

# STEINWAY & SONS

#### TODAY'S STEINWAY:

WE STILL MAKE THEM LIKE WE USED TO...

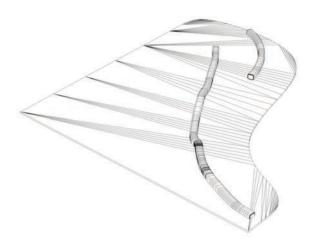
ONLY BETTER.



STEINWAY & SONS pioneered the design and development of piano-building to create the finest piano in the world. STEINWAY remains the peerless instrument of uncompromising expression, the choice of 97% of concert pianists, and at the heart of homes the world over. Though we have been granted over 135 patents since our founding in 1853, we refuse to rest on our past successes. The drive and passion for innovation and continuous improvement of the STEINWAY continues to this day. We have been awarded 10 new patents in only the last ten years. We continue to enhance the appearance, touch, tone, structural stability, and every aspect of what makes a STEINWAY a STEINWAY. Our pioneering handcrafted methods, employed in our New York factory since 1870, continue to this day to ensure our uncompromising standards of quality. The integration of this old-world craftsmanship with our ongoing development and significant investment in state-of-the-art technology have resulted in a STEINWAY that possesses the widest range of tonal colors and the most responsive touch of any instrument we have ever built in our company's history — by far. Our legacy of innovation in materials, design, and manufacturing guarantees that today's STEINWAY shatters the heretofore imaginable limits of Henry Steinway's credo: "To build the best piano possible."



#### A LEGACY OF INNOVATION



PATENTED TAPERED DESIGN MICRO-CLIMATE-SOURCED LUMBER HIGHEST QUALITY GRAIN DENSITY CUSTOM FIVE-AXIS PRECISION FIT

## the soundboard

The soundboard lies at the heart of a STEINWAY, which is why we take exceptional care in its design, wood selection, and installation. The STEINWAY DIAPHRAGMATIC SOUNDBOARD is based on an innovative patent to achieve optimum performance in dynamic range and maximum sustain. Under this patent, the soundboard is gradually tapered from the center to the edge, permitting freedom of movement and creating a sound of unparalleled richness, sonority, and sustain.

Today, our soundboard spruce is sourced entirely from one singular island in Alaska, the only location that meets our stringent specifications. This unique micro-climate provides spruce with the highest quality grain density, direction and color thus improving the transmission of tonal string vibrations. In recent years, specifications have been tightened on grain angularity and grain direction with no more than +/- 15 degrees off of 90-degree vertical grain being allowed, making for a superiorly uniform soundboard.

We recently implemented state-of-the-art machinery and conditioning rooms to more precisely meet the specifications of our soundboard design. Beginning in 2021, a new custom-fiveaxis piano-rim machining center will achieve an unparalleled fit between the soundboard and the rim, ensuring pristine resonance, tonal color, and purity of sound.



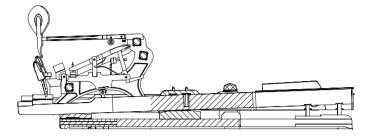


LOGIC-CONTROLLED CONDITIONING ROOMS EXACTNESS OF 1/32,000TH OF AN INCH IMPROVED UP-WEIGHT REDUCED FRICTION

#### the **ACTION**

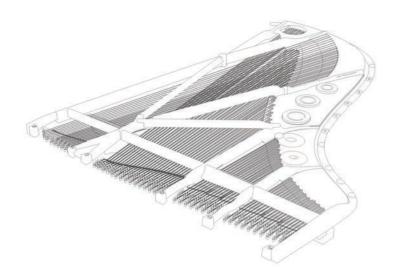
Within the last decade, STEINWAY & SONS has built and installed more than 15 Programmable Logic Controlled Conditioning Rooms, enabling us to manufacture parts that are more exacting in dimension and can better withstand changes in temperature and humidity of the environmen where a piano resides.

