

WE WALK ALONGSIDE THE WORLD

Stock code: 300415

Designed by Yizumi, September 2021

**YIZUMI**

# We Are LEAP



**GUANGDONG YIZUMI PRECISION MACHINERY CO., LTD.**

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2. The picture in the catalogue is for reference only. The real object should be considered as final.  
3. The data in the catalogue is obtained from internal testing in YIZUMI laboratory.  
Please refer to the actual machine for the final data. YIZUMI reserves the right of final interpretation upon disputes and ambiguities.



**LEAP SERIES DIE CASTING MACHINE**

**WORLD CLASS DIE CASTING**

# WORLD CLASS DIE CASTING

**LEAP** SERIES  
DIE CASTING MACHINE



**User-Friendly**  
Intuitive ORCA-HMI  
by YIZUMI

**Highly Efficient**  
10% faster &  
highly repeatable

**Precise & Repeatable**  
Yi-Cast  
Self-learning real-time control

**Energy-Saving**  
Up to 40%  
with innovative hydraulic

# VISION 2025

## BEST RETURN ON INVESTMENT FOR OUR CUSTOMERS

To be the industry`s best cost-effective solution provider with leading technology

### Integrated Die Casting Solutions

At YIZUMI we understand the great importance of a fully integrated and efficient die casting cell. Therefore we designed the LEAP die casting machine in a way that our specialists can flexibly integrate a die casting manufacturing cell with customer`s preferences in mind and ensure you receive a die casting solution from YIZUMI which provides you with the best OEE in your production.

### Competent Support

Our customers can rely on YIZUMI after sales support in every market world wide. We commit ourselves to providing a top class support to our customer in areas of technical support and spare parts availability. Yizumi tops it off with quality training on technical equipment and casting process either at its HQ in China or on customer's site. We also go the extra mile, supporting our customers to optimize their die-casting process onsite at their factories.

### User-Friendly

Intuitive ORCA-HMI by YIZUMI

### State-of-the-art Die Casting Technology

We are committed to providing leading technology to our customers worldwide. Based on our 8000 die casting machines currently operating in the market, our collaboration with top class engineering experts from Europe has enabled us to create the LEAP die casting system - providing true State of the Art Technology to you.

### Highly Efficient

10 % faster & highly repeatable

### Energy-Saving

Up to 40 % with innovative hydraulic

### Precise & Repeatable

Yi-Cast self-learning real-time control

# LEAP

# THE ROAD<sup>TO</sup> LEAP

In recent years, in keeping with the general trend of energy conservation and emission reduction, the global demand for new energy vehicles has ushered in rapid growth. The die-casting industry is facing a new round of transformation and upgrading in which new energy vehicles put forward higher requirements for die-casting technology and complex thin-walled die-casting parts.

To address this challenge, from smart cell integration, die design and casting process

optimization, we benchmark the key performance of the machine against the international advanced level. Through the improvement of equipment availability, process repeatability, and precision, customers will achieve higher OEE.

**To bring competitive value to customers, YIZUMI decided that a holistic approach would be the key to this revolutionary leap.**

**“An innovation as significant as the LEAP die casting machine can not be done by single individuals. Rather, such innovations are a result of our collaboration with interdisciplinary experts and customers.”**

— Stefan Fritsche

YIZUMI CSO for Die Casting & Metal Forming

## ➤ The YIZUMI-customer Collaboration

At the beginning of product development, we actively applied our IPD (Integrated Product Development) method, with its market-orientation and focus on customer needs & requirements. We learned to understand the pain-points of customers' employees in their diverse roles in actual production and use of die casting equipment. Through several years of in-depth observation and research, we obtained first-hand feedback, which helped LEAP products to achieve a leap in key performance.



## ➤ The Power of Connection

“Deep connection” is the driving force behind YIZUMI 's technological leadership. To create a new generation of revolutionary products, YIZUMI is committed to connecting European advanced die-casting technology, integrating global resources, building a China-Europe technology platform and introducing European die-casting experts to overcome technical challenges together. At the same time, we cultivate the core technical capabilities of our Chinese engineers, from knowledge transfer to active creation.



