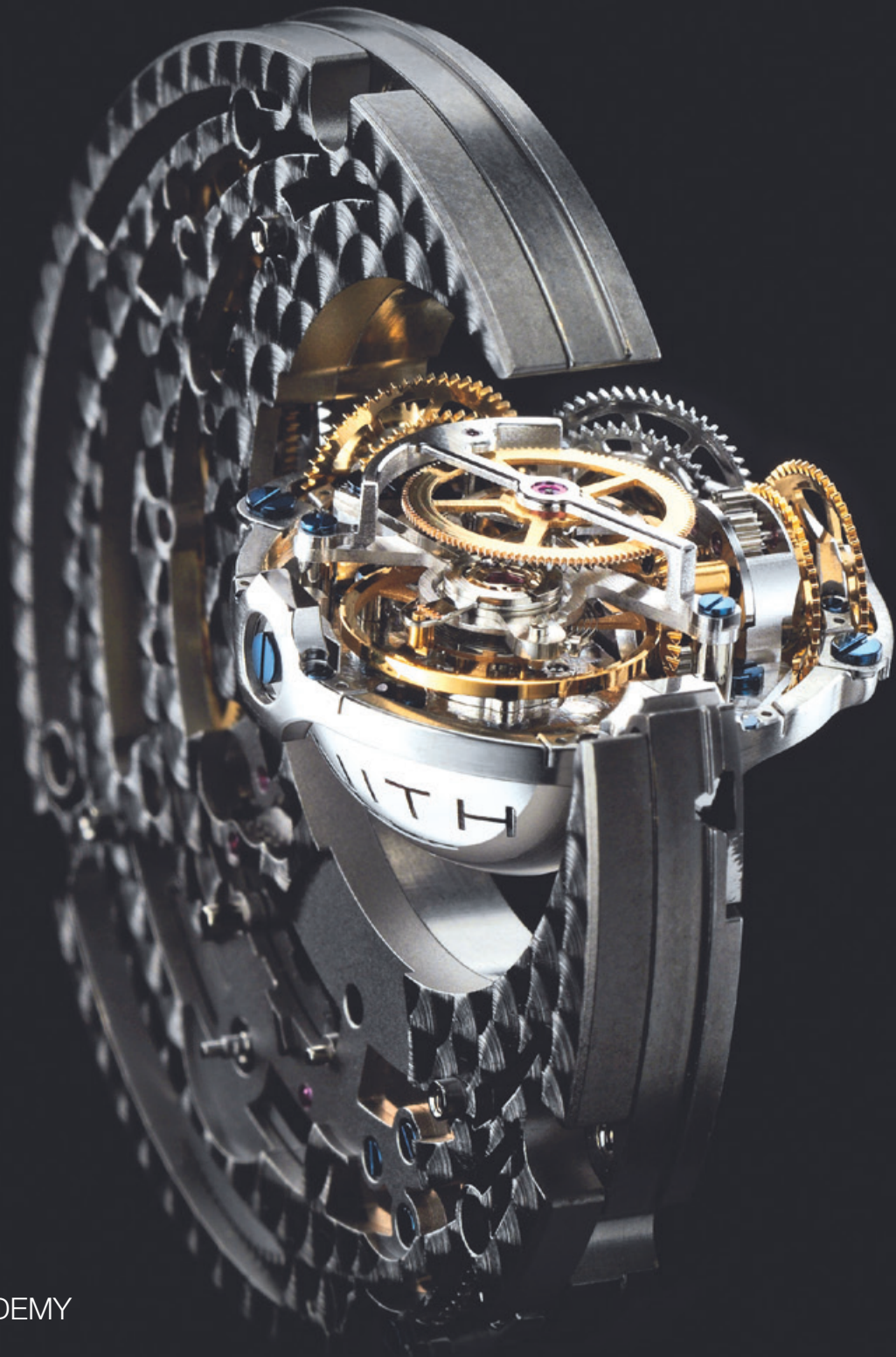


★
ZENITH
SWISS WATCH MANUFACTURE
SINCE 1865



ZENITH - ACADEMY

MANUFACTURE ZENITH MAKES
LIGHT OF THE COMPLEXITY
OF COMPLICATIONS

MANUFACTURE ZENITH MAKES LIGHT OF THE COMPLEXITY OF COMPLICATIONS

For almost 150 years, Zenith has been playing a pioneering role in the development and production of complex timepieces. By uniting the full range of watchmaking professions under one roof in its historical birthplace, Le Locle, the brand with its guiding star benefits from a rare degree of self-sufficiency and independence that represents an abundant source of creative boldness. The extent of this expertise is once again highlighted by the presentation of three new exceptional timepieces: the Academy Minute Repeater automatique, also equipped with a chronograph; the Academy Christophe Colomb Tribute to Charles Fleck with “Gravity Control” system; as well as the three-hand Captain Tourbillon model.

“Combining authenticity, daring and pleasure.”

The will to combine authenticity, daring and pleasure is a complex equation that has been guiding the Manufacture Zenith for around 150 years. In 1865, its founder Georges Favre-Jacot brought together the entire range of watchmaking skills under a single roof in Le Locle, a village in the Swiss Jura, thereby inventing the very concept of a Manufacture. For its industrial history as the cradle of Swiss watchmaking, Le Locle is now listed as UNESCO World Heritage site. Zenith’s full wealth of expertise and its artisans are still present in these premises that the brand has never left.

By uniting all the different professions and mastering each stage involved in the design and production of a timepiece, the Manufacture is able to break free of overly restrictive codes in order to maintain a perpetually inventive, free-spirited approach to the horological marvels it designs and develops entirely in-house. Zenith creates complex watches that in all respects meet the highest Fine Watchmaking criteria, and its range encompasses all the major complications.





A HERITAGE BOASTING OVER 600 MANUFACTURE ZENITH MOVEMENTS

