

COSC
Contrôle Officiel Suisse
des Chronomètres

COSC

The background of the image features a stylized, abstract representation of watch gears. The upper half is a solid red field, while the lower half is a light gray field. Diagonal lines, representing the teeth of interlocking gears, radiate from the right side of the image, crossing the boundary between the red and gray areas. The lines are more prominent and darker in the red area, fading into the gray area.

The birth of the COSC

- 1878 Creation of the Biel Observation Bureau
- 1883 Creation of the Saint-Imier and La Chaux-de-Fonds Observation Bureaus
- 1886 Creation of the Genève Observation Bureau
- 1901 Creation of the Locle Observation Bureau
- 1904 First Regulations of the 'Association of Observation Bureaus'
- 1925 First Observation Regulations for Wristwatches
- 1942 Creation of the Sentier Observation Bureau
- 1957 Creation of the Soleure Observation Bureau

DEPUIS 1973

2025

POUR LA POSTÉRITÉ

BUREAUX OFFICIELS COMMUNAUX
POUR
l'observation des Montres
des Villes de
BIENNE, LA CHAUX-DE-FONDS, LE LOCLE, ST-IMIER
SUISSE

Le Bureau d'Observation de *Bienne* délivre le
Bulletin de marche N° **9686** ÉPREUVES DE 1^{re} CLASSE
pour la Montre N° **410.001** Diamètre de la platine 25mm - 14.1
Échap^t ancre. Balancier compensé. Spiral Breguet
de M. Les Fils de Jean Oegler „Igne Reberg“ à Bienne

1910	Jours	Marches diurnes	Variations	Positions	Températures	Observations
Mars	5-6	+8,4		verticale, pendan à gauche	14°	
"	6-7	+16,2		" " à droite	14°	
"	7-8	+7,4	4,2	" " en haut	15°	
"	8-9	+3,2	1-	" " "	15°	
"	9-10	+4,2	1,2	" " "	15°	
"	10-11	+3-	2,2	" " "	16°	
"	11-12	+5,2		" " "	16°	
"	12-13	-3-	0	horizontale, cadran dessus	17°	
"	13-14	-3-	0,8	" " "	17°	
"	14-15	-2,2	0,6	" " "	19°	
"	15-16	-2,8		" " "	19°	
"	16-17	-3,4		" " "	34°	à l'étuve
"	17-18	-1,6		" " "	17°	
"	18-19	+3,6		" " "	2°	à la glacière
"	19-20	-2,2		" " "	16°	

a) Marche diurne moyenne: +1,3
b) variation moyenne des marches diurnes: ±1,42
c) différence du plat au pendu: +7,3
f) variation par degré centigrade: -0,21

Bienne
le 22 Mars 1910.
LE DIRECTEUR:
L. Ami-

Voir au verso l'art. 6 du règlement.
+ indique le retard; - l'avance.

Since 1973

The only **unanimous and independent** label

2025

FOR POSTERITY



2025

FOR POSTERITY

Reaffirming the mission to the **general public**



FOR POSTERITY

Promoting **Swiss** **watchmaking excellence**



The COSC: Definition of a **CHRONOMETER**

The Chronometer

A certified chronometer is a high-precision watch that has been measured and certified by the COSC.

The Chronograph

A chronograph is a complication on a watch that allows the measurement of an elapsed time interval.

