when you say all the guitars are sharp and then all are flat. I don't know enough about your weather patterns or your heating and air conditioning habits, and whether your guitars are all in cases or out on display. All these factors would make a difference. For your guitar to go a half-step sharp it would have had to grow and stretch the strings, which I don't think is happening.

**I want to build a humidified display/storage case for my acoustic guitars: 614ce, 456ce SLTD, T5 Custom, GS Mini, and Wechter Nashville. The winners are dry in Rochester, New York,**

**and I don't want to fuss every time I want to grab a guitar and strum. Currently they are stored in their cases with humidity devices. What materials will not harm the finishes when resting for long periods (e.g., cork, felt), and should the guitar hang from the neck or rest on the body and side of neck (Ultracase GSX rack)? Any advice on wood finishes that will not outgas and corrode the hardware? I plan on using maple with glass door and side panels, and possibly a cedar back.**

Colin McGovern  
Rochester, NY

Colin, a nice humidified case will be great. I'm also pleased that as the years pass I see more and more people like you who are seriously taking the plunge

to protect their guitars from super-dry conditions. Until we can figure out how to stop wood from gaining or releasing moisture, this is what must be done. I'd hang the guitars. String Swing brand hangers don't harm the finish. Felt also will not, if you wanted to make your own. Pre-catalyzed lacquers will not outgas, and I really doubt that even polyurethane from Home Depot would either. Just let either of them dry for a week or two. I recommend using two digital humidity gauges inside – that way you can always use one to check the other.

---

**I've been using my Taylor acoustic for over a year now on the international tour of the musical *Cats*. We DI it straight into the desk, and I couldn't be happier with the tone, so thanks!**

**Two questions for you if I may: First, what are your thoughts about compensated nuts? I have them on my Music Man electrics, and the intonation is so well balanced along all the neck. Am I right in saying Taylor acoustics have their nut moved very slightly towards the first fret to compensate in a different way? I seem to remember reading this years ago.**

**Secondly, a classical guitarist friend said that he'd never buy an acoustic with a cutaway as it messes with the resonances and harmonic content. Is this a myth or is there something in it? Many thanks for any thoughts you can share.**

**Mike Collen  
Southampton, UK**

Thanks for the comments, Mike. It's always nice to hear from a working pro. There are so many ideas on how to compensate a guitar nut and saddle. Many people have been working on this for years. You have a good memory – we do indeed move our nut forward a bit, and always have. It happens as a result of the fret saw width, and the fact that it cuts down the middle of the line, so naturally the nut moves forward when we install it, and that works nicely. This issue of *Wood&Steel* introduces

some very interesting developments we've made regarding both tone and intonation, which I think you'll enjoy reading.

Regarding your classical guitarist friend, he has a point, especially with a classical guitar and his own feelings and experiences. A steel-string is different in many ways. Here's the thing: Every guitar sounds like it sounds, and if a cutaway guitar sounds good, then it's a moot point to discuss if the cutaway took away from the sound. It's really all about playing music, and if a cutaway opens part of the guitar for you, then it's probably worth the slight, sometimes unperceivable loss of sound. I always feel like this is why we offer choices and let the player decide.

---

**My first Taylor, a 2001 514ce, was quickly followed by an 814ce. As with a lot of Taylor players, as well as the incredible sound, it was the feel and comfort of the neck that attracted me to the guitar. In particular, I liked the dry/unpolished feel. Gripping chords, especially mid-neck, was easy. Unfortunately, over the years the necks on both guitars have become highly polished, and I have problems holding chords when my palms get damp. My UK guitar technician tried to get them back to their original state, but after a few weeks they were polished again. I don't think he wanted to cut back too much for fear of damaging the neck. Is there anything that can be done to return the neck to the original feel?**

**P.S. The quality of the sound improves year [after] year.**

**Jim Graham  
Cropston, UK**

Jim, a person's hand does act as a polishing device. For some people, the original surface will last forever, it seems, and for others a shorter time. My suggestion would be to sand the neck with a bit rougher paper. This will last longer than using either ultra-fine sandpaper or steel wool. Steel wool actually polishes rather than cuts. And super-fine sandpaper like 1,000-grit

leaves it so refined that it only takes a moment for your hand to take it to the next level of polish. So, I'd sand with 400- or 600-grit paper. That's rough enough to last and to feel drier because the "roughness" left by the rougher grit makes a surface that has high and low levels to the sanding scratches, and your hand will ride atop the higher parts, skipping over the lower ones. This reduces drag because you're touching less at one time. Mind you, 400 or 600 is hardly rough! It's still very fine and will feel good on your hand. Give this a go and see if it helps.

---

**I was watching one of the Taylor videos comparing two 414ce guitars, one with ovangkol back and sides, the other with rosewood. I noticed the ovangkol had quite a "glow" to it, with the gloss finish on the ovangkol showing the gold colouration of the wood. I have a 14-year-old 414ce, which has the matte back and sides, so it does not "glow" quite so much, but still is a pleasing warm gold, as well as being a great guitar, especially after your guys in Amsterdam did a superb job refretting and re-aligning the neck. When I compare the warm gold of my 414ce to my 456ce, which is only two years old, the back and sides are much darker, tending towards rosewood but without the warmth of rosewood or the gold of 414ce ovangkol, although it does have a very pleasing chatoyance, in Andy Powers' words. I know no two trees are alike, but does ovangkol vary this much or is there some other reason for the colour difference between these two guitars?**

**Frederick  
Weymouth, UK**

Frederick, ovangkol does indeed vary that much. In fact, some of it is almost yellow-green, and other samples are very dark. The light, nearly ugly kind is the most common, so when the logs are selected for guitars, only the golden brown to darker brown is favored and chosen. This is how it is with all trees. A very small percentage of them can become guitars.

**I own a 2002 514ce and a 2006 GS, which I think later became the GS7 model. I really enjoy your cedar tops, as you can tell. My question: How do fret size and fret radiuses figure into the equation when you are designing acoustic guitars? Coming from the electric guitar world, I find many of the frets on acoustic guitars to be too small for me. When a luthier suggested that I put Dunlop 6100 frets with a 12-inch radius in my Strat, my life changed. I could now get around easily on the guitar, bend strings, and the tone of the guitar seemed to just bloom and fatten up. I'll pick up an acoustic guitar and many times the frets are so small. That does not seem unique to Taylor; it seems that many acoustic guitar makers use small, vintage-style frets. The frets on my GS were (I had it refretted yesterday!) very small, and for years, playing the guitar was sometimes a struggle for me. Why did you use such small frets on that model and some of your other guitars?**

I had the GS refretted with medium jumbo wire, and the improvement is amazing. I spent nearly 10 hours playing the GS yesterday and another four hours today, and while it's the same guitar, it's an entirely new guitar as well. It's now a joy to play! I can play all over the neck now, the tone is fat, I can bend strings, and the guitar sustains incredibly. Prior to the refret, the GS was my "strummer." It really wasn't fun going above the third fret on that guitar. Now the guitar is like freshly paved highway – smooth riding wherever I am on the guitar. It's still a great strumming guitar, but now it does so much more. It's a bigger-bodied gui-

**tar now with a bigger voice to match.**

**It seems like much of the discussion regarding fret sizes is in the electric guitar world. Why is this not discussed and addressed more in the acoustic world?**

**Frank Adams  
Charlotte, NC**

Frank, I certainly understand your preference for a fatter fret. Many feel the same way; many don't. As a manufacturer, we try to walk the line of making the most amazing guitars we can, and at the same time please the middle of the bell curve, where most people are happy. The frets we use are part tradition, part efficiency, part sound and feel, and so on. Personally, as a customer I don't like the excuse I get from some people that "nobody else complains" when I'm in the middle of complaining! So please don't take this that way. We weigh a lot of options, and we know that if we make changes from some features that have a long run of success that we'll make one person happier and another less happy. Different-sized frets could easily be an option for ordering, but again, almost everyone buys a guitar hanging in the store. So from here, we feel OK that a few will re-fret their guitars. I'm also impressed that you would take the bull by the horns and re-fret it. You touch on something I've found to be interesting and true: that electric players are much more interested in pickups, frets and setups than acoustic players as a whole, and that as a whole they take more into their own hands to make their guitar, amp and tone be what they want, so bravo to you for doing that to your acoustic. I'm pleased that you find it to be a joy to play now.

## Got a question for Bob Taylor?

Shoot him an email: [askbob@taylorguitars.com](mailto:askbob@taylorguitars.com)

If you have a specific repair or service concern, please call our Customer Service department at (800) 943-6782, and we'll take care of you.

# V GOOD VIBRATIONS

**Taylor's revolutionary new V-Class bracing boldly broadens the expressive range of an acoustic guitar**

By Jim Kirlin

## **IT'S A WARM OCTOBER MORNING IN**

the idyllic coastal city of Carlsbad, California, and Bob Taylor and Andy Powers are perched on stools in front of a dozen or so guitar industry writers from the U.S. and Europe. The group is clustered in Andy's refurbished barn, situated next to his house. Being the consummate craftsman, Andy handled the renovation work, transforming the interior into two playrooms of sorts: a large space for his kids, as evidenced by a nearby table of Lego bricks and other toys, and a guitar design workshop filled with impeccably organized "toys" of his own. The vaulted ceilings and exposed wood beams are painted white, casting an airy modern-rustic charm, accented by farmhouse-style light fixtures. It's a setting where, lately, much of Andy's design inspiration has taken form.



*Photo: Chris Sorenson*

**W**e've invited our media friends here with the promise of unveiling a substantial new guitar development for 2018. In years past we've revealed our new guitar confections at a media event leading into the Winter NAMM Show in January. But this year we wanted to provide a richer, more fitting context – not just a more immersive Taylor experience, but a more immersive *Andy* experience. Bob has talked about the unique design sensibility that guitar makers in Southern California bring to their craft compared to luthiers in other regions of the world, including a naturally innovative spirit. It's important enough to Bob that one of his essential requirements for Taylor's next-generation guitar designer was that the person comes from the San Diego area.

"San Diego's culture has come into its own over the decades in terms of creativity, art and technology," Bob elaborates. "There is an immeasurable but authentic way that we think about new ideas. Taylor Guitars itself is a new idea in terms of the world's guitars. That has to be the starting point for anyone determining our future."

Though most of the writers in the room know their basic Taylor history, Bob frames the day's conversation by recounting a few formative lessons he learned as young guitar maker. Like how he came to approach guitar making from a problem-solving point of view. Having launched his career as a teenager with little knowledge of guitar-making history, for better or worse, Bob wasn't tethered to the traditions that preceded him. But he managed to turn this shortcoming into a strength – focusing on the fundamental work of improving an acoustic guitar's feel and sound, and forging his own path in the process. His plucky pursuit of solving guitar problems would lay the foundation of Taylor's innovation-minded culture.

From his early slim-profile necks to his groundbreaking Taylor neck joint design, Bob made the acoustic guitar more playable and serviceable. His Grand Auditorium body style gave session players and recording engineers a Dreadnought alternative with a balanced acoustic voice that fit cleanly into an audio mix. He later guided the company's foray into the world of acoustic pickup design to solve some of the lingering problems of amplifying

acoustic guitars for live performance. Underscoring it all was an affinity for modern tools and technology, which helped Bob transform a small shop into a sophisticated production environment capable of great precision and consistency.

Bob shares one early epiphany that became an underpinning of Taylor's innovative culture: Sometimes trying to make improvements within an existing framework is too limiting.

"Believe me, we've spent a lot of time tweaking a design within an inch of its life to make incremental improvements over the years," he says. "But sometimes, to really make an impactful change, you have to consider an entirely different approach."

It will turn out to be a key theme of the day.

Andy, from his vantage point, marvels at the way Bob has parlayed his solution-based approach into a world-class production facility. Since joining Taylor in 2011, Andy has fully leveraged that manufacturing capability to bring his own inspired problem-solving designs to the Taylor line in prolific succession. Already his own contributions have moved the needle at Taylor in big ways. He reimagined the possibilities of a big-bodied guitar with the Grand Orchestra. With Bob's blessing, he brought a raft of tone-enhancing refinements to our flagship rosewood 800 Series. He followed suit with our maple 600 Series, giving maple a broadly appealing sonic makeover. He proceeded to work his way through virtually every other series in our line, applying various voicing refinements to create more expressive instruments – and players. He made acoustic guitars more comfortable with new 12-fret Grand Concert designs, including small-body 12-strings. Last year's Academy Series distilled the acoustic guitar to its most essential elements to make a great playing experience more universally accessible to everyone from entry-level players to folks on a budget. He even pulled off the unlikely feat of making an acoustic bass fit into our compact GS Mini form with the help of new strings and a brilliant new bridge pin design.

With those solid credentials already on his Taylor resume, the anticipation for the next design frontier for Andy, and for Taylor, is palpable under the roof of his barn.

The payoff comes soon enough, as Andy holds up a guitar top to display an elegantly understated V-shaped bracing pattern.

**A**ndy prefaces his revelation with a comment plucked from a conversation years ago with Chris Thile, a mandolin ace, multi-instrumentalist, and singer-songwriter known for his virtuosic work with Nickel Creek and Punch Brothers, and who currently hosts the popular Americana-flavored radio variety program *A Prairie Home Companion*.

"We were talking about music late one night, and I remember him saying, 'If you aren't obsessing about something, you're probably not interested enough,'" Andy shares.

When it comes to guitars, Andy stands guilty as charged. His guitar education stands in stark contrast to Bob's as a young builder. For the majority of his life Andy has soaked up as much knowledge about guitars as possible, reading every book about stringed instrument making he could get his hands on (for more on that, see his column this issue). He's a walking repository of stringed instrument history, and in a conversation about instruments he's likely to reference anyone from Galileo's father to scientist Hermann von Helmholtz to Leo Fender. He also studied guitar performance in college and became a skilled multi-instrumentalist who could make a living doing session work or performing.

"One of the things I loved about Andy as a player when he came to Taylor was that I felt like he was able to outplay our guitars," Bob says. "And as a builder, he was skilled enough to know what to do to improve them, which he's repeatedly done since he's arrived."

### The Importance of Bracing

One area of ongoing design focus for Andy at Taylor has been a guitar's



Andy in his shop (Photo: Chris Sorenson)

internal bracing. Those carefully shaped and arranged little sticks of spruce, which are glued to the underside of a guitar's top and back (and sometimes sides) are the secret sauce of a guitar maker, contributing nuances that help create a guitar's sonic flavor profile. The soundboard bracing in particular is intriguing because it needs to accomplish goals that seem at odds with each other: providing enough structural support to withstand the string tension, while also orchestrating the movement of the soundboard in ways that translate the string energy into musical sounds.

One of the compromising structural factors with the soundboard is the soundhole, which creates a weak spot that allows the string tension to cause distorted movements in the top. Bracing helps counteract that physical disruption and distribute the string energy in controlled ways that are converted into acoustic sound.

*continued*



What we perceive as sound comes from changes in air pressure. With an acoustic guitar, sound comes from air that's displaced as a result of vibrating guitar strings. But because the total surface area of the guitar strings is minimal, the strings themselves can't displace enough air to produce much sound. That's where the soundboard comes into play. The string energy is transferred to the top through the bridge, setting the larger surface in motion. The top's resulting vibrations displace a lot more air to generate acoustic sound.

## An Appreciation for X-Bracing

The prevailing type of soundboard bracing used for steel-string acoustic guitars is X-bracing, in which two main support braces are arranged in an intersecting pattern that resembles the letter X. It was introduced by the Martin Guitar company in the mid-1800s for the company's gut-string guitars. The bracing pattern was later adapted for Martin's steel-string acoustic guitars in the early 1900s, answering the call for louder guitars that could hold their own with popular instruments like banjos. X-bracing went on to become widely embraced as a standard bracing feature across much of the steel-string acoustic guitar industry. One reason for its widespread adoption was that as a framework for creating acoustic sound, it managed to strike an effective balance between two important yet opposing properties: flexibility (the ability for the top to vibrate), which generates volume; and stiffness (resistance to vibrating), which produces sustain.

