MORITZ GROSSMANN

GLASHÜTTE I/SA

COLLECTION 2019

SCHÖNSTES DEUTSCHES HANDWERK

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PREFACE

Welcome to Glashütte, the cradle of German watchmaking artistry and – for nearly ten years now – once again the home of a great name: Moritz Grossmann. His lifetime in Glashütte lasted from 1854 until 1885. Here, the gifted horologist, technician, inventor, and cosmopolite became an entrepreneur and co-founded the watchmaking industry in Glashütte.

In the 19th century, Moritz Grossmann already developed remarkably far-sighted ideas. For us, his vision of a simple but mechanically flawless timepiece has lost none of its fascination. More than one hundred years later, this pioneer keeps inspiring us to rediscover and breathe new life into his rich heritage.

The new era of Moritz Grossmann as a brand began in 2008 with the establishment of our manufacture in homage to his tradition. No machine can ever achieve the precision and virtuosity of genuine craftsmanship. With this knowledge, we entrust to the hands of our specialists every single step from plotting the blueprints, the manual crafting of hands, the finissage and decoration of every movement part to the final assembly process.

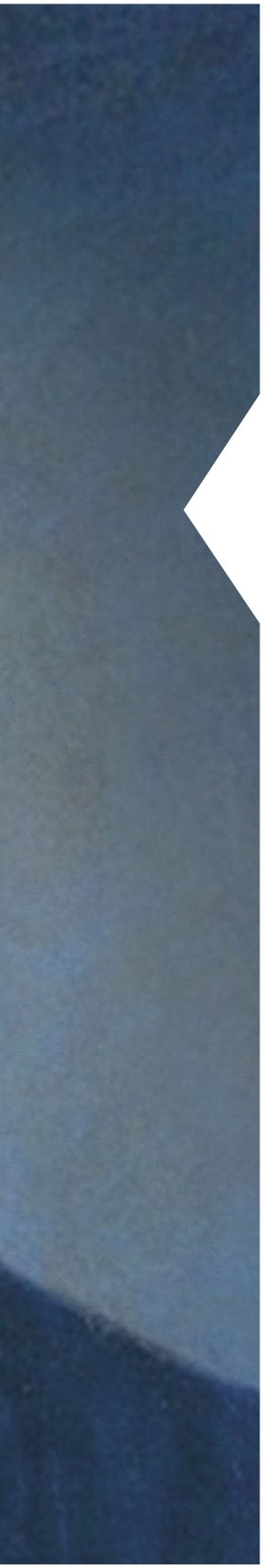
By reinterpreting traditional craftsmanship with modern resources, we can migrate Moritz Grossmann's vision into the present. In just under ten years, we have revived Moritz Grossmann’s legendary pioneering spirit by embodying precise functionality and unique serviceability in our work. The MORITZ GROSSMANN GLASHÜTTE I/SA brand stands for "Schönstes deutsches Handwerk" since 1854.

We wish you pleasant moments as you browse the following pages. By offering you exciting insights into our work, we hope to arouse your enthusiasm for Moritz Grossmann’s watchmaking artistry just like it inspires us afresh day after day.

Cordially yours,

Christine Hutter

Image: Stiftung Deutsches Uhrenmuseum Glashütte



MORITZ GROSSMANN

"The tall, upright man with the measured posture and calm words, with keen eyes and greying hair, was a personality that attracted attention everywhere with sheer physical and mental presence: the uncrowned king of Glashütte." This is how former Grossmann student Michael Loeske remembered the watchmaker after whom our manufacture was named. He lived from 1826 to 1885 and in the Saxon town of Glashütte created many pocket watches, various chronometers, and several precision pendulum clocks that are coveted objects of desire at international auctions today.

Grossmann was an individual who devoted his entire life to horology and therefore deserves to be rediscovered. In the "Glashütte windowsill industry", as the local watch-making trade was then referred to on account of the light-flooded workplaces, Moritz Grossmann ranked among the historically most eminent representatives of his guild. Nonetheless, despite his influence and his great accomplishments, Grossmann virtually sank into oblivion in the course of the past century. Indeed, he is one of only two founders of production units in Glashütte whose names still adorn the faces of exquisite mechanical timepieces. He was a great simplifier and nothing short of a perfectionist, as evidenced by his vision of a simple but mechanically perfect watch. But Grossmann left his mark even outside the atelier, for instance as an award-winning technical writer and co-founder of the historically significant German School of Watchmaking.

He is an individual who devoted his entire life to horology and therefore deserves to be rediscovered.

Carl Moritz Grossmann, the son of a mail sorter, was born in Dresden on 27 March 1826. After his elementary school years, he attends the Royal Technical College for two years and then starts an apprenticeship as a watchmaker. He is fascinated by technology and the intricacy of mechanical timekeeping instruments. This obsession and the urge to learn more prompt the young man from Dresden to explore the world. He dreams about travelling to the West Indies and South America. After a sojourn in Altona (near Hamburg), Grossmann briefly returns to Dresden. Now aged 20, he embarks on a seven-year journeyman period to learn new techniques and acquaint himself with the world's horological knowledge.

First, he travels to Munich, then to Switzerland's watchmaking metropolis La Chaux-de-Fonds. Further stations in Great Britain, France, Denmark, and Sweden follow. As an accomplished watchmaker, he settles down in Glashütte in 1854. Here, at home, he makes his dream come true and establishes his own workshop that allows him to leverage his knowledge and experience in hands-on watchmaking. He develops the vision of a movement that works with the highest degree of precision in spite of its straightforward design.

Within a short period of time, Grossmann succeeds in crafting a broad range of precision timepieces, including pocket watches and pendulum clocks as well as marine chronometers, but also accurate measuring devices, and scores of intricate horological components. Grossman also builds escapement models that illustrate his concept of a simply choreographed, perfectly functioning mechanism. Initially, these accomplishments are presented at trade fairs, guild events, or in the shop's show windows and later as exhibits in the German School of Watchmaking. Then, as today, tools for watchmakers and precision mechanical processes round out Moritz Grossmann's manufacturing repertoire. Since he is keen on raising the general quality standards in watchmaking, he makes these valuable resources affordably available to other watchmakers.

INVENTOR, ROLE MODEL, MENTOR AND VISIONARY.

All the while, Moritz Grossmann is engrossed with the refinement of solutions for technical problems. The so-called micrometer screw, which he described in his essay "On the adjustment of watches" in 1880, extends the notion of index adjusters as conceived by Grossmann during his sojourn in London. The screw has a deep thread and lies in an exposed transversal bore of the balance cock. The index tail is tapered at its end and thus engages with the thread of the micrometer screw. When the screw is turned, it entrains the index pointer and thus shortens or extends the active length of the hairspring to adjust the oscillation period of the balance. This allows corrections if a watch runs slow or fast. Although it is very useful for watchmakers, this elaborate adjustment device failed to gain support during Grossmann's lifetime. As a tribute to Moritz Grossmann's legacy, it is now back as a hallmark in the watches that bear his name.

MORITZ GROSSMANN
LEVER CHRONOMETER
MOVEMENT NO. 5306
(1882)

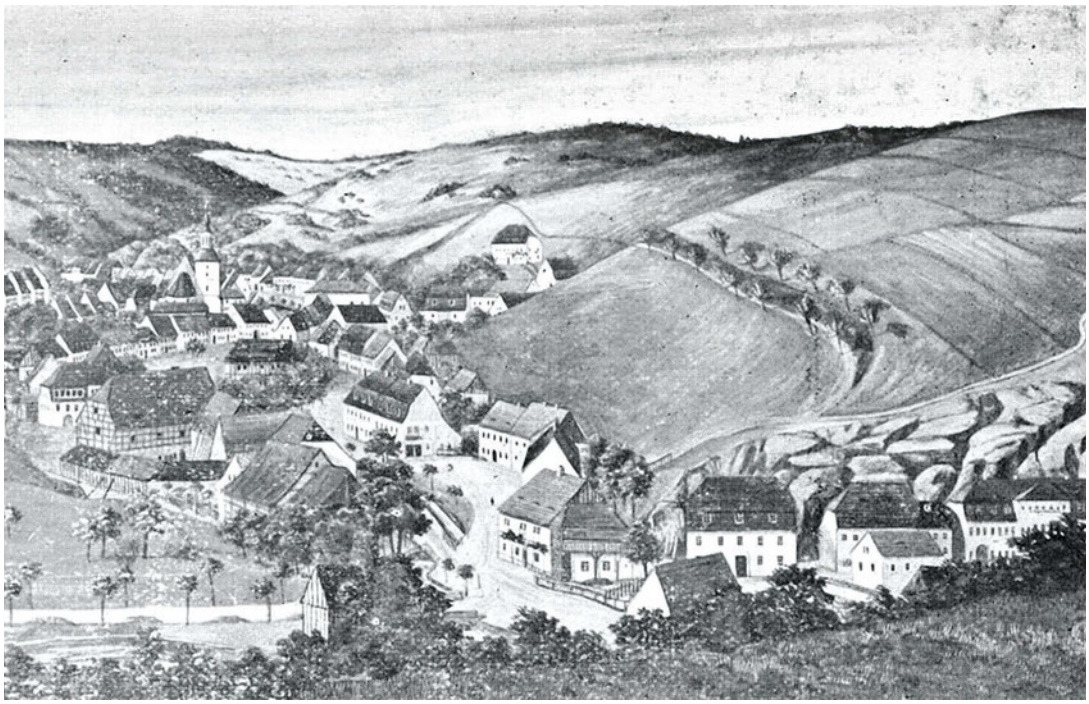
For Moritz Grossmann, craftsmanship does not begin at the workshop's door. While he is an undisputedly gifted watchmaker, the full breadth of his talent comes to the fore in his scientific publications. He gains repute as a technical writer, which also bolsters the success of his factory and prompts orders from all parts of the world. Then again, this economic aspect is never a key element for Grossmann, it is more of a positive side effect. His true motivation is to describe complex mechanisms in a simple, intelligible, and correct way with the objective of popularising science and making it accessible to as many watchmakers as possible. This is also one of the reasons why, in 1878, he translates "The watchmakers' handbook" written in French by famous watchmaker Claudius Saunier.

His first own publication is an essay entitled "On the detached lever escapement". In 1866, he submits the text anonymously for a competition organised by the British Horological Institute and wins the first prize. The clearly structured, accurate description of how to craft a lever with an escapement, including possible pitfalls, not only convinces the jury but also makes it possible for any knowledgeable reader to reproduce such a mechanism. Further publications follow, until Grossmann brings his 'Simple and Perfect' principle to an impressive point in his book "On the construction of a simple but mechanically perfected watch". As the title suggests, the book is dedicated entirely to a maximally simplified watch. Additionally, he publishes numerous articles in major technical journals, always with the goal of sharing knowledge.

Moritz Grossmann plays a pivotal role in the establishment of the German School of Watchmaking in 1878. His name and the academy in Glashütte are as intimately interwoven as is the name of the city with the craft of making mechanical watches. He can take credit for coming up with the idea of the school and implementing it in a very short period of time. Although it is not the first school of its kind, it has definitely left its mark and is held high in international esteem. The importance that Grossmann attaches to propagating watchmaking know-how is clear even before it was founded. At a Sunday school in Glashütte, he holds courses in draughtsmanship for aspiring watchmakers.

But for him, Glashütte is more than just the crucible of German watchmaking artistry. It is also his hometown. He devotes much of his time to local associations and supports regional initiatives, including the fire brigade, a savings and loan institution, the chamber of commerce and a choir group as well as a gymnastics club. Moritz Grossmann is not merely a respected watchmaker but also a promoter and organiser of the city's social and political life. From 1866 until 1878, he serves the community as a councilman, and later even as a representative of the Royal Saxon Landtag. Whether or not he might be called the uncrowned king of Glashütte, he certainly deserves credit for his contributions to the social welfare of the city and the global fame achieved by its most important products: exquisite mechanical watches.

He passes away unexpectedly in Leipzig on 23 January 1885 after delivering a speech about the introduction of World Time. His atelier was liquidated soon thereafter.



Glashütte during Moritz Grossmann's era (1855) and the German School of Watchmaking that he initiated (1905)

Gold hunter-cased watch,
key-wound movement No. 2330,
enamel dial with Roman numerals,
blued spade hands (ca. 1860)

After the sudden death of Glashütte's visionary watchmaker Moritz Grossmann in 1885, his name almost completely disappeared from the realm of fine watches until, under fortuitous circumstances, Christine Hutter discovers his lifework. The sleek immaculacy of his watches and the progressive spirit of his scientific publications fascinate her. She secures the rights to the name of the eminent horological pioneer. At the same time, she drafts a plan to transpose the heritage of Moritz Grossmann to the present with a new manufacture for contemporary wristwatches of superb quality, thus melding classic horological values with the expectations and capabilities of haute horlogerie in the 21st century. This plan coalesces in 2008 with the incorporation of Grossmann Uhren GmbH, bringing the name Grossmann back to Glashütte.

THE MANUFACTURE

The history of the manufacture with the historically eminent name begins in a small workshop across the street from Moritz Grossmann's last registered domicile. The first model was presented after just a few years of intensive development work: the BENU in rose gold. The team quickly outgrows the atelier and moves to a new building on the banks of the Müglitz river. The BENU Power Reserve and the ATUM are unveiled on the inauguration in June 2013. They are followed by the BENU Tourbillon, a highlight of pure watchmaking artistry. The TEFNUT line with three elegant models is introduced in 2015 and 2016. In 2017, Moritz Grossmann lands a horological coup with the ATUM Date and the Grossmann strap winder for the TEFNUT Twist. The TEFNUT Sleeping Beauty jewellery watch is a further highlight of the current collection.

With its impressive prow, the prominent manufacture building on Uferstrasse 1 in Glashütte is reminiscent of a ship moored on the banks of the Müglitz River. The rotunda that hovers over the structure resembles the classic shape of a Grossmann watch case.

The engineering and prototyping ateliers as well as the workshops for production, finishing, and assembly provide the adequate infrastructure and high-end resources needed to accommodate the lofty requirements of the up-and-coming manufacture. With sufficient space for future expansions, Grossmann Uhren GmbH has found a long-term home at this symbolically significant location. This is exactly where, during the 1920s and 1930s, the first wristwatches from Glashütte were being built in the workshops of Uhren-Rohwerke-Fabrik Glashütte AG (UROFA).

THE ORIGIN OF OUR ARTISANSHIP.

With its unique combination of the town's watchmaking tradition, purely reduced functionality, and nuanced façade design, the building embodies the company philosophy borrowed from Moritz Grossmann's legacy and the conceptual and aesthetic principles of the new generation of watches that are being developed in his spirit.

AUTHENTIC CRAFTS, PURE WATCHMAKING

The term 'factory' or 'production unit' (German: 'Manufaktur') plays an important role in precision watchmaking. It is borrowed from the Latin "manu factum" which means "made by hand". On the one hand, it refers to the classic craft of watchmaking as pursued in Glashütte as far back as the 19th century. On the other, it emphasises the untouchable significance of the human hand as the most important precision tool of Grossmann's watchmakers.

THE BEST TOOLS OF OUR TIME: OUR HANDS.

From the first sketch to the finished product, a Moritz Grossmann watch is a jointly created fusion of the arts that thrives on the special abilities of each individual staff member. The path describes the inception of a superior, mechanically almost perfect watch collection. It relies on traditional craftsmanship and revisits some of the key characteristics of historic Glashütte pocket chronometers. At the same time, each watch incorporates a number of totally new components, such as the Grossmann balance or the Grossmann winder with pusher. These innovations clearly position the collection in the present. In-depth know-how is behind each hand-crafted detail. The manually sculpted and annealed hands alone embody a stunning degree of dexterity. In Glashütte, Moritz Grossmann is the only place to do it like this. The sensitivity of the hand, the acuity of the eye, and a deep affinity with aesthetics are what transform unfinished parts into small works of art. In the movement, they are integrated in such a way that every single component can be separately replaced with minimal effort and that its functionality will remain self-explanatory. After all, even the most perfect watch has to be serviced at some point. The principles that govern the design of Moritz Grossmann watches assure superior functional reliability and longevity. Thus, the production unit not only transports pure watchmaking artistry to the here and now but also assures that it can be treasured by more than one generation.

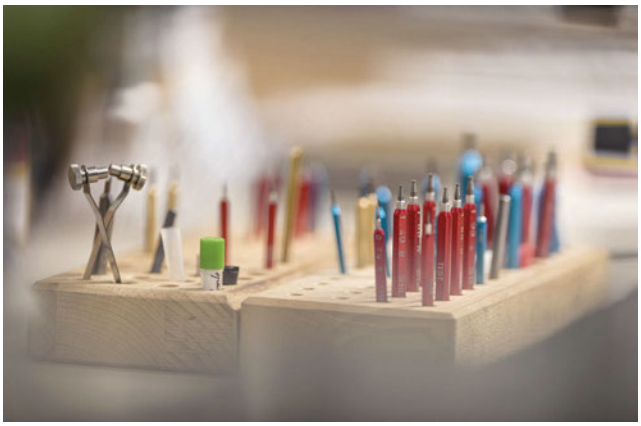
IDEA AND TECHNIQUE

A wheel train is powered by a spring and its force is divided into small uniform portions of energy by an oscillator. Even though the function of a mechanical timepiece can be reduced to this simple sequence of events at a pragmatic level, the development of every watch is preceded by a new idea that describes how the mechanism can be perfected. The process raises a number of conceptual questions: How can the technical challenges and requirements be mastered? How can historic principles and modern expectations be meaningfully amalgamated and implemented? How can technical solutions be paired with a commensurate design? These multi-faceted considerations show why, at Moritz Grossmann, the expertise and know-how of experienced watchmakers are essential assets from the very beginning, when the first ideas are sketched out en route to the development of a new watch.

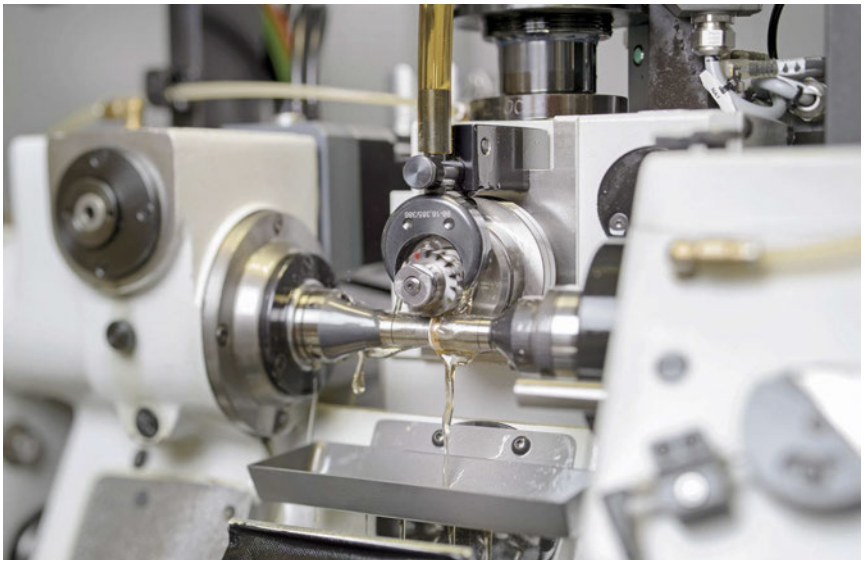
Computer-aided three-dimensional design programs help calibre engineers visualise their thoughts. They allow typical horological design methods to be applied and precisely refined in the interest of optimised functionality. In this respect, complications offer many options but should be used only if they serve a purpose and are not mere decorations. Ongoing renewal and continuous improvement are part of our legacy, our ambition, and our philosophy.

PROTOTYPING AND PARTS PRODUCTION

The first prototypes are crafted by hand to verify and optimise the interaction of the individual components. Thus, the movement evolves in a constant dialogue with the engineers, the prototype makers, the finisseurs, and the assemblers. The result is a first small series.
The raw parts that emerge from this exchange of ideas prior to series production are manufactured with high-precision machine tools, electronically controlled processing centres, and wire-cut EDM machines. This assures that every single component corresponds to the specifications to an accuracy of a few thousandths of a millimetre.



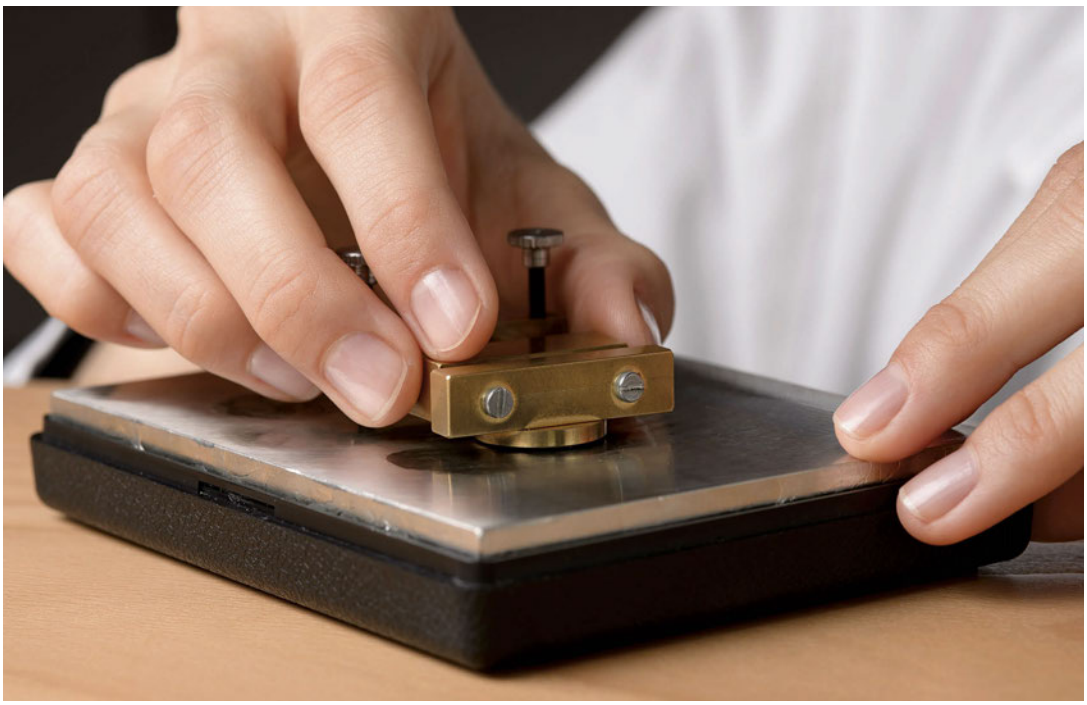
Plug gauges are used to verify the quality of various boreholes



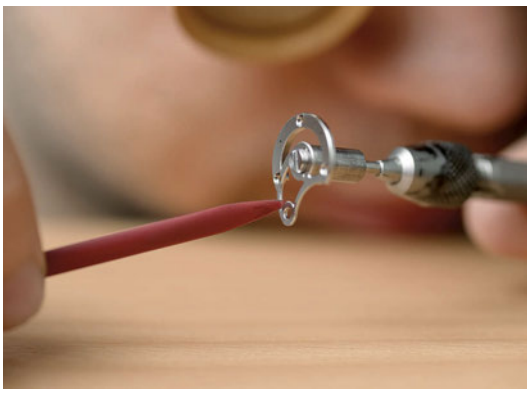
The gear-cutting machine assures that wheels match the blueprints with extreme accuracy

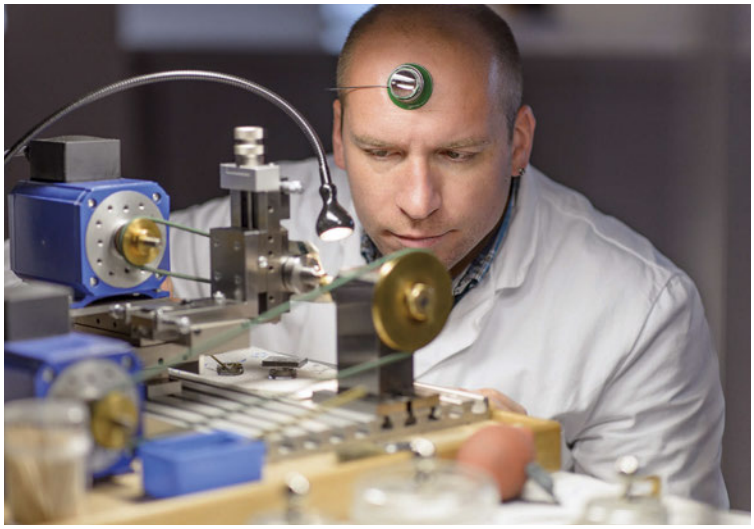
FINISH

True craftsmanship at Grossmann includes immaculate finissage and decoration of the individual parts of a watch. Many meticulous processes subsumed under the term 'finish' turn a perfectly functioning watch into a visually mesmerising work of art.