A computer-monitored measuring machine was developed and installed by our engineers that checks our action parts daily so that they are measured to an exactness of 1/32,000th of an ina level never before attained. This proprietary measurement tool takes multi-dimensional photographs to ensure that each part meets our vastly improved specifications.



	With more exacting and precise parts, we have
	been able to significantly improve the up-weight
g	of our piano keys so that our actions are more
	responsive than ever before — an improvement so
	vast, we could never have imagined achieving such
nt	responsive action, repeatable so quickly, a mere 10
	years ago.
	We have also introduced new materials throughout
	our action that reduce friction and resistance.
	These improved materials reduce action noise and
nch,	wear-and-tear, so not only do our actions respond
	better and produce better tone, they also last longer

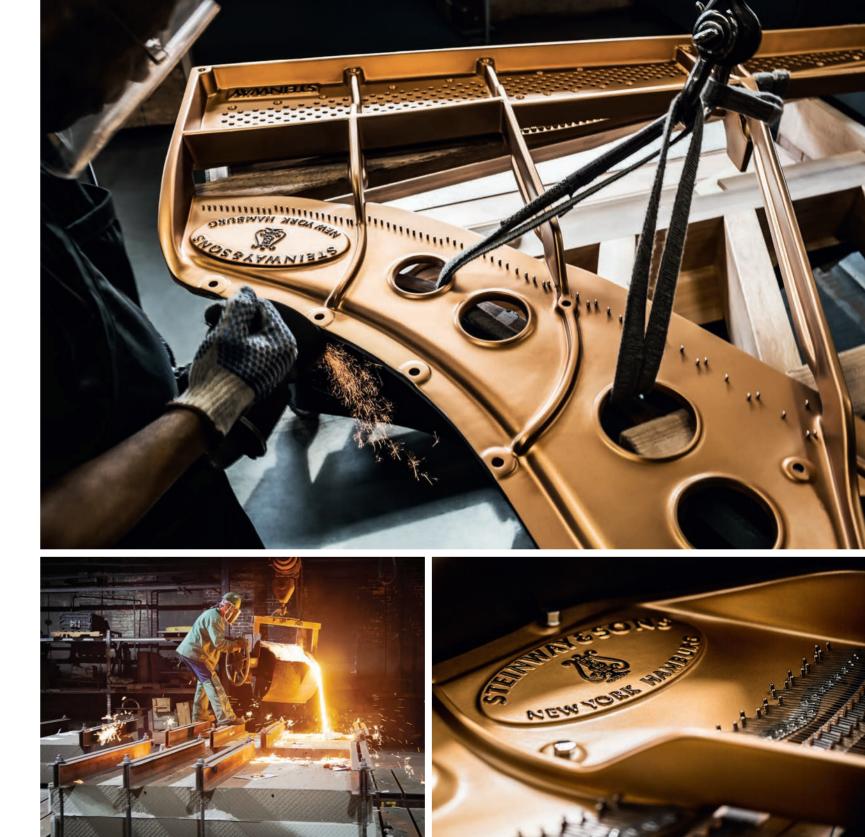
and require less service.



STEINWAY OWNED & OPERATED FORGE NO-BAKE SINGLE-MOLD CAST PRECISION MILLING 0.008 OF AN INCH ADVANCED THERMAL RECLAMATION

## the **PLATE**

Thanks to STEINWAY'S advancements and innovations in technology and process, our improved cast-iron plate is one of the reasons why the pianos we build today sound and play better — and last longer — than those built just a decade ago. STEINWAY & SONS now owns and operates its own foundry solely to produce the elemental, integral cast-iron plate to our exacting specifications. Our foundry forges the bell-quality plate with a new No-Bake Process implemented just five years ago, which permits a single-use high-strength mold that creates more precise and consistent casting. We have added a revolutionary thermal reclaiming process. Additionally, new machinery enables greater precision for the milling of the plate (up to 0.008 of an inch). Finally, our metallurgy lab has been modernized to further optimize the hardness and strength of thew casting, all but eliminating potential deformations or cracks that could occur once the plate is strung.



