

We Walk
Alongside The World

YIZUMI伊之密

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CRAFT

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YIZUMI Customer Magazine

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Technology
Connecting
China
And Europe



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P03 Preview



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P35 YFO

Looking into the Future of China's Equipment Manufacturing from the Transformation of Embroidery Machines

As the company's divisions have re-customized the working attire and suits recently, we got to know many clothing brand factories and suppliers. Amid communicating with them, we were surprised to discover that the innovation and getting smart and intelligent in the embroidery equipment has certainly surpassed our general knowledge.

We all know that the stitch work on the current clothes, shoes, backpacks is mass produced by computerized embroidery machines. However, this type of large-scale, standardized "production" is different from the compression molding of the injection molding machines as well as the die casting machines. The compression molding equipment requires the interchangeability of molds due to different products to achieve the necessary production, while the computerized embroidery machine requires a super "huge brain" to memorize the millions of patterns nevertheless. The needle count in memory may shoot up to hundreds of thousands and even up to a few million. Multiple machine heads can be deployed for the embroidery work. In addition to achieving a high-speed change of color, this method can also automatically change the bottom threads. In a 1-minute period, it can sew an apple pattern formed by gold flakes.

As such, for the embroidery machines, the control system is of paramount importance. The cost is about 30 percent of the total costs of a whole embroidery machine. Regardless of the development of either the embroidery machines or the molding equipment, we are clearly aware that the key is still in the technology. In the increasing trend of getting smarter and more intelligent in the manufacturing process, the hardware value of the machinery, on one hand, has been constantly impaired, while the software, technological value, on the other hand, has been increasingly elevated. Even the robot itself is just a carrier, its core is still the technology.

According to reliable sources, the price for an existing 5-axis servo injection molding robot is about 28,000 yuan. The 4-axis arm swinging type of robot in the stamping production line is about 60,000 to 80,000 yuan. The robot is evolving into the low-cost development phase. But to date, there are still many customers who have not yet to replace the human manpower with machinery. Their main concern is not about the prices, but rather how to achieve automation and getting smart in the production process under the condition where the products and technologies have become relatively complex. At the same time, despite the current expensive prices for the application technologies such as visual automatic programming, pressure control sensor, laser welding, etc., these technologies are still being deployed by many companies in China.

Technology is the soul, while the machinery is the carrier of manufacturing. The future development of China's equipment manufacturing may be dominantly controlled by technology.

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Foam Injection Molding – more than just bubbles



Dr.-Ing. Hans Wobbe



Foam injection-molding sounds like a well-known technology and since many years introduced into the market. Indeed a large number of molders mainly in Europe and North America are using this technique to generate physically foamed parts. Thereby the process of thermoplastic foam injection molding (FIM) is not used in the branch of automotive alone. Also among the producers of electronic components and partly in the area of white goods or home appliances FIM is established. However, when applying the physical foaming process, the part design engineers need to consider at the beginning of the part design the major aspects of FIM component design. That relates into a different tool design compared to tool design for compact components! Only then, they

can benefit from the entire potential of this special process. Due to this reason a lot of molders in China, which already have some experience based on foam injection molding trials with molds, designed for compact components, are talking with reluctance about this process.

Also the introduction of the FIM technology in the western countries was a long and rocky path of research and development work. Nowadays the former niche application especially in automotive has gone over into a reliable large series production process. Due to the high advantages compared to compact part design, we predict the FIM process will be a standard process in the next coming years for all molders over the world.

[Low warpage](#)

[No sink marks in case of thin wall parts](#)

[Lower melt viscosity with higher flow ability of the melt](#)

[Low mold pressure Low mold pressure compared to compact design](#)

Mucell®

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Talking about the lightweight design trend, foam injection molding is the first step into this field! The high number of beneficial properties affecting the part and the molding process in a very favorable way. The technique is the best choice for applications requiring high dimensional stability in weight optimized structures or components with the following advantages:

- Low warpage
- No sink marks in case of thin wall parts
- Lower melt viscosity with higher flow ability of the melt
- Low mold pressure compared to compact design



(figure:Trexel) washing machine cover plate company Miele

In the case of a washing machine cover plate on the left, the molder reaches a total weight saving of more than 30%. App. 10% was reached by the foaming, more than 20% was related to the new component design following the design rules of FIT. To fully understand this, the designer needs know-how about the process basics.

Mainly three basics have to taken into account during part design: First: We have no usual warpage compared to compact molding, because pressure build up in the cavities is perfectly homogenous due to foam expansion. Second: The foam is generated as an integral foam and the parts can be designed according

to the demands of load and low weight. Third: Due to the lower viscosity based by the blowing agent the design can be executed with higher flow path / wall thickness ratios.

The next figure shows the potential of the foam injection molding process compared to compact molding. The chart shows additionally the big influence of the part design – called lightweight design –and in all cases a significant cost saving!

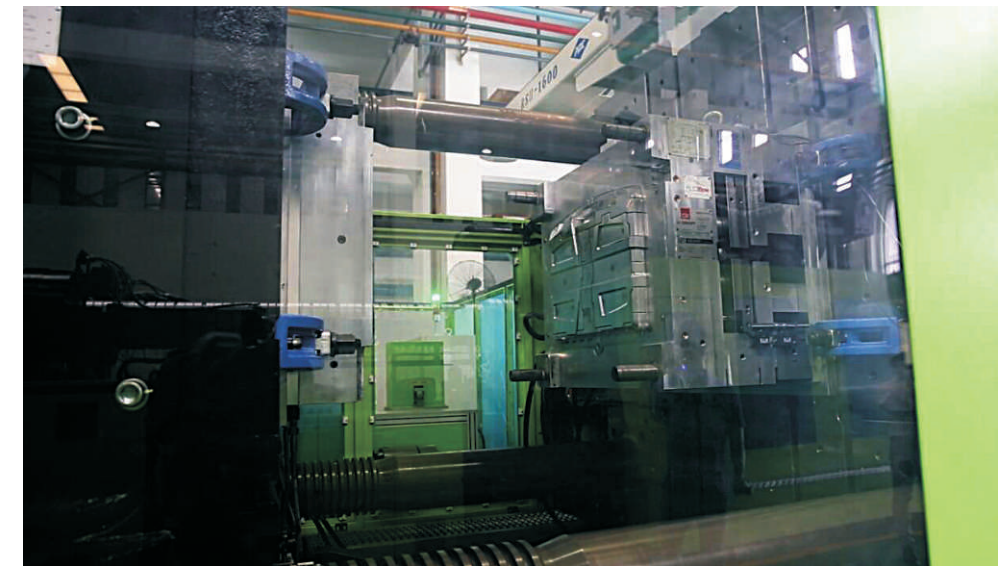
Foaming with MuCell state of the art

Reference part (Example)	Injection Molding compact (Reference, difference 0%)	Injection Molding with MuCell	Inj.Molding+ MuCell+ Lightweight Design
IT carrier			
Shroud			
Oil pan			
Underbody (draft with mold opening stroke)			
Remark	Molded part in conventional design: - Rid / Wall ratio - Flow length - Injected from thick to thin	Molded part in conventional design foamed with MuCell: - Less weight due to foamed structure - Production without holding pressure	MuCell enables free part design adapted to topographic load: - Lightweight design - Reduced wall thickness - Thick parts with lower Density - Rise in output

- T = Weight
- I = Investment
- P = Productivity
- C = Part costs ¹⁾
- ✱ = crucial mechanical property

¹⁾ Calculation based on a volume modell with 300.000 cars per year

(figure: Trexel) Foaming with MuCell – state of the art



YIZUMI's DP series machines teaming up with aluminum alloy mold manufacturing toolbox

figure:YIZUMI

Trexel developed the so-called MuCell process of physical foaming since 20 years and is a technology partner of Yizumi. The figure shows the state of the art of European injection molding machine manufacturers.

Yizumi showed the newest development in FIT with additional advantages concerning cycle time reduction at the last Chinaplas: The main step into a significant cycle time reduction compared to the state of the art FIT (see figure above) was based on Aluminum mold design. Due to the low cavity pressure of the FIT process, Al is a suitable material for tools for foam injection molding. The cycle time reduction compared to steel molds can be in some cases up to 50%, based on the much better heat transfer coefficient, which effects the cooling time of the part. A ceramic layer at the surface of the mold compensates the disadvantage of higher wear in case of Al. Our technology partner Weimat in Belgium close to our newly founded development center in

Germany built the tool. The cost savings are fundamental: The Al tool is much cheaper than a steel mold and can be machined faster. The significant cycle time reduction relates to lower part costs.

As conclusion, the process of physical foaming offers a wide range of cost savings with the technology advantage of lightweight design. To achieve this the part designer has to understand the basics of FIT mentioned above. The system of Al tool, a special foam injection molding machine and the MuCell technology is offered by Yizumi as well as assistance in part design to reach the best cost reduction at high quality level of the application.

YIZUMI-HPM to Debut at NPE2018

From May 7 to 11, YIZUMI-HPM Corporation will exhibit two machines at NPE 2018 in the U.S: the DP-N series and A5-N series. Among them, the DP-N series solution that incorporates the FoamPro microcellular foam technology will demonstrate lightweight molding.



YIZUMI | HPM

Exhibiting Successful Products: DP-N series and AS-N series

The U.S. NPE2018, the plastics show with the largest scale and longest history in North America, is a triennial international plastics manufacturing exposition dating back to the launching year in 1946. To date, it already has a history of 72 years. NPE2018 will be held in Orlando, Florida, USA this year. The exposition will draw over 6,500 exhibiting companies from 128 countries/regions. Additionally, the exhibit floor area will surpass 1 million square feet.

To illustrate the commitment to the North American market, YIZUMI-HPM Corporation will make its first appearance at Booth W3343, West Hall after the change of company name that incorporates two brands. It will be showcasing the DP-N series two-platen injection molding machine as well as A5-N standard series high-end servo injection molding machine in the main access area of the exhibit stage.

Developed under Yizumi's IPD product development model, the DP and AS series

were officially launched in 2014. They have been obtaining favorable market response in China and Europe and sold to countries like France, the Netherlands, Turkey, Morocco, Malaysia, India, etc. Among them, the export revenue for A5 injection molding machine in 2017 had attained 160 million yuan, a significant 107% growth over the previous year. The showcasing of the American version A5 series at NPE2018 is a testament of Yizumi's confidence in these 2 product series.