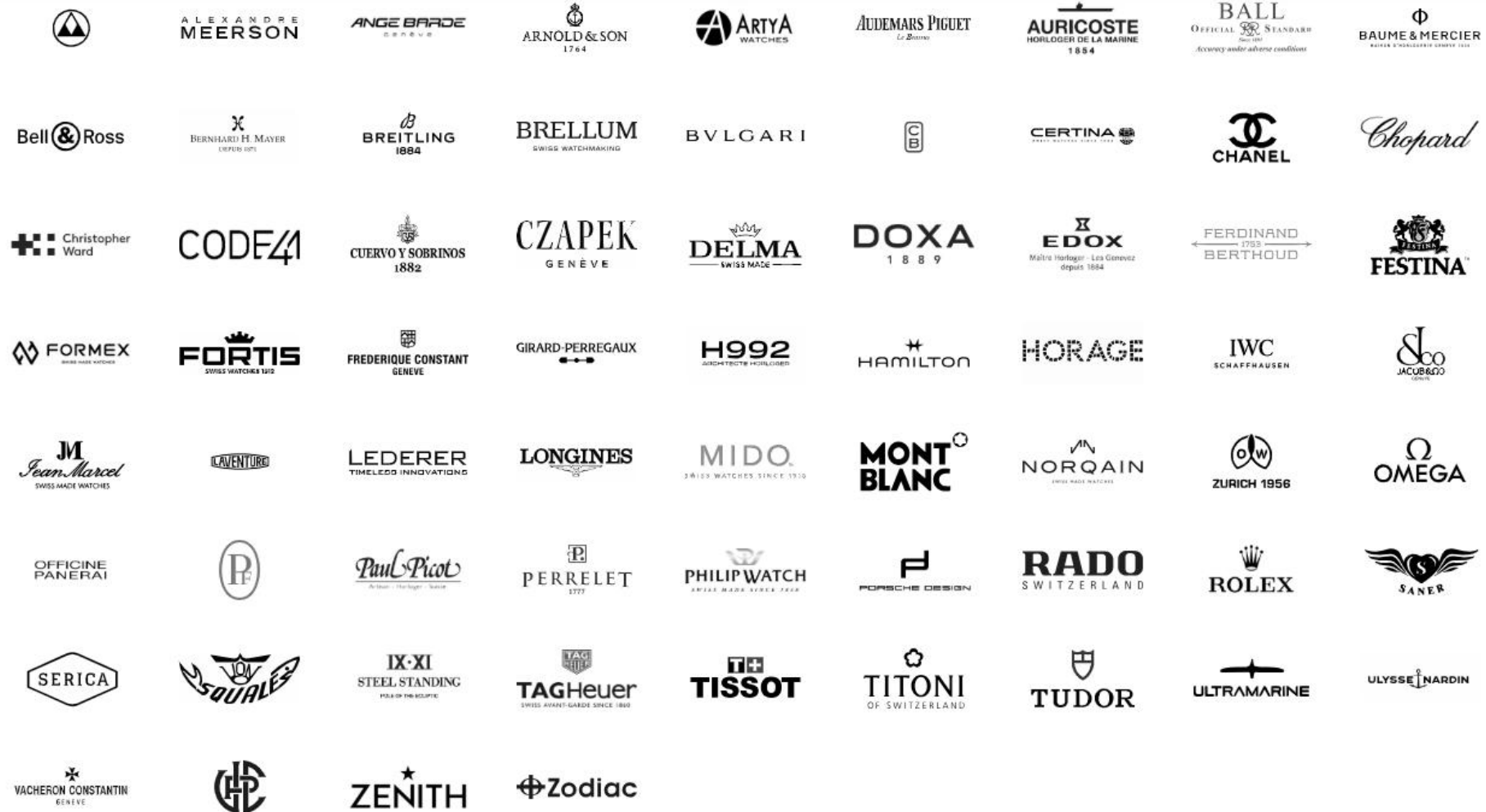
It is important to distinguish between a chronometer and a chronograph.



**Swiss watchmaking
excellence, certified**



COSC CLIENT BRANDS



OUR LABORATORIES



Le Locle Laboratory



Biel Laboratory



Saint-Imier Laboratory

+60 BRANDS

Laboratoire de Biel/Bienne
Laboratoire de Saint-Imier
La Direction à La Chaux-de-fonds
Laboratoire de Le Locle



164

Employees (headquarters in
La Chaux-de-Fonds + the 3
laboratories)

+ 57 million

Certified movements since
1973

39%

Swiss mechanical watches
exported in 2024 were "COSC-
certified."

