

# MAZDA CENTENARY



100 years of a Japanese Success Story

## ROTARY

Experience the story behind this legendary engine – and why Mazda would not be the same without it.

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## DESIGN

Learn more about Mazda's evolving design approach, and why it is inextricably linked to its Japanese origins.

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## TECHNOLOGY

Independent and creative: Mazda's engineering follows a unique path of innovation.

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For further information on official fuel consumption and official specific CO2 emissions for new passenger cars, please refer to the "Guide about fuel consumption, CO2 emission and electric energy consumption of new passenger cars" ("Leitfaden über den Kraftstoffverbrauch, die CO2-Emissionen und den Stromverbrauch neuer Personenkraftwagen") which is available free of charge at all Mazda showrooms and at Mazda Motors (Deutschland) GmbH, Hiltendorfer Straße 73, 51371 Leverkusen.



# 2020

marks a very special occasion for Mazda: It is the year the company is becoming a *shinise*. In Japan, this term is reserved for companies with an exceptionally long history and proud tradition. On January 30th, Mazda's 100th anniversary, we are joining this exclusive club – and what a hundred years it has been! In this time, we as a company have accomplished a lot.

Mazda has turned itself from a manufacturer of cork products into an internationally recognised and successful independent automotive manufacturer. We have revitalised the rotary engine and have developed a host of our own ground-breaking technologies, including the latest Skyactiv-X, which is pushing the limits of the internal combustion engine and is already a great success.

We have established a unique design language that marries Japanese tradition with contemporary style; human craftsmanship with modern production procedures. We have launched iconic models which have been delighting fans for decades now. And we have won over the hearts of millions of loyal customers all over the world – not least here in Europe – and sold about 1,5 million cars in 2019. Over the decades, Mazda has seen shocks and tragedies as well as tremendous successes and triumphs. This important milestone is a chance to look back and reflect on some of the important steps that got us to where we are today, and this publication has been created to do just that.

Browsing through it, you will get a deeper appreciation of Mazda and its roots. But it is also an opportunity to look towards the future and understand what lies in store for Mazda.

In the years to come, we want to keep on perfecting the joy of driving for our customers. That also means that we will continue to achieve our ambition of being a more premium brand, something we are accomplishing with our new generation of products with their refined design and excellent engineering. At the same time, we are committed to reducing carbon emissions with our multi-solution strategy – not only on paper, but in the real world, from well-to-wheel.

Bringing both together will certainly be challenging. But challenges have never deterred us. In fact, our particular outlook on potentially daunting prospects – what we call our Mukainada or Challenger Spirit – is in large part what got us this far. But we could not have done it alone. On this special occasion, let me express my sincere gratitude to all our employees, fans, dealer partners, investors, and everyone else in the Mazda community that have stood with us until this point. It is my hope that, as together we look back on the first hundred years, we will see them as the beginning of an even brighter future for Mazda – a future we continue to create together.

I hope you enjoy the stories of Mazda's 100 years of history in this anniversary magazine!

**YASUHIRO AOYAMA**

President & CEO Mazda Motor Europe



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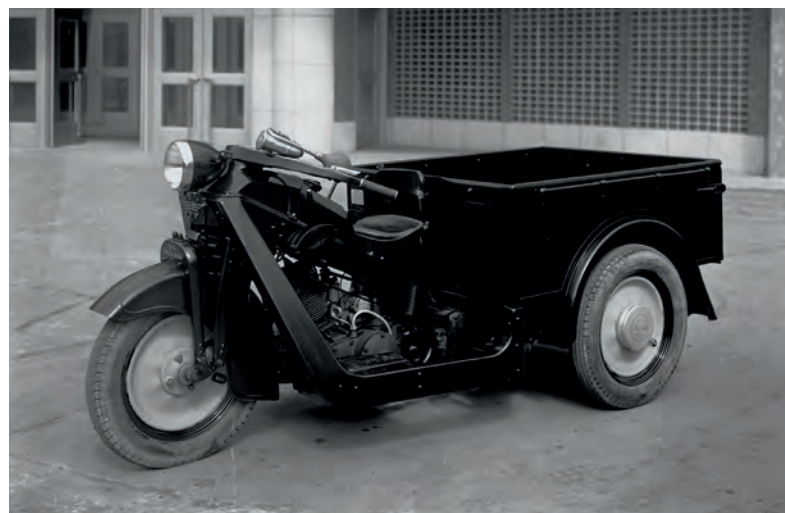
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## 1

## MAZDA AND HIROSHIMA

A shared history creates a special bond. Mazda's own story is inextricably bound up with its birthplace, Hiroshima. From 1920 until today, they have shaped each other in significant ways, lifting each other up through a very special history.

Photo: Sean Pavone / Shutterstock.com





# PHOENIX FROM THE ASHES

The name Hiroshima is, and probably always will be, connected with one devastating event: the dropping of the first atomic bomb. Since then, the city has changed dramatically, but its extraordinary history is omnipresent – in its people as well as its businesses.

Today, Hiroshima is a thriving and beautiful city.



When visitors come to the city of Hiroshima for the first time, there is one thing they rarely expect to find there: beauty. And that's why, after stepping off the JR Shinkansen on a sunny summer day and taking a ride to the city centre in one of the famous trams, they might be surprised and genuinely overwhelmed by some of the sights. By the bold elegance of the five-storey tower of Hiroshima Castle. By the velvety green gentleness of the Shukkei-en Gardens on the banks of the Ōta River, the beautiful views on their ferry ride to Miyajima island, or the taste of a delicious Okonomiyaki pancake.

## WAR AND PEACE

At the same time, of course, the viciously tragic history of Mazda's hometown in the south-west of Japan is present and almost tangible on every street corner. The skeletal grid of the dome on top of Hiroshima Peace Memorial, the city's best-known piece of architecture, constantly reminds every passer-by of the horrible events of 6 August 1945: the building, which was used as a product exhibition hall at the time, is one of the few constructions that at least partly withstood the explosion of the US atomic bomb which destroyed most of the city – and with it, centuries of economic and cultural history.

Photo: Sean Pavone / Shutterstock.com

Mass production of the first Mazda passenger car, the R360 coupé, started in 1960.



A big bridge connects the two parts of the Mazda headquarter in Hiroshima.



A Mazda 3-wheeler on the streets of Hiroshima: soon a familiar sight.

## RISE AND FALL OF A CITY

Hiroshima literally means "large island" in Japanese, alluding to the geography of the Ōta River delta. After being founded as a castle town in 1589, it quickly grew and developed into a major urban centre and industrial hub. In the 19th century, a port and a railway line were built. Prospering industrial structures and the relevance of local products like cotton, bamboo, vegetables and seafood made the city economically and strategically important. In 1929, with a population of over 270,000 people, Hiroshima was the seventh largest community in Japan.

At the same time, Toyo Kogyo, a manufacturer of cork materials founded in 1920, was preparing its move towards the transportation industry: under the direction of company president Jujiro Matsuda, series production started on the auto-rickshaw called the Mazda-Go, a commercial three-wheeler, in 1931 – the

company's first vehicle and a major success. It surely was no coincidence that one of Japan's most exciting enterprises developed its business within this biotope of economic bloom.

Then disaster struck. On 6 August 1945, a US fighter plane dropped the nuclear bomb dubbed "Little Boy" – after the Allies turned their full attention to the Pacific theatre of World War II. It hit the city literally out of the blue. The suffering and devastation it brought were beyond compare, and the consequences are still felt today. It would have been perfectly understandable for any community to sink into depression after an experience like this. In the case of Hiroshima and Mazda, however, this did not happen – quite the contrary. In his book "Hiroshima" author John Hersey describes the atmosphere of the city one year after the fateful event as "a curious kind of elated community spirit, something like that of the Londoners after the Blitz – a pride in the



»MORE THAN 50 PERCENT OF OUR EMPLOYEES ARE FROM THE HIROSHIMA REGION, SO WE HAVE A VERY STRONG WISH TO CONTRIBUTE TO ITS SOCIETY.«

MASAHIRO MORO, SENIOR MANAGING EXECUTIVE OFFICER

way they and their fellow survivors had stood up to a dreadful ordeal.” After the initial shock came an impulse to stick together, to never ever give up, to put all possible effort into making the best out of even the seemingly worst situations. Of looking forward without ignoring or denying the past.

A SPECIAL PLACE WITH A SPECIAL SPIRIT

In this vein, the history, legacy and future of Mazda and Hiroshima are closely connected. There is even a name for this at Mazda: the Mukainada Spirit. Mukainada is the district in the southeast of the city where the company was founded. Since this site was a few miles away from the epicentre of the bomb, partly protected by Mount Hijiya, damage to the buildings was not as severe as in most of the rest of the city. Consequently, the company – which of course suffered heavy losses as well – immediately took responsibility and contributed as much as possible to the first aid and long-term rebuilding efforts.

Employees began distributing medical supplies and set up consultation centres that would help families to reunite. Factory facilities were cleared to become shelters for the homeless, emergency hospitals, and even temporary offices for the local government and national broadcasters. As much as Mazda had profited from the spirit of the Hiroshima area before, the company was now able to serve and motivate the people, who were longing for a future to look to.

Only four months after the attack, the production of three-wheel trucks was ready to start anew. For the population of Hiroshima, the revival of Mazda was a stunning sign of the revival of the city itself, of its rise like a phoenix from the ashes. The city's and the company's fates became intertwined, and they still are to this day: “More than 50 percent of our employees are from the

Hiroshima region, so we have a very strong wish to contribute to its society”, says Masahiro Moro, Senior Managing Executive Officer at Mazda, who has been with the company for more than thirty years now.

A FORCE FOR THE FUTURE

Today, roughly 75 years after the catastrophe, the rebuilt Hiroshima is not only the largest city in the Chūgoku region of western Honshu island, with more than two million inhabitants and a buzzing cultural and economic life. It has also become a world-wide symbol of mankind's struggle for peace.

These efforts are based on the same ideas that have fuelled the story of Mazda for one hundred years. The Mukainada Spirit – the belief in doing things your own way, never giving up and striving for the exceptional – can be traced from the company's beginnings as a cork manufacturer through its remarkable development into an automotive innovator and the rediscovery of the rotary engine up to recent major innovations, like the Skyactiv Technology. All these breakthroughs were inspired by the Hiroshima way of facing challenges, always regarding a situation as an invitation to improve it. All this was born from the Mukainada Spirit. And this spirit will continue to shape Mazda's visions for tomorrow. “In order to make things better in the world, leaders have never given up in the face of difficult challenges and conventional thinking,” said Nobel Peace Prize winner Lech Walesa in 2014, when Mazda was a partner to the World Summit of Nobel Peace Laureates, adding, “Mazda shares this passion, and I am very happy to be working together with them.” Working together – you could not find a better expression for the way Mazda and Hiroshima are going to shape their mutual future. ◀

Photo: Sean Pavone / Shutterstock.com

HIROSHIMA RISING:  
THE BEGINNING OF THE MAZDA STORY



1920

On January 30th, the cork manufacturer Toyo Cork Kogyo Co. Ltd. is established in Hiroshima.

1921

President Jujiro Matsuda switches the company from cork products to machine construction.



1930

The company's first motorised vehicle is developed.

1931

The vehicle goes into serial production under the name “Mazda-Go” – the first time the later company name appears.



1936

Although still called Toyo Kogyo, the company logo now features a stylised “M” for Mazda.

1940

Mazda presents its first passenger car prototype, but mass production is prevented by World War II.



