

Local Personnel & Die Technology Support High Quality Press Parts

Streamlines Die Design by Introducing “EXCESS-HYBRID II”

Ito Seisakusho Co., Ltd. (Yokkaichi-city, Mie; President Sumio Ito) manufactures press parts in Japan, Philippines, Indonesia and delivers them to their customers throughout Japan and neighboring areas. Their strongest point is their local staff's capacity to handle the designing of progressive dies, (the company's specialty), at each overseas base and most importantly, the role of ITO-SEISAKUSHO PHILIPPINES CORPORATION (ISPC). They have the capability to design dies, same level as Japan and often take the lead for the headquarters during busy season. In 2017, they opened a plant exclusively for exporting progressive dies and are highly regarded as a strategic factory in developing the ASEAN market. Ito Seisakusho Co., Ltd. has been innovating their CAD/CAM system at all bases since 2015. At ISPC, they are also strengthening the system for die designing; utilizing the advantages of the new system in order to accommodate the requests from their customers for high quality and quick delivery.

Competitive Power Based on Strong Relationship Between Staff Members

ISPC was formally a partnered company after Ito Seisakusho Co., Ltd. expanded their business into the Philippines and became independent under full ownership of capital in 2003. They relocated in Carmelray Industrial Park II (an export processing zone) in Laguna and have 111 employees including temporary workers.

Ms. Rose G. Andrion became the President in 2017. She had been the head of accounting during the partnered company period, and a Certified Public Accountant. Through her career as General Manager and Vice President, she has been contributing to the growth of ISPC. Now, Ito Seisakusho Co. Ltd.'s overseas sales ratio is over 20%, and ISPC is making over 30% of the total profit.

“It is our excellent engineers and staff members who support our company. Mr. Sumio Ito (the chairman of ISPC) holds up the idea of ‘No Happiness for Employees, No Happiness for Company,’ and has taken time building a relationship of trust between employees. As a result, the company has become like a big family and almost none of us want to leave. I am also the one that has taken over his idea. Being a Japanese company, it is imperative for our employees to be disciplined and cooperative,

but we also think that it is important to provide them with opportunities of continuous learning and being competitive with with other companies, in terms of their salaries and enhancing benefit programs.” (President Andrion)

It takes time to develop a fully-educated engineer in a die manufacturing company. The employees who have been engaged in their work with loyalty to their company and have improved their skills, keeps heightening the competitiveness of ISPC.

With ISPC as a central figure, bases are also actively cooperating with each other. In the busy season in Japan, ISPC sends their engineers to their headquarters, where there are always four ISPC members working and gaining experience. Furthermore, when Ito Seisakusho Co., Ltd. founded a partnered company ITO-SEISAKUSHO ARMADA (ISA), ISPC sent their engineers in Indonesia to start up the plant, trained the local staff, and organized a system where they could produce die designing/manufacturing and press parts stamping. The training finished in December 2018, but the engineers at ISPC and ISA continued communication and trying to improve die technology.



President ROSE G. ANDRION

Efforts from Various Sides to Meet Customer Requests

export and delivered to customers in Japan, Thailand, Indonesia, United States and Mexico.

In the plant, the employees consistently work from designing progressive dies, to manufacturing, pressed parts stamping, welding, and assembling. In the die manufacturing sector, there are four machining centers, seven wire electrical discharge machines and many others in operation. In the pressed parts stamping sector, there are 34 press machines that range from 15t to 300t in six press lines. Four press machines were transferred and dedicated press line for more distinctive customers in 2019. Like Japan, they eliminate setup changes by keeping dies always equipped to press machines and are improving the stability and productivity of quality.

Mr. Kim Jae Jin has been the Vice President of the company since 2018. He has been engaged in die designing for many years at Fuji Xerox Co., Ltd. and after working at FUTABA CORPORATION, joined ISPC. "I think we are the only company that manufactures progressive dies mainly," he says, empathizing their strength. "Since we have the capability to design and manufacture internally, we can respond promptly to any sudden design changes."

