



THE WORLD'S MOST TECHNOLOGICALLY ADVANCED PIANOS





PHOENIX



Join us on social media



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Photography and design by James Bacon [www.gotodesign.co.uk](http://www.gotodesign.co.uk)



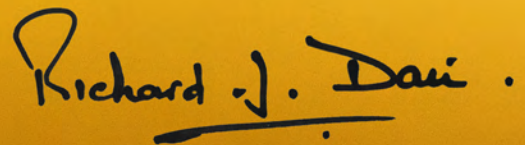
# Welcome to Phoenix Pianos

For music lovers and pianists seeking the finest acoustic pianos available today, Phoenix Pianos warmly welcomes you to our unique range of instruments.

Our guiding principles are to build the most responsive, technologically advanced and enjoyable pianos possible, using only the best materials and superior craftsmanship.

At Phoenix, we are continuously motivated to extend the boundaries of piano design. Our upright and grand models feature award-winning, patented new systems that enhance the musical experience for both artists and listeners, whilst providing climate resistance, ensuring our pianos will last for many generations at the peak of their performance.

This brochure will guide you through these features. We hope you will share our passion for pianos, and become a part of the unfolding Phoenix story.

A handwritten signature in black ink that reads "Richard J. Dain". The signature is fluid and cursive, with a horizontal line underlining the name.

Richard Dain, Founder





A photograph of a rural landscape, likely an orchard or farm, with rows of trees and a cloudy sky. The trees are green and leafy, and the sky is filled with large, white and grey clouds. The overall mood is serene and natural.

## Our Origins

Phoenix Pianos grew from Hurstwood Farm Piano Studios, based in beautiful rural Kent, UK. Our original development of the Phoenix bridge agraffe system arose from an opportunity to rebuild a Bösendorfer Imperial which had been dropped by transporters. The resulting instrument's "rise from the ashes" - reminiscent of that of the mythical Phoenix - inspired our company name.

When Udo Schmidt-Steingraeber, director of Steingraeber & Söhne, was shown this prototype piano, so impressed was he with the new technology that a partnership to incorporate the system into Steingraeber pianos was formed. Pianos bearing the name Steingraeber Phoenix were produced, and are still manufactured today.

From there, we went on to develop our patented carbon fibre soundboards, with Steingraeber building the acoustic case and frame for our own Phoenix brand.

Along with our core partnership with Steingraeber, our use of bespoke stainless steel strings and carbon composite action parts make Phoenix a piano like no other.





Santos Rosewood finish on a Model 272. Over a hundred finishes are available.



# Carbon Fibre Soundboards

The beauty of the Phoenix bridge agraffe system is that it places either little or no load on our pianos' soundboards.

Because of this, we have been able to research and develop thinner, lighter, more acoustically responsive soundboards. This has culminated in the patenting of our unique carbon fibre designs.

Phoenix carbon fibre soundboards are just 0.8mm thick, and offer exceptional performance. They are also climate-resistant, and have a projected lifespan of at least 200 years, making our instruments a superb long-term investment.

Whilst many pianists notice superior performance, they are surprised to learn that they have been playing a piano with a carbon fibre soundboard.

Discerning pianists can now enjoy a new era in piano technology, stability and sonority.



## About Soundboards and Carbon Fibre

A piano's soundboard is often thought of as the heart of the instrument. You can think of it as an in-built loudspeaker system: a large expanse that resonates with the strings, exciting the air with sound waves.

Traditionally spruce has been selected as a soundboard material due to its favourable "strength-to-weight ratio".

Spruce has served pianos well, but it cannot begin to rival carbon fibre's strength-to-weight ratio. Furthermore wooden boards are prone to cracking, changes in humidity and temperature, and general degradation over the years. This results in lost performance, and the need for either repair or replacement, both of which are costly and do not guarantee satisfactory results.

Carbon fibre is a simplified term for "carbon fibre reinforced polymer". Phoenix soundboards comprise three inner layers of straight carbon fibres for strength, sandwiched by two protective outer layers of woven fibres. The visible side of the soundboard is then layered with wood, which provides protection from UV light, whilst enhancing the overall appearance of the instrument.