The surface of the stop click cover is flat-polished on a tin plate (top), and a specially shaped grinding peg is used to sharpen the reentrant angles of the tourbillon cock cover (right)





GRINDING AND POLISHING

Extreme care and proficiency are needed to grind and polish the individual components and materials. Even the slightest scratches are smoothed away with the tin polishing method. Since tin is a comparatively 'soft' metal, it embeds the grit and prevents the delicate parts from being rescratched during the polishing process. The result is an immaculate surface that, depending on the angle, either shines in black or reflects the light as a mirror would. Hence, the technique is referred to as black or specular polishing, or mirror polishing.

Called 3-band snailing because of its optical depth, this decoration is applied to the ratchet wheel. It requires a very steady hand and a heightened sense of proportion. To achieve this special effect, the toothing of the ratchet wheel is first endowed with a circumferential bevel. It adds extra gloss to the part and contrasts well against the snailing. The technique is inspired by a decoration applied to historic Grossmann watches, traditionally with an iron cup.

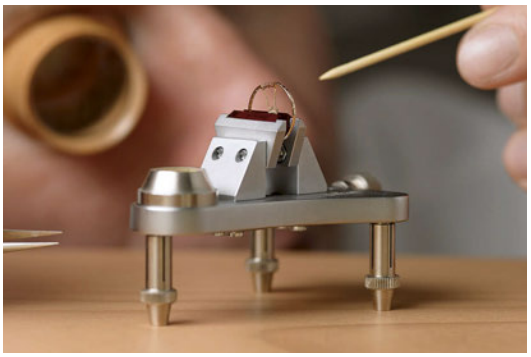
When the ratchet wheel turns, the observer can witness a fascinating optical illusion: The spiral pattern seemingly neutralises the rotation of the wheel while the watch is being wound. To see it revolve, the observer must focus on the teeth.

The Glashütte ribbing on the 2/3 plate is a local tradition. In contrast to other producers, Moritz Grossmann executes this pattern in the form of four broad stripes. They improve the legibility of the hand-chiselled engravings and imbue the movement with an aura of calmness.

A number of further ribbing and graining patterns enhance the uniform, matte gleam of the surfaces. Depending on their shape, the individual parts are smoothed with wooden wheels and then polished to a brilliant gloss with a wool buff.

THE CHAMFERING

Rotating wooden wheels or hand polishing tools are used to chamfer all parts, even those that are ultimately hidden in the depths of the movement, to a 45-degree angle. The chamfers are then polished in several consecutive passes. The gleaming bevels created this way highlight the typical corporeality of the individual components. Exceptional artisanal skills and a sharp eye are required to achieve uniformity in edge chamfering.



THE BALANCE

Before it is finished, the balance is trued and, if necessary, tweaked by broaching the boreholes in the rim. The rim's edges are chamfered in the finissage phase. Then, all surfaces and chamfers are flawlessly polished. The balance's arms are decorated with perlage. None of the remaining components of the balance are added until it has been endowed with the finishing touches.

THE ENGRAVING

As a hallmark of superior quality, the engravings on the escape-wheel cock, the balance cock, and the 2/3 plate are all carved by hand.
The plate is endowed with a particularly intricate engraving as a special sign of distinction that is proprietary to our manufacture. Rooted in history, the floral pattern on the escape-wheel and balance cocks is an aesthetic detail that involuntarily captures the eye.

THE BALANCE COCK

The cantilevered balance cock unites several finissage techniques. It owes its bright sparkle to the uniformly applied peripheral chamfer. The step of this part is beautifully chamfered as well. Its style is underscored by the square head of the micrometer screw. The overall appearance of this prominent component is accentuated by the hand-engraved pattern.

ASSEMBLY

In crafting its movements, Moritz Grossmann relies on the principle of twofold assembly. Each movement is completely assembled, lubricated, and adjusted in both processes. During initial assembly, basic settings are performed and the individual parts precisely aligned with one another. To minimise the stress to which the individual parts are exposed, they are not finished until they are merged a second time in the final assembly stage before the movement is cased up.

FIRST ASSEMBLY

The movement is assembled for a first time to make sure all parts and component groups interact smoothly. In this phase, our experienced watchmakers put together the precisely manufactured components. The endshake of the train wheels is harmonised, the escapement adjusted, and the balance trued. Every single watch is adjusted for rate accuracy. Wrist motions are simulated in various positions for this purpose. To prevent certain parts from being damaged during the initial assembly phase, some of them are integrated into the movement before they have been completely finished. Once the calibre has been perfectly adjusted, it is taken apart again.

During the final assembly process, the watch is endowed with its fine face and cased up

FINAL ASSEMBLY

Only prior to the final assembly process are the parts lavishly finished. At this point in the second completion stage, they are again lubricated, precision-adjusted, and extensively tested. As soon as the results match our high quality standards, the watch is endowed with its face: the dial and the hands are mounted. Finally, the finished movement is cased up. After a further rate test, the watch is completed with the addition of a hand-stitched alligator leather strap secured with a butterfly clasp.

HANDS PRODUCTION

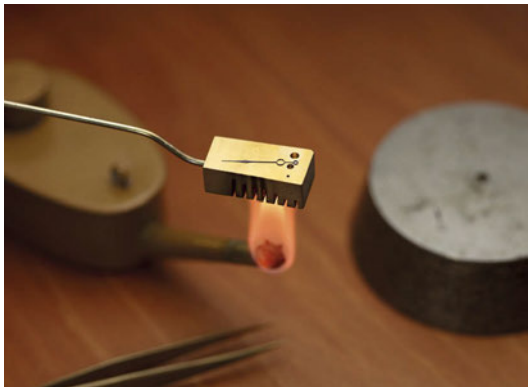
During Moritz Grossmann's lifetime, his measuring instruments and pocket watches were praised for their particularly fine hands. We feel strongly committed to this tradition. For this reason, Moritz Grossmann crafts its hands manually from start to finish. We are the only maker manufacture in Glashütte and one of the few brands worldwide to do so.

First, the contour of the hand is sculpted out of a flat blank; then it is ground to the specified shape with diamond files. This elaborate series of steps gives the hand its three-dimensional form. Subsequently, it is manually polished with a wooden disc to achieve a mirror gloss. The hand's exceptional length and slightly bent tip are instrumental for highly precise legibility.

Moreover, steel hands are annealed over an open flame. Instead of the customary cornflower blue chosen by most watchmakers, Grossmann hands are annealed to a brown-violet or brown hue. These two colours provide the best contrast against the bright tint of the dials. Only a narrow temperature range is available to achieve the two annealing hues: much experience as well as a keen eye and reliable intuition are needed to get the timing right. The colour of the polished steel hand bushing remains unchanged, so it stands out against the noble hues of the hands and hand eyes.

THE SECRET OF OUR HANDS: DEXTERITY.

Painstaking craftsmanship produces tiny masterpieces that assure precise readings of time and make each watch one of a kind.



The uniquely sculpted corporeality of the hands is achieved with manual techniques that include grinding with diamond files, edge bevelling, and annealing over an open flame

TYPICAL GROSSMANN HALLMARKS

Whether inspired by historic role models or developed on the basis of totally new ideas, special hallmarks characterise Moritz Grossmann watches and constitute unmistakable signature elements of the brand.

HAND ENGRAVING, GERMAN SILVER, AND CUT OF THE 2/3 PLATE

The uppercase brand name hand-engraved in the 2/3 plate, its straight cut, and the milled circular cutout for the balance are prominent marks of distinction. The geometry of the plate reveals key details of the movement. Untreated German silver is used for the plate and cocks.

RAISED GOLD CHATONS

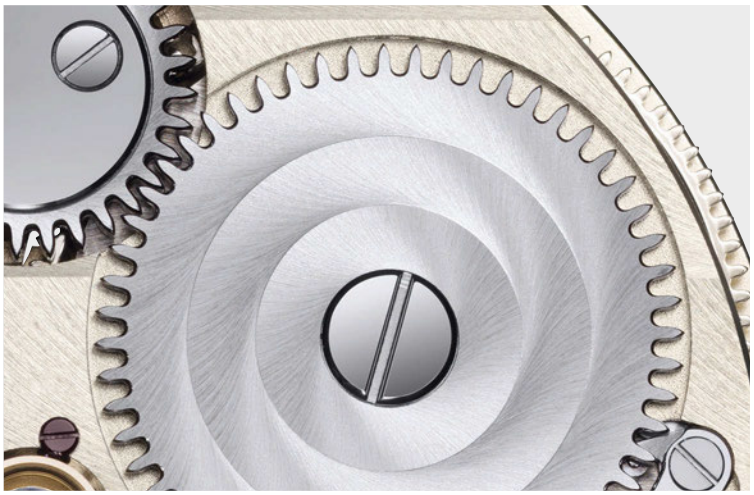
The raised gold chatons that hold white sapphire bearing jewels and the brown-violet annealed pan-head screws add depth to the calibre.

CANTILEVERED BALANCE COCK WITH GROSSMANN MICROMETER SCREW

The cantilevered balance cock pays tribute to Moritz Grossmann's pocket watches and features an unusual micrometer screw. The index pointer allows the active length of the balance spring and thus the rate accuracy of the watch to be adjusted.

3-BAND SNAILING

The ratchet wheel is decorated with 3-band snailing for a fascinating visual effect and three-dimensional volume. A newly devised manufacturing technique is deployed to achieve this traditional embellishment.



PILLAR MOVEMENT

Conventional bridges are replaced by a classic pillar movement consisting of a main plate and the 2/3 plate, offering better accessibility to the components from the side. This design also facilitates the adjustment of the wheels' endshake. The beautifully contoured pillars are a modest reminiscence of historic Glashütte pocket watches.


MORITZ GROSSMANN
GLASHÜTTE I/SA
MADE IN GERMANY

BENU

PARAGON OF A
NEW BEGINNING.

BENU

Like the phoenix rising from the ashes, ancient Egyptian mythology has a poetic symbol for rebirth: the Bennu bird. It is consumed by fire every evening and leaves behind an egg from which it hatches anew the next morning.

BENU symbolizes the return of the manufacture and with every single detail is a milestone in craftsmanship from Glashütte. With its puristic design on the outside and the hidden finesse inside the case, it reflects the heritage of Moritz Grossmann but is clearly anchored in the here and now. In the three-part gold or platinum case, nearly 200 hand-crafted parts interact with great precision. Visible through the sapphire-crystal caseback, they manifest innovative artisanship.

BENU Anniversary

MORITZ GROSSMANN GLASHÜTTE I/SA from 2008 to 2018. The manufacture's first ten years justify a special edition of the BENU, the initial model of the new era. In the year 2018, its first decade, Moritz Grossmann celebrates the beauty of pure watchmaking artistry as a keynote topic. The BENU Anniversary kicks off the theme with three watches of exceptional beauty in exclusive limited editions: BENU Anniversary Lost in Space, BENU Anniversary Platinum and BENU Anniversary White Gold.

For the BENU Anniversary Lost in Space, Grossmann's watchmakers engaged in a fascinating interplay with proportions. The extreme size difference between the diameters of the case and the movement produces a precious amount of space: creative elbow room, a filled space continuum or infinite spatial freedom. It's your call. The BENU Anniversary Lost in Space comes in a limited edition of 26 watches, referencing 1826, Moritz Grossmann's birth year.

BENU Anniversary Lost in Space rose gold

THE CREATION

For the BENU Anniversary Lost in Space, the manufacture is joining what are current opposites: the calibre 102.0 movement with a diameter of merely 26.0 mm and the case with a diameter of 44.5 mm. The calibre is attached to the case in a movement holder ring at the position of the winding crown and stabilised by four struts. These struts bridge the height difference between the case periphery and the movement holder ring with elegantly curved lines that resemble an architectural support structure.

The three-part dial looks like a planetary model and occupies the entire height of the case. The large dial disc with the depiction of the moon is a hand-cut relief engraving that owes its impressive plasticity to the curvature of the surface. The smaller BENU dial for the hours and minutes has a radiant white grand-feu enamel coating. At 7 o'clock, the subsidiary seconds dial takes the stage with its black enamel face. The smaller-scale hands exhibit the typical rhomboid shape. As extraordinary as the Lost in Space model may be, it is unmistakably a BENU.

Reference: MG-001724
Case: 750/000 rose gold
Dial: Three-part, black and white grand-feu enamel, Arabic numerals. cambered lunar disc with relief engraving
Hands: Manually crafted, steel and stainless steel
Limited edition: 26 watches

BENU Anniversary Lost in Space

TECHNICAL DATA

Movement	Manufacture calibre 102.0, manually wound, adjusted in five positions
No. of parts	196
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox-1 balance spring
Balance	Diameter: 10.0 mm, frequency: 21,600 semi-oscillations/hour
Power reserve	48 hours when fully wound
Functions	Hours, minutes, and subsidiary seconds
Operating elements	Crown in 750/000 rose gold for winding the watch and setting the time
Case dimensions	Diameter: 44.5 mm, height 13.8 mm
Movement dimensions	Diameter: 26.0 mm, height 3.45 mm
Case	Three-part, 750/000 rose gold
Dial	Three-part, black and white grand-feu enamel, Arabic numerals, cambered lunar disc with relief engraving
Hands	Manually crafted, hour and minute hands steel, annealed to brown-violet, small seconds hand stainless steel, polished
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Alligator leather with prong buckle in 750/000 rose gold

Special features

Shock-resistant balance with inertia and poising screws / impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / pillar movement with 3/5 plate / frame pillars and separately removable clutch winder / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

Reference: MG-001445
Case: 750/000 white gold
Dial: Black grand-feu enamel, Arabic numerals
Hands: Manually crafted, stainless steel, polished
Limited edition: 10 watches

Reference: MG-001444
Case: Platinum
Dial: Deep blue grand-feu enamel, Arabic numerals
Hands: Manually crafted, stainless steel, polished
Limited edition: 10 watches

BENU Anniversary

With its classic personality, the BENU is predestined to have a luxurious sibling with an enameled dial. In particular, the full grand-feu enamel face in dark colours is rare and calls for the ultimate in artisanship. The specific surface gloss will make every watch enthusiast's heart skip a beat.
The platinum version is paired with a very rare blue enamel face. On the 750/000 white gold version, the dial stands out with grand-feu enamel in black. The display back reveals the calibre 100.1 with the High-Artistic finish as well as a special highlight: for this edition, the hand-engraved balance cock is crafted in gold instead of in German silver as usual. The exclusive limitation of the BENU Anniversary to ten in platinum and ten in white gold makes this timepiece a coveted collector's item.

TECHNICAL DATA

Movement	Manufacture calibre 100.1, manually wound, adjusted in five positions, gold balance cock
No. of parts	198
No. of jewels	20, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator:	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gerstenberger geometry
Balance	Diameter: 14.2 mm, frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann winder with pusher
Operating elements	Crown in precious metal for winding the watch and setting the time, pusher for starting the movement
Case dimensions	Diameter: 41.0 mm, height 11.35 mm
Movement dimensions	Diameter: 36.4 mm, height 5.0 mm
Case	Three-part, precious metal
Dial	Grand-feu enamel, Arabic numerals
Hands	Manually crafted, steel, annealed to a brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle or butterfly clasp in precious metal

Special features
Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on a cantilevered balance cock / pillar movement with 2/3 plate and frame pillars in untreated German silver / 2/3 plate, balance and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting

MOON in SPACE

It's impressive and mystical. The Moon has fascinated mankind for millennia. As Earth's closest celestial body, it has inspired poets and philosophers and spurred on researchers and astronauts, and it still influences people today. With its regular orbit around the Earth, it sustains the tides, acts as a marker for dividing our year into months and is therefore an essential timekeeper for life on Earth.
The independent Glashütte manufactory Moritz Grossmann let the beauty, radiance and power of the Moon guide it, capturing its magic in a timepiece with a special brilliance: MOON in SPACE is a homage to Earth's fascinating companion and combines time and space in bold aesthetics and maximum precision.

The dial face features three celestial bodies, which appear to move freely through the universe: a silver, shimmering Moon with a textured surface serves as a striking fixed point. Two smaller dials, one for the hour and minute and another for the seconds, sit in the foreground in front of the Moon.

MOON in SPACE Stainless Steel DLC

Reference: MG-002417
Case: Stainless steel DLC
Dial: Three-part, black and white grand-feu enamel, Arabic numerals. cambered lunar disc with relief engraving
Hands: Manually crafted, steel and stainless steel
Limitation: 8 watches

THE CONSTRUCTION

The movement is positioned in a holding ring at the winding crown on the case and fixed in place with four black gold-plated bars.

The bars bridge the height difference between the edge of the case and the movement holding ring.

Sapphire crystal with an anti-reflective coating provides a view of the support elements and sophisticated structure of MOON in SPACE and reinforces the impression of open space and movement.

THE CASE

A deep black case with diamond-like substance symbolises the darkness of the universe.

It gets its extraordinary look from an exquisite diamond-like carbon (DLC) treatment, where the stainless steel is carbon-coated in a chemical vapour deposition process.
The result is a blackened, extremely hard surface permanently protected from scratches, wear and corrosion.

THE DIAL

Thanks to the curved surface, the silver moon motif looks especially dynamic. The relief texture is handcrafted and shows a lunar landscape with its characteristic rock formations. The provenance of MOON in SPACE is evidenced by a fine, hand-engraved Moritz Grossmann logo at the upper left edge.

The dial for the hours and minutes radiates in white grand-feu enamel. Its contrast cousin counts the seconds at the 7 o'clock mark in black grand-feu enamel. The Grossmann hands with their excellent contrast each ensure that both dials are easy to read. The ultra-fine, handcrafted stainless steel hands for the hours and minutes were annealed to a brown-violet hue, while the small seconds hand was polished to a glossy stainless steel finish

MOON in SPACE

TECHNICAL DATA

Movement	Manufacture calibre 102.0, manually wound, adjusted in five positions
No. of parts	196
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator:	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox-1 balance spring
Balance	Diameter: 10.0 mm, frequency: 21,600 semi-oscillations/hour
Power reserve	48 hours when fully wound
Functions	Hours, minutes, and subsidiary seconds
Operating elements	Crown in 750/000 rose gold for winding the watch and setting the time
Case dimensions	Diameter: 44.5 mm, height 13.8 mm
Movement dimensions	Diameter: 26.0 mm, height 3.45 mm
Case:	Three-part, steel DLC
Dial	Three-part, black and white grand-feu enamel, Arabic numerals. cambered lunar disc with relief engraving
Hands	Manually crafted, hour and minute hands steel, annealed to brown-violet, small seconds hand stainless steel, polished
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Alligator leather with prong buckle in steel

Special features

Shock-resistant balance with inertia and poising screws / impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / pillar movement with 3/5 plate / frame pillars and separately removable clutch winder / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel


MORITZ GROSSMANN
12
9
3
60

BENU Enamel

For aficionados of robust steel watches, this BENU is a special highlight. The unusual combination of a steel case with the calibre 100.1 movement and an enamel dial makes for a rare and luxurious dress watch. With its High-Artistic finish of the movement and the grand-feu enamel execution of the dial, this timepiece is a role model of pure watchmaking artistry. The detailed minute scale and the elegant Arabic numerals are available in two colour versions that are combined with matching straps. The BENU Enamel is available in an annual limited edition of 18 watches per colour version.

BENU Enamel stainless steel

Reference: MG-001405
Case: Stainless steel
Dial: Enamel grand-feu, black Arabic numerals
Hands: manually crafted, steel, annealed to a brown-violet hue
Limitation: 18 watches per year

Reference: MG-001746
Case: Stainless steel
Dial: Enamel grand-feu, blue Arabic numerals
Hands: manually crafted, steel, annealed to a blue hue
Limitation: 18 watches per year

THE CASE

The BENU Enamel is the first watch in its series to be cased in steel. The cool, modern appeal of this case version contrasts against the traditional enamel dial and the High-Artistic finish of the calibre 100.1 movement that can be admired through the display back.

THE DIAL

Connoisseurs can see it immediately: the unique gloss of the surface of the dial is an unmistakable feature of the grand-feu enamel technique. The inimitable white of the enamel produces a striking contrast for the black scales and numerals as well as the characteristic brown-violet hands. For the version with blue scales and numerals, the hands are annealed to a classic cornflower blue, an exquisite accent in the Grossmann portfolio.

TECHNICAL DATA

Movement	Manufacture calibre 100.1, manually wound, adjusted in five positions
No. of parts	198
No. of jewels	20 jewels, 3 of which in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-absorbed Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gerstenberger geometry
Balance	Diameter 14.2 mm, frequency 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann winder with pusher
Operating elements	Crown to wind the watch and set the time, pusher to start the movement
Case dimensions	Diameter: 41.0 mm, height: 11.35 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm
Case	Three-part, stainless steel
Dial	Grand-feu enamel, Arabic numerals
Hands	Hand-crafted, steel annealed
Crystal/display back	Sapphire crystal, antireflection-coated on one side
Strap	Hand-stitched alligator strap with prong buckle

Special features

Grossmann balance / lateral pusher for disabling the handsetting mode and starting the movement / space saving and modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on a cantilevered balance cock / Pillar movement with 2/3 plate and frame pillars in untreated German silver / 2/3 plate, balance cock, and escape-wheel cock engraved by hand / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winder / stop seconds for handsetting

37 ARABIC

The compacter BENU version exhibits harmoniously balanced proportions. While the case is inspired by the original, the upbeat, vibrantly styled numerals add a touch of ebullience. They endow the 37 ARABIC with dynamic appeal and elegance, accentuated by reminiscences of the swing era. For the 37-millimetre case, the characteristic BENU hands were scaled down proportionally. Through the display back, the watch enthusiast can admire the balanced composition of the calibre 102.1 featuring the High-Artistic finish.

