CYRUS KLEPCYS DICE (PART ONE)

Since the first chronograph was invented in 1816, the complication has been subject to various changes and improvements. Nevertheless, the majority of models equipped with this stop-watch function subscribe to the same basic concept. With the advent of the new Cyrus Klepcys DICE (Double Independent Chronograph Evolution), the ingenious Swiss brand has written a new chapter in the history of chronographs. In this first part of a two-part feature, Angus Davies looks closely at the Swiss marque, Cyrus, its overriding penchant for innovation and major milestones in the history of the chronograph. Moreover, he provides a brief introduction to the brand's latest model.



Introduction

Contrary to widespread opinion, some of the larger watch brands lack creative freedom. When a new model is conceived it will be evaluated by focus groups and appraised using other forms of market research. Only those models which are highly likely to succeed will pass muster. Several of the large brands belong to holding companies who in turn are answerable to institutional investors. Such industrial behemoths are seldom willing to take major risks. Indeed, 'playing it safe' is the order of the day.

When it comes to innovation and cutting edge design, horophiles invariably look to the 'independent' brands. These companies frequently place all their chips on red, potentially culminating in success or failure, albeit as these firms grow in size and amass a significant war chest, the potential risks are mitigated.



The independent brand <u>Cyrus</u> was established in 2010 by a 'Swiss entrepreneurial family'. Since the company was founded, the firm has enjoyed continued success and is financially independent.

Part of the company's success can be attributed to Jean-François Mojon, an industry veteran and the founder of the movement and module specialist, Chronode. In his role as CEO of Chronode, Mojon has worked on movements for Czapek & Cie, HYT, MB&F, Hermès, Urban Jürgensen and several other companies. He is one of watchmaking's shining lights with a remarkable talent for conceiving incredible movements.



Image – Jean-François Mojon

Jean-François Mojon is also the Technical Director of Cyrus, bringing his vast expertise to the watch brand. Operating from the same building, the Master Watchmaker is always on hand to oversee the making of Cyrus's timepieces. However, Cyrus is not a 'one man show', the company employs several highly skilled professionals, all of whom play their part in making the firm's high-end watches.



Image – Walter Ribaga, Managing Director of Cyrus Watches

Conquest of Innovation

A desire to innovate sits at the heart of Cyrus's paradigm. Indeed, the company has shown a remarkable ability to conceive ingenious timepieces. In fact, the firm often refers to its 'Conquest of Innovation'. One example is the Kambys model which features three cylinders on the right side of the dial. Resembling an abacus, these sliding cylinders indicate the stored energy held within the model's two spring barrels. Moreover, a 'secret animation with a customisable rotating disc' is located in the north-easterly region of the dial.



Image – Kambys

The Klepcys Alarm is another example of Cyrus's penchant for innovation. There are a number of alarm watches on the market, most of which feature some form of primitive hammer that strikes the interior of the case. They have a tendency to be somewhat crude, emitting a harsh, shrill noise. However, Cyrus chose its own, unique approach, releasing the Klepcys Alarm. This model, unlike most alarm watches, shares much in common with a minute repeater. This latter

complication aurally conveys the hours, quarters and minutes using two gongs and two hammers. In the case of the Klepcys Alarm, it employs one hammer and one gong to deliver a notably mellifluous chime, surpassing the unsophisticated sound of a regular alarm watch. As any watch aficionado will attest, the making of a gong and hammer requires much time and expertise, both evident at Cyrus.



Image – Klepcys Alarm

The Klepcys Vertical Tourbillon is a further example of Cyrus's blue sky thinking. Patented by Abraham-Louis Breguet in 1801, the tourbillon's purpose is to negate the adverse influence of gravity on the regulating organ. Breguet had the inspired idea of placing the escapement and regulating organ in a rotating cage, thereby negating any positional errors.

When Breguet patented his tourbillon, his invention was intended for use in a pocket watch which would normally be carried in a waistcoat pocket and held in a vertical position. When the owner retired to bed, they would place the timepiece in a pocket watch nightstand in order to keep it in the same vertical position overnight.

While Breguet's tourbillon countered the influence of gravity when a pocket watch was worn in an upright position, its effectiveness diminishes when held in a horizontal position. Today, pocket watches are seldom worn as most horophiles prefer the convenience of a wristwatch. This latter, modern-day timepiece is frequently held in a horizontal position when affixed to the wrist.