## Profile: Anton Lyakhovsky, concert pianist

Russian-born pianist and Phoenix artist Anton Lyakhovsky comes from a formidable school of pianism. His musical insight and creativity are underpinned by a superb, virtuoso technical command of the instrument.

Winner of prizes at numerous international competitions, Anton has worked with many of the world's leading conductors. His pianistic approach and repertoire are constantly evolving, and lead him to seek pianos with which he can truly express his musical imagination.

Anton has given many memorable recitals for Phoenix Pianos over the years, whilst leading our video and audio demonstrations.

At home, Anton rehearses on his own Phoenix 170 instrument, complete with carbon fibre soundboard, carbon composite action parts, and bridge agraffe system.

In his own words:

"One of the most important qualities a piano should possess is the ability to be 'on the pianist's side'. The instrument that does not require any fighting or taming, whether this is about sound control or the way the action works. The instrument that helps you to unfold your musical ideas and images fully, without any restrictions.

Phoenix pianos are able to provide the pianist with one of the quickest actions, broadest sound ranges, and lightning quick reactions to the finest change in touch. It would not be an exaggeration to say that a combination of all those characteristics is rather unique."







# Profile: Oliver Poole, concert pianist, composer



“It is a huge joy to perform on a Phoenix piano. It is inspiring to find this magical instrument that is innovative, beautiful, powerful and capable of stunning sonic bewilderment on stage. It creates an experience that brings the artist and the audience closer to the heart and soul of the music.”

Oliver believes in making the world a better place through music. Hailed by the press as "A True Master Of His Instrument" (BBC.com), "Outrageously Talented" (The Dubrovnik Times), "Oliver Poole Le Magnifique" (Le Orient Le Jour), he has given world premieres, performed to millions live on TV and enchanted audiences across the globe with his extraordinary artistry, electrifying drive and magical interactive improvisations with the audience.

He first appeared as a soloist with the British National Youth Orchestra aged eight, was broadcast live over Europe aged fifteen, toured Siberia and founded the charity Siberian Appeal (with opera superstar Angela Gheorghiu as patron) at seventeen.

Oliver performed for the British Royal family and gave a historic centenary revival of Anton Rubinstein's 3rd piano concerto with the St. Petersburg Philharmonic aged nineteen, with performances around the world since including at the Royal Albert Hall, Al Bustan Festival, The Kremlin, Henley Festival, London Philharmonic Orchestra, Great Hall of the Moscow Conservatoire, St. Petersburg Great Philharmonic Hall, London 2012, Festival Del Soles, Royal Festival Hall, EU Culture Week, for charities including UNESCO, UN World Food Programme, World Aids Day, World Music Day, Teenage Cancer Trust, HemiHelp, Starlight and UNICEF.

Oliver frequently collaborates with today's biggest musical figures and has composed for pop stars, world-renowned visual artists, international charities and initiatives. He enjoys giving masterclasses, pioneering world-firsts in music technology and has served as a jury member on international piano competitions. He composed music for 2015 Nobel Prize winner Svetlana Alexievich's play "Enchanted By Death". Recently, Oliver exclusively performed for the global launch of Haig Club by David Beckham.



# Richard Dain, Phoenix founder and inventor



Our founder, Richard Dain is a man of impressive engineering pedigree, and has a distinguished family history. His grandfather engineered the public water supply to Derby; the eldest of his uncles was a Deputy Viceroy of India; the younger uncle was responsible for the building of the Calcutta tramways.

After graduating from Cambridge, his first post was at Ruston & Hornsby in Lincolnshire, as part of a team who had worked with Sir Frank Whittle to develop the UK jet engine. He went on to form an engineering consultancy with Sir Hugh Ford, simultaneously establishing Powdrex, a global powdered steel supplier. Later he oversaw the development of the IC 225 locomotive.

One of his personal engineering projects was to develop solvent extraction of copper from lean ores and wastes, for commercial application. This process now produces over a third of the world's copper supply.

