

FULL-SERVICE-PARTNER FOR CUSTOMIZED SOLUTION

IN MOLD-MAKING & INJECTION MOLDING (CDMO)



CNC Machining

Living Precision through Innovation!

Secure the success o your project with Jesta



Your Competent Partner

Together, we bring your inspiring idea to life with the highest precision and perfection!

Jestar is your innovative and competent full-service partner for your project from initial concept to series production, specializing in industries such as medical and laboratory technology, pharmaceutical primary packaging, cosmetics, electronics and consumer goods. Our full service includes product development, engineering consulting, prototyping, tool-making and injection molding. Persistently striving for innovative solutions to guarantee the utmost precision, quality and efficiency in our manufacturing processes, products and services has been our enduring passion and unwavering mission for the last fifteen years. Therefore, we've constantly invested in state-of-the-art technology and highly skilled, experienced experts. This dedication has led to the sustained remarkable growth and extraordinary success for both Jestar and our valued partners. The trust of a steadily expanding customer base, including numerous prestigious clients, serves as the best reference for Jestar. We consider honestry, openness, mutual trust, as well as fair and respectful interaction as the foundation for a constructive, collaborative partnership.

Who are we:

- Jestar Mold Technology Co., Ltd.
- Jestar Life Science (Suzhou) INC
- Jestar Europe GmbH

Jestar Europe GmbH is based in Germany and serves as the primary point of contact, aiming to provide the best and most agile support to our partners throughout Europe. Our commitment to maximum customer focus ensures that we transform each of your needs into valuable opportunities, every single time! In China, the development and manufacturing of tools and injection-molded products are carried out with the highest efficiency, precision, quality and cost-effectiveness. What sets us apart:

- ISO 9001 and ISO 13485 certifications ~
- Highly innovative development department
- Customer-specific competence center
- Highly skilled and experienced mold-making department
- A large, modern machinery park, including cutting-edge CNC machines and Arburg injection molding machines
- Cleanroom ISO 7/8, Class 100,000 / D (in accordance with EU GMP guidelines)
- ✓ High level of automation
- Inhouse state-of-the-art measuring laboratory
- Extensive logistics services

HIGHER PERFORMANCE **HIGHER PRECISION HIGHER COST-EFFECTIVENESS**

HIGHER QUALITY HIGHER FLEXIBILITY





Jestar is well-regarded within the industry as a hidden champion, especially among the technology companies worldwide! We have strategic partners and clients in the plastics industry across the globe, many of whom are leaders in their respective industry fields! They admire Jestar's deep knowhow and inspiring sprit for innovation!

Thermo Fisher CORNING RAIMIN SCIENTIFIC BD Xometry Apple ARBURG Ψ SAILOR teamtechnik Group



Mercedes-Benz









An outstanding, effective and lasting Partnership

Jestar has set up a successful collaboration with Rainin since 2021. Until now, we are still their strategic supplier for pipette tips and pipettes.

Thanks to Jestar's exceptional and significant commitment to Rainin's business growth and innovation performance, Mettler Toledo company, the mother company of Rainin, has invited Janson to the Supplier Day 2024 and will present him the BEST SUPPLIERS AWARD!

We appreciate their trust and recognition to our performance!

lestar







Hekuma GmbH, based in Germany, is a renowned leader in the field of high-performance automation systems. Established with a commitment to innovation and excellence, Hekuma specializes in the development and production of advanced automation solutions tailored to the needs of the injection molding industry. With decades of experience, Hekuma has built a reputation for delivering cutting-edge technology and precision engineering, ensuring high efficiency and reliability in manufacturing processes.



- Fakuma.
- celebration.

Wir freuen uns auf Ihr Kommen! Ihre HEKUMA GmbH

Hekuma has newly developed a new automatic machine exclusively working with Jestar's mold for culture dishes.

Hekuma has joint-booths with Jestar at various international fairs, for example

 \succ Hekuma has invited Jestar to their 50 years Celebration this year. And Jestar will also showcase a mold on the



ABBUBG One of the most important partners of Arburg in China

We value long-standing reliable and trustworthy relationships and our partners value us, Jestar!

In China, Jestar enjoys an excellent reputation within the industry and is one of the key strategic partners for Arburg in the field of medical and diagnostic technology.

- > At Auburg's 100-year anniversary, Jestar was invited as the sole speaker for the field of medical technology.
- > Furthermore, in 2020, Arburg presented our 48-cavity tool for pipette tips with a hot runner system from Ewikon and a cycle time of 5.5 seconds at the Chinaplas exhibition. Currently, we are in the process of developing a 96-cavity tool for pipette tips.

The largest customer of Ewikon in China

Jestar Mold Tech Co., Ltd Jeroni Juan Hiery Zong Jestar Europe GmbH Returnen





- Ewikon stands for high quality in hot runner technology. Offering the highest quality to our customers is also Jestar's main focus.
- In 2022, Jestar became Ewikon's largest customer in China. Together, we have served numerous satisfied international customers and gained their recognition. We value this valuable relationship and aim to further enhance it.





4/2024

powered by Kunststoffe

Plastics Insights

MATERIALS - PROCESSING - APPLICATIONS

SIMULATION

Why It Is a Mistake to See Material Characterization as a Cost Factor page 40 Plastics in Medical Technology

from page 18.

MATERIALS Antibacterial Additives: Alternatives to Metals and Antibiotics

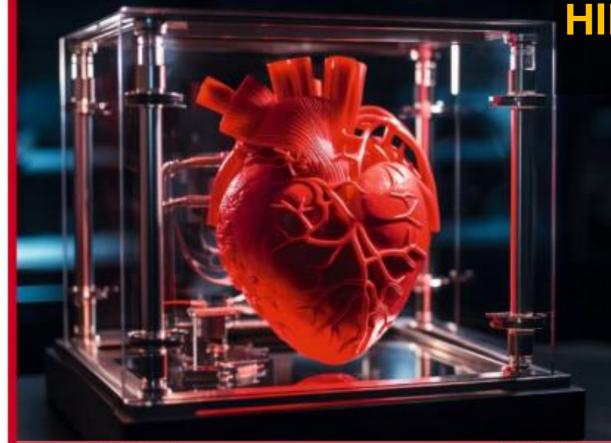
page 58



HIDDEN CHAMPION in the Industry WORLDWIDE

Exclusive Interview by Plastics Insights

In April 2024, a German reporter of the most famous professional magzine in the plastic industry "Plastics Insights" visited Jestar and interviewed our CEO, Janson Zhao. She has 7 companies on her lists for her journey across China, but Jestar is the only 1 mold-maker.



HANSER



https://en.kunststoffe.de/a/interview/from-moldmaker-to-medical-professional-5853448 6

Plastics Insights

PLUS Moldmaking and Cleanroom Production

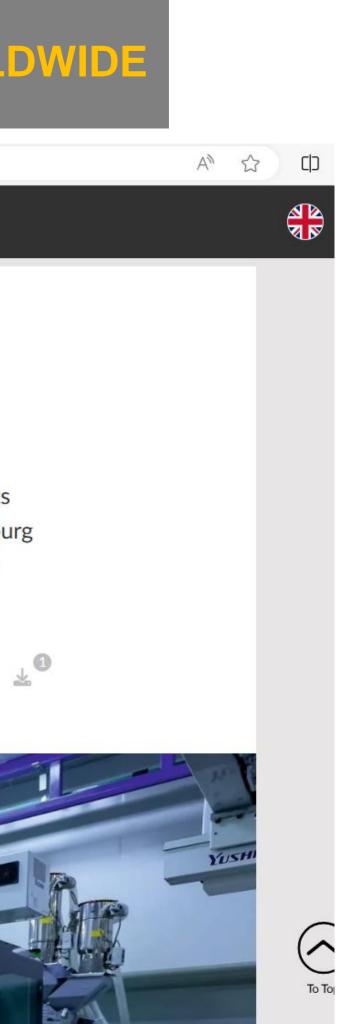
From Moldmaker to Medical Professional

Jestar Mold Tech's company history reads like a success story. Plastics Insights sat down with owner Janson Zhao, who exclusively uses Arburg machines for his cleanroom production. In an exclusive interview, he discusses the challenges of plastics processing in the medical sector.

Interview by Susanne Schröder 20th Jun 2024









https://en.kunststoffe.de/a/specialistarticle/adventure-china-culture-contrasts-and-ch-5847933

Plastics Insights



KISTLER ACADEMY – PLASTICS

Das Kursangebot der Kistler Academy bietet Wissenstransfer aus erster Hand. Es ist in drei Levels gegliedert und DIN/ISO 21001 zertifiziert!

Home

Search

Travel Journal through China

Travel Journal

Adventure China: Culture, **Contrasts and Chinaplas**

The long journey to China called for more than a three-day visit to Chinaplas. In the end, seven companies were on the Plastics Insights visit list. A report on an entertaining trip through five cities and insights into Chinese material traders, material manufacturers, machine builders, plastics processors and a moldmaker.