2.1 M

Certifications issued
in 2024

350

Working days
per year

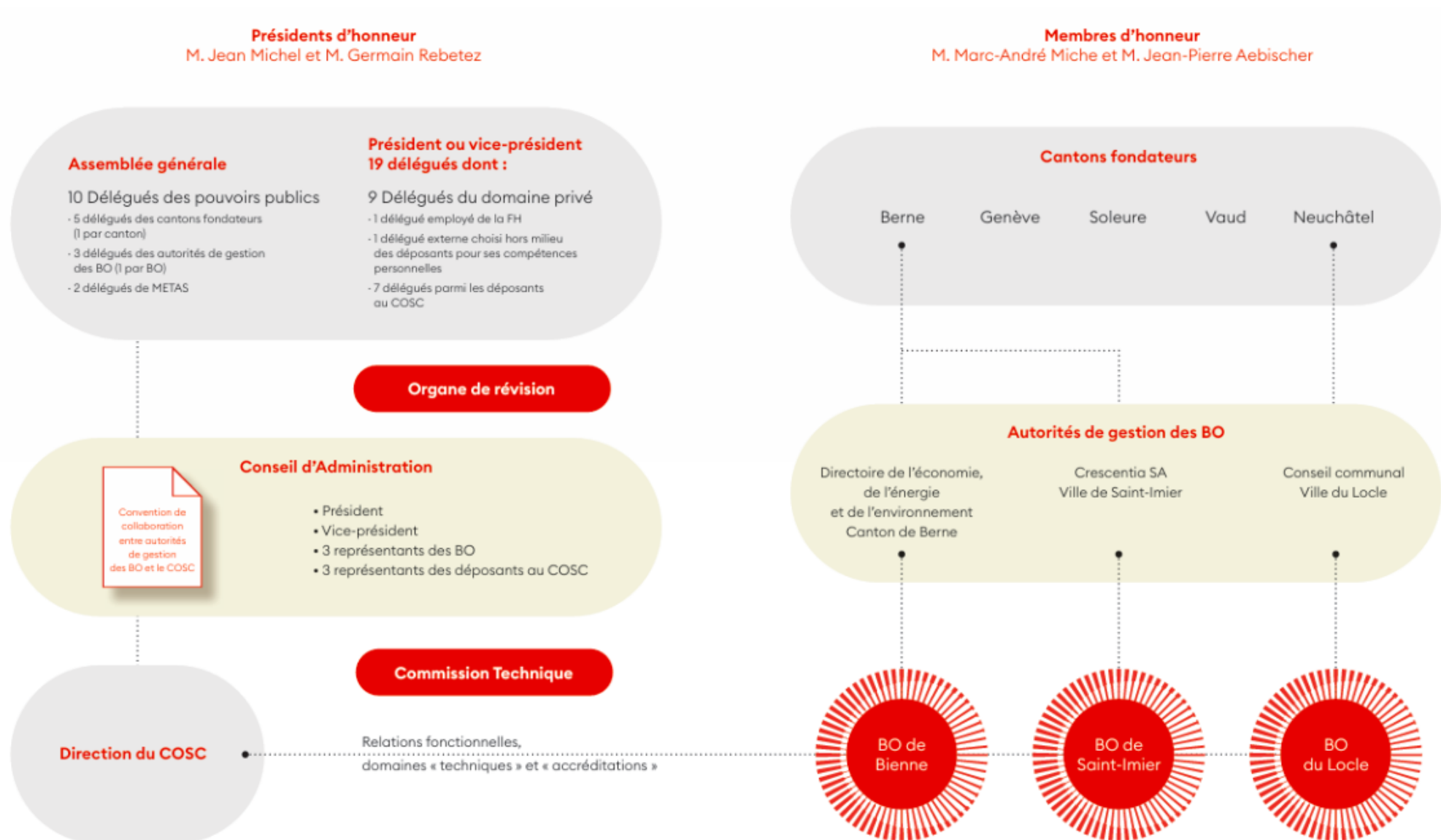
IN NUMBERS



A
TRANSPARENT
ORGANIZATION
SERVING THE
PUBLIC
INTEREST.