**“ This time we established a fantastic product with great energy efficiency and top of the line injection performance and repeatability for the YIZUMI brand. I am really proud of our work and the whole team and of our international collaboration.”**

— Daniel

Chief expert of injection system In YIZUMI LEAP Project

To generate more possibilities for the product, we have also connected European partners with rich industry experience, merging internal and external die-casting expertise to create a technical team with international perspectives for the benefit of our customers.

# YIZUMI LEAP

## WORLD CLASS DIE CASTING

An advanced, high-strength three-platen die casting machine designed by an international engineering team with long-standing die casting machine design experience.

LEAP's advanced, real time closed loop injection provides highest international level of casting performance resulting in highest OEE. The system is complemented by a highly innovative and energy saving hydraulic drive-group as well as a state-of-the-art HMI featuring highly intuitive programming. World Class Technology at fair prices.

### Industry 4.0 Ready

Continuous improvement is based on accurate and timely feedback of a large variety of production and casting process data. With the LEAP die casting system, YIZUMI offers its customers an advanced platform able to smartly manage and improve machine utilization and process quality based on data management of all relevant parameters influencing the casting process.

### Energy Saving, Innovative Drive Group

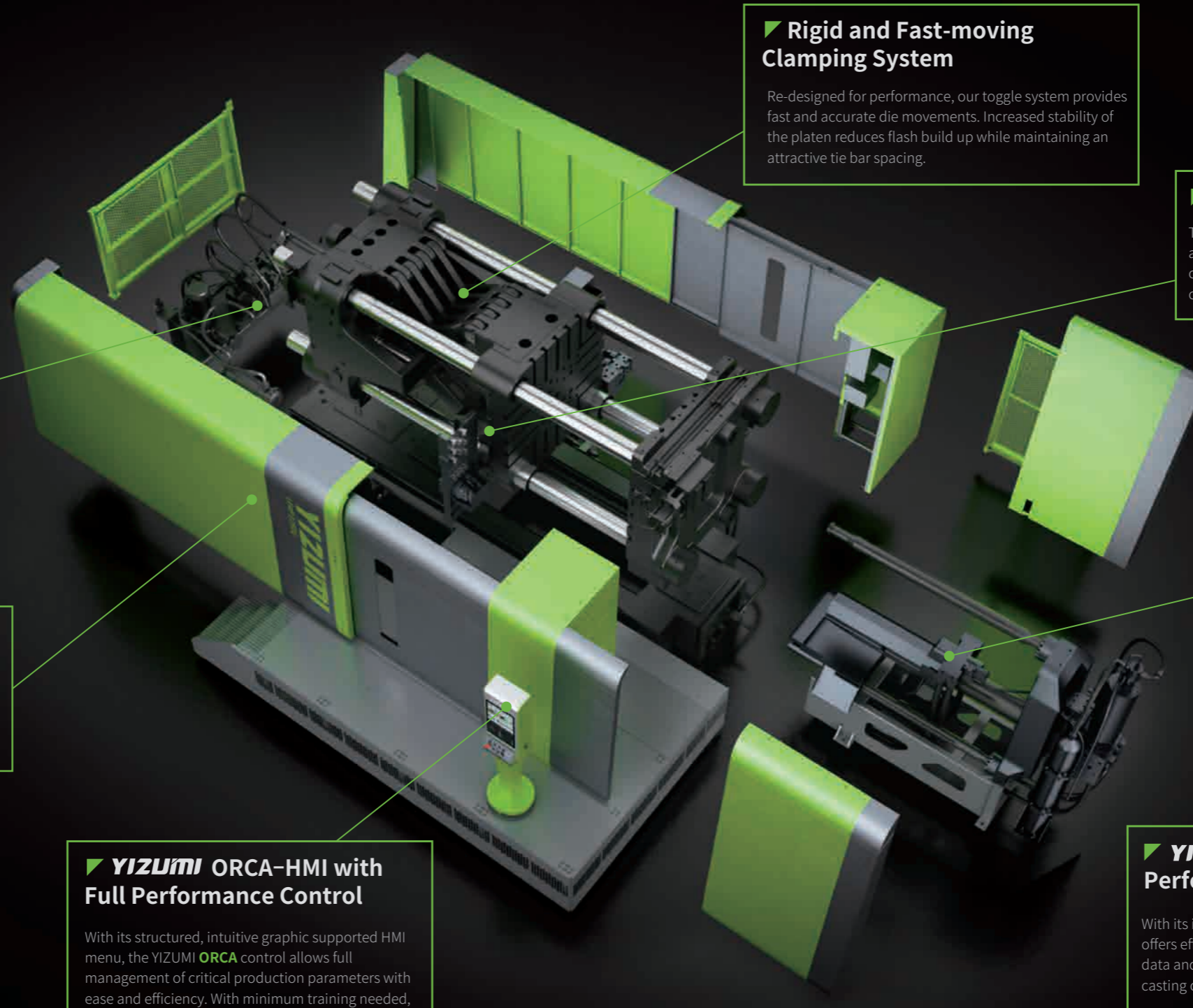
Digital constant pump or high dynamic servo pump, YIZUMI offers energy efficient drive groups offering precise hydraulic movements, high protection of hydraulic components with a long service life and an energy consumption of **up to 40%** below conventional systems.

