

MAENE || VIÑOLY



THE MAENE-VIÑOLY CONCERT GRAND

A UNIQUE 21ST CENTURY EVOLUTION OF THE GRAND PIANO

SUMMARY

Master piano maker Chris Maene and renowned architect Rafael Viñoly have developed the Maene-Viñoly Concert Grand. The instrument's ergonomically curved keyboard matches the natural sweep of a pianist's arms rotating from the shoulders and facilitates effortless playing across all registers. The keyboard's radial arrangement is extended to strings fanning out over a much larger soundboard that augments the instrument's capacity for nuance, clarity, and power.

Mr. Viñoly is an avid amateur pianist whose own experience and close friendships with master pianists has sharpened his awareness of the instrument's biomechanical demands and inspired his idea to curve the keyboard. In a 2016 conversation with legendary artists Maestro Daniel Barenboim and Martha Argerich, he was encouraged to develop the concept. Soon after, Viñoly sought out a partnership with Chris Maene, who had previously developed a straight-strung grand piano for Maestro Barenboim.

First, the team collaborated with noted piano kinematics researcher Renzo Pozzo, professor at the Department of Medical and Biological Sciences at the University of Udine in Italy, and German pianist and researcher Dr. Henriette Gärtner, to determine the keyboard's ideal arc. The further technical and aesthetic development leveraged time-honored piano building traditions, computer-aided design and acoustic modeling, and the generous feedback and support of some of the world's most prominent piano technicians and artists including Emanuel Ax, Daniel Barenboim, Kirill Gerstein, and Stephen Hough, among others.

After six years of development, we are proud to present a grand piano that exceeds our team's expectations of sound quality, aesthetics, ergonomics, and construction.



THE PIANO'S EVOLUTION

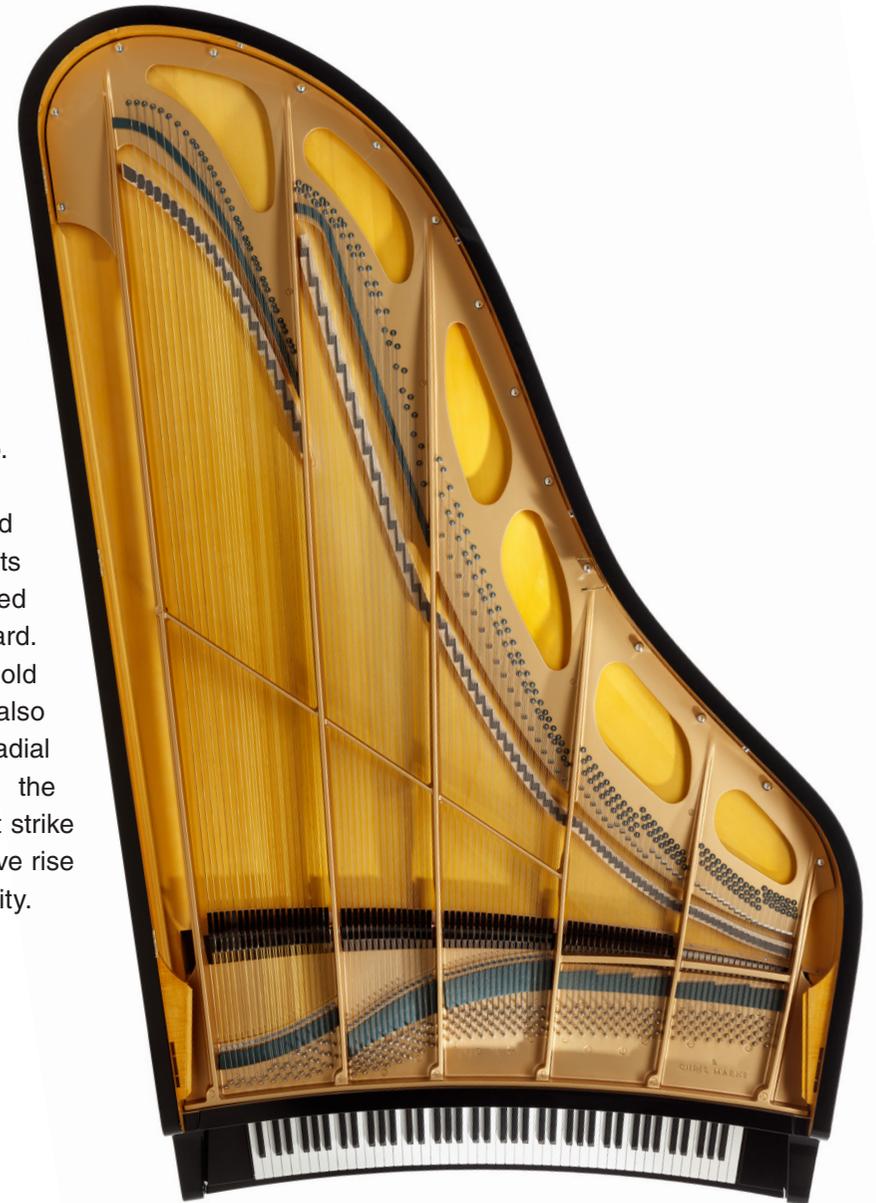
String keyboard instruments have been evolving since clavichords first appeared around the 14th Century. The principal drivers of this evolution have been to improve the instruments' sound quality and extend their octave range beyond the four octaves common in the earliest examples.

