



# ***45TH TOKYO MOTOR SHOW***

Mazda Press Information - Mazda Canada

**EMBARGO LIFT**

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Toronto/Montreal time: Tuesday, October 24 at 7:00pm

Vancouver time: Tuesday, October 24 at 4:00 pm

**Notes:** This press information is a summary of Japanese specifications. All figures and specifications may vary according to market. Also, data are subject to change upon homologation.



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# ***GREETING***

Thank you for visiting the Mazda stand. Our theme this year is: Mazda is committed to enriching people's lives through "Celebrate Driving." Mazda has begun a new journey, and we want to show our determination to seize hold of this exciting new future.

In August this year, we announced our "Sustainable Zoom-Zoom 2030" long-term vision for technology development that looks ahead to the year 2030. In light of the rapid changes taking place in the automotive industry, this new vision takes a longer-term perspective and sets out how Mazda will use driving pleasure, the fundamental appeal of the automobile, to help solve issues facing people, the earth and society.

In terms of the earth, we pledged to create a sustainable future in which people and cars coexist with a beautiful bountiful earth by achieving substantive cuts in carbon dioxide from a well-to-wheel perspective that considers emissions over the vehicle's entire life cycle. In addition to reducing emissions under real-world conditions, we believe that the best way to achieve this is through a multi-solution approach that offers a mix of combustion engines and electrification technologies in view of each region's energy situation and power sources. Here at the Tokyo Motor Show, our exhibits focus on Mazda's quest to perfect the automotive power source that will have the greatest impact on global environmental protection in the foreseeable future, the internal combustion engine. In terms of society, we plan to create a system that enriches people's lives through cars and a society that provide safety and peace of mind. And on a personal level, we aim to offer the satisfaction that comes from protecting the earth and enriching society with a car that offers true driving pleasure.

The Mazda KAI CONCEPT, which makes its world premiere at the Tokyo Motor Show, symbolizes Mazda's vision of the future and can be considered the forerunner to a whole new generation of models. Designed as our ideal combustion engine-powered car, it features Mazda's SKYACTIV-X, an engine that turns decades of conventional industry wisdom on its head, next-generation styling and next-generation SKYACTIV-VEHICLE ARCHITECTURE. This compact hatchback concept embodies everything Mazda is aiming for in its next generation of models.

The Mazda VISION COUPE represents our design vision for the next generation. The styling of future models, though grounded in the philosophy of KODO, will be more elegant and premium, expressing a more natural vitality. By stripping away unnecessary elements, we have revealed beauty and created a vehicle design that expresses Japan's unique aesthetic.

The SKAYCTIV-X is a new kind of engine that compresses gasoline to the point of self-ignition. Thanks to Mazda's proprietary Spark Controlled Compression Ignition, SKYACTIV-X is set to become the world's first commercial gasoline engine to use compression ignition.<sup>1</sup> It combines the high-revving performance of a gasoline engine with the superior fuel economy, torque and response of a diesel. With excellent environmental performance and uncompromised power and acceleration, this is an engine that provides full support for Mazda's *Jinba-ittai* driving performance.

Also on display at the Mazda stand is our current lineup, which we are constantly updating in an effort to quickly provide customers with the most appealing products. Highlights include the Mazda CX-8, a new three-row crossover SUV that goes on sale in Japan this year.

Mazda has always focused on the essence of the automobile, and we have never wavered in our quest to make cars that are a pleasure to drive. We want to inspire people through the fundamental value found in cars, and we will continue working to become a brand indispensable to our customers and connected to them by a strong bond. We want to spoil customers with cars that always exceed their expectations. That is what we mean when we say Mazda Premium.

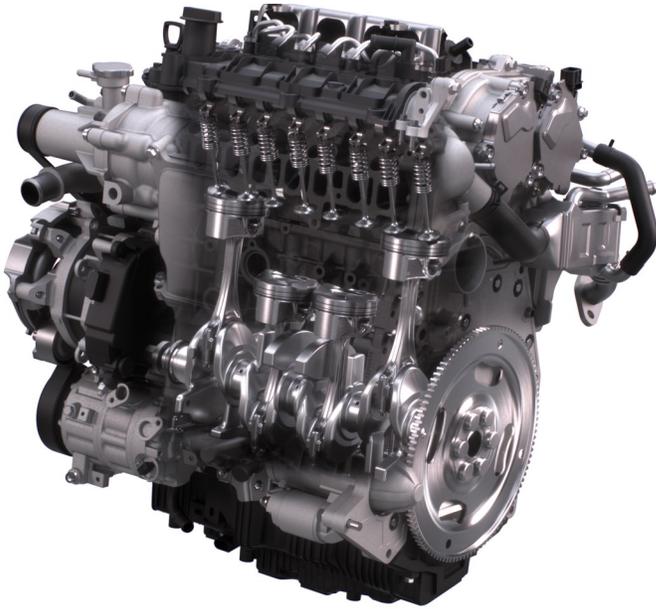
I hope you can feel our passion at the Tokyo Motor Show.