Over the years many guitar makers, including Taylor, have taken the basic X-bracing framework and further refined its elements to help articulate their own voicing flavors. The limitation of X-bracing is that it has to negotiate the relationship between the top's stiffness and flexibility, which creates an inherent trade-off between volume and sustain, where increasing one attribute comes at the expense of the other.

That said, there's a reason why the classic X-brace motif has endured in steel-string guitars, Andy says.

"It's a great example of compromise. That's why it's worked so well. It's an obvious approach."

That volume-sustain dynamic is also supported by the types of woods selected for the top compared to the back and sides. Spruce, for example, is often used for soundboards because of its high stiffness-to-weight ratio. In other words, it's strong yet lightweight (especially when quartersawn for tops), giving it the right blend of strength and elasticity to generate sound. Spruce is also used for the braces, even when the guitar top is a hardwood like mahogany or koa. The woods selected for backs and sides are usually hardwoods that feature greater density and rigidity, which support projection and sustain. Sometimes guitar makers incorporate side braces to create more rigidity for those components, which helps to maximize the top and back movement.

## Taylor's Bracing Evolution

Over the years, Taylor has continually tinkered with the X-bracing motif,

**A good example of** the contrast between flexibility and stiffness with musical instruments, Andy says, is the difference between a banjo and a solidbody electric guitar.

"A banjo head is very flexible, so energy from the strings will cause it to produce a huge amount of volume," he explains. "But in a flash it will absorb

# Flexibility vs. Stiffness

much of the string's energy and it'll be gone with very limited sustain. Compare this to a Les Paul. That solid guitar body is super rigid and glued to a thick neck, so the whole thing is resistant to flexing. Pluck a string and the note will last forever, but there's very little acoustic volume. Pickups and amplifiers are used to generate volume in a different way."

refining the profiles of the braces themselves into different scalloped or tapered variations, and tweaking the positioning of the pieces for optimized tonal results. We even went beyond the bracing pieces themselves to further bolster the tonal response of the soundboard by introducing our patented relief rout – a channel along the inside edge of the top (mainly around the lower bout) that expands the outer boundaries of top resonance.

Since Andy's arrival, he has deployed an array of fresh bracing refinements as part of our extensive revoicing of the Taylor line. Beyond simply enhancing the tone of the guitars, the goal

was to broaden the palette of musical personalities available to players to enable them to express themselves in new ways. He designed our Grand Orchestra with a new bracing scheme that's a hybrid of scalloped and parabolic profiles to bring out a more linear and responsive sound from a large-bodied instrument. His redesign of the rosewood 800 Series introduced our Advanced Performance bracing, which was further customized for each body style to emphasize its inherent strengths and the playing styles that might suit the shape. He also debuted slanted back bracing on Grand Concert and Grand Auditorium models to boost

the midrange. In his revoicing of the maple 600s, Andy developed a new back bracing scheme that helped elicit more tonal warmth. His Performance bracing architecture, first introduced with our revoiced mahogany 500 Series in 2016 and later migrated to the 700 and other series, debuted another X-bracing design innovation in the form of a two-piece bridge plate. The result is the ability to redistribute the string energy in a way that produces a louder, more powerful tone.

## From X to V

In the wake of introducing his retooled 800 Series in 2014, as Andy pondered the next frontier of tonal improvement at Taylor, he found himself in what he calls a "design cul-de-sac." He had just finished wringing as much tonal goodness out of his 800 Series redesign as possible by pushing virtually every other aspect of a guitar's material components to their performance limits, featuring optimized wood thicknesses for each body shape, the use of protein glue, ultra-thin finish, and even the formulation of a custom string gauge set. Now what? His bracing designs, no matter how nuanced, couldn't escape the structural confines of X-bracing and its inherent trade-off between volume and sustain.

An epiphany came from a frequent source of his guitar-making inspiration: surfing.

"Waves of any kind are essentially the same," he said back in 2013, talking about the way he conceived the bracing design for our then-new Grand Orchestra body style. "They're a form of energy passing through a medium. Ocean waves move through water slowly enough for us to actually see the individual waveforms and understand how they act and respond."

In this case he'd been watching the early-morning surf from a bluff after a storm, keying in on how waves were breaking at a stone jetty. He saw them split into two equal parts on either side. Later he jotted a couple of questions in his notebook as he wrestled with the stiffness/flexibility issue: "How can movement and stillness exist together in the same place?" and "[How] can a body have opposite characteristics unless it divides or departs in some way?" As he reflected, he sketched the waves breaking at the jetty. Then he drew the outline of an upside-down guitar top around the scene, framing it so the jetty became the rigid vertical centerline, adding a note on the opposite page: "They can be divided into different mediums. An ocean of unchecked energy would move freely around an unmovable jetty."



From surfboard to soundboard. **Top:** Andy surveys the waves during a surfing session; **Above:** The sketch that inspired Andy's initial V-brace design (Photos: Chris Sorenson)

## How Recording Changed Music

Historically speaking, one important phenomenon that amplified the slight intonation irregularities of guitars — quite literally — and dramatically transformed the landscape of making music was the arrival of recording technology.

“When musicians began recording their performances, what they actually played started to matter more than ever before because it wouldn’t simply evaporate after the performance,” Andy says. “A little further on, people started making electronic instruments — electric guitars, later electric pianos, keyboards, things like that. These instruments were interesting because you had to actually attribute a pitch, whether it was a Fender Rhodes, a Hammond organ, an analog synthesizer, or some other early digital instrument. The makers had to decide exactly how many vibrations per second a certain note should be.”

In some cases, those decisions weren’t even universally agreed-upon. For example, orchestras around the world did not standardize musical pitch until the mid-20th Century. Even now, although A440 Hz (440 vibrations per second) is an internationally recognized concert pitch standard, orchestras in different cities around the world still deviate — some tune to 442, others to 443, etc.

“It wasn’t until this recent generation that musicians would mix old instruments with electronic instruments and need to coordinate their pitches like they were setting their watches to a common time,” Andy says. “Now with recorded music we have computers, we have synthesizers, we have Auto-Tune for vocals — all these tools and technology that have never existed before. These are things that never had to be accounted for when the X-brace was originally developed for guitars. We’re at a point where the acoustic guitar needs to accommodate the context of the modern musical world a little better.”

(referred to as “just intonation,” which is mathematically perfect, or “just”), which are intervals that occur naturally in the overtone series. The problem is that with fretted instruments, or any instrument with fixed-pitch notes, playing in different keys wouldn’t be possible.

“While each of the mathematically perfect notes has a unique relationship to its parent key, they don’t have an exactly equal relationship to each other,” Andy explains. “That means every time you’d want to play in a different key and keep those relationships intact, you’d literally have to remove the frets from your guitar and shift them into slightly new spots, and then retune the guitar.”

That’s why many folk instruments around the world, especially in India, where their traditional classical music is still important, actually have moveable frets.

“A sitar doesn’t have frets set in specific spots,” Andy explains. “They’re held on with what looks like fishing line, so the player can nudge them around to get into a certain key.”

If you only wanted to play a guitar in a single key, say G, the frets could be

The rough sketch inspired Andy’s first design of what would eventually become a new bracing pattern. Instead of arranging the main support braces as a criss-crossed X, he positioned two longitudinal braces in a V formation with the top of the V splayed along either side of the soundhole. The initial prototypes he built confirmed his hunch: The V pattern added stiffness length-wise along the top, in the direction of the strings, while fan braces extending out from the lower part of the V controlled the flexibility across both sides of the lower bout, creating a more orderly side-to-side rocking motion. In other words, he’d built a guitar that was capable of being louder *and* producing longer-sustaining notes.

On its own, this new design was a major breakthrough. But it also revealed something else: This new, more orderly way of controlling a top’s movement fundamentally improved how in-tune the notes sounded all over the fretboard. This meant that the bracing design could also improve a guitar’s intonation to produce more harmonious musical notes.

### The Truth About Intonation

In the guitar world, the term “intonation” is used a lot, and yet over the years it has taken on a different connotation. It refers to the guitar’s ability to produce notes with accurate pitch — basically the state of being correctly in tune. That part is simple enough. Things start to get a bit murkier when you factor in the idiosyncrasies of a guitar’s design.

It’s known among guitar makers, skilled players, and recording engineers that acoustic guitars have imperfect intonation. In other words, the notes along the entire fretboard are not all precisely in tune with each other in all positions and keys. This is not a reflection of faulty craftsmanship. It’s because of something called 12-tone equal temperament tuning, a tuning system in which the 12 notes that make up an octave are divided into 12 equal parts. In other words, the intervals between the notes have been “tempered,” or slightly modified, from their pure forms for the sake of much greater musical utility. (An interval is the difference in frequency between two pitches.)

Equal temperament tuning was created centuries ago as a functional trade-off that gives guitar players (originally lute players) the flexibility to play intervals and chords in all keys, even though the intonation is slightly compromised.

Previous tuning systems had been based on acoustically pure intervals

different note zones. On a guitar those zones are separated by frets.

“G-sharp and A-flat are not the exact same frequency,” Bob says. “But with equal temperament tuning, on a guitar a zone is chosen to cover them both. It’s called a fret. It’s close enough for them both to work in the keys they’re supposed to work in.”

### How Fretting Changes Intonation

Part of the complication with intonation on fretted instruments is that the process of fretting strings to form notes stretches the strings in a way that throws the pitch slightly off. That explains why you can tune a guitar’s open strings with an electronic tuner but find that when you fret the strings to form chords it might sometimes sound slightly out of tune.

“When I tune a string to a note and then press the string, it tightens ever so slightly,” Andy says. “That means this note isn’t true anymore. The pitch I hear is a little higher than that note should have been. It has the musical effect of having been played sharp because you stretched it a little too much.”

Because a fretted note will always be slightly sharp, with equal temperament tuning, the frets are essentially “cheated” — they’re intentionally placed in a position that’s slightly flat to compensate.

“This way, when you press the string to the fret, you end up just about right,” Andy says. “And that’s usually good enough.”

For decades, acoustic guitar makers have tried to reconcile intonation issues using saddle compensation, where the shape of the saddle’s contact point is modified for a particular string. (With electric guitars, the individual string lengths can be adjusted due to separate string saddles for each.) Other guitar builders compensate at the nut. A few experimental builders have used techniques such as “squiggily” frets. All of these techniques have reinforced the association of compensation with intonation.

### Beating and Sour Notes

Intonation issues begin to manifest in a more sonically noticeable way on a guitar with the playing of certain chords, as several jointly played notes are heard together. The fact that those intervals don’t have the perfect relationship they were meant to have becomes more apparent. Because the intervals are slightly “off” in pitch, they conflict in a noticeably dissonant way, which listeners can perceive as “sour” notes. Some harmonic intervals tend

“  
By modifying the bracing architecture to change the way the guitar vibrates, we can make the guitar respond more readily to what a musician brings to the strings.”

”

“  
**People who  
 sing and play  
 will love these  
 guitars. The  
 tone provides  
 a clearer  
 musical  
 reference  
 for your voice,  
 which makes  
 it easier to sing  
 in pitch.**

— Bob Taylor

”

to be more sonically “off” than others. Octaves and fifths are pretty agreeable, for example, but major thirds tend to be especially problematic.

“The third is the most grossly wrong note,” Andy says.

Guitarists use the term “beating” to describe the sound of notes that are out of tune in relation to each other. It’s the result of interference between the respective vibrations of harmonic overtones of the two notes together. We tend to hear it as a subtle warbling or pulsing effect. It’s one reason why, when tuning a guitar, an electronic tuner sometimes has trouble locking in on the pitch.

Considering that none of the many compensation efforts have been able to completely “solve” these issues, most guitar makers have resigned themselves to accepting them as an unavoidable consequence of even temperament tuning. And whether they realize it or not, so have many players, says Bob Taylor.

“Even with the best guitars, a player is always ready to hear their open E chord sound good after tuning, and then play the D or G chord and expect some level of sourness,” Bob observes. “They often try to resist the urge to retune some strings ever so slightly.”

### A Bracing-Intonation Breakthrough

While a guitar’s top bracing is recognized as being an important factor in shaping an acoustic guitar’s voice by controlling the soundboard movement, it’s not normally associated with intonation. That’s typically been addressed along the fretboard, with fret placement, string length, and saddle compensation. But what Andy discovered with his new V-bracing pattern was that bracing actually is another important and overlooked contributing factor – because of how the top interacts with the strings and fretboard. And it turns out that there’s a discrepancy between what the strings are doing as a result of equal temperament tuning and how the top naturally responds. Basically, the guitar body is not in tune with the strings.

“It’s like the rest of the guitar didn’t get the memo that we as musicians decided we wanted to divide the octave into 12 even pieces,” Andy says. “All the components of the guitar still want to work according to the mathematically beautiful laws of the natural world. This creates a conflict that exaggerates the errors introduced by equal temperament.”

That conflict comes in the form of two competing sound waves, which in effect end up taking a bite out of each other.

“That’s essentially what happens with an acoustic guitar,” Andy says. “We play our agreed-upon notes, yet the guitar itself won’t interpret them exactly as we play since its musical vocabulary is limited. It wants to give us its own version using the notes it knows, resulting in friction between what we play and what we hear. By modifying the bracing architecture to change the way the guitar vibrates, we can make the guitar respond more readily to what a musician brings to the strings.”

### Taming the Turbulence

With a better sense of how changing the bracing could settle the conflict between the guitar and the strings, Andy refined his V-bracing pattern further.

“We’re simply taking away the interference between the actual note the string is trying to deliver and the way the soundboard wants to move once it becomes excited,” Andy says.

In other words, Andy’s V-bracing makes the top much happier to vibrate at the same frequency as the strings compared to an X-braced top. As a result, we only hear the slight discrepancy caused by even temperament tuning and not the added dissonance we’re used to hearing from the top. Sonically, it’s a huge improvement.

## V-Bracing: A More Fluent Translator

Another way to understand how the movement of a guitar top affects the intonation of a guitar is to think of the top as a musical translator, as Andy explains.

“A translator’s job is to understand and speak two languages – listening to one, converting what is said into another, and relaying the message in the language the audience can understand. The strings we play speak one language to the top. While listening, the top converts this message into the language the audience can understand, which is audible volume, in the form of air pressure modulation. The limitation of X-braced guitar tops has been that they don’t have a complete understanding of the language the strings are speaking. They have translated the string messages to the best of their ability using the ‘words’ they know. As a result, some things get lost in translation. This new V-Class architecture gives a guitar top a more complete vocabulary. Now it’s totally fluent in both string language and listener language. As a result, the message is finally getting through from the player to the audience, without interference, or the ‘out-of-tuneness’ that accompanied a limited vocabulary. All the inflection, flavor, overtones, and expression the player brings to the strings can now be translated accurately and conveyed to the listener in its entirety.”

“It gives the guitar a more musical personality – one that obliges everything a musician brings to the strings,” Andy says. “The guitar now has a wider capacity to sing.”

Discovering that a guitar’s top movement has been the main source of intonation problems all along also serves to vindicate equal temperament

tuning and the compensation efforts of guitar makers.

“We didn’t change anything about the fret placement or compensation,” Andy says. “It was exclusively the bracing. It shows me that equal temperament for guitars was better than I thought.”