To stir up interests from the North American market, the DP-N series will infer from the FoamPro microcellular foam technology to produce 5 types of high-quality document briefcase with gloss, matte, leather, fabric and fiber particles finish within a 49-second cycle. According to the introduction by the general manager, James Zhang, from Yizumi's Injection Molding Machine Division, this technology was making its first appearance at CHINAPLAS2017. It was insightfully developed based on the MuCell technology. In addition to achieving a 20% reduction in part weight, it can also shorten the molding cycle by 30% and lower the clamping force by 50%. Furthermore, it is a significant boost for superb cosmetic surface finishes. It can

also bolster various value-added qualities such as the reduction of warpage and shrinkage. "The North American market is no stranger to the microcellular foam technology. The main purpose to showcase FoamPro at NPE2018 is to allow the North American car, home appliances industries to recognize the constant self-advancement of YIZUMI-HPM. Together with the outstanding global partners, YIZUMI-HPM Corporation aims to deliver a solution for the lightweight plastic parts."

According to reliable sources, FoamPro's partners have gathered 6 renowned companies, namely Germany's GK Concept, U.S.'s Trexel, Belgium's Weimat, Italy's HRSflow, Germany's SINGLE and Netherlands's lyondelbasell.

Moreover, the A5-N series will be equipped with the Linde Group's gas-assisted injection molding (GAIM) process that controls the flow of molten materials, increases the precision of molded parts, reduces the consumption of raw materials as well as shortens the cooling and circulation period.

Expected Rapid Business Growth in the U.S. This Year

After the acquisition of HPM, Yizumi has been full of confidence in the North American market. It has since been sustainably increasing its investment in the North American market. Last year, the new factory of YIZUMI-HPM Corporation located in Morrow County, Ohio officially began its operation. Garnering positive market performance, its revenue surged 114% year-over-year.

This year, with the huge encouragement of the U.S. government to lure its manufacturing companies back to its shore and coupled with the recent enacted corporate tax reduction, James Zhang believes that the U.S. manufacturing industry is heralding a rapid development phase, with the downstream customers increasing equipment to expand the production capability and the surging proportion of renewal of old equipment. This is undoubtedly good news for YIZUMI-HPM.

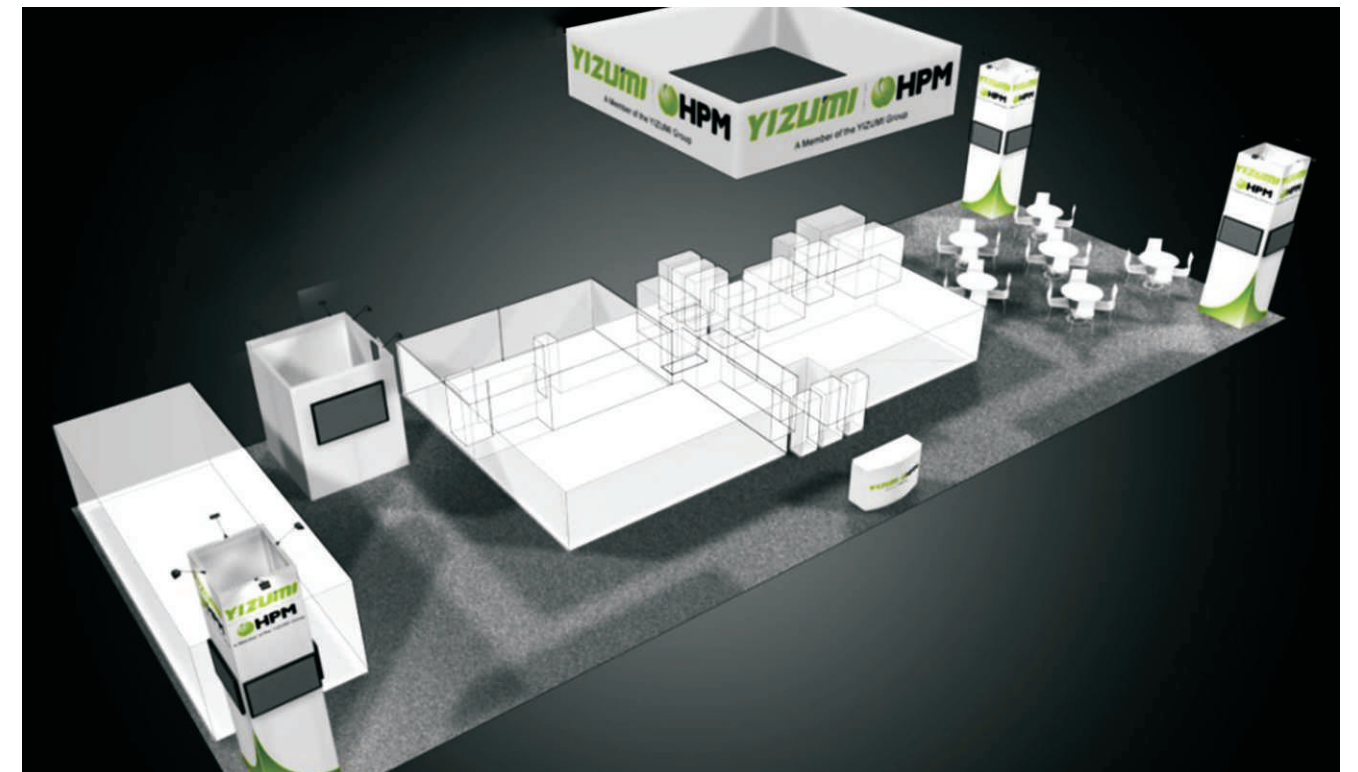
According to James Zhang, YIZUMI-HPM will fully leverage on the new factories invested in 2017 in the year 2018. It will comprehensively import the new products like the DP-N series, A5-N series and so on, expanding the inventories of the whole machines and their spare parts, and shorten the delivery schedules to the largest extent. At the same time, it will also reinforce the setting up of the marketing service system, and sustainably invest more resources in the marketing system. Yizumi's Overseas Business Center will also dispatch sales engineers to be based long-term in North America.

To expand the markets and deliver technical support for YIZUMI-HPM, it is expected that the sales in the U.S. market will maintain a relatively rapid growth rate in 2018.

Scientific Periodicals:

1) FoamPro, a microcellular foam technology, is based on the insightful development of MuCell technology. It integrates the SmartClamp mold-locking system, the aeronautical grade aluminum alloy mold technology, ATT technology, FLEXflow servo-driven hot runner system, etc. On top of achieving a 20% reduction in part weight, it can also shorten the molding cycle by 30% and lower the clamping force by 50%. Besides, it is a significant boost for superb cosmetic surface finishes. It can also bolster various value-added qualities such as the reduction of warpage and shrinkage.

2) Gas-assisted injection molding technology, GAIM in short, leverages on the pressurized inert gas to produce an insulating interface in the interior of a mold. The pressurized gas pushes the molten resin to complete the filling process, achieving a constant, evenly transmitted gas pressure, a one-time molding of parts with uneven wall thickness as well as eliminating the molding defects of the finished products. This is a new plastics molding technology that has only reached the application phase by the developed countries in the 90s of the 20th century.



Relocation to New Factory – The Global Capacity of Yizumi Surpasses 4 Billion Yuan



Last year, the industry prospect had been very promising and Yizumi's orders had also increased significantly. The production schedules were full each month. Nonetheless, as its capacity was inadequate, some deliveries were delayed. The production capacity issue has been impeding Yizumi's development. To raise the production capacity, Yizumi moved the product lines of high-speed packaging system and all-electric injection molding machine to Wusha Molding Factory Phase 2 at the beginning of the year. Besides, the phase 2 factory in progress is expected to begin its operation next year. The global capacity of Yizumi will be highly likely to surpass 4 billion yuan next year and the capacity issue will no longer be a headache for Yizumi.

in the downstream industries have undergone industrial upgrading resulting in a substantial boost for the demand of the precise, highly efficient, all-electric injection molding machines. The factory currently has received adequate orders. The monthly capacity in the first half of the year is about



Big changes to the two-platen injection molding machine production line are also anticipated this year. In view of the supply capacity of the heavy-duty processing equipment and to further satisfy the demands of auto parts, home appliances industries along the Jiangsu and Zhejiang provinces, the production of two-platen machines will be relocated to Yizumi's Wujiang production base in the middle of the year. Currently, the Wujiang production base can fulfill 500 million yuan of capacity requirements of the two-platen machines as well as 200 million yuan of capacity requirements of the robotic automation products.

20 sets, while that in the second half of the year is expected to be increased to about 30 sets per month.

In other words, in the early part of next year, Yizumi's Gaoli factory will be mainly used in the production of die casting machines. It is expected that the maximum capacity will exceed 1 billion yuan. Meanwhile, the Shunde Wusha injection molding factory and compression molding factory will also be mainly used in the manufacturing of three-platen injection molding machines, high-speed packaging systems, all-electric injection molding machines and rubber injection molding machines. The total capacity can reach 2.2 billion yuan. In addition, the orders received by the factory in India, which had begun operation in June last year, are very promising at the moment. This year, the planned production is 200 to 250 sets of injection molding machines. The existing factories can satisfy a capacity of 150 million yuan.

As such, after the completion and operation of the phase 2 molding factory, four Yizumi production bases in Gaoli, Wusha, Wujiang and India are expected to surpass 4 billion yuan at their maximum production capacities.

Phase 1 factory attains 350 million yuan of capacity

As the second new factory at Wusha, Yizumi molding factory occupies a land area of more than 90,000 square meters. In December 2016, the phase 1 factory with 23,000 square meters had already begun production. As of now, with the completion of the relocation, the phase 1 factory is mainly used for parts processing, the production of high-speed packaging system and the all-electric injection molding machines.

A new factory will signify an improvement in the capacity. For instance, the current facility can produce at least 30 sets of high-speed packaging systems (machines and molds). By the 4th quarter of 2018, the monthly capacity for high-speed packaging systems is likely to be raised to 40 sets.

Additionally, the all-electric injection molding machine project has a very good head start in the beginning of the year. Many customers

“The relocation to the new factory will elevate the management efficiencies. The growth in the capacity will also improve significantly. The phase 1 factory is expected to satisfy the capacity requirements in relations to 350 million yuan of sales in the high-speed packaging systems and all-electric injection molding machines,” said James Zhang, Yizumi's Deputy Managing Director cum General Manager of the Injection Molding Machine Division.

Total production capacity may surpass 4 billion yuan with the operation of the phase 2 factory

On one side of the phase 1 factory, the phase 2 project has been actively undergoing construction in the meanwhile. According to plans, the phase 2 project will increase the production workshops by 57,000 square meters. It is expected to be completed in 2019. At that time, the product line of rubber injection molding machines will also be relocated here from Gaoli factory in Shunde.