**Masamichi Kogai**  
**Representative Director, President and CEO**  
**Mazda Motor Corporation**

<sup>1</sup> As of August 2017, according to in-house research

# ***NEXT-GENERATION TECHNOLOGIES AND DESIGN***

## **Innovative technologies and KODO design embody Mazda's vision for the future**



In August 2017, Mazda announced "Sustainable Zoom-Zoom 2030," a new long-term vision for technology development that looks ahead to the year 2030. Mazda believes its mission is to help bring about a beautiful earth and to enrich people's lives as well as society. The new vision states the company's commitment to continue to seek ways to inspire people through the value cars offer them.

As the first step toward realization of this vision, Mazda has developed a next-generation gasoline engine called SKYACTIV-X, which uses a proprietary combustion method, as well as its next-generation SKYACTIV-VEHICLE ARCHITECTURE platform, the latest iteration of the company's human-centered car-making philosophy. These technologies contribute fundamentally to a "well-to-wheel" reduction of carbon dioxide, while Mazda continues to pursue further technological innovation to fully support its *Jinba-ittai* driving experience.

At the same time, the company is further evolving its KODO—Soul of Motion design philosophy to take it to the next stage. Based on traditional Japanese aesthetic sensibilities, next-generation design focuses on an elegant and refined atmosphere and a new sense of vitality that makes Mazda cars look truly alive.

This combination of next-generation technologies and next-generation design enables Mazda to further hone the fundamental appeal of the automobile – driving pleasure – to help solve issues facing people, the earth and society as stated in Sustainable Zoom-Zoom 2030.

## **Next-generation SKYACTIV-X gasoline engine**

SKYACTIV-X is an entirely new internal combustion engine from Mazda that combines the high-revving character of a gasoline engine with the fuel efficiency, torque and fast initial response of a diesel. With its proprietary combustion method called Spark Controlled Compression Ignition (SPCCI), SKYACTIV-X is set to become the world's first<sup>1</sup> commercial gasoline engine to use compression ignition. SPCCI overcomes the long-standing issue of maximizing the zone in which compression ignition is possible and realizes a seamless transition between compression ignition and spark ignition.

Thanks to this new combustion method, the SKYACTIV-X delivers unprecedented engine response and increases torque 10-30 percent<sup>2</sup> over the current SKYACTIV-G engine. Furthermore, compression ignition makes possible a super lean burn<sup>3</sup> that improves engine efficiency up to 20-30 percent<sup>2</sup> over the current SKYACTIV-G. High efficiency across a wide range of rpms and engine loads means the engine also allows much more latitude in the selection of gear ratios. This provides the two seemingly contradictory benefits of superior fuel economy and driving performance, both at a high level.

<sup>1</sup> As of August 2017. According to in-house investigations.

<sup>2</sup> Engine is still under development and figures are subject to change.

<sup>3</sup> A condition in which the ratio of gasoline to air is reduced to a level that would not ignite in a spark-ignition engine.

## Next-generation SKYACTIV VEHICLE ARCHITECTURE platform

Mazda's SKYACTIV VEHICLE ARCHITECTURE was developed with an intensified focus on its human-centered design philosophy to maximize the human body's inherent ability to balance itself. It offers more comfortable and less tiring driving and enables all occupants to respond quickly to environmental changes. With the human body easily able to balance itself in response to driving inputs, the new vehicle architecture provides responsive driving and the ultimate *Jinba-ittai* driving feel.



To realize these advantages, the development team reviewed every aspect of the car platform from the viewpoint of comprehensive vehicle optimization. The resulting innovations include redesigned seats that keep the pelvis upright to maintain the spine's natural "S" curve, a body with multi-directional ring structures to transmit inputs without delay, a chassis structure with each part interacting to smoothly control energy transfer to the sprung mass, and NVH performance meticulously optimized based on vibration energy characteristics and the mechanisms by which humans perceive sound.