Over 300 patents representing as many breakthroughs punctuate the major Zenith milestones in the history of time measurement: from onboard instruments to wristwatches, as well as pocket watches. Over 600 movement variations enrich the brand heritage, and testify to the impressive body of expertise that has been patiently acquired. It is in particular in the field of chronometry or timing precision that Zenith has distinguished itself, having won no less than 2,333 prizes to date.

Embodying a landmark invention in the history of modern watchmaking, the El Primero movement created in 1969 is not only the first automatic integrated chronograph, since it also beats at the exceptional frequency of 36,000 vibrations/hour, thus ensuring 1/10th of a second precision. The various evolved versions of this legendary movement have now found their place within a complete collection bearing its name.

Loyal to its determination to contribute to the epic advancement of exceptional horology, Zenith constantly devises original complication watches systematically merging the grand watchmaking tradition with a spirit of innovation.

This autumn, once again asserting itself as one of the most daring and inventive brands of the 21st century, Zenith presents no less than three new exceptional timepieces: the Academy Minute Repeater automatic, also equipped with a chronograph; the Academy Christophe Colomb Tribute to Charles Fleck with “Gravity Control” system; as well as the three-hand Captain Tourbillon model. ★





“ The gentle melody of one of the most fascinating complications. ”

ACADEMY MINUTE REPEATER

Listening to the gentle notes of the music of time chiming on the wrist offers the unique experience of playing one of the finest musical scores of the watchmaking art. Once the corresponding lever is duly wound, the minute repeater complication sounds the hours, quarter-hours and minutes. A first hammer strikes the hours (from 1 to 12) on a low-pitched gong, the quarters (1 to 3) are chimed by two hammers striking two gongs – one low-pitched and the other high-pitched – , while the minutes (1 to 14) are rung by the hammer striking the high-pitched gong.