### Interfaces for Smart Cell Integration

Standardized signal or bus system interfaces allow flexible and easy cell integration with any peripheral standards used worldwide by customers.

### Maintenance friendly – Safety First in Overall Design

Designed with safety in mind, control cabinets and machine enclosures allow best maintenance access for **highly efficient operations**.



### Rigid and Fast-moving Clamping System

Re-designed for performance, our toggle system provides fast and accurate die movements. Increased stability of the platen reduces flash build up while maintaining an attractive tie bar spacing.

### YIZUMI Flexible Energy Board

This great YIZUMI feature allows flexible configuration of all energy connections needed to operate even the most complex tools. Supports also safe and quick production changes.

### YIZUMI Yi-cast Injection Unit – Quality with Every Shot.

Making use of the most advanced technology for its real time closed loop shot control, YIZUMI LEAP provides its users with highest precision and repeatability for every shot.

### YIZUMI MES Solution for Perfect Production Management.

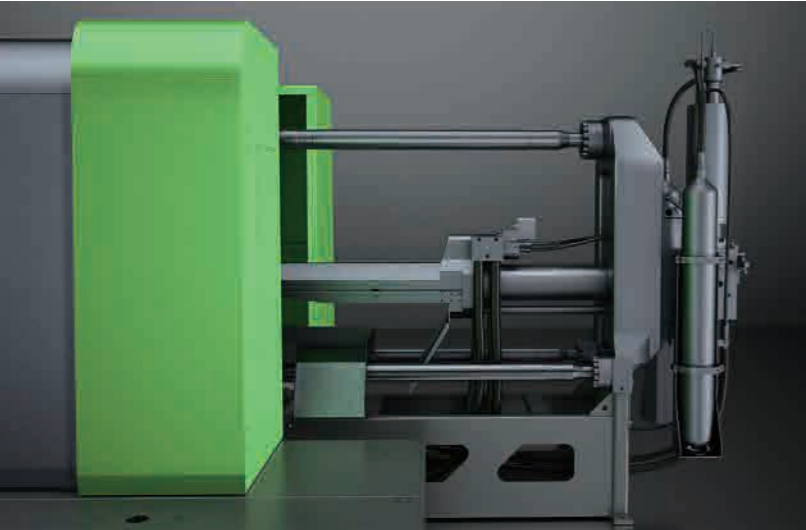
With its in-house solutions **Yi-CMS** & **Yi-MES**, YIZUMI offers efficient management of key production & process data and thus enhances productivity of one or multiple casting cells.