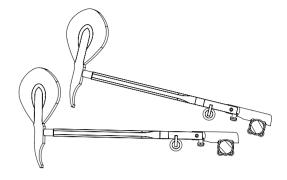


AUSTRALIAN & AFRICAN MERINO WOOL 100% LONG-LENGTH FELT FIBERS IMPROVED HAMMER DESIGN FOR ENHANCED TONE IMPROVED FELT PROCESSING FOR GREATER STABILITY

### the HAMMERS

STEINWAY & SONS' piano hammer felt is made of premium Merino wool from Australia and Afric In the past ten years, we have greatly improved to wool's quality: while we previously used a blend of wool fibers of varying lengths, we now use 100% long-length, thus improving the interlockin nature of the fibers and giving the felt increased overall strength. We have also improved the carding and pressing processes of the raw wool, achieving a much more stable and consistent hammer felt.

In recent years, we have improved on the design the STEINWAY hammer to incorporate a denser a



of	purer hammer felt. The benefits of this new design
ica.	permit us to achieve optimal hammer firmness
l the	without excessive use of chemical hardeners. This
d	naturally harder hammer felt produces an enhanced
	"singing" tone in the piano by permitting the long-
king	length fibers to remain undisturbed, all while
ed	preserving the felt's natural barbs and lanolin.
l,	Extensive research and development of the
	hammer-pressing process has allowed for a more
	exact hammer shape. A computer-controlled boring
	machine has been integrated into production
n of	to ensure increased accuracy of hammer angles
and	relative to the strings.

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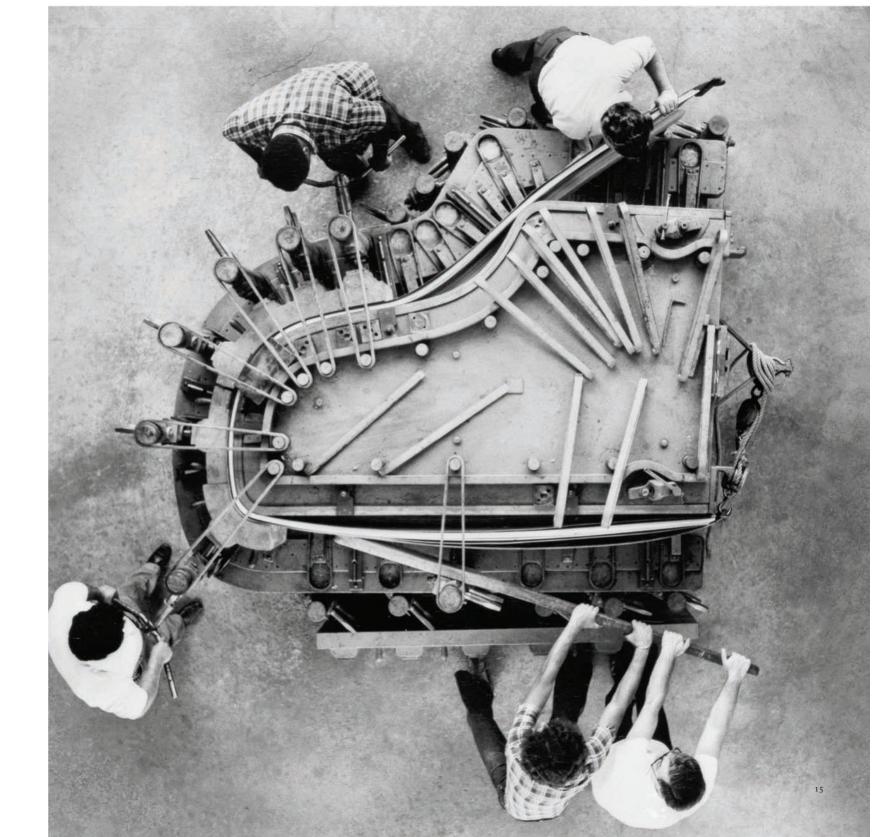
STRAIGHT-GRAINED HARD ROCK MAPLE BENT BY HAND FOR OVER 140 YEARS PATENTED ONE-PIECE CONTINUOUS BENT RIM STATE-OF-THE-ART CONDITIONING

A STEINWAY carries up to 46,000 pounds of tension from its strings. The piano rim supports this tension while simultaneously supporting and enhancing the acoustical properties of the soundboard. STEINWAY'S patented one-piece continuous bent rim generates its strength by bending single laminations of premium, straightgrained rock maple in an unbroken curve to form the rim of the piano.