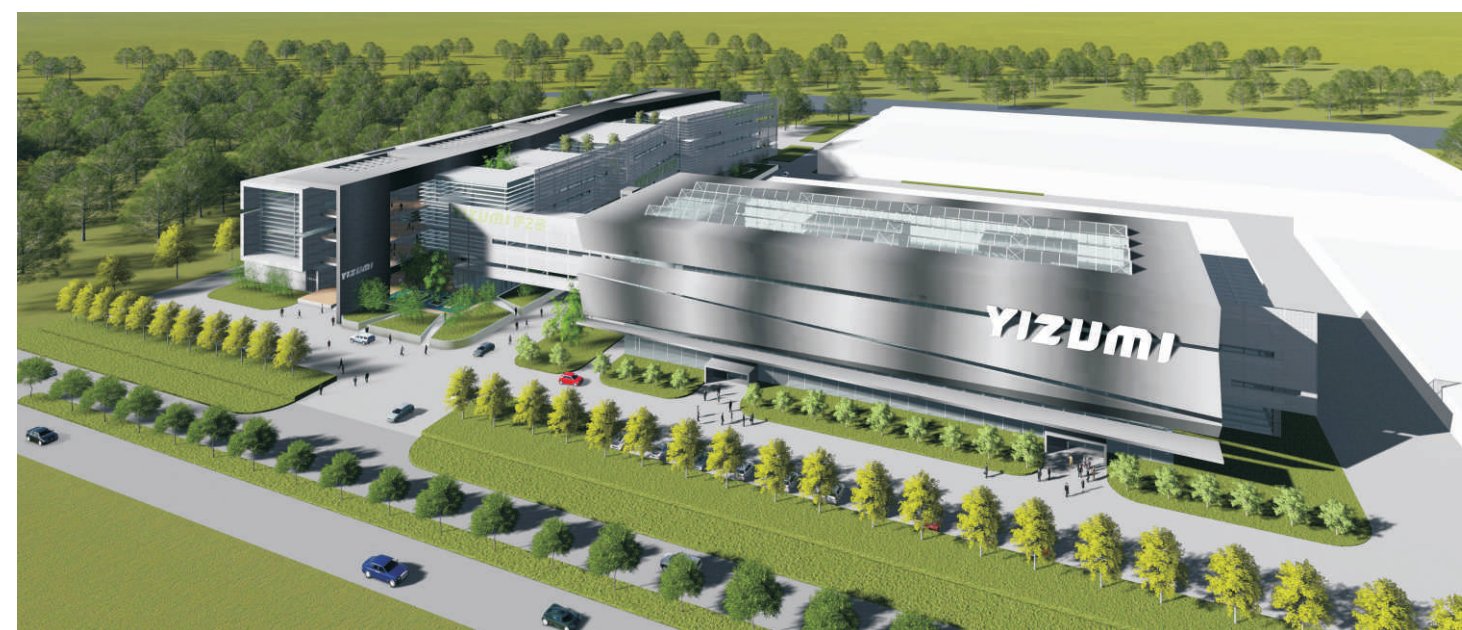
Last An open, global innovation center is on its way

For the future investments, besides the capacity expansion, R&D is also an important target for Yizumi. As of now, Yizumi is planning to build a R&D building of 20,000 square meters, including a testing center for new products and new technologies, a global innovation center, a technology exposition hall, a reporting hall, etc.

In light of the planning for the two centers, James Zhang further reiterated that with the establishment of the Germany's R&D center, the German team will import from Europe the technology solutions that have been commercialized or pending to be introduced to the market. The German team will also assimilate and apply the technology solutions in the innovation center, in addition

to simulating the production environment in the testing center to initiate further testing.

According to plans, the R&D building will be completed and starting its operation at the end of 2019. At that time, it is expected that all global customers and working partners will be witnessing first-hand the accomplishment of “connecting the molding technologies of China and Europe.”



Design Profile of Yizumi R&D Building

Yizumi Wins the Guangdong Province Government Quality Award 2017



In recent times, the Administration of Quality and Technology Supervision of Guangdong Province had issued a public announcement that Guangdong Yizumi Precision Machinery Co., Ltd was the winner of the “Guangdong Province Government Quality Award 2017.”

As a pioneer in the Chinese economic reform, the Guangdong Province had established the provincial government quality award in 2008. The Guangdong Province Government Quality Award is the highest quality award presented by the provincial government in Guangdong province. Resembling the U.S. Baldrige Award as a representation of the excellent performance model, it not only provides a benchmarking gauge toward the corporate integrated management, it is also a comprehensive evaluation of the corporate operating capability and sustainable development ability. Since the inception of the award in 2008, it has been a biennial event. To date, there are a total of 42 companies winning the accolade of the “Quality Award.” Among them, there were 10 companies winning the “Guangdong Province Government Quality Award 2017” , comprising of 8 manufacturing companies, 1 construction company and 1 service company.

As one of the representatives in the manufacturing industry, Yizumi has always been setting its priority in focusing on comprehensive quality management system ever since it was founded. In 2005, it

successfully achieved the accreditation of Guangdong Province Level 2 Measurement Assurance System, EC’s CE Safety Certification and ISO9001: 2000 Quality Management System Certification. In 2012, it was awarded the “Shunde Government Quality Award.” At the same time, Yizumi has been proactively driving the excellent, highly efficient management model. In 2014, it imported the IPD product development management process, leading the efforts to conduct product research and development as well as raise its autonomous innovative ability in response to the market demands. In 2015, it initiated the evolution of production operational model, comprehensively elevating the product quality standards through modular design, modular manufacturing and modular assembly.

This time, Yizumi won the Guangdong Province Government Quality Award 2017 by employing stringent examination and evaluation. This was a solid recognition of the achievement of Yizumi in quality management by the provincial government. In the future, Yizumi will continue to proactively implement the policies and measures advocated by the Guangdong provincial government in relations to high provincial construction quality. In the later stage of development, it will constantly insist on quality management, autonomous creativity, constant upgrading of technology in bid to become a global enterprise in its industry.



Yizumi’s Processing Manufacturing Center



Yizumi’s 3-Coordinate Testing Center

Scientific Periodicals: What conditions do a company require to be awarded the Guangdong Province Government Quality Award?



1)It must be registered within Guangdong Administrative Region for a period of 5 years and above and it must be eligible to be an independent legal representative.

2)It must comply with the state and provincial policies relating to the industry, environment, quality, etc. and it must obtain the relevant licenses for those listed within the scope of the national mandatory supervision management.

3)Sound quality management system,establishing excellent performance model to drive the organization,promote and apply the excellent performance management model for two years and above.

4)Leading position in domestic and overseas markets for its products, services, construction projects, operating quality, autonomous innovation ability, market competitiveness, etc.

5)Superior economic efficiency for manufacturing, profit-oriented service and construction company, rank in the leading chart in the domestic peer industry in terms of its operating scale, annual profit and tax, total asset contribution, and other indicators,while maintaining a promising future development.

6)It must proactively perform its social responsibility.



Technology Connecting China And Europe

Connection – Integration – Innovation



In 2017, Yizumi held the advanced molding technology exposition, Yizumi Connect 2017, and its 15th anniversary celebration. Nearly a thousand global clients had attended this special occasion. This year, Yizumi proposed the theme of “connecting the molding technology of China and Europe” for the first time and joined IKV and AZL. It also registered to set up a German R&D Center. Undoubtedly, Yizumi had used a year to cultivate its “connect” capability.

In the next step, it will look forward to a further integration with the global resources, constantly seeking diversity and inclusiveness while employing innovation and communication to build a new operating mechanism.



CONNECTING

Opening Up Yourself, Embracing Evolution



“Connecting Europe”, Yizumi has opened a window to assimilate the world-class technology, constantly soldiering forward with the endless passion and needs. Yizumi has been proactively looking for working partners in Europe, integrating its resources and exploring the leading technology to be incubated in China. Meanwhile, in the higher level of connection and integration, it is also facing head-on with various challenges ——

- How to accommodate the cultural diversity and how to allow the talents from different nationalities in Yizumi to adopt the value identity.

The cultural transformation is becoming an important topic for Yizumi.

Evolving Trends

The year 2017 was a little busy for Yizumi. Ushering in its 15th anniversary celebrations, it introduced the FoamPro, a microcellular foam technology, for the first time and hosted the “Advanced Molding Technology Connect Seminar” with an attending capacity of 1,500 participants. Its annual

revenue surpassed 2 billion yuan, while its profits grew significantly …… For the outsiders, Yizumi was undoubtedly one of the most rocking company in the explosive period of 2017.

This positive momentum had also extended to Europe from mainland China.