For Richard, retirement has simply been a case of having more time to work on what matters to him most: the development of the acoustic piano.

By the late 19th century, what is still called “the modern piano” already existed. The twentieth century saw surprisingly little real innovation within the industry, resulting in a gradual trend towards uniformity of design and cost-cutting production techniques.

Richard knew this had to be challenged: Phoenix sees piano innovation rising from the ashes.



# Award-Winning Bridge Technology

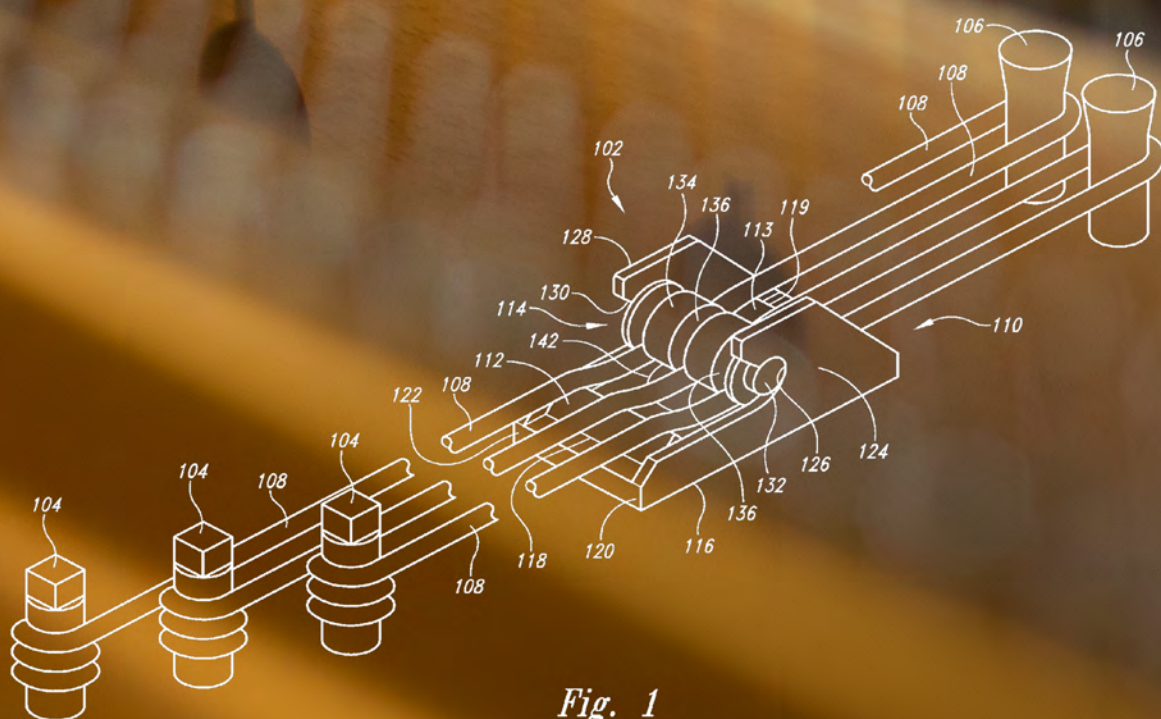
Our patented Phoenix agraffe bridge system brings a number of exciting benefits to pianos.

Firstly, it almost completely removes “downbearing” pressure from the soundboard, which can be up to 2/3 tonne from the strings of a conventional instrument. This allows the speaking part of the piano to resonate more freely.

Secondly, the continuous downbearing load on the soundboard of a traditional piano causes progressive collapse, with acoustic performance sometimes being lost in as few as 5 years. Phoenix agraffes dramatically increase the projected lifespan of any soundboard.

Thirdly, our system keeps the strings in straight alignment, and encourages them to stay in a vertical plane when vibrating. This significantly improves the piano’s sustain and brings more brilliance and power to the upper registers, with up to twice the sound with the same finger effort.

Aside from the direct benefits to a piano’s acoustic performance, the Phoenix bridge agraffe system has led the way to the development of thinner, lighter, more responsive soundboards, using our patented carbon fibre designs.