 $\triangleright X$







Plastics Insights

Day 5: Mission Medical in Luzhi

Luzhi is a water village with 2500 years of history. Cobbled streets, traditional houses from the Ming and Qing dynasties with red lanterns, brick facades and wooden windows as well as 41 stone bridges make up the whole charm of Luzhi. We enjoy this atmosphere during our lunch stop, leaving no time for the Baosheng Temple and a thousandyear-old gingko tree.

The highlight of the day is Jestar Mold Technology. This Arburg customer is on our visit program for today. The small high-tech company offers molds with up to 128 cavities plus production of medical products in a cleanroom – 100 million parts are produced here every year. In an interview, owner Janson Zhao talks about his journey from moldmaker to medical professional, who is now also active on the European market.





Jestar is an admired and respected partner on various international exhitions, collaborating with many renowned high-tech companies worldwide.

- \checkmark At Chinaplas 2024, we showcased 4 different molds with renowned companies from Germany, Japan and China!
- ✓ At the globe most important exhibition for the plastic industry FAKUMA 2024, Jestar will showcase 3 different molds with Hekuma from Germany, Dr. Boy from Germany and Yizumi from China.
- ✓ At IPF Japan 2023, Jestar showcased 2 different molds with Sailor, JSW and Yizumi.

A Super Star at Chinaplas 2024 4 Molds showcased with renowned companies





Japan IPF 2023 – Collaboration with Sailor, JSW and Yizumi







We care about your project together shape a better future

Solution-Focused Teamwork

Our Full Service

Each brilliant idea and each steadfast commitment contribute to making the world a better place. Jestar cares about each of your project from the very beginning and is your reliable strategic partner for the long run. With our full service and extensive Know-how, we stand by your side at each stage, working together to achieve greater success!



CONSULTING, ENGINEERING & PROTOTYPING

Precision in construction, material selection and production method details wields a substantial impact on the quality of the end product through injection molding. Thus, we place greatest importance on in-depth pre-project consultation and planning. Already during the initial stages of plastic part development, we offer proposal, presenting a range of solutions, fostering creativity and promoting innovation.

Our experts possess an profound understanding of the industry's nuances and work closely with clients to grasp their unique needs and challenges. Through comprehensive assessments, utilizing the results of warpage calculations, lessons learned and FMEAs, we develop feasibility analysis, plastic-appropriate designs and tailored production solutions to help our clients achieve the production goals, ensuring utmost precision, quality, efficiency and cost-effectiveness.

Our engineering team, equipped with cutting-edge technology, adopts digital tools to mold design and manufacturing. From intricate geometric shapes to complex multi-cavity molds with hot runner technology, they excel at bringing concepts to life. Leveraging advanced CAD/CAM software and simulation tools, they meticulously refine each aspect of the mold to ensure precision, consistently and stability in every production run.





Our high-tech Mold Center

INHOUSE MOLD-MAKING

The injection mold is the heart of the entire manufacturing process, underpinning and shaping the overall success. This integral component plays a pivotal role in assuring the paramount aspects of reliable consistency, exceptional precision, top-tier quality and high cost-efficiency throughout production. It contributes to minimizing defects, reducing waste and optimizing productivity. This, in return, safeguards budget adherence and maximizes profitability.

At Jestar, our unwavering mission and passion is to persistently exceed our clients' expectation through innovative solutions. Therefore, we've built our state-of-the-art in-house mold-making center and continually focus on there key areas:



2



Maintain ongoing investments in cuttingedge technology and high automation, such as CNC machines and hot runner systems of Ewikon and Husky. We're proudly the most important stategic partner in China of Ewikon.

Innovation and Precision in Detail





INHOUSE MOLD-MAKING 2

Our machine list for reference:

High Speed CNC:

OPS-INGERSOLL V5-5Axis MIKRON HSM 400LP YASDA YBM 950 VIII YASDA YBM 950 VIV YASDA YBM 640 VIII FANUC T14iFb FANUC D21MiA- 4Axis Automation: EROWA System RCT80

Multipurpose Maschine: NAKAMURA-TOME WT250II

Wire Cut: Seibu M50B

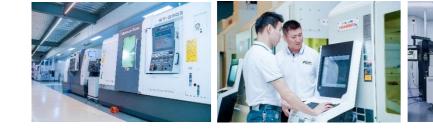
Grinder: Okamato ACC350II Nagasei SGW63

Sinker EDM: AgieCharmilles FORM300 AgieCharmilles FORM200 Makino EDNC6 Makino EDGE3i

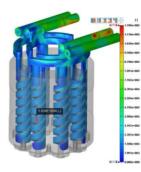
Mill: Gentiger SHCM-97VS

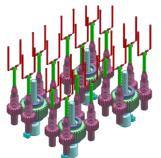
We carefully source high-quality steel and standard parts from Europe to craft **pilot molds** and series production molds precisely tailored to your product specifications and specific manufacturing needs.

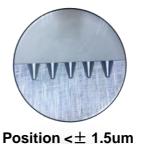
Additionally, we have our own MES(Manufacturing Execution System) to real-time monitor, control and optimize the production process, enhancing our operation excellence.

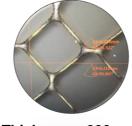










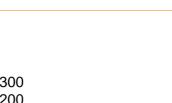


Thickness <200um

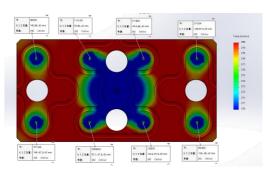


R&D CAPABILITIES











Ra<60nm







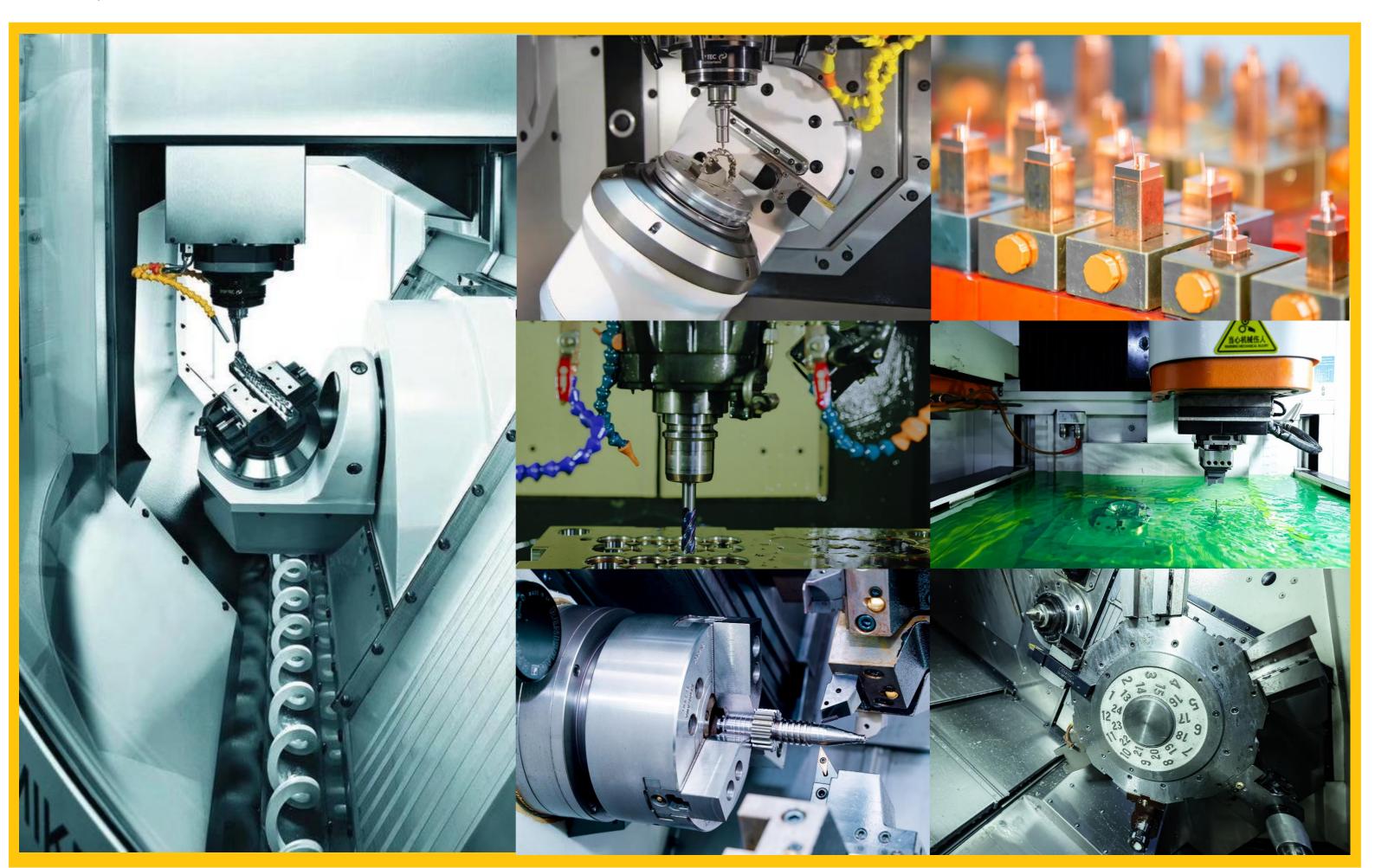
Galerie – Inhouse high-tec Mold Center







Galerie – Inhouse high-tec Mold Center



Our Inhouse Measuring Laboratory

INHOUSE MOLD-MAKING 2

MEASURE QUALITY, MEASURE RESULTS

In order to ensure the high precision, safety, and stablility of the products, we carry out extensive testing in the areas of materials, geometry and function during all phases of product origination. Jestar has a inhouse measuring lab with the state-of-the-art equipments.