Image – Klepcys Vertical Tourbillon

When conceiving the Klepcys Vertical Tourbillon, Jean-François Mojon and his team chose to move the tourbillon from its customary 6 o'clock position and relocate it to the centre of the dial and also rotate it by 90°. By locating the tourbillon towards the centre of the dial, positioned beneath a domed sapphire

crystal, the watch proved more wearable. Moreover, the central position of the tourbillon allowed Cyrus to fit a large diameter balance wheel to the watch, thereby augmenting precision. Lastly, if the watch is removed from the wrist and placed on a surface, with its caseback facing downwards, the tourbillon will continue to work its magic in the same way as a pocket watch in a nightstand.

These examples demonstrate that Cyrus does not appropriate the ideas of others, but prefers to visualise its own new and ingenious ideas. As stated earlier, the Maison's 'Conquest of Innovation' ethos is very much in evidence. Indeed, the Swiss marque's penchant for non-conformist horology is manifest with the new Cyrus Klepcys DICE, a groundbreaking monopusher chronograph.

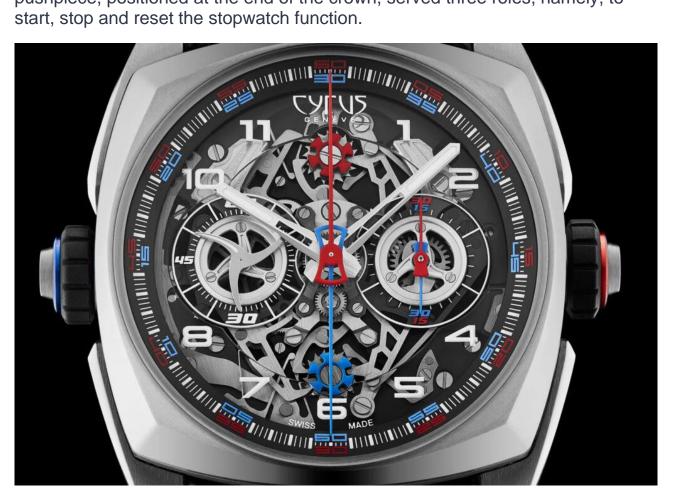
Chronographs – a brief history

The term 'chronograph' is a combination of two Greek words 'chronos' (time) and 'graphein' (write). In 1821, Nicholas Rieussec unveiled a chronograph at Paris' Champs de Mars. It was designed to time horse races and featured two rotating discs and an ink-filled marker that 'wrote' the elapsed times. This device was thought to be the first chronograph ever made; however, this widespread opinion was overturned in 2013 when Louis Moinet's 'Compteur de Tierces' appeared at auction.



The'Compteur de Tierces' was produced in 1816 and, according to the Guinness World Records Organisation, it is the 'World's First Chronograph Ever'. Amazingly. this watch operates at a dizzying frequency of 30Hz, a cadence seldom matched today. It was created for astronomical observation, such as timing the passage of stars and planets.

With the advent of the Longines Calibre 13.33Z in 1913, the chronograph was no longer the solely preserve of pocket watches but made an appearance for the first time in a wristwatch. This model was a monopusher chronograph where the pushpiece, positioned at the end of the crown, served three roles, namely, to start, stop and reset the stopwatch function.



Two years later, in 1915, Gaston Breitling patented a wristworn chronograph with a dedicated chronograph pusher located at 2 o'clock. Later, in 1934, Willy Breitling invented the second independent pusher at 4 o'clock. This latter pusher was responsible for resetting the chronograph hands. This two pushpiece arrangement has changed little over the years and, despite the passage of time, it remains in widespread use.



The self-winding chronograph arrived in 1969, a year when rival firms competed for the honour of being first. Breitling, Buren, Dubois-Dépraz and Heuer formed an alliance and secretly worked on 'Project 99'. Meanwhile Zenith was busy finessing its 'El Primero' movement and Seiko was putting the final touches to the 6139 movement. Effectively, 1969 was like the horological equivalent of the space race.

While small innovations have since materialised, fundamentally the watch industry has mainly accepted the two pushpiece chronograph as the norm and little changes from one year to the next.



Chronographs - the reasons for use are varied

Chronographs have been used for several purposes beyond merely astronomical observation and timing horse races. Other applications include measuring elapsed periods during athletic or motorsport events. Indeed, many of today's chronographs feature a tachymeter, usually located on the bezel, for ascertaining the speed of an object over a known distance.



In yesteryear, artillery regiments would use chronographs in conjunction with a telemeter scale. By measuring the time taken from hearing a shell being fired to the point it struck its target, the artillery could ascertain its range.