37 ARABIC Rose Gold

Reference: MG-001545
Case: 750/000 rose gold
Dial: argenté, Arabic numerals
Hands: Manually crafted, steel, annealed to a brown-violet hue

Reference: MG-001544
Case: 750/000 rose gold
Dial: argenté, Arabic numerals
Hands: Manually crafted, steel, annealed to a brown-violet hue

Reference: MG-002267
Case: 750/000 white gold
Dial: argenté, Arabic numerals
Hands: Manually crafted, polished stainless steel

THE CASE

The design of the 41-millimetre BENU case was adapted for the smaller 37-millimetre version. The finesse of the bezel, the elegant, ergonomic crown with the angled flutes, as well as the gently curved and chamfered strap lugs complement the aesthetics of this timepiece that hugs the wrist with pleasant comfort. Brilliant 750/000 gold effectively sets off the case and the winding crown and gives the watch an exquisite frame.

THE DIAL

The sweeping white numerals in Arabic script are a real eye catcher and almost seem to dance around the pair of hands. This forms a calm fixed point in its straightness. The hand crafted Grossmann hands made of polished stainless steel can be read precisely.
Two further details emphasise the play of opposites with their white colouring: a Moritz Grossmann logo completely in white and a harmonious white “Made in Germany” seal of approval.

TECHNICAL DATA

Movement	Manufacture calibre 102.1, manually wound, adjusted in five positions
No. of parts	188
No. of jewels	22, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox-1 balance spring
Balance	Diameter 10.0 mm, frequency 21,600 semi-oscillations/hour
Power reserve	48 hours when fully wound
Functions	Hours, minutes, and subsidiary seconds
Operating elements	Crown in 750/000 gold, with gemstone, for winding the watch and setting the time
Case dimensions	Diameter: 37.0 mm, height 9.2 mm
Movement dimensions	Diameter: 26.0 mm, height: 4 mm
Case	Three-part, in 750/000 gold
Dial	Solid silver, Roman numerals
Hands	Manually crafted, steel, annealed to a brown-violet hue or polished
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator leather with prong buckle in 750/000 gold

Special features

Shock-resistant balance with inertia and poising screws / impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / pillar movement with 3/5 plate, frame pillars and separately removable clutch winder / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

BENU
Power reserve

The BENU Power Reserve remains true to the family's neoclassic style. From the front, Arabic numerals, a crisp minute scale, and the case with its delicate bezel as well as the gracefully tapered lugs project refined elegance. A display back reveals the spirited beauty of the movement. The sublime, manually crafted hands provide an accurate reading of the time from any angle. Additionally, a two-colour power-reserve indicator tells the owner when the time has come to rewind the movement. The Grossmann winder with pusher implemented in this model assures superb precision in timesetting. This perfectly balanced model also showcases the modern sides of our watchmaking artistry.

BENU Power reserve white gold

Reference: MG-000462
Case: 750/000 white gold
Dial: grey
Hands: manually crafted, polished stainless steel with white HyCeram filling

Reference: MG-000461
Case: 750/000 white gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-000460
Case: 750/000 rose gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-000628
Case: Platinum
Dial: grey, subdial argenté
Hands: manually crafted, hour and minute, polished stainless steel with white HyCeram filling

Reference: MG-001645
Case: Platinum
Dial: blue
Hands: manually crafted, hour and minute, polished stainless steel with white HyCeram filling

THE POWER RESERVE INDICATOR

A white-red bar-shaped power-reserve indicator enriches the face of the BENU line with a modern detail that harmoniously complements the precisely drawn scales, Arabic numerals, and the brand signature. The two-colour display emphasises the technical perfection of this wristwatch at first sight.

THE HANDS

The gleaming hands are crafted from stainless steel in a proprietary process. To achieve the best pos-sible contrast against the grey dial for optimised legibility, small pockets sculpted into the hands are filled with white HyCeram. This material, consisting of microceramics and polymers, is ground flush with the metal and then polished to a brilliant gloss.

THE CROWN AND THE PUSHER

The shape of the knurled winding crown melds ergonomic design with aesthetics. A circumferential groove makes it easy to pull the crown and stop the movement. The pusher for the new, extra-precise handsetting mechanism is located directly adjacent to the crown. It instantly restarts the movement once the hands have been set.

BENU
Power reserve

TECHNICAL DATA

Movement	Manufacture calibre 100.2, manually wound, adjusted in five positions
No. of parts	227
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher, power-reserve indicator
Operating elements	Crown in 750/000 gold to wind the watch and set the time, pusher in 750/000 gold to start the watch
Case dimensions	Diameter: 41.0 mm, height: 11.65 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.4 mm
Case	Three-part, precious metal
Dial	Solid silver, with Arabic numerals
Hands	Manually crafted, steel or stainless steel
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in precious metal

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / bar-shaped power-reserve indicator with a two-colour display segment driven by a differential wheel train / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting

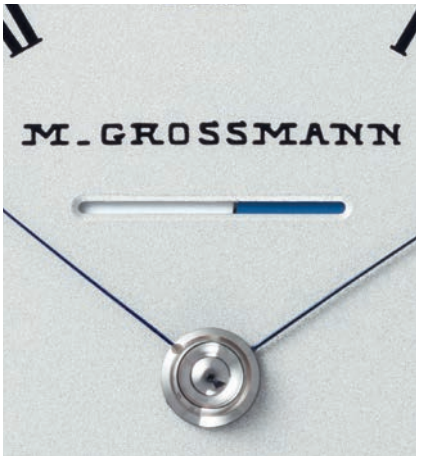
POWER RESERVE Vintage

To commemorate the revival of the brand and pay tribute to the inventor, visionary and master craftsman Moritz Grossmann, a traditional version of this wristwatch is now being released. The POWER RESERVE Vintage features a historic dial in argenté echoing Moritz Grossmann's classic pocket watches. Finely crafted Roman numerals in black and the original logo featuring the'M. GROSSMANN' typography from 1875 grace the dial paying tribute to the master, as he was respectfully called in Glashütte.

POWER RESERVE Vintage Rose Gold

Reference: MG-002269
Case: 750/000 rose gold
Dial: argenté, Roman numerals
Hands: manually crafted, steel, annealed to a blue hue

Reference: MG-002270
Case: 750/000 white gold
Dial: argenté, Roman numerals
Hands: manually crafted, steel, annealed to a blue hue



THE POWER RESERVE INDICATOR

The calibre 100.2 of the POWER RESERVE Vintage uses a differential gear. A segment mounted in the centre of the calibre drives the output of the gearbox, creating a two-coloured bar display below the logo to indicate the remaining power reserve. This shows the watch's remaining running time. When the mainspring is fully wound, the bar is completely white and turns increasingly blue as the power reserve decreases.
The bar complements the dial with its slim, filigree style.

A sapphire crystal back on the reverse of the watch reveals the intricately finished parts in the POWER RESERVE Vintage, showcasing Schönstes deutsches Handwerk.

THE HANDS

The hands of the new model also take their inspiration from the 19th-century examples of Moritz Grossmann's pocket watches.

The pear-shaped tip of the hour hand forms a beautiful contrast to the wafer-thin, needle-like shape of the minute hand, measuring a mere 0.1 millimetre at its narrowest point. Only the second hand with a twentieth of a millimetre diameter at its peak surpasses the filigree appearance.

As with all Grossmann hands, these display instruments are also handcrafted in the manufactory and manually annealed over an open flame. Kept in blue, the hands harmonise with the blue/white power reserve indicator.

CROWN & PUSHER

The crown combines ergonomics with aesthetics in its shape.
A circumferential groove provides a firm grip when mounting and facilitates pulling out the crown to stop the movement.

The pusher for the new, more precise hand setting mechanism is located directly below the crown.
He starts the movement immediately after setting the hands.

POWER RESERVE Vintage

TECHNICAL DATA

Movement	Manufacture calibre 100.2, manually wound, adjusted in five positions
No. of parts	227
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher, power-reserve indicator
Operating elements	Crown in 750/000 gold to wind the watch and set the time, pusher in 750/000 gold to start the watch
Case dimensions	Diameter: 41.0 mm, height: 11.65 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.4 mm
Case	Three-part, precious metal
Dial	Solid silver, with Roman numerals
Hands	Manually crafted, steel, annealed to a blue hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in precious metal

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / bar-shaped power-reserve indicator with a two-colour display segment driven by a differential wheel train / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting


M. GROSSMANN
MADE IN
GERMANY

BENU Tourbillon

The BENU Tourbillon is the artisanal crown of Moritz Grossmann's vision and clearly evokes the tradition of Glashütte pocket chronometers. To express uncompromising precision, the implementation of Grossmann's flying three-minute tourbillon represents a totally new concept en route to the simple but mechanically perfect watch. A suite of surprising solutions, such as the unusual size and shape of the tourbillon cage or its longer periodicity, makes it possible to actually see absolute rate accuracy with the naked eye. The patent-pending stop seconds mechanism with a fine-hair brush complements an ensemble that follows the principles of a Grossmann precision timekeeping instrument down to the last detail. The BENU Tourbillon expresses technical virtuosity and exemplifies traditional craftsmanship.

BENU Tourbillon white gold

reddot award 2018
winner

Reference: MG-000004
Case: 750/000 white gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown-violet hue
Limited edition: 50 watches

Reference: MG-001354
Case: 750/000 rose gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown-violet hue
Limited edition: 25 watches

Reference: MG-000779
Case: 750/000 white gold
Dial: black
Hands: manually crafted, polished stainless steel
Limited edition: 10 watches

SKYLIFE BENU TOURBILLON

The SkyLife BENU Tourbillon is the world's first wristwatch reserved exclusively for aircraft owners. It expresses the values of Moritz Grossmann: quality, aesthetics, and craftsmanship. This special model comes in a white-gold case. With its flying Grossmann three-minute tourbillon and the patented hair-brush stop-seconds mechanism, the calibre 103.0 movement is truly exclusive. Each SkyLife BENU Tourbillon is unique, displaying the dial signature and its owner's personal aircraft registration code.

Reference: MG-001173
Case: 750/000 white gold
Dial: blue
Hands:Hands: manually crafted, polished stainless steel
Limited edition: for aircraft owners

THE DIAL

The solid-silver dial consists of three parts and resembles a classic regulator clock dial. Two recessed subsidiary dials for the seconds and hours, each with unambiguous scales and differentiated hand shapes, accompany the sweep minutes indication. The aperture for the 16-millimetre tourbillon cage is unusually large, made possible because of the two off-centre displays.

When the minute hand progresses into the tourbillon aperture, the missing ten-minute segment is replaced by the scale on the opposite side and swept by the extension of the hand. This patented redundant display function makes the range from 25 to 35 minutes between the seconds and hours clearly legible.

THE TOURBILLON APERTURE

An unusually large portion of the dial was cut out and the configuration of the components inside the movement modified so that the complete motion cycle of the Grossmann balance and tourbillon cage can be observed on the face of the watch without any obstructions. The graceful V-shaped balance bridge needs only two instead of the customary three frame pillars so that this complex choreographed performance of mechanical precision can take place on an even larger stage (utility model registered).

THE STOP-SECONDS MECHANISM

Worldwide, only very few tourbillon models have a stop-seconds mechanism. This makes the BENU Tourbillon a genuinely rare timepiece. Its combination of the Grossmann winder with pusher and the hair-brush stop-seconds mechanism is unique (patent pending).

The perfected handsetting mechanism assures superior accuracy when setting the time. When the crown is pulled, the elastic fine-hair brush stops the tourbillon and the mechanism switches to the handsetting mode. The crown immediately returns to its home position but can now be turned to set the hands. Actuating the pusher adjacent to the crown restarts the movement and the mechanism switches to the winding mode again.

BENU Tourbillon

TECHNICAL DATA

Movement	Manufacture calibre 103.0, manually wound, adjusted in five positions
No. of parts	245 (wheel train 186, cage 59)
No. of jewels	30, of which 4 in screwed gold chatons (wheel train 17, cage 13)
Escapement	Lever escapement
Oscillator	Grossmann three-minute tourbillon with stop seconds, shock-resistant Grossmann balance with 4 inertia and 2 poising screws, suspended Nivarox 1 balance spring with No. 80 terminal curve, Gerstenberger geometry
Cage diameter	16,0 mm
Cage speed	1 revolution in three minutes, anti-clockwise when viewed from dial side
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	72 hours when fully wound
Functions	Sweep minutes, off-centre hours and seconds, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Operating elements	Crown in 750/000 gold to wind the watch and set the time, pusher in 750/000 gold to start the watch
Case dimensions	Diameter: 44.5 mm, height: 13.8 mm
Movement dimensions	Diameter: 38.4 mm, height: 7.1 mm
Case	Three-part, in 750/000 gold
Dial	Solid silver, three-part, with Arabic numerals
Hands	Manually crafted, steel or stainless steel
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator with butterfly clasp in 750/000 gold

Special features

Flying three-minute tourbillon with screwed driving wheel and V-shaped balance bridge (registered design pending) / sweep minutes, off-centre hours and seconds with stop seconds / replacement of the scale gap from 25 to 35 minutes with a hand extension and a separate scale (patented) / stop seconds at the balance-wheel rim by means of a fine-hair brush (patent pending) / equidistant locking escapement with counterweight and detent pin in the lever / Grossmann balance with suspended hairspring and adjustment via poising screws in the rim / newly designed jewel bearing for the mainspring barrel / brake ring at the fourth-wheel arbor made of very hard and oily guaiacum / ARCAP train wheels / Grossmann manual winder with pusher for uncoupling the handsetting mode and restarting the movement / modified Glashütte stopwork with backlash / pillar movement with 2/3 plate and frame pillars made of untreated German silver / 2/3 plate and tourbillon cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / white sapphire bearing jewels / separately removable clutch winding mechanism

A VISION THAT SOUNDS EASIER THAN IT IS.

Grossmann watches are conceptually sophisticated and elaborately crafted. And yet, they are paragons of purism. Ingeniously simple, one could say. In the 19th century, Moritz Grossmann was already dedicated to implementing this vision of reducing watchmaking artistry to the essence. His essay 'On the construction of a simple but mechanically perfected watch' is the basis of our philosophy, which dictates that we think not only in the present but also of the future when crafting fine mechanical watches.


MORITZ GROSSMANN
GLASHÜTTE I/SA
MADE IN GERMANY

ATUM

REDUCED TO PERFECTION.

ATUM

In Egyptian mythology, the ennead of the gods is one of the oldest stories dedicated to the inception of the world. It has its origin in Atum, the god of creation. Self-created from nothing, he symbolises the genesis of all things.

The ATUM is a timeless masterpiece of sleek elegance. The dial alone reflects precise functionality and a commitment to pure aesthetics: delicately chamfered hour markers replace Arabic numerals. Manually crafted, lance-shaped hands add quintessential class to its overall personality. The slender bezel of the three-part precious metal case forms a discreet frame for the crisply drawn face of the watch. Despite the understated looks of the ATUM, it epitomises traditional craftsmanship and contemporary expertise. It is a paragon of pure watchmaking prowess for the 21st century.

ATUM rose gold

Reference: MG-000463
Case: 750/000 rose gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown hue

Reference: MG-000464
Case: 750/000 white gold
Dial: argenté
Hands: manually crafted, hour and minute, polished stainless steel; seconds, steel, annealed to a brown hue

Reference: MG-000465
Case: 750/000 white gold
Dial: charcoal
Hands: manually crafted, polished stainless steel

Reference: MG-000978
Case: 750/000 white gold
Dial: champagne
Hands: manually crafted, polished stainless steel

Reference: MG-000980
Case: 750/000 white gold
Dial: burgundy
Hands: manually crafted, polished stainless steel

Referenz: MG-000976
Gehäuse: 750/000 white gold
Zifferblatt: ice blue
Zeiger: manually crafted, polished stainless steel

THE DIAL

The ATUM features applied gold hour markers instead of numerals. Thanks to their polished chamfer, they seem to float above the solid-silver dial. Their svelte contours imbue the watch with timeless beauty.
The subsidiary seconds dial is recessed in the main dial so that the hour and minute hands can sweep very closely along the crisply defined minute scale. Even with a cursory glance, they always deliver a precise reading of the time.

The face is bounded by a very slender bezel. Together with the delicately chamfered sapphire-crystal glass that protects the dial, it contributes to the pure appearance of the watch.

THE HANDS

The art of manually crafting hands in steel or stainless steel is an absolute rarity. For the ATUM, they are sculpted in a proprietary lance shape that perfectly matches the hour markers on the dial. Broad chamfers add corporeality to the hands while highlighting their slenderness. For each hand, the steel is tempered and ground to achieve an extended, unusually sharp tip. The colour of the hands is chosen to achieve the best possible contrast against the dial.

THE CROWN AND THE PUSHER

The ergonomically and aesthetically optimised crown is paired with a directly adjacent pusher. It is a telltale sign of the innovative handsetting train inside the movement that prevents hand jump after the time has been set. So in all modesty, the pusher simply improves timesetting accuracy.

ATUM

TECHNICAL DATA

Movement	Manufacture calibre 100.1, manually wound, adjusted in five positions
No. of parts	198
No. of jewels	20, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Operating elements	Crown in 750/000 gold to wind the watch and set the time, pusher in 750/000 gold to start the movement
Case dimensions	Diameter: 41.0 mm, height: 11.35 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm
Case	Three-part, precious metal
Dial	Solid silver, hour markers in solid gold
Hands	Manually crafted, steel or stainless steel
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in precious metal

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting

ATUM Enamel

The ATUM watch family embodies all facets of pure watchmaking artistry. The enamelled dial of the ATUM Enamel is a further homage to artisanship in the days of old. Although traces of the art of enamelling can be found across millennia of art history, only very few masters of the discipline are capable – today as in the past – of creating immaculate enamelwork.

Often referred to as „white gold", an enamel coating endows a dial with incomparable purity. On such a stage, the deep-black scales and numerals as well as the crowning XII in blue stand out in vivid contrast. Paired with the characteristic hands, this contrast defines the inimitable face of the ATUM Enamel. The watch accommodates the manufacture calibre 100.1 with proprietary Grossmann developments. It is exclusively limited to 25 timepieces in rose gold and 25 in white gold and complements the exquisite personalities of the ATUM line.

ATUM Enamel rose gold

reddot award 2018
winner

Reference: MG-000804
Case: 750/000 rose gold
Dial: Grand-feu enamel, Roman numeral, blue for XII
Hands: manually crafted, steel, annealed to a brown-violet hue
Limited edition: 25 watches

Reference: MG-000807
Case: 750/000 white gold
Dial: Grand-feu enamel, Roman numeral, blue for XII
Hands: manually crafted, steel, annealed to a brown-violet hue
Limited edition: 25 watches

THE FACE

The ATUM Enamel stands out with its extravagant colour composition. The deep black and blue indications as well as the brown-violet hands contrast vibrantly against the white enamelled dial.

On the two-part dial, the enamel coating gleams with a rich white. Connoisseurs appreciate the unique gloss and purity of enamel. When pocket watches were en vogue, enamelled dials were hallmarks of superb artisanship. In our era, they are rarely found in wristwatches.

White enamel highlights the crispness of the scales and numerals in deep black as well as the Roman numeral XII in blue to match the strap. In the manufacture, the lancet-shaped hands conceived for the watch family are manually sculpted in numerous individual steps and, for the ATUM Enamel, annealed to a brown-violet hue.

THE CASE

The three-part case is an impressive manifestation of balanced proportions and understated elegance. The slender bezel gracefully frames the extraordinary face of the ATUM Enamel. The crown and pusher are elements of the Grossmann manual winder, the newly developed handsetting mechanism.

The ATUM Enamel is available in rose gold and white gold cases. Both versions are worn on a blue alligator leather strap coordinated with the blue of the XII numeral.

ATUM Enamel

TECHNICAL DATA

Movement	Manufacture calibre 100.1, manually wound, adjusted in five positions
No. of parts	198
No. of jewels	20, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Operating elements	Crown in 750/000 gold to wind the watch and set the time, pusher in 750/000 gold to start the watch
Case dimensions	Diameter: 41.0 mm, height: 11.35 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm
Case	Three-part, precious metal
Dial	Grand-feu enamel, Roman numerals printed black from I to XI, blue for XII
Hands	manually crafted, steel, annealed to a brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in precious metal

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting


MORITZ GROSSMANN
GLASHÜTTE I/SA
10
20
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CORNER STONE

The watch strikes four times at the top of the hour. Four seasons form a complete cycle. The CORNER STONE has four corners. If you pronounce the English term “corner stone” in Japanese, the words curiously sound very similar in both languages: “Kōnāsutōn”. In Japanese script it looks like this: コーナーストーン

Grossmann Uhren wants to draw on this wonderful similarity between the two cultures and languages by naming the new model with the innovative rectangular design CORNER STONE. It is Grossmann’s first watch in this design variant that is particularly popular on the Japanese market. The new calibre 102.3 was specially designed for the rectangular movement shape with a second hand at 6 o´clock and a central hour and minute display.


MORITZ GROSSMANN
GLASHÜTTE I/SA
MADE IN GERMANY

Reference: MG-002145
Case: 750/000 rose gold
Dial: opalin with appliqués
Hands: Manually crafted, steel, annealed to a brown-violet hue

Reference: MG-002144
Case: 750/000 white gold
Dial: opalin with appliqués
Hands: Manually crafted, steel, annealed to a brown-violet hue

Reference: MG-001910
Case: 750/000 white gold
Dial: black lacquered
Hands: Manually crafted, polished stainless steel

Reference: MG-001950
Case: 750/000 rose gold
Dial: White enamel Grand feu
Hands: Manually crafted, steel, annealed to a brown-violet hue
Limited edition: 25 pieces

Reference: MG-002142
Case: 750/000 white gold
Dial: White enamel Grand feu
Hands: Manually crafted, steel, annealed to a brown-violet hue
Limited edition: 25 pieces

THE CASE

The CORNER STONE comes with its special rectangular movement shape. The flat case of the timepiece with the curved lugs nestles perfectly on the wrist of both ladies and fashion-conscious men and always makes an elegant statement.

THE DIAL AND THE HANDS

Opalin with appliqués

In this version, the dial is made of solid silver with rose gold appliqués. The case is also made of rose gold. Another version of the dial features white gold appliqués with a white gold case.

Handmade, brown-violet hands harmonise with both variants. A special feature of this variant is the small second scale and the centre of the dial square shaped.

Black lacquered

Another version of the dial in solid silver is offered in black with Arabic numerals and a minute and seconds scale in white. The case is made of white gold.

The handmade hands are made of polished stainless steel. The small second scale has a round shape.