1945

After the dropping of the atomic bomb, all production is halted and the factory halls are used as emergency hospitals. Production starts up again towards the end of the year.



Legendary

Mazdas

# R360 COUPÉ



## 1960

The way from cork products to the first mass-produced passenger car was long – but 40 years after the founding of Toyo Kogyo, the R360 Coupé left the factory floor to conquer the streets of Hiroshima. It was an instant success.



# Legendary Mazdas

## R360 COUPÉ

PRODUCTION PERIOD:  
1960–1969

ENGINE:  
V-twin

DISPLACEMENT:  
356 cm<sup>3</sup>

MAX. POWER:  
12 kW/16 PS

TOP SPEED:  
85–90 km/h

MIN. KERB WEIGHT:  
from 380 kg

PRODUCTION NUMBERS:  
65,737 units

The launch coincided with a boom in the Japanese economy, making car ownership more widespread across the country.



The R360 Coupé is a microcar, or kei car as they are called in Japan. Although it can seat four, it is ideally suited for two people.

The iconic sixties style of the R360 Coupé still resonates with fans today.



About €2,500

# ¥300,000

WAS THE INITIAL PRICE  
FOR THE R360 COUPÉ – A GOOD  
DEAL EVEN AT THE TIME.





## 2

THE ROTARY  
ENGINE

The engine: the heart of any car. Making it smooth, powerful, characterful and fuel-efficient is any manufacturer's ambition – but there are different ways to get there. With the rotary engine, Mazda pursued a daring approach.





# NEVER STOP CHALLENGING

What do a German engineer in the 1920s and a Japanese executive in the 1950s have in common? A shared vision of a completely new type of engine. The road to success, however, was not always easy.



The manufacturing of the rotary engines requires a high amount of precision.

Imagine having it all. A compact, lightweight engine with a lot of power. Small displacement and yet a smooth torque curve. A high-revving engine that is simultaneously durable. Appealing sound but no vibrations. It does sound like a dream, doesn't it? A century ago, a German engineer laid the groundwork for making it come true, and in 1967, Mazda launched the world's first car powered by a twin-rotor engine. Ever since, the rotary engine has been closely associated with Mazda as an astonishing engineering achievement. Dozens of car makers had attempted to develop such an engine, but one after the other gave up when it turned out to be more difficult than expected. Mazda's engineers, however, kept challenging themselves – until they succeeded. This success story is one of engineering prowess and persistence. But in the beginning, it actually did start as a dream.

## DREAMING OF A BETTER ENGINE

In the summer of 1919, a 17-year-old German boy named Felix Wankel saw it clear as day in his sleep: he went to a concert in his own hand-made car. It even had a new type of engine: "a half-turbine, half-reciprocating engine. I invented it!" When he woke up, he saw things even more clearly. This new engine could achieve four cycles – intake, compression, combustion and exhaust – while rotating. It was an engine principle that had been thought of and attempted countless times by people all over the world since the 16th century. Putting it into action, however, had proved difficult: while the principle worked well enough with water pumps, sealing became an issue with steam

»DOZENS OF CAR MAKERS  
ATTEMPTED TO DEVELOP A  
ROTARY ENGINE, BUT ONE AFTER  
THE OTHER GAVE UP.«

and combustion engines. Sooner or later, every attempt was given up. Yet on that day, Felix Wankel decided to chase his dream until it was realised.

After the then-prominent motorcycle manufacturer NSU had created a partnership with Wankel, the first Wankel rotary engine, the KKM 250, was officially presented in January 1960 and built into NSU's Prinz III model. Around 100 companies from across the world showed interest in the technology – among them Mazda. As an engineer with a passion for technology, president Tsuneji Matsuda immediately saw the potential of the rotary engine for keeping Mazda an independent, technology-driven company. At the time, the Japanese government was in the process of restructuring the Japanese automotive industry – and there was no guarantee that Mazda would be left standing as a result. A strategic partnership with NSU to advance the rotary engine seemed just the thing to ensure Mazda's existence as an independent and innovative company. In July 1961, a contract between NSU and Mazda was formally signed. It soon became clear, however, that some obstacles still had to be overcome. Vibrations within the engine were causing abnormal wear within the housing. Oil leaking into the combustion chamber was causing thick clouds of white smoke. And NSU's single-rotor design, while stable enough at high engine speeds, demonstrated suboptimal torque characteristics at lower engine speed.

Through extensive research into the engine's sealing, the vibration and leakage issues could be overcome. The torque problem, meanwhile, was fixed by developing the world's first two-rotor rotary engine, with a torque fluctuation similar to a traditional six-cylinder reciprocating engine. The hard work of a team of 47 Mazda engineers – a number that holds special significance in Japanese culture due to the tale of the 47 *Rōnin* (leaderless Samurai) – since the early 60s had finally paid off, at a time when the very existence of Mazda was threatened by the political restructuring. Launched in May 1967, the Mazda Cosmo Sport was the first car to receive such a dual-rotor engine, three months before NSU put out their Ro 80 model. And it managed to impress not only with its performance and unique design, but also ►



Artwork: Katsushika Hokusai 1760-1849

## THE 47 RŌNIN

The story of the 47 *Rōnin*, or leaderless samurai, is among the most popular events of Japanese history. In the early 18th century, an altercation with a high-standing court official forced a Japanese lord to commit *seppuku*, or ritual suicide. 47 of his most loyal samurai vowed to avenge their master's death by killing the culprit – knowing that this act would cost them their own lives. To many Japanese, the story is emblematic of samurai principles such as loyalty, honour, and sacrifice in the name of what is right. Admittedly, the Mazda story is much less bloody – but the 47 engineers working on the rotary engine also fully committed themselves to a goal that they deemed important while, to many outsiders, it might have seemed pointless or even self-destructive.





Many of Mazda's rotary models are still considered iconic today.

with its reliability. Road tests over a six-year period and more than three million kilometres as well as its successful participation in the gruelling endurance race “Marathon de la Route” in 1968 spoke louder than words. It was official: young Felix Wankel's dream had finally become reality. Only a few years later most major car manufacturers were working on their own versions of the rotary engine.

A CONVINCING CONCEPT FOR A MULTITUDE OF APPLICATIONS

Already in its first iteration, the rotary engine was able to demonstrate its advantages: huge power output from a small and light-weight engine, a flat torque curve, low noise and little vibration, a less complex structure with fewer moving parts, and high durability due to the rotor turning at only a third of the engine speed. And Mazda continued to refine the formula and developed ever new models that leveraged the unique characteristics of the engine for different application purposes. The Mazda R100 Coupé debuting in 1968, for example, coupled a two-rotor rotary engine with a thermal reactor that reduced hydrocarbon emissions to meet strict new US emission laws. In 1972, Mazda also brought low-emission technology to the Japanese market by launching the first production car equipped with a Rotary Engine Anti-Pollution System (REAPS). The 1970s oil crisis also challenged car manufacturers to increase their fuel economy. Mazda placed their bet on the rotary engine once again and initiated the “Phoenix Project” with the goal of improving fuel efficiency by 40 percent. The goal was met by enhancing the combustion systems and carburettors as well as incorporating a heat exchanger in the exhaust system. The sporty RX-7 launched in 1978 bore witness to the success of this initiative as it combined high performance worthy of a sports car with all the achievements in terms of fuel efficiency.

But while the rotary engine proved to be efficient and clean, it could also flex its muscles. The 1980s saw a rise in popularity of the turbocharger for a higher engine power output. And the rotary engine was particularly suited for this technology as its exhaust system inherently offered more energy to drive a turbo-charger. In 1982 Mazda launched the Cosmo RE Turbo with the world's first turbocharged rotary engine. It was the fastest commercial car in Japan at that time and vividly demonstrated the desirability of this engine concept. Further refining this recipe, Mazda launched the second-generation RX-7 with a twin-scroll turbo to reduce turbo lag and increase power delivery and responsiveness across the whole rev range. More advances such as the three-rotor rotary engine with a Sequential Twin Turbo system in the 1990 Mazda Eunos Cosmo, approaching the output of a V12 reciprocating engine, helped to solidify Mazda's unique engine concept as a household name in the car world. And on top of it all, the extraordinary engine sound during particularly high revving is unique music to the ears of sport cars enthusiasts around the world.

The most recent example, the RENESIS engine in the RX-8, successfully brought the concept into the 2000s in the form of the most technologically refined rotary engine yet. Not shying away from competition, Mazda also sent its unique engine type into countless race events with great triumphs such as winning the 1991 24 Hours of Le Mans. Successes like that do not come easy. But good things in life rarely do. It was Mazda's convention-defying “never stop challenging” spirit that made this success possible – the same spirit that also delivered the ground-breaking Skyactiv Technology. And as a range extender for electric vehicles, the rotary engine will continue to carry the torch for this spirit into the future. ◀



The rotary engine proved its endurance at its first showing in an 84-hour race in Germany.



LEFT: The victorious 787B in the 24 Hours of La Mans race in 1991. RIGHT: 10 years before, the RX-7 won the 24 Hours of Spa Francorchamps.

THE ROTARY ENGINE IN RACING SPORT

Racing sport is the true test for automotive technology – if it works on the track, it will work on the road. Aware of that, Mazda was quick to prove the rotary engine's qualities in a competitive environment. After launching the world's first mass-produced two-rotor rotary engine car, the Cosmo Sport, in 1968 Mazda sent a modified version to the international Marathon de la Route, a gruelling 84-hour race on the Nürburgring Circuit in Germany. This race event required participating cars to run at full power for four full days – the ultimate test for man and machine! When the Cosmo Sport, as the only rotary engine car, came in 4th place overall, racing enthusiasts all over the world were simply amazed. It was there for everyone to see: the rotary engine did not only exist – it was also reliable and fast, making it able to compete with the best. From this point on, rotary engine Mazda cars saw continuous racing action with outstanding results. The Savanna RX-3, for example, dominated the Japanese racing scene with 100 victories in domestic race events in the years 1972 to 1976. The RX-7 racing car continued to win the International Motor Sports Association (IMSA) series championship in the GTU class for eight years in a row, a first in IMSA history. When the RX-7 began to compete in the GTO and GTP classes, it got a total of 100 victories by 1990, an IMSA series record. And even when things got tougher, Mazda rotary engine racing cars were up to the task, as the RX-7 rally car demonstrated when it placed favourably in several World Rally Championship races – as a rear-wheel drive car going up against all-wheel drive competitors.

There was one event, however, that held special significance for Mazda: the oldest and most prestigious endurance race in the world – the 24 Hours of Le Mans. If the rotary engine could win there, it could do almost anything. In 1970, a private team of Belgian drivers entered a Chevron B16 powered by a Mazda-supplied rotary engine, the first of several Le Mans showings for the new engine type. For 20 years, rotary-engine cars were able to place well in the endurance race, but being first had been the goal from the beginning. In 1990, the Mazda 787 entered the race with a newly developed four-rotor engine and a full-carbon twin-tube chassis. The first racing appearance for the new car was unfortunately not yet crowned with success. But then came Le Mans 1991... The Mazda 787B entered the race as an optimised version of the 787, with greatly improved power and fuel efficiency of the four-rotor engine. Good prerequisites for success, and it's a good thing they were, since the organisers of the event had just announced that starting the following year, the race would be restricted to 3.5-litre reciprocating engines. It was the rotary engine's final chance for victory at Le Mans. At 4 o'clock in the afternoon of 23 June 1991, after driving 4,922.81 kilometres at an average of 205 kph, and leaving the 230,000 spectators with a lasting memory of the unique thrilling sound of the raging 4-rotor engine, the Mazda 787B crossed the finish line at Le Mans. The long-awaited first place at Le Mans had finally been achieved. And the rotary engine had provided the ultimate proof of its capabilities.