The process of bending our rims completely by hand has taken place in our factory for over 140 years, and recent developments in that process have produced a vastly improved piano rim. Within the last ten years, we have made improvements to our rim presses and the conditioning process for these

hand-bent rims: new reinforced clamping cauls improve the curvature of the rim; new pneumatic wrenches guarantee the proper amount of glue between laminations; and new stabilizers are inserted after the rim has been bent to ensure our rims maintain their optimal shape. Additionally, our rims are placed in new Programmable Logic Controlled Conditioning Rooms that ensure impeccable curing of the wood and glue.

Today's STEINWAY rim has enhanced stability, durability, and strength – which together create and improve on the distinctive "STEINWAY SOUND." Never before has our rim emboldened our unique diaphragmatic soundboard to vibrate so freely and generate such a magnificent, golden tone.





STEINWAY DIAMONDGLOSS<sup>TM</sup> HAND-APPLIED & COMPUTER-CONTROLLED POLISHING 3X THICKER FINISH DURABLE HIGH-SHEEN FORMULA

#### the FINISH

Within the last five years, STEINWAY & SONS has developed a unique finish and utilized the best Italian furniture polishing equipment to create the new STEINWAY DIAMONDGLOSS<sup>™</sup> finish. Our unique formula provides a depth of color and sheen unmatched in the world of fine furniture manufacturing. The custom hand-applied materials and computer-controlled polishing technology produce the the flattest, most even and highest sheen finish.

Our computer-controlled polishing equipment precisely monitors the amount of material used, as well as the amount of pressure applied during the polishing process. The custom application of this high-quality finish is three times thicker than a satin lacquer finish — and is more durable and resistant to scratches and fading. HIGH RESOLUTION PLAYER PIANO: HUNDREDS OF HOURS OF REPERTOIRE

HAMMER VELOCITY: UP TO 1020 DYNAMIC LEVELS PROPORTIONAL PEDALING: UP TO 256 POSITIONS

INSTALLED BY STEINWAY CRAFTSMEN AT MANUFACTURE

# the **SPIRIO**

A handcrafted STEINWAY like all others, the STEINWAY & SONS SPIRIO is the world's finest high resolution player piano — and the next step in STEINWAY'S legacy of innovation. SPIRIO brings the unparalleled craftsmanship of the STEINWAY to your home, coupled with cutting-edge technology and the peerless musicality of STEINWAY ARTISTS.

SPIRIO's high resolution playback system uses proprietary software to measure hammer velocity (up to 1020 dynamic levels at a rate of up to 800 samples per second) and proportional pedaling – for both the damper pedal and soft

pedal (up to 256 pedal positions at a rate of up to 100 samples per second). SPIRIO |r| is also capable of live-performance recording, editing, and playback - all in high resolution.

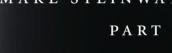
The STEINWAY & SONS SPIRIO reveals the subtlety and passion of an artist's original performance. Soft trills, delicate pedaling, and thundering fortissimos present no difficulty for SPIRIO - and are reproduced with unparalleled accuracy. The result is a precise revelation of the pianist's entire range of motion and emotion.



To call a genuine grand or upright of STEINWAY & SONS one's own is an overwhelming feeling. Far more than just an exquisite instrument, it is an instrument of the highest expression and creativity. A STEINWAY intimately connects artist and listener, and invites its owner to join a tradition of musical perfection,

making it an invaluable investment.

"... TO BUILD THE best piano POSSIBLE." HENRY E. STEINWAY



MAKE STEINWAY'S legacy OF INNOVATION PART OF YOUR legacy.

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