White enamel Grand feu

The dial in rich white enamel Grand-feu, with the numerals, minute markers and time display of the small seconds in brown providing an eye-catching contrast.

The case is also available in white gold or rose gold with handmade, brown-violet hands. The enamelled dial is furnished with a small round seconds hand.

The version in enamel Grand-feu is limited to a run of 25 for each variation.

TECHNICAL DATA

Movement	Manufactory calibre 102.3, manual winding, regulated in five positions
No. of parts	189
Jewels	24 jewels, of which 2 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia screws and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, frequency: 21,600 semi-oscillations per hour
Power reserve	60 hours when fully wound
Functions	Hour and minute, small second with stop seconds
Operating elements	Crown in 750/000 gold for winding the watch and setting the time
Case dimensions	46.6 mm (length) x 29.5 mm (width) x 9.76 mm (height)
Movement dimensions	30.0 mm (length) x 20.0 mm (width) x 3.6 mm (height)
Case	Two-part, precious metal
Dial	Solid silver painted or enamel Grand feu, indices made from gold
Hands	Manually crafted, stainless steel, annealed in brown-violet for two variants and white polished
Crystal/display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator leather with prong buckle in precious metal

Special features

Grossmann balance; space-saving modified Glashütte stopwork with backlash; adjustment with Grossmann micrometer screw on cantilevered balance cock; pillar movement with 2/3 plate and pillars made of untreated German silver; balance cock and escape-wheel cock hand-engraved; broad horizontal Glashütte ribbing; 3-band snailing on the ratchet wheel; raised gold chatons with pan-head screws; separately removable clutch winding mechanism; stop seconds for hand setting


MORITZ GROSSMANN
GLASHÜTTE / SA
MADE IN GERMANY
MORITZ
GROSSMANN

ATUM 37

The somewhat smaller ATUM 37 also masters the principle of reduction with perfection. All hallmarks of pure watchmaking artistry stand for its precise functionality. The subsidiary seconds recessed in the dial and the typical ATUM hands have been rescaled to the 37-millimetre diameter of the case. The lancet-style hands and the Roman numerals that take the place of the applied hour markers assure very good legibility from any angle. Grossmann's calibre 102.1 movement under the dial has a dainty diameter of 26 mm and is only 3.5 mm high.

ATUM 37 rose gold

Reference: MG-001855
Case: 750/000 rose gold
Dial: argenté, Roman numerals
Hands: Manually crafted, steel, annealed to a brown-violet hue

Reference: MG-001851
Case: 750/000 white gold
Dial: argenté, Roman numerals
Hands: Manually crafted, steel, annealed to a brown-violet hue

THE CASE

Accommodated in the 37-millimetre case, the small ATUM is just as balanced and well proportioned as its role model. The noble grace of the strap lugs, the elegance of the slender bezel, and the ergonomically shaped crown are the key facets of an immaculate case. The rose-gold version of the ATUM 37 is worn on a brown alligator leather strap while the white-gold model has a black strap.

THE DIAL

With the ATUM 37, an argenté-coloured solid-silver dial, is combined with a charcoal minute scale and numerals and hands annealed to a brown-violet hue. The elegantly drawn Roman numerals underscore the classic appeal of this universal timepiece. Thanks to the fine tips of the smaller ATUM hands, the hours and minutes are always easily legible. As in the large model, the subsidiary seconds dial is recessed in the main dial at 6 o'clock and accentuated with a polished chamfer.

TECHNICAL DATA

Movement	Manufacture calibre 102.1, manually wound, adjusted in five positions
No. of parts	188
No. of jewels	22, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox-1 balance spring
Balance	Diameter 10.0 mm, frequency 21,600 semi-oscillations/hour
Power reserve	48 hours when fully wound
Functions	Hours, minutes, and subsidiary seconds
Operating elements	Crown in 750/000 gold, for winding the watch and setting the time
Case dimensions	Diameter: 37.0 mm, height 9.2 mm
Movement dimensions	Diameter: 26.0 mm, height: 3.5 mm
Case	Three-part, in 750/000 gold
Dial	Solid silver, Roman numerals
Hands	Manually crafted, steel, annealed to a brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator leather with prong buckle in 750/000 gold

Special features

Shock-resistant balance with inertia and poising screws / impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / pillar movement with 3/5 plate, frame pillars and separately removable clutch winder / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

ATUM Date

Apart from the exact time, what people want to know most is the current date. So the date display ranks just behind the hour, minute, and seconds indications even though it is a comparatively recent development in the long history of horology. The first wristwatch with an analogue date was introduced in the early 20th century. Grossmann's watchmakers are taking their inspiration from this classic display type but have perceptibly evolved it: their jumping date is remarkably easy to use.

The ATUM Date features a date indicator that jumps at exactly midnight each day around a full 1-31 scale which runs around the border of the dial. The calibre 100.3 in the ATUM Date is based on the calibre 100.1 and retains many of its essential components. But to integrate the jumping date mechanism on the dial side of the movement, several key parts had to be redesigned. On the outside, the additional setting crown at the 10 o'clock position reveals the presence of the complication (utility model registered).

ATUM Date rose gold

Reference: MG-000854
Case: 750/000 rose gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown hue

Reference: MG-000857
Case: 750/000 white gold
Dial: argenté
Hands: manually crafted, polished stainless steel

Reference: MG-001477
Case: 750/000 white gold
Dial: champagne
Hands: manually crafted, steel, annealed to a brown hue

THE DATE SETTING CROWN

The ATUM Date stands out with the sleek lines of a perfectly reduced case shape, which is a characteristic element of the model family. It is available in rose and white gold. The separate date setting crown in the 10 o'clock position is a prominent identifier.

The design objective of the Grossmann date was clarity of style paired with simple, problem-free operation. This convenience immediately comes to the fore when the date needs to be corrected, for instance at the end of a month. The date can be changed in either direction at any time while the movement continues to run. The date crown is pulled out and turned in the desired direction until the marker lines up with the current date. When the crown is pushed home, a spring causes the date ring with the marker to precisely engage in the right position (utility model registered).

THE DATE DISPLAY

On the solid-silver dial, the minute scale was moved slightly inward to make space for the date scale. Its crisp Arabic date numerals are blue and thus contrast against the time scale. Instead of a conventional date hand from the centre, the date marker moves along a peripheral ring and therefore does not compete with the minute hand (Swiss patent pending / utility model registered). Its bracket shape clearly frames the correct date.
The complete 1-31 scale running around the rim of the dial gives a distinctive sense of the passage of time. The jumping date display of the calibre 100.3 relies on a complex system composed of a date ratchet wheel with a switching finger and switching finger spring as well as a release lever, a switching star and a date ring with the marker.

THE HANDS

As a typical hallmark of this model family, the face of the ATUM Date is graced with lancet-shaped hands. They are manually crafted and finished for all of the manufacture's models. The seconds, minute, and hour hands are annealed to a brown hue for the rose gold cases. For the white-gold version, all hands are made of polished stainless steel.

The date marker was newly developed as a substitute for a sweep hand. It sits on the outside of the date ring suspended beneath the dial and advances day by day along the scale of 1 to 31 days in the clockwise direction, completing a full revolution every 31 days.

The date marker is also lavishly hand-made and annealed to a brown-violet hue as a contrast to the blue date numerals. With its bracket shape, it clearly frames the current date numeral, assuring fast and crisp legibility.

ATUM Date

TECHNICAL DATA

Movement	Manufacture calibre 100.3, manually wound, adjusted in five positions
No. of parts	259
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, date display, Grossmann manual winder with pusher
Operating elements	Two crowns in 750/000 gold to wind the watch and set the time and the date, pusher in 750/000 gold to start the watch
Case dimensions	Diameter: 41.0 mm, height: 11.85 mm
Movement dimensions	Diameter: 36.4 mm, height: 7.56 mm
Case	Three-part, precious metal
Dial	Solid silver, hour markers in solid gold
Hands	Manually crafted, steel or stainless steel
Crystal and display back	Sapphire crystal, anti-reflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in precious metal

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / precisely jumping date display with a peripheral marker / bidirectional date adjustment with a separate crown at 10 o'clock / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting


MORITZ GROSSMANN
GLASHÜTTE 1/SA
MADE IN
GERMANY

GMT

With the GMT, the independent Glashütte manufactory Moritz Grossmann presents its first watch model with two time zones. This function is not only in great demand among watch connoisseurs who travel a lot. A glance at the GMT provides orientation in different time zones and in an extremely stylish way.

Thanks to the classic, functional design of the watch, the two time zones stand out clearly from each other while forming an elegant whole. The 12 hour scale in the middle of the dial shows the first time. It is framed by the outer 24-hour scale for the second time. This allows you to see at a glance whether it is day or night in the other time zone.

With the GMT, the independent Glashütte manufactory is enriching its collection with a time zone watch that beautifully reflects the very essence of the much-travelled cosmopolitan, polyglot writer and aesthete Moritz Grossmann. The clear design, the advanced mechanics and the perfection of the craftsmanship represent Schönstes deutsches Handwerk in a unique way and bear witness to the highest level of skill inherent in Grossmann's timepieces.

GMT rose gold

Reference: MG-002154
Case: 750/000 rose gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown hue

Reference: MG-002155
Case: 750/000 white gold
Dial: argenté
Hands: manually crafted, polished stainless steel

Reference: MG-002225
Case: 750/000 white gold
Dial: champagne
Hands: manually crafted, steel, annealed to a brown hue

THE TIME-SETTING

The GMT boasts a fine, perfectly reduced case form, optionally in rose gold or white gold.
The mechanics of the calibre 100.8 in high artistic finish allow the GMT to be easily and reliably adjusted at any time.
On the outside, there is a separate crown for setting the external 24-hour time display at the 10 o'clock position.

The time-setting crown is pulled out and turned in the desired direction until the arrow indicator is at the right time. The second time zone display can be adjusted by the hour. A ratchet wheel with ratchet spring is used to adjust the time in the predefined gearshifts.

When the crown is pushed back, the locking spring allows the time zone ring with the arrow hand to lock exactly in the desired position.

THE 24-HOUR DIAL

The second time zone with 24 Arabic numerals is designed as an outer circumferential scale.
A separate hand element in compact arrow form shows the respective hour. A separate setting crown allows the arrow indicator to be quickly adjusted in hourly increments both forwards and backwards.
The 12-hour display in the centre of the dial remains unaffected by this.

The 24-hour display is transmitted to the time zone ring via a complex system of gear wheels and always runs in accordance with the centre time. The 24-hour display also follows the 12-hour hand when the first time is set using the crown.

DISPLAY AND HANDS

The case of the GMT is available in either rose gold or white gold. The dial in brilliant argenté emphasises the clarity of the design in the rose and white gold version.

The white gold model features a dial in champagne tone for a warm colour accent.

The 24-hour scale with blue Arabic numerals and matching arrow indicator harmoniously stands out from the 12-hour scale in the centre of the dial. Here, the unique lance-shaped hands provide the characteristic accent. They are handcrafted in the manufactory, finished and annealed in dark brown. For the white gold model with argenté dial, the entire set of hands is polished stainless steel.

GMT

TECHNICAL DATA

Movement	Manufactory calibre 100.8, manual winding, regulated in five positions
No. of parts	253
Jewels	26 jewels, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with four inertia screws and two poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance wheel	Diameter: 14.2 mm, frequency: 18,000 semi-oscillations/hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, second time zone (24-hour display) by means of revolving hand, Grossmann manual winder with pusher
Operating elements	Two crowns in 750/000 gold to wind the watch and set the time and the date, pusher in 750/000 gold to start the watch
Case dimensions	Diameter: 41.0 mm, height: 11.85 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.55 mm
Case	three-part, precious metal
Dial	solid silver, hour markers in solid gold
Hands	manually crafted, in steel, for two variants annealed in brown
Crystal/display back	sapphire crystal, antireflective coating on one side
Strap	hand-stitched alligator leather with prong buckle in precious metal

Special features

Grossmann balance; hand setting override and start of movement with lateral pusher; second time zone (24-hour display) by means of exterior revolving hand, time zone display that can be corrected backwards and forwards at any time using the separate crown at 10 o'clock; space-saving modified Glashütte stopwork with backlash; adjustment with Grossmann micrometre screw on cantilevered balance cock; pillar movement with
with 2/3 plate and pillars made of untreated German silver; balance cock and escape-wheel cock hand-engraved; broad horizontal Glashütte ribbing; 3-band snailing on the ratchet wheel; raised gold chatons with pan-head screws; separately removable clutch winding mechanism; stop seconds for hand setting

GMT rose gold

ATUM Backpage

Numerous connoisseurs have suggested that the exquisite characteristics of the manufacture calibres should be showcased in a particularly exposed position. Thanks to the inventiveness of Grossmann's engineers, this was consummately accomplished with the calibre 107.0 movement. Here, pure watchmaking artistry has gained a new presence.

So far, highlights such as the Grossmann balance, the hand-engraved balance cock or the ratchet wheel with three-band snailing could only be admired through the display back. Now, with the development of the mirrored calibre, they can be shown on the dial side. This ATUM model presents the "back page" of the movement in an unusually large dial aperture that doubles as a prominent stage. The ATUM Backpage comes in an 18-watch limited edition in platinum as well as in rose gold.

ATUM Backpage rose gold

Reference: MG-001396
Case: 750/000 rose gold
Dial: charcoal
Hands: Manually crafted, steel, annealed to a brown hue

Reference: MG-001642
Case: Platinum
Dial: blue
Hands: Manually crafted, hour and minute hands steel annealed to a blue hue, small second in polished stainless steel
Limited edition: 18 watches

THE DIAL

The remarkable concept of the ATUM Backpage is also celebrated on the dial side. A full minute scale and an hour arc from 11 to 5 o'clock serve as the framework for the moving calibre presentation. The applied hour markers and numerals in gold match the case colour. The recessed small seconds ring features an extravagant bearing for the seconds-hand arbor: a gold chaton as an insignia for the Backpage

With its exceptional colours, the dial serves as a stage for the brilliant choreography of the movement. The blue dial with blue annealed hands contrast vibrantly against the platinum case. In the rose-gold version, the delicate grey of the dial and the brown-violet hue of the hands radiate cultivated poise and taste.

THE MIRRORED MOVEMENT

In theory, the calibre 107.0 is a mirror image of the calibre 100.1. In practice, it has been newly designed. An additional wheel between the crown wheel and the ratchet wheel reverses the entire going train with the sense of rotation of the mainspring barrel. The wheel train runs in the right direction thanks to the mirrored escapement and the mirrored oscillation system – also including the balance spring coiling direction.

On the caseback side, the contiguous train bridge is decorated with Glashütte ribbing and endowed with hand-engraved calibre inscriptions. Interesting insights are provided by the cutouts above the oscillation system and parts of the balance stop spring as well as by the generous aperture above the manual winder with pusher ensemble. For the first time, this calibre configuration makes it possible to observe the winding and handsetting mechanism as well as the stop-balance device through the display back.

THE HIGHLIGHTS

The larger dimensions of the 2/3 plate necessitated design changes for the balance cock and the escape-wheel cock. The cantilevered geometry of the escape-wheel cock creates a balanced accent in the overall architecture of the movement. Additionally, the High-Artistic finish of the two components showcases attractive hand engravings, bevels, and chamfers. Further captivating details include the polished minute-wheel bridge and the lavishly finished dial train with its spoked and chamfered wheels.

ATUM Backpage

TECHNICAL DATA

Movement	Manufacture calibre 107.0, manually wound, adjusted in five positions
No. of parts	230
No. of jewels	24, of which 7 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gerstenberger geometry
Balance	Diameter 14.2 mm, frequency: 18,000 semi-oscillations/hour
Power reserve	42 hours when fully wound
Functions	Hours, minutes, and subsidiary seconds with stop seconds, Grossmann winder with pusher
Operating elements	Crown in precious metal, for winding the watch and setting the time, pusher in precious metal for starting the movement
Case dimensions	Diameter: 41.0 mm, height 11.35 mm
Movement dimensions	Diameter: 36.4 mm, height 5.0 mm
Case	Three-part, precious metal
Dial	Solid silver, baton hour markers in precious metal
Hands	Manually crafted, steel and stainless steel
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in precious metal

Special features

Shock-resistant balance with inertia and poising screws / impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 2/3 plate on dial side / frame pillars and separately removable clutch winding mechanism / visible handsetting train on the back side of the movement / frame parts in untreated German silver / Grossmann winder with pusher and stop seconds / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel / balance cock and crown wheel / intermediate winding wheel and ratchet wheel with stopwork on the modified spring barrel bearing with a gold chaton in the ratchet wheel / dial train wheels spoked and beveled / beneath polished bridge


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GERMANY

Hamatic

Throughout millennia, researchers and inventors strived to build a perpetual motion machine, a device that would continue to move indefinitely once started. Without any external source of power, it was believed that the machine itself would generate an unlimited amount of energy. It was only with the formulation of the law of conservation of energy in the middle of the 19th century that physics quashed the principle of perpetual motion. Nevertheless, people's fascination for the concept remained unbroken.

Of course, the HAMATIC does not purport to be perpetual motion machine – after all, the first automatic watch from Mortiz Grossmann draws its kinetic energy from an external source. A pendulum-style hammer weight skilfully uses the energy generated through the wearer's movements to transfer it via the ratchet wheel to the mainspring in the barrel, meaning that an external energy source makes the dream of infinite motion come true. It's therefore safe to say that the HAMATIC is one of the most beautiful and complex examples of would-be perpetual motion.

Hamatic Rose Gold

Reference: MG-002302
Case: 750/000 rose gold
Dial: Opalin with Roman numerals
Hands: Manually crafted, steel, anne-aled to a brown-violet hue

Reference: MG-002303
Case: 750/000 white gold
Dial: Opalin with Roman numerals
Hands: Manually crafted, steel, annealed to a brown-violet hue

THE FACE

The classic elegance of the HAMATIC face is systematically echoed by the dial. Inspired by the pocket watches crafted in Moritz Grossmann's workshop, large Roman numerals emphasise the prominent face of the watch. Arabic numerals accentuate the minute and seconds scales.

THE HANDS

The hands are another nod to the historical models. The hour hand stands out thanks to its pear-shaped tip, while the minute hand moves round the scale in a needle-like, slender design. Once again echoing the design of Moritz Grossmann's pocket watches, the hour and minute hands are extremely delicately crafted and measure just 0.1 mm in width at the narrowest point. At its tip, the second hand is no more than five hundrets of a millimetre. The hands are manually crafted in the manufactory and annealed over an open flame to achieve the distinctive Mortiz Grossmann brown-violet hue.

THE MECHANISM

The automatic hammer mechanism is the role model and inspiration for the Grossmann solution. Apart from the efficiency of the bidirectional design concept, the focus is on the aesthetic appeal of the self-winding function. The movements of the ingenious, filigreed system can be readily observed through the display back. It also reveals other characteristic features of Moritz Grossmann calibres such as the balance and beat adjustment components. A click mechanism with two click levers and two click wheels serves as a type of reversing gear that converts the oscillations of the hammer into continuous rotary motion. The Hamatic is fitted with a classic yoke-type manual winder.

Hamatic

TECHNICAL DATA

Movement	Manufacture calibre 106.0, automatically wound, adjusted in five positions
No. of parts	312
No. of jewels	38, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter 10.0 mm, frequency 21,600 semi-oscillations/hour
Power reserve	72 hours when fully wound
Functions	Hours and minutes, small second with stop seconds
Operating elements	Crown for winding the watch, and setting the time
Case dimensions	Diameter: 41.0 mm, height 11.35 mm
Movement dimensions	Diameter: 36,4 mm, height 5.15 mm
Case	Three-part in 750/000 gold
Dial	Solid silver, opalin, with Roman numerals
Hands	Manually crafted, steel, annealed to a brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in in 750/000 gold

Special features

Grossmann balance; click pawl in reduction gear; adjustment with Grossmann micrometer screw on cantilevered balance cock; pillar movement with 2/3 plate and pillars made of untreated German silver, hand-engraved 2/3 plate and cantilevered balance cock; wide, horizontal Glashütte ribbing, double-band snailing on the mainspring barrel; raised gold chatons with pan-head screws; separately removable clutch winding mechanism; stop seconds for hand setting; automatic winding with oscillating hammer, bidirectional click wheels; idler with pawl clicks, manual yoke winder;


MORITZ GROSSMANN
GLASHÜTTE I/SA
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High Art

Pure, the attribute of Grossmann's philosophy, also identifies the manufacture's steel models. Their hallmark is concentration. Nearly unchanged from the outside, the High Art is endowed with a newly orchestrated inner life and features the first manufacture calibre with the Pure Classic Finish. The heart of the watch stands out with the aesthetics of its materials. The High Art comes in three dial versions, each in a limited 15 - watch edition.

Reduced to the essential functions, the steel case is the perfect reflection of its form. The slender bezel and the crisp minute scale harmonise with the cool, modern appeal of the steel version. Striking markers on the metal dial add a touch of casual elegance. The ATUM model family stands for reduction in perfection. With the High Art, this ambition culminates in pure watchmaking artistry.

High Art Stainless Steel

Referenz: MG-000819
Case: stainless steel
Dial: white
Hands: manually crafted, polished stainless steel with white HyCeram filling
Calibre: 100.1
Limited edition: 15 Uhren

Referenz: MG-000822
Case: stainless steel
Dial: blue
Hands: manually crafted, polished stainless steel with white HyCeram filling
Calibre: 100.1
Limited edition: 15 Uhren

Referenz: MG-000825
Case: stainless steel
Dial: grey
Hands: manually crafted, polished stainless steel with white HyCeram filling
Calibre: 100.1
Limited edition: 15 Uhren

THE DIAL

The High Art amplifies the appeal of classic precision measuring instruments. Its single-part dial has a fine brushed texture coated with lacquers of different colours to enhance the subtle metallic effect. The recessed seconds subdial is sharply contoured with a burnished chamfer.

The applied hour markers are particularly plastic and prominent. They contrast brilliantly against the white, grey, and blue dial variants.

THE HANDS

Special hands are manually crafted in-house for the High Art. Designed to match the markers, the lancet-style hands feature straight edges and broad chamfers that contribute to their slender yet corporeal looks.

They are made of stainless steel that retains its remarkable toughness after tempering. To optimise legibility, pockets are worked into the hands and then filled with white "HyCeram", a compound that consists of ceramic powder and resin. Then, the tips of the hands are precision ground. Finally, they are polished to a mirror gloss, including the white fillings.

High Art

TECHNICAL DATA

Movement	Manufacture calibre 100.1, manually wound, adjusted in five positions
No. of parts	187
No. of jewels	20 jewels
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter 14.2 mm, Frequency 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Operating elements	Crown for winding the watch and setting the time, pusher to start the movement
Case dimensions	Diameter: 41.0 mm, height: 11.35 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm
Case	Three-part, stainless steel
Dial	stainless steel hour markers, rhodiumed
Hands	Manually crafted, polished stainless steel with HyCeram filling
Crystal and back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in stainless steel

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on a cantilevered balance cock / pillar movement with 2/3 plate and frame pillars in untreat-ed German silver / separately removable clutch winding mechanism / stop seconds for handsetting

THE PINNACLE OF MANUALLY CRAFTED HANDS.