Two generations of Taylor design



## Introducing V-Class Bracing: A New Sonic Engine

In its completed form, Andy's patented new bracing design, officially named V-Class™ bracing, delivers a new musical platform for acoustic guitar performance. Think of it as a new sonic engine for our acoustic guitars. It helps the guitar produce beautiful notes in all their fullness, without hearing the erroneous frequencies that don't belong. Notes are more powerful and more consistent in their tonal character across the guitar's entire tonal register. Without the beating, an electronic tuner will find the pitch more easily. The notes are louder, with longer sustain. Harmonics ring more uniformly down the neck. The notes in a chord are more simpatico, with fewer of those sour spots that occasionally show up with certain intervals. Chords become a truer version of themselves harmonically. The natural overtones can be heard more clearly, intensifying the unique sonic flavors of the tonewoods used for each instrument.

"By definition, the difference between noise and music is order," Andy says. "With this new V-Class bracing, the sound is more orderly, and therefore musical. Notes don't partially cancel each other out; they have a more consistent response all around."

Seasoned acoustic players with a good ear know of the traditional trouble spots on a fretboard, where a note might typically be a little off. They'll often work around those voicings or learn how to mute or slightly bend a string to compensate while playing. Jason Herndon, Taylor's artist relations rep in Nashville, has been doing this for years.

"I didn't even realize I'd been ignoring or muting certain notes until I played the new V-braced guitar," he says. "Usually when I play a G chord, I'll mute the A string so the low B note doesn't play at all because it's dissonant against the low G. 'I'll also take the open B out of a G chord and add the D on the B-string because it just seems to be most in tune when I do that. With the V-braced guitar I don't have to do that – I can just play a G the old-fashioned way and it sounds perfectly in tune. And the guitar sounds in tune all the way up the neck – all the notes are equal, without any dead spots."



Photo: Chris Sorenson

With a V-Class guitar in his hands, Andy demonstrates other examples of the more harmonious sound, focusing on those traditionally weaker spots along the fretboard. He plucks the low open E string, which rings out with strength. Then he plucks an E note fretted on the G string at the 9th fret – a note that usually has a fast decay. This time the note has more power and sustain. To demonstrate the improved volume, he picks a note that tends to be more anemic – another E, this time fretted on the high E string at the 12th fret. It has noticeably more heft behind it.

"Normally in the upper register, an acoustic guitar body starts to overpower the notes coming off the string," Andy says. He plays a smooth multi-octave arpeggio that extends up the fretboard. "On this guitar, every one of these notes has the same kind of power."

Next he demonstrates the improved intonation by playing triad chords, which feature a root, third and fifth, phrased in different inversions. Often an inversion produces an "off" note due to the different harmonic relationship (in a recording session, a player will often need to retune the guitar for a different inversion). But on the V-Class guitar,

Andy is able to play inversions up the neck with no sour notes – the harmonic relationships sound true to each other.

While seasoned players will appreciate these nuances, so will players at any level. Simply strumming open chords will make any player sound better.

"I think of all the musicians out there who play a lot of straightforward open-chord progressions," he says, playing one. "Normally those intonation problems would be compounded by the mix of open and fretted strings – you might be doubling the same note in different parts of the fingerboard. These guitars effectively bring more harmony to those chords."

### Early Reactions

Taylor Director of Artist Relations Tim Godwin, a pro-level player, was eager to get his hands on one of Andy's new V-Class guitars as he was developing them. He came away freshly inspired to play.

"The notes seemed sweeter," he says. "Although it was a new guitar, it didn't have that tight sound you sometimes experience in the very beginning. It had a warm, played-in quality. I felt like I could hear the pure notes more

clearly. Closed-voice chords sounded better. I also felt like the sound was more even across the strings – sometimes I feel like there can be a division between the lower three strings and the higher strings, but there was a really pleasing uniformity across them all."

Bob Taylor remembers the first time he heard Andy playing one of his V-Class prototype guitars in Taylor's design studio.

"The first thing I noticed was the lack of beating in those notes," he says. "At certain points I was almost bracing myself for a sour note...that never came. All of a sudden I found myself falling in love with acoustic tone all over again. And the truth is that with these guitars, every time I pick one up and play it I get that same feeling."

Bob made another observation as he and others had a chance to play the new guitars.

"I think people who sing and play will love these guitars," he says. "The tone provides a clearer musical reference for your voice, which makes it easier to sing in pitch. As a result, you'll sing with more confidence."

## Into the Studio

If the sonic clarity and balance of Taylor guitars have earned them a reputation for getting the job done in the studio, our new V-Class guitars may prove to be essential recording tools. That's why at our aforementioned media event in October, we took our guests to a local music studio to give

but it can be," Wayne says. "Taylors in general have made the recording process a lot smoother for me over the years. Having straight necks with adjustable action helps."

Still, he says, certain intervals can be problematic. That's why it's not uncommon to have to retune an acous-

that the V-Class guitar has "smoother" notes and more sustain. Wayne later says the V-Class bracing seemingly eliminates intonation problems in a "nearly magical way."

"I think about how much better my performances can be both physically and emotionally if I don't have to stop in the middle of tracking to retune because of even subtle intonation problems," he shares.

Another takeaway is that the V-braced guitar seems to offer a bigger sweet spot for recording, which becomes noticeable when Andy shifts the guitar's position in relation to the mic without much change in the volume or character of the sound.

"These new guitars are definitely more microphone-friendly," he confirms.

That's good news for recreational players looking to do some home recording – it makes it easier to get a good acoustic sound without needing to be an expert on mic positioning. It will also make a recording engineer's life easier, saving time and money in the studio.

Andy makes another interesting point: Because the new bracing creates a more orderly wave form, the guitar is not only louder, it also projects farther without as much volume drop-off over distance as an acoustic guitar normally has.

"That's because each note has more harmonic coherence, a clearer identity," he elaborates. "The frequencies or notes the guitar generates agree more with each other. The wavelengths line up with each other in phase – picture wavy lines nestled together traveling the same way – and strengthen each other. Because those waves have the strength of multiples, they can travel farther."

Jason Herndon experienced this when Andy brought one of the guitars to Nashville.

"Andy was playing it and told me to walk away from him and listen," Jason recalls. "I walked probably 25 feet from him and the guitar actually sounded louder than when I was standing in front of him."

This promises to open up interesting new mic placement options for recording.

A Q&A session in the studio with Andy covers other topics relating to playing guitars featuring V-Class bracing. One person wonders how compatible the bracing is with alternate tunings. Since the improved intonation isn't based on an altered scale length,

fret spacing, or compensation to create a different tuning temperament, Andy says, alternate tunings will enjoy the same harmonic coherence as standard tuning.

When someone later comments about Andy solving the intonation problem, he makes a clarifying point: "We haven't actually solved the larger intonation problem – we're still using the same equal temperament notes we've always used," he says. "We've taken our equally spaced notes and gotten rid of the guitar's tendency to interfere with them. Doing this makes it *sound* enough better that we don't hear them as ever so slightly off."

To read other FAQs relating to V-Class bracing, visit [taylorguitars.com](http://taylorguitars.com).

### A New Guitar Label

Bob Taylor is thrilled by what Andy's new V-Class bracing architecture means for the future of guitar making at Taylor. For one thing, as another truly original Taylor design, it reinforces the company's unique identity in the guitar world. Bob feels that it's as significant an innovation as the patented Taylor neck joint was.

"Andy's design gets us into a whole new lane that's wide open and goes farther," he says. "You can hear the improvements; they're undeniable. And this is just the beginning."

The new bracing will be officially recognized as a Taylor milestone in another way: For the first time in Taylor's history, all Taylor guitars crafted with V-Class bracing will come with a newly designed guitar label featuring Andy's signature. Bob's signature will be incorporated in the background as a stylized graphic treatment.

"This is something I wanted," Bob says. "Andy is really at the forefront of our designs now. It's a joy for me to be able to be a part of this while I'm alive."

Bob's sentiments underscore comments he and Kurt made back in 2014 in conjunction with the company's 40th anniversary. As they think about the succession plan at Taylor, one idea was essential: They wanted to have a talented luthier as the wellspring of guitar design for the future. This will ensure that Taylor preserves its innovative drive to improve the music-making experience with inspiring new guitars. And both agree that Andy, who's still in his mid-30s, represents the future of our designs.

"As a guitar designer, Andy is not just a replacement but an improvement," Bob says. "In fact, I know I sound like a proud dad, but I honestly believe that with our manufacturing capability, Andy could have more of an impact on acoustic guitar design in the next 40 years than anyone alive."



**L-R:** Andy, Wayne Johnson, and engineer Tanner Sparks talk shop at Switchfoot's studio

them a taste of the new guitars in a recording environment.

After a short drive down scenic Highway 101, affording glorious views and scents of the Pacific Ocean, we pull into an industrial park that houses the business headquarters and recording studio of homegrown rock band Switchfoot. Frontman Jon Foreman has been a Taylor player for years, and the band has been good friends with both Bob and Andy for a long time. Though the band isn't in town, we're greeted by audio engineer Tanner Sparks, who runs the studio and recorded the band's last two records. After a quick tour, we head into the studio space for more conversation about the guitar's use for recording applications and a demo.

We're also joined by Grammy-winning guitarist, composer, and Taylor product specialist Wayne Johnson, who has logged thousands of hours in recording studios laying guitar tracks for some of music's biggest names. He knows all the work that goes into getting a good acoustic take, not just from the playing side but from the technical side as well.

"It shouldn't be that hard to record an acoustic guitar with microphones,

tic guitar to record different parts of a passage – sometimes tuning to a particular chord to "sweeten" it.

Tanner understands the need for the "collage" approach to recording at times.

"In my world, once you put a microphone in front of an acoustic guitar, all those little details get magnified," he says.

He, Wayne and Andy share their experiences recording with acoustic guitars (Andy has also done a lot of session work). Tanner recalls when Andy brought a Taylor prototype with V-Class bracing to the studio for Jon Foreman to play. It didn't take long to make an impression.

"You fixed it!" Foreman raved, unprompted, according to Tanner.

Tanner has set up a pair of Wunder CM67 condenser microphones for a recording comparison between two Taylor Grand Auditorium models: One features X-bracing; the other is equipped with V-Class bracing. Andy and Wayne take turns with each guitar. As the group listens from the control room, the consensus is that the V-Class edition clearly sounds better.

"To me, that guitar sings more," Tanner says. Someone else observes



The new label for Taylor's V-Class guitars

## V-Class Models

Our V-Class bracing rollout begins at the top of the Taylor line and will initially be offered exclusively with our Grand Auditorium shape, our bestselling body style. Featured models include the PS14ce from our Presentation Series, the 914ce from our 900 Series, and the K24ce from our Koa Series. This limited introduction will enable our tooling and other departments to smoothly integrate these models into our production mix. Eventually V-Class bracing will be offered on other Grand Auditorium models.

To celebrate the V-Class launch, Andy created another magnificent guitar that marks the debut of our Builder's Edition collection. The first release will be our Builder's Edition K14ce, which features Hawaiian koa back and sides and a torrefied spruce top. The guitar also boasts other ergonomic body features that make it our most player-friendly offering yet. For more on that design, see our story on page 16.

All Taylor V-Class guitars will be distinguished by two exclusive features: the new guitar label bearing Andy's signature inside the guitar, and a black graphite nut rather than our off-white nut. Other than being black, the nut has more graphite mixed into it, which helps the strings glide smoothly through the nut slot as the guitar is tuned.

Tonally, Andy says, the V-Class bracing provides the foundational characteristics of each guitar's voice. Players will hear the "in-tune-ness" of the notes in relationship to each other, along with greater clarity, power, uniformity, and of course more dynamic range and sustain. With an acoustic voice that's more true, the sonic "seasonings" of the tonewoods enable those subtle nuances to come through.

*For more details about our V-Class bracing and guitar models, including exclusive video content, visit [taylorguitars.com](http://taylorguitars.com). **W&S***



### PS14ce

**Back/Sides:** Striped West African Ebony  
**Top:** Sinker Redwood

The beautiful West African ebony we're now using on our Presentation Series comes from our Crelicam mill in Cameroon. Tonally the wood is comparable to the Macassar ebony we previously used, due to a similar physical density. The sets of sinker redwood we select for tops are perfectly quartersawn for optimal stiffness and tone production. Players can expect the overtones of cedar with the punchy attack of spruce. "It tends to have this really saturated sound," Andy says, "almost like a guitar amp that's starting to overdrive, but in a cool acoustic voice." With the V-Class bracing, Andy says, the mix of boldness and complexity are deeply inspiring, especially together with the rich aesthetic detailing of the series.



### K24ce

**Back/Sides:** Hawaiian Koa  
**Top:** Hawaiian Koa

One of the virtues of V-Class bracing is how universal its application is. Even though a hardwood koa top responds differently from a spruce top, players can still expect more volume and sustain, with better harmonic agreement between the notes.

"The design ends up being a more paramount feature than just the materials it's built from," Andy says. "With a koa top, sound doesn't propagate as quickly. A little more is absorbed and it disperses a bit more gradually. That's what creates the classic compression effect you get from hardwood tops – the initial attack gets trimmed off. The impression it gives the player is an ultra-smooth sustain and balanced articulation. It sounds great when you plug in, or if you're strumming chords and you want it to be superbly balanced. With the V-Class bracing, this is simply more of the koa sweetness we love."



### 914ce

**Back/Sides:** Indian Rosewood  
**Top:** Sitka Spruce

Our 900 Series already sports an array of tone-enhancing features from Andy's redesign in 2015, so our V-Class bracing elevates its sonic performance to even greater heights. Players will love how well-behaved the rosewood overtones are as notes bloom. The added power of the upper register notes, together with the improved volume and sustain, makes our 914ce more dynamic than ever before. Together with our beveled armrest and luxurious appointments, this is a magnificent acoustic tone machine.

# DIRECTOR'S CUT

**Andy Powers  
celebrates the  
debut of V-Class  
bracing with  
player-friendly  
body contours on  
our inspiring new  
Builder's Edition  
concept guitar**

By Jim Kirlin

**T**here are two ways to improve the function of an instrument," says Andy Powers. "You can make it sound better, and you can make it feel better."

It's fair to say that Andy has ticked the "sound" box with the design of Taylor's new V-Class bracing system, which makes its debut on Grand Auditorium guitars in our Presentation, Koa and 900 Series to begin the year.

As for improving the feel, that might seem like a tall order given Taylor's heritage of slim-profile, easy-playing necks. But Andy had a few additional tricks up his sleeve.

In the spirit of giving players a true next-generation Taylor guitar, Andy set out to showcase our game-changing V-Class sound in the form of a new concept guitar that similarly elevates the playing comfort. The guitar marks the first release from our Builder's Edition collection, setting a new standard for the feel and sound of an acoustic guitar.

## **Advancing a Tradition of Playing Comfort**

Playing guitar is an incredibly tactile experience. And when a guitar feels better, we tend to play better. The way Andy sees it, his efforts to improve the feel of an acoustic guitar are a natural continuation of Taylor's widely recognized pedigree of playability.

"Making acoustic guitars feel better is a big part of Bob's legacy as a guitar maker," he says. "He set the strings close to the fingerboard and made slim necks that were easy to get around on like they belonged to an electric guitar. That felt good."

Add to that Bob's patented neck joint design, which allows a guitar's neck angle to be precisely set and easily adjusted throughout its life for optimal performance, and it seems to leave little room for additional improvement in the neck design. So Andy chose to focus his attention on enhancing the feel of the guitar body.



## **A Beveled Armrest**

Not surprisingly, an armrest was an essential design component of the new guitar. It's a comfort feature that Andy has brought to high-end models in our 900 and Presentation Series, but also to our modestly priced Academy Series because it clears a more inviting path for players at every level to interact with a guitar.