### Next-generation design

Since 2010, Mazda has striven to create cars that embody the dynamic beauty of life through application of its KODO—Soul of Motion design philosophy. Taking a step forward, next-generation design will pursue the expression of a "new elegance" based on Japanese aesthetic sensibilities.

Here, the word "elegance" implies a beauty that is subtle and restrained yet rich and abundant. Within its conveyed impression of dignified tension, next-generation design also allows people to sense a hint of warmth and seductiveness. This is the image of "elegance" Mazda wishes to express in its car designs.

Japanese aesthetics call for a delicate sense of balance rather than a show of ostentation. For this reason, next-generation design aims to breathe life into cars with a "less is more" aesthetic. Eliminating all but the truly essential elements creates precious blank spaces surrounding simple forms. To these, Mazda applies effective use of light and shadow to create subtle details and achieve the desired result.

With next-generation design, Mazda is reinterpreting the very essence of Japanese aesthetics and its subtle beauty, which has been cultivated since ancient times. The goal is to create an elegant and refined atmosphere with a sense of vitality that makes Mazda cars come truly alive.



# MAZDA KAI CONCEPT

## Mazda KAI CONCEPT, the compact hatchback that sets the stage for the future of the Mazda brand

The Mazda KAI CONCEPT compact hatchback makes its world premiere at the Tokyo Motor Show. In pursuit of representing the ideal vehicle powered by an internal combustion engine, the KAI CONCEPT skillfully blends Mazda's breakthrough next-generation technologies with next-generation design. The KAI CONCEPT embodies Mazda's goal of being a brand that forms a strong bond with customers and becomes an indispensable part of their lives, and its commitment to continue making cars that exceed customer expectations.



The powertrain selected for the KAI CONCEPT is the SKYACTIV-X, Mazda's next-generation engine that introduces an innovative combustion method called Spark Controlled Compression Ignition (SPCCI). SKYACTIV-X is set to become the world's first<sup>1</sup> commercial gasoline engine to use compression ignition. Also adopted is Mazda's next-generation SKYACTIV-VEHICLE ARCHITECTURE, which maximizes the human body's inherent abilities and realizes the ultimate connection between driver and car. Combined with the SKYACTIV-X engine, it

delivers highly refined driving dynamics in every respect, from the performance feel and comfort, to the quietness of the ride.

The design features deeply honed beauty created by shaving away all unnecessary elements to produce a hatchback that presents itself as a strong, solid mass. As an artistic expression embodying Japanese aesthetics, Mazda has condensed the latest iteration of KODO design into a compact car. What results is a car that depicts Mazda's ideal hatchback proportions.

The name "KAI" literally means "the pioneer." Mazda chose the name in hopes the KAI CONCEPT will set the stage for the next generation.

<sup>1</sup> As of August 2017. According to in-house investigations.

## Creating allure that stirs the instincts – a new challenge in hatchback design

People worldwide love hatchbacks for the great value they offer, including features such as highly practical packaging. Mazda set its sights on bringing the brand's unique value to the universal presence and tradition of the hatchback. Specifically, Mazda decided to take on a new hatchback challenge through the application of evolved KODO design. The goal was to create an alluring hatchback that differs from all that have come

before to win hearts and stir people's instincts. The Mazda KAI CONCEPT is born of this wish as a model that, standing unfettered by conventional concepts or stereotypes, represents the ideal hatchback form in its simplicity and beauty.

One goal of the design team was to achieve proportions that realize a condensed presentation of power and beauty. They then took on the challenge to create new styling that presents the body and cabin as a single solid mass. The result is a bold expression with a whole new twist that accentuates characteristic hatchback solidity and presence along with an overwhelmingly powerful stance.

The body design does away with character lines and instead adopts boldly punctuated surfaces with constantly changing reflections that create a lively, emotional expression. While featuring a simple form, this design exhibits beauty that causes the viewer to stand and stare in admiration, much as when viewing a fine work of art. The key to achieving this and to evolved KODO design on the whole is the concept of "less is more." It calls for intentionally eliminating unessential elements to generate richness in the resulting blank spaces. The bold yet subtly detailed body side panels were crafted at the hands of Mazda's highly skilled clay modelers, and finely controlled transitions between light and shadow create a rich sense of vitality. This is the primary feature of the KAI CONCEPT design.