### YIZUMI ORCA-HMI with Full Performance Control

With its structured, intuitive graphic supported HMI menu, the YIZUMI **ORCA** control allows full management of critical production parameters with ease and efficiency. With minimum training needed, this control system reduces complexity for all its users.

# KEY FEATURES

## YIZUMI LEAP Injection Unit – Quality with Every Shot.



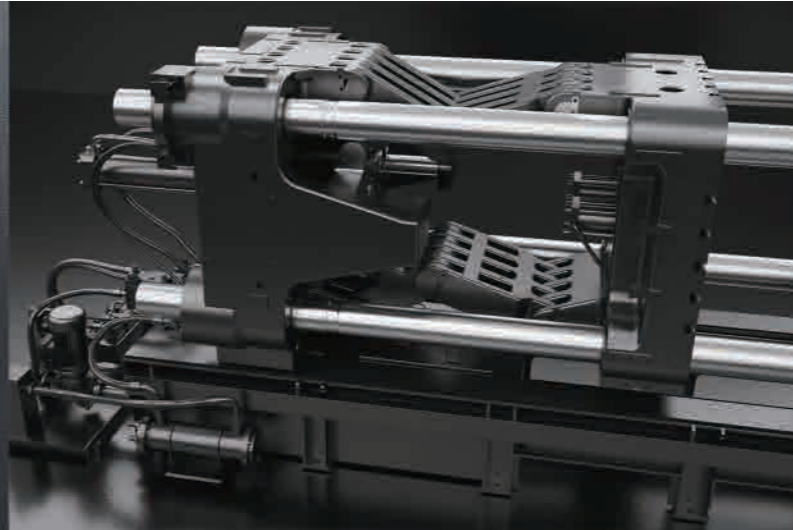
This is innovation by YIZUMI. A powerful combination of state-of-the-art casting injection control performance at fair prices. Developed by YIZUMI with an international team of highly experienced engineers, our LEAP system offers highest casting performance. Finely adjusted algorithms which have been developed in-house combined with a high-performance control system, high speed pilot valves and special purpose servo valves offer you a world class injection performance. The YIZUMI real time closed loop control system detects any process deviation and immediately adjusts the injection process. **This greatly enhances your process repeatability and your casting quality consistency. Breaking of the injection speed at the end of cavity filling reduces flash and increases productivity and die life.**

## YIZUMI ORCA Control System & Performance HMI



A top of the line control system designed by YIZUMI. The result of a close collaboration between YIZUMI and renowned European specialists, the YIZUMI **ORCA** enhances casting process management in every aspect. Intuitive and easy to understand graphical screens save programming time and reduce extensive training needs. The **HMI** menu conveniently offers easy access for operators, process engineers, maintenance teams as well as quality managers alike. The user interface with its large touch screen provides direct access to programming functions, alarm messages as well as the multifunctional shot curve display. Tolerance bands set for critical process parameters and **SPC** data management make quality management easy to ensure highest **OEE** for you.

## Enhanced YIZUMI Locking End



Energy consumption  
up to **40%**  
reduction

**10%**  
faster  
closing & opening times

A new fully re-engineered toggle system for extended service life and higher platen rigidity. 10% faster closing and opening times are achieved in combination with the innovative YIZUMI hydraulic drive system. The proven servo motors, a technology which has been in use for years at YIZUMI, reduce up to 40% energy consumption. Easy programming of speeds, automatic die-height & locking force as well as precise die-position-stops add to the overall efficiency. Flexible energy boards allow easy adjustments and customization of all energy & functional connections between the DCM and the die casting tool.

## Performance Focused Machine Design



The result of a close cooperation between the YIZUMI design team and a professional design outfit provides our customers with a new YIZUMI die casting machine design focused on efficient & safe operation in your die casting plants. Safety first and foremost. Our new design protects your personnel by keeping energy lines and moving parts away, while allowing open access to your operations and maintenance teams in a perfect balance between safety and efficiency.