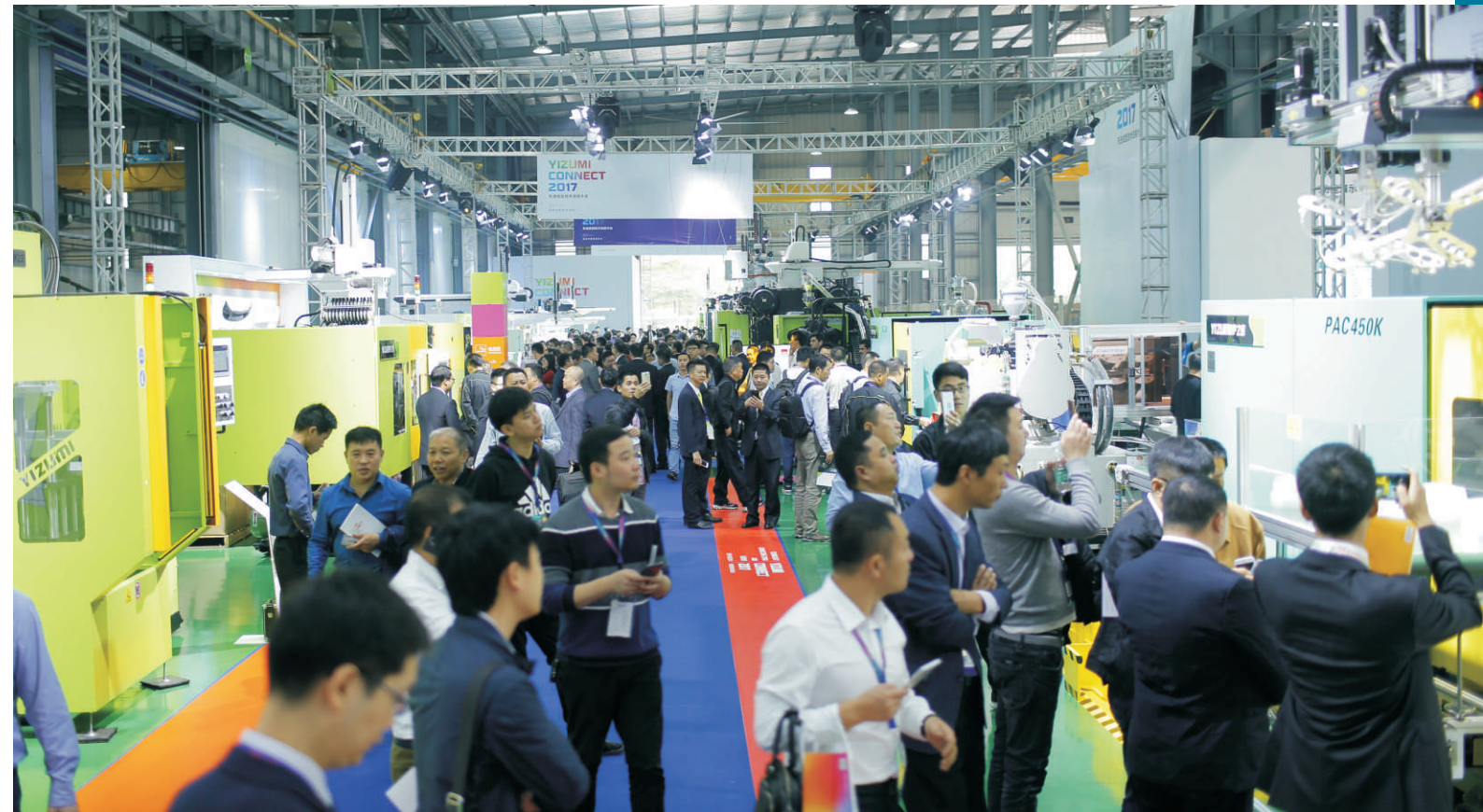
“In Europe, Yizumi has already become a hot issue.” In view of the response of the European peers toward Yizumi, Mr. Richard Yan believed that it was rather interesting. He said that in the past, when the European plastics industry mentioned about the China’s equipment companies, they might say something like “for example, there is a company named Yizumi.” Yizumi is just a member of the many Chinese enterprises, notwithstanding, “They hardly know what kind of company Yizumi is”

With the joining of Dr. Hans Wobbe, he built a communication bridge linking Yizumi with Europe. In 2017, Yizumi joined the Institute of Plastics Processing (IKV) at RWTH Aachen University and AZL Aachen GmbH

(Excellence in Lightweight Production) and registered the establishment of a German R&D Center. In addition to a massive recruitment drive in RWTH Aachen University, it also jointly invested with Prince & Weiss to set up an Environmental Plastics Innovation Center in Belgium.

Prince & Weiss’s General Manager, Michael Prince, had been the driving force behind the plastics innovation technology being promoted in Europe for Toyota in the past 10 years. In the recent half year, he had visited the headquarters of Yizumi in China on several occasions. He also participated in the client events of Yizumi and amid the interaction with its customers, he had also changed his impression toward Chinese companies: “Yizumi is a company that is rapidly growing with swift decision-making and market response.”

From the speedy technical collaboration and investment to the establishment of R&D centers, Yizumi has been initiating actions to shape its evolving profile in Europe.



Creativity & Innovation

Following the increasingly tight-knit technology connection with Europe, in particular with Germany, Yizumi has unearthed more resources and opportunities to carry out technical innovation and product creation. For instance, the FoamPro + DecoPro technologies that were showcased in CHINAPLAS 2017 were jointly completed and researched by Yizumi and Germany’s GK Concept. Under the foundation of MuCell Microcellular Foam technology, it leverages on the In Mold Graining, IMG technology and Back Injection technology, enabling the decorative foil and injection molding parts to be formed in one entity.

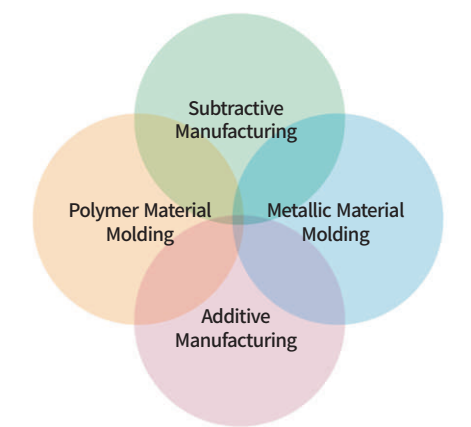
Besides the technologies, innovation was also exhibited in the extension of new businesses. The hybrid manufacturing cell exhibited in Germany’s HANNOVER MESSE had a distinctive differentiation from the molding technique that represented subtractive manufacturing employed by Yizumi in the past. It can achieve several amazing feats such as additive manufacturing (commonly known as 3D

printing), subtractive manufacturing, polishing, testing, and other mixed techniques. Currently, this product is technically supported by IKV. After importing such technology, Yizumi will initiate planning for industrialization in the subsequent development stages.

In relations to this new manufacturing technology transfer, Mr. Richard Yan affirmed that this is a natural progression to tread in the trending development of the global manufacturing industry. In the last decade, the manufacturing industry has been experiencing a dramatic evolution —— in the production model, the large-scale, standardized production of a single product has been transformed to a production capability incorporating small batches, customization, diversity according to the clients’ requirements. To date, the molding technology has not only optimized the large-scale, standardized manufacturing, it has also contributed to a burgeoning period of activities in the car and retail industries. And the recent introduction of additive manufacturing technology is an indication of another extreme for production —— small batches, individually customized, like organs

and tissues, construction models, industrial parts modelling, etc. These two types of manufacturing techniques are the obvious choices of today’s era of new consumerism.

“Even in the car factory located in Europe, some of them are still dependent on paper-based manual modelling construction.” Mr. Richard Yan said that the additive manufacturing technology has enabled Yizumi to penetrate into the area of material molding customization.



Yizumi’s Advanced Molding Technology Connect Seminar, YIZUMI CONNECT, was held on November 16, 2017. Global technical expertise and clients attended the seminar. It will be penciled as a triennial event.

Transcendence

Regardless of additive manufacturing or molding, they all belong to the area of high polymer and metallic material molding. In this way, the transfer of new manufacturing technology by Yizumi is both a surprise as well as a reasonable move. In light of how to position the development path of Yizumi in the future, Mr. Richard Yan directed a concise statement at the employee conference this year ----- to become the best cost performance solution provider of the leading technology. That is, to transfer the technology that has been commercialized or pending to be commercialized in Europe such as the MuCell Microcellular Foam technology, In Mold Graining, IMG technology. Thereafter, incubate and produce in the product platform of Yizumi, leverage on the advantages in China's manufacturing and enterprise operation to deliver the best cost performance solution for the global clients. Mr. Richard Yan reiterated: "Yizumi is pursuing a reasonable leading position in technology advancement,

soldiering in front of the pack while not being too fast."

Simultaneously, to attain the high-quality, rapid deliveries, Yizumi has implemented an upgraded operating strategy in the last 3 years, driving the modular design, technical optimization and production layout for each production line, and achieving a mixed model flow production of products with 200T and below. Products would be delivered within 7 days after receiving the orders. At present, the upgraded die casting operating team has achieved the flexible manufacturing first and it was awarded a 200,000-yuan prize in the employee conference this year. In addition, the new ERP system will be officially launched in the first half of the year. At the same time, Yizumi will also recruit the global experts in equipment manufacturing and production management, assimilate their advanced production management expertise and enhance the operating efficiency.



Cultural Upgrading

On top of production management, with the setting up of the German R&D center and the fulfillment of the Global Opening Up Innovation Center, it can be expected that more and more "Yige" of different professional expertise, different skin colors and languages would appear in the big family of Yizumi. This is also the ambition of Yizumi ----- "To become a world-class enterprise that is on par with the world-best machinery equipment companies in the areas of technical innovation, operating management, talent allocation, etc."

The diversity in its employees has brought along a new challenge for Yizumi. Some of the disputes in value proposition, technical computation, working methods have gradually appeared in Yizumi. The seamless integration of the Chinese and the Western cultures has become a thorny issue that has to be urgent addressed by Yizumi.

After assuming the designation as Microsoft's CEO in 2014, Satya Nadella has placed the shaping of the corporate culture in a very important position. He believed, "If the company's market objective is global in nature, we have to start from being global."

The diversity of the employees has to be enhanced, while any decision-making must consider the views and recommendations from the perspective of each party. Mr. Richard Yan is hoping that the company teams can proactively explore the diversity and inclusiveness, opening up themselves and accommodating all differences. "Yizumi has the passion and needs to constantly soldier forward. It has its own objective ----- to become a leading, world-class enterprise. Change is inevitable, otherwise we would still be in our comfort zones."

With the rapid global development of Yizumi, more resources and opportunities would also come along. And Yizumi would also have more options and spaces to grow its potential. However, resources would also dry up quickly. Culture is the only perpetual element. How to accommodate, grow, build a common value in the midst of a diversified cultural environment will be the next upgrading theme for Yizumi.



"Yizumi is pursuing a reasonable leading position in technology advancement, soldiering in front of the pack while not being too fast."



A joint venture by Yizumi and Prince&Weiss in Belgium, Environmental Plastics Innovation Center

FoamPro + DecoPro: Solution to Decorative Functional Auto Part Upgrade



In the automotive industry, lightweighting and functional surface improvement have been one of the most important directions for manufacturers. At CHINAPLAS 2018, Yizumi will focus on the needs of the automotive market. While pursuing weight reduction, Yizumi also conquered the difficulties in surface decoration process and combined the back injection, IMG and micro-foaming technology to launch FoamPro+DecoPro processes. Yizumi's machine will demonstrate the production of high-end car engine cover with a well foamed surface and aluminum foil decoration through one-step molding at the booth.

The combined processes can be applied to the upgrading of decorative functional automotive parts, meeting the demand for decorative materials such as metal, leather, and veneer. It can reduce the part weight by 30%, shorten the cycle time by more than 15%, eliminate warpage and shrinkage, reduce costs and bring exquisite foil surface decoration.

30% lighter part weight, over 15% shorter cycle time

For lighter part weight, Yizumi launched the FoamPro foaming process for the first time last year. It won great attention from markets and received the "Development and Innovation Award of China Automobile and Part Industry" as well. This year, FoamPro foaming process demonstrated its advantage in weight reduction—the use of U.S. Trexel's sMuCell process that can save material, reduce weight, and improve the quality of products on the basis of ensuring the product performance. Today, MuCell has been rapidly adopted worldwide, mainly applied in automotive, consumer electronics, medical devices, packaging and consumer products.