# ROTARY SUCCESS



ABOVE LEFT: The Cosmo Sport 110 S turns heads as it drives through Montmartre in Paris.  
ABOVE RIGHT: The Eunos Cosmo impressed fans and critics with its luxurious interior.  
BELOW: The RX-2 is still a cult car in Australia and New Zealand.



# THE FUTURE OF THE ROTARY ENGINE



The Mazda MX-30 is about to feature a rotary engine range extender.

At the 2019 Tokyo Motor Show, Mazda showcased its first fully electric car – the MX-30\*. Given the similarity to the MX-5 in name, one would be forgiven for thinking of a sports car. But the Mazda MX-30 is in fact an SUV. The “MX” badge is simply given to special cars in the Mazda line-up, ones that are designed and engineered to challenge the assumptions in the automotive industry. And the MX-30 definitely qualifies for that. A small, compact and lightweight SUV with recycled, sustainable materials, great driving characteristics and lots of smart electronic technologies, all for an affordable price, it is a unique concept once again demonstrating Mazda’s spirit of defying conventions when it comes to creating cars. Has this, however, dealt the death blow to the rotary engine – Mazda’s unique engine concept it had worked so hard on when everyone else just gave up? That would be a definite “no”. On the contrary, the MX-30 will be the car heralding the renaissance of

rotary engines in Mazda cars: it is planned to act as a range extender for the electric drive system in the new compact SUV. Why use a rotary engine for that purpose? Because the advantages of the rotary engine make it a perfect fit: it can be built compact and integrated into a full-electric vehicle very easily. It weighs significantly less than a comparable reciprocating engine, increasing the overall efficiency of the car. Even in its compact and lightweight form, it delivers a considerable amount of power. And its unique working principle means unparalleled smoothness and quietness of operation, making it a great choice for use in an all-electric vehicle. So, after half a century of changing people’s perceptions of what a combustion engine can do, the rotary engine will retain its relevance for propulsion concepts above and beyond the average. Even young Felix Wankel probably did not see this coming in his wildest dreams. Through Mazda’s perseverance, however, his legacy will live on in the future.

\*Mazda MX-30 combined electric power consumption: 19 KWh/100km (WLTP); combined CO2 emissions: 0 g/km. Vehicles are homologated in accordance with the type approval procedure WLTP (Regulation (EU) 1151 / 2017; Regulation (EU) 2007 / 715).



Legendary

Mazdas

# COSMO SPORT



## 1967

This model holds a special place in the hearts of Mazda and motorsport fans: As the first dual-rotor rotary engine car on the market, it launched Mazda's successful line of rotary racing cars.



# Legendary Mazdas

## COSMO SPORT

PRODUCTION PERIOD:  
1967–1972

ENGINE:  
two-rotor rotary engine

DISPLACEMENT:  
491 cm<sup>3</sup> per chamber

MAX. POWER:  
81 kW/110 PS –  
94 kW/128 PS

TOP SPEED:  
185–200 km/h

MIN. KERB WEIGHT:  
from 940 kg

PRODUCTION NUMBERS:  
1,176 units

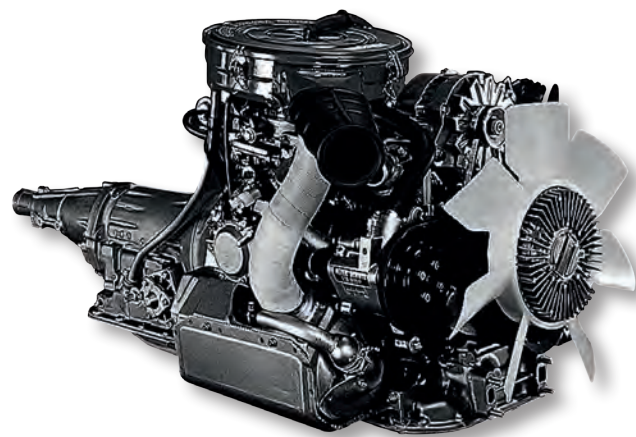


“MORE LIKE FLYING  
THAN DRIVING,”  
THOUGHT THEN  
PRESIDENT TSUNEJI  
MATSUDA.

The only sports  
car of its kind,  
the Cosmo Sport  
sold about 30 units  
per month.



The first 1964 prototype didn't come in the same cult white colour as the production launch car.



The successful use of a rotary  
engine in a production car was  
a turning point for Mazda.

An exceptional driving  
experience and futuristic,  
sporty styling made the  
Cosmo Sport a fan favourite.





## 3

MAZDA  
TECHNOLOGY

Innovation is the mother of longevity. Over the last one hundred years, Mazda has constantly been pioneering new technologies – some of them fundamentally shaping the DNA and the future of the company.





# THE MAZDA WAY: A UNIQUE ENGINEERING SPIRIT

The world of mobility is constantly changing as new technologies emerge and driving habits change. How do car manufacturers stay ahead of the curve when it comes to innovation? At Mazda, the answer is boldness, persistence and an unwavering desire to do better.

There are countless factors that drive automotive innovation: market development, general trends in technology and society, political and historical events, or visionary individuals with grand ideas. For Mazda, the urge to stay ahead of the game in terms of technology, engineering and creativity has always been especially motivated by a strong human-centric point of view: the wish to maximise the joy of driving, to connect drivers with their cars as closely as possible.

Drawing from a rich history of innovation, let's take a closer look at some highlights from 100 years of history – five milestones that epitomise the Mazda way of putting new thoughts and ideas into practice.

### A BOLD STEP INTO A NEW BUSINESS: THE MAZDA-GO

How can we make people's lives easier with technological excellence, further improve on existing concepts and achieve class-leading performance that puts us ahead of our competitors? The Mazda-Go, a three-wheel open truck and the first vehicle ever produced by Toyo Kogyo (later Mazda) in 1931, already embodied several important characteristics of the company's approach to automotive innovation. After being founded on 30 January 1920 in Hiroshima as a manufacturer of cork materials, the business switched to machine tool production when the wide availability of natural cork had changed the game. At the same time, the Japanese demand for motorised three-wheel trucks grew during the years of economic upturn – and Jujiro Matsuda, who had become President of Toyo Kogyo in 1921, realised that his company had the necessary engineering expertise to enter the automotive market.

The Mazda-Go Type-DA was introduced in October 1931, equipped with an in-house developed air-cooled one-cylinder engine (482 cc, 9.4 PS/6.9 kW) powering the rear wheels through a three-speed gearbox. It was the first product launched under the Mazda brand – a name that alludes both to Ahura Mazda, the Persian god of light, wisdom, intelligence and harmony, and to Jujiro Matsuda's name. After this overnight triumph, the first prototype of a four-seater limousine saw the light of day

in 1940. In 1960, finally, the Mazda R360 was the first Mazda passenger car to hit the roads of Japan – and a pinnacle of innovation in terms of lightweight construction, engine and bodywork concept. But Mazda engineers were already working on their next technological upheaval.

### FUTURISTIC TECHNOLOGY AND GROUND-BREAKING STYLE: THE COSMO SPORT 110 S

It was the major sensation of the 1964 Tokyo Motor Show: on a rotary-shaped stage, Mazda unveiled the prototype of the Cosmo, the world's first production car with a two-rotor rotary engine – a unique fusion of cutting-edge technology and tantalising design. Its development is a perfect example of the almost stubborn persistence that is sometimes needed to make great ideas work. Invented by Felix Wankel in the 1920s, the technology was sending shock waves of excitement through the automotive world, but was beset by many difficulties. Yet Mazda did not give up on trying to develop the rotary for a mass production car. Legend has it that one major problem – the chatter marks on the inner walls of the rotor housing, the so-called "nail marks of the devil" – was solved by one engineer looking at the carbon end of his pencil. This inspired him to suggest the use of high-strength carbon-infused rotor seals.

After the success of the pioneering Cosmo model, the rotary became a staple of the Mazda portfolio. Models like the RX-7 showed the potential of this revolutionary engine in the world of sports cars and became a cult favourite. But the pioneer, the 1967 two-seater, is still regarded as a legend by collectors and connoisseurs around the world; not the least because of its sleek and ground-breaking style. Accordingly, the slogan Mazda used for launching the Cosmo in May 1967 was confident but not at all exaggerated: "The world's most creative automotive company".

### ANOTHER APPROACH TO HYDROGEN: THE RX-8 HYDROGEN RE

One major advantage of the rotary engine might not have been obvious to most when it was first introduced: it lends itself



ABOVE: The revolutionary Mazda Skyactiv-X engine technology was firstly introduced 2017.

Mazda's first venture into the vehicle business: the Mazda-Go.



RIGHT: The first commercially available Mazda with hydrogen technology: the RX-8 Hydrogen RE. BELOW: The Mazda Cosmo Sport – the world's first rotary engine powered sports car.



exceptionally well to the use of hydrogen. The unique construction design makes implementing the necessary changes comparatively easy and cost-effective – and that is exactly what Mazda engineers did in 1991. At that year's Tokyo Motor Show, the company unveiled the HR-X, its first concept car powered by a hydrogen internal combustion engine. Emitting nothing more than hot water steam, the model offered superb environmental performance.

The RX-8 Hydrogen RE, presented in 2003, became the world's first available model using this technology. A dual-fuel system enables the car to run on either gas or hydrogen, the latter for a distance of around 62 miles with one filling. The so-called RENESIS hydrogen rotary engine draws in air from a side port, injecting hydrogen directly into the intake chamber. The fact that there is a separation between the low-temperature intake chamber and the high-temperature combustion chamber im-

proves combustion and helps to avoid the backfiring effect that has often been a major issue with hydrogen engines. In 2012 Mazda presented the Mazda5 Hydrogen RE Hybrid concept that added a third component to the system: an electric drive option. Although this was only available for lease in limited quantities, it represented another big step forward.

### OPTIMISATION AND ELECTRIFICATION: THE MAZDA CX-30 AND THE MAZDA MX-30

Rather than focusing solely on one drive technology, Mazda has opted for a multi-solution approach that factors in the advantages and disadvantages of different engine types. This approach has been instrumental in another major step of innovation: the breakthrough Skyactiv technologies that use the untapped potential of gasoline and diesel cars. Mazda announced in 2010 ▶





The MX-30 is Mazda's first mass-produced fully electric vehicle.

its outline for its next-generation core vehicle technologies engine, gearbox, body and chassis under the collective name Skyactiv Technology. The Skyactiv-G gasoline engine attained a new level of fuel efficiency, power and exhaust performance thanks to its compression ratio of 14:1 – a figure comparable to that of a racing car. And the highly efficient Skyactiv-D diesel engine can meet the strictest exhaust gas regulations without the aid of NOx (nitrogen oxide) aftertreatment systems.

Next was the Skyactiv-X, an internal combustion engine equipped with proprietary Spark Controlled Compression Ignition (SPCCI) technology. First introduced in August 2017, it combines the greatest benefits of both gasoline and diesel technology. The principle: Only a small, dense amount of the fuel-air mix is ignited in the cylinder. As this raises the temperature and pressure, the remaining fuel-air mix ignites under pressure, just like in a diesel. “The point was to reduce carbon dioxide emissions on a well-to-wheel basis - from the point of fuel extraction to driving the vehicle”, says Eiji Nakai, General Manager at the Powertrain Development Division. While this direction of research was ex-

plored by different big-name manufacturers, only Mazda has so far been able to bring it to mass production. The CX-30, for example, Mazda’s new compact crossover SUV, will feature all three Skyactiv engines with improved fuel efficiency. And it also exemplifies the new, even more human-centred vehicle architecture that goes with the Skyactiv idea.