AT THE HEART OF OUR ORGANIZATION



COSC
“Chronometer
Certified”





Chronometer certification

One of the criteria for the 'chronometer' certification is the average daily rate over the first 10 days of testing: from -4 seconds to +6 seconds, or up to 10 seconds per day. A tolerance that, on the surface, may seem high. Yet, in reality, it is the result of extraordinary precision



Mantel clock



Quartz Watch



Pocket Watch



Mechanical Watch (movement and watch head))



Montres mécaniques

ISO 3159

15 days
Of testing

7

Eliminatory rate criteria

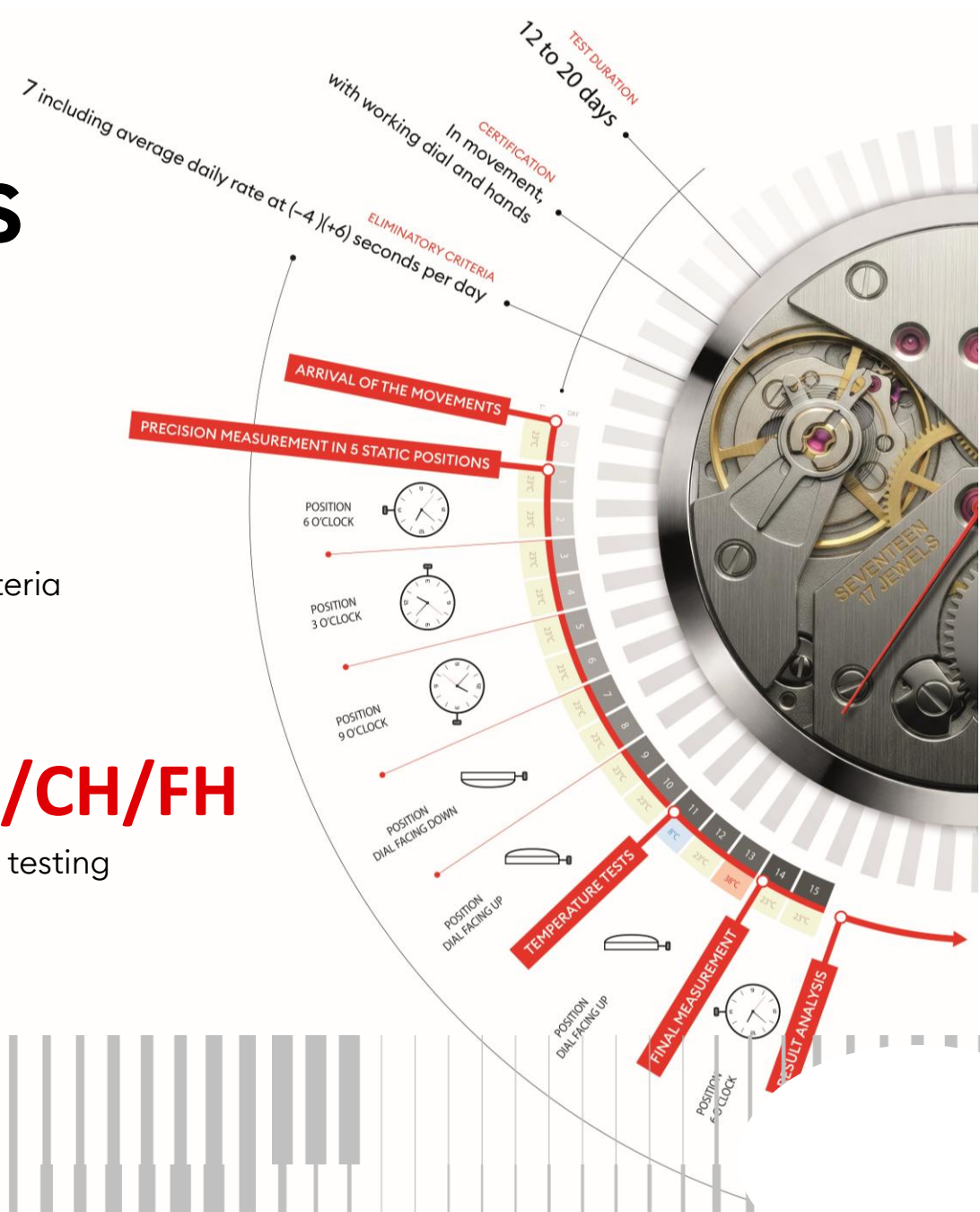
8°/23°/38°
Test temperatures
extremes

3H/6H/9H/CH/FH
5 positions of testing

The image shows a COSC Certificate of Chronometric Accuracy (COC) for a mechanical watch movement. The certificate is issued by COSC (Contrôle Officiel Suisse des Chronomètres) and is valid for 15 days of testing. It includes a table of test results for various positions and temperatures, and a summary of the overall performance.