This year at CHINA PLAS, FoamPro will further give play to MuCell's potential in lightweighting, reducing part weight by 30% and shortening cycle time by more than 15% compared with traditional injection molding technology.

Elimination of warpage and shrinkage

It is certain that micro-foam technology still faces many challenges in the surface quality. The innovative SmartClamp system on Yizumi two-platen injection molding machine can ensure better surface quality of foamed products. The SmartClamp System can accurately and independently control the pressure and position through four tie bars to realize automatic platen parallelism calibration, with repeatability of ±0.015mm/2ms. Through the Breathing Mold Technology, the cavity size will be simultaneously increased during the foaming process, which effectively eliminates the potential internal stress and trapped air. The part will be well foamed with uniform wall thickness, higher precision and better surface quality.

At the same time, the FoamPro solution is equipped with the FLEXflow servo-driven valve-gated hot runner system developed by Italy's sHRSflow Company. The system can accurately adjust the needle valve speed, valve opening size and the opening and closing sequence. It can also solve some molding defects, such as weld marks, stress and warpage due to unbalanced runners.



- [MuCell microcellular foaming process](#)
- [SmartClamp system](#)
- [FLEXflow servo-driven valve-gated hot runner system](#)
- [Back injection](#)
- [In mould graining\(IMG\)](#)



One-step molding, low-cost substitute of slush/adhesive process

Nowadays, the covering of interior parts (such as automobile dashboards, door panels, etc.) or covered aluminum foil, veneer is becoming some indispensable processes. In recent years, Yizumi has increased investment in R&D, and continuously made breakthroughs in advanced automotive interior trim molding processes. For example, at CHINAPLAS 2016, Yizumi demonstrated in-mold leather covering for car seat component. This year, Yizumi launched DecoPro decoration process based on FoamPro process for one-step molding of automobile engine covers and aluminum foil surfaces at one time.

Different from the traditional spray painting process, DecoPro uses In Mould Graining (IMG) technology that attaches the surface-treated aluminum foil to the patterned cavity block in vacuum. A patterned surface will be produced through injection. The IMG process can be synchronous with molding, saving the equipment investment and operating procedures compared with traditional two-step process and greatly reducing the production costs. The accurate control by the FLEXflow hot runner system can prevent damage of the aluminum foil during the molding process.

In addition, DecoPro also employs innovative back injection technology for one-shot molding process, allowing thermoplastic back injection molding on a non-textured TPU film. Thus, high quality decorative parts are produced through one-step molding without the use of adhesives. The technology is provided by GK Concept,

Yizumi's technology partner in Germany, and has been patented.

Exquisite foil surface decoration

The FoamPro and DecoPro combination may surprise the audience at this year's CHINAPLAS. A thin layer of aluminum foil is applied to the surface of a molded automobile engine cover, not only adding metallic luster and touch to the product, but also reducing noise and temperature as the aluminum foil can reflect the infrared ray.

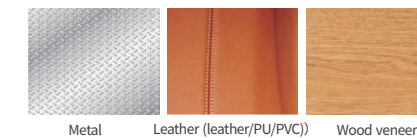
In addition to aluminum foil, DecoPro can also form decorative parts of different materials, such as leather (leather/PU/PVC), wood veneer or other metal foils, meet the appearance requirements of different decorative automotive interior trims.

Glory Chen, the Head of Yizumi New Materials and Processes Testing Center, stated that the DecoPro process, as the second innovative process introduced by its department, was developed to meet the needs of the iterative upgrade of the automotive industry. It aimed to provide customers with a more cost-effective molding method. Yizumi will also combine and innovate in processes and technologies such as FoamPro and DecoPro to provide customers with cutting-edge and cost-effective molding solutions. Customers who are interested in new technologies are also welcome to join this rank and make progress together.



Application Example

Part: automotive engine cover
 Cavity number: 1
 Material: 1.AKROMID A28 GF 30 EN MCL black (5966)
 2.Aluminium foil - Lyondell Basell PIT technology
 Size:400(L)×350(W)×25(H)mm
 Part weight: 445g
 Cycle time:60s



DecoPro can be applied to engine covers, center consoles, door panels and other automotive decorative parts

MultiPro: Injection Molding Technology

Producing Large Dual-Colored Plastics Cups with the C Series High-end Multi-Component Injection Machine



Keywords: multi-component, high-end, C series



Under the new trend of upgraded consumerism, the people's demands on quality, green environment, aesthetics and customization have portrayed unprecedented concerns and expectations. Following the rising trend in consumerism, Yizumi's MultiPro injection molding process allows flexible, rapid combinations of different types and sizes of modular injection units that are designed for different applications, to meet the individual demands and realize multi-component injection molding with double materials, three materials, even special materials.

MultiPro is committed to deliver a high-quality, multi-component injection molding solution for the customers. Using various molding technologies, it can both mitigate shrinkages and raise the passing rates as well as employ different materials for molding to elevate the physical properties of the finished products, lower the overall costs, shorten the cooling period and enhance the efficiency. Most importantly, through in-mold assembly or other special in-mold processes, MultiPro endows the plastic parts with all kinds of functions, such as sealing, light transmittance, heat insulation, electric insulation, human touch and one-time molding of joint products, etc.

MultiPro, not just molding of different colored plastics

Stepping up its efforts in the research and development revolving around MultiPro applications, Yizumi has launched a C series high-end multi-component injection molding machine, which is leveraging on stability plus individual customization as the core value for the customers. Engaging in in-depth research into the key issues facing the clients and the advanced needs of the market, Yizumi can satisfy the customization needs of its clients.

As a new generation of machinery, the C series has the following design highlights:

The application of the balanced force clamping technology, BFC in short, allows a more secured lifespan of the molds. The processes are easily to adjust. The finished products hardly have any flashes and they have higher precision and stability.

The application of the magnetically levitated turntable technology, MLT in short, enables turntable to rotate without contacting the platen. As such, there are no frictional damages and the speed is much faster. The movement control is also more stable and reliable.

The digital closed-loop positioning control technology, DCPC in short, is a patented technology of Yizumi. Through smart calculation coupled with the technique of real-time communication control, it achieves a turntable control accuracy of 0.001 degree as well as a speedier response. The control precision and stability are at least two levels higher than conventional turntable control.

The modular injection unit design that is available for flexible combination and the integration of standardized, universal interface and flexible software function can realize the rapid changing of injection units and the fast programming of the processes sequence, making individual customization a viable possibility.

At the CHINAPLAS 2018, MultiPro will partner with the C series 260 injection molding machine to make its first appearance. The machine will produce 400 ml, large capacity, dual-colored cups. In the future, MultiPro will deliver a variety of customized multi-component injection molding applications, providing more exciting application experience and higher value-added returns for the manufacturing industry.



Application Example
Part: two-component cup
Number of cavity: 1
Material: PCTG+ABS
Cup capacity: 400ml
Cycle time: 60s

PacPro: Specialized High-Speed IML Solution for Thin-Walled Packaging

Molding 4 small IML cups in a 3-second cycle



Keywords: high-speed, thin-walled, packaging



Capitalizing on the cumulative experience in the packaging industry over the years, Yizumi has rolled out the PacPro molding technology for thin-walled packaging. With the foundation of the PAC series high-speed specialized injection molding machines, it has also customized various solutions based on the varying clients and products, fulfilling the diversified demand from the clients in the future, delivering a turnkey injection molding solutions and ensuring high quality, high efficiency and high cost effectiveness at the same time.

Focusing on the high-end packaging market, the PacPro showcased at CHINAPLAS 2018 is specific to high-speed injection molding solution for IML thin-walled packaging. It shall work with the new PAC200 series, Yizumi's 4-cavity high-speed small cup mold, and fully automated IML robotic extractor to achieve a stable production cycle of 3 seconds or less.

The injection molding machine displayed adopts a reinforced rigid clamping unit with an improved platen design and an upgraded machinery frame, resulting in a smoother and more stable opening/closing movement. At the same time, the equipment will also use the single-cylinder injection unit to achieve a constant pressure in every injection.

Using the thin-walled products manufactured in a 3-second cycle as an example, this is equivalent to a repeating movement count of 28,800 for the platen every day. In a 300-day production year, the cumulative repeating movement count will be 8.64 million. Each exhibiting system component can operate in a high-speed, smooth and stable manner. All these have demonstrated the cumulative expertise and experience of Yizumi in the R&D and manufacturing technology of the injection molding machines.

Furthermore, the exhibited IML technology has significantly reduced the production procedures, lowered the energy consumption and enhanced the aesthetics and anti-counterfeiting characteristic. It is a common technology for high-end packaging in recent years.

Most importantly, the 3-second cycle is a watershed between the overseas and domestic branded equipment. And the implication depicts that the optimization ability of the system has reached a new height and the assembly technology has attained a much higher standard. In the packaging industry, efficiency is the key value. For instance, in a cycle of about 5 seconds, being faster by 1 second is equivalent to a higher efficiency of about 20 plus per cent.

Application Example
Part: small IML cup
Mold supplier: Yizumi
Number of cavity: 4
Material: PP980
Part weight: 6.5g × 4
Cycle time: ≤ 3s



OpticPro: Specific to LSR Optics Molding

FF Series Demonstrates an Automated LSR Optical Lens Molding Solution

Keywords: optical lens, liquid silicone rubber (LSR), electric injection molding, fully automatic



In the different scenarios where the Audis, BMWs and Mercedes Benzs are passing us with their fascinating and mind-blowing headlamps; where we are staring in amazement at the on-coming headlamps;



where we can see clearly all the sceneries, near or far, during the night and radiate those luring Xenon lights ——— we cannot help but sigh with relief that technological advancement has brought us both aesthetics and enjoyment!

What is exactly the secret in the headlamps fitted with optical lens that can easily grab the attention of most people? Is it because of its cool style? Or is it because of the seducing lights emanating from it? Nope. The reason why the headlamps fitted with optical lens can be widely used in the luxury auto segment and gradually gaining popularity in the middle and low-end auto segment is mainly due to its natural advantages as well as its irreplaceable attribute.

An optical lens is like the lens of a human eye. Glass optical lenses are mostly used in traditional cars. Besides having high light transmission and high rigidity, it also possesses high durability. From the application perspective, it also has unparalleled advantages. However, while enjoying these advantages, the downside is the disadvantages of high prices, easily cracked, processing difficulties, etc. resulting in most of the people not being able to really enjoy the benefits brought about by this technology.