"I've seen how comfortable people are when they play a guitar with an armrest," he says. "They're immediately more relaxed, and they tend to sound better as a result."

## **Beveled Body Edge Treatment**

The violin family of instruments has always been a source of inspiration to Andy. While he says he never developed the bowing chops to be a great violin player, as an instrument builder he has always admired the design details, including the edge treatment of the instruments.

"For most acoustic guitars, edge treatment means binding and purfling with simple squared-off edges," he says. "But when you look at violins closely, you come to appreciate the way those edges are formed and

detailed. Their refinement is beautiful, functional, and comfortable to touch.

"I like edges that are slightly rounded off," he elaborates. "When I'm playing a guitar, I want to be focusing on the music I'm making. I don't want to have sharp corners etching a line across my forearm or digging into my leg if I'm playing seated."

Knowing that he was going to incorporate an armrest, Andy also worked on a softer beveled edge treatment around the entire guitar body, accented by inset koa and paua purfling around the top and back.

As much as Andy was inspired by violin makers, he was equally drawn to the comfortable contours of electric guitars.

"I love both Stratocasters and Telecasters, but a Strat is more comfortable to hold than a Tele," he says. "The edges are rounded off and you have that cool arm scoop. That's why those changes were made a long time ago."

## **A Contoured Cutaway with Finger Bevel**

Another part of the body that Andy wanted to make more player-friendly was the cutaway. Some readers might

remember the contoured cutaway that he designed back in the fall of 2012 as part of our ultra-limited Builder's Reserve release ("Curve Appeal," from our fall 2012 issue). Andy reshaped the cutaway to remove the corner of the body between the end of the cutaway and the neck heel, giving it a compound curve that flowed more cleanly into the line of the neck heel. This allowed the more fluid movement of one's fretting hand along that area of the neck.

"That was really hard," Andy remembers. "We made 30 of those guitars, and it felt like it was killing us to get them built. I loved the design, but at the time it was too difficult to bring to a production-scale capability."

This time around, he not only revisited the idea but introduced another new design element along with it: a finger bevel on the top of the guitar – essentially the equivalent of an "armrest" for one's pinky finger while playing along the uppermost frets. The combination of those two contoured features, he says, will appeal to players who venture to that end of the fretboard.

"Whether guitarists realize it or not, when we go to play high on the fingerboard, our thumb has to transition from being behind the neck to being on the other side with our fretting fingers," Andy explains. "It becomes so ingrained

Builder's Edition guitar by playing a smooth run up the neck toward the end of the fretboard.

"I can get all the way to the end with my thumb on the neck," he says. "Normally, that's hard to flow through. There's always a little hiccup when I move my thumb over. Now I don't have to."

Between the armrest, the beveled edging, and the ergonomic cutaway, the entire guitar body is more comfortable to hold and play, and both a player's picking and fretting hands will be more relaxed.

Andy offers an appreciative shout-out to Taylor's tooling team for their efforts to make this a manufacturable feature.

"This guitar requires some of the most complicated tooling our team has ever done," he says. "The design involves multiple curving compound surfaces that all have to line up perfectly."

To preserve the smooth flow of the cutaway for the player, the strap pin for these guitars was relocated from the treble side of the guitar heel to the back of the guitar.

### "Silent" Satin Finish

Another tactile element that Andy improved was the feel of the finish. Again he drew inspiration from the violin world.

microphone. Gloss finishes have a tendency to squeak, while satin finishes sometimes produce a soft "swishy" sound. As a guitarist who has played many recording sessions and had to redo takes due to noise, Andy is sensitive to this.

"I squeak on gloss finishes," he says. "It's happened to me often in recording sessions. I'll end up feeling and playing tense simply from trying to sit very, very still in order to cut down the extraneous noise."

As a result, Andy worked closely with our Finish department to develop a "silent" satin finish for the body that tones down the incidental noise and feels smooth to the touch.

For the neck, he preserved the use of our standard satin finish. He says the player's contact with the neck doesn't create the same kind of "swishy" sound as it would with a satin-finish body, since the neck isn't a thin vibrating diaphragm like a top or back. He felt the best sounding combination would be a mix of silent satin on the body, and "regular" satin on the neck.

### Introducing the Builder's Edition K14ce

With his bundle of body refinements set, Andy just needed to decide which tonewood pairing and appointments

the koa back and sides with a torrefied spruce top and craft it as the Builder's Edition K14ce. Technically the guitar will live within the Koa Series, but with its ultra-premium features, we like to think of it as Andy's "director's cut" edition.

### The Spring Vine Inlay

To celebrate the launch of the new Builder's Edition design concept, Andy wanted to create a new inlay for the guitar, along with a few other appointment details. He began with a new inlay motif for the fretboard and peghead, which he named Spring Vine.

"I wanted the inlay to reflect this new chapter of our guitars, which made me think of spring, new growth, something fresh," he says. "Around the same time, my wife Maaren had planted some grapevines in our yard, and I loved watching the little tendrils start to unfurl and grab onto everything in reach and climb. That's where the inlay came from – it was this minimalistic form of fresh, young growth reaching up like it just sprouted."

Andy also adopted the new inlay as an update to the rest of the Koa Series, although the choice of materials will differ. The Koa Series will retain its organic, wood-rich aesthetic, with Big Leaf maple for the fretboard inlay and rosette, while the Builder's Edition

"In this case I started working with the idea of adding color to the raw koa," he says. "This provides a higher level of transparency, which means even though the wood takes on a darker color, the figure displays a lot more vibrantly."

The combination of the Kona burst and silent satin finish gives the guitar a unique matte appearance that visually conjures the sense of a classic, vintage instrument. The burst will also be applied to the neck.

Tonally, the choice of a torrefied Sitka spruce top offered an appealing alternative to the standard koa-top K24ce. With the V-Class bracing, it yields a dynamic and responsive voice.

"I'd been experimenting with some roasted spruce and koa, and I liked the result," Andy says. "I also like the darker color the process gives the spruce top. It adds a bit of extra something to the look."

Like Taylor's other guitars featuring V-Class bracing, the Builder's Edition K14ce will incorporate a black graphite nut and our new guitar label. The Builder's Edition label will be distinguished with an additional "BE" stamp.

Future Builder's Edition offerings are in the works, Andy says. While the woods and appointments will vary, all models in the collection will feature



**L-R:** Beveled edging of the body; new silent satin finish and Kona burst treatment; the new Spring Vine inlay with paua

that players often aren't even aware they're doing it. For most of our playing, our opposable thumb is either on the back side of the neck or wrapped around it to help our fingers press strings to the frets – until we play high notes and our hand runs into the guitar body. Then we have to move our thumb off the neck and reach up and around the body. Without our thumb on the neck, we use our whole arm to help our fingers press the strings down, which limits our dexterity."

The pairing of the finger bevel with the contoured cutaway, he says, means a player no longer has to manage that transition. He demonstrates on a

"People don't look at a violin and think of it as gloss-finished or satin-finished the way they might consider a guitar finish" he says. "Those concepts don't exist in the bowed instrument world. Musicians or conservators will consider the texture, the hardness or softness, the glow – the way it feels. They're attuned to the tactile as much as the aesthetic quality."

An important consideration with the finish for Andy in this case was sound. Not in terms of applying a super-thin finish to reduce damping, but to minimize the sound of the player against the guitar body, especially in magnified scenarios like recording in front of a

would flesh out our first Builder's Edition offering. Unlike a concept car design, which typically never makes it into production, Andy and our product development team wanted to make this an actual production guitar. And not simply a limited edition offering, but an official model within the Taylor line with an open production run.

Andy decided to offer it within one of the three guitar series that would debut our V-Class bracing: the Presentation, Koa and 900 Series. In the end he chose the Koa Series, but instead of an enhanced version of the designated Grand Auditorium model, the all-koa K24ce, he opted to pair

K14ce will feature inset purfling and more sparkle, with paua abalone for the Spring Vine Inlay, a paua rosette trimmed in koa, and koa/paua inset purfling.

### Kona Burst

Another aesthetic distinction for the Builder's Edition model is a new Kona burst color treatment together with the silent satin finish on the back and sides. The application process borrows from the way we recently started applying a tobacco sunburst to the top of our 800, 800 Deluxe, and 900 Series guitars without adding material thickness to the finish.

V-Class bracing, an armrest, the beveled edge treatment, the contoured cutaway with finger bevel, and silent satin finish. For complete specifications on the Builder's Edition K14ce and additional video content on our Builder's Edition program, visit [taylorguitars.com](http://taylorguitars.com). **W&S**

## [Sustainability]

**Ed. Note:** Taylor's Director of Natural Resource Sustainability, Scott Paul, shares an update on two major initiatives he has been engaged in this past year: working to amend recently enacted CITES trade regulations for *Dalbergia* rosewood; and forging promising new partnerships that aim to scale up the propagation and replanting of ebony in Cameroon.

### A Closer Look at CITES Rosewood Regulations

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a multi-lateral treaty that went into force in 1975 to protect endangered plants and animals. Taylor Guitars fully supports the Convention. Yet, as many guitar owners know, in October of 2016 CITES voted to make a change in the protected status of rosewood, listing all species of *Dalbergia* (except for Brazilian rosewood, *Dalbergia nigra*, which was already listed in Appendix I), as Appendix II. (The change officially went into effect January 2, 2017.) This decision has had a profound impact on manufacturers and owners of musical instruments, new and used, that are made with any rosewood components.

class has acquired a taste for this style of furniture, resulting in a greatly escalated demand. Hongmu furniture is also increasingly popular in Vietnam.

In short, the growing demand for hongmu furniture coupled with, at times, poor governance and rampant illegalities in many countries where hongmu species grows has resulted in a global run on many red-colored rosewoods. As a result, CITES moved *Dalbergia* to Appendix II and drafted a new governing Annotation. As stated on the CITES website ([cites.org](http://cites.org)), Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances. Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival.

Despite the good intent, it quickly became apparent that the new listing was too broad in scope and the governing Annotation was ambiguously written. Additionally, it should be noted that in the lead-up to the listing, the focus was almost exclusively on the serious loss of red *Dalbergia* species feeding the Asian furniture market. At the time, apparently no one was even considering musical instruments or the brownish-colored rosewoods used traditionally for musical instruments, such as Indian rosewood (*Dalbergia latifolia*), which just so happens to make up the vast majority of rosewood used in guitar manufacturing. At Taylor, roughly 95 percent of the rosewood we use is *D. latifolia*, and there has never been the same level of concern regarding the long-term sustainability of Indian rosewood compared to other rosewood species.

So, the "Precautionary Principle" crashed into the "Law of Unintended Consequences," and a hastily drafted CITES rosewood Annotation went into force. Subsequently, over the next year musical instrument manufacturers lost millions of dollars; guitars with any amount of rosewood were delayed at the point of export and import; instruments were seized by government authorities at international borders, and in a few rare cases even destroyed.

Almost immediately after the listing went into force, everyone knew it was a mess. Not only for manufacturers and owners of musical instruments, but for the national government agencies responsible for implementing the Convention as well. In an average year, the U.S. Fish & Wildlife Service processes roughly 20,000 CITES permits for products made with any number of

plant or animal parts or extracts covered by the Convention. In the span of one year since the new rosewood listing went into force, the number of permits jumped to approximately 40,000, and the lion's share of that increase was due to rosewood musical instruments. That's a lot of unintended time and money spent processing paperwork for institutions that are often already overburdened.

Taylor Guitars, along with a handful of other instrument manufacturers and representatives of touring orchestras, have spent the last year meeting with various governments who are party to the Convention. We have met with the Convention's Secretary General and staff, and we have attended both the CITES Plants Committee meeting in July and Standing Committee in November. We've drafted position papers and spoke at conferences. It's a lot of time and a lot of money, but it's worth it. We believe that we're making progress. We fully respect and support CITES, and with a little time and education we believe we can find a pathway that maintains the rosewood listing's original intent without devastating the sale and travel of musical instruments. In fact, our proposal would not alleviate any current responsibilities on the part of Taylor Guitars under the Convention. We only ask that once a guitar with an Appendix II species is finished, packaged and sold, that it be forever free of permit requirements.

By rule, formal change cannot be made until the next Conference of the Parties, which takes place in 2019. We'll be there. But in the meantime, progress has been made in interpreting the existing, at times ambiguous, text drafted in October of 2016. We caution that such progress has only resulted in formal guidance as to how the existing text should be interpreted, and each country has the sovereign right to interpret the convention as they wish. For now, you should be allowed to travel across borders with your Appendix II rosewood instrument for personal use, but you cannot sell it across international borders without proper paperwork. If you own a Taylor containing any rosewood and are considering shipping a guitar internationally for sale, warranty or repair, please contact us directly; our Customer Service team will be happy to help.

We are optimistic that positive change will come in 2019 for owners (and sellers) of rosewood musical instruments. Remember, Brazilian rosewood (*Dalbergia nigra*) is CITES Appendix I and thus subject to more stringent regulation.



CITES delegates gather at the 69th Meeting of the CITES Standing Committee (CITES SC69) in Geneva, Switzerland in November 2017

It's important to understand that the politics behind this listing were not driven by musical instruments or the species traditionally used to make them. It was driven by escalating Asian demand for hongmu furniture. The word "hongmu" means "red wood" in Chinese, and the term refers to a range of red-colored tropical hardwoods used to produce a certain style of furniture. In the past, only royalty and elites were privileged to own hongmu. However, in recent years China's growing middle

## A Public-Private Partnership in Cameroon

Previous issues of *Wood&Steel* have featured stories about our Crelicam ebony mill in Yaoundé, Cameroon, which is owned and operated in partnership with our friends at Madinter, an international tonewood supplier. You also may know about some of the work being done as part of what we're calling the Ebony Project, detailed in Bob Taylor's video blog reports from his World Forestry Tour last year (covered last issue and viewable on Taylor's YouTube page). To recap, in 2016 we embarked on the Ebony Project in partnership with the Congo Basin Institute (CBI), a multi-institutional organization made up of universities and NGOs collectively focused on finding solutions to the region's most pressing challenges. The project seeks to better understand the ecology of African ebony (*Diospyros crassiflora* Hiern) and to enhance stocks through community-driven planting efforts, all while collecting crucial ecological data to identify key threats to the long-term sustainability of the species in its natural setting. In addition to propagating and planting ebony trees – 15,000 over the next three years – the project also provides native fruit and medicinal trees to participating communities. It's all at no cost to the villages.

While the project is still in its early phase, already we have produced several thousand ebony plants, CBI is conducting groundbreaking ebony-related research, and a small number of communities are part of the project. Simply put, we want to leave far more than we ever take. And the project is starting to attract some attention.

Back in September, we had a lot of people come visit Crelicam, CBI, and some of our partnering Ebony Project villages in Cameroon. Senior delegations from the World Bank, The U.N. REDD+ program, the U.N. Food & Agriculture Organization, and the U.S. Forest Service International Programs all came to check out what we were up to. Apparently, most people liked what they saw, and it led to a lot of follow-up conversations, one of which culminated in Taylor Guitars being invited to the U.N. Climate Change Conference in Bonn, Germany on November 14 to sign a Public-Private Partnership agreement with the Cameroonian Ministry of Environment.

Working together with CBI and Taylor's Crelicam partner, Madinter, the Ministry will assess the feasibility of expanding the existing Taylor-funded



*Young ebony plants destined for replanting*

CBI Ebony Project model of community engagement, tree propagation, and planting more broadly across Cameroon's subnational REDD+ program (i.e., much of the southern part of the country prioritized by the government for forest protection, management and restoration under the U.N. Climate Change Convention). Cameroon's REDD+ program was developed with the financial and technical support of the World Bank's Forest Carbon Partnership Facility and the German Development Bank.