With over seven octaves, the keyboard of a modern acoustic piano is almost twice as long. The length makes it impossible to play its highest and lowest registers in the same neutral posture as when playing the middle registers directly in front of the pianist. Playing near the ends of the keyboard forces a slight physical contortion that engages more muscles, requires extra effort, and can lead to repetitive stress injuries.

It was an enormous challenge to materialize Rafael's ideas and drawings and integrate them into the rules of traditional piano building, and the effort led to an intense and fruitful collaboration. — Chris Maene

The logical way to relieve this condition is by introducing a gently curved keyboard that matches the arc traced by a player's arms rotating from the shoulders. This is the configuration of the Maene-Viñoly piano.

The rest of the instrument's design and construction are a logical extension of its keyboard, which leads to radially arranged strings and a consequently larger soundboard. The piano's rim, frame, and structure that hold the strings and support the soundboard also respond to the keyboard, as does its radial "action" – the mechanism that transmits the movement of the keys to the hammers that strike the strings. Together, these components give rise to the piano's distinctive sound and playability.



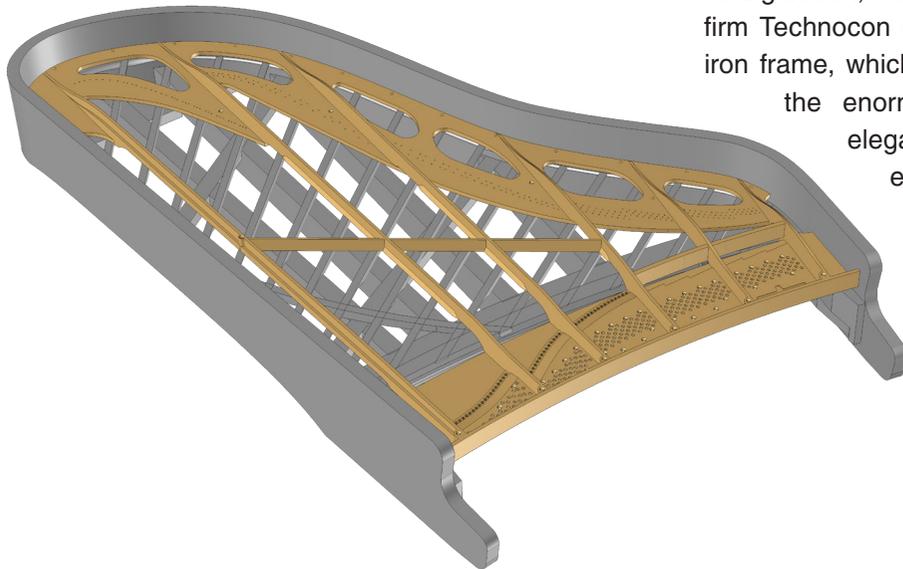
RESEARCH & DEVELOPMENT

Only a combination of traditional piano building experience, technological prowess, in-house research, and collaboration with external research partners, technicians, and the artists who validated the keyboard's ergonomic and acoustic merits, could make the Maene-Viñoly Concert Grand a reality.