Only a very few manufactures produce their hands manually, as we do. For those that match the grey dials of the BENU Power Reserve, we literally take this artisanship to the extreme: we fill the hand pockets with a white HyCeram paste composed of ceramic powder and polymer resin, then grind and polish them flush with the steel. We spare no effort to achieve the best possible legibility of time.

ATUM Pure X

With these versions of the ATUM Pure, initials or names serve as elements of extraordinary dial designs. What they all share is the variable transparency of the dial insert that affords a more or less detailed view of the inner life of the watch. Watch enthusiasts have kept an eye on the calibre 201.1 with the Pure-Classic finish. Even a casual glance reveals the fascinating formal and colour details of this calibre that has been specially conceived for the steel version.

The focus is on the dial insert that accentuates the prominent face of the watch. All dial versions are crafted in the manufacture based on proprietary motifs. Depending on the variation, the look on the wrist is modern, technical, or creative. The individual limited editions enhance the allure of the ATUM Pure X models ... To be continued.

Reference: MG-001552
Case: stainless steel, black
Dial: six-part, black, markers with grey HyCeram filling, Skull flat polished
Hands: Manually crafted, steel, polished, hour and minute hands with black HyCeram filling
Edition: Limited to 10 watches

Reference: MG-001551
Case: stainless steel
Dial: six-part, black and grey, markers with grey HyCeram filling, Skull shot-peened
Hands: Manually crafted, steel, polished, hour and minute hands with black HyCeram filling
Edition: Limited to 10 watches

THE CASE AND THE DIAL

The unchanged case of the ATUM Pure stands out with its slender bezel. The crown and pusher are telltale signs of the characteristic winding mechanism that also shines through the dial. A black alligator strap is combined with the polished stainless steel and stainless steel DLC dia-noir cases. The contrast colour of the carefully stitched seam matches the respective colour of the HyCeram fillings in the dial.

Both lancet-shaped hands are manually crafted from stainless steel and like the hour markers are filled with HyCeram. The four HyCeram colours – white, blue, green, and orange – endow the watches with casual elegance, cool perfection, or dynamic radiance.

THE VERSIONS

The ATUM Pure Skull. The skull, a symbol of eternal rest, marks the centre and provides interesting insights. It is milled and wire-cut in the manufacture, and then, its surface is polished or sandblasted to match the case. This production technique allows the creation of customised dials with popular symbols, personal heraldic emblems, and individual motifs.

ATUM Pure X

TECHNICAL DATA

Movement	Manufacture calibre 201.1, manually wound, adjusted in five positions
No. of parts	187
No. of jewels	20
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter 14.2 mm, frequency 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Operating elements	Crown for winding the watch and setting the time, pusher to start the movement
Case dimensions	Diameter: 41.0 mm, height: 11.35 mm
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm
Case	Three-part, stainless steel or stainless steel black
Dial	Six-part, stainless steel, stainless steel insert
Hands	Manually crafted, polished stainless steel with HyCeram filling
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator strap with prong buckle in stainless steel

Special Features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on a cantilevered balance cock / pillar movement with 2/3 plate and frame pillars in untreated German silver / separately removable clutch winding mechanism / stop seconds for handsetting

TIME CARVED OUT OF A SPECIAL PIECE OF WOOD.

In the 18th century, the carpenter and clockmaker John Harrison discovered guaiacum, an extraordinary material. Because of its remarkable properties, he used it in his tower clocks and marine chronometers, some of which are still running perfectly today: guaiacum. In the BENU Tourbillon, we use this 'rock-hard', oily, and thus self-lubricating wood for the brake ring at the fourth-wheel arbor to permanently avoid chatter of the seconds hand and achieve superbly precise legibility of the time.


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TEFNUT

SUBTLE ELEGANCE.

TEFNUT

As the first offspring of Atum, the deity of creation, Tefnut symbolises the temperament of fire and the subtle elegance of the Nubian feline in ancient Egyptian mythology.

The TEFNUT model is a men's watch that reflects a decidedly reduced form vocabulary and a straightforward development process. Its personality eliminates all doubt that horological class is also a question of appearance. Exquisitely cambered gold hour markers, convex numerals at the 6 and 12 o'clock positions, two manually crafted hands conceived explicitly for this watch family, and a slender gold case are defining elements of this time-piece. A totally reimagined mechanical heart of similarly subtle elegance beats inside the strikingly handsome case. The remarkably thin movement exhibits all of the typical Grossmann hallmarks, yet is absolutely unique in its linear-symmetric architecture. This is immediately visible with a glance at the modified cut of the 3/5 plate.

TEFNUT rose gold

Reference: MG-000432
Case: 750/000 rose gold
Dial: argenté
Hands: manually crafted, steel, annealed to a brown hue

THE CASE

The case of the TEFNUT is crafted from noble rose or white gold. Given the extra-flat design of the movement, the silhouette of the case is exceptionally svelte as well. Thus, the watch gently hugs the wrist. Its sleek elegance is underscored by the fluted crown, four gracefully tapered lugs, and a hand-stitched alligator leather strap.

The slightly cambered sapphire-crystal glass and caseback merge seamlessly with the minimalist front and back of the TEFNUT. They protect the filigreed components and provide an unobstructed view of the distinctive details of the watch.

THE DIAL

Subtle elegance meets premeditated innovation – in the TEFNUT, this phi-losophy is self-evident in the clearly structured, two-part solid-silver dial and in its interaction with the hands that were created especially for this model.

The face pairs modern form with classic design: Slightly domed gold hour markers encircle the argenté or charcoal dial, prominently interrupted by crisp Arabic numerals at the 6 and 12 o'clock positions. Deeply carved pinstripes adorn the inner part of the charcoal dial. They grace the watch with understated momentum.

The lucid shape and the finesse of the hands of the TEFNUT are truly impressive. They are manually crafted from steel or stainless steel in numerous steps.

A node that tapers toward the eye of the hand and narrows to a fine point at the tip characterises the shape that was developed especially for the TEFNUT. It assures that the time is always accurately readable.

TECHNICAL DATA

Movement:	Manufacture calibre 102.1, manually wound, adjusted in five positions
No. of parts:	188
Jewels:	22, of which 3 in screwed gold chatons
Escapement:	Lever escapement
Oscillator:	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance:	Diameter: 10.0 mm, frequency: 21,600 semi-oscillations per hour
Power reserve:	48 hours when fully wound
Functions:	Hours and minutes
Operating elements:	Crown in 750/000 gold for winding the watch and setting the time
Case dimensions:	Diameter: 39.0 mm, height: 8.5 mm
Movement dimensions:	Diameter: 26.0 mm, height: 3.5 mm
Case:	Three-part, in 750/000 gold
Dial:	Solid silver
Hands:	Manually crafted, steel or stainless steel
Crystal and back:	Sapphire crystal, antireflective coating on one side
Strap:	Hand-stitched alligator strap with butterfly clasp in 750/000 gold

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 3/5 plate, frame pillars, and separately removable clutch winding mechanism / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

TEFNUT 36

In keeping with the strict form vocabulary of the model family, the TEFNUT 36 represents a smaller variation featuring an elegant case with a diameter of 36 mm. On account of its enhanced comfort on the wrist, this universal format is convincing for male and female watch enthusiasts alike. The gently curved lugs also hug the wrist. Their tapered chamfers form a seamless transition to the strap. From the moment when it is first put on, this watch becomes one with its owner.

With a subsidiary seconds dial at 7 o'clock and the typical brown-violet hue of its numerals and hands, its face is an unmistakable brand ambassador. The well-balanced proportions are propagated in the calibre 102.0 movement as well. The display back showcases the work of art specially conceived for this model family. To achieve this degree of compactness, Grossmann's watch-makers chose a 3/5 plate with a straight cut and arranged the movement parts almost symmetrically. The TEFNUT 36 is an exceptionally beautiful manifestation of pure watchmaking artistry.

TEFNUT 36 rose gold

Reference: MG-000691
Case: 750/000 rose gold
Dial: argenté
Hands: manually crafted, steel annealed to a brown-violet hue

Reference: MG-000694
Case: 750/000 rose gold, bezel set with 80 brilliant-cut diamonds, 0.73 ct
Dial: argenté
Hands: manually crafted, steel annealed to a brown-violet hue

Reference: MG-000697
Case: 750/000 white gold
Dial: argenté
Hands: manually crafted, steel annealed to a brown-violet hue

Reference: MG-000700
Case: 750/000 white gold, bezel set with 80 brilliant-cut diamonds, 0.73 ct
Dial: argenté
Hands: manually crafted, steel annealed to a brown-violet hue

THE DIAL

The two-part dial of the TEFNUT 36 is made of solid silver. Its delicately dotted minute scale is complemented with crisply drawn brown-violet Arabic numerals.

The nodal hands, manually crafted in an elaborate process, are rare. They are annealed to a brown-violet hue to match the numerals. Brown-violet creates an excellent contrast against the bright dial and makes reading the time a genuine pleasure.

THE SECONDS DIAL

The subsidiary seconds dial at 7 o'clock is a prominent hallmark of the TEFNUT 36. It is recessed into the main dial so that the minute and hour hands can hover above the minute scale as closely as possible. The fine yet very crisp seconds scale testifies to Grossmann's ambition to leverage the design elements of a precision timekeeping instrument. Endowed with a slender node for greater corporeality, the hand is a perfect complement to the seconds subdial.

THE BEZEL

The TEFNUT 36 is bordered by a slender gold bezel that can be optionally set with 80 brilliant-cut diamonds. It adds irresistible feminine elegance to the inimitable face. The multi-faceted fire of the bezel pairs up with the rose gold or white gold case to form an expressive ensemble.

TEFNUT 36

TECHNICAL DATA

Movement	Manufacture calibre 102.0, manually wound, adjusted in five positions
No. of parts	196
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, frequency: 21,600 semi-oscillations per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes, subsidiary seconds
Operating elements	Crown in 750/000 gold, with or without jewel, to wind the watch and set the time
Case dimensions	Diameter: 36.0 mm, height: 8.32 mm
Movement dimensions	Diameter: 26.0 mm, height: 3.45 mm
Case	Three-part, in 750/000 gold
Diamonds	Bezel set with 80 brilliant-cut diamonds, 0.73 ct, TW vvsi
Dial	Solid silver, with printed Arabic numerals
Hands	Manually crafted, steel, annealed to a brown-violet hue
Crystal and back	Sapphire crystal, antireflective coating on one side
Strap	Alligator strap with precious metal prong buckle

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 3/5 plate, frame pillars and separately removable clutch winding mechanism / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

TEFNUT Lady

The TEFNUT Lady is the first Moritz Grossmann watch that combines horological class with feminine charisma. A radial guilloché pattern unfolds across its sub-lime mother-of-pearl dial. The origin of the rays at 6 o'clock is a gold chaton with a glistening diamond. It underscores the gracefulness of this timepiece. Two manually crafted hands in steel annealed to a brown-violet hue stand out with a delicately curved nodal shape and wispy contours. A gold bezel, optionally set with 80 brilliant-cut diamonds, frames the elegant face of the watch. Its heart is the calibre 102.1 movement. Easily verifiable: This slender masterpiece proves that sparkling diamonds and technical brilliance are a perfect match.

TEFNUT Lady rose gold (with diamond-set bezel)

Reference: MG-000349
Case: 750/000 rose gold, bezel set with 80 brilliant-cut diamonds, 0.73 ct
Dial: mother-of- pearl with diamond
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-000347
Case: 750/000 rose gold
Dial: mother-of- pearl with diamond
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-000350
Case: 750/000 white gold, bezel set with 80 brilliant-cut diamonds, 0.73 ct
Dial: mother-of- pearl with diamond
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-000348
Case: 750/000 white gold
Dial: mother-of- pearl with diamond
Hands: manually crafted, steel, annealed to a brown-violet hue

THE DIAL

The face of the TEFNUT Lady vibrantly radiates timeless beauty. Its solid-silver dial is veneered with scintillating mother-of-pearl. The guilloché pattern that radiates toward the centre of the dial as well as eleven Arabic numerals that seem to hover over the shimmering background are prominent eye-catchers of this watch. A diamond secured in a gold chaton at the 6 o'clock position enhances the brilliance of the elegant ladies' watch.

THE HANDS

A new hand shape was developed for the TEFNUT model family. It corre-sponds perfectly with the underlying design of the refined dials and at the same time elevates the hands to the status of a distinctive Grossmann signature element. They are manually crafted from steel, shaped to their final form with diamond files, and annealed to a brown-violet hue to achieve the best possible contrast against the dial.

THE BEZEL

The exquisite face of the TEFNUT Lady is bordered by a slender gold bezel that can be optionally set with 80 diamonds. It adds a touch of feminine elegance to the intrinsically brilliant beauty of the watch. Together with the gold case, it complements an expressive, multifaceted whole.

THE CASE

Thanks to the new slender calibre, the silhouette of the gold case is graceful and poised. A gemstone embedded in the crown accentuates the eloquent appearance of the TEFNUT Lady.

Four elegantly curved lugs with a tapered chamfer assure a snug fit on the wrist as well as a seamless transition to the meticulously crafted satin strap. It rounds out a fetching overall composition and contributes to the wrist-hugging comfort of the TEFNUT Lady. The strap is fitted with a prong buckle that safely secures the watch on the wrist.

Numerous exquisite movement details can be admired and observed through the sapphire-crystal caseback.

TECHNICAL DATA

Movement	Manufacture calibre 102.1, manually wound, adjusted in five positions
No. of parts	188
No. of jewels	22, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, Frequency: 21,600 semi-oscilla-tions per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes
Operating elements	Crown in 750/000 gold, with gemstone, to wind the watch and set the time
Case dimensions	Diameter: 36.0 mm, height: 8.32 mm
Movement dimensions	Diameter: 26.0 mm, height: 3.5 mm
Case	Three-part, in 750/000 gold
Diamonds	Bezel set with 80 brilliant-cut diamonds, 0.73 ct, TW vvsi
Dial	Solid silver, faced with mother-of-pearl and guilloched, gold chaton with diamond at 6 o'clock
Hands	Hand-crafted, steel, annealed to a brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Satin with precious-metal prong buckle

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 3/5 plate, frame pillars, and separately removable clutch winding mechanism / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

TEFNUT Lady Butterfly

With the TEFNUT Lady Butterfly, watch manufactory Moritz Grossmann presents a slice of great happiness in the smallest space. In accordance with the artistic design created by Harriet Oberlaender, a swarm of colourful butterflies has been painted on the mere 29 mm mother of pearl dial by hand in the form of a miniature painting. For the artist, the butterfly is a playful symbol of lightness and the preciousness of each moment.

The new model was presented on 5 April 2019 to an exclusive audience in the Moritz Grossmann manufactory in Glashütte.

Born in Zwickau, artist Harriet Oberlaender has lived and worked on the Cote d'Azur for more than 20 years and has inspired an international audience in numerous exhibitions in France and Germany. Her expressive, energetic works are characterised by a feeling of freedom, expanse and the search for true happiness. Her visual language leads straight to the heart. The butterfly – one of the key motifs in her works – is a symbol of the human soul that wants to unfold and fly.

The design of the TEFNUT Lady Butterfly was particularly close to the artist's heart: 'I'm really pleased that I've been able to realise the TEFNUT Lady Butterfly for Moritz Grossmann. I want every glance at the watch not only to reveal the time to the wearer, but also remind her of the happiness of a fleeting moment'.

TEFNUT Lady Butterfly Rose Gold (with diamond-set bezel)

Reference: MG-002239
Case: 750/000 rose gold, bezel set with 80 brilliant-cut diamonds, 0.73 ct
Dial: Mother-of-pearl, handpainted
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-002103
Case: 750/000 rose gold
Dial: Mother-of-pearl, handpainted
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-002355
Case: 750/000 white gold, bezel set with 80 brilliant-cut diamonds, 0.73 ct
Dial: Mother-of-pearl, handpainted
Hands: manually crafted, steel, annealed to a brown-violet hue

Reference: MG-002354
Case: 750/000 white gold
Dial: Mother-of-pearl, handpainted
Hands: manually crafted, steel, annealed to a brown-violet hue

THE DIAL AND THE BEZEL

The face of the TEFNUT Lady Butterfly vibrantly radiates timelessness beauty. Its solid-silver dial is veneered with scintillating mother-of-pearl. The mother of pearl dial forms the perfect backdrop for the colourful butterfly motif of Moritz Grossmann's exclusive watch model, which is applied by hand with a delicate stroke. The work of art is framed by a rose gold or white gold case and a slender bezel, each optionally available with 80 brilliant-cut diamonds.

THE HANDS

The handmade Grossmann hands form a calm contrast to the play of colour. A new hand shape was developed for the TEFNUT model family. It corresponds perfectly with the underlying design of the dial and at the same time elevates the hands to the status of a distinctive Grossmann signature element. They are manually crafted from steel, shaped to their final form with diamond files, and annealed to a brown-violet hue to achieve the best possible contrast against the dial.

THE CALIBRE

The sapphire crystal back on the rear of the watch reveals the mechanically sophisticated inner workings and also contains the artist's signature. The calibre 102.1 sparkles in High Artistic finish with all the Grossmann elements such as the cantilevered balance cock with Grossmann micrometer screw, the raised gold chatons, the separately removable winding mechanism and the mass-optimised Grossmann balance.

THE CASE

Thanks to the slender calibre, the silhouette of the gold case is graceful and poised. A stone worked into the crown blends seamlessly into the sophisticated look of the TEFNUT Lady Butterfly.

Four elegantly curved lugs with a tapered chamfer assure a snug fit on the wrist as well as a seamless transition to the meticulously crafted satin strap. It rounds out a fetching overall composition and contributes to the wrist-hugging comfort of the TEFNUT Lady Butterfly. The strap is fitted with a prong buckle that safely secures the watch on the wrist.

TECHNICAL DATA

Movement	Manufacture calibre 102.1, manually wound, adjusted in five positions
No. of parts	188
No. of jewels	22, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, Frequency: 21,600 semi-oscilla-tions per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes
Operating elements	Operating elements Crown in 750/000 gold, with stone, to wind the watch and set the time
Case dimensions	Diameter: 36.0 mm, height: 8.30 mm
Movement dimensions	Diameter: 26.0 mm, height: 3.50 mm
Case	Three-part, in 750/000 gold
Diamonds	Bezel set with 80 brilliant-cut diamonds, 0.73 ct, TW vvsi
Dial	Mother-of-pearl, handpainted
Hands	Hand-crafted, steel, annealed to a brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Satin with precious-metal prong buckle

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim; flat balance spring; balance staff with integrated safety roller; index adjuster with Grossmann micrometer screw; plate movement with 3/5 plate, frame pillars and separately removable clutch winding mechanism; frame parts in untreated German silver; raised gold chatons with pan-head screws; remodified Glashütte stopwork with backlash; mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range; ARCAP train wheels; proprietary escapement with 18-tooth escape wheel

TEFNUT Sleeping Beauty

A further jewellery watch for the TEFNUT family was the result of a joint venture between two worlds: an imaginative motif created by award-winning designer Michael Koh from Singapore paired with the pure watchmaking artistry of the Grossmann manufacture in Glashütte. Michael Koh's passion is exceptional precious stones that he showcases in unique ways. His creations tell mystical stories – the TEFNUT Sleeping Beauty leads us to the secretive world of the moon.

Despite its grace and compact size with a diameter of 26 mm and a height of merely 4 mm, the modified calibre 102.0 sets the stage for a fairy-tale scene. The classic pillar movement with the 3/5 plate embodies characteristic Grossmann calibre elements such as the cantilevered balance cock, the Grossmann poising screws, the raised chatons, the separately removable winder module, and the mass-optimised Grossmann balance.

TEFNUT Sleeping Beauty rose gold

Reference: MG-001022
Case: 750/000 rose gold, bezel set with 60 white brilliant-cut diamonds
Dial: argenté, faced with mother of pearl, roman numerals, diamond ring set with 62 brilliant cut white diamonds
Hands: manually crafted, steel annealed to a brown hue

Reference: MG-001023
Case: 750/000 white gold, bezel set with 60 white brilliant-cut diamonds
Dial: argenté, faced with mother of pearl, roman numerals, diamond ring set with 62 brilliant cut white diamonds
Hands: manually crafted, steel annealed to a brown-violet hue

Reference: MG-001024
Case: 750/000 white gold, bezel set with 60 blue brilliant-diamondsin blue ocean
Dial: argenté, faced with mother of pearl, roman numerals, diamond ring set with 62 brilliant-cut diamonds in blue ocean
Hands: manually crafted, steel annealed to a brown-violet hue

Reference: MG-001025
Case: 750/000 white gold, bezel set with 60 yellow brilliant-cut diamonds
Dial: argenté, faced with mother of pearl, roman numerals, diamond ring set with 62 brilliant-cut yellow diamonds
Hands: manually crafted, steel annealed to a brown-violet hue

THE CASE

The case of the TEFNUT Sleeping Beauty was artistically modified to accommodate the asymmetric dial architecture. From the crown to the 9 o'clock side, the case height rises to form a sculpted point of departure for the lugs that end in gently rounded tips. On the right-hand side, the lugs are freely suspended and like the crown are graced with an iolite or garnet cabochon.

The bezel is set with precious stones that orchestrate in interplay of colours of the case, strap, and dial. The case versions in white gold are set with white, yellow or ocean blue brilliant-cut diamonds. White brilliant-cut diamonds deliver the sparking contrast in the rose-gold version.

A finely shimmering reptile leather strap is combined to match the dial rounding out the exquisiteness and feminine grace of this jewellery watch.

THE DIAL

A glance at the TEFNUT Sleeping Beauty is an invitation to dream. The four-part dial symbolises the earth's companion. The Roman numerals at the periphery are already halfway covered by a radiant guilloche pattern. Matching the bezel, the off-centre eclipse is set with an array of sparkling gems.

As a crowning touch, Michael Koh signs the dial with a storybook portrait of the moon, naming his creation „Sleeping Beauty" as a reference to the nocturnal hour of its completion.

THE HANDS

Specially developed for the TEFNUT family, the hands harmonise in their finesse with the multi-faceted face of the watch. A node that tapers toward the eye of the hand and narrows to a fine point at the tip characterises their shape. The hour hand of the TEFNUT Sleeping Beauty features its very own romantically curved form with an aperture.
This set of hands is the result of many process steps in the manufacture; when complete, they are annealed to the characteristic brown-violet hue.

The unique hands crown this timekeeping gem that deserves a place on the wrist of the night owl and the avowed romanticist alike.

THE ARTIST

Michael Koh is a painter, a sculptor, and one of Singapore's leading jewellery designers. He transforms art into jewellery, and jewellery into art. Exceptional precious stones are his big passion. On trips to mines all over the world, he collects the rarest and most beautiful stones that make the hearts of enthusiasts skip a beat. Michael Koh's creations are poetry turned into jewellery. He names them „In Europe with Love", „Gardens by the Bay" or „TEFNUT Sleeping Beauty".