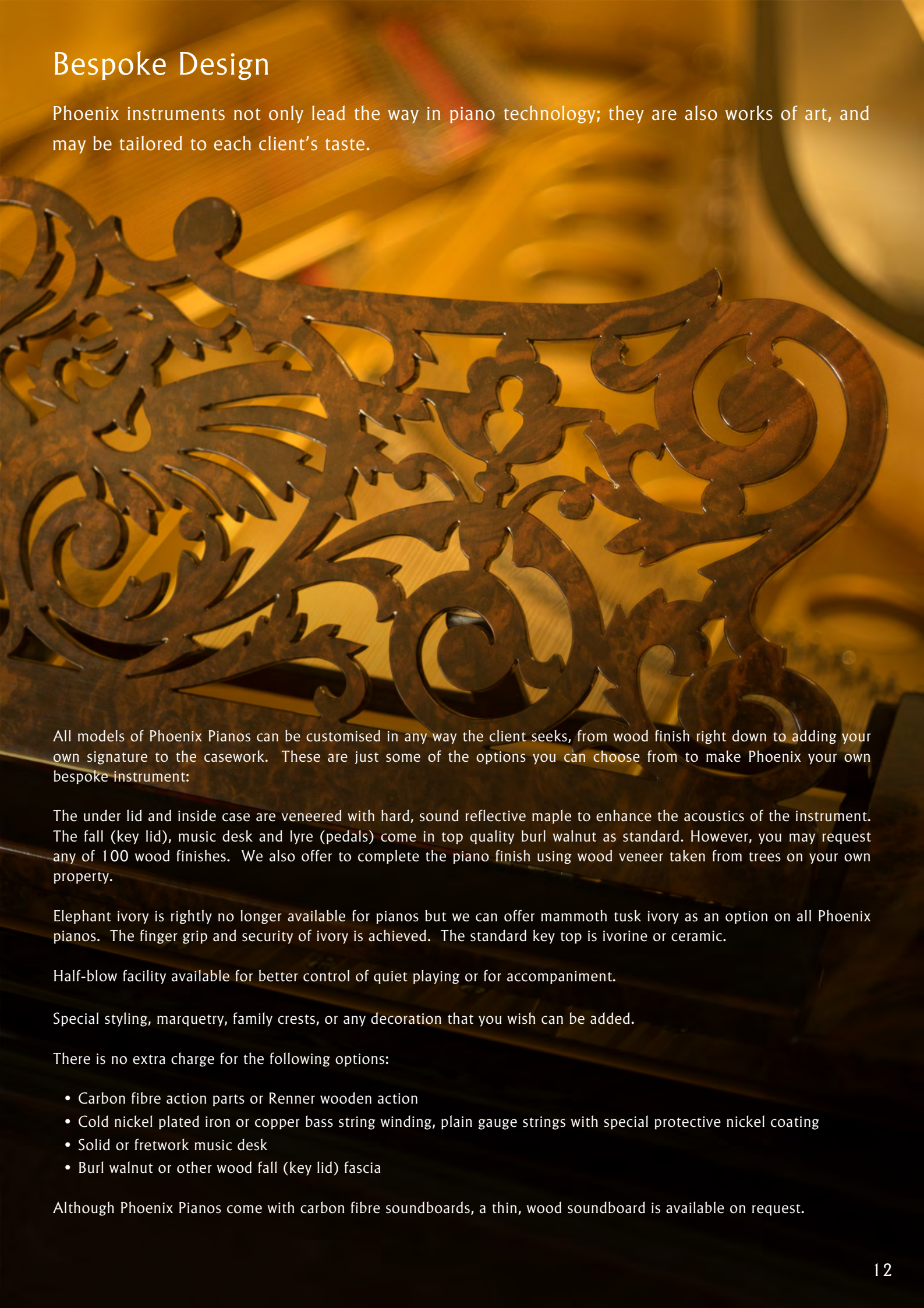


*Fig. 1*



# Bespoke Design

Phoenix instruments not only lead the way in piano technology; they are also works of art, and may be tailored to each client's taste.