For decades, the Chris Maene Atelier has been building replicas of historical keyboard instruments and was more recently recognized around the world for constructing exceptional straight-strung concert grand pianos for Maestro Daniel Barenboim.

Using computer-aided design techniques to run 3D simulations, cross-sections could be made in advance, before proceeding to the actual prototype phase. In an iterative process with Rafael Viñoly, the aesthetic design was coordinated with the technical design, which always prioritized acoustic performance.

There was also close collaboration with several renowned external partners and institutes. Beyond the ergonomic advice provided by Prof. Pozzo and Dr. Gärtner, the University of Leuven, Belgium contributed research into the soundboard's configuration, and the specialized engineering firm Technocon resolved the structure for the cast iron frame, which had to be very strong to absorb the enormous string tension, while also elegant and light to convey the strings' energy to the soundboard without loss or distortion.



The result is astonishing: from Rafael Viñoly's ideas arose a radically new concert grand, with a unique look and an exquisite sound! — Chris Maene



Chris Maene's obvious expertise, sensitivity and commitment to excellence can only have come out of a lifetime of probing and learning about making pianos. But more than that, no other piano maker has the courage to challenge the status quo of a culture and industry that has seen little innovation on behalf of its most important exponents, professional artists. Chris has the courage of an artist, because he is one, as well as a consummate craftsman. — Rafael Viñoly



CHRIS MAENE

Chris Maene is a piano builder who learned his craft in his parents' piano workshop. Founded in Ruiselede in 1938, Pianos Maene has built, restored, and collected many historical instruments.

In 1973, Chris Maene formally joined in his parents' company. In 1984, he became the company's director. Over the years he built up Pianos Maene into a family business with six branches and became the exclusive dealer of Steinway & Sons for Belgium and the Netherlands. His sons Dominique and Frederic Maene have also been active in the business since 2004.

Chris Maene has made replicas of iconic pianos such as the Steinway & Sons N°1 "Kitchen" fortepiano 1836, the Ignaz Pleyel concert grand 1843, and the Erard 1803 and the John Broadwood 1817 both originals of which were owned by Ludwig van Beethoven.

Since 2015, he has been building the Chris Maene Straight Strung Concert Grand, a modern straight strung concert grand piano, previously made for Maestro Daniel Barenboim under the name Barenboim Concert Grand. Chris Maene is also an associate researcher at the Orpheus Instituut and Research Centre in Ghent, Belgium.

Rafael Viñoly is an exceptional architect with a clear vision and a profound passion for his creations. In the instrument's design, the visual aspects are a logical extension of the drive to meet its acoustic and ergonomic goals. By considering it as an integrated whole, he drove us to challenge a grand piano's traditional set-up and embrace the consequences of the foundational idea. — Chris Maene