Our machine list for reference:

СММ

(Coordinate Measuring Machine): Hexagon Pioneer Zeiss DuraMax Mitutoyo MDH-25MB

Height Gage:

TESA MicroHite 350 TESA MicroHite 700

Universal Testing Maschine: Instron Instron-5940

OMM (Optical Measurement Machine): Hexagon Optiv Classic JSEASSON SP6-4030

Laser Dia-Testing Machine: Keyence LS-7030M

Surface Measurement Machine: Mahr M300C BYK BYK4563

INHOUSE MOLD-MAKING

YOUR ADVANTAGES WITH JESTAR

Jestar is now an innovative pioneer in the industry. With a wealth of expertise, we specialize in crafting multi-component molds, multi-cavity molds, and modular molds with the utmost precision and innovation. Our extensive know-how and commitment to excellence ensure that we consistently deliver top-quality molds tailored to your unique requirements upon swift lead time. At Jestar, we don't just make molds; we master the craft.



Where expertise meets results, and your success is our legacy





Galerie – Inhouse Measuring Lab





Galerie – Inhouse Molds Warehouse





3 SERIES PRODUCTION

In our large, modern machinery park, alongside our in-house mold-making center, we take pride in our 2000 m² ISO 7/8 class clean room, which is equipped with 18 Arburg injection molding machines, ranging from 100 - 230 tons in clamping force for plastic and CIM/MIM injection molding. It servces as a facility for testing complete system integration. Furthermore, we offer FAT and Mold validation testing, in addition to providing contract manufacturing services to our valued customers.

Our commitment to excellence extends beyond traditional injection molding, as our clean room facilities adhere to the highest industry standards. With ISO 7/8 certification, we provide a controlled and contamination-free environment that is ideal for producing highly sensitive and critical components for industries such as medical- and laboratory technique, cosmetics, food packaging etc.

Our Arburg injection molding machines, renowned for their reliability and precision, empower us to meet the most demanding specifications and tight tolerances, ensuring that your products consistently meet the highest standards.







INJECTION MOLDING (CLEAN ROOM ISO 7/8)

Our experience extends to a spectrum of advanced molding techniques, including insert molding, over-molding, and multi-component molding. With a deep understanding of these intricate processes, we have honed our expertise to offer innovative solutions that integrate components seamlessly, enhance product performance, and meet the demands of complex projects. Our proficiency in these specialized molding methods underscores our commitment to delivering exceptional, tailored solutions that push the boundaries of what's possible in manufacturing.

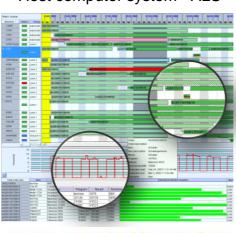
When you choose Jestar, you gain a partner that understands the critical importance of quality, cleanliness, and precision. With a focus on cutting-edge technology, a high level of automation and a team of experienced professionals, we are equipped to turn your concepts into reality, whether it's for prototyping, small-batch production, or large-scale manufacturing.

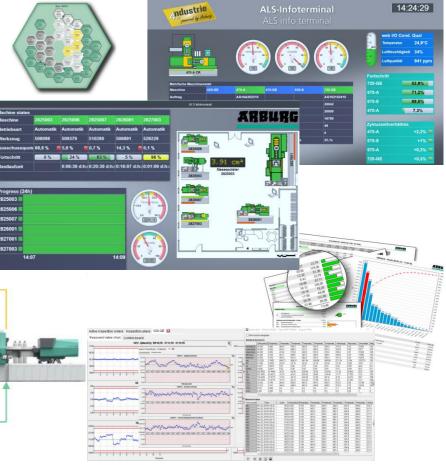


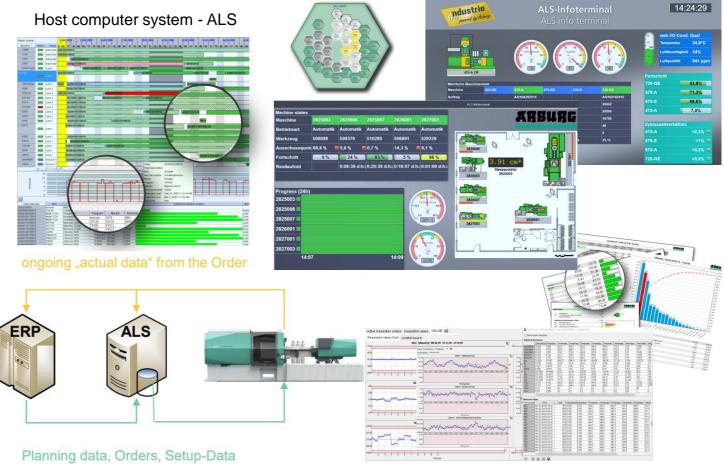
CLEAN ROOM ISO 7/8



Digital integration is the future







SERIES PRODUCTION 3

In addition to our Arburg injection machines, we have an extensive range of auxiliary equipment at our disposal, allowing us to manufacture a wide variety of products with diverse materials and unique specifications. This comprehensive suite of auxiliary machinery enhances our production capabilities, enabling us to meet the specific requirements of a broad spectrum of products and materials. Whether it's precision engineering, diverse material types, or specialized manufacturing needs, we have the tools and expertise to deliver exceptional results.

Our machine list for reference:

Centralized Feeding System: Motan from Germany



Automation: STAR GX-500V



YUSHIN Frau-1530D



WeiLi Automation System



Hot Runner Temperature Controller: HUSKY Altanium Neo2 (12 P.) HUSKY Altanium Neo2 (24 P.)

DME DME-MFPX G/CN (8P.) DME DME-MFPX G/CN (12P.)

Drying Machine: Kawata DO-20N

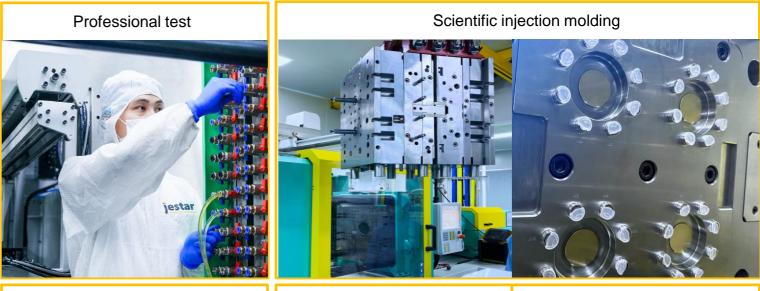
MATSUI MJ5-i-150



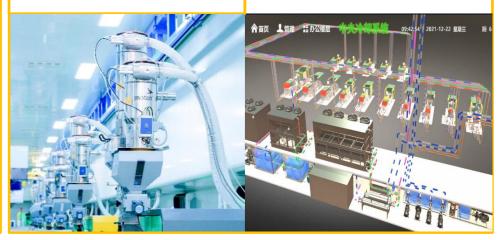
Mold Temperature Controller: HB-TEMP Seires 4 HB 140 U1 MATSUI MC5-G3-88L95 TOOL-TEMP TT-180 Wittmann TEMPRO plus D Plasma: Diener Beam DUO



INJECTION MOLDING (CLEAN ROOM ISO 7/8)



Automated production system



Centralized feeding system

Water treatment system



Galerie – Injection Molding Facility



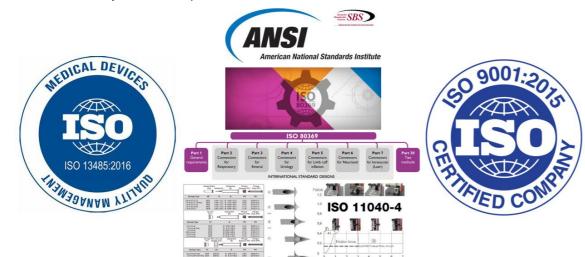


We undertake Responsibility

QUALITY CONTROL

Quality control is the cornerstone of our operations, because we deeply understand that quality is the best strategy. From the selection of only the highest quality raw materials to sustained development of our quality management system and equipment, we can guarantee a level high precision and repeatability. We have implemented a comprehensive quality management system that adheres to internationally recognized standards ISO 9001 and ISO 13485.

In addition, We also employ Arburg ALS system, an advanced manufacturing control system, designed to enhance the precision and efficiency of our injection molding processes. It allows us to closely monitor and control all aspects of the injection molding cycle, ensuring consistent and reliable results. With the Arburg ALS system, we can optimize our processes to deliver high-quality products that meet your exact specifications.