A TOTALLY ORIGINAL REPEATER SYSTEM

Not only does the Academy Minute Repeater feature one of the most difficult major complications to produce, but it only dictates its own identity codes with an entirely original repeater system: a patented mechanism built around a single rack governing three types of chime. The challenge is complex indeed, since it involves ensuring the smooth co-habitation of a minute repeater and an automatic chronograph within a movement beating at the exceptional frequency of 5 Hz /36,000 vibrations/hour) and endowed with a 50-hour power reserve. This single-rack system serves to circumvent the axis of the 30-minute counter, and thus preserve the distinctive spirit of the El Primero chronographs.

“ The revelation of an impressive mechanical game that comes to life. ”

At the heart of the Academy Minute Repeater beats the integrated El Primero 4043 movement totalling no less than 461 components housed within a case just 18.36 mm thick. Unique components that are patiently built, refined and adjusted to fit together perfectly. Components that carry the “signature” of the watchmaker who created them, since the master-watchmakers in the Zenith Fine Watchmaking division have raised their art to a level where they are capable of recognising “their very own” part.

264 parts protected by the dial are devoted to the minute repeater function, while the activation appears on the back, as does the chronograph mechanism function. The “all or nothing” system is applied, requiring complete winding in order to trigger the minute repeater and thus avoid any inadvertent mishandling.

CATHEDRAL GONGS FOR A CRYSTAL-CLEAR CHIME

Drawn out and curved to form a whole rather than being welded, the cathedral gongs are the epitome of noble craftsmanship designed to guarantee crystal-clear acoustics. Through the duration of the chime, the intensity is maintained at a constant level thanks to an inertia governor in the form of an active brake. In order to avoid any loss of synchronisation during the travel of the three cams activating the hammers, a “surprise” device ensures their simultaneous transition at the end of the 59th minute, thus ensuring the perfect coordination of the hour chime.

AWAKENING VISUAL AND AUDITORY PLEASURE

When the striking mechanism is in action, hearing is not the only sense that is pleased. The openworked also offers a view of the splendid mechanical play of parts that springs to life, revealing the hammers in motion as well as part of the gongs. Nor is the aesthetic elegance confined to the magical moments of the chime itself, since no detail has been left to chance, including an alternating guilloché “barleycorn” pattern on an elegant silver-toned dial, snailed counters, perfect visual harmony between the blued sweep seconds and counter hands; as well as rose gold hour and minute hands beautifully echoing the Roman numerals fashioned from the same metal. On the bridge side, the sapphire crystal case-back reveals the full wealth of the exceptional mechanical movement.

Available in a generous 45 mm-diameter case in 18K rose gold, the Academy Minute Repeater is issued in a 25-piece strictly limited edition. ★



ACADEMY
MINUTE REPEATER

- NEW EL PRIMERO CHRONOGRAPH MINUTE REPEATER
- EL PRIMERO 4043 CALIBRE; 461 COMPONENTS, 46 JEWELS
- HAND-GUILLOCHÉ DIAL

TECHNICAL DATA



MOVEMENT

El Primero 4043, automatic

Calibre : 16¼'' (Diameter: 37 mm)

Thickness: 10.36 mm

Components: 461

Jewels: 46

Frequency: 36,000 VpH – (5 Hz)

Power-reserve: min. 50 hours

Finishings: 22-carat gold oscillating weight with “Côte de Genève” pattern

FUNCTIONS

Hours and minutes in the centre

Small seconds hand at 9 o'clock

1-counter chronograph:

- 30-minute counter at 3 o'clock

Minute Repeater

CASE, DIAL & HANDS

Material: 18-carat rose gold

Diameter: 45 mm

Thickness: 16.55 mm

Crystal & Case-back: Box-shaped sapphire crystal with anti-reflection treatment on both sides

Water-resistance: 3 ATM

Dial: Silver-toned guilloché

Hour-markers: Gold Roman numerals

Hands: Gold-plated rhodiumed

STRAP & BUCKLE

Alligator leather strap with protective rubber lining

Reference: 27.00.2218.713

Brown alligator leather

18-carat gold triple folding clasp

Reference: 27.17.0003.940

Rose gold

**ACADEMY
CHRISTOPHE
COLOMB**
TRIBUTE TO
CHARLES FLECK

The “Gravity Control” system, along with openworking in the best Fine Watchmaking tradition: by dedicating its Academy Christophe Colomb skeletonised model to Charles Fleck, its legendary “chronométrier” or precision timer, the Manufacture Zenith pays a two-fold homage to these pioneers that each in their own way made their mark on history.