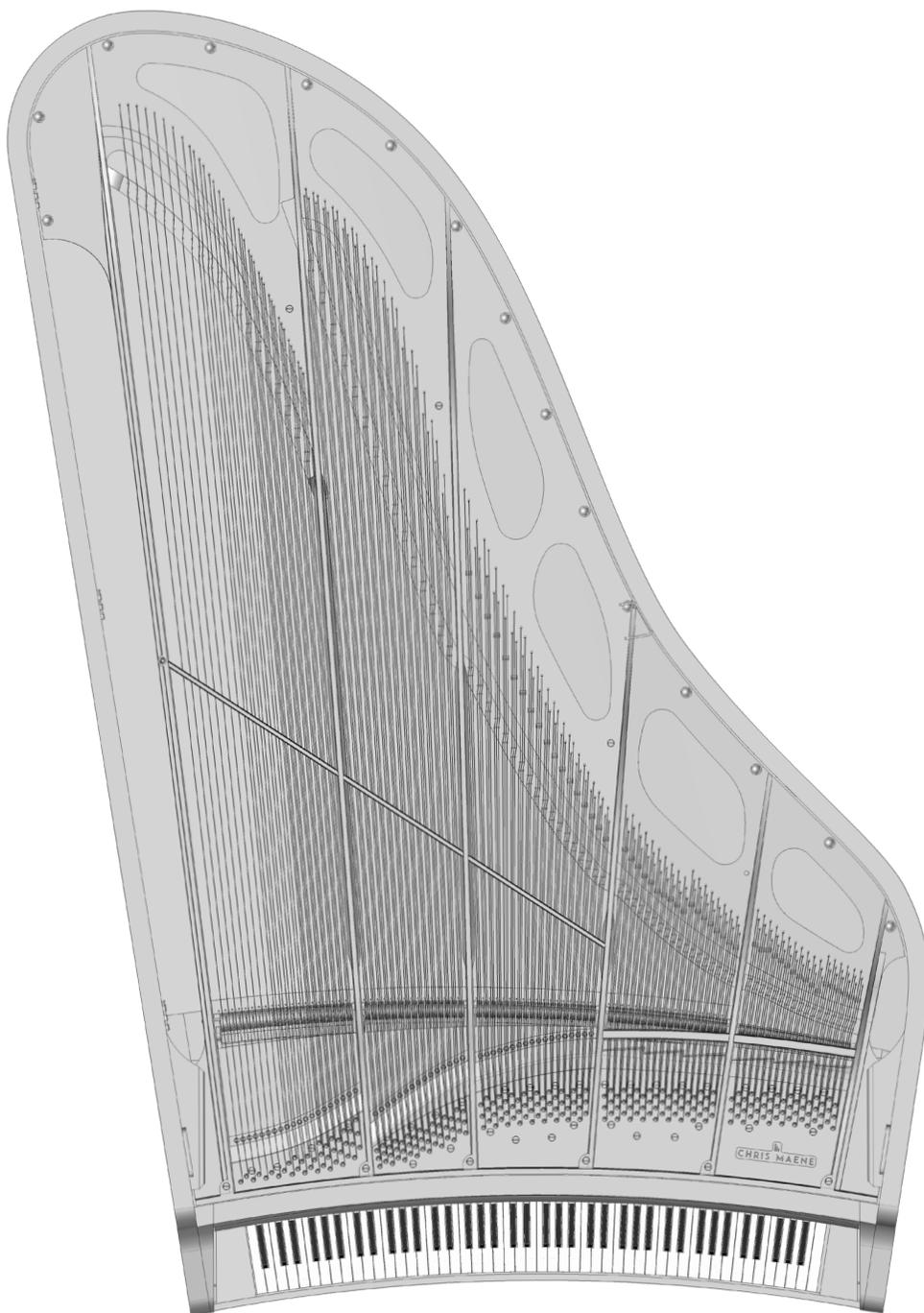


RAFAEL VIÑOLY

Rafael Viñoly is an acclaimed architect and founder of Rafael Viñoly Architects, a leading international practice focused on making meaningful civic and cultural contributions while exceeding the programmatic, economic, aesthetic and performance goals of every building project.

In over a half-century of built work, Viñoly has realized over 600 commissions from courthouses, concert halls and museums, to airports, stadia and buildings for science throughout North and South America, Europe, Asia, and the Middle East. His work is characterized by holistic attention to proportion and a sustained structural originality that transcend passing architectural fads.

Also a very accomplished amateur pianist, Mr. Viñoly has played and studied the piano since his youth. For nearly 70 years, music making on the piano has been his favorite pastime and a consistent retreat from the pressures of his professional life. His design interest in the instrument flows from his appreciation of the ergonomic and physical exigencies of achieving pianistic excellence.



SPECIFICATIONS

Dimensions	L 329 cm / W 171 cm
Compass	88 keys, AAA – c ^{'''}
Keyboard	Kluge, Remscheid, Germany / Built according to Chris Maene specifications
Black keys	Ebony wood
White keys	Non-slip and non-reflecting composite material
Bass strings	Bespoke brass wound bass strings, handmade and custom calculated
Action	Renner action and hammers / Built according to Chris Maene specifications
Soundboard	Chris Maene Workshop / Red spruce from the Alps / French polished
Rim	Continuous rim with straight grained hard maple and mahogany



RAYMOND LEE
Communications Director

Rafael Viñoly Architects
+1 212 924 5060
rlee@vinoly.com

vinoly.com

HENK SWINNEN
Senior Advisor

Atelier Chris Maene
+32 (0)484 151 989
henk.swinnen@chrismaene.be

chrismaene.be