All models of Phoenix Pianos can be customised in any way the client seeks, from wood finish right down to adding your own signature to the casework. These are just some of the options you can choose from to make Phoenix your own bespoke instrument:

The under lid and inside case are veneered with hard, sound reflective maple to enhance the acoustics of the instrument. The fall (key lid), music desk and lyre (pedals) come in top quality burl walnut as standard. However, you may request any of 100 wood finishes. We also offer to complete the piano finish using wood veneer taken from trees on your own property.

Elephant ivory is rightly no longer available for pianos but we can offer mammoth tusk ivory as an option on all Phoenix pianos. The finger grip and security of ivory is achieved. The standard key top is ivorine or ceramic.

Half-blow facility available for better control of quiet playing or for accompaniment.

Special styling, marquetry, family crests, or any decoration that you wish can be added.

There is no extra charge for the following options:

- Carbon fibre action parts or Renner wooden action
- Cold nickel plated iron or copper bass string winding, plain gauge strings with special protective nickel coating
- Solid or fretwork music desk
- Burl walnut or other wood fall (key lid) fascia

Although Phoenix Pianos come with carbon fibre soundboards, a thin, wood soundboard is available on request.





# OUR MODELS







## KEY FEATURES & OPTIONS

All grand piano models available in classical or modern style at the same price

Over 100 exotic wood finishes available, including customers' own wood

Phoenix-designed and patented carbon fibre soundboard by Retrac Composites of Swindon

Award-winning Phoenix bridge system fitted as standard

Acoustic body (case, frame, action box) by Steingraeber. Fitting of the Phoenix-designed carbon fibre soundboards undertaken by Steingraeber

Bass strings, optionally cold nickel plated iron or copper wound by Heller (Germany)

Tri-chord mid and upper register steel strings by Roslau, optionally plain or nickel plated

Climate resistant carbon fibre/composite action parts, or Renner wooden action

SFM magnetic escapement action for uprights - feels and performs like a grand piano action

Keyboard by August Laukhuff, with mammoth tusk key tops available upon request

Hammer felt optimised for carbon fibre soundboards, made of "Special Premium Grade" by Abel, or Wurzem grade by Renner

NB Manufacturer specifications subject to change without notice





# MODEL 130

With the tonal qualities of a much larger instrument and an action that allows the control usually associated with a grand piano, the 130 is a world-class upright like no other.

Models 122 and 138 available upon request.



Depth	63 cm
Height	130 cm
Width	148 cm
Weight	227 kg

Based on the celebrated Steingraeber 130 upright piano, the Phoenix 130 represents a new generation of upright piano building. With state-of-the-art design and materials, and the equivalent acoustics of a good small grand, the balance and power of this piano put it well ahead in its field.

The Phoenix 130 comes with a choice of two actions:

1. Steingraeber SFM ® action gives a grand-piano-like, deep repetition. Four years of research and development have resulted in a design which offers the ergonomic qualities of grand piano mechanisms in upright pianos.
2. Carbon fibre action parts, with bushes which are unaffected by humidity, result in a consistently low friction system which enables the artist to play the instrument with less finger effort and in consequence, more accuracy. Performance at low volume is exceptionally controllable.









# MODEL 170

Although the smallest in our grand piano range, the Phoenix 170 has remarkable acoustic performance far beyond what was previously thought possible for an instrument of its size.



Length	170 cm
Height	102 cm
Width	153 cm
Weight	320 kg

Due to its unique scaling, extra wide soundboard and new-technology features, our Model 170 offers a performance well beyond expectations for a piano of its size, whilst preserving space where this is limited.

A professional artist once remarked, "If you shut your eyes it is difficult to remember you are not playing a nine foot concert grand."

As a premium quality instrument, the Phoenix 170 is suited to demanding professional artists, private homes, music institutions, and smaller venues, and is our most affordable grand piano.









# MODEL 212

At 7 foot long, the Phoenix 212 is our most popular model. Exceptional power and tonal quality across all registers makes this a piano perfect for recital use or a private home.



