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#### Message from the President



Seiki Mayumi Representative Director, President, Chief Executive Officer

As a company which combines the strengths and founding spirit of its two predecessors HIRATA TECHNICAL CO., LTD. and HONGO CO., LTD., H-one makes valuable contributions to the automobile society through the production of automobile body frames, while satisfying the needs of our customers.

Throughout our history of over 120 years together with the predecessors, H-one's press work technology has always been at the heart of business and, to date, we have launched numerous metalwork products to the market. Today, our main business is the development and manufacture of automobile body frames, which play a key role in the safety and environmental performance, operability, and comfort of automobiles. Our network extends not only across Japan but around the world, which enables us to establish a strong global supply system.

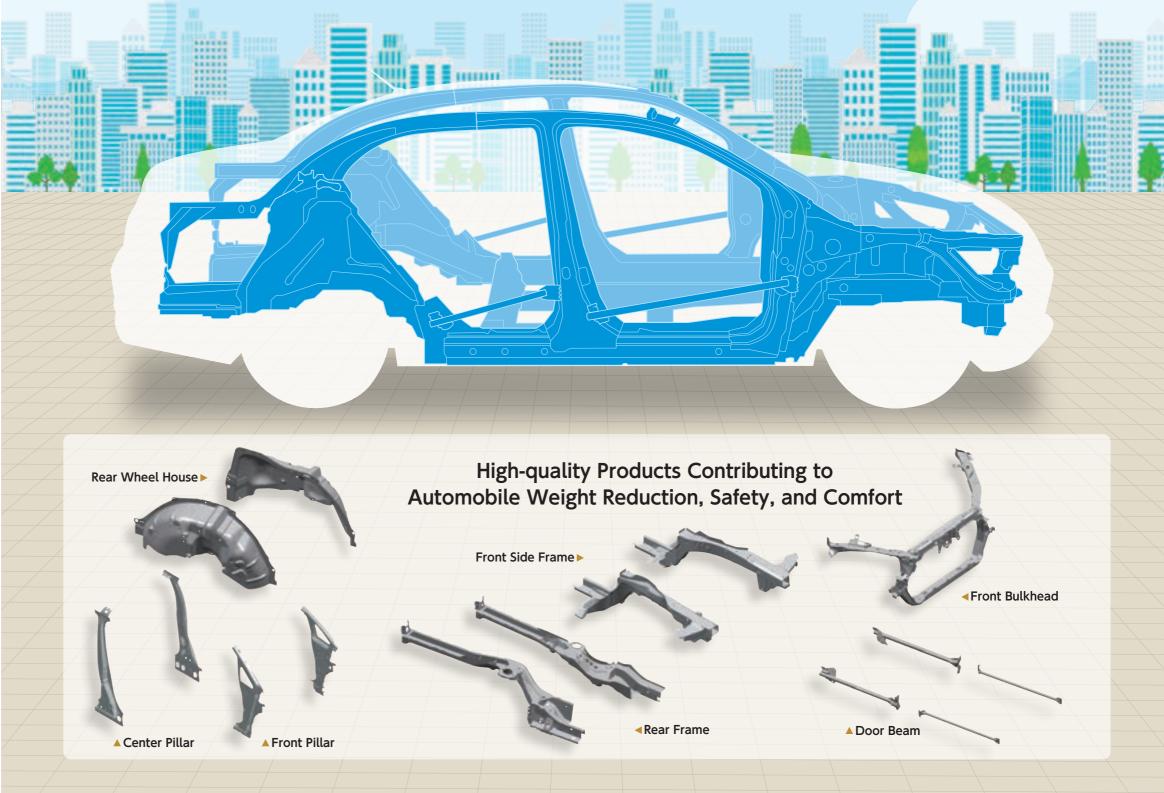
Our Management Philosophy of "To Realize Our Dream We should conduct ourselves with Respect and Trust for each other while Challenging one another to strive for continuous improvement that enables us to become a company that contributes to the world." is based on our desire of "becoming a company which promises to meet the expectations of customers around the world." In order to do so, we believe that all members of our company must give the highest degree of respect and trust to each other while undertaking challenges to bring our dreams into reality.

Therefore, all of us at H-one will strive to provide attractive products and services with a firm dedication to our Management Philosophy.

We will commit to making every effort to fulfill the expectations from society, as we take steps forward toward sustainability based on this Management Philosophy.

# We Contribute to the Automobile Society with H-one Frames

We are always seeking to improve the performance of our automobile body frames, with consideration for safety, comfort, and earth-friendliness.