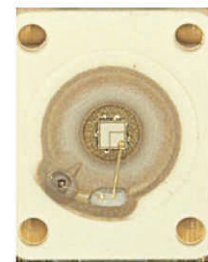
Subsequently, the PC and PMMA optical lenses have also entered the market along with the rapid development of material, mold and injection molding technologies. In comparison with glass, its superior processing viability has ensured a differentiating cost performance. But one of the issues will also surface at the same time: Turning yellow. With the passage of



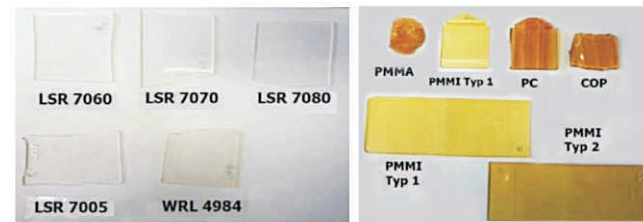
time, the traditional plastics optical lenses will gradually turn yellow, just like one getting old and finally reaching the state of adopting a “blur vision.”



New LED with an epoxy resin encapsulation



LED with degraded encapsulation



Yellowing after 6480 operating hours at 150°C

LED made of LSR is obviously more resistant to yellowing

(Source: IKV)



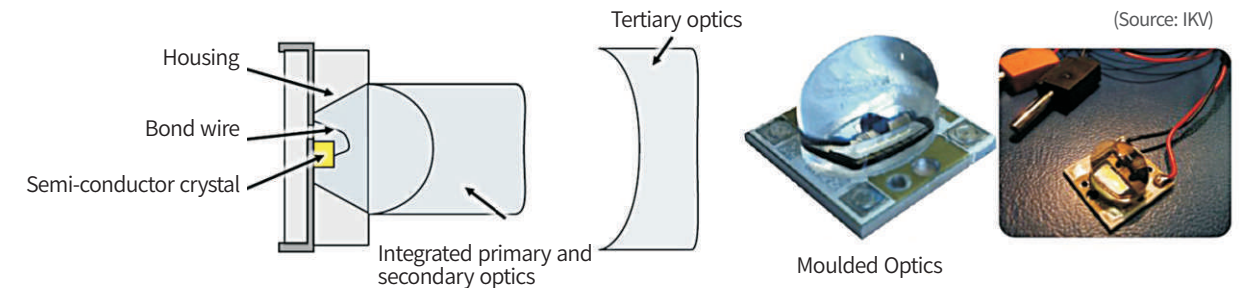
Between the user experience and the price to pay, it must strike an appropriate balance. Against such reason, the needs for optical silicone rubber have emerged. The key advantage of Light Liquid Silicone Rubber (LLSR) is its high light transmission. Its light transmission rate can be as high as 95%. In addition, it also has a superior anti-UV and stability of light in the blue spectrum. The automotive headlamps are using high power light sources. Although the highlight of the new generation of LED system is low power with high brightness, the light temperature in common car models can reach as high as 150°C. Under the combined effects of this type of high temperature and high radiation, it is very easy to speed up the aging process of the existing optical thermoplastics lenses and shorten the longevity of the LED system. Interestingly, the physical stability of the silicone rubber optical lenses can once and for all remove the critical issue of turning yellow.

Comparing with halogen lamps, the low beam illumination area of the LSR optical lens headlamps is wider and more uniform, and brighter at the same time. The bright and dark toggling line of its low beam light is also more apparent. While driving during the night, its outstanding illumination effect will not affect the vision of the on-coming cars. And the high beam radiation effect is so much better than the halogen lamps. Toggling between the high and low beam, the mechatronic LSR optical lens control system is more superior than halogen lamps. Its toggle speed is as fast as lightning. This will denote that night driving has become safer.

“It’s beginning to be a little crazy to employ artificial rubber to manufacture optical lens because traditionally, this market has always been monopolized by rigid materials”, MOMENTIVE LSR Automotive Application Technical Head Thorsten Hauser

said. “But in reality, the advantages of LSR materials such as transparency, no cracks under stress and the possibility of economical production of complex geometrical structures, provide unlimited potential for the future applications of this type of highly transparent materials.”

Redirecting the focus in the market needs of the liquid silicone rubber optical lenses, Yizumi’s domestic technical team and the German R&D Center have jointly conducted intensive research and development, unveiling OpticPro process and promoting the optical applications of liquid silicone rubber. In the CHINAPLAS exposition, the FF series electric injection molding machines jointly designed by Yizumi and its European partners will produce the LSR street light lens on site with the realization of fully automatic parts removal and packing.



(Source: IKV)

LSR materials can be used for multi-layer injection molding on the core due to low viscosity and low injection pressure, which saves the production costs



Application Example

- Part: LSR street light lens
- Number of cavity: 1
- Material: Highly transparent LSR (LIM1030-70AB)
- Part weight: 123g
- Cycle time: 310s
- Part dimensions: 128mm×93mm×30mm

A5S Series Upgraded High-end Servo Injection Molding Machine

Producing 24 Trigger Sprayers per Cycle

Keywords: Precision, stable, highly efficient



After showcasing the PETG thick-walled transparent products – cosmetic serum jars at CHINAPLAS 2017, in the exposition of CHINAPLAS this year, the standard A5S Series upgraded high-end servo injection molding machine once again accepts the challenges from the cosmetic market. Using the PP raw material, UN260A5S will be producing the universal cosmetic packaging on-site – trigger sprayers in a 24-cavity mold and the weight of a single product is 3.6 g.

In the molding process of cosmetic packaging, the injection molding machines must be precise, stable and highly efficient as well as a very high QC rate for the finished products. To ensure the plasticizing effect of the trigger sprayer and improve the passing rate for the finished products, UN260A5S has upgraded machine configuration: The injection system is using a linear guide rails, effectively reducing the friction of the moving injection unit and improving the injection preciseness. Equipped with the new generation of screw and barrel parts, UN260A5S lifts the color-mixing quality while providing a boost to the plasticizing speed at the same time. The digitally-controlled back pressure control can improve the plasticizing quality and raise the stability of injection in a more precise manner. The use of upgraded Mirel's MK500 control system can enhance the control of the whole machine, resulting in higher stability of the molded parts and machine.



In view of the unique characteristics of the cosmetic market, Yizumi's technical team has upgraded the hydraulic system and servo pump configuration of A5S series high-end servo injection molding, allowing speedy plasticizing, stable production, accurate position control and high repeatability of the plastic parts. As a kind of universal injection molding machine, the upgraded A5S series will be comprehensively applicable to the whole cosmetic packaging industry, delivering a turnkey solution to the cosmetic clients.

In addition, in this exposition, UN260A5S will partner with the magnetic platen to provide rapid mold change for its clients, enhancing productivity in the process. Furthermore, it will coordinate with the conveyor belts, side crushing machines, automatic feeding machines and other auxiliary equipment, and capitalize on the conveyor belts to carry out the separation of products and biscuits that will be crushed and recycled to achieve automation of the whole work cell.



Unique Features of the Exhibited Machinery:

- **Precise and stable:** Under the standard molding conditions, the precision of positional control is up to $\pm 0.2\text{mm}$ and the part weight repeatability is $\leq 3\%$.
- **Fast and efficient:** Employing a new generation of upgraded screw and barrel assembly with fast plasticizing and quick response.



Application Example
 Part: trigger sprayer
 Number of cavity: 24
 Material: PP (T30S)
 Part weight: 3.6g × 24
 Total part weight per cycle:
 160.4g (gate included)
 Cycle time: 28s

Yizumi Exhibits YL2-V280L & YL2-V250L Rubber Injection Machines at CHINAPLAS

Keywords: Stability, High-precision, Modular, Individuality



With 50% growth in sales turnover, YIZUMI rubber machinery has acquired an outstanding achievement in the market last year, there overseas sales turnover rose up to 80%, with a significant increase in Europe, South America, India...etc. Continuing last

year's development, YIZUMI will exhibit two rubber injection machines, one European standard YL2-V280L machine and one Asia standard YL2-V250L machine at CHINAPLAS in Shanghai in April 2018.

YL2-V280L European standard RIM

Advanced close-loop control system is carried on this model that provide high precision and stable control for each movement. Key performance parameters are displayed in curves on both local and remote PC. Machine running status can be easily observed in the office. Also, statistics and analysis on the historical data of product molding process can be accessible. Meanwhile, by adopting free-editable program, machine flow sequence can be freely editable per different needs of mold and molding process. Demonstration of production will be shown during CHINAPLAS.

Machine Highlights

- 1) Patented "three-balanced vertical injection cylinder" structure, "FILO" injection system, precise control of injection volume;
- 2) High response Siemens PLC, Version 4 proprietary software, free-editable machine sequence, communication access available for MES;
- 3) Energy efficient dynamic system with lower heating consumption;
- 4) Machine operation per European habits, and with simple mold compatibility;
- 5) Energy efficient precise hydraulic system;
- 6) CE compliance;
- 7) Wireless remote control.



YL2-V250L Asian standard RIM

YIZUMI take the lead in further applying the modular design achievements in the global rubber injection machine industry, and provide diversified combination to satisfy customers' individuality in demand. What's more, by integrating proven new technologies, Yizumi provide conditions for realizing automatic production in factory. It is applicable to all kinds of auto parts (Anti-vibration Parts, Oil Seal, Cylinder Gasket, Dust Cover, bellows...etc.), caster, wire saw...etc.

Machine Highlights:

- 1) Free-editable machine sequence, process flow programmable per demand;
- 2) Larger heating platen with wide scope of application;
- 3) Patented "three-balanced vertical injection cylinder" structure, stable injection and higher precision;
- 4) International well-known electrical and hydraulic components to ensure the machine stabilization.
- 5) Remote control module can achieve wireless diagnosis and maintenance



【Case Study】 An Accomplishment in Tier-1 Auto Parts Market

Collaboration with Star Companies like Huawei Mold, Jiuding Automobile, Richang Auto Parts, etc.



Jiangsu province is the region with the largest production volume for automotive parts in China. With an industrial development of nearly 30 years, it has formed an industrial cluster comprising of Wuxi, Changzhou, Zhenjiang, Nanjing, Yancheng, etc. Taking Menghe town in Changzhou, Danbei and Jiepai towns in Danyang as the representative regions, these areas are the congregation of thousands of auto parts enterprises. Besides having a comprehensive array of auto parts, the industrial supply chain is also perfectly interconnected. The car production value in these areas has even breached the 100-billion-yuan mark. Furthermore, automotive enterprises like BAIC Group, Dongfeng, Zotye Auto, BAIC BJEV, etc. are all located in these areas.

