








# Tickings Slim

*As watch lovers rediscover the thin, classically elegant timepiece, we review two that represent the trend: the Audemars Piguet Jules Audemars Extra Thin and the Girard-Perregaux 1966.*

BY MARTINA RICHTER

PHOTOS BY ZUCKERFABRIK FOTODESIGN



n 1966 — a year in which Switzerland's cantons began debating voting rights for women and a Swiss referee made the controversial call that awarded soccer's World Cup to England over Germany at London's Wembley Stadium — the Swiss watch manufacturer Girard-Perregaux received the Centenary Prize from the Neuchâtel Observatory for extraordinary achievements in watchmaking. The winning timepiece incorporated two of the company's inventions: the self-winding Gyromatic system and a fast-beat caliber that achieved a frequency of 36,000 vph. Girard-Perregaux would soon afterward enter the history books by introducing Switzerland's first mass-produced quartz watch, which essentially made its mechanical high-frequency watch obsolete. In 2006, Girard-Perregaux introduced its 1966 collection, named to commemorate the Observatory award.

Audemars Piguet's Caliber 2120 debuted in 1967. With a thickness of only 2.45 mm, it remains one of the world's thinnest automatic movements. The com-



## SPECS

AUDEMARS PIGUET  
JULES AUDEMARS EXTRA THIN

**Manufacturer:** Audemars Piguet & Cie SA,  
Route de France 16, CH 1348, Le Brassus,  
Switzerland

**Reference number:**  
151800R.OO.A088CR.01

**Functions:** Hours, minutes

**Movement:** Audemars Piguet 2120/4,  
automatic; 19,800 vph; 36 jewels;  
copper-beryllium balance with variable  
moment of inertia; flat Nivarox hair-  
spring; Kif shock absorber; fine regulation  
by inertia blocks; diameter = 28 mm;  
height = 2.45 mm; decorated with per-  
lage, côtes de Genève, and sunburst  
finishes; beveled edges; skeletonized  
rotor; 40-hour power reserve

**Case:** 18k rose gold with sapphire crystal  
front and back; water-resistant to 20  
meters

**Strap and clasp:** Brown crocodile leather  
with pronged buckle

**Dimensions:** Diameter = 41.02 mm,  
height = 6.86 mm, weight = 64.5 grams

**Variations:** White-gold case (\$23,300)

**Price:** \$21,800



pany had been making thin movements since 1946, when it introduced a hand-wound movement measuring only 1.64 mm thick, followed by the Cal. 2003, the “extra-flat,” whose skeletonized version was presented in 1953. Caliber 2120 was a joint project between Audemars Piguet, Vacheron Constantin, Jaeger-LeCoultre and Patek Philippe. Though Jaeger-LeCoultre actually produced the movement, with financial and technical assistance from the other three, Audemars Piguet owns exclusive rights to it today and uses it to power its Jules Audemars Extra Thin watch.

In light of the watch world’s renewed interest in slim, elegant timepieces, we took a closer look at the Jules Audemars and the 1966, which both exemplify the trend.

**A VIEW THROUGH** the sapphire caseback of the Jules Audemars reveals Caliber 2120’s distinct, elegant lines and beautiful finishes. The movement is equipped with an unusual winding system. The 21k-gold winding weight is fastened to the rotor with screws. The weight drives the winding system in a way that keeps the barrel at an ideal level of performance. The main-spring supplies its energy in a constant manner and this promotes greater rate precision. However, on the timing-machine, it did not exactly produce the results we expected. When fully wound, the watch gained 3.1 seconds per day. After running for 24 hours, it gained 1.5 seconds per day. These were very good results on average, but the maximum differences between the rates in various positions were very large, 17.1 seconds and 24.5

*The elegant appearance of the Jules Audemars comes from its clean design.*





*The thin automatic Caliber 2120 debuted in 1967 and boasts superb technical features and beautiful finishes.*



#### **Pros**

- + In-house movement
- + Good rate results on timing machine
- + Good daytime legibility
- + Comfortable to wear

#### **Cons**

- Can't be read in the dark

seconds, respectively, when the watch was fully wound and after 24 hours. However, few who wear this watch will be bothered by these differences, or even greatly notice them, because the Jules Audemars has neither a seconds indication nor a hack mechanism.