From its inception, before any of this, The Ebony Project had been designed as a pilot for larger-scale rainforest restoration efforts, and to date it has been fully financed by Bob Taylor. To be honest, we never dreamed of partnering with U.N. agencies, foreign governments or the World Bank. We started this project on our own because we simply felt it was the right thing to do. However, having signed the PPP, the Government of Cameroon will commission a study to assess the feasibility of scaling up our approach across southern Cameroon. In the meantime, we'll continue doing what we've been doing...and if it turns out that someone wants to expand the concept so that more trees can be planted, then we have no problem with that! We'll keep you posted. **W&S**



*Scott Paul (right) and the Honorable Pierre Hélé, Cameroon's Minister of the Environment and the Protection of Nature, sign the Public-Private Partnership agreement*

*Bob Taylor with Ebony Project researchers Alvine Ornella Tchouga (left) and geneticist Giovanni Forgiione (lead technical supervisor) at the Congo Basin Institute in Yaoundé, Cameroon*







# A Guide to the Taylor Guitar Line

Enjoy a scenic tour of our latest guitar collection

**W**elcome to this latest edition of our guitar guide. Each year it gets harder (in a good way) to present this as an annual snapshot of the Taylor line because our model lineup continues to evolve during the course of each year as we introduce other new guitar offerings for players to discover. This year surely won't be any different. Yet we wouldn't have it any other way, because it reflects our boundless passion for guitar design.

New additions to the line for 2018 include the debut of our V-Class guitars, featured prominently elsewhere in this issue, including our remarkable Builder's Edition K14ce. We've also updated the tonewoods used for our Presentation Series to showcase striped West African ebony back and sides, paired on certain body styles with sinker redwood tops. Our Koa Series sports a new Spring Vine inlay motif, while our rosewood 400 Series models now feature a new Renaissance fretboard inlay.

Whether you're an owner of multiple Taylor guitars or just discovering Taylor for the first time, our goal as a guitar company is the same: to inspire you to find joy in making music. Few would argue that playing guitar is good for our mind, our heart and our soul. Guitars bring us together and offer companionship when we're alone. They stimulate our development as kids and help us stay sharp as we get older. They give us a wonderful reason to take a break from the demands of daily life and relax. Our sincere hope for you is that you find a guitar that gives you exactly what you need – and opens the door to new discoveries over time. In fact, one of the rewards of a well-crafted acoustic guitar is that, with proper care, it will sound better as it ages.

In the pages ahead, we'll help you navigate our guitar line, starting with a guide to our acoustic body styles, followed by a breakdown of the different tonewoods we use to craft our instruments. We'll also provide a framework for how the Taylor line is organized, and then profile each series we offer. As you'll see in our guide and especially at an authorized Taylor dealer, we've created a diverse mix of musical personalities to reflect the broad range of preferences among players.

You'll find plenty more information about our guitars at [taylorguitars.com](http://taylorguitars.com). We'll also be presenting more Taylor Road Shows and Find Your Fit events at Taylor dealers throughout the year, so be sure to check the Events page on our website for a date and location near you. And as always, if you have guitar questions, feel free to contact our Customer Service team, who will be happy to help you.

# Taylor Body Shapes

How to find a body style that fits you physically – and musically

Playing an acoustic guitar is a physically intimate experience. You hold the body against yours, wrap your arms around it, and feel it resonating against you as you play. When considering which body style to choose, remember that comfort is key – the more relaxed you feel as you interact with the body and neck, the better you'll sound.

We offer five full-size body styles, plus a pair of scaled-down offspring (the Baby Taylor and GS Mini). If you're not sure which body style to choose, try

playing several different shapes while seated to get a feel for each body's depth and curves, paying attention to how your picking arm feels while draped over the lower bout. To the right you'll find some additional guiding details that relate to the feel of the neck, but in the end, nothing beats your own tactile experience of holding and playing an instrument.

Below are a few other attributes that impact the feel of a guitar.



## Cutaway vs. Non-Cutaway

A cutaway has a negligible impact on a guitar's sound (that part of the guitar doesn't generate a lot of resonance), so you're not really sacrificing tonal output. What it gives you is access to more upper-register notes. For some it's simply an aesthetic decision. Either way, it's your call.

## Armrest

This feature adds extra comfort for your picking/strumming arm, allowing you to play in a more relaxed way. We offer several types of armrests, ranging from beautifully detailed treatments on the 800 Deluxe Series and higher to a basic version on our modestly priced Academy Series.

## Playing Applications

The more you know about the context in which you plan to use the guitar, the easier it will be to find a body style that matches your needs. A bigger-body guitar tends to fill up more of the space of the room you're playing in. This can be good for writing heavier, riff-driven music, or if you'll be playing solo and want a guitar that gives you a good low-end response. Maybe you want your acoustic Swiss Army knife, in which case you can't go wrong with a versatile Grand Auditorium. Or maybe the intimate feel and focused sound of a smaller-body guitar lends itself to songwriting inspiration, recording, or noodling on the couch. Think about what role you need the guitar to play for you. If nothing else, by explaining this to a salesperson at an authorized Taylor dealer, they'll be able to easily recommend some appropriate options for you.

## The Neck

All Taylor necks feature slender profiles with low string height off the fretboard. This makes for a comfortable all-around playing experience. Other variables in our neck dimensions can further impact your playing comfort:

### Nut Width

This impacts the string spacing across the fretboard, which in turn can influence your fretting experience. Here is a quick guide to our nut width specifications:

- **Steel-string models (6-string) 300 Series and higher:** 1-3/4"
- **Steel-string models (6-string) 200 DLX Series and under:** 1-11/16". The slightly narrower width is sometimes easier for kids or players with small hands. It also makes barre chords easier to form.
- **All nylon-string models:** 1-7/8". This offers enough room to accommodate the slightly thicker diameter of nylon strings, yet it's narrower than a true classical guitar's nut width, which typically starts at about 2". This makes a Taylor nylon-string a comfortable transition from our steel-string models.
- **Nut width options:** Any standard steel-string (6-string, 14-fret) model in our 300 Series and up can be ordered with an optional nut width of either 1-11/16" or 1-7/8".

### Scale Length

This refers to the maximum vibrating string length as measured from the nut to the saddle. Most full-size Taylor steel-string models feature a 25-1/2" scale length, but our smaller Grand Concert models feature a slightly shorter scale length of 24-7/8". This can make the fretting experience easier because it creates a slinkier feel for your fretting hand and slightly condenses the fret spacing, which makes forming chords or playing notes across different frets less of a stretch. If you have small hands or want to reduce the stress on your fretting hand, a shorter scale length is worth considering.

### 12-Fret vs. 14-Fret

This refers to the neck-to-body configuration. A 12-fret neck is two frets shorter and meets the body at the 12th fret instead of the 14th. This creates a more compact relationship. Our standard 12-fret models are coupled with our smaller Grand Concert body, which also features a 24-7/8-inch scale length, enhancing the playing comfort. A 12-fret guitar also features a different bridge location (closer to the center of the lower bout – a more flexible spot on the soundboard), which helps produce more warmth and midrange power.

## SMALL

### Grand Concert (GC)

(Models end in a 2; e.g., 812)

**Body Length:** 19-1/2" **Body Width:** 15" **Body Depth:** 4-3/8"

Our smallest full-size body features a slightly shallower body depth and shorter scale length than other body styles. The Grand Concert is also the featured body style for our 12-fret guitars.

#### Playing Profile:

- Articulate voice with top-end chime and controlled overtones
- Intimate size is lap/couch friendly
- 24-7/8-inch neck reduces string tension for a slinkier feel
- Fits well in a mix with other instruments

#### Good Fit For:

- Fingerstyle players and light strummers
- Players who find small bodies more comfortable
- Anyone looking to reduce stress on their fretting hand
- Recording applications



## MID-SIZE

### Dreadnought (DN)

(Models end in a 0; e.g., 810)

**Body Length:** 20" **Body Width:** 16" **Body Depth:** 4-5/8"

Our modern version of one of the most traditional acoustic guitar shapes blends its trademark low-end power with a snappy midrange and brilliant treble notes, producing a pleasing balance of power and articulation.

#### Playing Profile

- Wider waist causes the body to sit higher in the player's lap
- A robust "modern vintage" voice
- Low-end power, snappy mids, punchy treble

#### Good Fit For:

- Traditional flatpickers and strummers with a strong attack
- People who crave the traditional look and feel of a wider-waist guitar
- Pickers and strummers who want a strong low end and throaty midrange
- Bluegrass music



## MID-SIZE

### Grand Auditorium (GA)

(Models end in a 4; e.g., 814)

**Body Length:** 20" **Body Width:** 16" **Body Depth:** 4-5/8"

This Taylor original helped define the modern acoustic guitar sound and remains our most popular shape. If you want a great all-purpose guitar, the Grand Auditorium delivers pleasing versatility.

#### Playing Profile

- Balanced blend of warmth, clarity and sustain
- Well-defined midrange
- Accommodates fingerpicking and light medium strumming
- Responds well to many music styles

#### Good Fit For:

- Novices and generalists who want a multi-purpose guitar
- Recording and live performance
- Singer-songwriters and musicians fronting a band
- Almost anyone other than aggressive pickers/strummers



## LARGE

### Grand Orchestra (GO)

(Models end in an 8; e.g., 818)

**Body Length:** 20-5/8" **Body Width:** 16-3/4" **Body Depth:** 5"

The Grand Orchestra unleashes Taylor's boldest, richest voice. With a bigger footprint and a deeper body than the Grand Symphony, it yields a stronger, more complex tone with impressive sustain and balance. It's also responsive to a light touch.

#### Playing Profile

- Our biggest, deepest body shape
- Big, complex voice with impressive sustain
- Incredibly balanced for a big-bodied acoustic guitar
- Responsiveness to a light touch gives it broad dynamic range

#### Good Fit For:

- Players who want the richest, most powerful acoustic voice
- Players who like a voluptuous, Jumbo-size guitar
- Solo performers looking for an expansive palette of sonic colors and textures



## MID-SIZE

### Grand Symphony (GS)

(Models end in a 6; e.g., 816)

**Body Length:** 20" **Body Width:** 16-1/4" **Body Depth:** 4-5/8"

The Grand Symphony features a slightly bigger footprint than the Grand Auditorium. This translates into a louder voice with deeper lows and thicker trebles, making it a lively picker and strummer.

#### Playing Profile

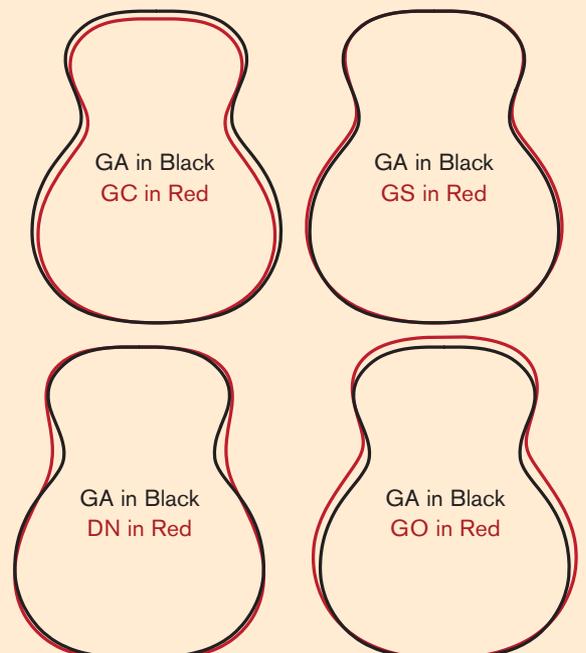
- Robust low end, strong volume when strumming or flatpicking
- Very dynamic: rich, powerful voice that also responds to a light touch
- Piano-like bass, meaty midrange, strong treble shimmer

#### Good Fit For:

- Dynamic strummers and pickers
- People who crave more tonal horsepower than the Grand Auditorium
- Gigging singer-songwriters looking for a deep and rich tonal palette



## Body Shapes Relative to the Grand Auditorium (GA)



# Taylor Tonewoods

Choose from a rich palette of sonic flavors to season your sound

An acoustic guitar's sonic personality reflects a hierarchy of ingredients. Arguably the centerpiece is the guitar's actual design – the body dimensions, bracing framework, and other voicing nuances of the builder. Next is you the player, as a guitar will respond to each pair of hands in unique ways. Think of the tonewoods as the seasonings that subtly flavor the guitar's voice.

Keep in mind that any description of a wood's tone profile is just meant as a general reference because of the many other contributing factors. Within a particular wood species, even within a particular tree, no two sets of wood are exactly alike. And that's something to be embraced. We each hear sound in our own unique way, and like our sense of taste, we each tend to have different tonal preferences. And we all know how much the unique visual characteristics of woods can factor into our inspiration. In the end, a guitar's tonewood pairing is simply one part of a larger musical recipe. The good news is that we get to sample as much of the menu as we want before making our choice.

## Soundboard Woods

A guitar's soundboard plays a key role in generating a guitar's sound. Soft woods such as spruce or cedar (coniferous trees) are used most often. They offer the benefit of being lightweight yet strong, especially when quartersawn, with an elasticity that allows them to be set in motion easily, whether the guitar is lightly fingerpicked or strummed. Typically they can produce a broad dynamic range, along with pleasing overtones that enrich the sound.

Hardwood tops like koa or mahogany are slightly denser and heavier, giving them a lower velocity of sound. In other words, sound doesn't propagate as quickly through them – it's dispersed a little more gradually. This comes across as a natural compression effect that smoothes out the attack, producing a more focused voice with fewer overtones. A hardwood-top guitar often behaves well in amplified performance settings.

## Back and Side Woods

Hardwoods (deciduous trees) are used exclusively for a guitar's back and sides. As the supportive shell of the guitar's acoustic "box," the back and sides enhance the rigidity and sustain of the instrument. Each wood species also provides the acoustic seasoning in the form of different resonant frequencies. Think of the woods as natural tone controls for the guitar, contributing different degrees of bass, midrange and treble notes, with varying overtones.

## Solid vs. Layered Woods

A guitar made with a top, back and sides of solid wood will produce the most complex sound and continue to improve with age. Our all-solid-wood guitars start with the 300 Series. We also make guitars crafted with layered wood back and sides, featuring three layers of wood – a middle core with a thinner layer on each side – paired with a solid wood top. Because of the solid top, the sound of our layered wood guitars will also improve with age.

Crafting guitars with backs and sides of layered woods allows us to conserve tonewood resources. Essentially a veneer log is peeled into thin layers, which we laminate with the middle core like plywood, using alternating grain directions to make the backs and sides very stable. The process allows us to bend an arch into the back for added strength and produces a durable guitar that travels well.

While layered woods will still add some unique sonic flavoring to a guitar's tone, as a composite construction it won't be as dramatic as a solid-wood guitar; it becomes more of a reflection of the guitar maker's design nuances.