The front face further evolves the three-dimensional depth and deeply sculpted features characteristic of KODO design. The KAI CONCEPT's signature wing combines with the deep luster of the dark metallic finish to emphasize the mature, sporty nature that befits a hatchback.

## A cabin environment that hones the *Jinba-ittai* connection between car and driver

The interior design establishes a connection between driver and car with a natural-feeling environment that gently embraces cabin occupants without feeling overly restrictive. This embodiment of the "less is more" ideal further refines the *Jinba-ittai* experience Mazda is constantly working to achieve.



Appointments such as the instrument panel, door trim and center console are designed to leave open spaces between them. They intersect in a manner that instills a feeling of longitudinal direction and speed that runs throughout the cabin. Every aspect of the cockpit design features perfect horizontal symmetry, while also placing the three-meter cluster and ventilation louvers directly in front of the driver.

The driver is constantly aware of this single driver-centered axis through the cockpit zone and the feeling of being comfortably embraced in a manner that strengthens the connection with the car and creates a sense of communicating with it. In keeping with this theme, bright red accents subtly placed on the door trim and floor console help express the active nature that befits a hatchback and the fun of the Mazda KAI CONCEPT's agile dynamic characteristics.

## Mazda KAI CONCEPT major specifications

<b>Seating capacity</b>	4 persons
<b>Overall length x width x height</b>	4,420mm x 1,855mm x 1,375mm
<b>Wheelbase</b>	2,750mm
<b>Engine</b>	SKYACTIV-X
<b>Powertrain</b>	Front engine, front-wheel drive
<b>Tires</b>	Front : 245/35R20 / Rear : 245/35R20
<b>Rim width</b>	Front : 9.0J / Rear : 9.0J



# MAZDA VISION COUPE

## Mazda VISION COUPE leads the way for next-generation Mazda design

With its next-generation design, which is rooted in Japanese aesthetic sensibilities, Mazda is striving for an elegant and refined style that conveys unaffected vitality. The origins of elegance in Mazda design can be traced back to the R360 Coupe and Luce Rotary Coupe. In an age preoccupied with efficiency, great effort was devoted to creating beautiful proportions for these two coupes. The playful warmth and beauty they expressed became the cornerstone of Mazda's expression of elegance.

The Mazda VISION COUPE builds on this heritage in proposing the company's next-generation design. The "coupe" naming pays tribute to its pedigree of elegance and sets the stage for a new start for KODO design.

## A distinctive form that embodies Japanese aesthetic sensibilities and a new expression of elegance



The Mazda VISION COUPE adopts the basic form of a flowing four-door coupe. Its proportions conform to the golden ratio of classic coupe design with the cabin positioned toward the rear of the body. The silhouette hints of powerful forward momentum, creating the impression of a high-performance machine.

In pursuing this expression, the VISION COUPE forgoes the rhythmical motion that prior iterations of KODO design emphasized in body styling. It opts instead for a simple form that strips away all non-essential elements to embody a "less is more" aesthetic.

A powerful axis runs from the badge on the grille through to the one at the rear, evoking the look and feel of supple steel. All movements center on this vector, creating a "one motion form" that is extraordinarily simple yet conveys a sense of speed.



The sharp and powerful highlight on the body shoulder is the primary focus of this model's design and imparts a dignified air of tension. The sides of the body are crafted to present linear transitions in light and shadow that change continuously in conjunction with the car's motion. This subtle movement of light and shadow makes the Mazda VISION COUPE look truly alive.

The Mazda VISION COUPE aims to embody Japanese aesthetics and give form to a unique Mazda expression of elegance. The challenge in designing this concept model was to achieve a simple form upon which sharp, powerful highlights contrast against subtle transitions of light to create a new sense of vitality.

## Spatial harmony based on the concept of *ma*

The interior space design applies the traditional Japanese architectural concept of *ma*, the meticulous use of space to create atmosphere. The intentional use of spaces between components such as the instrument panel, door trim and center console introduces *ma* and encourages a flow of air between them. This creates the impression of a space that flows in the direction of the car's motion, gently embracing occupants, yet without any sense of confinement.

Also wanting to create a connection between driver and car that is like that of a rider and his or her horse, Mazda strove to establish the appropriate relationship between driver and the controls with which he or she interacts. One example is in the way the driver touches the center console to call up information on the display. This could be compared to the way a rider communicates with the horse by stroking its mane and back. Implementation of such unique, intuitive methods for strengthening the bond between driver and car helps express the *Jinba-ittai* experience.