The most special feature of the Jules Audemars's barrel bridge is the so-called "flying" barrel design, which contributes to the thinness of the movement and still ensures a power reserve of 40 hours, unusual for a watch so slim. The winding is bidirectional thanks to a reverser. In the interest of keeping the watch thin, the designers did not use a ball bearing. The lateral play of the rotor's oscillating weight is limited by a peripheral ring rolling on four jeweled runners fixed to the mainplate. This produces a distinctive sound when the rotor is moving. The balance, with its variable moment of inertia, is adjusted with six inertia blocks. It vibrates at a frequency of 19,800 vph.

The 2120 movement has been carefully finished. It is fully assembled and decorated by hand in Audemars Piguet's workshops, and the quality of the workmanship is plain to see. The bridges are beveled and polished by hand, the surfaces are decorated with côtes de Genève, and the cutouts have a perlage finish. The flanks of the bridges have a matte surface and the recesses for the jewels are diamond-cut. Even the edges and slots of the screw heads are beveled. The mainplate has a perlage finish on both sides. The perlage has a three-dimensional look thanks to the use of two different diameters on the grinding tool. The gold rotor provides the crowning touch to the movement, with the masterfully skeletonized "AP" initials within.

**IN TERMS OF BEAUTY,** Girard-Perregaux's Caliber 03300-39 could give the 2120 a run for its money. A glance through the sapphire caseback reveals fine decorative finishes on a par with those of Audemars Piguet's movement: a

21k-rose-gold rotor with circular côtes de Genève finish and straight côtes de Genève on the bridges beneath the rotor.

The perlage pattern on the mainplate, rotor and pallet bridge suggests a starry sky. Caliber 03300-39 is derived from the 3300/3000, which Girard-Perregaux developed in 1994. Today it serves as a base for a number of watch movements with various functions and complications, like the date indication and small seconds display in this one.

These additions, unavoidably, make the movement a bit thicker than the 2120. And because the Girard-Perregaux movement is newer, it contains more modern features.



*The ultra-thin Jules Audemars shows only hours and minutes.*



## SPECS

GIRARD-PERREGAUX 1966  
SMALL SECOND

**Manufacturer:** Girard-Perregaux SA, 1 Place Girardet, CH 2301, La Chaux-de-Fonds, Switzerland

**Reference number:** 49526-79-131-BK6A

**Functions:** Hours, minutes, small seconds, date indication

**Movement:** GP03300-39, automatic; 28,800 vph; 28 jewels; Glucydur balance; flat Nivarox 1 hairspring; Kif shock absorber; Triois fine regulation; diameter = 25.6 mm; height = 3.2 mm; decorated with perlage, côtes de Genève, and sunburst finishes; beveled edges; blued screws; 48-hour power reserve

**Case:** Palladium 950 with nonreflective sapphire crystal front and back; water-resistant to 30 meters

**Strap and clasp:** Leather with pronged buckle

**Dimensions:** Diameter = 38 mm, height = 8.67 mm, weight = 52 grams

**Price:** \$14,470

*Girard-Perregaux's Caliber GP 03300-39 is derived from the GP 3300/3000 from 1994.*



*FULLY WOUND, THE 1966 GAINED TWO SECONDS PER DAY. AFTER 24 HOURS, THE GAIN WAS SIX SECONDS.*

The watch's technical highlights include its motion works, its rotor and its escapement, which has several unusual features. The motion works mechanism encompasses only four wheels, which prevents imprecision when the hands are set. In contrast to the Audemars Piguet watch, the Girard-Perregaux 1966 can be set accurately thanks to its small seconds display and hack mechanism.

The rotor for the winding mechanism is unidirectional and works counterclockwise. With a transmission ratio of 120:1, it is somewhat more efficient than other unidirectional rotors. The debate about the merits of unidirectional vs. bidirectional self-winding systems is never-ending. Girard-Perregaux, however, has been devoted to the unidirectional system ever since it introduced its well-known Gyromatic winding mechanism in 1965. The 03300-39 rotor sits on a small bridge that has a perlage finish and is held in place by two blued screws. Beneath the bridge, the rotor's pinion meshes with a click wheel that transmits power to the barrel in the direction of the turning rotor, via additional wheels (reduction and transfer), and then freely turns in the opposite direction.