## Back and Side Woods



### THE CLASSICS

Known for their rich musical heritage

#### Indian Rosewood

Models: 400, 700, 800, 900 Series

#### Tone Profile

- Full-spectrum acoustic voice with complex overtones and extended sustain
- Deep lows assert a throaty growl, sparkling highs ring out with bell-like clarity
- Slightly scooped mids
- Responds well to a variety of playing styles



#### Maple

Models: 600 Series

#### Tone Profile

- Long revered in the bowed instrument world for its linear, transparent response; very reflective of the player
- Traditionally known in the guitar world for having a bright, focused tone, quick attack, and fast note decay
- Revoiced for the 600 Series in 2015 to yield more warmth, complexity, volume, sustain and responsiveness, while retaining maple's naturally clear, linear qualities



#### Tropical Mahogany

Models: 500 Series

#### Tone Profile

- Meaty midrange featuring a strong fundamental focus without adding a lot of ringing overtones
- Responds well to players with a strong attack who like dry, earthy, low-fi sounds
- Natural compression creates a volume ceiling that smoothes out loose strumming technique
- Clear and direct tonal character makes it a great option for playing with other instruments

## THE EXOTICS

Admired for their unique beauty and distinctive musical properties

### Hawaiian Koa

**Models:** Koa Series

#### Tone Profile

- Fairly dense tropical hardwood with a strong midrange focus similar to mahogany, plus extra top-end brightness and chime
- The more a koa guitar is played and has a chance to open up – especially an all-koa guitar – the more its midrange overtones add warmth and sweetness to its voice

### Striped West African Ebony

**Models:** Presentation Series

#### Tone Profile

- Dense hardwood producing a clear, focused sound with good projection and volume
- Strong bass and lower mids, clear highs, and a scooped midrange like rosewood
- Rich overtones complement slower, softer playing
- Also responds well to aggressive playing
- It can sound bright or dark depending on the technique of the player or pick choice

## THE MODERN ALTERNATIVES

Less widespread, but with excellent tonal properties

### Ovangkol

**Models:** 400 Series

#### Tone Profile

- An African relative of rosewood that shares many of its tonal properties, including a broad tonal spectrum
- Full midrange and a bright treble response resembling koa
- Bass response adds pleasing depth to the overall tone
- Fits a versatile mix of music styles

### Sapele

**Models:** 300 Series (paired with spruce tops)

#### Tone Profile

- Comparable to mahogany with a slightly brighter sound featuring more top-end shimmer
- Consistent and balanced output across the tonal spectrum
- Responds well to a variety of playing styles and fits nicely into an instrument mix

### Blackwood

**Models:** 300 Series (paired with mahogany tops)

#### Tone Profile

- Strong volume and midrange focus – dry and clear yet warm, like mahogany and koa
- Pleasing top-end shimmer and richness similar to rosewood
- Its all-around musicality suits a variety of body sizes and musical styles

## Soundboard Woods



### Sitka Spruce

**Models:** Many Taylor models

- The most prevalent soundboard of the modern era
- Its blend of stiffness and elasticity translates into broad dynamic range, with crisp articulation
- Accommodates a wide range of playing styles

### Lutz Spruce

**Models:** Academy 12-N, 510, 516, 700 Series

- Naturally occurring hybrid of Sitka and White/Engelmann spruce
- Blends tonal characteristics of Sitka with Adirondack spruce to produce extra power, richness and volume



### Western Red Cedar

**Models:** 512/514 steel- & nylon-string models, JMSM

- Less dense than spruce, producing a warm, played-in sound
- Midrange bloom adds complexity to the tone
- Responds best to a lighter touch

### Sinker Redwood

**Models:** Presentation Series (GC, GA, 6-String GS models)

- Bold attack with an overtone-rich response
- Blends the punch of spruce with the warmth of cedar
- A saturated, almost “wet” sound



### Hardwood Tops (Koa, Mahogany)

**Models:** Koa Series (Koa), 500 Series, 300 Series (Mahogany)

- Produce a natural compression, yielding more of a controlled, “roll-in” effect to a note
- The compression evens out a lively attack for a more linear response
- Mahogany top: strong fundamentals, clear and direct focus
- Koa top: Similar to mahogany with extra top end shimmer and chime



# The Taylor Line By Series

A snapshot of our series framework and tonewood pairings

## All-Solid-Wood Guitars

A guitar made with a top, back and sides of solid wood will produce the most complex sound and continue to improve with age

### Presentation Series

**Back/Sides:** Striped West African Ebony  
**Top:** Sinker Redwood or Sitka Spruce

### Koa Series

**Back/Sides:** Hawaiian Koa  
**Top:** Hawaiian Koa  
(Options: Sitka Spruce or Cedar)

### 900 Series

**Back/Sides:** Indian Rosewood  
**Top:** Sitka Spruce

### 800 DLX Series

**Back/Sides:** Indian Rosewood  
**Top:** Sitka Spruce

### 800 Series

**Back/Sides:** Indian Rosewood  
**Top:** Sitka Spruce

### 700 Series

**Back/Sides:** Indian Rosewood  
**Top:** Lutz Spruce

### 600 Series

**Back/Sides:** Maple  
**Top:** Torrefied Sitka Spruce

### 500 Series

**Back/Sides:** Tropical Mahogany  
**Top:** Mahogany, Lutz Spruce (GS, DN) or Cedar (GC, GA)

### 400 Series

**Back/Sides:** Ovangkol or Indian Rosewood  
**Top:** Sitka Spruce

### 300 Series

**Back/Sides:** Sapele (spruce top) or Blackwood (mahogany top)  
**Top:** Sitka Spruce or Mahogany

## Layered Wood Guitars

Guitars crafted with layered wood back and sides, featuring three layers of wood, paired with a solid wood top

### 200 DLX Series

**Back/Sides:** Layered Rosewood or Koa  
**Top:** Sitka Spruce or Koa

### 200 Series

**Back/Sides:** Layered Koa  
**Top:** Sitka Spruce

### 100 Series

**Back/Sides:** Layered Walnut  
**Top:** Sitka Spruce

### Academy Series

**Back/Sides:** Layered Sapele  
**Top:** Sitka Spruce or Lutz Spruce (Nylon)

### GS Mini

**Back/Sides:** Layered Sapele, Koa or Walnut  
**Top:** Sitka Spruce, Mahogany or Koa

### Baby Series

**Back/Sides:** Layered Sapele  
**Top:** Sitka Spruce or Mahogany

## Electric Guitars

Hollowbody or Semi-Hollowbody



### T5z Series

**Top:** Flamed Koa, Curly Maple, Sitka Spruce or Mahogany

### T3 Series

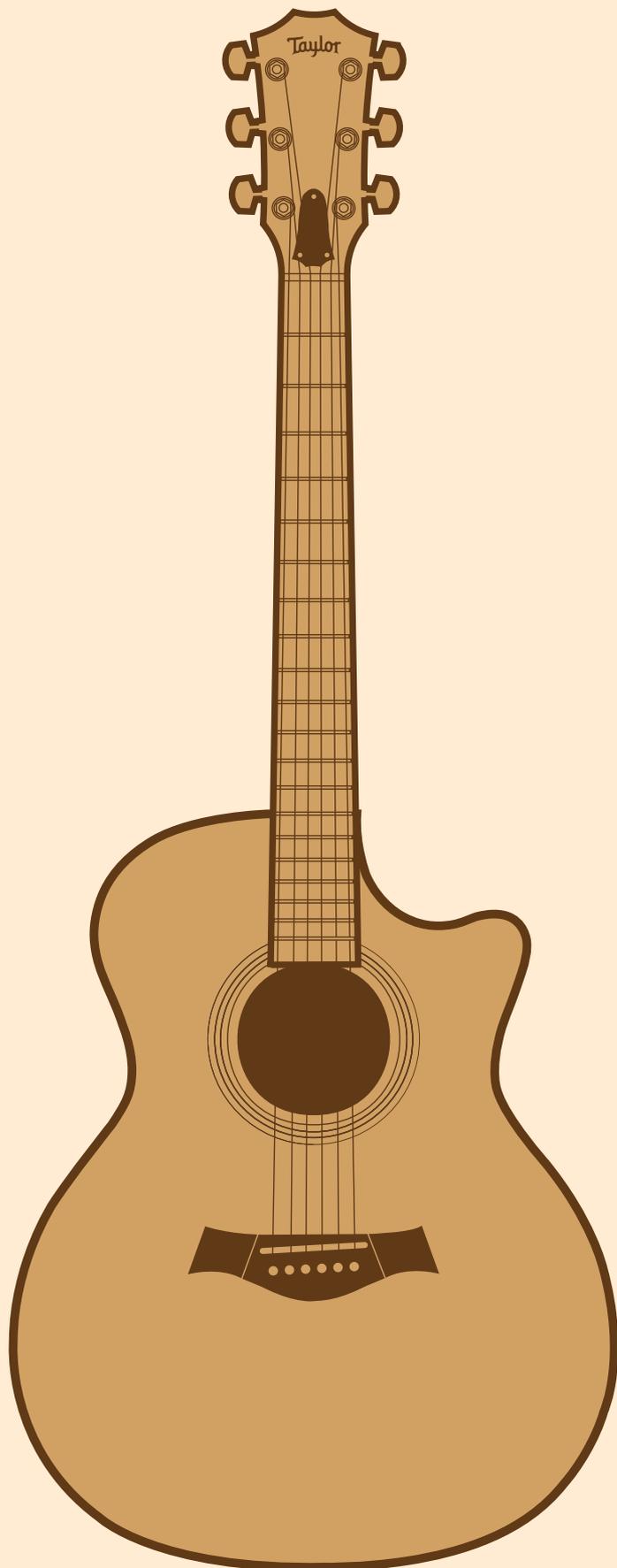
**Top:** Layered Maple (Flame or Quilt)

## Custom Guitars

Create a guitar that stands out as a personal expression of your musical tastes



# A Guide to Taylor Acoustic Model Numbers



The majority of Taylor's acoustic guitars are offered in three model variations:

- Cutaway body with onboard electronics (e.g., 516ce)
- Non-cutaway body with onboard electronics (e.g., 516e)
- Non-cutaway body with no onboard electronics (e.g., 516)

Most models are organized by series, featuring the 100 through 900 Series along with our Academy, Presentation (PS) and Koa (K) Series. Here's how our numbering system works:

## 516ce

**516ce**    **The first digit** (or letter) identifies the Series. Most guitar models within each series share the same back and side woods and appointment package.

**516ce**    **The second digit** designates two things: first, whether the guitar is a 6-string or a 12-string, and second, whether the top features a softwood like spruce or cedar, or a hardwood like mahogany or koa. The middle number "1" or "2" designates a 6-string guitar with a softwood (1) or hardwood (2) top. For example: 516ce = 6-string with a spruce top; 526ce = 6-string with a mahogany top

The middle number "5" or "6" designates a 12-string guitar with either a soft (5) or hardwood (6) top. In this case: 556ce = 12-string with a spruce top; 566ce = 12-string with a mahogany top

**516ce**    **The third digit** identifies the body shape according to this numbering system:  
0 = Dreadnought (e.g., 510ce)  
2 = Grand Concert (e.g., 512ce)  
4 = Grand Auditorium (e.g., 514ce)  
6 = Grand Symphony (e.g., 516ce)  
8 = Grand Orchestra (e.g., 518ce)

**516ce**    **"c"** Indicates a model with a cutaway

**516ce**    **"e"** Indicates a model with onboard electronics

Taylor nylon-string models are integrated into the Academy-800 Series and are designated by the letter "N" at the end of the model name. For example, a nylon-string Grand Concert with a cutaway and electronics within the 500 Series is a 512ce-N.

## Presentation Series



### Specifications

**Back/Sides:** Striped West African Ebony

**Top:** Sinker Redwood (GC, GA, 6-String GS) or Sitka Spruce

**Finish (Body):** Gloss 6.0

**Rosette:** Single Ring Paua

**Fretboard Inlay:** Paua/Pearl Nouveau

**Binding:** Ebony

**Electronics:** Expression System 2

**Premium Features:** Ebony Armrest, Paua Trim (Top, Back, Sides, Fretboard Extension, Fretboard, Peghead, Armrest), Striped West African Ebony Backstrap, Peghead/Bridge Inlays, Abalone Dot Bridge Pins, Gotoh 510 Tuners

### Available Models

PS12ce, PS12ce 12-Fret, PS14ce, PS16ce, PS18e, PS56ce



The pinnacle of our acoustic line, the Presentation Series marries beautiful form with exceptional function. This year we're proud to incorporate spectacular sets of striped West African ebony, sustainably sourced in Cameroon and processed at our Crelicam mill. Grand Concert, Grand Auditorium, and 6-string Grand Symphony models now boast striking variegated sinker redwood tops, which produce a bold and complex sound, while top-grade Sitka spruce tops grace our 12-string Grand Symphony, Dreadnought and Grand Orchestra body styles. A beveled ebony armrest and elaborate inlays exemplify the exquisite craftsmanship and detailed artistry that place these guitars in a class all their own.

## Koa Series



Crafted to honor the natural beauty of its Hawaiian homeland, our Koa Series complements the exotic visual character of figured koa with wood-rich appointments, including our new Spring Vine inlay motif in maple. With the exception of our one-of-a-kind Builder's Edition K14ce (see page 16), all models sport a koa top and an artful shaded edgeburst treatment around the entire guitar. Players can expect an acoustic voice with exceptional focus, smooth balance, and a splash of top-end chime. Best of all, the tone will continue to blossom over time. In both looks and sound, these guitars promise to reveal their heirloom virtues in deeply satisfying ways.

*With his warm personality, Jung Park (K24ce) is one of those people you feel better off for knowing. His first taste of Taylor was a Dreadnought from the mid-'90s, and he loves exploring the unique personality of each guitar he plays. Music has always been an integral part of Jung's life, whether he's playing with others or writing and recording at his home studio. In addition to scoring music for video games, he's also the worship arts director at his church.*

### Available Models

K22ce, K22ce 12-Fret, Builder's Edition K14ce, K24ce, K26ce, K66ce, K28e

### Specifications

**Back/Sides:** Hawaiian Koa  
**Top:** Hawaiian Koa (Options: Sitka Spruce or Cedar) or Torrefied Spruce (Builder's Edition)  
**Finish (Body):** Gloss 6.0 with Shaded Edgeburst (Entire Guitar)  
**Rosette:** Maple with Koa/Black Purfling  
**Fretboard Inlay:** Maple Spring Vine  
**Binding:** Pale Non-Figured Maple  
**Electronics:** Expression System 2  
**Premium Features:** Black/Koa/Maple Top Purfling, Maple Peghead/Fretboard Purfling

### Unique Builder's Edition

**K14ce Specifications**  
 Silent Satin Finish with Kona Burst (Back/Sides), Kona Burst Neck, Paua Rosette Trimmed in Koa, Paua Spring Vine Fretboard/Peghead Inlay, Koa/Paua Inset Purfling (Top/Back), Koa Fretboard/Peghead Purfling, Gold Gotoh 510 Tuners, Black Graphite Nut, Builder's Edition Guitar Label



## 900 Series

Rooted in the classic tonewood pairing of Indian rosewood and Sitka spruce, our luxurious 900 Series guitars are brought to life with the utmost precision and care. The leader of the pack is our new 914ce, which sings beautifully thanks to our new V-Class bracing. Across the series, rosewood's rich tonal range is matched by attentive aesthetic strokes, including a hand-beveled ebony armrest and contrasting koa and paua abalone edge trim. Other refined details include finely calibrated Gotoh 510 tuners, our ultra-thin gloss finish to allow optimal resonance, plus an optional tobacco sunburst top.

### Available Models

912ce, 912e 12-Fret, 912ce 12-Fret, 914ce, 916ce, 956ce



914ce



916ce SB

912ce

### Specifications

**Back/Sides:** Indian Rosewood

**Top:** Sitka Spruce

**Finish (Body):** Gloss 3.5

**Rosette:** Single Ring Paua with Koa/Ebony Purfling

**Fretboard Inlay:** Abalone/Pearl Ascension

**Binding:** Ebony

**Electronics:** Expression System 2

**Premium Features:** Custom-Calibrated Wood Thicknesses/Bracing for Each Shape, Side Braces, Ebony Armrest, Paua/Koa Trim (Top, Back, Sides, Fretboard Extension, Fretboard, Peghead, Armrest), Ebony Backstrap, Gotoh 510 Tuners



## 800 Deluxe

This ultra-premium rendering of our flagship rosewood/spruce 800 Series introduces another level of refinement in feel, sound and looks. Our radius armrest enhances the playing comfort and showcases elegant craftsmanship as the maple binding transitions into sculpted rosewood contours. The 21:1 gear ratio of the Gotoh 510 tuners adds a luxurious feel and precise tuning control. Adirondack spruce bracing pumps up the tonal output, offering more dynamic range to explore. Each body style brings something unique to a music mix, from the popular Grand Auditorium to the 12-fret Grand Concert to the wonderfully lush 12-string Grand Symphony. Whichever model fits your style, you'll have a guitar that responds with clarity and gleams with superstar presence.