### High-performance Frames Developed from our Expertise and Advanced Simulation Technology

H-one automobile frames support the safety, comfort, and environmental performance of automobiles With advanced metal forming and welding technologies which fully apply our cutting-edge research and development as well as our unique expertise, we are able to produce high-quality automobile body frames with world-class performance.

#### We are comprehensively involved in all stages from initial research and development to product design, manufacturing technology development, and mass production.

#### Research and Development

In order to achieve reduced weight and greater safety for our frames, we carry out independent simulations on collisions, strength, and rigidity for a whole automobile body. Our research and development are not limited to frames, but cover a wide range of material engineering fields.

#### Frame Performance Simulation

2 Frame Design

We participate in designing of new vehicle models carried out by automakers from the earliest stages of planning. In addition to simulations on collisions, strength, and rigidity, we use forming and welding simulations to propose optimal frames for each vehicle type which combine excellent performance, high quality, and cost competitiveness.

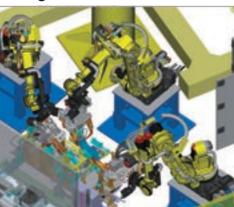
from the inside.

#### Manufacturing Equipment

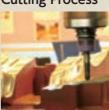
By sharing and coordinating product design data between processes ranging from die design to automated processing, and processes ranging from welding line simulation to robot programming, we are able to shorten all lead times required until completion. We also use the latest measuring instruments to make comparisons of actual parts against product design data, ensuring high-precision quality.

#### Welding Line Simulation





**Cutting Process** 



Welding Line Installation





#### **Unique Products Created through Research and Development**

**Collision Simulation** 

#### **3DQ Body Frames**

H-one is the world's first company to successfully mass-produce body frames using 3DQ (Three-Dimensional Hot Bending and Direct Quench) technology, in which quenching is performed on steel tubes to enhance their material strength. Body frames produced with this method have outstanding strength at the level of 1,500 MPa, which can both increase passenger safety and reduce part weights, and also have excellent accuracy of form.

Since it enables high-efficiency manufacturing without the need for dies by using ultra-strength steel tubes with complex shapes,

3DQ technology can be applied to produce a wide range of frame types.

(Joint development with NIPPON STEEL & SUMITOMO METAL CORPORATION, and NIPPON STEEL & SUMIKIN PIPE CO., LTD.)



**Rigidity Simulation** 

#### Dies

Strength Simulation

In addition to the manufacturing of dies, we are involved through our Group companies in the production of blocks of cast metal which serve as raw materials for those dies. Our die production technology and expertise in high-strength material processing cultivated over the course of more than 30 years has allowed us to gain a tremendous degree of trust from both domestic and overseas custom ers









### 4 Mass Production of Frames

Mass production can realize inventive ideas which are proposed in upstream processes, with our various manufacturing sites around the world effectively utilizing large-scale press machines and various robots.

The combination of such equipment with our proprietary manufacturing technologies and production management expertise allows us to efficiently manufacture superior-quality products.

#### Stamping Process



Welding Process



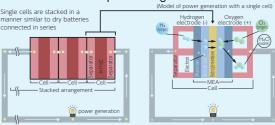
**Product Delivery** 



#### Metal Separators for Fuel Cells

Metal Separators are a component of the fuel cell stacks which serve as the source of power for fuel-cell vehicles. They are produced from extremely thin stainless steel materials, finely processed to circulate hydrogen, air, and coolant by applying our precision punching and precision die production technologies.

Fuel Cell Stack Component Diagram



ciple of fuel cell stack power generation

### Manufacturing Lines Capable of Achieving Products of the Finest Standard

With the latest manufacturing equipment to produce a diverse range of high-quality products, we can supply automobile body frames to automakers around the world with our advanced press work technology and highly efficient welding technology.



**Together with Society** 

## We Contribute to the Realization of a Sustainable Society

#### Management Philosophy

To Realize Our Dream We should conduct ourselves with Respect and Trust for each other while Challenging one another to strive for continuous improvement that enables us to become a company that contributes to the world.

#### **Mission Statement**

We will provide attractive products and services to exceed the expectations of the clients around the world.

Our Group is deeply involved in activities to conserve the global environment. These include measures for CO2 reduction implemented through our business activities, initiatives for tree planting and forest development conducted at various locations around the world, and activities to enhance the ability of the ecosystem to absorb CO<sub>2</sub>.

As a company with close ties to neighboring communities, we also give the utmost importance to communication with those communities, and carry out various involvement activities in the countries and regions where we are located.



•Charity activities •Donations of school supplies •Events open to participation by local residents and employee family members







Respect for the Individual trust Challenge with Determination ligh Expectation and Trust