A TRIBUTE TO PIONEERS, TO THE EXCEPTIONAL MEN WHO FORGE HISTORY

When Christophe Colomb set his course westwards in the 15th century, a time when all the other navigators were headed east, he could barely have imagined that his epic voyage would lead him to discover the New World. Despite his accomplishment that forever changed world history, the maritime adventurer was faced with one of the challenges that continues to haunt contemporary horology: that of making exact measurements with instruments subject to constant motion that is detrimental to their precision.

Charles Fleck was an exceptional precision timer who also left an indelible imprint on history, notably that of watchmaking, during the over 30 years that he spent at the Manufacture Zenith. Between 1925 and 1956, he registered a number of patents both for Zenith and under his own name. He is in particular the inventor of the double-arrow governor that was to equip Calibres 133, 71, 120, 40 and 5011. His passion for precision led him to take part in developing Calibre 135 which won a number of chronometry prizes, including the prestigious Best Wristwatch Prize over five consecutive years. His life dedicated to serving exceptional mechanisms contributed to making Zenith the most titled brand of all time in the field of precision, with no less than 2,333 prizes won to date. A proud heritage that the Manufacture daily perpetuates by pursuing its tireless quest for the ultimate in horological feats. Today, the Manufacture with the guiding star pays tribute to these two pioneers by creating a timepiece in their image: the Academy Christophe Colomb Tribute to Charles Fleck. A watch imbued with audacity, avant-garde innovations and a determination to push the boundaries of established conventions in order to write a new page in history – that of Fine Watchmaking and of the men and women who continue to shape it.



“ Gravity control meets the ancestral art of skeleton-working. ”



DEFYING GRAVITY

At the heart of the Academy Christophe Colomb Tribute to Charles Fleck beats a self-regulating gyroscope mechanism representing one of the major breakthroughs in 21st century watchmaking. Based on the principle that maintaining the regulator organ in a horizontal position engenders the best possible balance amplitude and thus guarantees the finest timing precision, Zenith has devised a revolutionary system ensuring that the regulating organ and the escapement are permanently kept in this position, and aptly named “gravity control”.

Inspired by marine chronometers, gravity control is also a tribute to company history in the sense that Zenith has in the past produced this type of instrument, as well as a Lépine chronometer from the early 20th century equipped with an escapement named the “Echappement Colomb”.

The patented gravity control system borrows from marine chronometers the principle of gimbal suspension, a kind of universal hinge fitted to marine chronometers from the 16th onwards in order to keep them horizontal despite the inevitable rolling and pitching of the ships they equipped.

Later, the appearance of pocket watches meant that the same means could not longer be implemented, since they would have accommodated a voluminous 50 mm mechanism within a pocket watch. The tourbillon was thus invented to compensate for the variations in rate of the watch, based on the principle that it generally remained in a vertical position in a pocket, and that only the winding-stem tended to shift slightly to the left or right.

“ A major breakthrough in 21st century watchmaking. ”

Today, the classic tourbillons in wristwatches continue to correct for these positions by equalling them out over all 4 vertical axes once a minute. Inclined or multi-axis tourbillons take the regulating organ through a larger number of different positions, even though they only remain very briefly in a horizontal position and merely correct the sum of several errors induced by multiple wrist movements.

The ultimate development in terms of wristwatch precision thus consists in equipping such models with a constant horizontal escapement that surpasses the performances of tourbillon mechanisms. That is exactly what has been done with the Academy Christophe Colomb.