With the trend of industrial constantly becoming high-end and cluster in the value chain of the automotive industry in Changzhou and Danyang, Yizumi also has been continuously working hard in the local auto parts industry, engaging in in-depth research into the problems facing the customers in areas like car decorative parts, automotive lighting, etc. and joining the world-class supply chains for the main car factories so as to provide solutions for the upgrading and renewal of auto parts.

Automotive lighting: the closed-loop variable displacement pump control system releases solutions for a wide variety of needs and requirements

The automotive lighting is one of the automobile electrical equipment, and there is a huge industrial group in Changzhou area, which covers hundreds of automotive lighting companies including the top 2 companies in its industry—Changzhou

Xingyu Automotive Lighting Systems Co.,LTD and TYC Damao automotive lighting company. Yizumi used the automotive lighting field as a breakthrough point in the deep cultivation of the regional market, studied the application requirements of the industry, optimized the plasticizing components, oil circuit system, successfully solved the problems of product black spot, water ripple, bubble and false water wire, etc. It can meet the needs of high value-added plastic molding of PC/PMMA transparent mask, light guide strip and 3.3cm lens. And in the field of optical molding it has been formed a good reputation. The customers of Yizumi covers many famous companies like Yishan automotive lighting Co., LTD, Jiuding automobile Co., LTD, Donggang Lamps Lanterns Co., LTD, Zhongyuan Lamp Co., LTD, Wenguang Lamp Co., LTD, Xinyuan Venhicle Industry Co., LTD., Qinlong Car`s Lamps Co., LTD and other key parts suppliers of Xingyu Automotive Lighting Systems Co.,LTD like Changzhou Huike and Changzhou Liyu and so on.

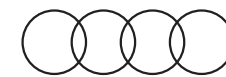
Jiuding Automobile: ratification of strategic collaboration

Changzhou Jiuding Automobile Co., Ltd is constantly striving to excel in the research and development and sales of automotive lightings. It focuses on the professional manufacturing of a wide range of products including headlamps, tail lamps, head fog lamps, rear view mirror, steering lamps, etc., delivering the auto parts for brands like Hunan Changfeng Qcar, Mercedes Benz, Honda, Beijing Hyundai, Chery Jaguar Land Rover, etc. Additionally, its products are also exported to many European countries and regions. From 2010 to the present time, Jiuding Automobile has already developed more than 200 types of auto parts. Currently, it has achieved mass production for nearly



170 types of auto parts.

Owing to Yizumi's in-depth research in the application of the auto lighting products as well as its superior equipment performance, Jiuding Automobile has ratified a strategic collaboration with Yizumi. It has also procured nearly 30 sets of injection molding machines to produce the big lamp shields, thick-walled strip lights and optical lens.



Auto decorative parts: driven by two-platen machines within the region

With the successful participation in the auto lighting area, Yizumi's injection molding machines have successively gained the trust and confidence of the automotive parts enterprises. And Yizumi has redirected its focus on the application needs of the auto decorative parts ----- stable dimensions and weight, no welding mark on the surface, no flashes and peeling for the electroplated parts, which are all delivering a solution with a high rate of return for its clients. Nowadays, the clients of Yizumi in the auto decorative parts comprises of many locally renowned enterprises such as Huawei Mold Co., Ltd, Jiangsu Richang, Danyang Xinglong, Changzhou Tenglong, Jiangsu Riyang, etc. Besides, the two-platen injection molding machines has become very popular with such enterprises in recent years. Not only can they produce large plastics parts, they can also fulfill the needs of the microcellular foam technology, low-pressure injection molding technology, etc.

Huawei Mold: stable commissioning of UN1850D1

Changzhou Huawei Mold Co., Ltd, the largest automotive bumper mold manufacturer in the world, is mainly providing molds of automotive exterior and interior parts to many global esteemed auto companies like BMW, Mercedes Benz, Audi, Volkswagen, General Motors, Ford, etc. Among them, the annual production of exterior molds has encompassed about 200 auto models. In addition, it has also successfully applied the leading advanced technologies, including microcellular foam technology, hot runner servo needle valve technology, and so on, satisfying the market needs of lightweight construction and green environment.

Huawei Mold has officially unveiled collaboration with Yizumi in 2016. It has procured the following machines such as UN160A5, UN320A5, UN1000A5, UN1850D1, UN2200A2 in different batches. At present, the machines are deployed in the injection molding and commissioning workshops. And

they have been operating in a stable manner. Moreover, they have undergone trial production of bumper and spoiler molds of the different brands, including Audi, BMW, etc. and the part weight repeatability is up to 3%. According to its workshop staff, they were extremely satisfied with Yizumi's equipment because they were very stable, easy to operate and allowing the staff to handle them in a speedy manner.

Jiangsu Richang: promising potential of D1 two-platen machines

Located in Danyang, which is well-known for the "car and motorcycle parts", Jiangsu Richang Auto Parts Co., Ltd is specializing in the research and development as well as the production of auto parts including auto lighting, exterior and interior parts, etc. It is currently a key supplier for Brilliance Auto Group. In addition to its lighting assembly production line as well as its auto plastics parts spraying automated production line, its products also include the head and tail bumpers, supports, auto lamps, decorative strips, etc.

An official collaboration was initiated between Jiangsu Richang and Yizumi in 2016. In the early period, it purchased the UN650A5 which had met the expected requirements of product quality from the company. On top of having an excellent working condition and the local comprehensive after sales services, Jiangsu Richang purchased 2 more two-platen machines, UN1850D1 and UN1100D1 before the Chinese New Year this year.



【Case Study】 Using UN1600D1 Two-platen Injection Machines to Produce MG Door Panels



■■■■

The car sharing industry has been capturing market share; the production volume of new energy cars has significantly spiked; SAIC Motor's 3rd factory has been completed In 2017, the development of the car industry in Zhengzhou has been fast and furious resulting in the total car production value reaching 110 billion yuan. At the same time, there were over 150 companies dealing in forming complete core sets of automobile components, and the localization rate reached nearly 30 per cent. In view of the increasing demand of Zhengzhou automobile industry, in recent years, Yizumi two-platen injection molding machine is also have been gradually consolidating their position in this region to provide a solution for supporting manufacturers.

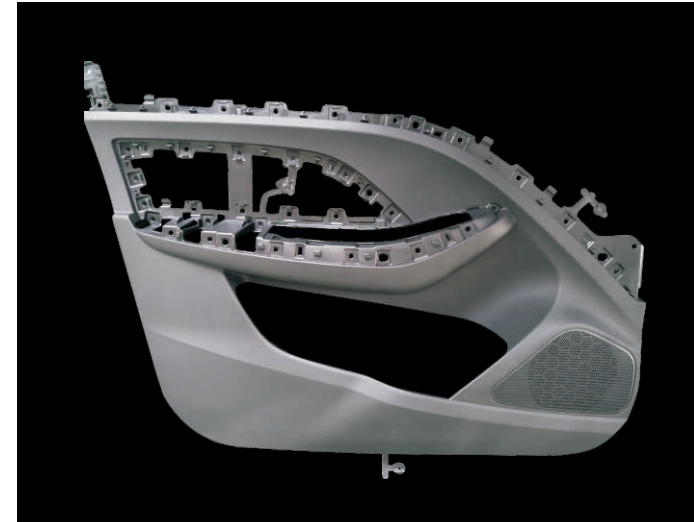
In a factory located in the Zhengzhou Economic Development Zone, a Yizumi's 1,600T D1 two-platen Injection machine was engaged in a regular production in a steady manner, providing an output of a MG (Morris Garages) door panel in a cycle time of 50 seconds. This was the first time that Zhengzhou Bonaire Auto Spare Parts Co., Ltd. had adopted Yizumi's equipment. The cooperation has boosted the confidence of the company in view of the future development in lightweight construction and integrated parts businesses.

According to the company's General Manager Mr. Zhong Binde, he has had many years of experience in the production of auto spare parts in Wuhan and Shiyan. His research team has even joined hands with Dongfeng Nissan Company to develop a type of new modified material to replace the steel automobile rear door anti-collision frame. With the market expansion, Mr. Zhong founded a new company with his team in

Zhengzhou in 2016 to fulfill the parts manufacturing needs of his clients such as Dongfeng Nissan, SAIC Motor, etc.

In a space of two years, the company's business grew rapidly. It covers from a single product to a range of diversified products, its existing product variety encompasses a host of automotive interior design parts, including dashboards, air-con integrated ducts, door panels, etc. The annual production volume experienced an exponential growth. Nowadays, he has already clinched the orders of related parts from SAIC Motor MG ZS, a new generation of Roewe small SUV, a new generation of Roewe Sedan AP3X, and other car models. Among them, the production output from the 1600D1 two-platen machines was exactly the MG ZS door panel. A relatively high efficiency coupled with robust stability has ensured the fulfillment of stable production, achieving super-fast deliveries.

Talking about the future collaboration, Mr. Zhong expressed that he was very excited and interested to work with Yizumi in the new technology areas. "This year, the research team would shift to Zhengzhou in order to get further cooperation with the world-class suppliers and automotive factories. According to the research and development of innovative products and materials for new energy vehicles, lightweight and other trends, Yizumi's two-platen, low-pressure injection molding technology, FoamPro microcellular foam technology and decorative molding technology would enable us to realize these ideas soon."



■■■■

According to reliable sources, the production of new energy cars in Zhengzhou started in 2015, and the annual production output in 2017 was 31,000, an increase of 17.1% over the same period. The growth rate of 26.4 per cent was faster than that of the total car production volume. It occupied 6.6 percent of the total car production volume. The consecutive investment of new energy car projects in Zhengzhou by companies such as SAIC Motor, Yutong, etc. has even bolstered the confidence level of the auto spare parts industry. Zooming in to the development prospects of the new energy cars, Yizumi will expand its focus to the Henan regions in Zhengzhou, delivering upgrading and renewal solutions of the decorative, functional parts for the local automotive industry.



0.3, 0.2, 0.1, Ultra-Thin!

FE Series All-Electric Injection Molding Machines: Perfect Performance without Compromise



Throughout the industries like 3C, daily chemical, and auto industries, the concept of “light and thin” has become the major trend in product development. 4.8 mm-thick mobile phone, 4.9 mm-thick 4K television set, the ultra-thin design keeps leaping forward, refreshing consumers experience constantly. Behind these ultra-thin products, it may be hard for consumers to tell intuitively a change of 1 mm or 0.1 mm in thickness. However, this is happened to be the constant pursuit of meticulous workmanship in the injection molding industry.