GB/T 19001-2016 idt ISO 9001:2015



SUZHOU JESTAR MOLD TECHNOLOGY CO., LTD. Unified social credit code: 91320506MA1MFC1G01 Registered Address Building 13, No.888, Gongtang Road, Luzhi Town Wuzhong District, Suzhou, Jlangsu Office & Production Address Building 13, No.888, Gongtang Road, Luzhi Town Wuzhong District, Suzhou, Jiangsu, China

> Has been independently assessed and is compliant with the requirements of:

GB/T 19001-2016 idt ISO 9001:2015

For the following scope of activities:

Development and Manufacturing of Moulds

Certificate Number: 23ACM18028O

Date of initial registration 29/03/2023 28/03/2026 Certificate expiry (subject to the company maintaining its system to the required standard)



uld becarried out once within each should be pasted on specified pos



This is to certify that the **Quality Management System** of









EN ISO 13485:2026

Certificate

Quality Management System EN ISO 13485:2016

Registration No.:

SX 2487650-1

Certificate Holder:

Jestar Life Science (Suzhou) INC B.13 No.888 GongTang Road, LuZhi Town, SuZhou, 215127 Jiangsu, P.R. China

Scope:

Contract Manufacture of Disposable Consumables used in IVD area

The Certification Body of TÜV Rheinland LGA Products GmbH certifies that the organization has established and applies a quality management system for medical devices. Proof has been furnished that the requirements specified in the abovementioned standard are fulfilled. The quality

management system is s	ubject to yearly surveillance.	
Report No :	10922280-110	

2023-12-12
2026-12-11
2023-12-12

TÜV Rheinland LGA Products GmbH Tillystraße 2 · 90431 Nürnberg · German

This certificate can be validated on https://www.certipedia



Your Success is our Priority

4

AFTER SALES SERVICE

At Jestar, our commitment to your success doesn't end with the delivery of a mold or the completion of an injection molding project. We understand that ongoing support is crucial to ensuring the longevity and performance of your tools and products. Our dedicated team of experts is ready to assist you with any post-delivery needs or concerns you may have. Whether it's mold maintenance, troubleshooting, or optimizing your injection molding processes, we're here to help. We offer a range of after-sales services, including:

- services and keep your molds in top condition.
- advice and solutions to keep your operations running smoothly.
- > Quality Assurance: We stand by the quality of our molds and injection molding services. If work diligently to resolve them.
- downtime in case of unexpected issues.
- > **Product Upgrades:** As technology advances, we may offer product upgrades to enhance the with any upgrades you may choose to implement.

Our after-sales service is a testament to our commitment to your success and satisfaction. We value your partnership and are dedicated to being a reliable, long-term partner in your moldmaking and injection molding journey. If you have any questions or require assistance, please don't hesitate to contact us. Your success is our priority.

> Mold Maintenance: Regular maintenance is essential to extend the life of your molds and ensure consistent product quality. Our technicians are equipped to provide maintenance

> Technical Support: Have questions or need guidance on optimizing your injection molding process? Our technical support team is just a phone call or email away. We'll provide expert

you encounter any issues related to quality or performance, please reach out to us, and we'll

> Spare Parts: We maintain a stock of spare parts to ensure quick replacements and minimize

performance and capabilities of your molds or equipment. We'll keep you informed and assist







On the IPF Japan 2023, Jestar has showcased 2 molds in cooperation with the Japanese Automationscompany Sailor, the Japanese Injection Molding Machine Manufacturer JSW Group and the Chinese Injection Molding Machine Manufacturer Yizumi. These 2 molds have truly highlighted the fair!

With Sailor and JSW, Jestar showcased the 32-cav-mold for pipette tips with full hot runner system of Ewikon.

With Yizumi, Jestar showcased the 64-cav-mold for micro screw tubes with full hot runner system.

IPF Japan 2023

Date: November 28 -December 2, 2023 [5 Days] 干叶Nakase, Mihama-ku, Chiba -city, Japan 261-8550

Booth : 22210

Exhibition - Pipette tips

- Full hot runner system for stable •
- The fastest cycle time <5s •
- High cavity mold experience 48 cav
- >95% balance control ability •
- Online quick change mold structure •
- Long-lasting mold life(>5M) ٠
- Fast development cycle <14 weeks mass production



Our Application Markets

We'll build the way to your Success

Innovation, Expetise and Diligence are the building blocks!

How we operate:

- patiently.
- opportunitites, and conquer them with innovative solutions and determination.
- Time is precious. We respond rapidly and adapt flexibly to each of your requirement, empowering you to act with agility.
- ensuring your utmost satisfaction and trust in our brand
- Handshake and contract hold equal importance to us, as we hold honesty and fairness in trust and transparency in all our relationships.

Pharmaceutical Packaging Industry

Packaging for Cosmetic, Food & Consumer Goods



Your brilliant ideas deserve our full attention. We invest the time to listen attentively and

Challenges are a part of the journey. At Jestar, we embrace challenges as valuable

 Quality is the best strategy. We relentlessly pursue excellence in every facet of our work, from product design and customer service to innovation and sustainability. Our commitment to quality is not just a promise; it's a culture that defines everything we do,

the highest regard. In our commitment to integrity, we not only honor our agreements with the utmost diligence but also extend this ethos to every aspect of our business, fostering

> **Medical & Laboratory** Industry

Electronic Industry



Living Precision through Innovation!

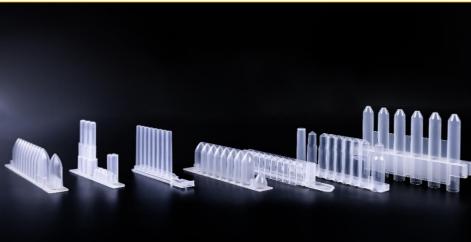
Diagnostic Solutions

















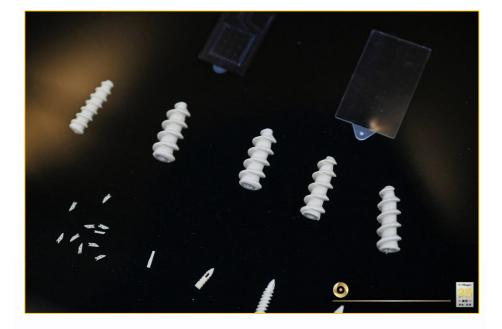






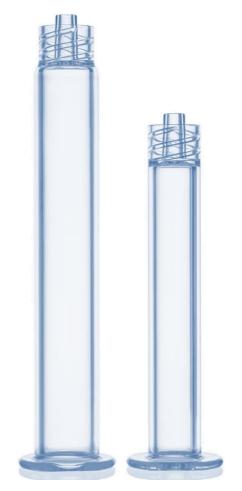
Living Precision through Innovation!

Medical Solutions









Siliconoilfree COC Syringe Barrel











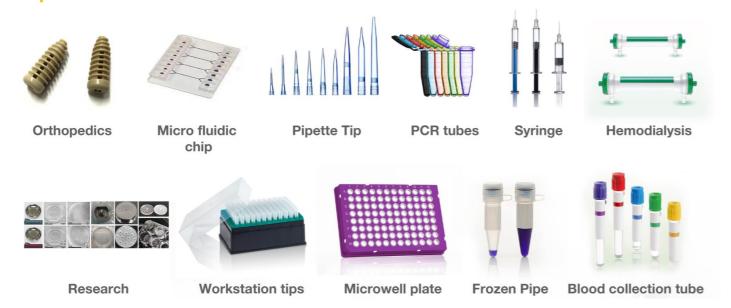




Silicone-free Pre-filled Syringe from **Precision manufacturing to Advance Healthcare and Save Lives COC & COP for the most stable storage**

Safety, Stability, Reliability and Functionality

Jestar's primary focus is in the pharmaceutical packaging, medical & Laboratory Industries where the most strictest regulations and precision demands take precedence. We'd like to contribute to advancing healthcare and saving lives. To fulfill our mission and meet the exacting requirements of our clients, we're not only ISO 13485 certified, but we've also established a 2000 m² clean room ISO 7/8 equipped with Arburg's injection machines. These machines are renowned for their extremely high reliability and precision.



ZERO Degree Draft Angel A milestone has just been achieved through Innovation!

Silicone oil has long been a staple in syringe manufacturing, serving as a crucial lubricant to mitigate friction and ensure the seamless, consistent movement of the plunger. This use of silicone oil has been necessitated by the challenges posed by the inherent properties of plastic materials. The manufacturing process typically requires a draft angle to facilitate the release of the plastic item from the mold, which, in turn, makes it difficult to create syringe barrels with a zero-degree draft angle from plastics.

However, the landscape is evolving, thanks to an innovation by Jestar. We've pioneered a groundbreaking injection mold technology with hot runner system capable of producing syringe barrels made from COC and COP materials with a revolutionary zero-degree draft angle, all while upholding the highest quality standards. This remarkable achievement sets a new industry benchmark on a global scale.

Silicone-free syringe barrels made from COC and COP materials offer an array of compelling advantages.

> First and foremost, they drastically lower the risk of contamination, ensuring the purity and integrity of the drugs or samples being handled. Their exceptional biocompatibility is a boon, assuring that these syringes are ideal for medical and pharmaceutical applications.