Meanwhile, the 2019 Tokyo Motor Show saw the launch of the company’s first model that was specially designed as an emission-free battery electric vehicle, the Mazda MX-30. Powered by a 35.5 kWh battery with a power output of 105 kW/143 PS, it offers a range of around 200 kilometres. In a further evolution, a second version will include a rotary engine serving as a range extender for the electric drive system. The MX-30 will go on sale in Japan in the second half of 2020 – a significant start into the next hundred years of Mazda innovation, following the company’s great vision, which is that the further evolution of sustainable technologies, an open, multi-solution approach in engine technology and the pursuit of driving fun will constitute the future of mobility. ◀

# MAZDA TECHNOLOGY MILESTONES

## 1930

Mazda releases its first vehicle: the Mazda-Go, a three-wheeler meant mainly for transporting goods. Series production starts 1931.

## 1960

The Mazda R360 Coupé is an early paragon of lightweight construction. At only 380 kilograms, it is the lightest car produced in Japan at the time and the first kei car with a four-stroke cycle engine made of aluminium. Consumption: 3.1 l/100 km.

## 1967

The first two-rotor rotary engine production car, the Mazda Cosmo Sport 110 S, hits the roads. A sport coupé with great performance for the time (185 km/h, 0 to 100 km/h in 8.7 seconds).

## 1973

Mazda introduces autonomous driving technology in the form of the CVS Personal Car: a driverless, electrically powered vehicle that is way ahead of its time.

## 1983

The Mazda Bongo Sky Lounge uses solar panels to regulate the AC – technology that made it to mass production in the 1993 Mazda 929 and has since gained popularity with other manufacturers.

## 1987

Introduced in the Mazda 626, the new proprietary Mazda four-wheel steering technology improves both agility and safety.

## 1991

Mazda introduces its downsized 1.8 V6 engine at the International Motor Show IAA. Lighter, more compact and more fuel-efficient, it still offers power and character.

## 1992

The Mazda 626 GLX debuts the world’s first 2.0-litre pressure wave supercharger – the Comprex diesel combines high torque and performance with low emissions.

## 1995

The Miller Cycle technology is introduced in the Xedos 9. The result: less engine knocking, higher air compression and ultimately more power.

## 2019

Skyactiv-X, a revolutionary new petrol engine combining the advantages of both gasoline and diesel combustion, is vastly improving the environmental performance of new-generation Mazda cars.



Legendary

Mazdas

# LUCE R130 ROTARY COUPÉ



## 1969

Luce is Italian for "light", and indeed, the Luce Rotary Coupé still shines among the most iconic models in Mazda's history.



# Legendary

## Mazdas

### LUCE R130 ROTARY COUPÉ

PRODUCTION PERIOD:  
1969–1971

ENGINE:  
two-rotor rotary engine

DISPLACEMENT:  
655 cm<sup>3</sup> per chamber

MAX. POWER:  
93 kW/126 PS

TOP SPEED:  
190 km/h

MIN. KERB WEIGHT:  
1,185 kg

PRODUCTION NUMBERS:  
976 units



The Luce Rotary Coupé marked Mazda's entry into the luxury car segment.

THE NICKNAME OF  
THIS LEGENDARY MODEL:  
LORD OF THE ROADS.



The concept RX-87 was a wonderful preview of the production car to come.



Based on the concept RX-87 and with 126 PS offering a maximum speed of 190 km/h, the Luce Rotary Coupé was ready for any road adventure.



The A-line style body was based on a Bertone original design from Italy, but modified by Mazda's designers to suit the company's tastes.



## 4

## MAZDA DESIGN

Every culture has its own ideas of beauty, and cars are no exception. How to appease them all? Mazda has developed its own approach to bringing traditional Japanese design principles to the world stage.





# THE BEAUTY OF MOTION

When it comes to design, Mazda has always stood out from the pack. Over the years, the company has developed a distinct design identity that appeals to customers around the world – and yet is deeply bound up with Japanese ideas of aesthetics.

Picture in your mind's eye a box. Not just any box, but a luxurious, hand-crafted Japanese lunch box. As your eyes wander across the exterior, you notice the perfect symmetry of form, the way each piece of wood seamlessly fits into the other. The way the light dances across the perfectly polished black lacquered surface and the delicate pattern of a willow tree that is painted on the surface. Branches shaking, leaves falling, a living form in motion. The painted tree is in perfect harmony with the wood on which it is painted. And as you finally open the box's lid, a meticulously arranged, lush scenery of delicious bites hits your hungry eyes. Do you see it? Then you are experiencing first-hand the essence of Japanese design.

A whole book has been written about the varied beauties of the Japanese lunch box: "The Aesthetics of the Japanese Lunch-box" by Kenji Ekuan. It is a staple in any Japanese art or design department, and for good reason. For this seemingly everyday item exemplifies much about Japanese aesthetics and product design – principles that from the very beginning also governed the way Mazda approaches car design. From Mazda's very first mass-production car, the Mazda R360 Coupé, to the current generation of cars, Japanese ideas of beauty and art are deeply imbedded in the Mazda design philosophy.



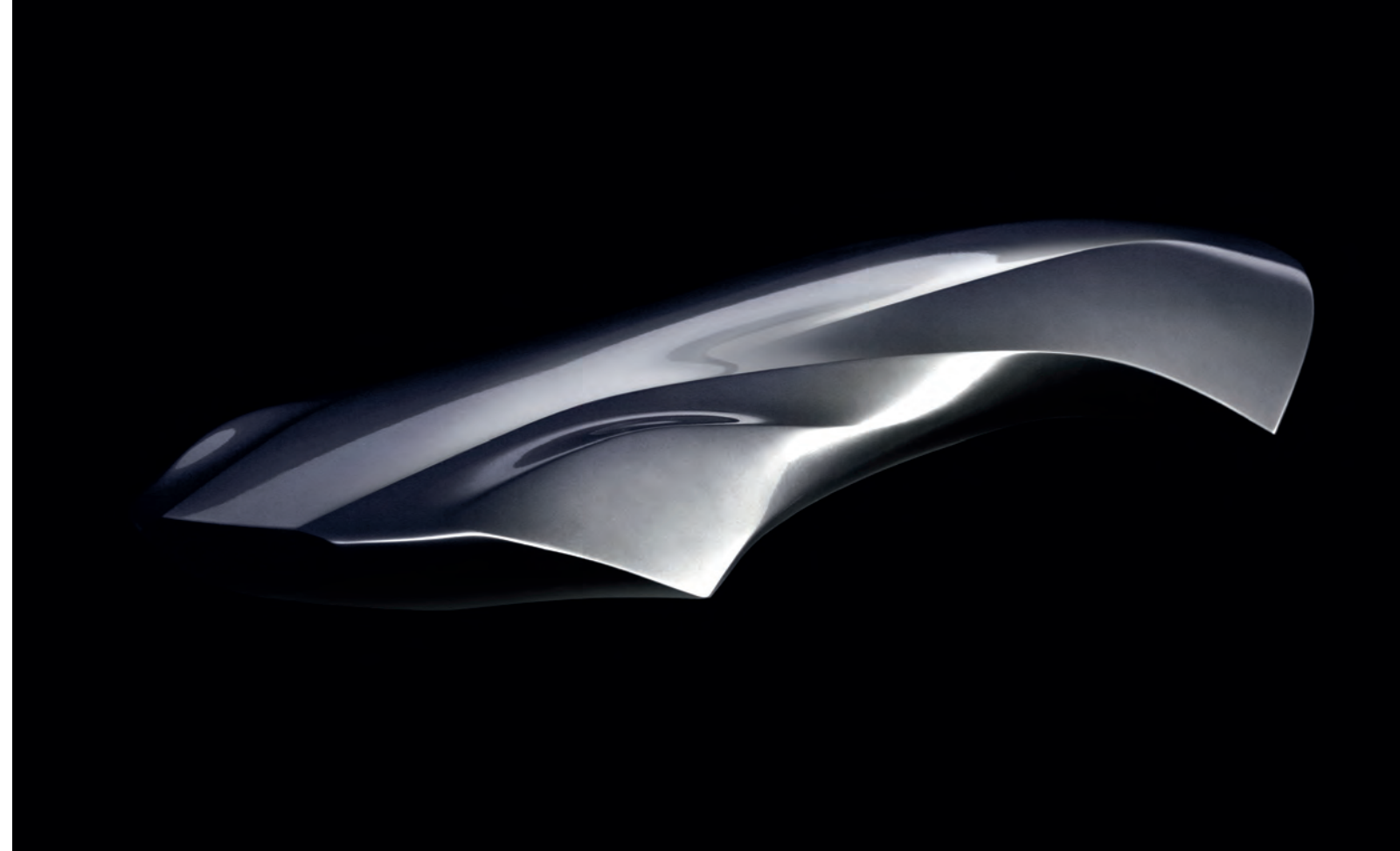
In a Japanese lunchbox, presentation is just as important as the food inside.

## IN TUNE WITH NATURE

Admittedly, a Mazda car today looks quite different from the models of the 60s and 70s. Yet, there are certain elements of the Mazda design DNA that have remained constant throughout the years. Simple, strong lines that seem to be in constant motion have characterised Mazda cars from the start. Thus, the sporty Cosmo Sport 110 S, built in 1967, seems to race out of the frame, while the more soft and flowing lines of the 2006 Nagare concept car are reminiscent of a single wave or a gust of wind. Both take their cue from nature itself, trying to capture some of the vitality and impermanence of living things.

This is not surprising – an exceptionally deep bond with the natural world is a central element of Japanese aesthetics. It permeates everything from art to people's everyday lives and preferences. Be it an emphasis on openness in traditional Japanese architecture, which relies on moving walls in order to frame the scenery outside, or the yearly spectacle of the cherry blossom with its myriad manifestations in art: the natural world is never far off when it comes to Japanese ideas of beauty. While the very artificiality and a certain removal from the mundane world often characterises Western avantgarde movements, the roots of Japanese design are irrevocably entangled with the land itself. ►

Photo: Charlad Laorlao/Shutterstock.com



ABOVE & BELOW: The essence of Kodo design is to capture the beauty of motion in a still object.





The RX-Vision and Vision Coupe concept cars are two award winning, great examples of Kodo design.

»IN JAPAN, A CLEAR  
DELINEATION BETWEEN ART AND  
COMMERCIAL PRODUCTS DOES  
NOT EXIST.«

#### SOUL OF MOTION

At Mazda, this idea was brought to its most evolved evocation yet in the Kodo design language. It was first introduced as a design vision in the 2010 Mazda Shinari concept car, and Mazda's Global Head of Design, Ikuo Maeda had a clear goal in mind: to capture the very essence of movement and emotion in a car's exterior. The design team worked tirelessly to shave off any and all elements that were deemed not absolutely necessary. The result was a clear and pure form that evokes the energy of a living, moving creature—the soul of motion itself. The 2nd decade of Kodo Design focused on broadening the expression of the essence of Japanese aesthetics with three elements: *Yohaku*, literally meaning the beauty of empty space; *Sori*, or curves with poise and balance; and *Utsuroi*, the play of light and shade.