A doctor could determine the heart rate of a patient using a chronograph fitted with a pulsometer scale.



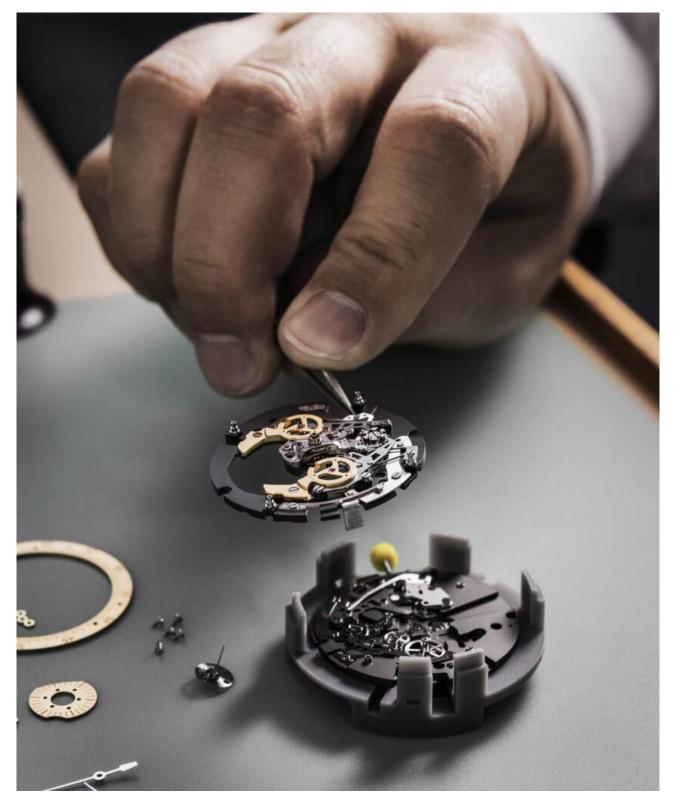
When the Apollo 13 mission ventured to the moon it suffered an oxygen tank explosion causing the navigation instruments to fail. The crew moved to the Lunar Module, however, it was not intended for prolonged habitation. In order to conserve energy, the astronauts shut down virtually all power, rendering their digital timers inoperable. The men had to manoeuvre the module so that it would re-enter the Earth's atmosphere at the correct angle. They needed to manually adjust the course of the spacecraft by executing a 14-second burn of the engine. They had just one chance to realign the spacecraft or bounce back into space for perpetuity. The crew timed the 14 seconds on their Omega Speedmasters and ultimately returned to earth safely.

The Cyrus Klepcys DICE – a new generation of chronograph

When timing successive events using a regular chronograph, the wearer needs to stop, reset and start the timing function. Unfortunately, even the most nimble-fingered wearer will struggle to perform this task quickly enough. A 'flyback' (patented by Longines in 1935) shares much in common with the basic chronograph, save for one useful feature. By pressing the pushpiece at 4 o'clock, while the chronograph is running, the flyback will stop, reset and start again within the blink of an eye. By minimising the interval between stopping and starting, the recorded time has greater validity.



The rattrapante, first unveiled by Patek Philippe in 1922, features two centrally positioned hands, one superimposed over the other. One hand is the central chronograph seconds hand while the other is the rattrapante hand. They are positioned very close to one another in order to avoid any problems with parallax. The rattrapante, or doppelchrono, can be used to measure two elapsed times, albeit the events must commence at the same time.

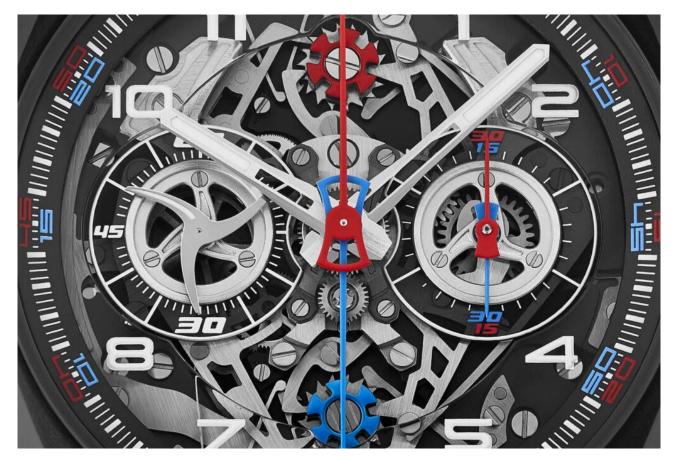


Now, Cyrus has unveiled a wholly new form of chronograph, the Double Independent Chronograph Evolution (DICE). This complication surpasses the functionality of the basic chronograph. The Manufacture self-winding movement, the calibre CYR718, features a double chronograph capable of measuring two intervals independently. Unlike a rattrapante, there is no requirement for two events to start at the same time, providing the wearer with much greater flexibility. Indeed, the chronographs can be used simultaneously or in isolation.



