Crafting Music Motion & Emotion

With more than 155 years of expertise, REUGE manufactures pieces that are technically, acoustically and aesthetically superlative. Combining the motion of an automaton with an exquisite sonority offers an unparalleled experience of the senses. Forward-thinking and innovation define REUGE just as much as its respect for traditional craftsmanship. The Brand relentlessly seeks new materials, original themes and ground-breaking acoustics, making way for the contemporary music boxes of the 21st century. REUGE's ability to transform inanimate metal into emotion continues to enthral those who seek a true work of art, reaching beyond fleeting trends.

Reuge's history
a dynasty dedicated to the music automatons

Charles Reuge's enthusiasm as a clock and watchmaker led him to start making watches fitted with musical movements in 1865.

Fired with the same enthusiasm, his son Albert opened a music box workshop in Sainte-Croix some twenty years later.

And thus a dynasty was born and was guided by Guido Reuge for more than sixty years.
Intuitive, imaginative and pioneering, he built the present factory on Rue des Rasses, invented and manufactured a ski binding that enabled him to continue making music boxes, even when times were tough, and acquired several competitor companies, bringing real added-value to **Reuge** and guaranteeing the rapid expansion of the business.

As Guido Reuge had no direct descendants, in 1988 he decided to sell his company to a group of investors from Vaud and Geneva. They provided the acquisition and Manufacturing of the first machines, which allow

the rationalization of the labor. Reuge focuses on 3 product lines: music boxes, musical pocket watches and mechanical singing birds by means of the acquisition of Bontems in Paris.

In 2015, **Reuge** inaugurates the new Manufacture that hosts in an efficient and modern facility all the traditional skills to create the wonders of musical automatons.

Reuge is currently the only manufacturer of large musical movements worldwide, some of which can be compared to the *grandes complications* in watch-making.

REUGE

Music automatons
a passion dedicated to art

Once upon a time there was a music box… Created in 1796, it was inspired by the peal of bells.

The first music boxes were produced in Sainte-Croix in 1811, bringing international renown to the small town.
Production expanded rapidly with constant improvements being made to the tone of the tunes; at the same time, the creation of sumptuous wooden boxes became an art in itself. The system of the musical movement is ingenious, with pre-tuned metal teeth driven by a cylinder fitted with pins to produce infinitely varied and accurate sounds.

From 1865, **Reuge** developed a passion for the world of the musical movement, which today remains almost unchanged and the components of which are produced using tools designed by the company, making the **Reuge** factory the world's only manufacturer of large musical movements, some of which can be compared to the *grandes complications* in watch-making.

Musical movements

Reuge creations contain a variety of musical movements, from miniaturised movements for pocket watches through mechanical singing bird movements to larger movements for luxurious boxes made using rare varieties of wood.

- The **simple movement** –22 or 36 notes – plays one tune.
- The **changing movement** – 36, 72 or 144 notes – plays three long tunes with the cylinder moving laterally in front of the comb to play each one.
- The **interchangeable movement** –72 or 144 notes – has several easy to handle interchangeable cylinders that play a total of between 5 and 20 tunes.
- The **cartel** – 144 notes – has a winding lever to the left of the cylinder and generally plays 4 tunes per cylinder (can play up to 20 tunes).
- The **mechanical singing bird movement**: made up of 250 parts, including the genuine leather bellows, it can be compared to a *grande complication* in watch-making. The bird itself is a work of art, being made of 25 parts with internally mounted cams and springs. The real hummingbird feathers, which never lose their vividness, are applied by hand as part of an eight-hour process.

The complexity of a music box…

The musical movement

A musical movement is made up of a large number of parts. The main parts include:

- The **comb,** which is made of hardened steel(*); the teeth are cut out one by one in the comb, and then tuned to reproduce musical notes.
  The comb comes in different sizes depending on the number of notes, which ranges from 22 to 72. A 144-note movement is made up of two 72-note combs.
  A damper is placed under the teeth which produce low notes, to dampen the sound.
  (*) The hardening process requires great knowledge with regard to the time and temperature. This important aspect determines the sound quality and is what differentiates Reuge movements from the rest.