FEATS AND VIRTUOSITY OF AN INTEGRATED FINE WATCHMAKING MANUFACTURE

The development of this exceptional mechanism required a full five years of research, while producing it called for the creation of 60 new tools dedicated to assembling the sphere and its 175 components – a technical feat that would have been impossible without the expertise of a fully integrated Manufacture.

In keeping with the Zenith signature codes, the Academy Christophe Colomb Tribute to Charles Fleck beats at a frequency of 10 vibrations per second, amounting to 36,000 per hour – an exceptional cadence that entailed even greater complexity. Never one to refuse a challenge, Zenith thus compounded the complexity by openworking this model dedicated to the precision timer who made such a profound impact on its history, as if to better reveal the exceptional mechanism beating at its core. This masterful exercise drew upon the full range of skills cultivated within the Manufacture, since the openworking involved constantly reconciling technical and aesthetic constraints. Mainplate, bridges and plates: all the layers have been patiently chased and engraved, finely readjusting the balance at each stage.

Magnificently accentuating the contrasts between the anthracite of the movement, the blue of the hands and screws, and the rose gold of the gear wheels, three screw-down sapphire dials catch and hold the gaze, further celebrating the magic of the dome at 6 o'clock.

The platinum case underscores the precious nature of this timepiece issued in a 25-piece limited series. A rare collector's piece perpetuating the proud lineage of models composing the Zenith legend, of which Charles Fleck himself wrote some of the finest chapters. ★

“Equipped with a constant horizontal escapement, surpassing the number of mechanisms in a tourbillon.”

**ACADEMY
CHRISTOPHE
COLOMB**
TRIBUTE TO
CHARLES FLECK

- THE CHRISTOPHE COLOMB MODULE: A MAJOR MILESTONE IN MECHANICAL WATCHMAKING
- INSPIRED BY THE LEGENDARY MARINE CHRONOMETER INSTRUMENT
- A SELF-REGULATING GYROSCOPIC MODULE TO GUARANTEE FLAT POSITIONING OF THE REGULATING ORGAN

TECHNICAL DATA



MOVEMENT

El Primero 8804, Manual

Unique Gyroscopic system that ensures perfect horizontal positioning of the regulating organ

Calibre: 16½''' (Diameter: 37 mm)

Thickness: 5.85 mm

Components: 308

Gyroscopic carriage made of 175 components

Jewels: 45

Frequency: 36,000 VpH – (5 Hz)

Power-reserve: min. 50 hours

FUNCTIONS

Hours and minutes excentred at 12 o'clock

Self-regulating Gravity Control module at 6 o'clock

Small seconds display at 9 o'clock

Power-reserve indicator at 3 o'clock

CASE, DIAL & HANDS

Material: Platinum

Diameter: 45 mm

Thickness: 14.35 mm

21.40 mm (with domed sapphire crystal)

Crystal & Case-back: Box-shaped

sapphire crystal with anti-reflection treatment on both sides and excrescent domes that cover the Christophe Colomb module.

Water-resistance: 3 ATM

Dial: 3 sapphire dials or gold-toned barleycorn guilloché motif with "Clous de Paris" hobnail pattern on small seconds counter

Second counter

Hour-markers: Black lacquered

Hands: Blued steel

STRAPS & BUCKLE

Alligator leather strap with protective rubber lining

Reference: 27.00.2218.630

Black alligator leather

Reference: 27.00.2218.631

Brown alligator leather

18-carat gold triple folding clasp

Reference: 27.31.0003.940

White gold

CAPTAIN
TOURBILLON

The first classic tourbillon with a three-hand display in the Captain Collection, the Captain Tourbillon conceals beneath its understated elegance a world of perfectly mastered complexity. The construction of a tourbillon is one of the most difficult horological feats to accomplish. This mechanical device enhances precision by counter-balancing the gravity-induced disturbances affecting the regularity of the balance. The correction is achieved by the fact that the balance and the escapement spin on their own axis. And when the Manufacture Zenith develops a tourbillon, it is bound to beat at a high frequency, thereby confirming the authenticity of a brand that has been pushing the boundaries of precision for almost 150 years.