According to the celebrated Japanese author Tanizaki Jun'ichirō, the use of light and shadows is central to understanding Japanese aesthetics. They are nature's own artists, creating forms and aspects that are ever changing and fluid. Light and shadow are what makes the *noh* masks in traditional Japanese theatre come alive, they are what gives a certain room its mood. And they also breathe life into all Mazda cars following the Kodo design concept. All strong lines are removed from the side surfaces of the car. This creates an empty space that functions as a blank canvas for the light to paint on. One striking example of this concept is the S-shaped curve found on the Mazda CX-30 side panels. As the car moves through its surroundings, the constantly changing light creates fluid patterns which reinforce the idea of motion suggested by the overall shape. The result is a continuously evolving aesthetic which marries minimalism of form with a wealth of expression – a true manifestation of Japanese aesthetics.

It was this evolved Kodo design philosophy that truly put Mazda on the map as a design force to be reckoned with. Both the Mazda RX-Vision and the Vision Coupe were deemed the "Most Beautiful Concept Car of the Year" in 2015 and 2017, respectively, receiving almost universal praise. And starting with the latest generation Mazda3, an evolved interpretation of Kodo design has also found its way into production cars.

#### THE BEAUTY IN THE EVERYDAY

Successes like these underscore Mazda's ambition to create cars as art. To European audiences, this claim can seem somewhat presumptuous. When all is said and done, one might say, we are still talking about an object of daily use, a consumer product with a clear function. Art, on the other hand, is supposed to transcend this sphere of the useful and move into a realm of pure, unadulterated beauty – right? Not if you ask the Japanese. On the island nation, such a clear delineation between art and commercial products does not exist. Why, after all, should we put less effort into beautifying the things we interact with day in and day out than into a piece displayed in a museum? With this philosophy in mind, it is hardly surprising that Japanese product design is celebrated across the world.

A lunch box, looked at soberly, is just that: a container used to transport food. But to many Japanese, it is also an opportunity to create an object of beauty – both in the box itself and in the treasures it holds. When a guest is presented with such a lunch box, he or she is encouraged to dwell for a while on the beauty of the object at hand, to trace with their eyes the path of the swinging willow branches. The beauty of the box itself is part of the overall experience, as is the artistic presentation of the edible contents within. Before ever tasting a morsel of food, the recipient of the lunch has thus enjoyed the lunch box experience in a number of ways. Of course, this is only the prelude to the pleasure of savouring the exquisite flavours of the meal – the presentation alone is not enough. But it does make a valuable contribution to the overall experience.

To Mazda designers and fans, this is exactly how they feel about their cars. At the heart of every Mazda is the joy of driving it and the feeling of oneness between the car and driver. This state is called *Jinba Ittai*, and there are many factors that go into achieving this perfect harmony: from the way an engine behaves to the vehicle's steady grip on the road and a seat that perfectly supports the driver's body. A stirring design might not be the only, or even the central element of any car. But to the overall experience of driving a Mazda, it is not trivial, either. ◀



ABOVE: The Kodo design inspired bike shown at Milan Design Week in 2015.



The Mazda CX-30 shows the latest iteration of Kodo design.



Shapes, proportions and angles are often the starting point for a new car design.



# CONCEPT CARS

Mazda cars have evolved over the decades – not least in terms of design. Here are a few highlights from the last 50 years, in the shape of the most creative examples of the designer's imagination: concepts cars and show cars.



1970s

1980s

1990s

2000s

2010s





## »LESS IS MORE«

What makes a design truly great? One person who should know is Mazda's Global Head of Design Ikuo Maeda. In this interview, he talks about Japanese aesthetics, car as art, and the road ahead for Mazda design.

Any discussion about Mazda design must sooner or later lead to one person: Ikuo Maeda. Few people have shaped Mazda's more recent design evolution quite as much as the "father" of Kodo design. When he became Mazda's Global Head of Design in 2009, with more than 20 years of Mazda experience under his belt, he took Mazda design in a bold new direction – while simultaneously reconnecting it with its Japanese roots.

**What does design in general mean to you?**

For me, it is about creating a beautiful shape that moves the hearts of those who see it and enriches their minds.

**And what is your definition of a good design?**

I see a good design as something that is refined down to minute details to offer a beautiful, emotional shape while perfectly embodying its creator's inspiration and message.

**What are your favorite designs outside of the automotive world?**

Architectural masterpieces which were built over years and years of construction work: e.g. the Sagrada Familia by Antoni Gaudi.

**What makes a design a Japanese design?**

Less is more. First and foremost, Japanese design must be simple and pure. Then, it



## »A DESIGN'S SUCCESS OR FAILURE IS ALREADY DECIDED BEFORE ANY WORK ON THE ACTUAL PRODUCT DESIGN BEGINS.«

must provide a feeling of depth within its simplicity. Making such a design requires meticulous calculation and preparation, followed by extensive time on refinement and polishing to finally create the ultimate shape.

You could say, Japanese aesthetics has a way of offering depth and richness through processes that take a great amount of time and tend not to be directly visible at first sight. Good examples of this are Japanese *dashi* (soup stock), multiple-layer Japanese lacquer craft-works, and the traditional procedure of Japanese tea ceremonies.

**A Mazda car today, of course, looks quite different from a Mazda car from the previous decades. What would you see as a mark of continuity in Mazda design through the years?**

Putting significant effort into creating form and our special way of creating designs by hand.

**Today, Mazda has an acclaimed design through the whole line-up. You follow a "Car as Art" concept – can you please explain your method to achieve this?**

We have an annual process of creating art pieces in house, where each member can freely choose to work on any assignment of their liking. It is called "exploratory preparation," and it can be done alone, in collaboration with other artisans of Japanese traditional crafts or with a non-automotive design team. There are

no restrictions as to what method is used to create an art piece.

I believe mingling with different artists and being exposed to a variety of ideas may spark a sort of chemical reaction, which can give us ideas for new design shapes. We also spend a generous amount of time carefully translating these ideas into something we can use for car design. I am of the opinion that a design's success or failure is already decided before any work on the actual product design begins.

**Mazda also has design studios in the US and in Europe. What is their particular influence?**

I have the regional design studios get engaged in activities where each of their regional strengths can be maximised.

One example is the design of HMI, where we capitalised on the US's advanced interface technology. Another example includes a European studio that created a brand-new design made possible by the mixture of artists from several different countries.

**What is your wish for the future of car design in general, and Mazda in particular?**

Today the automotive industry is standing at a major crossroads. Car values are changing, and so are car designs. In the midst of such transformation, I do not want to witness the beauty of cars and the golden rule cultivated through cars'

long history being lost along the way. I want us to be a member of a group that aspires to support the advancement of car design culture through innovations, in a way that complies with the aesthetics standard.

**Tell us how you are going to evolve Kodo design going forward.**

The theme of Kodo design is to breathe life into forms. Grounded in this theme, we are taking on the challenge of portraying Japanese aesthetics in physical designs, bridging the gap between universal and advanced designs, while aiming to establish a new style of expression that represents Japan.

**What message would you like to give European customers for Mazda's centenary?**

We have always wanted to become a brand that shines in Europe, while blending into its wonderful environment and respecting the traditional style nurtured through Europe's long history. Mazda is celebrating its 100th anniversary this year. As a foundation for the future, we will stick to our "one-and-only car-making" and 'Car as Art' values, and we will also keep creating emotional and impressive designs that embody Japanese aesthetics. Through this, we are committed to mastering the challenge of establishing a distinctive brand style. I would greatly appreciate your continued support for Mazda. ◀



Legendary

Mazdas

# RX-4 COUPÉ



## 1972

Among connoisseurs, the RX-4 is still considered one of the most beautiful hardtop coupés of the 70s – and it even came with exceptionally low emissions and enough space for the whole family.



# Legendary Mazdas

## RX-4 COUPÉ

PRODUCTION PERIOD:  
1972–1978

ENGINE:  
two-rotor rotary engine

DISPLACEMENT:  
654 cm<sup>3</sup> per chamber

MAX. POWER:  
85 kW/115 PS –  
97 kW/130 PS

TOP SPEED:  
170–190 km/h

MIN. KERB WEIGHT:  
from 1,010 kg

PRODUCTION NUMBERS:  
ca. 252,285 units  
(incl. sedan and station wagon)



The Japanese equivalent of the RX-4 was called the Luce AP – a nod to the wildly appreciated Luce model.

### Mazda RX-4



A 1973 brochure for the RX-4 playing with its striking front profile.

THE RX-4 COUPÉ:  
THE FIRST CAR TO  
MEET THE STRICT EMISSION  
REGULATIONS IMPLEMENTED  
IN JAPAN IN 1973.



Attention to detail and driver-centricity are evident throughout the interior of the RX-4.







# 5

## CRAFTSMANSHIP

Artisan handiwork might not be the first thing most people associate with a mass-produced car. At Mazda, however, the human touch still plays an essential role in designing new models – and skilled craftsmen are integral to the process.

## THE PERFECT TOUCH

To most people, a car is not simply a means of transportation. It is an object with emotional value and an opportunity to experience the joy of driving. But how does a car manufacturer create such a feeling in the driver? At Mazda, it all comes down to the human touch of master craftsmen.

Think of the last time you really loved a car – what was it that made you feel that way? The striking shape of the hood, the reassuring grip on the road when turning a sharp corner, the neat and uncluttered dashboard layout?

### ENGINEERING TO A FEELING

Chances are it was nothing so tangible, just a feeling. A feeling that this particular car is simply made for you, naturally comfortable, almost an extension of your body. This is the feeling everyone involved in creating a Mazda car strives for. It is called *Jinba Ittai* and expresses the oneness between the car and driver. This feeling should occur intuitively and effortlessly. If done right, the driver is conscious of experiencing it but cannot pinpoint exactly where it is coming from. Yet it is carefully crafted into every detail of the car, from the door handle to the seat design.

But here's the tricky thing about a feeling: it is very hard to engineer. Getting it just right requires exceptional ingenuity, skill and a dedicated effort towards perfection. And it is almost impossible to achieve without involving the human senses. Of course, a new model's interior space can be fully rendered digitally. But how does it feel to actually sit in the driver's seat? Does the driver, for example, feel confined, disconnected from the car, or is there a perfect balance between openness and embracement? The only way of knowing is to feel for yourself.

### THE HUMAN TOUCH

It is for this very reason that Mazda relies on their expert modellers and fabricators to bring a car to life. In close collaboration with exterior and interior designers, these craftsmen distil the true essence of a new model, refining it again and again until it feels just right. The process is long and complicated: first, the Mazda modellers create sculptures in clay, metal or wood. In some cases, they are based on sketches from the design team, other times they are simply a result of their own feelings. These pieces serve as inspiration for the sketches of the actual car, which the clay modellers in turn interpret into a three-dimensional scale model.

Taking a mixture of wax, oil, pigment and aggregate warmed to about 60°C, the craftsmen spend weeks or even months creating these sculptures. A 1:4 clay sculpture will be done in about eight weeks, a 1:1 model usually takes about half a year to finish. The process requires abstract thinking and spacial awareness. And sometimes, attests Norio Terauchi, a clay modeller at Mazda's Japan design centre, the form envisioned by the designer just cannot be recreated in the real world. In this case, the clay modeller will make an alternative proposal based on the agreed upon vision for the new model. "I am always thinking about what the design is intended to express," says Norio Terauchi.