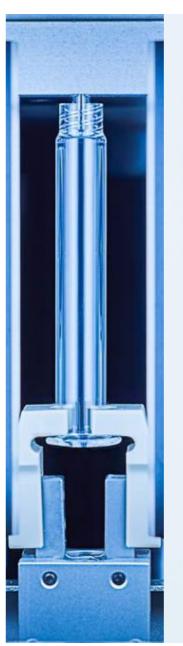
- Second, they boast a lower risk of breakage, reducing potential disruptions in critical processes.
- > These syringe barrels exhibit minimal extractables and leachables, translating into a further layer of security for sensitive substances. Their high clarity provides visibility, a critical feature when precise measurements and observations are essential. Their robust chemical resistance allows them to withstand contact with a wide range of substances, making them versatile for various applications.
- > Furthermore, the low adsorption properties of COC and COP materials ensure that minimal interaction occurs between the material and the contents of the syringe, a vital attribute for maintaining sample integrity. Precision and reduced friction enhance user experience and contribute to consistent, accurate results. These materials also exhibit impressive heat resistance, expanding their utility in scenarios involving temperature variations.
- > Additionally, customization options cater to specific needs and preferences, further solidifying the status of silicone-free syringe barrels made from COC and COP materials as a preferred choice for applications where the maintenance of sample purity and integrity is of paramount importance. This innovation represents a significant leap forward in the field, offering heightened reliability and performance in critical pharmaceutical and medical processes.



Modular mold design Unified mold hot runner system Improved production stability and OEE Everything we do is to ensure your supply chain stability



-Elegant Product Design -Closest to borosilicate glass texture -Helping you upgrade from borosilicate glass systems to next-generation high-performance material systems -Modular design allows us to develop a pre-filled syringe system specifically for your formulation in the shortest possible time -Consolidate your technical barriers & first to market



Product Feature

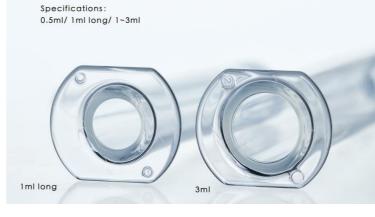
The most elegant product design in its class for COC raw materials

Environment Friendly: The production process adheres to the concept of environmental protection and does not use combustion gas sources, no waste water The product can be incinerated directly after use and incinerated without ash



The-one-piece luer-lock design provides a precise and secure connection and is designed in accordance with ISO 80369-7. Excellent mechanical strength and transparency, not easily broken during filling and transportaion.

Silicone free design, no heavy metals, no tungsten. No-polar surface, no relase of alkaline particles, pH stable, excellent water and oxygen barrier propertities, providing assurance of drug quality. Highly controlled production environment and simpler production steps compared to medium borosilicate glass, improving safety from the source.



- Thickest wall thickness in its class, providing you with superior WVTR and OTR performance
- Smallest lot-to-lot variance, and cleanest production environment in its class
- The highest self-production rate and the most stable supply chain system in its class, especially



Ready to Use Crystal BioPure®

High performance Pipette Tips mold with hot runner system

Utmost Precision and Efficiency

Jestar is a leading expert in the precision molding of pipette tips, with a strong focus on quality efficiency. In fact, as early as 2018, we already successfully created a 32-cavity mold. In 2020, we proudly showcased alongside Arburg at the Chinaplas exhibition with a remarkable 5.5second cycle time on a 48-cavity mold. Today, our capabilities have advanced, enabling us to craft a cutting-edge 64-cavity mold equipped with a state-of-the-art hot runner system. Regardless of your specific pipette tip requirements, rest assured that we have the expertise and technology to bring your vision to life.

- Full hot runner system for stable
- The fastest cycle time < 5s
- High cavity mold experience 16- 64 cav.
- Uniform polishing process, less residue



- >96% balance control ability
- Online quick change mold structure
- Long-lasting mold life(>10M)
- Fast development cycle <15 weeks mass production



Discover pipette tips in various sizes and features to match your specific lab needs.

- Volume size: 10ul 1250 ul
- Feature: conductive, sterilized, filtered, low retention
- Color: Natural PP, Conductive PP (black)
- 96 tips per rack (customized packaging possible)
- Application area: for pipette or work station

Pipette tips (volume)	Mold Cavities	*Cycle Time (s)	Injection Machine (kN)	Mold Size (L/W/H)mm
10~300ul	16	5~6.5	300	350/240/364
(L<50mm)	32	5~6.5	500	400/350/394
	48	5~6.5	1000	400/460/430
	64	5~6.5	1000	400/600/440
500~1250 ul (L<105m m)	16	6~7.5	500	350/240/394
	32	6~7.5	500	400/350/440
	48	6~7.5	1000	400/460/440
	64	6~7.5	1000	400/600/498



The cycle time of the mold depends on various factors, including the material used, the performance of the injection molding machines, and the efficiency of the water system.

At Jestar, we provide our customers with customized turnkey solutions to ensure that your requirements are met optimally.

High performance molds for Micro **Tube and Cap with hot runner system**

Discover a wild range of micro tubes and caps in various sizes, colors and types to match your specific lab needs.

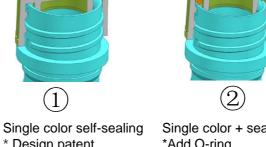
- 64-cavity micro tube mold with Full hot runner system of HUSKY Servo Control Valve System, high production capacity > 800 k pcs per day (64-cav)
- Up to 128-cavity micro tube cap mold with Full hot runner system of Ewikon Side Gate System, high production capacity > 1,1 M pcs per day
- Various specifications
- Wider application areas
- Multi-component tube cap
- Unique structure of the tubes facilitates automatic lid opening by robotic arms
- Thicker skirt design of the caps enhances centrifugal force. Internal skirt and double sealing line design provide a more reliable sealing effect
- The outstanding mold balance control technology has achieved an astonishing balance (>99%) in tube weight control. In the future, the precision of adding reagents is expected to be strictly controlled within <0.01g, saving every precious drop of sample and reagent

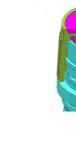
At Jestar, we provide our customers with customized turnkey solutions to ensure that your requirements are met optimally.

Micro screw tubes:

- Volume size: 0.5ml, 1.5ml, 2.0ml
- Type: Conical, Skirted, Plain, Ribbed, Graduated
- Color: Natural, Amber, Black (customized) color possible)
- 500 pcs per bag (customized packaging) possible)
- Max. 20 000 x g RCF

* 10 colors





- * Design patent *Add O-ring * With and without ring * With and without ring
 - * 10 colors





Micro centrifuge tubes:

- Volume size: 0.5ml, 1.5ml, 2.0ml
- Features: safe-lock, low retention
- Color: Natural, Amber, Black etc. (customized color possible)
- 500 pcs per bag (customized packaging) possible)
- Max. 20,000 x g RCF

Micro screw tube caps:

- Material: PP+TPE
- 3*9 standard colors
- (customized color possible) self-sealing, assembled O-
- ring, non-Loop, with Loop Natural, single color, multi-
- color







Single color + sealing Oring : Multi-component sealing * Design patent * Better seal * 3*10 colors

Enhance the research with our **2D & 3D Cell Culture Dishes**

Cross-sector collaboration yields improved results

For several years, Jestar has cultivated strong partnerships with Suzhou University and multiple life science companies, dedicated to enhancing the quality of cell culture research. Our commitment extends to the development of both 2D and 3D cell culture dishes.

Technical features of our molds:

- 8-cavity mold with Full hot runner system
- Utilizing conformal cooling design and manufacturing to achieve very short cycle times; (Including automated packaging, cycle time <5.5 seconds, daily production capacity >60,000 sets)
- Flat mirror surface grinding technology, reducing the warping deformation that can occur with manual polishing;
- Due to the different weights of the upper and lower covers, Moldflow software is used for simulation analysis, controlling different gate diameters to achieve over 98% filling balance:
- Modular design, facilitating replacement during production, reducing production maintenance costs and downtime losses.





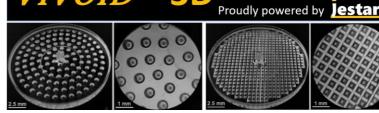




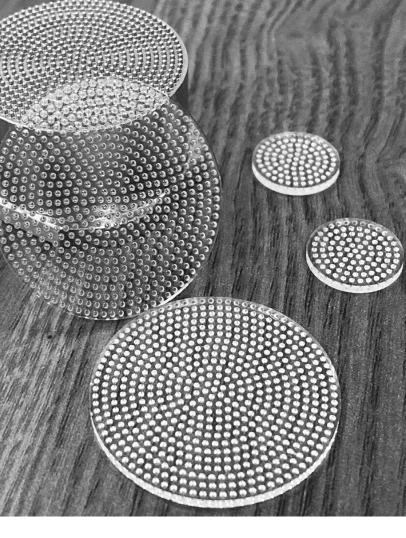
3D Cell Culture Dishes

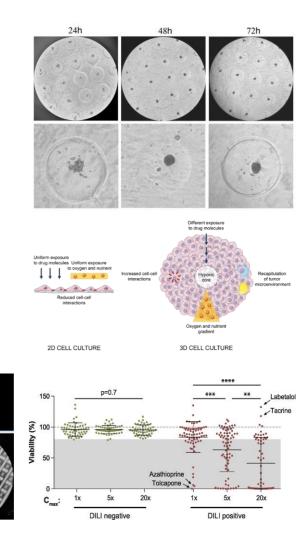
- Micro-Nano Fabrication and Precision Injection Molding
- Cell Culture-Friendly Surface Coatings
- Organoids/Stem Cells/Primary Cell Cultures
- Addressing the Speed, Throughput, and Clinical Relevance Deficiencies in 2D Experiments and Animal Drug Screening Models, Transitioning from Animal Testing to Humanization
- CDOM Platform
- Drug Hepatotoxicity Testing
- In Vitro Metabolism DDI Testing
- Long-Term Drug Metabolism Analysis
- Drug Target Validation
- Liver Disease Models
- Small Nucleic Acid Drug Research
- Multi-Organ Microfluidic Chips

VIVOID® 3D



Base





Efficient molds for Deep Well Plates with hot runner system

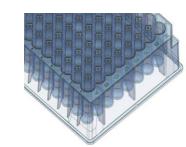
Doubled cavitites, doubled profit

Deep well plates are an essential tool in laboratories and life sciences. Jestar has introduced a 4-cavity mold for Deep Well Plates, doubling efficiency compared to the industry standard of 2-cavity molds. Our mold is creatively designed to achieve the desired shape and features of the deep well plate, enabling the injection process for the rapid and consistent production with precise well dimensions and uniformity.