“ A classic expression of the most iconic complication. ”



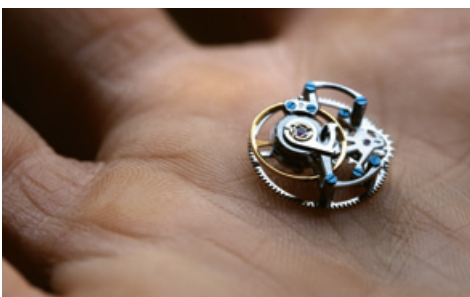
Within an asymmetrical design, the Captain Tourbillon unveils the wealth of its mechanism featuring an off-centred rotating carriage that performs one rotation per minute and incorporates a small seconds hand. While the timepiece is above all classic by nature, it also pays homage to the Zenith heritage by picking up the codes that have forged its identity: an automatic El Primero calibre, a frequency of 36,000 vibrations per hour, a 50-hour power reserve, and a dial generously revealing the movement.

ELEGANCE AND TRADITION

Distinguished by restrained, understated lines composing a pure structure, this model also gives a nod to the design codes of the 1950s Captain watches through its dauphine-style hands and hour-markers. The elegant dial is graced with a brushed silver-toned centre, a grained silver-toned hour circle and a polished minute circle with a velvet finish. Meanwhile a transparent sapphire crystal case-back provides a chance to admire the El Primero 4041 S movement, a miniature mechanical masterpiece equipped with 199 parts and the world's only tourbillon beating at a high frequency, with a 25% higher number of to-and-fro balance movements than on other constructions.

The exterior is on a par with this precious mechanism. The 40 mm case in 18K white or rose gold displays a particularly refined curve achieved by a double stamping operation. In its gem-set version, the Captain Tourbillon features a bezel adorned with 46 baguette-cut diamonds. Precious stones that are equalled only by the inherent richness of the movement driving this model that so perfectly embodies the Zenith values.

The epitome of horological refinement, enhanced by an alligator leather strap fitted with a triple folding clasp in white or rose gold. ★



“ A miniature mechanical masterpiece. ”

CAPTAIN TOURBILLON

- CLASSICAL ZENITH LEGACY WATCH
- AUTOMATIC 40-MM TOURBILLONS BEATING AT 36,000 VPH
- ONLY NON-CHRONOGRAPH TOURBILLON IN THE ZENITH COLLECTION

TECHNICAL DATA



MOVEMENT

El Primero 4041 S, automatic

Calibre: 13¼" (Diameter: 30 mm)

Thickness: 7.65 mm

Components: 199

Jewels: 25

Frequency: 36,000 VpH – (5 Hz)

Power-reserve: min. 50 hours

Finishings: Oscillating weight with “Côtes de Genève” pattern.

Crystal: Box-shaped sapphire crystal with anti-reflection treatment on both sides

Case-back: Transparent sapphire crystal

Water-resistance: 5 ATM

Dial: Brushed silver-toned centre, grained silver-toned chapter ring, polished velvet-finish minute track

Hour-markers: Gold-plated rhodiumed or black rhodiumed, faceted

Hands: Gold-plated rhodiumed or black rhodiumed, faceted

FUNCTIONS

Hours and minutes in the centre

Tourbillon:

- The carriage is positioned at 11 o'clock
- The carriage makes one turn per minute
- The small seconds display is on the carriage

STRAPS & BUCKLES

Alligator leather strap with protective rubber lining

Reference: 27.00.2016.498

Brown alligator leather

Reference: 27.00.2016.493

Black alligator leather

CASE, DIAL & HANDS

Material: 18-carat rose or white gold

Diameter: 40 mm

Diameter opening: 34.45 mm

Thickness: 12.85 mm

18-carat gold triple folding clasps

Reference: 7.18.0028.940

Rose gold

Reference: 27.31.0002.940

White gold

MANUFACTURE ZENITH

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