In several sports, competitors start a race at different times. In this scenario the Cyrus Klepcys DICE is the perfect timing tool, obviating the need for rapid recording of elapsed times on paper, nimble figured pressing of pushpieces or mental arithmetic.

Cyrus has expended much time researching the annals of horology to see if there were any other examples of this type of complication. The firm discovered that 'Double-Stop Movements' were registered at the New York patent office by Arnold Frankfield in 1873. The Maison states that 'to our knowledge, there is no more recent evidence of this kind of timepiece.'



Beyond its additional functionality, the Cyrus Klepcys DICE upholds the brand's reputation for eye-catching design. The new model uses blue and red hues to visually differentiate the recorded elapsed times for each chronograph. Quite simply, ease of interpretation is assured. Two monopushers, one at 3 o'clock and another located opposite, orchestrate the customary start, stop and reset sequence. However, the colours employed also enrich the overall appearance of the watch.



The hours are presented on a sapphire track, affording views of the numerous grained levers, couplings and wheels. The calibre CYR718 is endowed with column wheels presented centre stage, poised and waiting for orders, all for the delectation of the wearer.



A 30-minute chronograph register, featuring red and blue hands, is positioned at 3 o'clock, while a small seconds display resides at 9 o'clock. This latter indication features the brand's logo, a triskele, providing a stylish means of conveying the running seconds.

Coming soon

In terms of the Cyrus Klepcys DICE, there is much more to say. In the second part of this two-part feature, I enjoy a 'hands-on' experience with the model and share my observations. However, rest assured, this latest chronograph delivers significant advancement over its counterparts and successfully demonstrates the wisdom for the Swiss marque's 'Conquest of Innovation'.



THE CYRUS KLEPCYS DICE (PART TWO)

Continuing the story of the Cyrus Klepcys DICE, Angus Davies looks closely at the composition of this new watch, a timepiece which represents a new chapter in the history of the chronograph.



Previously, in the first part of this two-part feature, I provided a brief overview of the chronograph, detailing its history from 1816, when the first example was invented, to the present day. Indeed, there have been several milestones including the first time the complication appeared in a wristwatch, the advent of the flyback and the rattrapante, etc. However, since the unveiling of the self-winding chronograph in 1969, the rate of innovation has slowed considerably.

However, the recently released <u>Cyrus</u> Klepcys DICE (Double Independent Chronograph Evolution), not only represents a milestone in chronograph history, it is also a notable event in the story of the brand.

The Cyrus Klepcys DICE allows the wearer to measure the elapsed times of two separate events. This should not be confused with a rattrapante. This latter complication requires two events to commence at the same time, whereas the

Klepcys DICE, with its two completely independent chronographs, is able to time two totally unrelated events. I am not aware of any other modern-day watch that offers this facility. However, Cyrus has always had a tendency to walk on virgin snow and to follow a different path to other brands.

Recently, I had the opportunity to affix the Klepcys DICE to my wrist and appraise its composition at close quarters. I share some of my observations herein.

A complex profile

Nobody could ever accuse Cyrus of plagiarism, its watches always brim with ingenuity. The Cyrus Klepcys DICE does not subscribe to the ubiquitous round case, round dial ensemble. The luxury marque describes the housing of its latest watch as a 'cushion-shaped', however, this description does not adequately convey the complexity of its profile.



The sides of the 42mm case arc from the horns towards the crowns at 3 and 9 o'clock. As the sides of the case emanate from the lugs, a chamfered edge of increasing width emerges between the upper surface and the flank. When viewed from the side, both lugs are recessed, a characteristic that causes light to transition into darkness as it enters the contours of the case.



The outer edge of the bezel is square-shaped but with softly curving lines. This is juxtaposed with a circular aperture accommodating the dial. The region between the inner and outer edges of the bezel encompasses flat and sloping sections.

To the rear of the watch, the complex marriage of shapes continues. For example, the caseback blends flat and angled sections. Interestingly, it is retained with four bespoke Cyrus screws, each one endowed with a slot replicating the brand's logo.