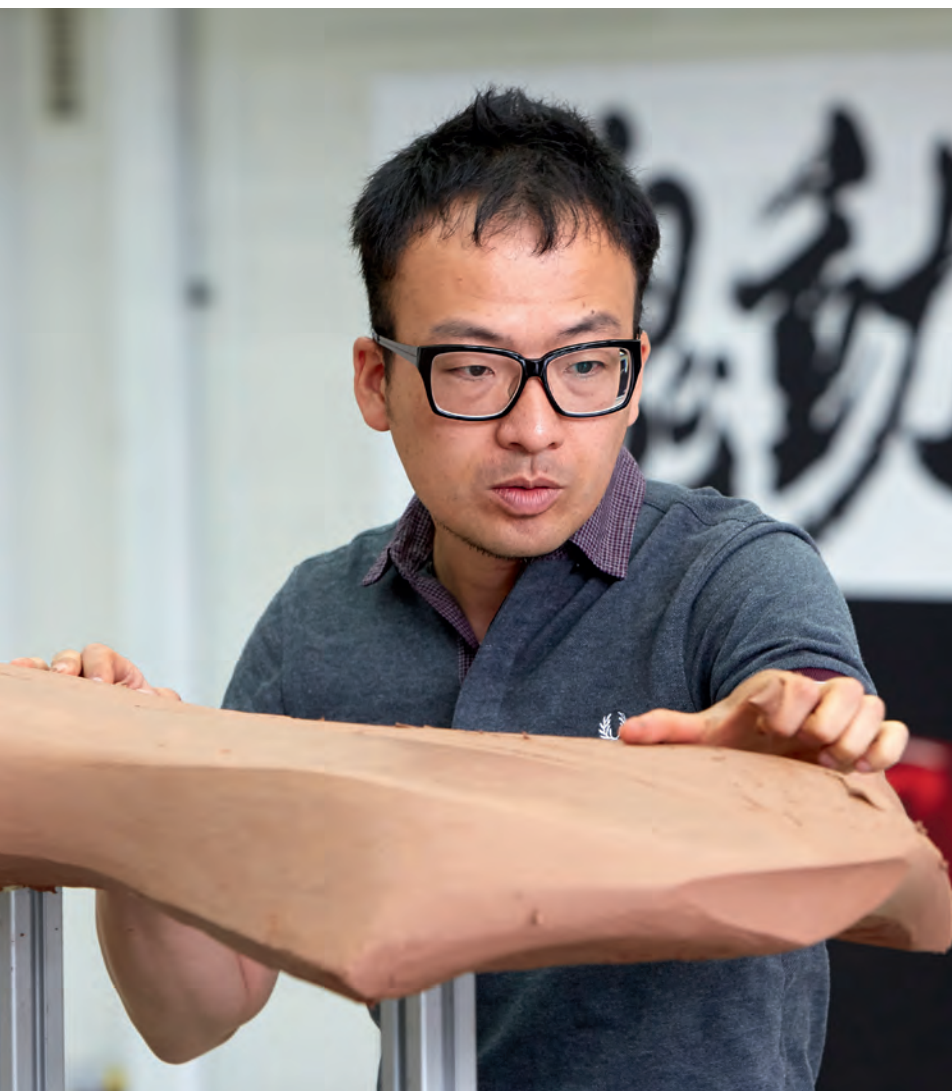


Including the steel frame, the finished full-scale model weighs around 1,500 kilograms – in some cases more than the actual production car.

### BRINGING OUT THE ESSENCE

Only when this model is presented to the design team will the true essence of the car start to emerge. For this tangible, 3-D rendering of the car is the starting point for the refinement process. Long discussions among designers and modellers will lead to constant little changes to the existing form: a pinch of clay shaved off here, a bit of material added there. This process of co-creation will continue until everyone is completely satisfied with the result – however long this may take. For the Mazda CX-30, it took about one year until the final design approval was given. The goal, after all, is perfection in every detail, and this requires time and an astonishing degree of precision. ►





Fine-tuning the clay models takes time, technique and the right tools, whether for cars or abstract sculptures.



With this Kodo grinding stone, craftsmen can shave down metal to a fraction of a human hair.

# 12,000

grinding stones were tested before arriving at Mazda's unique Kodo stone

The best modellers will be able to shave metal to a twentieth the width of a single human hair. These virtuoso artisans are the so-called *takumi*. Craftsmanship has a long and proud tradition in Japan – whether it is making *tatami* mats, ceramics or chopsticks, every trade has their own celebrated master craftsmen. Only after about two decades of perfecting a certain skill is a craftsman allowed to call themselves a *takumi*. There are currently three modellers with this coveted title working at Mazda's Hiroshima headquarters, and their expertise and experience is revered across the entire organisation. The sculptures they create are works of art that serve a single purpose: to bring the essence of Kodo design to life with their hands. Mazda employees are certain that it is this human touch that infuses the soul into each new Mazda model.

## FROM THE STUDIO TO THE ROAD

As remarkable as these models are, not every vehicle can be crafted by hand. The final step is therefore getting a finished design

into mass production, and this can be a challenge. Thus, when the Kodo design language was first introduced, production engineers found that there was simply no machine or technique that could accurately reproduce the singular beauty envisioned by the design team – so they set about creating one.

The result, after extensive research and testing, consisted of three elements: Kodo *kezuri*, or Kodo shaving, which enables a machine to imitate the hand movements of the clay modellers, Kodo *toishi*, a unique grinding stone that can fine-tune a surface to within an accuracy of five micrometres, and Kodo *migaki*, a custom polish that makes the finished surface sparkle without distorting the curves. It is only through the shared commitment and hard work of designers, modellers and engineers that the initial vision for a new model ends up on the road. When you get into a Mazda car, you might not be aware of how much thought and effort went into the shape of that door handle or the way shades of light move across that side panel. But you might just be able to feel it. ◀



Jo Stenuit, Design Director, Mazda Motor Europe.

## »ATTENTION TO DETAIL IS ESSENTIAL.«

### Three questions for Mazda's European Design Director

**You have been with Mazda for more than 20 years. How have you experienced the evolution of Mazda design during that time?**

Mazda Design has gone through a number of different design philosophies over recent decades. There was Tokimeki, Nagare and now Kodo. Although they might have been different in their executions, the underlying mission has always been the same: sculpting objects that visualise our intention of delivering cars that are fun to drive.

The biggest change over the last ten years is that Mazda Design has been striving for more and more artistic and refined designs. In its purest form, that has meant going back to the basics of good (car) design. The many design awards we've received from around the world prove that our customers and fans around the globe understand and appreciate this approach. This is only possible through close cooperation of the Mazda Design studios in Japan, Europe and the United States.

**How do you see the latest evolution of Kodo design?**

One central factor is attention to detail. The second phase of the Kodo design philosophy is all about purity and using the fewest possible elements to create an emotional design. This can only be successful when those few elements are fine-tuned to the highest level.

On the exterior, we spend a lot of time balancing all elements and on making sure that the reflections on the cars are exciting and as close to perfection as possible. On the interior, we make sure that the experience for our customers is always inviting and positive – when they sit in the car for the first time as well as during the many years they own the car. We achieve this by precisely designing the overall architecture of the interior, by limiting the amount of design elements and by fine-tuning our materials and material combinations to the max.

But outstanding design goes beyond the car itself. We work closely with the

Brand Style department within the Mazda Design division and with the Marketing and PR departments. Together, we are able to create a setting for our cars and brand that reflects Mazda's ambitious plans to climb the premium ladder. We do this through the meticulous tuning of our typeface, graphics, photography and event architecture. Our attention to detail shows the passion of the designers and also our confidence in our products and brand.

**How would you characterise Mazda's move towards high-end design in recent years?**

It is a logical result of us striving to deliver a unique product and brand experience. In a world that is moving at high speed, with design trends changing quickly, Mazda offers a solution that is more timeless and well thought through, with a design quality that can stand the test of time. Beauty only works when it is created with passion, attention to detail and a high level of humble confidence.



Legendary

Mazdas

# RX-7

## 1st Generation



# 1978

The most successful model with a rotary engine ever, the RX-7 is an icon of the 80s. With a powerful engine and avantgarde design, it quickly became a favourite in Europe and the US.



# Legendary Mazdas

## RX-7 1st Generation

PRODUCTION PERIOD:  
1978–1985

ENGINE:  
two-rotor rotary engine

DISPLACEMENT:  
573 cm<sup>3</sup> per chamber

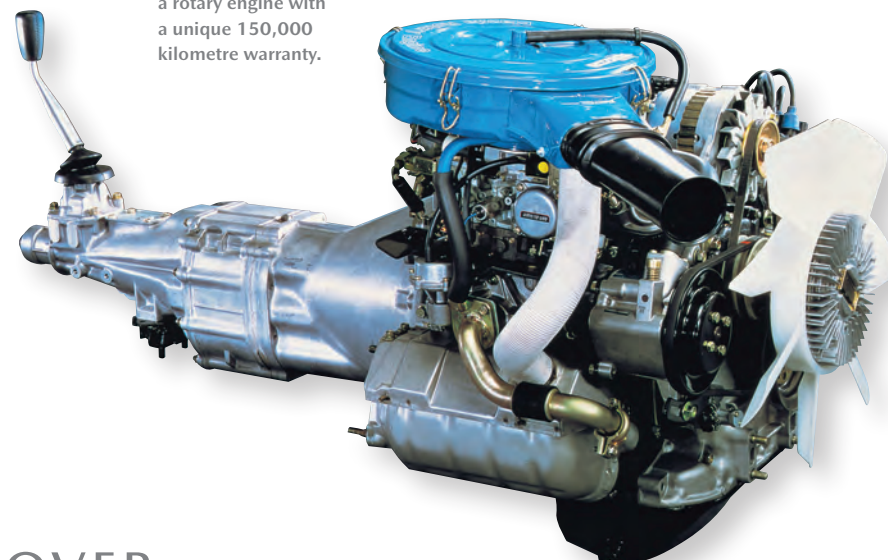
MAX. POWER:  
77 kW/105 PS –  
121 kW/165 PS

TOP SPEED:  
190–217 km/h

MIN. KERB WEIGHT:  
from 1,005 kg

PRODUCTION NUMBERS:  
471,018 units

The RX-7 featured  
a rotary engine with  
a unique 150,000  
kilometre warranty.



OVER  
**450,000**  
UNITS WERE SOLD BY 1986

With more than 100 victories in IMSA races  
under its belt and participation in numerous  
competitions around the world, on race  
tracks and in rallies, the RX-7 removed every  
last doubt about the performance and endur-  
ance of the rotary engine.



DETAILS LIKE A GLASS HATCHBACK  
MADE THE RX-7 A STYLE ICON.



The design was very much in the  
spirit of the time, making the RX-7  
a cool car amongst all the big  
names in the sports cars market.



The pop-up headlights were  
a must for a sports car back in  
those days.





6

## MAZDA MX-5: THE BRAND ICON

Few cars have taken the world by storm quite like the iconic Mazda roadster. The MX-5 has been delighting fans for over 30 years, and it is as popular now as ever. What's the secret to this model's success through four generations? It's called *Jinba Ittai*.



## THE EMBODIMENT OF *JINBA ITTAI*

The soul of any car shines through the joy you experience while driving it, and nowhere is this more true than in a sports car. Over the decades, Mazda has developed a range of successful and beloved models. But none stands out quite as much as the Mazda MX-5 – a true brand icon.

Barely any technological artefact is as refined as the modern car. For almost 150 years, engineers have been coming up with intricate ways of improving the formula step by step, making it ever more complex. But often the simplest solution is also the most fun. Take a lightweight open-top two-seater and give it a peppy engine driving the rear wheels. Done. Every impulse of the driver is converted into motion, directly, exactly and immediately. There is something primal and fundamentally exciting about it, and it is near impossible not to grin and giggle when you throw such a car around narrow bends on a curvy country road. Japanese culture has a name for this: *Jinba Ittai* – the traditional concept of the unity of horse and rider and Mazda's fundamental element. And the purest manifestation of this concept is the MX-5 roadster, also known as the Miata in North America and the Eunos Roadster in Japan.