When he was just 18, Michael Koh was the youngest jewellery designer to receive the Diamond of Distinction Award 1990 and the Young Designer Award. These distinctions were followed by the Hong Kong Diamond Design Award, the Diamond International Design Competition Award and many more. In 2004, Michael Koh established his manufacture and began to market his own brand: In 2016, Caratell was picked as a Top Ten Luxury Jewellery Brand in Singapore.

TECHNICAL DATA

Movement	Manufacture calibre 102.0, manually wound, adjusted in five positions
No. of parts	196
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, Frequency: 21,600 semi-oscilla-tions per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes, small second
Operating elements	Crown in 750/000 gold, with gemstone, to wind the watch and set the time
Case dimensions	Diameter: 37.0 mm, height: 9.8/7.1 mm
Movement dimensions	Diameter: 26.0 mm, height: 3.45 mm
Case	Three-part, in 750/000 gold
Diamonds	Bezel set with 62 brilliant-cut diamonds, TW vvsi
Dial	faced with mother of pearl, guilloched, roman numerals, moondisk made of mother-of-pearl, diamond-ring set with 62 brilliant-cut diamonds, TW vvsi
Hands	Hand-crafted, steel, annealed to a brown or brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Reptile leather strap with precious-metal prong buckle
Limited edition	overall 118 watches worldwide

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 3/5 plate, frame pillars, and separately removable clutch winding mechanism / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

TEFNUT 1001 Nights

This nearly identical variation of the TEFNUT Sleeping Beauty was inspired by artist Michael Koh's storybook interpretation. The dial of the TEFNUT 1001 Nights is adorned with a dreamlike scene from the realm of the luminous nocturnal sky and endless stories. The image symbolises the world-famous legend of One Thousand and One Nights and stands for the persuasion of storytelling. It pays tribute to Sheherazade who mesmerised her king with irresistible tales. And it is a homage to the woman who still believes in the magic of stories.

TEFNUT 1001 Nights Rose Gold

Reference: MG-002237 (Milanaise)
Reference: MG-001657
Case: 750/000 rose gold, bezel set with 62 white brilliant-cut diamonds
Dial: Argenté, mother of pearl, 62 white brilliant-cut diamonds
Hands: Manually crafted, steel, annealed to a brown hue

Reference: MG-001658
Reference: MG-002238 (Milanaise)
Case: 750/000 white gold, bezel set with 62 white brilliant-cut diamonds
Dial: Argenté, mother of pearl, 62 white brilliant-cut diamonds
Hands: Manually crafted, steel, annealed to a brown-violet hue

THE MOTHER-OF-PEARL INLAY

In the off-centre jewelled ring with 62 brilliant-cut diamonds, the precious dial of the TEFNUT 1001 Nights depicts a dune landscape in the light of the moon. The image is an artistically crafted nacre inlay. Individual, precisely cut mother-of-pearl segments are assembled to create an impressive scene. Because of the iridescence of mother of pearl, no two images are exactly the same. The emotionally charged, one-of-a-kind timepiece owes its fascination to the combination of nature, high-tech, and craftsmanship.

TECHNICAL DATA

Movement	Manufacture calibre 102.0, manually wound, adjusted in five positions
No. of parts	196
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox-1 balance spring
Balance	Diameter 10.0 mm, frequency 21,600 semi-oscillations/hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes
Operating elements	Crown in 750/000 gold for winding the watch and setting the time
Case dimensions	Diameter: 37.0 mm, height: 9.87/7.1 mm
Movement dimensions	Diameter: 26.0 mm, height 3.45 mm
Case	Three-part, in 750/000 gold
Bezel	Set with 62 brilliant-cut diamonds, TW vvsi
Dial	Mother of pearl, partially guilloched, Roman numerals, dune landscape in mother of pearl, with 62 brilliant-cut diamonds
Hands	Manually crafted, steel, annealed to a brown or brown-violet hue
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Alligator leather with prong buckle in 750/000 gold or Milanaise bracelet with folding clasp in 750/000 gold

Special features

Shock-resistant balance with inertia and poising screws / impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / pillar movement with 3/5 plate, frame pillars and separately removable clutch winder / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

TEFNUT Twist

Grossmann's watchmakers fulfilled a long-standing wish when they created the innovative winding mechanism for the TEFNUT. The quest for a robust alternative to the conventional crown winder ended with an exceptionally original solution: The Grossmann strap winder makes it possible to wind the watch hands down, so to speak, with just a few turns of the strap attachment at 6 o'clock (patent pending).

To enable this remarkable feat, the calibre 102.2 was extensively reworked and the exterior silhouette of the TEFNUT modified. Even a quick glance reveals that the Grossmann strap winder has strikingly different strap attachment points and an unusual setting crown position. With its two distinctive versions – "Classic" and "Fancy" – in rose-gold or white-gold cases, the TEFNUT Twist stands out prominently in terms of both appearance and mechanical ingenuity.

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TEFNUT Twist Classic rose gold

Version: Classic
Reference: MG-000951
Case: 750/000 rose gold
Dial: argenté with brilliant-cut diamonds
Hands: manually crafted, steel annealed to a brown-violet hue

Version: Fancy
Reference: MG-001233
Dial: Mother of pearls, with brilliant-cut diamonds
Hands: manually crafted, steel annealed to a brown-violet hue

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GRAND PRIX D'HORLOGERIE DE GENÈVE
2018
PRÉSÉLECTION
OFFICIELLE

Version: Classic
Reference: MG-001233
Case: 750/000 white gold
Dial: argenté with brilliant-cut diamonds
Hands: manually crafted, steel annealed to a brown-violet hue

Version: Fancy
Reference: MG-001232
Case: 750/000 white gold
Dial: Mother of pearls, with brilliant-cut diamonds
Hands: manually crafted, steel annealed to a brown-violet hue

THE CASE

The TEFNUT Twist remains true to the slender design vocabulary of its family and attracts attention with charming elegance. Its bezel and the striking strap attachments please the eye with balanced proportions. With the seconds subdial at 7 o'clock and the setting crown at 4 o'clock, the visual focus is subtly shifted to the strap winder.

To assure that the strap comfortably hugs the wrist, both the winding stem and the strap bar on the opposite side are inclined inward by 22°. Depending on the version, the strap bar tips are fitted with gold screws or, like the crown, with glowing precious stone cabochons, identifying the TEFNUT Twist as a manifestation of pure watchmaking artistry.

THE GROSSMANN STRAP WINDER

As simple as it may seem, the concept of winding with "a twist of the wrist" calls for an elaborate mechanism. The power needed to tension the mainspring is built up with the winding stem that enters the case at 6 o'clock. Via a wheel train that is visible on the movement side of the watch, it transmits winding power to the spring barrel. When winding with partial turns of about 90°, the strap can deliver much more torque than a crown because it is easier to grasp. The energy is transmitted via a bevel gear with a high-efficiency ratio. Moreover, a backstop ratchet allows bidirectional winding. Thus, all it takes to wind the TEFNUT Twist is a few turns in both directions.

THE SETTING CROWN

Since the strap winder gear ratio is not suitable for handsetting, the winding and setting functions were separated in the TEFNUT Twist. As usual, the hands are set with the crown, which is in the less exposed 4 o'clock position. When the crown is pulled, the clutch lever engages the sliding pinion with the setting wheels and activates the stop seconds mechanism. A spring firmly attached to the main plate presses against the safety roller and thus prevents inadvertent contact with the polished outer surface of the balance-wheel rim or maladjustment of the delicate poising screws. Once the hands have been set, the setting crown is pushed home again to restart the movement.

THE CLASSIC VERSIONS

The TEFNUT Twist „Classic“ projects a balanced combination of rare beauty and superb functionality. Like the jewellery versions, it is available with rose-gold and white-gold cases worn on alligator leather straps. The setting crown and the strap attachments are adorned with precious stone cabochons.

A recessed guilloche extends its rays from the centre of the dial. The raised hour circle with the prominent numerals and the crisply detailed minute scale project harmonious symmetry. Positioned at 7 o'clock, the seconds subdial adds an endearingly unorthodox accent. Full scales assure precise readings of minutes and seconds. The elegant Arabic numerals have the same typical brown-violet colour as the manually crafted hands, rounding out the personality of a classic wristwatch.

THE FANCY VERSIONS

The TEFNUT Twist „Fancy“ is a multi-faceted jewellery watch that is available in two precious versions. An alligator strap is paired with the rose-gold and white-gold case styles. Thanks to its slender silhouette and the inward inclination of the strap attachments, the case gently hugs even the daintiest wrist.

The solid-silver dial is framed by white brilliant-cut diamonds. An additional complement of diamonds as well as iridescent mother of pearl grace the seconds subdial. A radially guilloched passepartout adds prominence to the off-centre seconds display. The scythe-shaped mother-of-pearl inlay bordering on the guilloche showcases five buoyantly sculpted Roman numerals. With its graceful looks and the eminently convenient strap winder, the TEFNUT Twist ranks among the most exquisite ladies' wristwatches.

TEFNUT Twist

TECHNICAL DATA

Movement	Manufacture calibre 102.2, manually wound, adjusted in five positions
No. of parts	200
No. of jewels	19 of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10,0 mm, Frequency: 21,600 semi-oscillations per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds
Operating elements	Crown in 750/000 gold to set the time at 4 o'clock,
Case dimensions	Diameter: 36.0 mm, height: 9.64 mm
Movement dimensions	Diameter: 26.0 mm, height: 4.2 mm
Case	Three-part, precious metal
Dial	argenté or faced with mother of pearl and set with brilliant-cut diamonds
Hands	Manually crafted, steel or stainless steel
Crystal and display back	Sapphire crystal, antireflective coating on one side
Strap	Hand-stitched alligator or satin strap with prong buckle in precious metal

Special features

Rapid winding with rotatable strap attachment at 6 o'clock / winding via bevel gear set and winding transmission with backstop ratchet / stopwork with saw-tooth wheels / mainspring with bridle / subsidiary seconds at 7 o'clock / handsetting via crown at 2 o'clock / shock-resistant balance with inertia and poising screws / flat balance spring, impulse pin attached to rim / balance staff with an integrated space-saving single safety roller instead of the conventional double roller / index adjuster with micrometer screw / plate movement with 3/5 plate / frame pillars and separately removable winder module / frame parts in untreated German silver / raised gold chatons with pan-head screws / stop seconds at the safety roller when the crown is pulled


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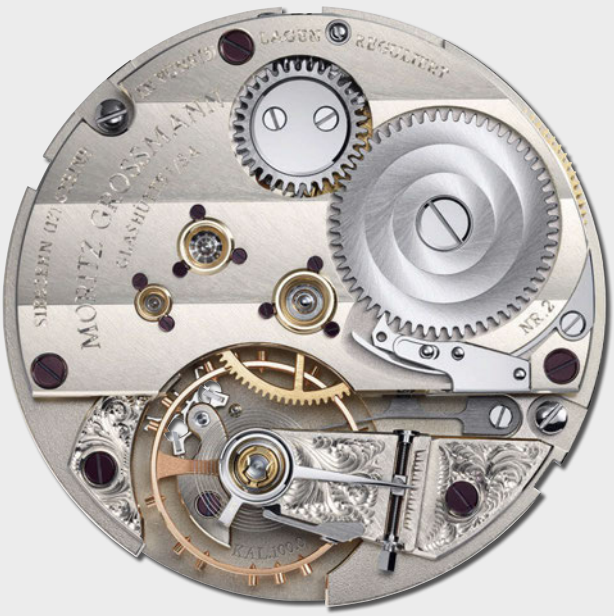
CALIBRE

INNER VALUES.



CALIBRE 100.0

FUNCTIONAL APPEAL.

The architecture of the calibre 100.0 movement addresses all functional aspects of a mechanical timepiece and is a feast for the eyes of every watch enthusiast. A regional and historic speciality, the 2/3 plate is an eye-catcher. The Grossmann 2/3 plate is made of untreated German silver and characterised by the straight cut with the milled circular opening that reveals the screw balance and the breathing balance spring. Raised gold chatons, white sapphire bearing jewels, steel screws flame-annealed to a brown-violet hue, broad Glashütte ribbing and three-band snailing on the ratchet wheel are further captivating features. In addition to the MORITZ GROSSMANN GLASHÜTTE I/SA brand signature, the traditional movement parameters are manually engraved in the plate. The history of every single watch can be traced on the basis of the movement and case numbers.

Special features

Plate movement with 2/3 plate and frame pillars in untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / stop seconds for handsetting

THE WINDING MECHANISM

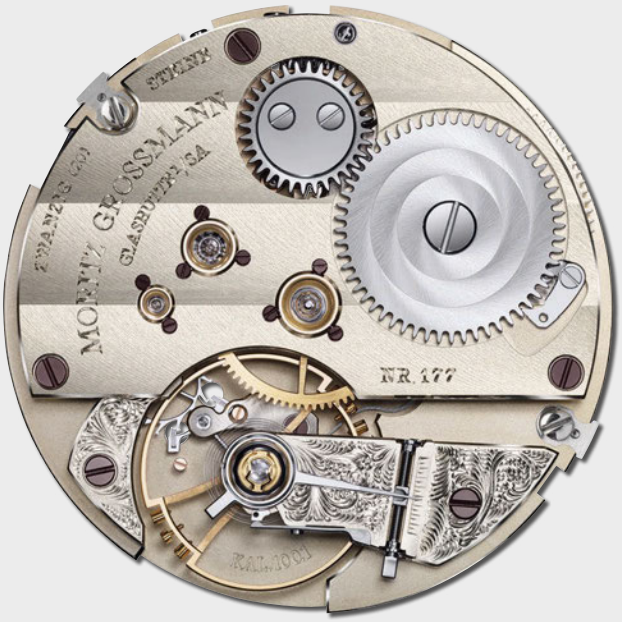
The winding mechanism is a refinement of the Glashütte clutch winder. It is a separately removable module. The screwed bronze bearing of the winding stem prevents wear in the winding block and guarantees ample long-term lubrication of the winding stem. Additionally, the winder module connects the main plate and the 2/3 plate of the movement together with two equidistant pillars.

THE INDEX ADJUSTER

The index tail beat adjustment system allows the watch to be adjusted with one-second accuracy. Recessed in the cantilevered balance cock, the Grossmann micrometer screw allows the index pointer to be smoothly moved in both directions. Thus, even in the fully assembled movement, the active length of the hairspring and thus rate accuracy can be precisely adjusted without having to intervene in the sensitive oscillation system.

TECHNICAL DATA

Movement	Manufacture calibre 100.0, manually wound, adjusted in five positions
No. of parts	188
No. of jewels	17, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant screw balance with Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm



CALIBRE 100.1

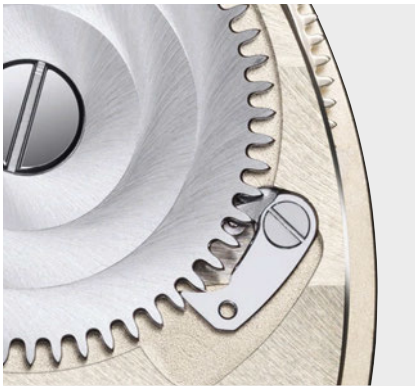
THE ART OF PRECISION.

The calibre 100.1 movement also presents itself as a fusion of the arts for connoisseurs of fine timekeeping instruments. Subtly proportioned components in untreated German silver with different types of finissage constitute the individual levels. The pillar movement consists of the main plate and the 2/3 plate which are precisely spaced apart by two movement pillars and the barrel bridge. Raised gold chatons and pan-head chaton screws add three-dimensional accents.

The brilliant shine of hand-polished chamfers on going-train wheels and the edges of levers and springs appears in the depths of the movement. Innovations deserve to take centre stage. In the interest of user-friendliness and functional reliability: the Grossmann balance and the remodified Glashütte stopwork, crafted entirely in-house, create the space needed for the Grossman manual winder with pusher.

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting



THE STOPWORK

Individually customised to this calibre, the Glashütte stopwork secures the tension of the mainspring and assures that the power stored in the barrel is transmitted to the balance in uniform and manageable doses. For improved space utilisation and more flexible component arrangements, the stop click has been shifted to a lever that pivots about the mainspring barrel axis and enables the backlash motion in place of the elongated hole. The spring and the bearing are located beneath the ratchet wheel. The click is the only remaining visible part of the stopwork and contributes to the graceful minimalistic appeal of the calibre.

THE GROSSMANN MANUAL WINDER WITH PUSHER

When the user briefly pulls the winding crown out, the innovative winding and handsetting mechanism switches to the handsetting mode and stops the movement. The crown immediately returns to its home position but can now be turned to precisely set the hands. Afterwards, the movement is restarted with the pusher adjacent to the winding crown without altering the positions of the hands. At the same time, the mechanism switches back to the winding mode. This prevents the ingress of particles into the case and any unintentional adjustment of the hands when the crown is pushed home.

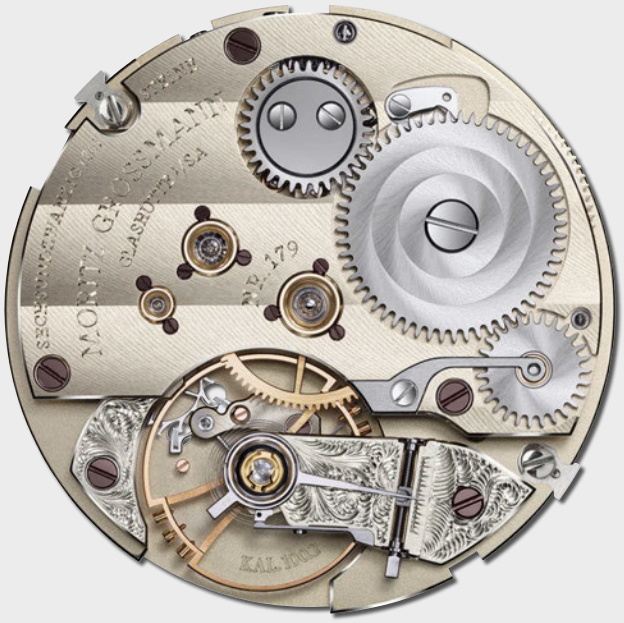
THE GROSSMANN BALANCE

The calibre 100.1 movement incorporates the Grossmann balance. It was developed in the manufacture and beats at a traditional frequency of 18,000 semi-oscillations per hour. Rate accuracy, after all, is not merely associated with higher frequencies: The design of the balance optimises the manual adjustability of inertia and achieves high kinetic energy combined with minimised air resistance and the smallest possible mass.

The number of screws in the balance-wheel rim is minimised. Mass screws with different head lengths are used to incrementally vary the moment of inertia. The diameter of the rim was enlarged so that as much mass as possible could be shifted to the periphery. It has equidistant boreholes that allow the balance wheel to be trued. The smooth cylindrical balance staff is integrated in the hub and can easily be replaced if necessary. The Grossmann balance interacts with a Nivarox balance spring which is overcoiled with a quarter arc on the inside and secured to the slotted roller with a brass pin.

TECHNICAL DATA

Movement	Manufacture calibre 100.1, manually wound, adjusted in five positions
No. of parts	198
No. of jewels	20, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm



CALIBRE 100.2

SYSTEMATIC PROGRESS.

The calibre 100.2 movement fully reflects carefully paced progress. It combines popular features such as the classic pillar movement, the 2/3 plate, and the cantilevered balance cock with a series of new developments: The manufacture-made Grossmann balance, the Glashütte stopwork customised for this calibre, the Grossmann winder with pusher, and the power-reserve indicator are the most prominent innovations. Endowed with the artistic decorations of master finisseurs, this Grossmann movement has all the assets needed to achieve excellence in the top league of precision watchmaking.

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / bar-shaped power-reserve indicator with a two-colour display segment driven by a differential wheel train / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting

THE POWER RESERVE INDICATOR

A two-colour toothed segment was developed to indicate the power reserve of the mainspring. The indication reminds the owner when the watch needs to be rewound. When the mainspring is fully wound, the bar is white. The red portion gradually appears as the spring winds down. If the watch is rewound on time, it will run with constant mainspring force, preventing rate deviations caused by a loss of torque.

THE DIFFERENTIAL TRAIN

As was the case in Glashütte observation watches, a slender crown-wheel differential train is integrated beneath the ratchet wheel. It connects the mainspring barrel and the ratchet wheel with the power-reserve indicator. In this train, the rotary motion that occurs when the movement is wound or the mainspring unwinds is transferred to a carrier arbor with a planetary wheel.

TECHNICAL DATA

Movement	Manufacture calibre 100.2, manually wound, adjusted in five positions
No. of parts	227
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher, power-reserve indicator
Movement dimensions	Diameter: 36.4 mm, height: 5.4 mm

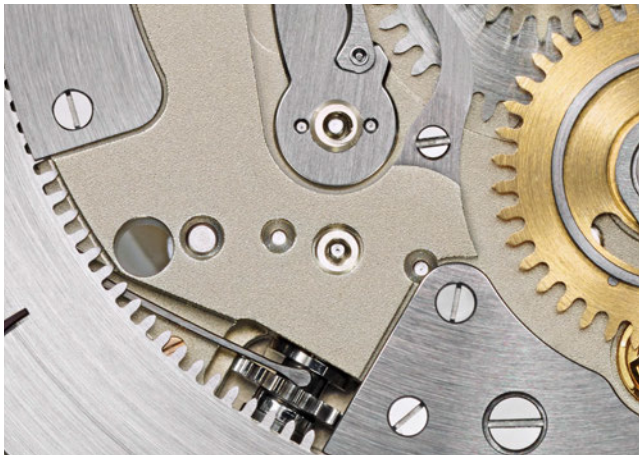
CALIBRE 100.3
DATE INCLUDED.

Like the calibre 100.1, the calibre 100.3 is a pillar movement with a 2/3 plate. All of its elements are crafted in the manufacture, including train wheels, stopwork, escapement, and oscillator, and then endowed with the High-Artistic Finish to expose their characteristic beauty.

The additional jumping date mechanism is composed of parts of varying complexity that are integrated in the movement on the dial side. The date display consists of a complete date scale and the peripheral date marker (Swiss patent pending / utility model registered).

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting



THE JUMPING DATE DISPLAY

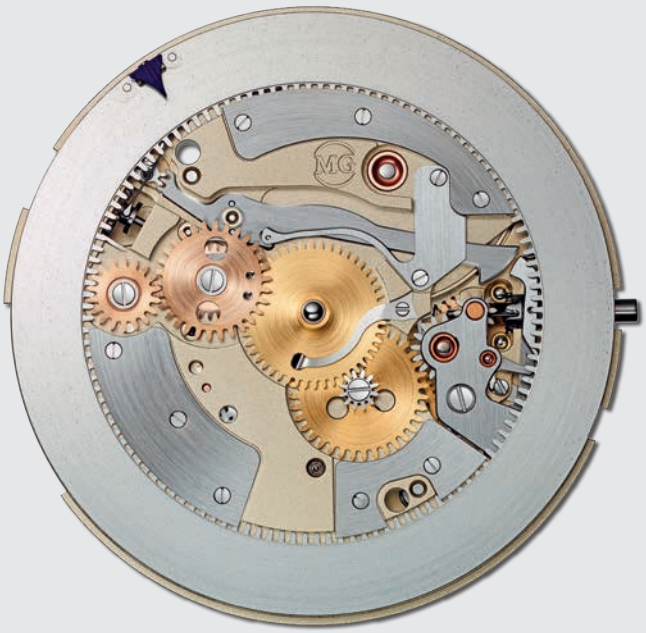
The jumping date relies on a complex system composed of the date switching ratchet, release lever, switching star, and the date ring with the bracket-style marker. The date ratchet wheel consists of the wheel itself, a ring-shaped switching finger spring, and the switching finger. The switching finger can freely rotate on the wheel but is secured by the ring spring in a position that allows movements on both sides but always requires tensioning of the spring. The mechanism is powered by the hour wheel at a ratio of 2:1, so the ratchet wheel rotates anticlockwise once every 24 hours. The transmission ratio of the date marker mechanism is calculated to 11.6°, so the increments of the date marker ring add up to a total of 31 days.

