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2007

ND Marketing Award

AIDA Engineering, Ltd.

PRESIDENT KIMIKAZU AIDA

As a result of impartial voting by a panel of capital equipment industry leaders, academics, and also a select number of readers of this magazine, the decision was reached to present the 24th Annual ND Marketing Award for 2007 to President Kimikazu Aida of AIDA Engineering, Ltd.

About the ND Marketing Award

The ND Marketing Award was established in 1984 by the News Digest Publishing Co., Ltd., to mark the 20th anniversary of the monthly ***Industrial Marketing*** magazine. This award is given to outstanding corporations and executives in primarily the capital equipment field of the metalforming machine industry, and annually honors excellence in achievement and prominence in the expansion and success of marketing activities. Previous recipients of this award are given below.

	Year	Company
1	1984	Fanuc, Ltd.
2	1985	Makino Milling Machine Co. Ltd.
3	1986	Okuma Corporation
4	1987	Mitutoyo Corporation
5	1988	Yamazaki Mazak Corporation
6	1989	Omron Corporation
7	1990	Renishaw
8	1991	Toyoda Machine Works
9	1992	Daifuku Co., Ltd.
10	1993	Nikken Kosakusho Works, Ltd.
11	1994	Yuasa Trading Co., Ltd.
12	1995	OSG Corporation
13	1996	THK Co., Ltd.
14	1997	Mitsubishi Electric Corporation
15	1998	Citizen Holding Co., Ltd.
16	1999	Mori Seiki Co., Ltd.

17	2000	Sodick Co., Ltd.
18	2001	Tokki Corporation
19	2002	Yasda Precision Tools
20	2003	Nissei Plastic Industrial Co., Ltd.
21	2004	Marposs
22	2005	Brother Industries, Ltd.
23	2006	Sugino Machine, Ltd.

The above photo shows the bronze statuette awarded to recipients. (Designed by Mitsutoshi Tsuno.)

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Pres. Kimikazu Aida

Mr. Aida rose to the position of president in 1992, having served previously as the president of AIDA USA, as the General Manager of Sales, and as a vice-president. This coincided with the 75th anniversary of the founding of AIDA. The ensuing 15 years has seen bursting of Japan's bubble economy, the Japanese recession of the 1990s , the information technology industry boom and bust, and the world itself in turmoil. In the midst of this President Aida has restructured the corporate business unit system, expanded on a global basis, developed new products and technologies in rapid-fire succession, and has driven an aggressive business style.

President Aida tells his associates, "Never stop. If you stop, the world will leave you behind. Maintaining the status quo is the same as falling behind. Don't be afraid of failure. If you are going to do something, you cannot do it quietly—make everyone aware and then execute. It's OK if you make mistakes, so be bold in executing those things you want to do." Even during this short interview with him, his personality conveyed his optimism and genuineness.
He predicts, "This is the era of reducing energy consumption. Processes that do not produce scrap, dust, and cuttings are preferable. Machining is great in that it is convenient, but due to tooling wear and heating, dimensional control is problematic. I believe that if a part can be formed rather than machined, the switch to forming will occur." He speaks with eloquent force about continuing to be a forming systems builder that will continue to work for the benefit of people and community.

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The origins of AIDA Engineering, Ltd., can be traced to Aida Iron Works, which was established in 1917 by Yokei Aida. In the ensuing 90 years, AIDA has concentrated

on the development, manufacture, and sale of specialized metalforming systems, specifically presses and automated machines such as automatic transfer feeders and industrial robots. At its core, AIDA is an engineering company, and this is what drives its quest for excellence.
Many industrial products such as automobiles, appliances, computers, cell phones, and digital cameras are produced using presses. Most of the AIDA forming systems are utilized in industrial fields. The bulwark that allows AIDA to maintain its high market share both within Japan and on a global basis is its advanced engineering capabilities.
As a specialized manufacturer of forming systems, AIDA has been engaged in R&D aimed at introducing innovative technologies and products in the metalforming field. AIDA has led the industry in Japan, and its achievements include being the first domestic company to introduce a knuckle joint press (1933), an automatic capping press (1951), a 200tf high-speed automatic press (1955), a transfer press (1960), and an industrial robot (1968).

Redefining the Concept of a Press

Presses are especially suited for mass production, and compared to milling machines they provide much higher productivity, yet up to now presses have been lagging behind milling machines in terms of forming accuracy and in terms of flexibility in accommodating changes in forming details. This conventional press concept has been redefined by AIDA presses.
In the 1980s and 1990s a lot of attention was given to ‘near net shape forming,’ i.e., forging processes that finished products up through their final shape while generating almost no scrap or dust. Presses were introduced that rewrote the concept of a press—where the focus was on the pursuit of precision while simultaneously pursuing productivity.
Additionally, in recent years AIDA has introduced revolutionary technologies and products such as the Direct Servo Former Series (2002) featuring the world’s first direct-drive servo motor drive and the UL Series (2003), an ultra-high-precision press.
The servo motor on the Direct Servo Former allows the slide motion to be infinitely programmable. This allows the usage of slide motion that matches the characteristics of the material being formed, and enables high value-added forming. Moreover, this contributes to higher visibility in customer’s automobile manufacturing facilities, etc., as it is now possible to switch to the digitized world from the world of implicit metalforming knowledge that has had to rely on the experience and intuition of veterans,
AIDA internally manufactures its servo motors. This is because unlike the high rpm servo motors required for milling machines, presses require low-speed high-torque servo motors. AIDA searched for a suitable servo motor, but being unable to find one, AIDA went on to develop its own servo motor. There is definitely a link

between the confidence that is built by such tenacious persistence and the ability of AIDA to accommodate a broad range of customer needs.
At the same time, the UL Series with its innovative 9-point support mechanism, high mechanical rigidity, and zero-clearance slide motion reduces the load applied on the dies. Even if super-hard alloys are used in the dies, the typical die-related problems do not occur. Metalforming machines that greatly extend die life are thereby attempting to change even the way dies themselves are made.
There are many products such as these that could be cited as examples of products and forming technologies that have been developed by AIDA. AIDA has also submitted over 500 patent applications in just the last 10 years, and this is one barometer for assessing AIDA's engineering capabilities.