0.3 mm, 0.2 mm, 0.1 mm –The continuous innovation and breakthrough have helped Yizumi’s FE series all-electric injection molding machines to achieve new level of ultra-thin thickness one after another.

Ultra-thin Top 3

0.3 mm – Solution for Photographic Equipment Parts

Material processing has been the bottleneck for large-scale application of ultra-thin technology for a long time. The key factors like how to control the viscosity, temperature and fluidity of materials can drive the development of ultra-thin products in a better and faster manner. This is also one of the common problems that injection molding industry need to face together all the time.

Our technical team is the first to put forward a solution to tackle the problem. Through the continuous optimization of equipment performance and achieving a stable pressure relief while maintaining a constant pressure and controlling any shrinkage at the same time, we have successfully incubated the 0.3 mm thin of PC photographic frame gasket. It has opened a new door for the development of lightweight construction for the photographic products.



Ultra-thin Top2

0.2 mm – Solution for Ultra-thin Mobile Phone Parts



An ultra-thin product is often lighter in weight, allowing less dimensional tolerance of the part. Accommodating the ultra-thin thickness as well as the negligible weight is the most elegant exhibition of the ultra-thin technology.

With the trend of increasingly succinct, lightweight design concept in the iPhones, the demand for the parts technology will only be much higher. To fulfill the requirements of the clientele in this kind of precision processing, Yizumi’s FE all-electric injection molding machines have finally overcome the severe challenges through continuous improvement in practical applications. Nevertheless, it is a huge challenge to achieve a thickness of 0.2 mm and steadily maintain a weight of 0.02 g at the same time.

Ultra-thin Top 1

0.1 mm – Solution to Ultra-thin Accessories of Daily Chemical Products

When the product thickness has evolved to a certain level, the pursuit of the ultra-thin feature shall be ended at the function of products. This is the physical limit of the product. The best example is the daily chemical industry that focuses on the product’s thickness and tightness. The thinner the product is, the more flexible it will become, and the tightness effect will also be better. Nonetheless, excessively thin thickness will directly affect the robustness and functionality of the product. The tightness effect will also be impaired. And back to the technology level, this is exactly the fundamental problem of how to control the precision level and stability at the same time. To further satisfy such stringent requirement, our team has decided to redefine the thin concept. By applying flexible servo technologies with accurate and high stable holding pressure, we have successfully controlled the thickness of the sealed pump head to 0.1 mm while maintaining its tightness, perfectly achieving the good qualitative changes in ultra-thin thickness.



Yizumi’s FE All-Electric Injection Molding Machine Ultra-Thin Technology TOP 3 Chart			
	TOP1	TOP2	TOP3
Thickness	0.1mm	0.2mm	0.3mm
Product	Pump head sealing parts	iPhone protective parts	Photographic frame gasket
Weight of per unit (g)	0.45g	0.02g	0.13g
Machine model	FE120-240h	FE120-130h	FE120-240h
Number of cavity	26	8	8

From 0.3 mm to 0.2 mm to 0.1 mm, Yizumi is constantly striving to drive every ounce of improvement and advancement in its FE series all-Electric injection molding machines to achieve the ultra-thin technology. We have such perfect performance because we do it without any compromise.



Yizumi Factory Outlet

New service standard for the industry

YIZUMI Factory Outlet (YFO), as a future-oriented global service strategy, ensures the fast response and high controllability of services. For customers, we not only guarantee their safe production, but reduce the equipment shutdown risk to a large extent so as to improve their productivity.

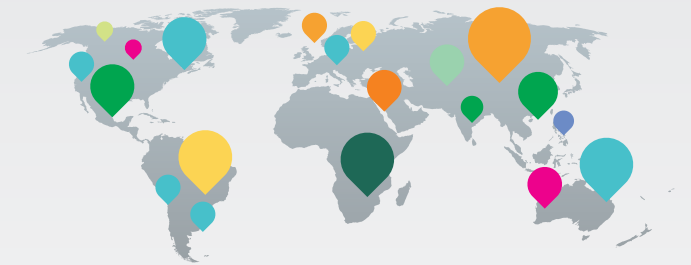
"From pre-sale consulting to onsite installment and commissioning, from after-sale tour-inspection to part delivery and customer training, each of us has the experience of more than 300 cases to enhance your confidence in our services." said an experienced YFO engineer.



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The worldwide part supply network ensures smooth, prompt and accurate part distribution

- China** 35 part centers and warehouses
- Abroad** 14 part centers in Indonesia, Malaysia, South Korea, Vietnam, Russia, Spain, France, Turkey, Israel, Poland, America, Iran, India and Brazil, etc.



Overseas service

Long-distance support: when there are complicated problems in the operation of machine, engineers of the headquarters will provide long-distance technological support for overseas agents or customers to solve the problems in time.

Pre-sales support: we have a team specialized in pre-sales technological support, and they will collect molding cases so as to provide solutions for overseas customers efficiently.

Communication: over 90% of our engineers can speak fluent English, which is conducive to solving customers' problems.



365/24

The service hotline is available 24 hours a day, 7 days a week, and 365 days per year with over 100 maintenance experts on line all over the world.

72

The YFO covers 35 Chinese cities and 37 overseas places.

35,000

The YFO team has provided services for about 35,000 machines.

5

More than half of the YFO engineers have at least five years' experience.

5,000m²

With a total area of 5,000 m², the spare part storage system covers 35 Chinese warehouses and 14 overseas part centers.

Six YFO Commitments



<p>Pre-sales support:</p> <ul style="list-style-type: none"> 1) customized solutions to machine selection 2) professional advice on plant layout 3) technology solutions before manufacturing 	<p>Fast distribution of spare parts</p> <ul style="list-style-type: none"> 1) The same-day delivery rate reaches 97% 2) There are more than 7,000 different spare parts in storage with a total value of over RMB 10,000,000. 3) The key spare parts are produced by Yizumi or imported and some can be used in the machine made in 2002. 4) Every quarter the Chinese headquarters will replenish the spare part warehouses of overseas agents so as to satisfy the needs of customers.
<p>Focus on the improvement of customer satisfaction</p> <ul style="list-style-type: none"> 1) Promote fast response to reduce the machine shutdown risk to a large extent 2) Each service center will pay regular return visits to customers and conduct survey on customer satisfaction in order to understand their need promptly. 	<p>Preventive maintenance</p> <p>Onsite inspections are organized regularly and resident service will be provided in key markets and customers' to ensure prompt service.</p>
<p>High-standrad training and practice</p> <ul style="list-style-type: none"> 1) The service inspection and trainings of agents will be organized at least once a year. 2) Onsite commissioning and customer training service will be provided for Large machines (1400T and above) 	<p>Lifelong service</p> <p>The lifelong maintenance are guaranteed beside a 13 months' warranty on the whole system</p>

YIZUMI e-service 24

Delivering a 24-hr real-time service system for its clients

Through YIZUMI e-service.24, you can have a full-day, 24-hr online support, mobile and rapid remote repair and maintenance as well. Regardless of where you are, it can deliver a rapid, convenient, online after-sales service, ensuring the equipment to be maintained in the best condition for the long term.

- Rapid
- Reliable
- Effective
- Visual
- Recordable
- Can be evaluated
- Cost effective

YIZUMI e-service 24 can deliver the followings to you



Mobile Operation: Smart Phone/Tablet/PC Multiplatform available.

Download the APP, enter equipment serial number /scan equipment QR code and the registration is completed.



IOS

Android

Preview of Overseas Exhibitions 2018

In 2018 Yizumi will continue to participate in all kinds of global exhibitions in the molding industry, so as to build more communication platforms and display our latest products and technologies. We hereby sincerely invite you to our exhibition booths.



Exhibition: IEEE PES T&D DENVER 2018
Date: 2018.4.17-4.19
Address: Colorado Convention Center



Exhibition: Plastprintpack Ethiopia 2018
Date: 2018.5.3-5.5
Address: Millennium Hall, Addis Ababa, Ethiopia



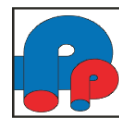
Exhibition: Interplast 2018
Date: 2018.8.14-8.17
Address: Complexo Expoville, Joinville, Brazil



Exhibition: TAIPEI PLAS 2018
Date: 2018.8.15-8.19
Address: Taipei Nangang Exhibition Center, Hall 1, Taipei



Exhibition: NPE 2018
Date: 2018.5.7-5.11
Address: Orange County Convention Center (OCCC), Orlando, Florida, USA



Exhibition: Plastpol2018
Date: 2018.5.22-5.25
Address: Kielce Fairground, Poland



Exhibition: Iran Plast 2018
Date: 2018.9.24-9.27
Address: Tehran International Permanent Fairground, Iran



Exhibition: Colombia Plast 2018
Date: 2018.9.24-9.28
Address: Corferias, Bogotá, Colombia



Exhibition: Plast 2018
Date: 2018.5.29-6.1
Address: FIERA MILANO, Rho, Italy



Exhibition: PDM 2018
Date: 2018.6.19-6.20
Address: The International Centre, Telford, UK



Exhibition: PLASTEX 2018
Date: 2018.10.1-10.5
Address: Brno Exhibition Centre, Brno, Czech Republic



Exhibition: RUBBER 2018
Date: 2018.10.24-10.27
Address: Tüyap İstanbul Fair and Congress Center



Exhibition: InterPlas Thailand 2018
Date: 2018.6.20-6.23
Address: BITEC, Bangkok, Thailand



Exhibition: Expobor 2018
Date: 2018.6.26-6.28
Address: Expo Center NorteSao Paulo - Brazil



Exhibition: Expo Plasticos 2018
Date: 2018.11.7-11.9
Address: Expo Guadalajara, Guadalajara, Mexico



Exhibition: Plastics & Rubber Indonesia 2018
Date: 2018.11.14-11.17
Address: Jakarta International Expo, Indonesia



Exhibition: DKT2018
Date: 2018.7.2-7.5
Address: Nürnberg Convention Center



Exhibition: M'SIA-PLAS 2018
Date: 2018.7.19-7.22
Address: Putra World Trade Centre, Kuala Lumpur, Malaysia



Exhibition: Plast Eurasia Istanbul 2018
Date: 2018.12.5-12.8
Address: Tüyap İstanbul Fair and Congress Center, Turkey