- The **cylinder:** is generally made of brass or nickel-plated brass and can hold up to 5,000 steel pins 0.25 mm in diameter, held by a resin injected into the cylinder to absorb its resonances.

- The **spring-housing**: contains a spring that drives the musical movement. The spring is wound with a key or, on cartel movements, a lever.

- The **regulator** or speed-governor: made up of a fin known as the flywheel controls the speed at which the spring unwinds and gives the music a regular rhythm.
  In large movements, as in watches, there is a jewel bearing designed to reduce noise and wear.

- The **base-plate** holds all of the components of the movement. It is generally made of brass.

- The **box** a veritable work of art or the sound board acts as an amplifier so that the music can be beautifully listened to.

The tune

A professional arranger is given the difficult task of reducing a tune to its most characteristic part so that it can be played – and identified – in a few seconds.

The Box

The best cabinetmakers in Switzerland and Italy are chosen. Loyal to their respective traditions, they create the perfect environment for **Reuge's** mechanical marvels. The choice of varieties of wood (from all over the world), their seasoning and assembly, the varnish – everything is brought together to produce exceptional boxes that are true collector's items.

The Sound Board

The sound board is in a way the music box's speaker. The feet create the space necessary for the sound to resonate. The difficulty is in making a base that is thin enough to vibrate well, but still thick and strong enough not to break during transport.

The skills involved in music box production

Over time each producer has developed precision, patience and know-how to become a brilliant craftsman capable of creating enchanting works of art.
It takes around two months to make a music box, during which time the stamper, polisher, hardener, welder, cutter, tuner and fixer are all involved.

- Machining:
  - Shaping of the brass base-plates on numerically controlled machines.

- Stamping:
  - Stamping of the mechanical parts that make up the movement.

- Combs:
  - Cutting of the combs, i.e. cutting of the teeth.
  - Hardening: the combs are heated and then plunged into oil to create a thermal shock; the correct hardness of the comb, and therefore the correct tone, is thus obtained.
  - Welding: lead is soldered underneath the teeth for the low notes.
  - Tuning: this is a computerised operation; each tooth has a frequency, and a grinding wheel files them to the correct frequency.
  - Feathering: synthetic dampers are glued underneath the teeth which produce the low notes to act as a damper (to perfect the sound). In the past, chicken feathers were used.

- Cylinders:
  - Drilling: the drilling machines make holes in the cylinders.
  - Pinning: the pinning machines place the pins (small steel wires) in the holes.
  - The cylinders are checked, and then resin is placed inside them to improve the tone.
  - Plugs are placed at each end of the cylinder and an axle is placed inside.

- Assembly
  - Musical movements are assembled entirely by hand.
  - The cylinder, spring-housing, speed governor, trigger and tune indicator
  - are assembled together on the base-plate.
  - The craftsman's precise gestures then breathe life into the movement.

- Fixing
  - The fixer assembles all of the components on the base-plate and checks the movement. Fixing the comb is the final and the most delicate assembly operation.
  - The craftsman fixes the comb opposite the pins, neither too close nor too far.
  - The fixer achieves the most perfect sound by relying on his experience and his musical ear.

- Assembly:
  - The movement is fixed inside the box. The final check is carried out.

- Encasing
  - After a final inspection, the movement is inserted into its box. The factory craftsman closes the lid with emotion, knowing the enchantment it will create when its owner opens it.

The machines

Reuge is a genuine Manufactory, that is, all of the production tools used, to make the parts of the musical movement, were produced by the company. Although they have since been modernised, they were mostly created between 1939 and 1975.

Reuge, closely linked to the history of the music box

14th century The history of mechanical music can be traced back to Flanders. An ingenious bell ringer designs a cylinder perforated with pins; these operate cams that in turn strike bells.