The use of high-quality, medical-grade plastics ensures that deep well plates are biocompatible and free from contamination, making them suitable for a wide range of applications in the life sciences, from cell culture and DNA analysis to drug screening and compound storage. These plates can be customized to meet the specific needs of various research and diagnostic applications

- 4-cavity hot runner mold
- Production capacity >12k pcs / day (4 cav)
- Lower residue
- Coating process
- Flatness < ±0.15mm









Medical implants in humans

Demanding high mold temperature

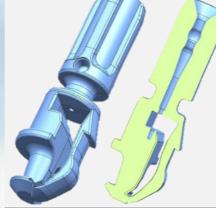
Implant material PEEK offers superior biocompatibility, negating the need for anti-rejection drugs and enabling long-term implantation without a secondary surgeries. However, PEEK's high-temperature crystalline nature, requiring plasticizing temperature of 380-420° C and high mold temperature control with 180-200° C. Choosing the purest stainless steel and addressing mold thermal expansion and high-temperature fatigue are vital. Due to stringent safety requirements for medical implant-grade products, oil heating isn't feasible. Water, with its boiling point at 100° C under normal conditions, can't reach 200° C without pressurization. Therefore, it needs to be pressurized to over 18 bar, making it essentially a pressure vessel. Precision mold manufacturing, screw hole thread design, and other factors are crucial to ensuring both compliance and safety.

As an absorbable material, PLA can degrade metabolism in the body and help patients fully recover. In the control technology of the manufacturing process, injection molding at low temperatures is required to strictly control the shear heat of the screw and cavity

Over the past years, Jestar has successfully executed numerous projects involving PEEK and PLA bone nails, earning an excellent reputation in the industry.

- Implant consumables
- Purest stainless steel
- Sports medicine
- Orthopedics
- Surgery







High performance Needle Holder mold with 64-cav

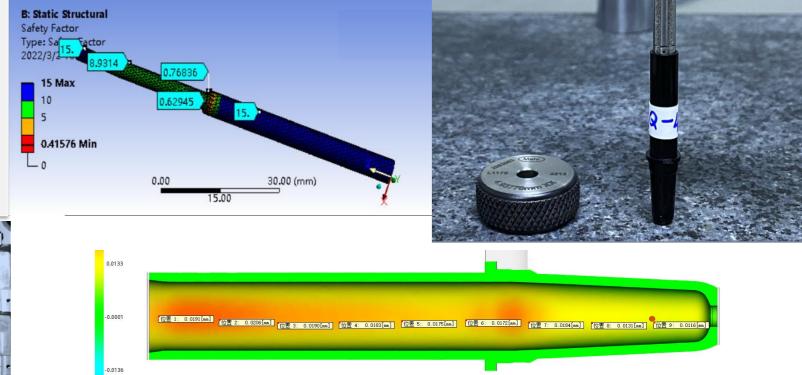
Needle holders for self-destructing safety syringes

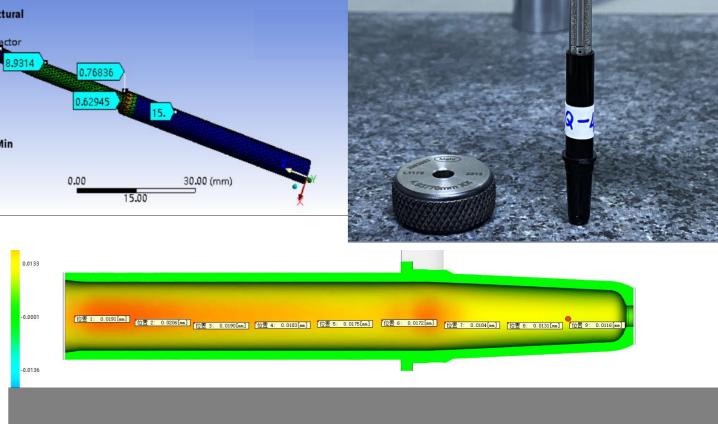
A needle holder combined with a self-destructing safety syringe represents a significant advancement in healthcare and medical safety. These innovative devices are designed to enhance patient and healthcare provider safety by minimizing the risk of needle stick injuries and preventing the reuse of needles.

Jestar has successfully engineered a high performance 64-cavity mold for needle holder, showcasing our expertise in precision molding technology. Our capabilities extend beyond this, as we excel in crafting molds for a wide range of syringes or syringe components, effectively meeting the multifaceted requirements of the medical and healthcare industry.

- Syringe system
- For self-destructing safety syringe
- Cycle time <7s (64cav.)
- Production capacity >800K pcs/day (64cav.)
 Quick change of Slider
- 3D printed waterway

- Unit weight: 0.027g
- Quick change of cavity





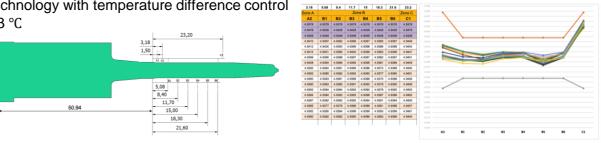
Ultra-precision Nozzle mold

Ultra precision exemplifies our extraordinary capabilities

Nozzles are versatile engineering components that play a crucial role in various applications across multiple industries. They are designed to control the flow, direction, and dispersion of fluids, gases, or particles. Molding an ultra-precision nozzle through injection molding is a remarkable feat of engineering, requiring an exceptional level of precision and expertise.

Jestar's ultra precision mold for nozzles is an extraordinary achievement. These nozzles are distinguished by their incredibly tight tolerances, with a product inner diameter tolerance as low as ± 0.0025 mm. Additionally, the incorporation of a zero draft angle in the nozzle design is a remarkable engineering achievement. This feature enables a perfect fit and ensures that the nozzle operates with optimal efficiency

- Zero draft angle in the inner piston area
- Ultra-precision injection molding (product inner diameter tolerance ± 0.0025 mm)
- High-temperature and highly wear-resistant material feeding system at 410+ °C
- High-temperature injection molding with PEI (350~410 °C)
- Advanced mold temperature balance control technology with temperature difference control <3 °C





- Collaborative use of multiple software for assisted mold pre-deformation design
- Scientific Design of Experiments (DOE) methodology, with theoretical and practical cross-validation Interdisciplinary integration of software, materials, molds, machining, measurement, and injection molding

Multi-component PCR Plate mold

Discover a comprehensive range of PCR products in various sizes, colors and types to match your specific lab needs.

Jestar possesses extensive expertise in molding PCR products. Allow us to introduce our technology: the multi-component PCR plate mold.

Technical Features:

- Two materials with different melt temperatures (PC+PP) are structurally integrated, making the PCR plate robust and flat even after multiple high-low temperature cycles, making it suitable for continuous and unmanned operation.
- Ultra-thin and uniform wall thickness ensures the fastest reaction efficiency, reducing experimental time.
- Precision CNC machining of the surface minimizes deformation caused by polishing, ensuring consistent wall thickness for stable and consistent CT values in PCR experiments.
- Uniform gate processing accuracy for 96 wells ensures consistent fill balance, minimizing
 product deformation and facilitating unmanned operation at automated workstations.

Our PCR product portfolio includes PCR tubes, 8-strip PCR tubes, 96-well PCR plates, 384-well PCR plates.

PCR tubes:

- Well: 1,8
- Optical cap, Dome cap
- Color: natural, any customized color
- Packaging: 125 pcs/box, customized box or case sizes are possible.