Length	212 cm
Height	102 cm
Width	155 cm
Weight	409 kg

Many artists consider that a seven foot piano gives the best balance between bass and treble sound.

Our Model 212 has exceptional sound quality and evenness across the registers, and is ideally suited to private homes, recital use and recording studios. Pictured here in Santos Rosewood.

Because of this, the Phoenix 212 continues to be our most popular choice of piano, and has been designed to satisfy the most demanding artistic requirements.









# MODEL 232

The Phoenix 232 is an ideal choice for a mid-sized venue, large music room or recording studio, with its rich, sustaining bass and wonderful dynamic range.



Length	232 cm
Height	102 cm
Width	155 cm
Weight	409 kg

With its larger size, our Model 232 offers exceptional acoustic performance, exhibiting a refined clarity of tone, enhanced sustain, and a wonderfully warm bass.

An exceptional solo instrument, Model 232 is also ideal for accompaniment in chamber music recitals.

The artist's ability to control the dynamics from the softest pianissimo to the most energetic fortissimo allows its sound to be perfectly blended with other instruments or with the human voice.

The Phoenix 232 offers the power of a conventional concert grand in a slightly smaller footprint.









# MODEL 272

The Phoenix 272 Concert Grand is our award-winning flagship model, and a phenomenal instrument by any standard.



Length	272 cm
Height	102 cm
Width	157 cm
Weight	501 kg

Winner of the 2008 Bayerische Staatspreis for Innovation in the Arts, our Model 272 is a magnificent instrument for both concerto work and for solo performance in larger venues, but is also prized by pianists for use in their own homes.

Our concert grand exhibits superb dynamic range and tonal richness throughout the registers, having one of the richest bass sounds of any piano ever produced.

For those seeking the ultimate concert-sized instrument, the Phoenix 272 is a compelling choice.

Mammoth tusk ivory key tops are fitted as standard.







# Available Veneers



Tulip Tree



Birdseye Maple



Sycamore Cluster



Sycamore Curl



Sycamore Figured



Sycamore Plain



Koto



White Ash



Fir, Silver Fir



Cembra Pine



Pine



Avodire



Ceylon Satinwood



Limba



Anegre Figured



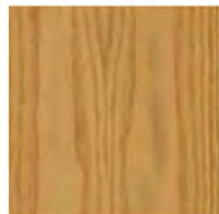
Anegre



Grey Poplar



Red Oak



Sassafras



Olive Ash Burl



European Elm



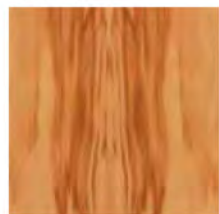
Cerejeira Crotch



Amboyne Burl



European Cherry



Apple



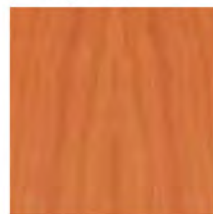
Maple Burl



European Maple



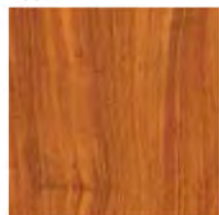
Swiss Pear



Madrone



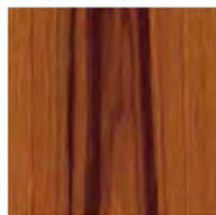
Madrone Burl



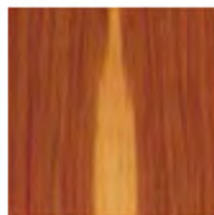
Afrormosia



Zebrawood



Teak



Plum Tree



Sapele



Silky Oak



Elm Burl



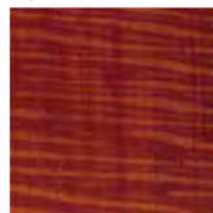
Pommele



Vavone Burl



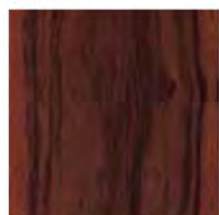
Macore



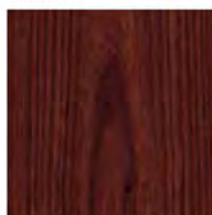
Figured Macore



Padauk



Laurel



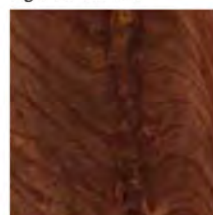
Louro Preto



Imbuva Burl



Walnut Cluster



Walnut Crotch



Californian Walnut Burl









## Caring for your piano

If a world-class piano is to reach full potential, it requires both experienced technical expertise and a highly sensitive ear.