Position	Temperature	Rate	Deviation
3H	23°C	12.5	0.5
6H	23°C	12.5	0.5
9H	23°C	12.5	0.5
CH	23°C	12.5	0.5
FH	23°C	12.5	0.5
3H	8°C	12.5	0.5
6H	8°C	12.5	0.5
9H	8°C	12.5	0.5
CH	8°C	12.5	0.5
FH	8°C	12.5	0.5
3H	38°C	12.5	0.5
6H	38°C	12.5	0.5
9H	38°C	12.5	0.5
CH	38°C	12.5	0.5
FH	38°C	12.5	0.5

Summary: The watch movement has passed the COSC chronometric accuracy tests with a maximum deviation of 0.5 seconds per day.



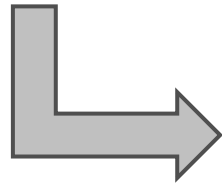
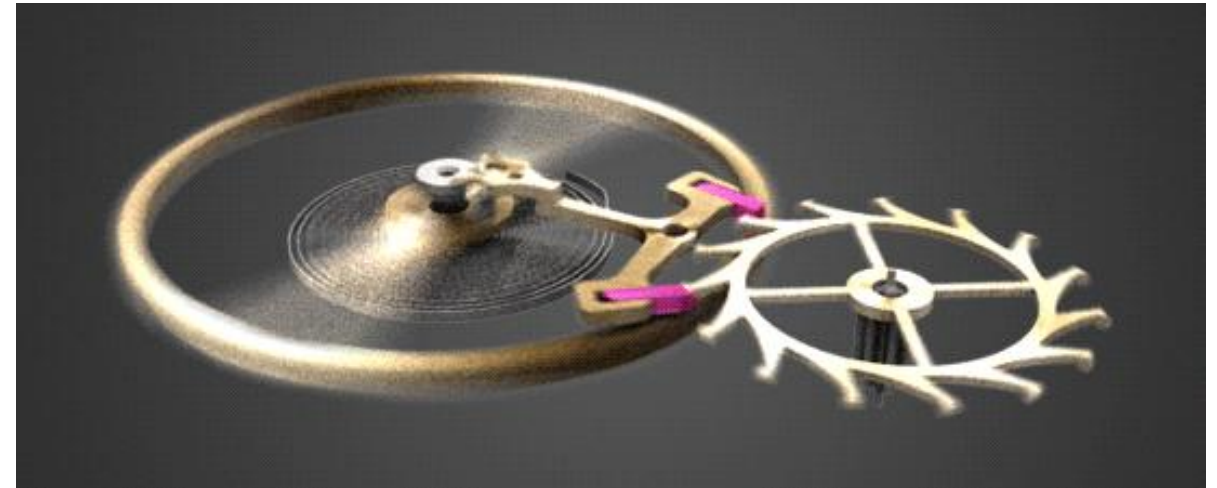
The certification

(-4)(+6)

To illustrate this precision, based on a 4Hz watch:

There are **345,600** back-and-forth oscillations of the balance wheel in 24 hours (1 day)

- + Out of these 345,600, just 4 oscillations too many or too few are enough for the movement/watch to lose or gain 1 second.
- + That is $4 \text{ oscillations} / 345,600 = 1 \text{ second/day of error}$
- + For ISO 3159 certification: -16 to +24 error oscillations per 24 hours are permitted.