THE DATESETTING MECHANISM

Because the switching finger does not engage with the column wheel except during a few milliseconds while the jump to the next date is taking place, the date can be adjusted in either direction at any time. The separate setting crown at 10 o'clock allows the date to be corrected, for instance at the end of a month. Normally, this setting crown is not active, so inadvertent corrections are prevented. The crown must be pulled out to set the date. During the process, the movement continues to run and the date can be set by turning the crown in either direction (utility model registered). A jumper spring causes the date ring with the marker to precisely engage in the right position.

TECHNICAL DATA

Movement	Manufacture calibre 100.3, manually wound, adjusted in five positions
No. of parts	259
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Movement dimensions	Diameter: 36.4 mm, height: 5,55 mm



CALIBRE 100.8

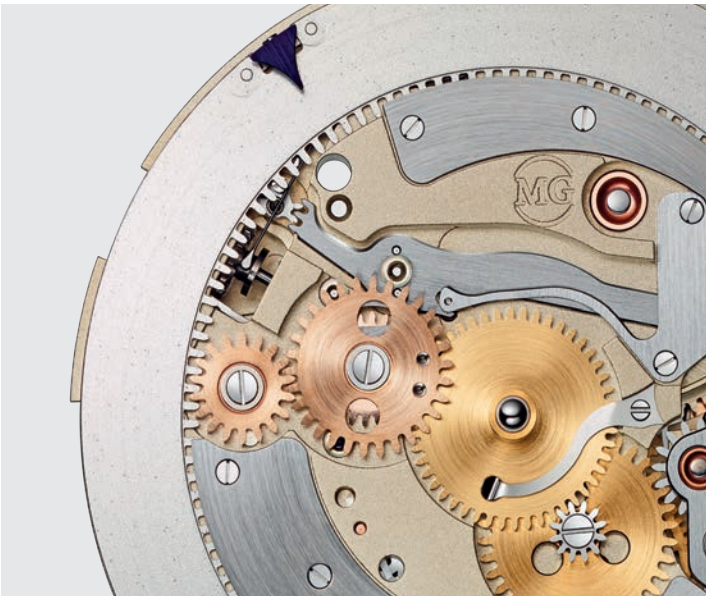
TWO TIME ZONES AT A GLANCE.

The calibre 100.8 in High Artistic Finish features the characteristic components of the Moritz Grossmann movements, such as the 2/3 plate with the raised gold chatons, the Grossmann stopwork, the separately removable winding unit with pusher mechanism and the cantilevered balance cock with micrometer screw, as well as the mass-optimised balance.

The mechanism for the second time is integrated into the movement on the dial side. The 24-hour display is transmitted via the hour wheel of the centre time to another hour wheel and an intermediate wheel to the ring of the second time zone. The second time zone display can be adjusted via the second crown at 10 o'clock. One look at the GMT is sufficient to view two time zones at once.

Special features

Grossmann balance; hand setting override and start of movement with lateral pusher; second time zone (24-hour display) by means of exterior revolving hand, time zone display that can be corrected backwards and forwards at any time using the separate crown at 10 o'clock; space-saving modified Glashütte stopwork with backlash; adjustment with Grossmann micrometer screw on cantilevered balance cock; pillar movement with 2/3 plate and pillars made of untreated German silver; balance cock and escape-wheel cock hand-engraved; broad horizontal Glashütte ribbing; 3-band snailing on the ratchet wheel; raised gold chatons with pan-head screws; separately removable clutch winding mechanism; stop seconds for hand setting.



THE 24-HOUR DISPLAY

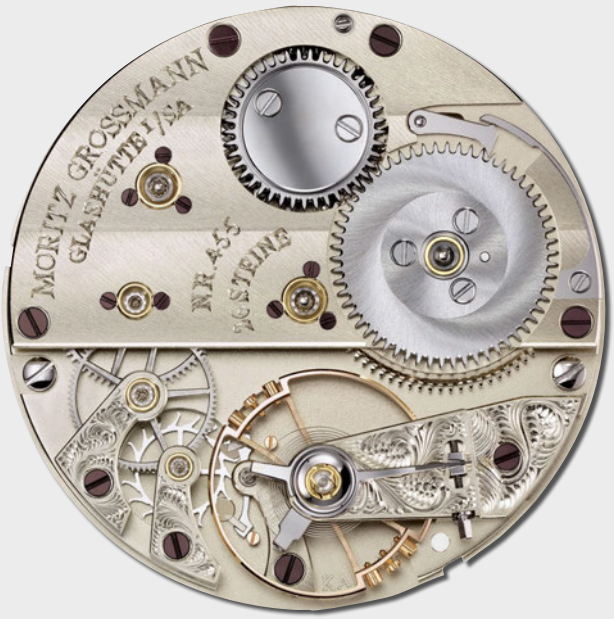
The 24-hour display runs continuously using the centre time. The hour wheel is designed as a double gear wheel. The two superimposed gear wheels function similarly to a slip clutch. A ratchet wheel with ratchet spring is used to adjust the time in hourly steps. From a certain torque, both wheels can be rotated in 60° steps relative to each other. This so-called detent is only overcome when the second crown is operated with a force defined by the detent spring. The mechanism enables quick adjustment of the 24-hour display in pleasantly coordinated gear shifts.

SETTING THE SECOND TIME ZONE

The second time zone display can be adjusted via the second crown at 10 o'clock. To activate the quick adjustment, the second crown is pulled out slightly. The desired hour of the corresponding time zone can be set forwards and backwards. The crown is then pushed back in again and the quick adjustment is now safely deactivated again.
When the hand setting mechanism of the centre time via the winding crown is activated, the quick adjustment of the 24-hour display is completely deactivated. This prevents accidental adjustment of the main time via the second crown. When setting the centre time, the 24-hour display follows the 12-hour hand. This ensures that the 24-hour display always conforms to the minute hand of the main time.

TECHNICAL DATA

Movement	Manufactory calibre 100.8, manual winding, regulated in five positions
No. of parts	253
No. of jewels	26 jewels, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia screws and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, second time zone (24-hour display) by means of revolving hand, Grossmann winder with pusher
Movement dimensions	Diameter: 36.4 mm, height: 5.55 mm



CALIBER 102.0

NEW AND TO THE POINT.

The calibre 102.0 movement was newly conceived from the bottom up. With a diameter of 26 mm and a height of just under 4 mm, it is smaller and thinner than all previous manufacture movements. The straight cut of the train bridge and the reconfigured going train reflect the formal purity of the movement. The ARCAP alloy of the wheels contrasts well against the German-silver movement elements. The large mainspring barrel suspended between bearings on both sides is an eye-catcher as well. Despite its compact dimensions, this classic pillar movement with a main plate and a 3/5 plate features all of the typical hallmarks of a Grossmann calibre. Because of the smaller diameter of the balance, the new calibre breathes at a frequency of 21,600 semi-oscillations per hour and assures dependable rate stability.

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on cantilevered balance cock / pillar movement with 2/3 plate and pillars made of untreated German silver / 2/3 plate, balance cock and escape-wheel cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds for handsetting

THE ESCAPEMENT

In the 19th century, Moritz Grossmann already realised that small pinions with 6 leaves produce very unfavourable transmission ratios. To avoid this phenomenon, he used a 16-tooth escape wheel. This concept was adopted for the escapement integrated in the calibre 102.0 movement. Due to the somewhat higher frequency of the smaller balance, it was fitted with an escape wheel that has 18 very slender, classically shaped teeth.

THE INDEX ADJUSTER

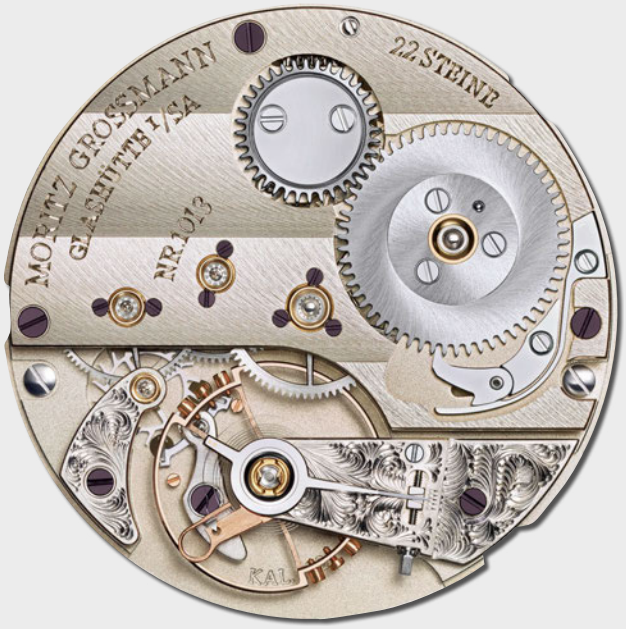
The Grossmann balance has four interchangeable inertia screws that can be used for a first-pass balance-spring pairing process. Two precision poising screws make it possible to fine-tune the frequency. The index pointer enables the daily rate to be corrected without jeopardising the integrity of the balance. It is easily accessible once the caseback has been removed.

THE WHEEL TRAIN

To achieve a thinner silhouette and make the best possible use of the space in the round calibre 102.0 movement available to the wheel train, the centre wheel was shifted to a different position. The mainspring barrel is suspended between two bearing jewels to optimise energy management and rate accuracy. The power produced by the mainspring is transmitted to an intermediate wheel by a single pinion and from there passed on to the repositioned centre wheel.

TECHNICAL DATA

Movement	Manufacture calibre 102.0, manually wound, adjusted in five positions
No. of parts	196
No. of jewels	26, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, Frequency: 21,600 semi-oscillations per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes
Movement dimensions	Diameter: 26.0 mm, height: 3.45 mm



CALIBRE 102.1

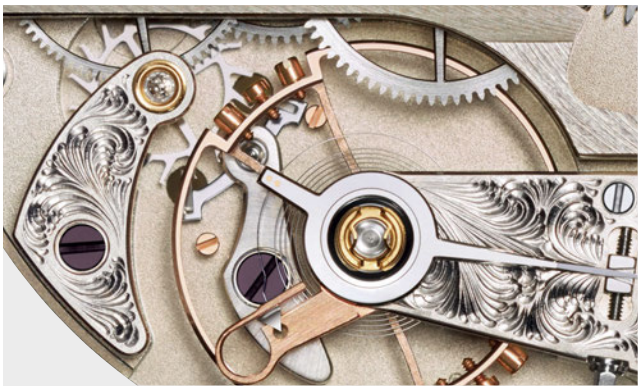
GRACEFUL GRANDEUR.

With a diameter of 26 mm and a height of just 4 mm, the calibre 102.1 movement echoes the slenderness of the calibre 102.0. However, the classic base design with a 2/3 plate reflects a greater affinity with the 100-series movements. The typical Grossmann elements with the High-Artistic Finish are embodied in this movement as well.

With a totally redesigned escapement, modified adjustment concept, and classic wheel train arrangement, the calibre 102.1 presents itself as a well proportioned and compact movement that gives Grossmann's engineers latitude for further developments.

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 3/5 plate, frame pillars, and separately removable clutch winding mechanism / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel



THE ESCAPEMENT

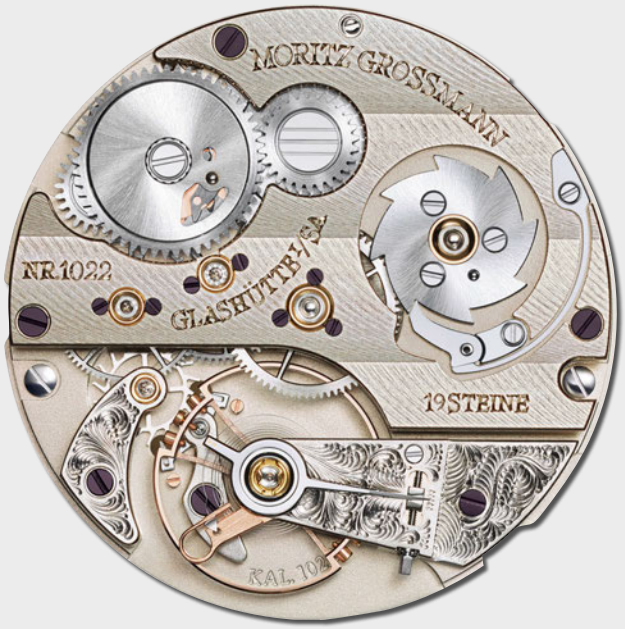
The newly developed, asymmetric-arm escapement has a smaller lever rotation angle and a longer fork, which simplifies the impulse and improves the return behaviour. The optimal effect of the oil is achieved with a club-tooth escapement with particularly narrow pallets and the galvanoplastic production of the escape wheel with steps at the bottom of the teeth that are only 0.03 mm deep.

THE INDEX ADJUSTER

The adjustment function allows the oscillator to be tweaked very conveniently without necessitating its removal. The micrometer screw is easily accessible when the caseback is removed. The cantilevered balance cock is fitted with an elaborately suspended rotating stud holder that allows the separate precision adjustment of rate and beat with the poising screws and index tail.

TECHNICAL DATA

Movement	Manufacture calibre 102.1, manually wound, adjusted in five positions
No. of parts	188
No. of jewels	22, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, Frequency: 21,600 semi-oscillations per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes
Movement dimensions	Diameter: 26.0 mm, height: 3.5 mm



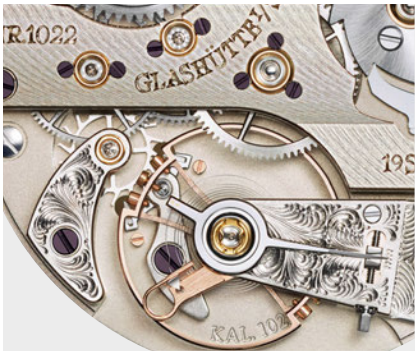
CALIBRE 102.2

THE PATENTED RECIPE.

The calibre 102.2 is essentially based on the calibre 102.1 and also has a diameter of 26 mm. With the strap winder, which is especially comfortable for smaller watches, a strap attachment that rotates in the case transfers rotary motion into the movement via a toothed shaft (patent-pending). A few twists are enough to fully wind the watch. The movement is again designed as a pillar calibre. A separately removable winder module incorporates all of the strap winder functions. The escape wheel and the pallet lever are mounted on a separate cock which simplifies the removal of the individual escapement parts. The size of the escape wheel cock was minimised to keep the view of the escapement as uncluttered as possible.

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 3/5 plate, frame pillars, and separately removable clutch winding mechanism / frame parts in untreated German silver / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel



THE ESCAPEMENT WITH STOP SECONDS

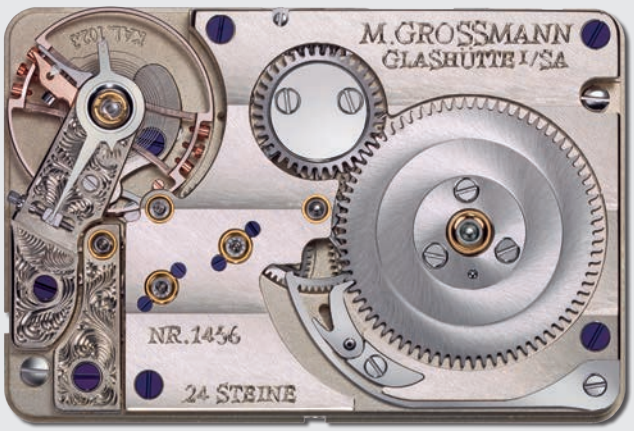
The Grossmann balance, modified for the calibre 102.0, is perceptibly smaller than in comparable movements. It is designed to deliver a high moment of inertia with the smallest possible mass. The stop-seconds mechanism is activated when the setting crown is pulled. The spring, rigidly mounted on the main plate, is controlled by a linkage-type slide. For the strap winder, it is connected directly with the arresting spring and is thus uncoupled from the winding motion.

THE GROSSMANN STRAP WINDER

The power needed to tension the mainspring is built up with a winding stem that enters the case at 6 o'clock at an angle of 22°. When winding, the strap can deliver much more torque than a crown because it is easy to grasp. The energy is swiftly transmitted via a bevel gear to two wheel sets with a high-efficiency ratio. A backstop ratchet allows bidirectional winding. Since the winding stem could turn with the strap while the watch is being worn, the backstop tolerates up to 20° of angular deflection. The ratchet wheel has only eight teeth, so the stopwork cannot be overloaded when very fast winding movements are performed. A slip bridle protects the mainspring against excessive force. Slightly higher resistance can be felt in the fully wound state. Inside the case, the movement was turned by 30°, so the setting crown is positioned at 4 o'clock. As before, the handsetting mechanism is activated by pulling the setting crown.

TECHNICAL DATA

Movement	Manufacture calibre 102.2, manually wound, adjusted in five positions
No. of parts	200
No. of jewels	19, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, Frequency: 21,600 semi-oscillations per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes
Movement dimensions	Diameter: 26.0 mm, height: 4,2 mm



CALIBRE 102.3
RECTANGULAR MOVEMENT.

For the rectangular shape, the new calibre 102.3 was developed, which makes optimum use of the installation space for the movement and also offers further advantages. It has resulted in a movement with a relatively large barrel.
The characteristic stop-second function has been realised in a new form.

The kinetic energy of the angle lever is transmitted via a coupling rod, whereby the balance is gently braked by means of the stop spring and comes to a precise standstill.
The entire construction of the movement was designed to realise the time display with a central hour and minute hand, as well as a small second at 6 o'clock.

Special features
Grossmann balance; space-saving modified Glashütte stopwork with backlash; adjustment with Grossmann micrometer screw on cantilevered balance cock; pillar movement with 2/3 plate and pillars made of untreated German silver; balance cock and escape-wheel cock hand-engraved; broad horizontal Glashütte ribbing; 3-band snailing on the ratchet wheel; raised gold chatons with pan-head screws; separately removable clutch winding mechanism; stop seconds for hand setting.

BALANCE- / ESCAPE-WHEEL COCK

The principle of the typical cantilevered balance cock with the oscillating system and Grossmann's fine adjustment with micrometer screw has been adapted for the new calibre 102.3. On the lateral side, the balance cock ends with the broad side of the rectangular movement. It is thus the perfect complement to the escape-wheel cock, which is positioned to the side of the balance cock. Both elements harmonise like two puzzle pieces in open space, which opens up the view of the movement from the side of the 2/3 plate. With its hand-engraved, floral pattern, it forms an aesthetic detail in the High Artistic Finish movement.

Due to the rectangular shape of the movement, an unusual and unique arrangement of the movement was achieved by placing the balance immediately next to the winding module. The kinetic energy of the angle lever can thus be used at the shortest distance to integrate a sophisticated, fully functional stop-seconds function into the calibre.

THE MOVEMENT

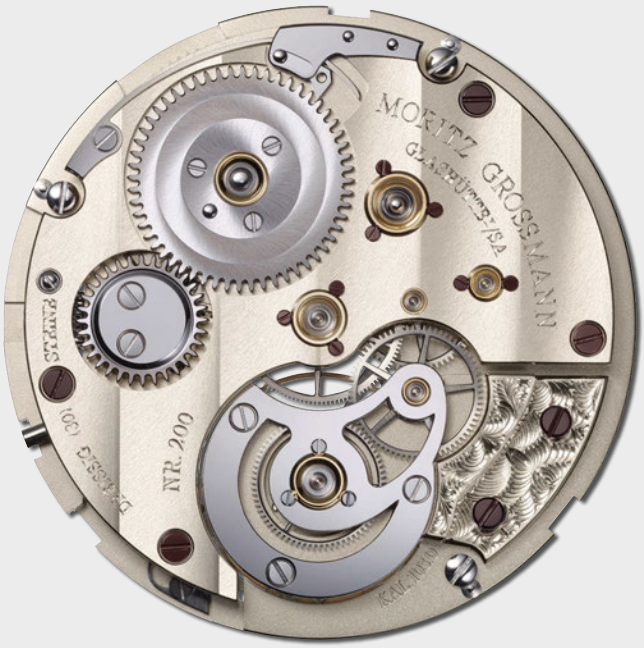
The wheels as well as the mainspring barrel are mounted with white sapphires in screwed, raised gold chatons. The crown wheel and the ratchet wheel with the three-band snailing are additional aesthetic eye-catchers.

The broad horizontal Glashütte ribbing typical of Moritz Grossmann has been applied to the wheel bridge in the form of four horizontal stripes. Two stripes each divide the wheel bridge in the middle upwards and downwards with 20 mm distance to the longitudinal sides and complete the symmetrical impression.

As a symbol of the highest quality, the brand name lettering is engraved by hand in block letters on the 2/3 plate.

TECHNICAL DATA

Movement	Manufactory calibre 102.3, manual winding, regulated in five positions
No. of parts	189
No. of jewels	24 jewels, of which 2 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia screws and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, frequency: 21,600 semi-oscillations per hour
Power reserve	60 hours when fully wound
Functions	Hour and minute, small second with stop seconds
Movement dimensions	30.0 mm (length) x 20.0 mm (width) x 3.6 mm (height)

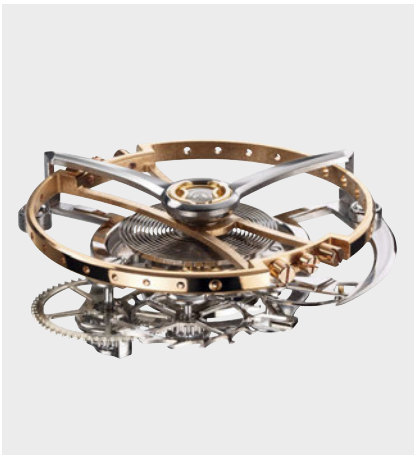


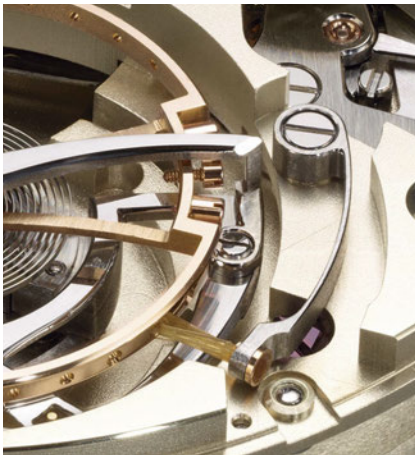
CALIBRE 103.0

THE MANUFACTURE'S CROWN JEWEL.