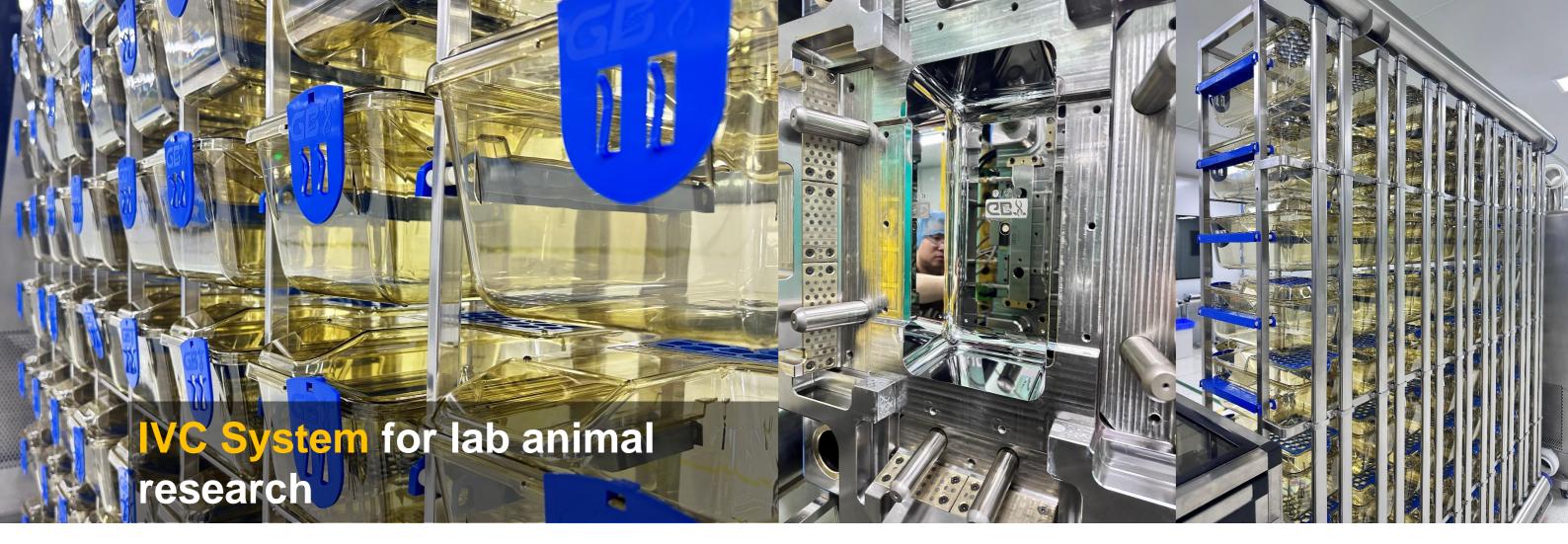






PCR plates:

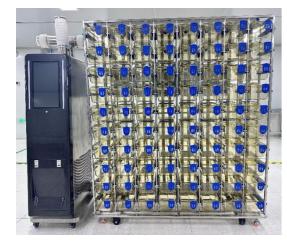
- Well: 96, 384
- Full-skirted, on-skirted
- Angular position: H1, A12
- laser marker option
- Hard-shell, multi-component
- Color: natural, any customized color
- Packaging: 10 pcs/box, customized box or case sizes are possible.

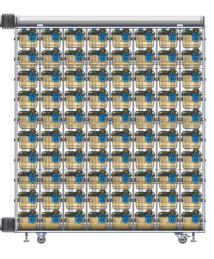


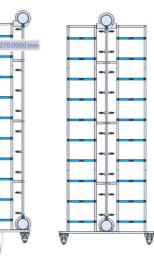
Facilitate challenging scientific research with our thoughtful and forward-thinking solutions!

IVC systems are used to house laboratory animals, such as mice and rats, in separate ventilated cages. Each cage is equipped with its own ventilation system, which provides a controlled environment for the animals, including temperature, humidity, and air quality. IVC systems are designed to enhance animal welfare, reduce the risk of disease transmission, and improve research outcomes by providing a more controlled and hygienic housing environment for laboratory animals.

Jestar's outstanding engineering expertise and conscientious work ethic are now widely acknowledged across various industry sectors. We have successfully developed IVC (Individually Ventilated Cage) system with customer, the ODM project which boasts a range of advanced technical features.

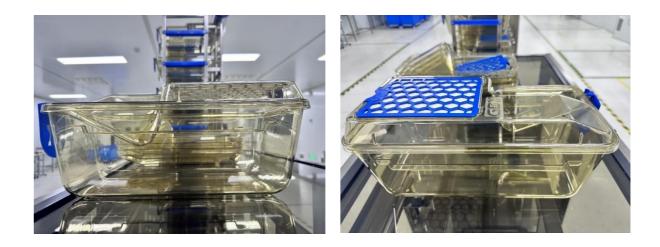




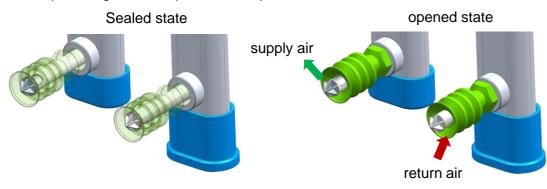


The Complete Solution in one Stop

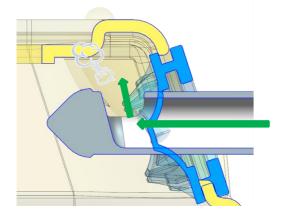
- 1. Featuring a modular design that optimizes space utilization, offering customizable dimensions and specifications to meet specific laboratory needs.
- 2. Cage frame material: SUS304 stainless steel, capable of high-pressure sterilization and easy disassembly for cleaning.
- 3. The cage box is made of high-quality, brand new PPSU material, eliminating the use of recycled or Custom material options are available to meet various breeding scenarios.
- 4. Exhaust pipe positioned at the bottom of the cage.

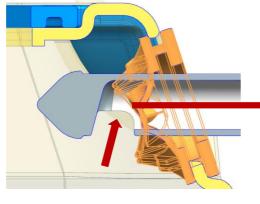


partially recycled materials. It offers excellent stability and transparency, capable of withstanding repeated high-temperature and high-pressure sterilization at 131° C for more than 300 cycles. 5. After the cage box is removed or on the empty rack without installation, the unique closed-loop ventilation system, valves, and positive pressure system will automatically close the inlet and outlet, providing a double protection to prevent cross-contamination.



- A unique closed-loop ventilation system, using rigid plug-in pipes in conjunction with a i. double-layer liquid silicone one-way ventilation valve, ensures smooth airflow within the cage box and prevents gas backflow leakage. The cage box can be easily removed and placed using guide keys, providing greater fault tolerance.
- ii. The inlet and exhaust ports of the cage box are equipped with two layers of silicone sealing rings. The first layer is a duckbill-style one-way ventilation valve, and the second layer is a cross-shaped one-way ventilation valve, which automatically seals upon removal of the air tube.
- iii. The cage box utilizes lateral silicone ring sealing, ensuring that the cage box remains airtight and watertight even if subjected to external forces or placed in harsh environments. It is also easy to operate with one hand.
- iv. The cage box's air supply port features a unique upward air supply design, ensuring that airflow moves slowly into various areas within the cage. The airflow velocity in the horizontal animal area is less than 0.1m/s.

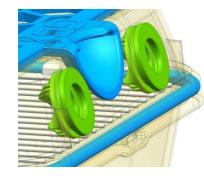


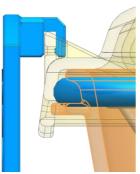


Upward air supply port (Enhancing the comfort of animals inside the cage)

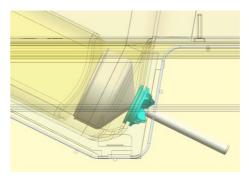
Downward return air port (Creating laminar flow)

- 6. Precision airflow duct design guarantees minimal pressure loss and uniform pressure distribution across all cages.
- 7. Unique latch-free design, perfect for one-handed operation

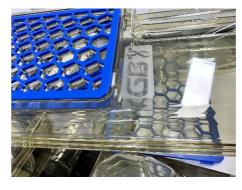




8. The water bottle nozzle is weld-free and features an O-ring silicone gasket seal at the connection point with the cage lid. The water bottle insertion is designed with an automatic centering slot on the cage lid.



9. At the top of the cage box, there is a sealed life window, ensuring that both the cage box and the outside must pass through a 0.2-micron microbiological filter membrane. The filter membrane has an efficiency of over 99.99% in filtering bacteria and viruses, ensuring aseptic isolation between animals and the outside to prevent cross-infection. It can also prevent irreversible damage to animals due to air supply failures within 72 hours, and the filter membrane is washable or can be sterilized at high temperatures.

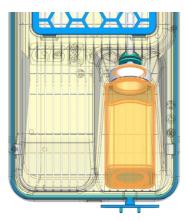


10. Partition: The material used for the feed-carrying partition inside the cage box is 304 stainless steel, with a frame wire diameter of \geq 3mm and a cover wire diameter of \geq 2mm.

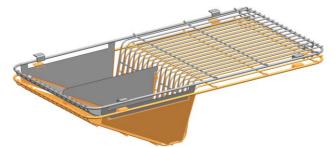
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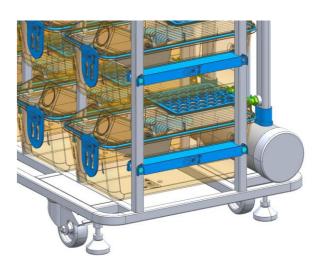
- i. The four corners of the base feature a curved design with protruding bumper strips to protect the main structure and the cage box from impact.
- ii. The cage rack base is equipped with four corrosion-resistant/pressure-resistant rubber casters, two of which have brakes, and four adjustable fixed support legs, all of which are capable of high-temperature and high-pressure sterilization.
- iii. The cage rack guide rails, fixed by specially designed stainless steel anti-dust screws and cushion washers, enhance the rack's stability and prevent tipping.