Every aspect of a Phoenix piano receives meticulous attention to detail during preparation, with each piano being individually voiced to our clients' tastes and requirements. Action regulation is optimised for absolute evenness across the registers.

We offer a full in-house service once your piano has settled into its new environment.





## COMPUTER ANALYSIS IN PHOENIX PIANO DESIGN - RICHARD DAIN

There is a very important feature in the design of Phoenix pianos that - to our knowledge - no other maker has yet used.

The performance of all fine pianos benefits from a natural resonant frequency - known as "eigenfrequency" - of the piano's entire structural and acoustic system, that is very close to the frequency of each note of the instrument. In general it is not difficult to achieve this in the middle and upper registers of any piano, but it is a challenge to achieve it in the bass registers, especially in smaller instruments. This is one important reason why "baby" grand pianos are so often deficient in bass sound.

Some pianos are short of eigenfrequencies in the second octave above middle C, resulting in a "weak zone" in the registers most important for melodic clarity.

At Phoenix pianos, we have developed a computer modelling system based on Finite Element Analysis. This lets us calculate the eigenfrequencies of a whole piano, enabling us to understand what features can be modified to match its eigenfrequencies to the frequencies of the notes being struck. This calculation involves breaking the piano down into between 6 and 7 million tiny study elements, and requires a high power computer.

We now use the information derived from our analysis to design our pianos to have matching eigenfrequencies across all registers.

The critical controlling features, in order of importance, are as follows:

1. Soundboard thickness and rigidity. Our carbon fibre soundboards are currently optimised at 0.8 mm thickness, but we now have plans to experiment with fullerenes - special types of carbon molecule - and graphene.
2. Piano tail width. Phoenix pianos have one of the widest tails of all pianos.
3. Rib design, number, shape, and stiffness.
4. Bridge height. We use about half the height of other makes.
5. Mounting of the soundboard in the case.

Our current target is to ensure the lowest eigenfrequency is no more than 15 Hz. By doing this we increase the number and proximity of eigenfrequencies in the bass register. Bottom A is around 27 Hz.

Even the largest concert instruments of top-tier piano makers are thought to have their lowest eigenfrequencies as high as 40 Hz. As a result, the quality of their bass registers suffers, despite the use of long strings.

Fundamental to our design process is the use of our Phoenix bridge agraffe system: in removing downbearing from the soundboard, we enable the use of thinner, lighter soundboards with reduced bridge height, which in turn can be optimised for favourable eigenfrequencies to ensure superior performance.



# Phoenix Opus



On 7th July 2017, Phoenix delivered a new 9' concert grand piano to the Opus Theatre in Hastings, UK.

The “Phoenix Opus” was custom built to the theatre’s exact specifications and finish. It is constructed using the latest Phoenix technology, including our patented carbon fibre soundboard, fitted to a 1925 Blüthner Style XI acoustic body.

It has a carbon fibre/composite action parts, and is fitted with our Phoenix bridge technology.

Not only is it an extraordinarily elegant instrument, it also has the largest carbon fibre soundboard in the United Kingdom.

On 9th September 2017, pianists Anton Lyakhovsky and Oliver Poole gave inaugural matinee and evening performances on the Phoenix Opus, delighting both audiences and reviewers alike.

One review said that the venue’s new piano was “magnificent, ground-breaking and possibly earth-shattering”, whilst another noted that “The combination of these two talented musicians and the music theatre’s new technologically advanced piano produced a quality of sound which could not be surpassed.”









[WWW.PHOENIXPIANOS.CO.UK](http://WWW.PHOENIXPIANOS.CO.UK)

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