A Customer-Driven Development System

The majority of AIDA's manufactured products are custom-built machines. AIDA is constantly receiving challenging requests from automotive OEMs and other customers to develop metalforming processes with micron-level accuracies, to accommodate new materials, and to find environmentally-friendly processes. In order to respond to a customer looking for ways to manufacture a specific product with higher quality at a lower cost, AIDA pulls together technologies for presses, controls, and tooling, and R&D of forming processes. AIDA is also continuously improving its problem-solving abilities to cover the entire range of production systems by means of the in-house development and manufacture of various automation devices and industrial robots. This is how AIDA as a forming systems builder leverages its amassed knowledge of the entire production process to provide the optimal solutions demanded by its customers.

Rising to the Challenges of New Forming System Fields

The automotive industry has focused on global warming prevention and customer safety, and is shifting to the use of lighter and stronger metal materials. The manufacturers of home appliances and electronic equipment have also shown a change in their preferences, moving from petroleum-derived plastic materials to recyclable metal materials. To achieve these goals, better technologies for more advanced and higher quality press metalforming are required. Moreover, in recent years there have been more and more parts that require high-speed and precision press manufacturing and processing technologies. One example of this is the fabrication of motor cores for hybrid cars by means of a rotating lamination process that takes place during the stamping of multiple ultra-thin silicon sheets. Considering all these various factors as a whole, AIDA believes that the range of applications as well as the demand for press metalforming will continue to expand in the future.
AIDA is also leveraging its plasticity forming technical expertise and experience as it concentrates its R&D in many new fields. In a recent joint-development project

with NEC, ‘lab-on-a-chip’ technologies that apply high-precision microfabrication techniques have been utilized to develop the world’s first portable DNA analyzer and related production techniques.

Four Global Manufacturing Locations

The work of a manufacturer does not end once a product is delivered to a customer. AIDA provides comprehensive support services, ranging from post-delivery preventive maintenance and spare parts sales to rebuild services such as overhauls and retrofits. Since every AIDA product has unique differences, it would be difficult for outside service engineers to handle these detailed specification differences, and thus AIDA directly manages every one of its service centers.
AIDA is expanding its high-quality service operations and working to further improve customer satisfaction by directly dispatching experienced and skilled AIDA service and sale engineers. And this is not just limited to Japan—AIDA’s global service network enables veteran engineers to provide identical levels of service support on a global basis.
AIDA has been actively expanding its business on a global basis since the 1970s. This is because AIDA’s major customers are in the automotive and consumer electronics industries. These customers began looking towards overseas markets and actively promoted the local production of their products. AIDA has now delivered products to customers in more than 60 countries, and has grown into a global corporation with manufacturing sites in Europe, the United States, Asia, and Japan.
AIDA also has sales and service centers in 34 cities in 16 countries including Japan, and strives to further improve customer satisfaction with its comprehensive service system.

Why AIDA was Nominated for this Award

Under the leadership of Pres. Kimikazu Aida, AIDA Engineering has contributed to the community and to industrial expansion by means of its high-speed, high-accuracy press products, including the new and innovative Direct Servo Former and UL Series ultra-high precision metalforming presses. The primary reasons given by the electors for nominating AIDA for this award are as follow:
(1) AIDA’s Direct Servo Former has largely redefined the basic concept of a press.
(2) The achievement of developing the ultimate UL Series presses that are gentle on dies, thereby changing the way dies are made.
(3) A strong commitment towards making high-quality products, including the internalization of servo motor production and the hiring of outside experts.
(4) Improving the overall balance of metalforming through joint research with the customer in order to optimize materials and dies.
(5) Expanding globally at an early stage, and initiating the acceptance of Japanese-manufactured presses in the global market.

(6) With its four manufacturing sites in Europe, the United States, Asia, and Japan, having been very successful in expanding its marketing activities to closely track local market conditions.
(7) An outstanding business approach that always thinks in terms of its own in-house technologies as it foresees industry trends and acts accordingly.
(8) Sound management and a strong corporate constitution that has also never posted a loss over its 90-year history.

As a final note, AIDA also contributes to environmental conservation. The world is currently grappling with global warming and a number of other environmental issues. Manufacturing industries also play a role is solving such issues, and regardless of the industry sector, making a contribution to environmental protection is one corporate activity that is always required. The press metalforming that AIDA has pursued produces minimal scrap and dust, and these resource- and energy-conserving production methods also consume minimal electrical power, and as this is linked to improving the environment, there is a bright future for such press forming.

PHOTO CAPTIONS:
Pg. A-64: AIDA Headquarters
Pg. A-65:
1. Ultra-High Precision UL Series Presses
2. Press Forming Examples

Double-Action Forming	Back Pressure Forming
Wall Thickening Forming	Micro-Forming