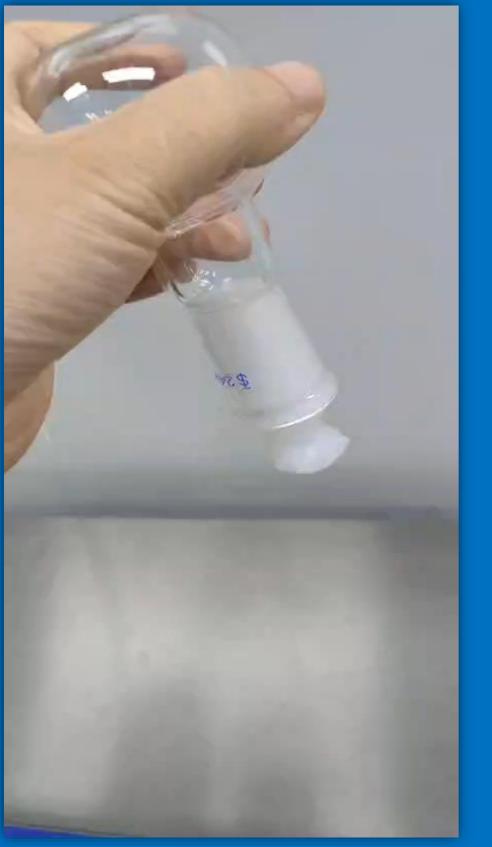


swivel





Video



Our reference with **NEOFLON**

Vials for red wine made from Neoflon

These vials were made for a client from the USA. The material is Neoflon. Previously, the client has spent a long time experimenting with several mold makers without achieving any satisfying results.

Jestar has only used 15 days to solve the issue and help the client with their production. During these 15 days, Jestar issued several reports and provided active feedback to the client to ensure mutual communication.







Our reference with **NEOFLON**



Fluoropolymer	Trade names	Monomers	Melting point (°C)
PVF (polyvinylfluoride)	Tedlar®	VF1	200
PVDF (polyvinylidene fluoride)	Kynar [®] , Solef [®] , Hylar [®] , Symalit [®]	VF2	175
PTFE (polytetrafluoroethylene)	Teflon [®] , Algoflon [®] , Hyflon [®] , Neoflon [®]	TFE	327
PCTFE (polychlorotrifluoroethylene)	Kel-F [®] , Neoflon [®]	CTFE	220
PFA (perfluoroalkoxy polymer)	Teflon [®] , Neoflon [®] , Hyflon [®]	PPVE + TFE	305
FEP (fluorinated ethylene-propylene)	Teflon [®] , Neoflon [®] , Hyflon [®]	HFP + TFE	260
ETFE (polyethylenetetrafluoroethylene)	Tefzel [®] , Fluon [®]	TFE + E	265
ECTFE (polyethylenechlorotrifluoroethylene)	Halar®	CTFE + E	

Challenges of PTFE Injection Molding:

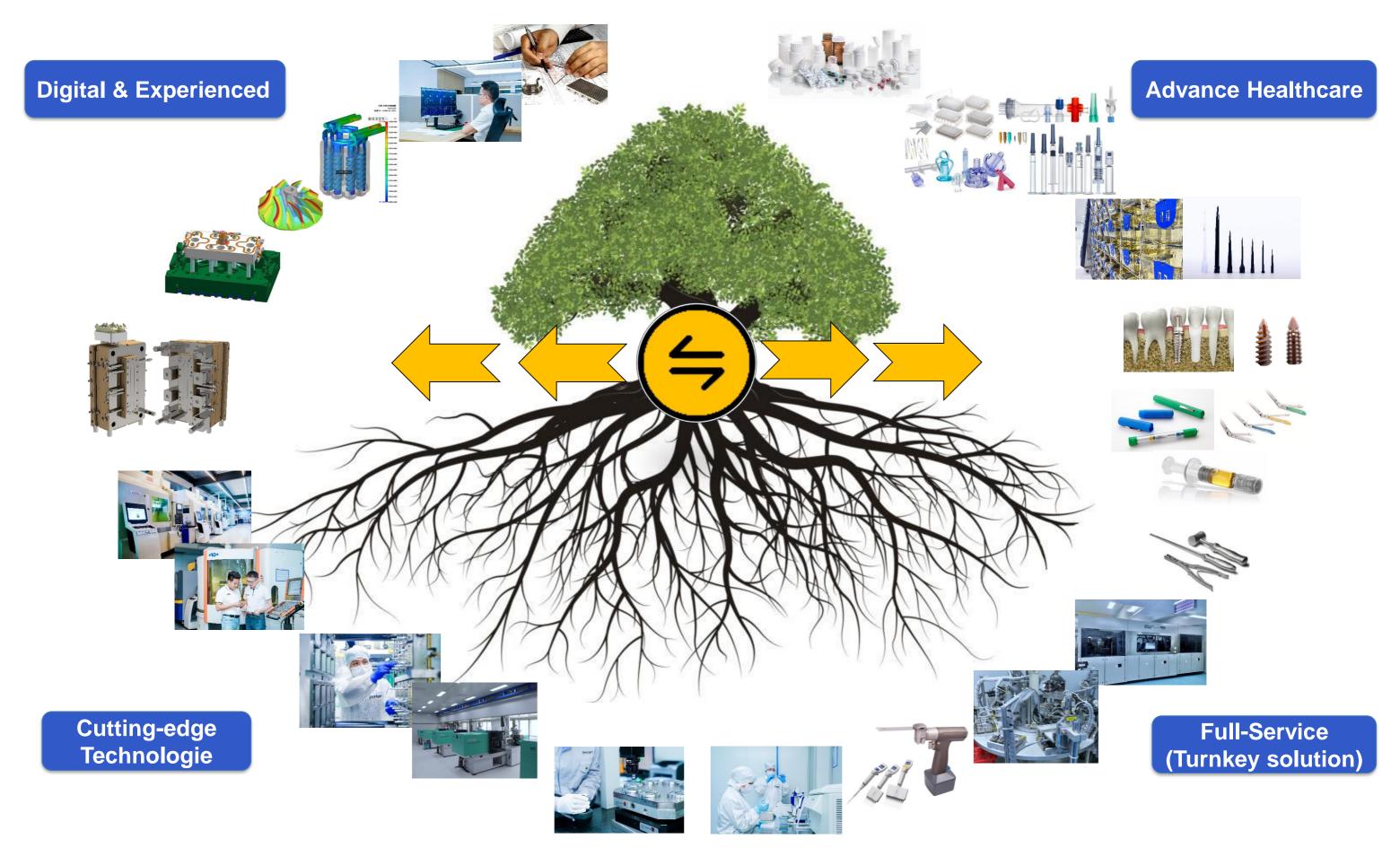
- > High Melting Point: PTFE's melting point is quite elevated, which complicates the molding process.
- > Non-Stick Properties: Its non-stick nature makes it resistant to adhering to molds, affecting the flow and filling during injection.
- Material Science Expertise Required: Successfully molding PTFE \succ demands an understanding of material science and specialized equipment.





OUR CORE CAPABILITIES

Together, we foster sustainable and responsible growth!





jestar

Our Strength – Your Driving Force

INNOVATIVE AND DETERMINED

We live precision through innovation! Our passion for creative thinking, adaptability and problem-solving empowers us to achieve the highest precision, efficiency and cost-effectiveness, supporting your succees in overcoming each challenges.

TRUSTED PARTNERS

At Jestar, we deeply understand that partnership is the anchor that provides stability in turbulent times. Therefore, we prioritize transparency, reliability, open and respectful communication to cultivate a fruitful partnership, fostering mutual growth and success.

DIGITAL AND FUTURE-ORIENTED

In our increasingly digital and future-oriented world, embracing cutting-edge technologies and forward-thinking strategies is essential for staying competitive. Adapting to the digital landscape enables us to seize new opportunities, enhance efficiency, and proactively address the challenges of tomorrow.

DILIGENT AND EXCEPTIONALLY PRODUCTIVE

Our dedicated team consistently goes above and beyond to deliver outstanding results, ensuring that we meet and exceed the expectations of our clients and partners, no matter how challenging the task may be. We believe, diligence makes differences!

CERTIFIED AND HIGHLY EXPERIENCED

Our commitment to excellence shines through ISO 9001 and ISO 13485 certifications. With a rich history of involvement in diverse projects, our expertise is a testament to our dedication to delivering quality and results that surpass our clients' expectations.

SUSTAINABLE AND RESPONSIBLE

Sustainability and responsibility are at the core of our values. We are deeply committed to making environmentally responsible choices, reducing our ecological footprint, and contributing to a better, more sustainable future for all. We'll accompany you sustainably and responsibly.

Set sail with Jestar to explore boundless opportunities

jestar

Living Precision through Innovation!



Subsidiaries and representative offices