### Available Models

810e DLX, 812ce 12-Fret DLX,  
812ce DLX, 814ce DLX, 816ce DLX



814ce DLX (sunburst top)

812ce  
12-Fret DLX

816ce DLX

### Specifications

**Back/Sides:** Indian Rosewood

**Top:** Sitka Spruce

**Finish (Body):** Gloss 3.5

**Rosette:** Single Ring Abalone Edged with Rosewood

**Fretboard Inlay:** Pearl Element

**Binding:** Pale Non-Figured Maple

**Electronics:** Expression System 2

**Premium Features:** Adirondack Spruce Bracing, Custom-Calibrated Wood Thicknesses/Bracing for Each Shape, Protein Glue (Bracing), Rosewood/Maple Radius Armrest, Side Braces, Rosewood Pickguard, Rosewood Top Trim, Gotoh 510 Tuners



Award-winning singer-songwriter Steph Johnson (814ce) has not only parlayed her soulful musical talents into an accomplished career, she has also used music as a vehicle to uplift people as a community activist. In 2016 Steph co-founded Voices of Our City, a choir for people experiencing homelessness in San Diego. Their mission is to serve and advocate for the homeless community, and to transform the perception of homelessness through the healing power of the arts. The choir regularly performs around town.

## 800 Series

With our venerable 800 Series, a classic Bob Taylor design has steadily evolved in our quest for ongoing improvement, especially in the skilled hands of master luthier Andy Powers. In these guitars the time-honored pairing of rosewood and spruce delivers a richly musical sound that makes each instrument feel truly alive in one's hands. The series has served as a proving ground for Taylor ingenuity, with internal bracing and wood thicknesses that have been honed to bring out the best of each body style, along with ultra-thin gloss finish for optimal resonance. Each model reveals a nuanced personality that can transform the simplest compositions into stirring melodies. Put simply, the 800 Series is built to inspire.

### Available Models

810e, 812ce, 812ce-N,  
812e 12-Fret, 812ce 12-Fret,  
814e, 814ce, 816ce, 818e,  
818ce, 856ce, 858e

### Specifications

**Back/Sides:** Indian Rosewood  
**Top:** Sitka Spruce  
**Finish (Body):** Gloss 3.5  
**Rosette:** Single Ring Abalone Edged with Rosewood  
**Fretboard Inlay:** Pearl Element  
**Binding:** Pale Non-Figured Maple  
**Electronics:** Expression System 2  
**Premium Features:** Custom-Calibrated Wood Thicknesses/Bracing for Each Shape, Protein Glue (Bracing), Side Braces, Rosewood Pickguard, Rosewood Top Trim



## 700 Series

A Lutz spruce top voiced with Performance bracing reveals another compelling side of rosewood with our 700 Series guitars. Compared to the high-fidelity sonic detail of its other rosewood series siblings, the 700s lean toward a more rootsy personality, emphasizing a fundamental focus that responds directly to a player's attack. The Lutz top powers the volume up a notch, and the extra punch shines in an amplified setting. That rootsy sonic vibe is reflected in earthy aesthetic details like koa binding and a rosette and top trim featuring Herringbone-style Douglas fir and maple. An optional Western sunburst top adds honey-brown shading that highlights the warm, classic Americana vibe.

### Available Models

710e, 712ce, 712ce-N,  
712e 12-Fret, 712ce 12-Fret,  
714ce, 716ce, 756ce

### Specifications

**Back/Sides:** Indian Rosewood

**Top:** Lutz Spruce

**Finish (Body):** Gloss 6.0/Optional Western Sunburst Top

**Rosette:** 3-Ring Herringbone with Douglas Fir/Maple/Black

**Fretboard Inlay:** Green Abalone Reflections

**Binding:** Non-Figured Koa

**Electronics:** Expression System 2

**Premium Features:** Performance Bracing with Protein Glue, Douglas Fir/Maple/Black Top Edge Trim, Weathered Brown Pickguard



*You're just as likely to find singer-songwriter Cody Lovaas (714ce) in board shorts with his surfboard in tow as you are to see him "dressed up" for a gig with his Taylor in his hands. Music and surfing have long been tandem partners of the laid-back SoCal lifestyle, and Cody has embraced both to the fullest. Discovered by Jason Mraz while playing at a local coffee shop at age 14, he's well on his way to carving out a career as a performing artist. But there's always time for a family jam session at home, in this case with sisters Nikelle (middle), Keelee (712e 12-Fret), and their dog River.*

## 600 Series

Our revoiced maple guitars have sparked a revival among players thanks to Andy Powers' thoughtful update back in 2015. Maple's sonic transparency has been preserved, giving these guitars a versatile, player-reflective response. A maple-centric bracing scheme, together with a torrefied spruce top, coaxes out a played-in sound with pleasing warmth, complexity and sustain. Gorgeous aesthetic strokes include our hand-rubbed Brown Sugar stain, which visually amplifies maple's rich fiddleback figure in a nod to the stains used on traditional violin-family instruments. We also love that maple is a sustainably managed North American timber, with additional efforts in place to propagate it for future generations of guitar lovers.

### Available Models

612ce, 612e 12-Fret,  
612ce 12-Fret, 614ce,  
616ce, 618e, 618ce, 656ce

*Longtime San Diego TV reporter Brad Perry (614ce) started playing guitar to bond with his daughter, sparking a passion for making music that blossomed into songwriting and starting a band. He recently left his TV gig to pursue other projects that bring him a deeper sense of fulfillment, giving him more time to spend with his family, his guitars, and in this case, both, as he rocks out with his son Tanner (612ce 12-Fret).*



### Specifications

**Back/Sides:** Figured Big Leaf Maple  
**Top:** Torrefied Sitka Spruce  
**Finish (Body):** Gloss 3.5 with Hand-Rubbed Brown Sugar Stain (Back/Sides/Neck)  
**Rosette:** Paua Edged with Ebony/Grained Ivoroid  
**Fretboard Inlay:** Grained Ivoroid Wings  
**Binding:** Ebony  
**Electronics:** Expression System 2  
**Premium Features/Appointments:** Custom-Calibrated Wood Thicknesses/Bracing by Shape, Torrefied Top, Protein Glues (Bracing), Ebony Backstrap with Grained Ivoroid Wings Inlay, Side Braces, Grained Ivoroid Purfling (Body, Peghead), Striped Ebony Pickguard





## 500 Series

A trio of soundboard choices – Lutz spruce, cedar and mahogany – highlights the diversity and versatility of our mahogany 500 Series. Cedar yields remarkable overtone warmth and responsiveness to a light touch. Mahogany-top models benefit from a hardwood top's natural compression, serving up a smooth, focused sound and a dark, vintage look with a shaded edgeburst. Fans of spruce-top mahogany guitars will love the power and dynamic range of our Lutz tops. And if you haven't yet played one of our inviting small-body 12-fret/12-string guitars, our 500 Series offers two unique flavors to explore: the cedar-top 552ce and mahogany-top 562ce. There's something to satisfy every type of player within our mahogany guitar family.

### Available Models

510e, 512ce, 512ce 12-Fret,  
522ce, 522e 12-Fret,  
522ce 12-Fret, 552ce, 562ce,  
514ce, 524ce, 516ce, 526ce



### Specifications

**Back/Sides:** Tropical Mahogany  
**Top:** Mahogany, Lutz Spruce (GS, DN), or Cedar (GC, GA)  
**Finish (Body):** Gloss 6.0 with Shaded Edgeburst (Mahogany-Top Models)  
**Rosette:** Faux Tortoise Shell/Grained Ivoroid  
**Fretboard Inlay:** Grained Ivoroid Century  
**Binding:** Faux Tortoise Shell  
**Electronics:** Expression System 2

## 400 Series

Indian rosewood or African ovangkol? Both deliver full-range tone profiles. Rosewood's voice tends to emphasize the low and high ends of the tonal spectrum, with an extra splash of treble sparkle, while ovangkol will lean toward a stronger midrange presence. Let your ears be the judge. If it comes down to looks, you've got ovangkol's golden-brown hues and dot inlays versus rosewood's chocolate complexion and, new for 2018, a Renaissance fretboard inlay. Whichever flavor you prefer, signature Taylor playability will help you sound your best.

### Available Models

410e-R, 412e-R, 412ce,  
412ce-R, 414e-R, 414ce,  
414ce-R, 416ce, 416ce-R,  
456ce, 456ce-R, 418e,  
418e-R, 458e, 458e-R

### Specifications

**Back/Sides:** Ovangkol or Indian Rosewood

**Top:** Sitka Spruce

**Finish (Body):** Gloss 6.0

**Rosette:** 3-Ring White

**Fretboard Inlay:**

4mm Italian Acrylic Dots  
(Ovangkol) or Renaissance  
(Rosewood)

**Binding:** White

**Electronics:** Expression  
System 2



## 300 Series

Our 300 Series welcomes players to the tonal complexity of an all-solid-wood acoustic guitar with a double pairing of tonewoods. We've matched sapele with a spruce top, and blackwood with a mahogany top. Popular models include our blackwood/mahogany Grand Auditorium 324ce, the sapele/spruce 314ce, our Grand Concert 322e 12-Fret, and a pair of small-body 12-string/12-fret models: the mahogany-top 362ce, with a controlled response that sounds great amplified; and the spruce-top 352ce, which is a shade brighter, more responsive, and more dynamic.

### Available Models

310ce, 320e, 360e, 312ce,  
312ce-N, 312e 12-Fret,  
312ce 12-Fret, 322e, 322ce,  
322e 12-Fret, 322ce 12-Fret,  
352ce, 362ce, 314,  
314ce, 324, 324e, 324ce,  
316ce, 326ce, 356ce

### Specifications

**Back/Sides:** Sapele (Spruce Top)  
or Blackwood (Mahogany Top)

**Top:** Sitka Spruce or Mahogany

**Finish (Back/Sides):** Satin 5.0

**Finish (Top):** Mahogany:

Satin 5.0/Shaded Edgeburst;

Spruce: Gloss 6.0

**Rosette:** 3-Ring Black

**Fretboard Inlay:** Italian

Acrylic Small Diamonds

**Binding:** Black

**Electronics:** Expression  
System 2



*Brazilian multi-instrumentalist, composer and songwriter Pedro Talarico (324ce) has always drawn musical inspiration from his surroundings, whether his native home of Rio de Janeiro, the chill beach culture of Southern California, or the song-centric community of Nashville. If an instrument has strings, he's interested, so if he's not playing his Taylors, he's likely picking one of his electrics, or maybe his lap steel, mandolin, ukelele or Brazilian cavaquinho. When he's not touring in tribute bands, he gigs in a duo, The Red Weddings, with his wife, violinist/singer Caitlin Evanson (Taylor Swift, Shakira), and works as a session musician, score composer, and guitar teacher. (Photo: Chris Sorenson)*

## 200 DLX Series

### 200 Series

Our 200 and 200 Deluxe Series present a curated mix of player favorites. All models feature a solid wood top paired with layered wood back and sides and include ES2 electronics. Our Deluxe collection sports a rich, full-gloss body, and models ship in a hardshell case. The 224ce-K DLX showcases all-koa construction with a shaded edgeburst (or opt for the spruce-top 214ce-K DLX), while the 214ce DLX pairs solid spruce with beautifully variegated layered rosewood. From our 200 Series, the 214ce features satin-finish layered koa back and sides paired with a gloss-finish solid spruce top.

#### Available Models

210e DLX, 214ce DLX,  
214ce-K DLX, 224ce-K DLX,  
214ce



224ce-K DLX

214ce DLX

214ce

#### Specifications

**Back/Sides:** Layered Koa or Rosewood

**Top:** Sitka Spruce or Koa

**Finish (Body):** Gloss 6.0 (Shaded Edgeburst on All-Koa Body);

214ce: Satin 5.0 Back/Sides; Gloss 6.0 Top

**Rosette:** Single Ring Italian Acrylic (DLX) or 3-Ring White (214ce)

**Fretboard Inlay:** Italian Acrylic Small Diamonds (DLX) or 4mm Italian Acrylic Dots (214ce)

**Binding:** Black, White or Cream (214ce-K DLX)

**Electronics:** Expression System 2

## 100 Series

There's no denying the aesthetic warmth of the layered walnut we select for our 100 Series. Offered in our Grand Auditorium and Dreadnought shapes, these guitars will appeal to players searching for the right mix of looks, feel, sound and price. A solid spruce soundboard responds with a clear, dynamic voice, while a slender Taylor neck and 1-11/16" nut width dial up the comfort for your fretting hand. If you've been thinking about expanding your acoustic arsenal with a budget-friendly 12-string, try our 150e – it remains the industry's top-seller. All models come with a Taylor gig bag.

### Available Models

110ce, 110e, 114ce, 114e, 150e



### Specifications

**Back/Sides:** Layered Walnut

**Top:** Sitka Spruce

**Finish (Body):** Matte 2.0

**Rosette:** 3-Ring White

**Fretboard Inlay:** 4mm Italian Acrylic Dots

**Binding:** Black

**Electronics:** Expression System 2



Academy 12e-N

### Specifications

**Back/Sides:** Layered Sapele  
**Top:** Sitka Spruce or Lutz Spruce (Nylon)  
**Finish (Body):** Matte 2.0  
**Rosette:** 3-Ring Baltic Birch  
**Fretboard Inlay:** 4mm Italian Acrylic Dots  
**Binding:** None  
**Electronics:** ES-B

## Academy Series

A comfortable playing experience is a Taylor hallmark. Our Academy Series, designed with novice players in mind, honors that commitment with guitars that make an inviting first impression and inspire players to continue their musical journey. Our steel-string necks feature a slim profile, a slender nut width (1-11/16"), a 24-7/8-inch scale length, and light gauge strings, which all add up to an easy handfeel. The body is built with an armrest to make the player's picking arm more comfortable. The sound is signature Taylor, with a clear, balanced voice in anyone's hands. The appointments are minimal to make the guitar affordable. We've even kept the model selection simple. Choose from two steel-string models: a Dreadnought and a compact Grand Concert, along with a wonderful nylon-string Grand Concert. The guitars come with onboard ES-B electronics that feature a built-in tuner, and include a Taylor gig bag. It's the essence of a great instrument. And we'll let you in on a little secret: You don't have to be a novice to love playing these guitars.

### Available Models

Academy 10, Academy 10e,  
 Academy 12, Academy 12e,  
 Academy 12-N, Academy 12e-N



Academy 10e

Academy 12e

## GS Mini GS Mini Bass

One could just call the lovable GS Mini “the people’s guitar” based on its universal appeal and the hundreds of thousands we’ve put in the hands of players since its debut in 2010. It embodies the idea of a guitar being fun and accessible and not taking itself too seriously – even though it’s a serious instrument. The Mini’s scaled-down size makes it perfect for jam sessions, rehearsals, and travel, and with a full voice that belies its small frame, it packs an impressive sonic punch that suits an array of playing styles and applications. Choose from a solid top of spruce, koa or mahogany, with layered back and sides of sapele, koa or walnut. And the fun doesn’t end there.