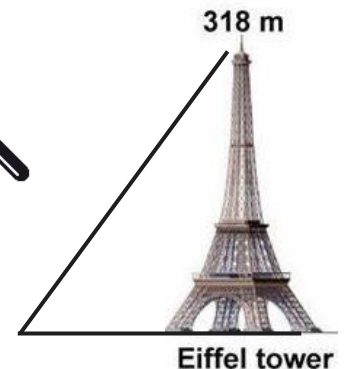


Representation

A 1-second error per day is like a matchstick compared to the Eiffel Tower.



(-4)(+6) is like 10 matchsticks compared to the Eiffel Tower.





THE TEST PROGRAM

1 →		2 →										3 →		4 →		5 →					
L'ARRIVÉE DES MOUVEMENTS		LA MESURE DU TEMPS										LES TESTS DE TEMPÉRATURES		LA DERNIÈRE MESURE		L'ÉTUDE MINUTIEUSE DES RÉSULTATS					
JOUR	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
POSITION																					
T° C	23°C	23°C	23°C	23°C	23°C	23°C	23°C	23°C	23°C	23°C	23°C	8°C	23°C	38°C	23°C	23°C					
M (S/J)		M ₁	M ₂	M ₃	M ₄	M ₅	M ₆	M ₇	M ₈	M ₉	M ₁₀	M ₁₁	M ₁₂	M ₁₃	M ₁₄	M ₁₅					

MÉCANISME ENCLENCHÉS

STEP 1 DAY 0-1



The movements arrive

- + Reception of the movements
- + Checking engraved numbers
- + Packaging in strips of 5 movements
- + Movement winding (maximum winding)
- + Resting movements for 12 hours at 23°C



STEP 2 DAYS 1-10



Measuring Time

- + Measuring time
- + Winding
- + Positioning of the batches
- + These operations are performed in 24-hour cycles.
- + Every day the position changes respectively the placement is done at 6 o'clock, 3 o'clock, 9 o'clock, dial down, dial up



STEP 3
DAYS 11-13



Temperature tests

- + Measurement of Time
- + Winding
- + Placement of the movements, dial facing up
- + Successive placement in chambers at 8°C, 23°C, and 38°C for 24 hours



STEP 4
DAYS 14-15



The final measurement

- + Measurement of Time
- + Winding
- + Placement of the movements at 6 o'clock





STEP 5 DAYS 16-20



Careful analysis of the results

- + Calculation of compliance with the 7 certification criteria
- + Creation of the “Certified Chronometer” certificate
- + Return of the movements to the clients



COSC SWISS EXCELLENCE CERTIFIED

Épreuves pour montres-bracelets à oscillateur balancier-spirale Genre I
Prüfungen für Armbanduhren mit Uhrwerk Spiralfeder-Oszillator Uhrenart I
Tests for wristwatches with sprung balance oscillator Type I