Cyrus states the case comprises 26 parts and is made from Grade 5 titanium, either with or without black DLC treatment. Cyrus has suffused each case with a combination of different finishes including polished, satin-brushed and sandblasted surfaces.

Grade 5 titanium and CNC

Grade 5 titanium should not be confused with cheaper Grade 2 titanium. While this latter grade is pure titanium, Grade 5 is an alloy of titanium (circa 90%), aluminium (6%), vanadium (4%) as well as small amounts of iron and oxygen. Both grades of titanium are corrosion resistant, non-magnetic, lightweight and

hypoallergenic, making them ideal for watchmaking. Furthermore, Grade 5 titanium is stronger and can also be polished to a brilliant gleam.

As stated previously, the case of the Klepcys DICE is incredibly complex. While some cheaper steel cases are stamped, the complexity of this case design and its composition mean that CNC (computer numerical control) is the preferred method of production.

Heat generation is a major problem when milling (CNC) Grade 5 titanium as the alloy is very hard. The cutting tools have to operate at slower speeds to prevent unwanted hardening of the metal and avoid the milling tools wearing out prematurely. This heightens production times and thereby increases costs.

Furthermore, even when milling goes to plan, tools will wear out sooner when working on Grade 5 titanium, compared with other metals such as brass, steel, gold and Grade 2 titanium. This means that the cost of additional replacement tools has to be met, again inflating the production costs. Moreover, as the machines need to be stopped while tools are replaced, the case manufacturer will seek to recover the cost of downtime.

Often, those companies making cases will leave a CNC machine running, milling brass or steel overnight without any supervision. However, few firms will leave a machine milling Grade 5 titanium unattended. This is because titanium can catch fire during milling. Lastly, even if there isn't a fire, the metal can overheat to the point that it harms the CNC machine.

As the above factors show, the cost of making a case from Grade 5 titanium is substantially greater than producing a case from steel. Indeed, while the unit cost of 18-carat gold is greater than Grade 5 titanium, the cost of machining the latter alloy proves far greater. Put simply, making a case from this lightweight alloy is expensive, usually making it the preserve of high-end wristwatches.

Colour-coding

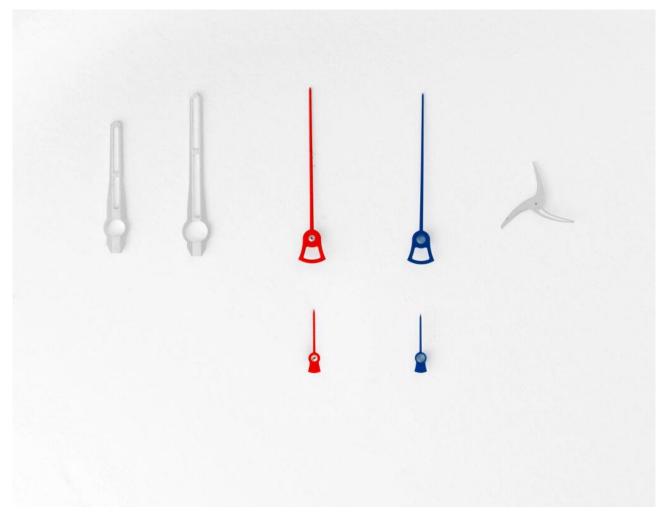
Despite the mechanical complexity of the Cyrus Klepcys DICE, the Maison has ensured that operating the watch is simple. Two crowns are located at 3 and 9 o'clock. Each one starts, stops and resets the corresponding chronograph. Beyond the black fluted rubber grip of each crown, a circlet of red or blue aluminium distinguishes one chronograph from another. The crown at 3 o'clock also winds the mainspring.



The movement, the Calibre CYR718, features two colour-coded column wheels which correspond to the respective colour-coded, crown-based circlet. The crown at 3 o'clock (see red circlet) engages with the red column wheel at 12 o'clock. Likewise, the crown at 9 o'clock (see blue circlet) converses with the blue column wheel at 6 o'clock.



The eminently logical colour-coding system extends to the central chronograph seconds hands, the 30-minute registers at 3 o'clock (one subdial featuring a scale for each chronograph) and the minute track (two scales – one for each chronograph). Positioned at 9 o'clock is a small seconds display, featuring the brand's logo sans colour. The two central chronograph seconds hands are of differing lengths, so that each precisely reaches the corresponding colour-coded scale positioned on the outer track.