"High quality, quick delivery, and even further; cost reduction: The requests are becoming very difficult," he says. "We cannot compete with others anymore by taking advantage of low labor costs to provide products."

Therefore, they are making efforts to "heighten the value of "MONODZUKURI" from various sides such as stabilizing quality to avoid producing defective products, proposing cost reduction through the VE/VA activities, eliminating waste by promoting TPS, promoting the KAIZEN activities in cooperation with customers and others, as well as improving technical capacities such as designing abilities.



Vice President KIM JAE JIN



Design Manager LAWRENCE R. UNGSON

Streamlining Die Design Utilizing Characteristic Functions of "EXCESS-HYBRID II"

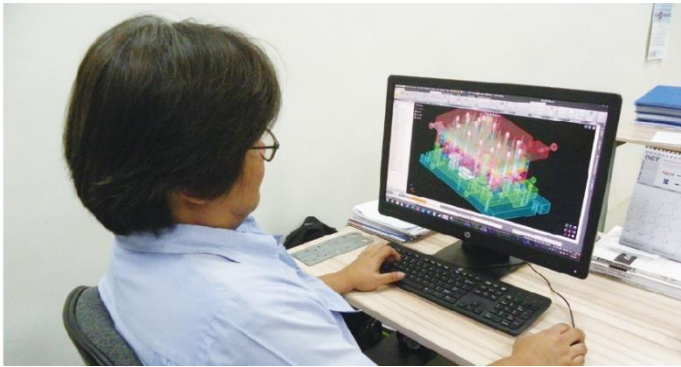
Die design is the starting point of press parts manufacturing. It isn't too bold to say that the quality of products depends on the quality of dies. At ISPC, there are three members working in the die design department under 43 year-old Manager Lawrence R. Ungson. Mr. Ungson is an experienced engineer who has been engaged in die design since the foundation of ISPC. He is mainly in charge of the design from strip layouts which is an important factor that directly affects product accuracy and conveyance stability in progressive dies. His skill level is well acknowledged by the headquarters, as he's been sent to ISA to train engineers in the past. The CAD/CAM system Mr. Ungson uses for his design work is "EXCESS-HYBRID II", which C&G Systems released in 2015 (hereafter "EXCESS"). "Compared to the previous version, I can shorten design time by 20% with this system," he says, with great satisfaction.

Ito Seisakusho Co., Ltd. replaced their CAD/CAM system with EXCESS in 2015. They first introduced it to the headquarters in Japan, then to improve compatibility within the group, developed it into ISPC and ISA. The module configuration of EXCESS is easy to expand the system, and so far, 13 systems have been introduced into the entire group. Among them are "Design 2D" with a die general-purpose function, "Design 3D" with a modeling function, and eight "CAM Options". Also "Base" with a viewer function and "Draw" with a basic drawing function are used in the Sales Department and have been very effective for making estimates.

ISPC utilizes "Design 2D", "Design 3D", and "CAM Option" at work. There are two functions that have been especially contributive to streamlining Mr. Ungson's design work. One is a function called "Hybrid View", which can achieve 2D designs with 3D models in drawings. Essentially, ISPC produces die design in 2D, however when it comes to layout designs of the parts that contain complex 3D shapes, 3D designs are sometimes necessary. Before EXCESS, multiple types of software were required for 2D CAD and 3D CAD; but after EXCESS, they now can show 3D models in drawings within one system and discuss layouts referring to those models, which is very efficient.

The other is "Master". If the information is registered on the finishing machines, stamping conditions of tools, patterns of finishing and others

in advance, NC data can be created efficiently. Especially valued is the “holes” function, which is often used in progressive dies. They can arrange round/irregular holes that have a stamping attribute by stamping types (drill, reamer, tap, wire electrical discharge machining, and others), hole diameters, depth, or the remaining amount against plate thickness and register hole information as Master. These standards of Master were created carefully over time by the headquarters in Japan and include past troubleshooting. Master is being utilized at and shared with three bases and contributing to standardization and streamlining. If there are any revision or abolition of standards at any base, the information will be shared with the other two bases.