Bulletin de marche
Gangzettel
Watch rate certificate

Mouvement
Work
Movement

n°

Catégorie Kategorie Category	Particularités Besonderheiten Watch specifics	Mouvement Work Movement	mm mm mm	Hauteur Höhe Thickness	mm mm mm
1	23	GH	Vericale, 4 heures en haut Vertical, 4 Uhr oben Vertical, 4 o'clock up	H1	V1
2	23	GH	Vericale, 4 heures en haut Vertical, 4 Uhr oben Vertical, 4 o'clock up	H2	V2
3	23	GH	Vericale, 4 heures en haut Vertical, 4 Uhr oben Vertical, 4 o'clock up	H3	V3
4	23	GH	Vericale, 4 heures en haut Vertical, 4 Uhr oben Vertical, 4 o'clock up	H4	V4
5	23	GH	Vericale, 4 heures en haut Vertical, 4 Uhr oben Vertical, 4 o'clock up	H5	V5
6	23	FH	Horizontale, cadran en bas Horizontal, Zifferblatt unten Horizontal, dial down	H6	V6
7	23	FH	Horizontale, cadran en bas Horizontal, Zifferblatt unten Horizontal, dial down	H7	V7
8	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H8	V8
9	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H9	V9
10	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H10	V10
11	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H11	V11
12	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H12	V12
13	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H13	V13
14	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H14	V14
15	23	CH	Horizontale, cadran en haut Horizontal, Zifferblatt oben Horizontal, dial up	H15	V15

Données de la dernière épreuve: Les données de la dernière épreuve sont les mêmes que celles de la dernière épreuve.