The calibre 103.0 movement reveals masterful ingenuity. To implement a flying tourbillon that is compatible with the Grossmann balance, key functions of the movement were revisited and classic horological challenges solved in totally new ways. Many of the solutions developed in the interest of superb precision, efficiency, and aesthetics, such as the hair brush of the stop-seconds mechanism at the circumference of the balance-wheel rim are readily visible with a glance at the face of the watch.

The V-shaped bridge of the cage, exposed by the aperture in the dial, shows that the ideas of Glashütte watchmaker Alfred Helwig concerning the so-called "flying" tourbillon served as an inspiration, but the omega shape he suggested was not adopted. Instead, a totally different shape was developed (utility model registered). The 2/3 plate was modified to accommodate the tourbillon cage – another readily visible hallmark of this exquisite horological masterpiece.





THE 3-MINUTE TOURBILLON

The BENU Tourbillon reflects the basic insights of famous Glashütte watchmaker Alfred Helwig who developed the 'flying' tourbillon in 1920. His reference book entitled "Drehganguhren" also provided guidance when the Grossmann three-minute tourbillon was conceived and implemented.

To average out the gravity-induced irregularities of the movement, the oscillator – the Grossmann balance and the Nivarox balance spring – is suspended in a flying tourbillon cage. Given the cage diameter of 16 mm, as mandated by the size of the balance, the inertia of the rotating carriage places a considerable burden on the movement. This is because the escapement must handle not only the force of the mainspring but also absorb the kinetic energy built up by the cage assembly. To reduce this energy balance as much as possible, an intermediate wheel was integrated in the cage, extending the tourbillon's rate of revolution from one to three minutes.

THE TOURBILLON CAGE

In the calibre 103.0 movement, the flying cage is suspended from a cantilevered, hand-engraved German silver cock. Its design is totally new, resulting in minimal-art aesthetic appeal. The elaborately filigreed upper part of the cage with its two instead of the customary three frame pillars constitutes a single V-shaped balance bridge as a significant hallmark (utility model registered). Since the hairspring is located beneath the characteristic Grossmann balance, a glance at the watch immediately reveals its very heart.

The Grossmann balance is designed to allow the optimised adjustment of the moment of inertia during the artisanal production process in the manufacture. At the same time, it generates the highest possible kinetic energy with minimised air resistance and mass.

THE STOP-SECONDS MECHANISM

Grossmann's watchmakers believe that the precision of a tourbillon calls for a stop-seconds mechanism. The prerequisites for the integration of such a complication are provided by the elaborate design of the cage with merely two triangular pillars. A stop device that reliably immobilises the balance must also be conceived in such a way that it can move past the triangular frame pillars and approach the balance-wheel rim without any problems. This task is handled gently and dependably with an elastic brush (patent pending). The stop-seconds brush in the movement is made of human hair because of its strength, elasticity, and resistance to ageing. This patent-pending stop solution allows precise handsetting and underscores the ingenuity of the tourbillon.

The patent registration is endorsed by SIGNO, an initiative of the German Federal Ministry of Economics and Technology.

THE GUAIACUM BRAKE RING

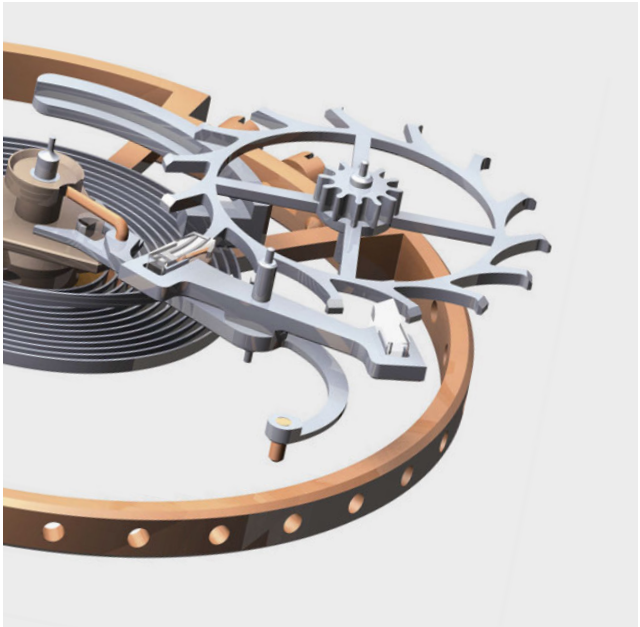
The pinion for the off-centre seconds is segregated from the power flow of the wheel train and driven with reduced torque. A spring constantly brakes it to prevent chatter of the seconds hand. In the interest of reliable and maintenance-free functionality, the brake ring at the fourth-wheel arbor is made of guaiacum, a very oily wood classified as "rock-hard".

This solution was inspired by the extremely dependable marine and tower clocks that clockmaker and carpenter John Harrison crafted in the 18th century thanks to his insights into the properties of different wood species.

THE BARREL BEARINGS

A very rare bearing system was chosen for the mainspring barrel: The bilateral jewel bearing with a maximised distance between the ratchet wheel and the main plate. Just like the principle adopted for the other going train wheels, it solidly stabilises the spring barrel. It effectively prevents tilting, skewing, or endshake of the barrel. Reduced friction is another big advantage of this bearing concept. Energy consumption is decreased considerably, noticeably extending the power reserve.

The Glashütte stopwork specially customised to this calibre preserves the tension of the mainspring. A stop click guided in an elongated hole allows the ratchet wheel to recoil slightly when the spring is fully wound, thus preventing it from being overtensioned. A gold chaton with a white sapphire jewel bearing adorns the ratchet wheel, a telltale sign that the mainspring barrel is held between two bearings.



THE ESCAPEMENT

A classic Swiss lever escapement was modified for the BENU Tourbillon and allows even the slightest manual adjustments. It is based on the equidistant locking principle. Broader pallets reduce the drop, which clearly improves the efficiency of the escapement.

The lever is made of two parts. The fork is a separate part and has several special characteristics. It is very slender and can thus act as a spring. If the impulse pin bounces against the fork from the rear, the contact forces are cushioned, which prevents damage to the lever and the impulse pin. The guard pin is based on the design solu-tion adopted for Glashütte pocket watches: It consists of a simple tapered brass pin that can be bent to shape and is fitted with a cover.

The path of the lever is also limited as was the case in historic pocket watches. The lever is fitted with a pin that contacts the cage arm in an aperture. This pin is not seat-ed in the lever body but in an extension of the pallet fork that is similar to a counterweight. As a result, the centre-of-gravity position of the lever is significantly improved.

CALIBRE 103.0

TECHNICAL DATA

Movement	Manufacture calibre 103.0, manually wound, adjusted in five positions
No. of parts	245 (wheel train 186, cage 59)
No. of jewels	30, of which 4 in screwed gold chatons (wheel train 17, cage 13)
Escapement	Lever escapement
Oscillator	Grossmann three-minute tourbillon with stop seconds, shock-resistant Grossmann balance with 4 inertia and 2 poising screws, suspended Nivarox 1 balance spring with No. 80 terminal curve, Gustav Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	72 hours when fully wound
Functions	Sweep minutes, off-centre hours and seconds, subsidiary sec-onds with stop seconds, Grossmann manual winder with pusher
Movement dimensions	Diameter: 38.4 mm, height: 7.1 mm

Special features

Flying three-minute tourbillon with screw-ed driving wheel and V-shaped balance bridge (registered design pending) / sweep minutes, off-centre hours and seconds with stop seconds / replacement of the scale gap from 25 to 35 minutes with a hand extension and a separate scale (patent pending) / stop seconds at the balance-wheel rim by means of a fine-hair brush (patent pending) / equidistant locking escapement with coun-terweight and detent pin in the lever / Grossmann balance with suspended hairspring and adjustment via poising screws in the rim / newly designed jewel bearing for the mainspring barrel / brake ring at the fourth-wheel arbor made of very hard and oily guaiacum / ARCAP train wheels / Grossmann manual winder with pusher for uncoupling the handsetting mode and restarting the movement / modified Glashütte stopwork with backlash / pillar movement with 2/3 plate and frame pillars made of untreated German silver / 2/3 plate and tourbillon cock hand-engraved / broad horizontal Glashütte ribbing / 3-band snailing on the ratchet wheel / raised gold chatons with pan-head screws / white sapphire bearing jewels / sepa-rately removable clutch winding mechanism

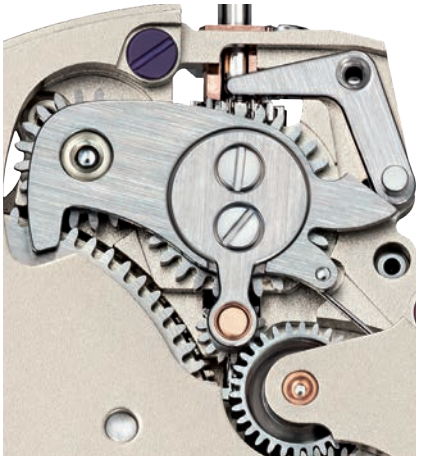
CALIBRE 106.0

THE NEW MEANING OF AUTOMATIC.

The calibre 106.0, a classic pillar movement with a 2/3 plate, is the manufacture's first automatically wound calibre. The bidirectional automatic hammer mechanism, Hamatic for short, is configured such that the movements of the hammer head and of the entire system can be observed on the rear side of the movement. In every detail, the Hamatic mechanism was seamlessly integrated in the movement, which was totally redesigned explicitly for this purpose. The mainspring barrel is a service-friendly unit suspended on a barrel arbor. Between the barrel and the pallet lever, the train wheels are arranged in such a manner that all components of the automatic winder are optimally exposed for the observer. The manual winder is a traditional yoke winder.

Special features

Grossmann balance / click pawl in the reduction gear train / adjustment with Grossmann micrometer screw on a cantilevered balance cock / pillar movement with 2/3 plate and frame pillars in untreated German silver, 2/3 plate and balance cock hand-engraved / broad horizontal Glashütte ribbing, 2-band snailing on the mainspring barrel / raised gold chatons with pan-head screws / separately removable clutch winding mechanism / stop seconds on the balance rim for handsetting / self-winding with oscillating hammer, bidirectionally acting click wheels / idler with pawl clicks, manual yoke winder



THE HAMATIC MECHANISM

The bidirectionally acting automatic hammer mechanism relies on the interaction of the hammer body with the hammer head and the hammer spring. The oscillation of the hammer spring is transferred to the hammer body via a sapphire roller. Hallmarks of the system are efficiency and dependability. In the event of a gentle motion and low amplitude of the hammer, energy transmission is nearly loss-free. Should fast movements and high acceleration rates occur, excessive deflections are attenuated by inticrately crafted end springs and limited by fixed end stops.

THE REDUCTION GEAR

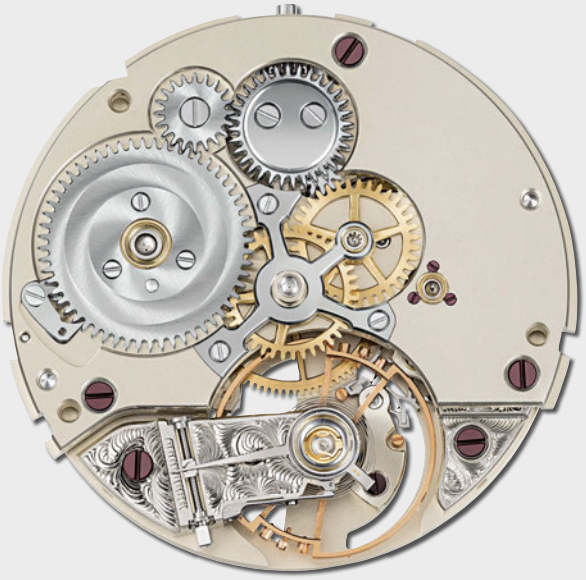
The Hamatic system features a click mechanism integrated in the rotary axis of the hammer body; it serves as a bidirectional winder. The oscillations of the hammer body are picked up by two click levers and converted into a continuous rotary motion powered by the alternating direction of rotation of the click wheels. The rotary motion is transferred to the free wheel via the reduction wheel and then to the ratchet wheel of the mainspring barrel.

THE YOKE WINDER

For perfect reconciliation with the Hamatic mechanism, the manual winder is designed as a yoke winder that is mounted on a separate bridge. When the Hamatic system is active in response to motion, the manual winder is uncoupled from the ratchet wheel by the yoke. In the manual winding mode, the reduction gear is isolated from the ratchet wheel by a click-pawl idler. When the crown is pulled, the balance is stopped to enable handsetting. At the same time, the crown wheel and the ratchet wheel are disengaged by the yoke. When the crown is pushed home again to the winding mode, the balance stop is deactivated and the yoke pivots into the ratchet wheel. The simple and functionally reliable design of the yoke winder has proved to be an ideal complement to the automatic winder.

TECHNICAL DATA

Movement	Manufacture calibre 106.0, manually wound, adjusted in five positions
No. of parts	312
No. of jewels	38, of which 3 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gustav Gerstenberger geometry
Balance	Diameter 10.0 mm, frequency 21,600 semi-oscillations/hour
Power reserve	72 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds
Movement dimensions	Diameter: 36.4 mm, height 5.15 mm



CALIBRE 107.0
MIRRORED MOVEMENT.

For the calibre 107.0, the rear side of the calibre 100.1 was mirrored and displaced to the front side. In combination with a significantly reduced dial, the artistic special features of the calibre can be prominently showcased. The Grossmann balance, the hand-engraved balance cock, the polished crown wheel, the ratchet wheel decorated with three-band snailing, the minute-wheel bridge, and the lavishly finished handsetting train are easily visible. In the mirrored movement, a reversal of direction in the mainspring barrel and the going train is necessary for correctly displaying the time. Most of the components were newly developed for this purpose. On the dial side, the pillar movement features the 2/3 plate that is typical for Glashütte timepieces; a massive train bridge graces the other side. In this calibre, swapping the front and rear sides made it possible for the first time to prominently position the manual winding and handsetting mechanism.

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 2/3 plate on dial side, frame pillars and separately removable clutch winding mechanism / visible handsetting train on the back side of the movement / frame parts in untreated German silver / Grossmann winder with pusher and stop seconds / raised gold chatons with pan-head screws / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel / balance cock and crown wheel, intermediate winding wheel and ratchet wheel with stopwork on the modified spring barrel bearing with a gold chaton in the ratchet wheel / dial train wheels spoked and beveled, beneath polished bridge

THE SPECIAL FACETS OF MOVEMENT MIRRORING

With a few design tricks, the calibre 107.0 was implemented as a mirror image of the calibre 100.1 movement. To achieve the desired presence of the winding wheels on the dial side, the dial train was reconfigured. The artistically finished train wheels were arranged beneath a lavishly polished minute-wheel bridge. Since in this case, the handsetting mechanism is located on the opposite side of the movement, the setting wheel extends all the way through the calibre. The new arrangement created space for the optimised barrel bearing and the ratchet wheel, which was also shifted to the front side.

THE WINDER WITH PUSHER AND STOP SECONDS

On the new rear side of the movement, the winding and handsetting mechanism is now openly integrated in the train bridge, so its functionality can be fully observed for the first time. Nearly all of its parts are mirrored, so their function is readily observable even in the swapped position but with the pusher in the same place. The stop-seconds and stop-balance functions have been redesigned as well. In the handsetting mechanism, the brake position is sampled at the clutch lever and, via a push rod, transferred to the brake spring which then stops the balance. After the pusher is actuated and the movement starts, the brake spring also returns the push rod to its rest position.

TECHNICAL DATA

Movement	Manufacture calibre 107.0, manually wound, adjusted in five positions
No. of parts	230
No. of jewels	24, of which 7 in screwed gold chatons
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring with No. 80 Breguet terminal curve, Gerstenberger geometry
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations/hour
Power reserve	42 hours when fully wound
Functions	Hours, minutes, and subsidiary seconds with stop seconds, Grossmann winder with pusher
Movement dimensions	Diameter: 36.4 mm, height 5.0 mm

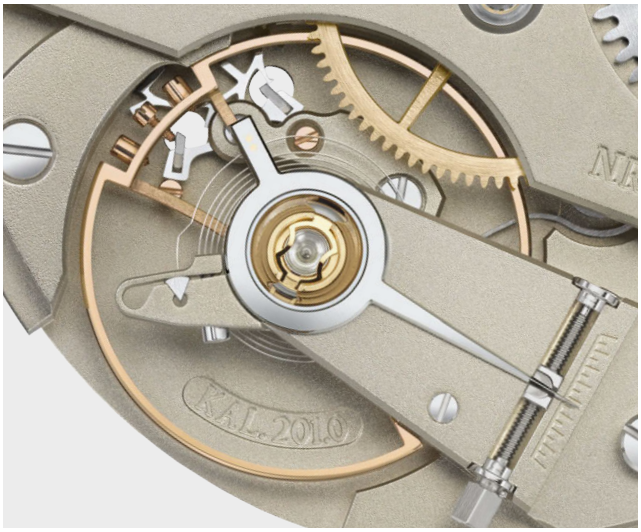
CALIBRE 201.0 / 201.1

THE AESTHETICS OF THE MATERIAL.

With its Pure-Classic Finish, Grossmann continues the tradition of applying eclectic surface finishes to its calibres. The Pure-Classic Finish focuses on horological details in design and craftsmanship. The calibres 201.0/201.1 are pillar movements consisting of a main plate and the typical 2/3 plate. The untreated German silver plates are shot-peened with glass beads. This technique matts the surface and makes it sensitive, so great care is called for in the assembly process. Rather than being seated in decorative gold chatons, the white sapphires are pressed directly into the plate and sparkle thanks to their chamfered seats. Flat polished movement screws with the original sheen of steel accentuate the monochrome allure. The focus is on the multicoloured oscillation system.

Special features

Grossmann balance / handsetting override and start of movement with lateral pusher / space-saving modified Glashütte stopwork with backlash / adjustment with Grossmann micrometer screw on a cantilevered balance cock / pillar movement with 2/3 plate and frame pillars in untreat-ed German silver / separately removable clutch winding mechanism / stop seconds for handsetting



THE OSCILLATOR

The calibre 201.0 movement directs the observer's attention straight to technical details. In the oscillation system, the Grossmann balance is paired with a hand-bent flat hairspring. To optimise the frequency of the oscillator, the inertia screws in the balance wheel rim can be exchanged crosswise with screws from one of the five different mass categories.

Instead of forming the adjuster curve of the flat balance spring using a fixture, the material is carefully bent out by hand to keep the curb pin free. The outer attachment point is specially modified for the flat hairspring. It receives a double bend before being pinned to the stud. This bend allows the adjuster curve to be accurately centred.

THE INDEX ADJUSTER

The beat and rate can be adjusted separately with a micrometer screw and without removing the oscillator system. For this purpose, the cantilevered balance cock is fitted with a rotatable stud holder. The bearing and thus the guide element of the stud holder were elaborately optimised. The beat of the oscillator can be adjusted by moving the index tail. By tightening a clamping plate, the stud holder can be easily immobilised so that moving the index tail now adjusts the rate of the oscillator. There is absolutely no play between the index adjuster, the stud holder, and the upper balance bearing. This allows the calibre to be precisely adjusted at all times.

TECHNICAL DATA

Movement	Manufacture calibre 201.0, 201.1 manually wound, adjusted in five positions
No. of parts	188 (201.0) 190 (201.1)
No. of jewels	20 jewels
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 14.2 mm, Frequency: 18,000 semi-oscillations per hour
Power reserve	42 hours when fully wound
Functions	Hours and minutes, subsidiary seconds with stop seconds, Grossmann manual winder with pusher
Movement dimensions	Diameter: 36.4 mm, height: 5.0 mm

CALIBRE 202.0

PURE-CLASSIC FINISH IN THE CORE.

As regards its architecture and technical details, the calibre 202.0 corresponds to the calibre 102.0. The dimensions – 26 mm in diameter and nearly 4 mm in height – are unchanged. With its prominent 3/5 plate, the calibre projects the same form factor yet is puristically reduced. The specially developed Pure-Classic Finish was applied to the movement designed for the steel case. All movement components made of German silver are shot-peened with glass beads. This surface texture calls for the ultimate in precision when the watchmaker assembles the movement. The typical white sapphires and the flat polished movement screws with the original sheen of steel accentuate the monochromatic charm. The calibre breathes at a rate of 21,600 semi-oscillations per hour, projecting an aura of steadiness and stamina.

Special features

Shock-resistant balance with inertia and poising screws, impulse pin integrated in rim / flat balance spring / balance staff with integrated safety roller / index adjuster with Grossmann micrometer screw / plate movement with 3/5 plate, frame pillars and separately removable clutch winding mechanism / frame parts in untreated German silver / remodified Glashütte stopwork with backlash / mainspring barrel with bilateral jewel bearings for optimised power management in the low-torque range / ARCAP train wheels / proprietary escapement with 18-tooth escape wheel

THE INDEX ADJUSTER

The calibre 202.0 was designed for convenience. This includes the optimisation of the moment of inertia of the Grossmann balance. Four interchangeable inertia screws allow a convenient initial pairing with the balance spring. Two precision poising screws make it possible to fine-tune the frequency. Twenty-two equidistant bores in the balance-wheel rim make it possible to reduce the mass without causing any visible material removal; thus, the balance can be accurately poised. The index pointer enables the daily rate to be corrected without jeopardising the integrity of the balance. It is easily accessible once the caseback has been removed.

THE ESCAPEMENT

To achieve the slenderness of the calibre 102.0 and 202.0 movements, the escapement was endowed with a specially designed escape wheel. In developing it, Grossmann's watchmakers were inspired by an idea that dates back to the 19th century. At the time, Moritz Grossmann realised that small pinions with 6 leaves produce very unfavourable transmission ratios; his remedy was a 16-tooth escape wheel. Given the higher frequency of the smaller balance in the calibre 202.0, the best solution was an escape wheel with 18 very slim, classically shaped teeth.

TECHNICAL DATA

Movement	Manufacture calibre 202.0, manually wound, adjusted in five positions
No. of parts	192
No. of jewels	20
Escapement	Lever escapement
Oscillator	Shock-resistant Grossmann balance with 4 inertia and 2 poising screws, Nivarox 1 balance spring
Balance	Diameter: 10.0 mm, Frequency: 21,600 semi-oscillations per hour
Power reserve	48 hours when fully wound
Functions	Hours and minutes
Movement dimensions	Diameter: 26.0 mm, height: 3.45 mm

IMPRINT

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The diamonds purchased by our supplier have been bought from legitimate sources that are not involved in procurement conflicts and that act in compliance with UN resolutions. The seller guarantees that these diamonds are conflict-free, based on personal knowledge and/or written guarantees provided by the source. This includes Zimbabwe's Marange diamond fields. Our supplier guarantees that all diamonds used were sourced under consideration of UN resolutions. All diamonds are quality VVS1, colour G (Top Wesselton).

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