Utilizing “EXCESS-HYBRID II” in Designing Progressive Press Dies



Progressive Press Dies



Shop Floor of Wire Electrical Discharge Machining

Aiming to Upgrade Design and Production by Utilizing IT

Engineering Co., Ltd., whose headquarters is in Japan. The company has a great deal of experience in local CAD/CAM support. They are closely located to ISPC and both companies’ Filipino employees have good communication with each other, which has led to more in-depth support for their customers.

ISPC has been promoting the total conversion of their CAM system to EXCESS. While they still partially use the old system, Mr. Ungson expects NDE DIGI-TECH to give them CAM training and operation support.

In addition, they are interested in “Butch Deployment” which is provided as “CAD Option” of EXCESS and considered its introduction. This function enables easy obtention of blank shapes from 3D models in drawing shapes, and can ease the testing process with sheet thickness deduction ratio in contour display.

Furthermore, as a group, they are considering the introduction of “AIQ”, a process control system of C&G Systems, to recognize uniform management of order and process information at three bases.

Aiming For Further Leap

and have them get greater and better experience through work,” says Mr. Ungson in great expectation of his members’ success. “I want each member to make efforts to provide our customers with value.”

The support for EXCESS at ISPC has been carried by CGS ASIA, a subsidiary of C&G Systems, or by technical centers in Indonesia. However, since 2019, NDE DIGI-TECH, an agent in the Philippines, has been in charge. NDE DIGI-TECH is a subsidiary of Nihon Design

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At ISPC, as they start increasing production for the exporting of progressive dies, Mr. Ungson and other die designers are expected to have further success. “It is my responsibility as manager to pass down the knowledge and the experience I have gained so far entirely to the members

At the same time, “I myself want to improve my technological skill further as an active engineer,” he says, looking into future. “Especially sheet metal forging technology – I want to learn it early on.”

President Andrion is also ready to take command of further growth based on the policy of ‘getting the staff to recognize and share the company’s direction and goal and constantly communicate with customers, suppliers, and shareholders.’



Active KAIZEN Activity

Support from Customer's Perspective NDE DIGI-TECH

NDE DIGI-TECH's President Kiyoyuki Iwakabe (left) and Vice President Takuya Matsui (right)



NDE DIGI-TECH was founded by Nihon Design Engineering Co., Ltd (NDE) in 2003 as a business expansion. Under Mr. Kiyoyuki Iwakabe (the President of NDE), Mr. Takuya Matsui is stationed as Vice president and takes command. There are about 40 employees; the majority of whom are in the 20-30 year old age range. With their strength of mold design and modeling using 3D CAD/CAM and creation of NC data, they mainly undertake work from the Japanese; leasing plastic mold manufactures and press mold manufactures. They have also been increasing the number of contract work from product manufacturers.

The company has been handling the support for “CAM-TOOL”, the CAM system of C&G Systems, for about seven years or so. “Our company’s strength is that we are a customer of CAM-TOOL ourselves. We can support the creation of data as well as provide staff training and deal with inquiries.” (President Iwakabe)

Technical support for “EXCESS-HYBRID II ” was started in January 2019. The person in charge of NC data creation is an experienced engineer in his 20’s. “Although English is an official language in the Philippines, when it comes to smooth communication, Tagalog seems to be better among Filipinos.” (Vice President Matsui)

Since they have just started technical support, they say they are still studying progressive dies. “While getting a lot of advice from ISPC, we want to improve our level of support so as to be able to deal with any inquiries,” says President Iwakabe. “Our goal is to be able to undertake design of progressive dies.”



40 Filipinos Working at NDE DIGI-TECH