The escapement has especially modern features. The escape wheel (which has steeply sloping teeth) and the pallet are mounted beneath a common bridge that is attached to the main-plate rather oddly, with two differently sized blued screws. The entry and exit stones are identically shaped. The flat Nivarox-1 hairspring is attached to the Glucydur balance using a laser and Nivatronic collet. The balance vibrates at 28,800 vph. On the timing machine, the watch gained two seconds per day when fully wound and six seconds per day after running for 24 hours. When worn on the wrist, the watch gained about four seconds per day. (Unfortunately, because the Jules Audemars watch has no seconds indication, we could not measure its on-the-wrist performance.)

**ON THE OTHER HAND**, in today's stressful times, some might say, who really needs a seconds display? It is certainly not missed on the Jules Audemars's clean, finely finished matte sil-



**Pros**

- + In-house movement
- + Good rate results
- + Good daytime legibility
- + Comfortable to wear

**Cons**

- Can't be read in the dark

*Although the small seconds subdial of the 1966 offers greater precision, the blue seconds hand makes the dial look unbalanced.*

ver dial. The narrow, gold, leaf-shaped hands point to the 12 long, golden markers placed around the circumference of the dial. The minute hand extends halfway along the length of the marker, while a noticeable distance remains between the hour hand and the markers. Overall, the dial makes a very fine, balanced impression.

The displays of the Girard-Perregaux 1966 are quite minimalist. In the small seconds subdial, the bright blue seconds hand looks a bit out of place among the otherwise silvery tones

on the dial, and the red “60” — one of Girard-Perregaux’s hallmarks — stands out too much. Otherwise the silver dial is quite harmonious. Like the dial on the Jules Audemars, the G-P dial has a fine line finish and slopes gently downward along its periphery in the style of watches from the 1960s. Unfortunately, this causes the applied markers at 3, 6, 9 and 12 o’clock not to lie completely flat at the ends. The other markers are cleanly executed in black. The metallic, leaf-shaped hands are similar to those on the Jules Audemars and are perfectly proportioned.

*The Girard-Perregaux 1966 has an unusually shaped case made of palladium.*



*Both watches have prong buckles that carry their manufacturers' initials.*



The minute hand ends precisely where the markers stop, and the hour hand extends almost to where they start, only touching the ends of the markers at 6 and 12 o'clock.

**THE DIAL AND HANDS** of the 1966 harmonize beautifully with the unusual case material, palladium, a metal in the platinum group. It is more robust than gold, has a brilliant white color and does not oxidize. The relatively steep slope of the bezel continues the curvature of the dial and then leads to a narrow case midsection that then narrows further to the caseback. This shape allows the small crown to be grasped quite easily for the usual functions: hand-winding, quick date change and setting the time. The 38-mm case, made by Girard-Perregaux itself, is closed with a simple spring hinge. The caseback gives information about the watch, including its serial number. The palladium version is limited to 199 pieces.

The Jules Audemars is only three millimeters larger than the 1966, but appears much larger due to the wide open dial and the shape of the gold case. The flat, narrow bezel gives the dial a great deal of space and its polished shine stands in stark contrast to the fine matte finish of the gently downward-curving case midsection. As on the Girard-Perregaux 1966, the small crown is easy to grasp when you need to wind the watch by hand. The

sound the watch produces as it is being wound is like that made by an old pocketwatch. The caseback, with its polished and satin-finished surfaces, is held in place by five screws. The manufacturer specifies 2 bar (20 meters) as this watch's water-resistance level, which means, essentially, that it should not be in water at all. What is most striking is the harmonious relationship between the watch movement and the case. The line finish on the matte, skeletonized rotor matches the one on the caseback, and the angle of the oscillating weight mirrors that of the polished section of the caseback.

Finally, the fine, brown crocodile-leather strap completes the harmony of the Jules Audemars. The strap is a perfect match for the rose-gold case and fits snugly on the wrist. It is secured with a flawless, classic, rose-gold buckle. A similar buckle, in white gold, secures the stitched, black leather strap of the Girard-Perregaux 1966, which hugs the wrist just as comfortably.

As our analysis shows, even simple, thin watches such as these can display subtle but significant differences. What these two have in common is that their inner workings, which collectively represent more than 25 years of research and development, show the potential of innovative watchmaking even in a decidedly compact package. ○