1780 The mechanical singing bird is invented by Jaquet-Droz, a clockmaker from La Chaux-de-Fonds. In 1848, the manufacture of singing birds is perfected by Blaise Bontems in his Paris workshop to such a degree that current manufacture has remained unchanged. Barrel organs spread through the streets.

1796 Antoine Favre, a Geneva clockmaker, replaces the bells with pre-tuned metal teeth, which produce more varied and clearer sounds.

1811 Manufacture of the first music boxes in Sainte-Croix… An industry that will rapidly overtake clockmaking and lace, giving the town international renown.

1865 Charles Reuge, a clockmaker originally from Val de Travers, appears on the scene, setting up business in Sainte-Croix with the manufacture of pocket watches with musical movements.

1870 A German inventor creates the disc music box, making it easier to change the tune played by the box more frequently.

1877 Invention of the phonograph by Thomas Edison. The impact of this will be felt strongly towards the end of the century, destabilising the music box industry.

1886 Albert Reuge, son of Charles, opens a small music box factory in Sainte-Croix. This marks the transition from a workshop to a real business.

1929 Guido, Albert and Henri, the third generation of the Reuge dynasty, invent the Kandahar ski binding, allowing the business to survive economic crisis and war.

1930 Construction of Reuge factory on rue des Rasses, Sainte-Croix.

1950 Arrival in force of the Japanese on the music box market representing the greatest challenge to the Swiss makers since the invention of phonograph.

1953 Manufacture of movements that can change between several melodies.

1960 Acquisition and manufacture of the first machines by Reuge making it possible to rationalise work.
Reuge becomes the world leader in high-quality musical movements.
Reuge buys Bontems, in Paris, and takes over the manufacture and marketing of mechanical singing birds.

1977-1991 Reuge buys out the following competitors:

- Eschle, manufacturers of snuff boxes and singing birds (1977)
- Mélodies SA, manufacturers of Thorens disc boxes (1985)
- Lador, manufacturers of 18-note movements (1986)
- Cuendet, manufacturers of cuckoo movements (1991)

At this time, Reuge is positioned as the only manufacturer of singing birds worldwide.

1988 Reuge SA is bought out by a group of Swiss investors; development and implementation of a business modernisation programme.
Manufacture of large high-quality pieces resumes.

2000 Reuge purchases the Italian company Arte Intarsio, its main supplier of wooden boxes, and so now controls the complete manufacture of music boxes.

2001-2003 Reuge suffers a serious economic downturn forcing the business to undergo reorganisation.

2004 Reuge is bought out by a Luxembourg-based investment fund, Cap Gamma SA. Creation of a new company image through the modernisation of its logo and its transactions.
Top-of-the-range position of the company, production of small 18-note movement models ends.
Design of new and highly modern product lines.
Overhaul of its distribution network.

20015 Reuge inaugurates the new Manufacture that hosts in an efficient and modern facility all the traditional skills to create the wonders of musical automatons.

2021 The know-how in mechanical art is included in the UNESCO list of intangible cultural heritage of humanity assuring a bright future for our craftmanship.

Reuge
Forward-Thinking & Respect for Tradition

Reuge creations come in three main collections:

- ⇨ The classic collection

The most classical Reuge masterpieces, inheriting the century-old tradition of music automatons and music boxes with a traditional music automaton exterior.

- ⇨ The contemporary collection

Merging traditional know-how with a contemporary modern casing is what defines this category. Reuge will innovate with the use of modern materials and daring shapes, resolutely challenging conventions while remaining faithful to its state-of-the-art savoir-faire.

- ⇨ The Exceptional Pieces

Exceptional is a euphemism to describe these REUGE's music automatons. Produced as limited editions because only a few craftsmen in the world still master the combination of skills, know-how and dedication to create these rare objects, they bring REUGE savoir-faire at the level of an art.

- ⇨ The Singing Birds

REUGE's contemporary execution of the Tabatière is a game changer. It's the continuity of an age-old tradition while being forward-thinking and innovative. What was once the artifact of a bygone time becomes a modern and emotional spectacle.