Our GS Mini Bass is a four-string marvel that has taken the world by storm by making an acoustic bass accessible to anyone. Its compact form, slinky feel, and warm tone have made it a welcome addition to those aforementioned jam sessions, along with songwriting sessions, demo tracks, and tour buses around the world. With onboard electronics and a smooth playing feel, it’s an easy and convenient way to add great bass flavors to your musical palette.

### Available Models

GS Mini Mahogany, GS Mini-e Koa, GS Mini-e Walnut, GS Mini-e Bass

### Specifications

**Back/Sides:** Layered Sapele, Koa or Walnut  
**Top:** Sitka Spruce, Mahogany or Koa  
**Finish (Body):** Matte 2.0  
**Rosette:** 3-Ring White  
**Fretboard Inlay:** 4mm Italian Acrylic Dots  
**Binding:** None  
**Electronics:** ES-B



*L-R: Damian DeRobbio (GS Mini-e Bass), Paul Cannon (GS Mini Koa), and Abner Nevarez are Iron Sage Wood, a groove-rich trio that blends elements of world beat, folk and “Native Americana” into songs featuring themes of hope and transformation. Cannon is a fixture of our local music scene and a longtime Taylor player, and his holistic approach to spirit, family, friends and nature translates into a culturally diverse musical experience. (Photo: Chris Sorenson)*

## Baby Series

The guitar that helped spawn the concept of the “travel guitar” has been inspiring the world for over two decades now. It’s gratifying to know that our ¾-size mini-Dreadnought has led so many young people down the path toward becoming musicians. The Baby makes a great starting point for new players regardless of age, especially for those of smaller stature or who want a compact instrument for practice purposes. It also adds an interesting voice to a recording mix – try it with a capo or add some extra chime as a high-strung guitar. Choose a spruce or mahogany top, both paired with layered sapele back and sides. And if you crave something bigger, there’s always the Big Baby, a 15/16-scale Dreadnought built with a slightly slimmer body than our standard Dread to enhance the playing comfort. Whether you’re a new player looking for a smooth start or you just need a reliable travel or songwriting guitar, the Baby Series has you covered.

### Available Models

BT1, BT2 (Mahogany Top),  
TSBTe (Taylor Swift Model),  
BBT (Big Baby)



L-R: BT2, TSBT

### Specifications

**Back/Sides:** Layered Sapele  
**Top:** Sitka Spruce or Mahogany  
**Finish (Body):** Matte 2.0  
**Rosette:** Single-Ring Black (Screen-Printed Custom for TSBT)  
**Fretboard Inlay:** 4mm Italian Acrylic Dots  
**Binding:** None  
**Electronics:** ES-B





L-R: T3/B, T5z Classic DLX

## T5z / T3

### T5z

Taylor innovation sparked the design of our versatile hollowbody electric/acoustic T5 family, which incorporates three proprietary pickups and five-way switching to pack impressive tonal versatility into a single guitar. As our electric line has evolved, the T5z has emerged as an inspiring tool with its comfortable body shape, jumbo frets, and 12-inch fretboard radius. Within its sweeping tonal range, players inevitably discover fresh sonic flavors that no other electric guitar will give them. Choose from several model options, featuring Custom, Pro, Standard, Classic and Classic Deluxe editions, in a mix of wood tops, colors and finish treatments, including a pair of 12-strings.

### T3

For players craving the unique range of tones that only a semi-hollowbody electric can offer, the Taylor modern-vintage T3 and T3/B deliver that and more. Proprietary high-definition humbuckers (or optional vintage alnico pickups) drive the warm, resonant tone of these guitars, while three-way switching, coil-splitting capability, and other tone-sculpting controls help you shape the T3's personality to explore different genres. A gorgeous figured maple top is offered in several colors, including orange, black and tobacco sunburst. Opt for a traditional stoptail bridge, or for smooth pitch-bending fun, a Bigsby vibrato tailpiece. Gloss finish and crisp white binding highlight the guitar's sensual curves.

### Available Models

T5z Classic  
 T5z Classic 12-String  
 T5z Classic Deluxe  
 T5z Custom  
 T5z Custom 12-String  
 T5z Pro  
 T5z Standard  
 T3  
 T3/B

To see our full range of top options, color finishes, and other appointments for each series, visit [taylorguitars.com](http://taylorguitars.com)

## Custom Guitars



The more we play guitar, the more discerning we become. We know what brings out our best, what inspires us, what might fill a musical need that our other guitars can't. And sometimes the guitar we envision doesn't yet exist. But with the Taylor Custom program, it can. Whether it's a magical wood pairing, a custom neck configuration, an appointment package that perfectly reflects your tastes, or all of the above, we're here to help. We've configured our program with an array of options covering virtually every part of the guitar.

Choose from all of our body styles, premium-grade tonewoods, custom finish options, and a bevy of hand-selected appointments, down to the last detail. You can also design your guitar from specialty categories including baritone, 12-string, 12-fret, nylon and electric.

You'll create your design through an authorized Taylor dealer who is well-versed in our program, plus you can contact us any time with questions or for guidance. Once you place your order, you'll be playing your dream guitar within about eight weeks. If you're looking for inspiration, check out the custom gallery on the Taylor website for examples of custom guitars we've built, including full specs for each guitar.

### Standard Model Options

If you're just looking for more flexibility within the existing Taylor line, you have access to a whole menu of standard model options. Maybe an alternative nut width or scale length for a neck, a sunburst top, or a different pickguard. You'll find a list of both standard model option and custom categories on our price list at [taylorguitars.com](http://taylorguitars.com).

*If you live in the U.S. or Canada and have questions about our Custom program, contact your preferred dealer or call us at 1-800-943-6782. For customers outside North America, contact your local Taylor dealer or international distributor in your country.*

*L-R: 12-fret Grand Auditorium featuring AA-grade koa back, sides and top, Adirondack spruce bracing, figured maple rosette, binding and armrest, and bone bridge pins with abalone dots; Grand Auditorium featuring West African ebony back and sides with figured koa back wedge, figured koa binding, cedar top, Florentine cutaway, and satin finish; Grand Auditorium featuring figured maple back/sides, back mini wedge, cedar top, maple neck, and grained ivoroid binding*



## The Craft

### A Guitar Maker's Library

Andy pays tribute to the treasure trove of information resources that have guided his guitar-making journey

**R**ecently, after introducing our new V-Class concept and guitars to a group of Taylor employees, I was asked, "Why hasn't anyone else thought of this before?" I think this is an interesting question, although tricky to answer. I mean, we can't ever know why another person is *not* thinking of something. On the other hand, we can know what's on a person's mind if we see the work they produce, or if they tell us. Fortunately, some people do tell us what they are thinking. More precisely, some generous folks tell us what they've learned.

While I never studied instrument making in a formal setting under a teacher, I'm far from what I'd call self-taught. Sure, I've collected a considerable amount of direct experience from building, fixing and playing instruments. But what we experience ourselves is only a fraction of what we can learn. I've had the privilege of living in an era when lots of other folks were interested in instruments. Those builders, repairers, historians, writers and players wrote about their own experiences and discoveries, and made a generous choice to share them in books, articles and conversations. Often they did this

simply because the information was not available to them, and they selflessly wanted to change this landscape. In a spirit of appreciation, I'd like to cite some informational treasures that helped inform the development of the V-Class guitars we're now building.

In the late 1500s, the famed astronomer Galileo Galilei's lute-playing father Vincenzo wrote and published a landmark work called *Dialogo Della Musica Antica Et Della Moderna* (translation: *Dialogue About Ancient and Modern Music*), which was kindly translated into modern English by Robert Herman, then later by Claude Palisca. The elder Galilei informs us that tuning his lute into equally spaced notes is both practical and close enough for rock 'n' roll. This departure from the complex system of mathematically perfect notes helped steer Western music into the modern note family we call equal temperament.

Skipping forward a few centuries, scientist Hermann von Helmholtz wrote a book called *On the Sensations of Tone* (later updated by keyboard expert and translator Alexander Ellis in 1885). Helmholtz explained the physics of sound and musical note formation in

great detail, making clear what had been a grand mystery.

Of course, the mechanisms and methods of harmony and musical composition have been continuously studied for centuries, and made available through books like Walter Piston's simply titled reference work *Harmony*.

I realize these are fairly old sources of information. This said, the knowledge and truth contained in them do not cease being true simply because they are old. For more recent examples, we can look to books that document the development of instruments to a degree which has likely never been attained. The Hill brothers' book covering the life and work of Stradivari was a great offering to the musical world, and in a way established a template for historic accounts of the Martin Guitar company and their instruments penned by Mike Longworth, later Richard Johnston and Jim Washburn, and later still by Robert Shaw and Peter Szego. Of course, there are similarly in-depth accounts of other great manufacturers including Fender, Gibson and Epiphone, alongside detailed biographies for individual makers like D'Angelico and D'Aquisto written by Paul Schmidt. There are

even fabulous books focused on singular instrument models that examine in exquisite minutiae the details of Les Paul guitars, Telecasters fitted with black pickguards, and Stratocasters. There are photographic compilations of every sort, documenting the private collections of well-to-do instrument enthusiasts, museum collections, and chronological histories of instruments such as *Acoustic Guitars and Other Fretted Instruments* and its companion volume *Electric Guitars and Basses* by George Gruhn and Walter Carter. In addition to these sources of historic information, we can find actual construction manuals and blueprints from the drawing boards of experienced builders such as Bob Benedetto. There are also beautifully written and well researched books that explore how guitars developed in the social context of its music and society.

Next I must take into account the volumes written about woodworking and the behavior of the materials we love. Moving past those treasures, we are left with the thousands of pages of articles and magazines devoted to the guitar, authored by collectors, dealers, historians and experienced players who

have studied our instruments with the fervor that only accompanies a person with passion and a desire to learn.

While I'm afraid to name other specific writers at the risk of leaving anyone out, I'd like to offer each of them a sincere thank-you for sharing their insights, knowledge and enthusiasm with the wide world. We've had the opportunity to learn from them, scaling up our knowledge base past what a person could learn and discover on their own in the course of a lifetime.

Ultimately with the introduction of these new Taylor guitar designs, my hope is that players will find them to be instruments that do an ever better job of expressing their music. At the same time, I'm excited to see where this next chapter will lead in our continuing quest to build and discover.

To adequately answer why these new instruments haven't been built before may not be possible. I think a better question is to ask what uncharted territory this road will take us to and what we get to learn next. I'm excited to find out.

— Andy Powers  
Master Guitar Designer

“  
**What we experience ourselves is only a fraction of what we can learn.**

”

# TaylorWare

CLOTHING / GEAR / PARTS / GIFTS



**NEW**

**Two-Color Logo T**

Standard fit. Heavyweight preshrunk 100% cotton.  
(Navy #1654X; S-XL, \$22.00; XXL-XXXL, \$24.00)



**Men's Urban Zip Hoody**

Eco-Jersey triblend. Low-impact  
yarn-dyed/fabric-washed. Standard fit.  
(Urban Grey #2299X; S-XXL, \$59.00)



**NEW**

**Ladies' CA Born T**

Fine-knit jersey tri-blend.  
Slim fit with slightly  
scooped neckline. Short  
sleeve. (Mocha #4494X;  
S-XL, \$24.00)

**Cynthia, a designer on  
our digital marketing  
team, rocks our new  
Ladies' CA Born T.**

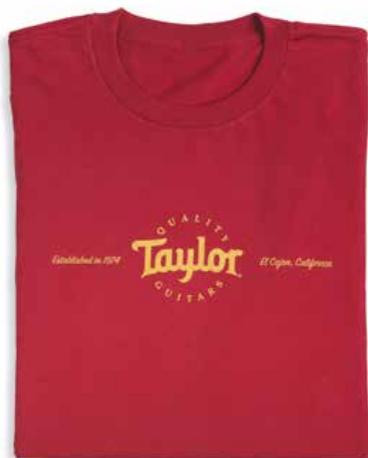
Visit [taylorguitars.com/taylorware](http://taylorguitars.com/taylorware) to browse  
our complete line of Taylor apparel, guitar care  
products, parts and accessories, gift cards, and  
more. 1-800-494-9600



#### Aged Logo Thermal

Long Sleeve 60/40 cotton/poly waffle thermal with gray Taylor logo on front with contrast stitching. Slimmer fit (sizing up recommended).

(Black #2022X; S-XXL, \$35.00)



#### Men's Classic T

Fashion Fit. Pre-shrunk 100% cotton.

(Red #1653X; S-XXXL, \$24.00)



#### Roadie T

Fashion fit. 60/40 cotton/poly.

Ultra-soft, worn-in feel.

(Charcoal #1445X; S-XXL, \$25.00)



#### Men's Shop T

Fashion Fit. Pre-shrunk 100% cotton.

(Black #1652X; S-XXXL, \$24.00)

**Matt from our Finish department rocks our Shop T.**



#### Men's Quarter Zip Sweatshirt

Soft-washed, garment-dyed 80/20 ring-spun cotton/poly. Fabric-lined collar. Taylor logo on chest. Standard fit.

(Blue Jean #3952X; S-XXXL, \$59.00)

#### NEW Original Trucker Hat

One size fits all. (Black/Khaki #00390, \$20.00)



#### Men's Cap

One size fits all. (Black #00378, \$25.00)

#### Taylor Guitar Polish

Spray-on cleaning polish that is easily and safely wiped away. 4 fl. oz.

(#80901, \$12.00)



#### Ultex® Picks

Six picks per pack by gauge (#80794, .73 mm, #80795, 1.0 mm or #80796 1.14 mm; \$5.00).

#### Primetone Picks™

Three picks per pack by gauge. (#80797, .88 mm, #80798, 1.0 mm or #80799 1.3 mm, \$8.50).

#### Variety Pack (shown)

Six assorted picks per pack, featuring one of each gauge. Ultex (.73 mm, 1.0 mm, 1.14 mm) and Primetone (.88 mm, 1.0 mm, 1.3 mm).

(#80790, \$10.00)



#### Taylor Bar Stool

30" high. (Black #70200, \$99.00)

24" high. (Brown #70202, \$99.00)



#### Guitar Stand

Sapele/Mahogany. Accommodates all Taylor models. (#70100, \$70.00; assembly required)



#### Travel Guitar Stand

Sapele, lightweight. Accommodates all Taylor models. (#70198, \$59.00)



#### Black Composite Travel Guitar Stand

Accommodates all Taylor models. (#70180, \$39.00)



# Wood&Steel

A Publication of Taylor Guitars

Volume 90 / Winter 2018

Taylor Guitars | 1980 Gillespie Way | El Cajon, CA 92020-1096 | [taylorguitars.com](http://taylorguitars.com)

## Manage Your Subscription

To unsubscribe from *Wood&Steel*, please email [support@taylorguitars.com](mailto:support@taylorguitars.com). Please include your name and mailing address as they appear on this issue, plus the subscription number located directly above your name. To change your mailing address, please visit [taylorguitars.com/contact](http://taylorguitars.com/contact).

*The paper we use is certified to Forest Stewardship Council® standards.*

*The FSC® is a non-profit organization that supports environmentally friendly, socially responsible, and economically viable management of the world's forests.*

## Smooth as Silk

To celebrate the debut of Taylor's new V-Class™ bracing, Andy Powers crafted an exceptional guitar that feels as great as it sounds. It's part of our new Builder's Edition collection. Think of it as Andy's "director's cut" take on a V-Class guitar, designed with all the player-friendly features he would want for his own custom Taylor.

Among them is this beautifully contoured cutaway with a finger bevel. It blends two different design improvements into one artfully sculpted cutaway shape to give your fretting hand a fluid path all the way up the neck. Even if you don't normally venture up the fretboard, you'll want to on this guitar. Learn more about V-Class bracing and Builder's Edition inside.