Each hour is denoted with stylised Arabic numerals, save for 3, 9 and 12 o'clock. These hour markers are presented in white and positioned atop a sapphire crystal hour track. Once again, Cyrus has not subscribed to a rudimentary approach. Making the hour track from sapphire crystal is technically challenging. Indeed, when making such parts, they can easily break during the manufacturing process. However, once encased this eccentrically shaped sapphire track looks fabulous and affords improved sight of the components below, thereby justifying the effort involved. The use of sapphire components extends to the counters which are also made of the clear material, albeit in smoked form.



The Conquest of Innovation

When viewing the rear of the watch, the eyes are afforded with a view of the self-winding Calibre CYR718. The openworked oscillating mass features the brand's helix logo in 18K 4N gold and is engraved with the slogan, 'The Conquest of Innovation'. This statement underpins everything that Cyrus does.



Conceived by the legendary watchmaker, Jean-François Mojon, the movement sidesteps convention, employing two mainplates instead of the customary one. The mainplates are dressed in a stealthy shade of black microbeaded PVD. The movement comprises 443 components, including the chronograph module which is responsible for DICE system.



Interestingly, the module is inverted with a plethora of parts visible dial side, granting a spellbinding view of wheels, levers and various gears all ready to be awakened with the press of a pushpiece. Moreover, when pressing the pushpiece, the finger tips are rewarded with a silky-smooth action.



While the Klepcys DICE is a highly original watch with a very innovative movement, it still employs traditional no-compromise craftsmanship typical of fine watchmaking. For example, the wheels, levers and gears are finely decorated with numerous grained parts in evidence.

With any chronograph, the central chronograph seconds hand is subject to colossal forces as the reset pusher is pressed (return-to-zero phase). When this hand is viewed using a high-speed camera, it can be seen moving to and fro, often passing the central 12 o'clock position, before it comes to a rest. Indeed, the forces can be so great, some central chronograph seconds hands have been known to bend under the strain.



Mindful of the extreme forces involved with the return-to-zero phase, Cyrus has developed 'a special system of insulation' which mitigates potential shocks, ensuring the two chronographs work independently without influencing one another.

Again, breaking with convention, when resting, the two chronograph hands are positioned 180° apart. When the red central chronograph seconds hand is reset, it rests at 12 o'clock awaiting further instructions. Meanwhile, after the blue central chronograph seconds hand is reset, it returns to zero at 6 o'clock.

Closing remarks

When appraising the design language of the Cyrus Klepcys DICE there are several points to note. Firstly, there is a sublime symmetry to the composition courtesy of the two crown arrangement, the two counter design and the twin chronograph seconds hands. The result is a watch blessed with a wonderfully harmonious appearance

Secondly, Cyrus has expended much effort on the case. It encompasses 26 parts, involves a technically challenging production process and is endowed with numerous facets and finishes. There is nothing perfunctory about this housing, indeed, it is the result of a protracted, painstaking creation process.

Furthermore, although the shape of the case is unusual and complex, it also proves eminently comfortable to wear.



Lastly, the dial features three-dimensional architecture, presenting numerous chronograph components at different levels. The wearer can see a performance of horological choreography as parts, usually hidden from view, engage with one another. The result is a spellbinding vista that transcends mere functionality, delivering a visual allure par excellence.

Without doubt, the Cyrus Klepcys DICE brings something new to the world of Haute Horlogerie and clearly reinforces the company's mantra, 'The Conquest of Innovation'.

Further reading

https://www.cyrus-watches.ch/

Technical specifications

- Model: Cyrus Klepcys DICE
- Reference: 539.508.TT.A (polished titanium)

- Reference: 539.508.DD.A (black DLC titanium)
- Case: Diameter 42mm excluding crown, water resistance 10ATM (100m), sapphire crystal to the front and exhibition caseback.
- Functions: Hours, minutes, small seconds, 30-minute counter of the double independent chronograph at 3 o'clock, double hands in red and blue, two central chronograph hands; red hand resets-to-zero at 12 o'clock, blue hand resets at 6 o'clock
- Movement: Calibre CYR718; automatic movement; frequency 28,800 vph (4Hz); 51 jewels; power reserve=60 hours
- Strap: Grey Cordura fabric strap with folding clasp in same material as case, customised with Cyrus logo. Additional black rubber strap
- Price: £33,250 (polished titanium) / £34,250 (black DLC titanium) recommended retail prices as at 19.10.2021
- Limited: 50 pieces in each case material