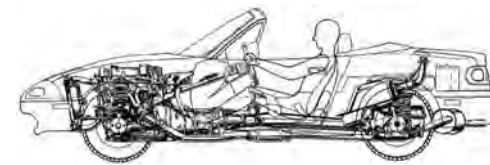
It added the reliability of Japanese engineering to the classic roadster formula and thus transformed it into something speaking to the heart and mind alike. Driving joy in its purest form, a timeless roadster body design, impeccable reliability and lightweight construction in an affordable package – all this combined proved to be the recipe for something truly special in the car world: "This is surely one of the most recognisable sports cars on the planet," says British car magazine Top Gear, and, "a joy to drive." What had started as a small rebellion within the Japanese car

manufacturer stands as an icon for the Mazda brand in the mind of car enthusiasts across the globe today, with four generations of MX-5s putting a smile on faces around the world. Its roots reach back all the way to 1979, a time when the classic roadster had become an endangered species. Just at that moment, a small group of Mazda employees were plotting its revival.

### THE BIRTH OF AN ICON

"Hall-san, what sort of car should we build next?" It was this question from Kenichi Yamamoto, then head of R&D at Mazda, that in 1979 marked the beginning, along with the answer of course: "An inexpensive sports car, a simple, bugs-in-the-teeth,

MX-5 was the European name of the car, it was called Miata in the US and Eunos Roadster in Japan.



ABOVE: Carefully calibrated driving dynamics were essential for evoking the *Jinba Ittai* feeling.



From the workbench to the big stage: The development of the Mazda MX-5 took five years – quite fittingly.

wind-in-the-hair, classically British roadster." This momentous reply was given by Bob Hall, an American automotive journalist who had been brought up around the time of the classic roadsters by Austin-Healey, Jaguar, Lotus, MG and Triumph. In the 1960s, legendary roadsters like the Lotus Elan or Triumph Spitfire had been bringing driving thrills to the masses as affordable, open-top sports cars. Only ten years later however, this realistic car enthusiast's dream was already fading. Crash safety regulations and a crisis in the British automotive industry had been important factors. On top of that, the notoriously problematic reliability and build quality of the British roadsters from that time period had almost put the final nail in the coffin of the open-top sports car.

Yet none of this diminished Bob Hall's obsession with this type of car – ever since driving his father's roadsters as a young man, he had been hooked. And when he was asked by his long-time friend Kenichi Yamamoto on that fateful day, he finally saw a chance to bring this car segment back to life. The journalist drew a rudimentary sketch of an open-top two-seater on a chalkboard and explained how easy it would be to create such a car model using existing Mazda components. At first, however, this met with a lukewarm reception from the executive. Bob Hall did not give up that easily though and told his friend to drive a British roadster, hoping he would see the light. So, Yamamoto took a

Triumph Spitfire on a spin on the picturesque roads around Hakone. And he was sold. Mazda needed a lightweight sports car; he was sure of that. And Bob Hall's persistence led to a job offer at Mazda's then newly opened design studio in California. Together with a few other advocates for such a car within Mazda, Kenichi Yamamoto laid out the parameters for the rebirth of the roadster: it would of course have to be lightweight to be nimble. It needed enough engine power to be fun. It would have to sound good. And it had to look beautiful.

But it would take another ten years until the first Mazda MX-5 production model saw the light of day. There were sceptical voices within the company after all: would such a niche model even be profitable? In 1984, however, Yamamoto became President of Mazda Motor Corporation. There had already been a plan for a lightweight sports car to slot in beneath the legendary RX-7. And Yamamoto gave that slot to the MX-5 Miata.

An internal competition was held to decide on the format and the styling of the new sports car. Three Mazda studios, two in Japan and the one in California, sent in proposals: two two-seater coupés, one with front engine and front-wheel drive and one with a mid-engine, rear-wheel drive layout, as well as an open-top two-seater with an engine in the front driving the rear wheels. After getting feedback from customers and



A style evolution: the changes from the first to the fourth generation (back to front) are subtle but striking.



## »INCORPORATING NEW TECHNOLOGIES WHILE KEEPING THE DRIVING FUN WAS THE MAIN CHALLENGE.«

enthusiasts and two rounds of internal judging, the latter concept by the Californian team won as the one truest to the spirit of the classic roadster. One of the internal judges, by the way, was Bob Hall, who at that point had taken a position in the R&D team of Mazda. He had made his dream of reviving the British roadster a reality.

### FOUR GENERATIONS OF PURE DRIVING FUN

A decade after Bob Hall drew the first sketch, the first Mazda MX-5 production model was officially launched at the Chicago Auto Show in February 1989. Soon after, it hit the showrooms, and it took the car world by storm. Its charming facial expression, round corners and pop-up headlamps made it stand out from the crowd and yet it was instantly recognisable as what it was – a true roadster. Which was even more cemented by its inner values that would characterise every following generation, as well: a four-cylinder engine that delivered enough power to have fun, but not to a degree that the car became difficult to control. A manual gearbox with short shift paths to allow for quick, snappy gear changes. The lightweight construction, a low centre of gravity, front-mid placement of the engine, rear-wheel drive and a tight suspension for that connected *Jinba Ittai* handling. And a unique exhaust system, giving the Mazda MX-5 a particularly throaty engine sound.

Not even the biggest optimists could have anticipated how popular this recipe turned out to be. Mazda initially expected to sell 40,000 units per year. But it soon became obvious that this simply was not enough. In Japan, for example, the demand was in the thousands per month instead of the few hundred that were forecast. In Europe, independent importers were buying up Miata-badged versions from North America and selling them overseas at drastic mark-ups. And when the MX-5 went on sale in Germany in 1990, the annual allotment of 2,000 vehicles was sold out within days. At the end of its production cycle, 450,000 units had been sold, proving how people all over the world adored this small, fun-to-drive sports car.

So, when the second-gen Mazda MX-5 premiered at the 1997 Tokyo Motor Show, expectations were high. Holding on to the *Jinba Ittai* spirit was of course a given for Mazda's design and engineering team. Why change a winning system? Perfection lies in the detail, and it was only there that changes were being made. New electronics and lightweight materials were incorporated into the small roadster to raise the bar technologically. Gone were the pop-up headlamps, and with a more toned and muscular appearance, the new MX-5 simply looked like a more mature version of itself. Safety was also improved by the addition of a passenger airbag and an upgraded frame for increased rigidity. The strategy of keeping its charm intact and only changing what was necessary proved to be successful: when the third generation was on the horizon in 2005, the overall number of Mazda MX-5s sold had increased to over 700,000.

The 2000s saw a technological revolution in the car industry with active safety technology performing wonders. Incorporating those new features and at the same time keeping the old school driving fun was the main challenge the third generation of the Mazda MX-5 had to face when it went on sale in August 2005. Side airbags, dynamic stability control and larger brakes were welcome additions to make spirited driving even more safe. Features like keyless entry or a seven-speaker Bose premium audio system suitable for open-top listening gave the MX-5 a more modern feel. The styling, too, became a bit more aggressive and assertive. And for the first time, an electrically controlled retractable hard-top version was also available. But at the core, the third-generation model kept true to the successful formula – a sports car built to be driven. Thanks to Mazda's "gram strategy" of weight reduction, the slightly bigger, roomier and better equipped MX-5 saw little weight gain. And more powerful engines meant that driving it was as much fun as it ever was. When Mazda celebrated the 25th anniversary of the Mazda MX-5 in 2014, one year before the fourth generation was to come out, sales of the MX-5 closed in on the magic one million mark, confirming its position as the world's best-selling roadster. ►





MAZDA MX-5: THE BRAND ICON

Front engine, rear-wheel drive, 50/50 weight distribution: the key values were preserved over the generations.



Winding roads or city streets – the MX-5 delivers driving fun in any environment.

Competitors have tried to copy the formula of course, but not even one has been able to succeed. In the realm of the affordable roadster, the Mazda MX-5 is the sole champion.

And here we are, at the 100th anniversary of Mazda, with the fourth generation of the Mazda MX-5 spreading joy wherever it goes just like all three generations did before. Yes, it features all the latest advances such as Skyactiv Technology and i-Activsense active safety technology. But don't think for a second it has lost touch with its roots. The current model is in fact the lightest MX-5 since the first generation. With the engine moved back even further and the car closer to the ground, the centre of gravity is even lower, the weight even better distributed. And the flowing Kodo – Soul of Motion design brings the traditional MX-5 essence into the future with a sleeker look and more aggressive lines than the past generations. Nobuhiro Yamamoto, programme manager for the 4th generation MX-5, describes the thought process behind this as follows: "What we tried to do with the new model is to understand the true essence of the MX-5. What do people really like about this car? We dug deep, and then we used our

new technology to realise the values we were aiming for. In doing so, we stuck to our "innovate in order to preserve" strategy. It's a very simple back-to-basics principle. The car calls out to drivers about beauty and about fun, things that you don't need to be taught. You just feel them. This hasn't changed in more than 30 years; it's why people continue to love this car."

More than 280 awards for the MX-5, among them numerous national and World Car of the Year awards, show that this love is shared by car critics as well. And the adoration goes beyond just the series-production cars. Dozens of special edition MX-5s have been produced in Japan, Europe and the United States, and they are highly sought after. The Mazda MX-5 is also the single most raced model on the racetracks across the planet. And the many concept cars that are based on it have deepened the overall fascination for this extraordinary vehicle. All this goes to show that the best things in life are indeed simple. As simple as a small, lightweight, affordable roadster. A concept from the past that the MX-5 made fit for the future – a quintessential sports car and a quintessential Mazda. ◀

KEEPING THE LEGEND ALIVE

Whereas in Western countries, the restoration of classic cars through their original manufacturers is commonplace, it is a completely new concept for Japan. Luckily, just like the Mazda MX-5 changed the way the world looked at the roadster, an initiative of Mazda to restore first-gen MX-5s has introduced this concept to Japan. A team of experienced Mazda technicians from Mazda E&T – a subsidiary that looks after body development and research, as well as Mazda's motor show concept cars and other special editions – started work in January 2018 to rebuild around six cars every year.

The first car to be completed by Mazda's restoration team was handed back to its owner at a special ceremony held at the Hiroshima head office in August 2018. This customer had bought the V Special model brand new 26 years earlier and chose the restoration service in order to prolong his enjoyment with the vehicle. After he got his "new" MX-5, he stated that he plans to keep driving it for another 20 years and then donate it to Mazda. It is passion like this, from customers as well as designers and engineers, that drove the development of the MX-5 from the beginning.

Former MX-5 Programme Manager and now Roadster ambassador, Nobuhiro Yamamoto himself ensures that the NA roadsters using this service in Japan stay on the road after a perfect restoration.





Legendary

Mazdas

# RX-7

## 3rd Generation



# 1991

The same year as the momentous victory at Le Mans, Mazda launched the third-generation model of the RX-7 – the ultimate rotary sports car.



# Legendary Mazdas

## RX-7 3rd Generation

PRODUCTION PERIOD:  
1991–2003

ENGINE:  
twin turbo two-rotor  
engine

DISPLACEMENT:  
654 cm<sup>3</sup> per chamber

MAX. POWER:  
176 kW/240 PS -  
206 kW/280 PS

TOP SPEED:  
250 km/h  
(electronically limited)

MIN. KERB WEIGHT:  
from 1,240 kg

PRODUCTION NUMBERS:  
68,589 units



THIS GENERATION OF RX-7  
HAD PERFORMANCE LEVELS  
APPROACHING  
THOSE OF  
SUPERCARS.