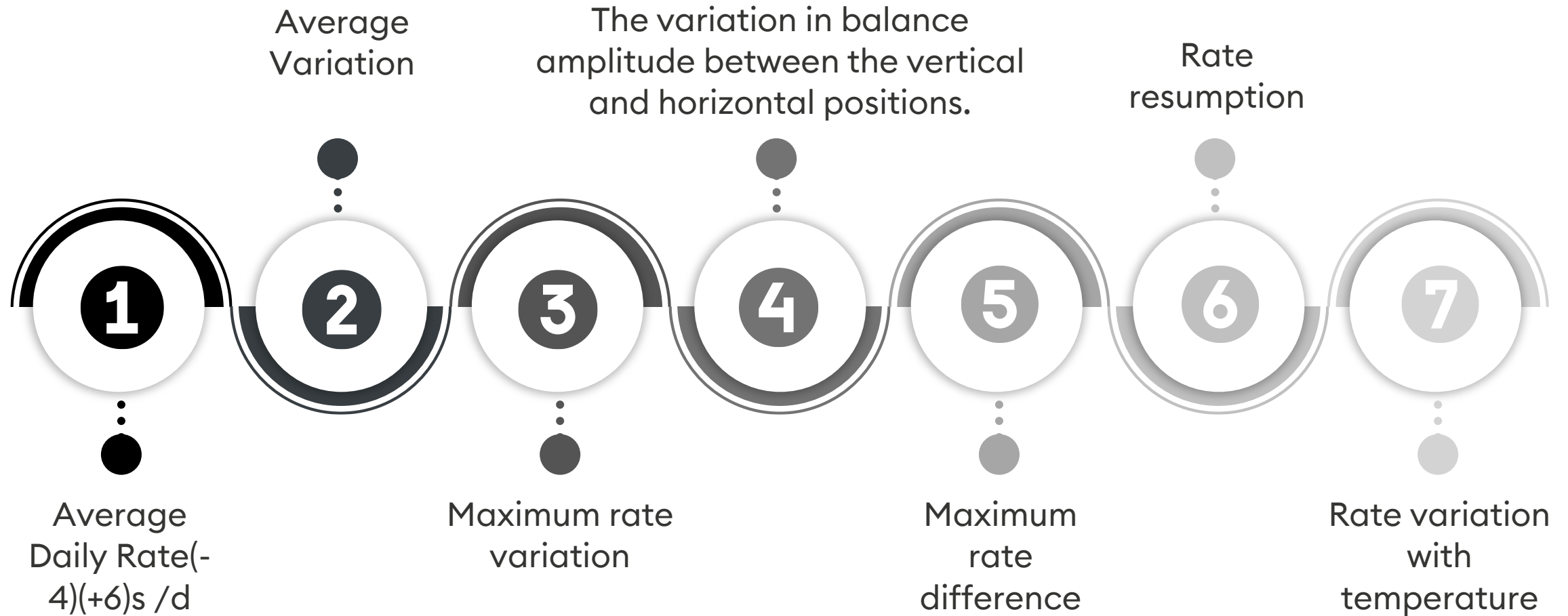
Results / Ergebnisse
Summary

Unité de mesure Unit of measurement	Unité de mesure Unit of measurement	Unité de mesure Unit of measurement	Unité de mesure Unit of measurement
Plus grande différence entre la moyenne journalière mesurée et l'une des marches Largest difference between the mean daily rate and one of the daily rates	ms	ms	ms
Plus grande différence entre la moyenne journalière mesurée et la moyenne des marches Largest difference between the mean daily rate and the mean of the daily rates	ms	ms	ms
Plus grande différence entre la moyenne journalière mesurée et la moyenne des marches Largest difference between the mean daily rate and the mean of the daily rates	ms	ms	ms
Plus grande différence entre la moyenne journalière mesurée et la moyenne des marches Largest difference between the mean daily rate and the mean of the daily rates	ms	ms	ms

La Chaux-de-Fonds,
le | den | the

COSC
Le Directeur
Andreas Wyss

The 7 certification criteria





The New Certification

«COSC Excellence
Chronometer»



Certification Excellence Chronometer

Because the world is changing, our standards are evolving.

4 et + days

Of Testing

8

Eliminatory Criteria

Wear Simulation

Based on real data

Magnetism

Resistance to everyday magnetic fields

Power Reserve

Test announced by the Brand

Test 1 : Representative wear protocol & tightened accuracy

- + COSC definition of an average wearer
 - > Based on real wear data
- + Optical measurement
- + Wear representative protocol over 24 hours in 6 positions (3 a.m., 6 a.m., 9 a.m., 12 p.m., CH, FH)
- + Second measurement after simulation Calculation of chronometric deviation: maximum 6 seconds (IT6)



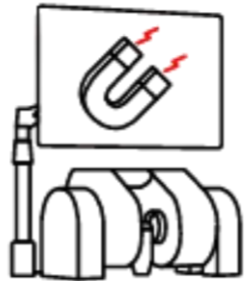
Test Limit

-2 + 4 secondes
per day



Test 2 : Resistance to everyday magnetic fields

- + Exposure to a 200-gauss magnetic field in three orientations: 6H-12H, 3H-9H, and CH-FH.
- + Demagnetization between each exposure
- + No stop under magnetic field
- + Maximum time deviation of 10 seconds



Test limit

200 Gauss
No stoppage

±10 seconds per
day



Test 3 : Confirmation of the Power Reserve Duration

- + 100% Winding
- + Verification of the power reserve specified by the brand



Test Limit

Power Reserve as
reported by the
Brand



THE TEST PROGRAM

		1 →	2 →	3 →	4 →	5 →
	CERTIFICATION CHRONOMETER	ARRIVÉE DES MONTRES TERMINÉES	PRÉCISION RESSÉRÉE APRÈS SIMULATION DE PORTÉ	RÉSISTANCE AUX CHAMPS MAGNÉTIQUES QUOTIDIENS	TEST DE LA DURÉE DE RÉSERVE DE MARCHÉ	CERTIFICATION ET RENVOI DES MONTRES
JOUR	0	15	16	17	18	20 OU +
ÉPREUVES			 6 POSITIONS	 6H-12H 3H-9H CH-FH	 VALEUR COMMUNIQUÉE PAR LA MARQUE	

***The order of the tests may vary by brand**



Certification

- + 8 ELIMINATION CRITERIA
- + 100% of the watches tested
- + Remote certification project

Awarding of the title:

« COSC EXCELLENCE CHRONOMETER »

+

« OFFICIALY CERTIFIED »



Pierre-Yves Donzé

HISTOIRE SOCIALE ET ÉCONOMIQUE DE LA CHRONOMÉTRIE




EDITIONS
ALPHIL

COSC
CONTRÔLE OFFICIEL SUISSE
DES CHRONOMÈTRES