Equipped with a sequential twin-turbocharger, the third generation of the RX-7 reached 280 PS.



Sporting an aluminium double wishbone suspension and many other lightweight elements, the third-generation RX-7 boasted an optimised power-to-weight ratio.



The extremely sporty look of the third-generation RX-7 is familiar to every driving video games fan.





## MAZDA – AN EMOTIONAL EXPERIENCE

Some cars are meant to be used as tools for transporting goods and passengers. Mazda cars are meant to be driven. Be it the design, the handling or the engine – Mazda never seeks to just satisfy needs, it always strives to evoke fascination. Its success in that regard can be seen in the huge fan communities around the world. Here are some highlights from throughout the years.

# 7 BRAND FASCINATION

Any brand only comes alive through the people and places it affects. In this chapter, walk through time and experience some examples of the resonant impact Mazda has had – on fans, events, or even pop culture.

### UNIQUE DRIVING EXPERIENCES

Putting a great car on a beautiful road is probably the best way for any car maker to showcase its product. With its special driving events, Mazda does exactly that while offering truly unique ways for car enthusiasts to experience their favourite cars. In this vein, Mazda Motors Germany invited seven fans to the “The Curve of Your Life” event in Norway. The participants had shown their driving skills in a qualification event and were now given a Mazda MX-5 RF to explore the rugged and beautiful landscape of Norway’s west coast on a three-day drive from Bergen to Kristiansund. “More curve isn’t possible,” said one of the happy participants after the experience.

Less sporty, but no less fun: the “My Magic Road Trip” experience offered by Mazda Switzerland in which Mazda fans took a Mazda CX-5 on one of three selected routes through Switzerland. The journey took the participants through the spectacular Swiss

countryside to unique, secluded places. One couple spent the night in a specially installed design cube by a deserted mountain lake – a starry night and spectacular sunrise included.

Mazda UK’s “Epic Drives” make the Mazda fascination palpable through a different approach: in a series of films, Mazda set various models against extraordinary backdrops. One especially memorable example: a standard production Mazda CX-5 AWD was the first car to successfully cross Lake Baikal in Siberia. Mazda worked with the Baikalsky Nature Reserve and its Deputy Director Irina Lyasota to ensure its driving event did not impact the ecosystem of this UNESCO World Heritage site. It also commissioned a unique film that looked at Lake Baikal through Irina’s eyes, her passion for the lake and its environment offering a wonderful perspective on the ecology, history and future of this natural spectacle.





Mazda cars speed towards the English sky at the 2015 Goodwood Festival of Speed.

## MAZDA CARS IN POPULAR CULTURE

Cars are an essential part of today’s popular culture. At least the more fascinating ones. A fact that Mazda fully embraces. With “Mazda Garage”, Mazda Motors Germany has found a creative way to entertain fans in new media. In this German YouTube series, hosts Det Müller, Cyndie Allemann and Gerrit Behage play with Mazda cars, for example by restoring a Mazda Cosmo Sport and participating in a classic car rally, or by tuning a first-gen Mazda MX-5 to break the record for going through the most curves within the space of 12 hours. The unorthodox format with three seasons so far has proved to be a surprise success with millions of views, claiming the position of second-most successful automotive YouTube channel during the second season.

But beyond that, Mazda regularly features in popular media formats, showcasing the emotional connect with the brand’s cars. Of course, the sports cars Mazda RX-7 and MX-5 are among the most heavily featured in films, such as the hit movie “The Fast and the Furious”, in TV series like “Malcolm in the Middle” or in music videos, for example the one for the song “Bebot” by the Black Eyed Peas. Video games have seen a significant increase in pop-culture relevance in recent years, and it comes as no surprise that Mazda cars feature heavily in popular racing games such as the Forza Horizon, Gran Turismo or Need for Speed series.

## CELEBRATING AND PROMOTING MOTORSPORT

Defying conventions and striving for uniqueness – the challenger spirit which characterises Mazda also reflects on the brand’s motorsport activities. It was only fitting, then, that Mazda made its impact on the world-famous Goodwood Festival of Speed in southern England in 2015. That year, Mazda was the main partner of the traditional motorsport festival, and the spectacular 40-metre sculpture, featuring spiralling beams made up of 120 tonnes of steel, was dedicated to the Japanese car company. On top of it were two iconic Mazda models: an LM55 Vision Gran Turismo, designed for the famous video game, and a Mazda 787B, the monumental racing car that won the 24 Hours of Le Mans in 1991 – the first Japanese car and the first and only racing car with a rotary engine in the event’s history. Visitors cheered when they heard the awe-inspiring sound of this famous four-rotor rotary engine. At Goodwood, it once again got to stretch its legs by participating in the hill climb in front of Goodwood House, alongside the Mazda 787 #2.

But Mazda’s motorsport engagement goes far beyond its own racing history: by offering an affordable yet highly capable racing car option in the MX-5, Mazda has become a mainstay of grassroots motorsport in countless championships. Thus, drivers all around the globe can enjoy the spirited performance, agile handling and reliability of Mazda cars on the racetrack, as well as realising their dream of performance driving.

The Global MX-5 Cup is one of the many examples of Mazda’s involvement in motorsport. MX-5 races go back as far as 1989, with the Champion’s Race opening the Macau Grand Prix.



## THE MAZDA MX-5 – UNITING ROADSTER FANS AROUND THE WORLD

A sports car for everyone, combining the joy of driving a roadster with the reliability of Japanese engineering – that has been the recipe for success for the Mazda MX-5 from the beginning. So it’s hardly surprising that this little sports car not only reinvigorated the dying segment of traditional roadster cars. It also brought driving thrills to the masses and has found a spectacular number of fans around the world. What did come as a surprise, however, was how active this fan community turned out to be: from the very beginning, MX-5 owners and admirers have been establishing clubs, attending events, setting world records – or simply going for drives together to celebrate the roadster lifestyle.

One of the biggest owner clubs in Europe is the Registrato Italiano Mazda MX-5 with over 5,000 members. Ever since its establishment in 1995, it has organised 78 regional and national rallies and supported events of foreign MX-5 clubs, in cooperation

with Mazda and the Italian dealer network. The Netherlands MX-5 fan community even set a Guinness World Record: on 15 June 2013, 683 MX-5s lined up to form the longest car parade in the world on the roads around the RDW Test Centre in Lelystad. The previous record had also been set by Mazda fans, with 459 MX-5s parading in Essen, Germany in 2010. But of course, Japan also has a sprawling fan community. When the MX-5 hit the 20th anniversary mark in 2009, more than 1,600 MX-5s and 2,500 fans from Japan and overseas came together at the Miyoshi testing ground in Hiroshima to celebrate in style.

On its 100th anniversary, Mazda is looking at the spirited passion of its fans with deep gratitude. It is the ultimate affirmation that going against the grain has been the right path all along. Memorable experiences with unique cars and inspiring fans – what more could a car maker hope to achieve?



## MIATALAND

In the small Italian village of Piedicolle, south of Perugia, a true paradise for MX-5 lovers awaits: Miataland, the world’s only MX-5 themed luxury resort. At this country hotel, Andrea Mancini shares his intense passion for the MX-5 Miata – and some of the 30 models in his collection – with like-minded enthusiasts.



# A FAMILY MATTER

A passion for Mazda runs deep in the Frey family. A few years ago, Walter Frey and his two sons, Joachim and Markus, established the first and, so far, only publicly accessible Mazda museum. Today, Mazda fans all over the world make the pilgrimage to Augsburg, a town in the south of Germany, to experience Mazda's history as told in cars. Why? We'll let the Freys themselves explain.



Joachim, Walter, and Markus Frey (left to right): the Mazda Classic Museum is a family affair

## What is your history with Mazda?

**Walter Frey:** I was 24 when I decided to open a car dealership. That was over 40 years ago, and Mazda quickly emerged as the brand of choice. As an electrician by trade, I was intrigued by the fact that Mazda was the only brand pursuing the rotary engine.

## How did this lead to a museum of Mazda classics?

**Walter Frey:** The museum evolved from

our personal collection. We always loved Mazda cars, and at some point, we thought: why not make these beautiful models accessible for other Mazda enthusiasts? **Markus Frey:** At first, this was just an idea for ourselves. But once we had found a suitable location and started renovations, Mazda got involved. That's when we realised that we could make this happen for the public, as well.

## What are some of the special cars on display here?

**Markus Frey:** That depends on your perspective. We have found that even the most commonplace cars can be special to someone. I'll always remember when the office manager of Mazda Germany's CEO first visited the museum, saw a 1978 Mazda 323 and exclaimed: "That's my first car!" It held a special emotional significance for her, and for many others. After all, most people who come here aren't car historians – they are Mazda fans, just like us.

**Joachim Frey:** To us, the important thing is that every car has a story. There's an original Mazda fire truck here that one of Markus's good friends drove down to Augsburg from the very north of Germany – quite the adventure with a 50-year-old engine. And then there is the Mazda Roadpacer from New Zealand: a guy who lives there, who had heard about the museum, told us that he had found this great model. Not only that, he would also take care of the purchase and drive it to the nearest port for us.



The Mazda Classic museum shows a variety of iconic and beloved models throughout Mazda's history.

**Walter Frey:** This was a total stranger, willing to go to all this trouble – simply because he is a fellow Mazda fan and liked the idea of our museum. We have met him several times since – a testament to how the love for Mazda is bringing people together across the world. And with today's technological possibilities, it is easier than ever to get (and to stay) in touch. That is great for building a bond with fellow Mazda enthusiasts, but it's also good for finding new potential treasures for the museum.














































## What makes Mazda so special for you?

**Markus Frey:** Mazda does things differently, they always have. And when things are different, people either love it or hate it. In the case of Mazda, a lot of people lean towards love. **Joachim Frey:** And there is a second aspect: Mazda fans are passionate, and sometimes even a little crazy. Take this example: for the 30th anniversary of the Mazda MX-5, a lot of fan clubs held their club meetings here. For this occasion, Nobuhiro Yamamoto, the former pro-

gramme manager of the MX-5, came to visit – already something that would probably never happen with any other manufacturer. When the fans saw him, they went wild. They had him sign their glove boxes, engine compartments, whatever they could think of. And he was happy to do it. This makes you realise: we are a family that is obsessed with Mazda, but we are also part of the wider Mazda family. It is moments like these, when you can feel the shared passion for the brand, that make this museum truly worthwhile.



# MAZDA MODELS THROUGH TIME

											
Mazda-Go 1931			R360 Coupé 1960	Carol 1962			Luce 1966	Cosmo Sport 110 S 1967	Luce R130 Coupé 1969	616/RX-2 1970	RX-3 1971
											
RX-4 1972	Chantez	RX-5 1975	Roadpacer	323 1977			929	RX-7 1978	929 Coupé 1981	RX-7 Cabriolet 1987	323 F 1989
											
MX-5 NA	Autozam Carol	Eunos Cosmo 1990	121	MX-3 1991			RX-7 1991	Autozam AZ-1 1992	Xedos6	323 F 1993	Demio 1996
											
MX-5 NB 1998	Mazda6 2002	Mazda3 2003	RX-8	MX-5 NC 2005			Mazda5	CX-7 2006	Mazda2 2007		
											
CX-5 2012	Mazda6	Mazda2 2014	MX-5 ND 2015	CX-3			CX-5 2017	Mazda3 2019	CX-30		



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