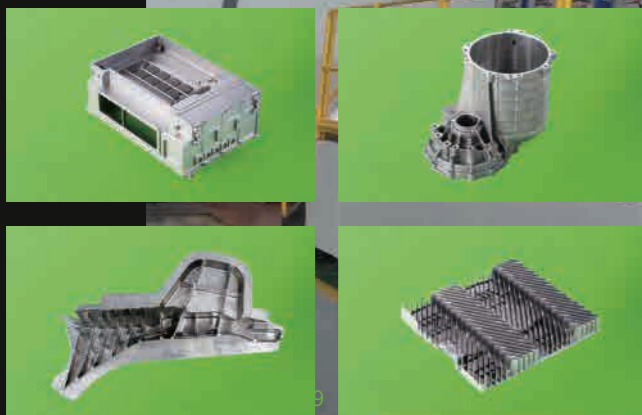
# PROCESS TECHNOLOGY

## FOCUSED

YIZUMI teams are familiar with die casting process and have built up professional knowledge in structural parts.

Our die-casting solutions can provide customers with customized die design support and on-site process optimization. From general castings to thick walled, pressure tight parts, medium wall thickness parts with mechanical stress requirements, and thin wall parts with high surface requirements, etc., we can guarantee stable and consistent quality and realize traceability of the whole production.

YIZUMI Production Examples

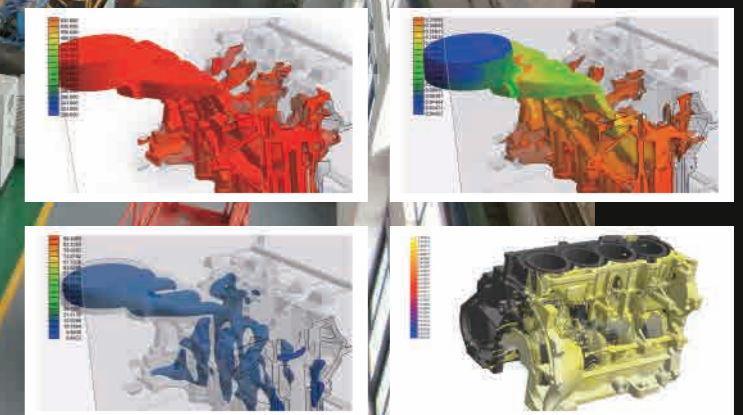


Product & Process Application Center (PPAC)

Yizumi Gaoli plant has established a Product & Process Application Centre featuring a well equipped DM3000H machine. The cell is equipped with an aluminum alloy dosing furnace incl. melt treatment with porous plugs, a high vacuum unit, a full set of mold control unit (jet cooling, die temperature controller e.g.) and a whole set of robot automation unit. This infrastructure allows Yizumi PPAC to meet the production demands of various large castings as well as structural castings.

Yizumi has created a real customer production environment, and can explore together with customers the core requirements of the die-casting process. Our aim is to provide a better and more satisfying equipment experience. Yizumi is working towards becoming the most cost-effective solution provider in the die-casting field.

Mold Flow and Process Analysis



# YIZUMI CUSTOMER SERVICE

## Professional & Fast

The YIZUMI YFO Customer Service in China ensures high-quality customer service 24/7. In 39 international markets, YIZUMI provides fast and competent customer services by means of trusted and trained agencies and representatives. In Germany, the USA and India YIZUMI Die Casting operates wholly owned subsidiaries providing high level technical as well as pre- and post-sales services.

## YIZUMI at Your Service

Worldwide, YIZUMI has successfully implemented > 8000 Die Casting Solutions. And the number keeps growing - we add up to 100 new die casting machines every single month, to this already impressive number. This is based on a modular machine design, an efficient-best cost supply chain, and a production environment 100% focused on quality and continuous improvement. Our large machine base provides us with ample experience to fully understand our customers' needs regarding customer service support, thus ensuring a competitive lifetime cost of our products.

## GLOBAL SERVICE NETWORK

40<sup>+</sup>

More than 40 overseas sales agencies

70<sup>+</sup>

Business reaches over 70 countries and regions



Overseas technology & service centers



China Gaoli Headquarter and Factory



China Wujiang Factory



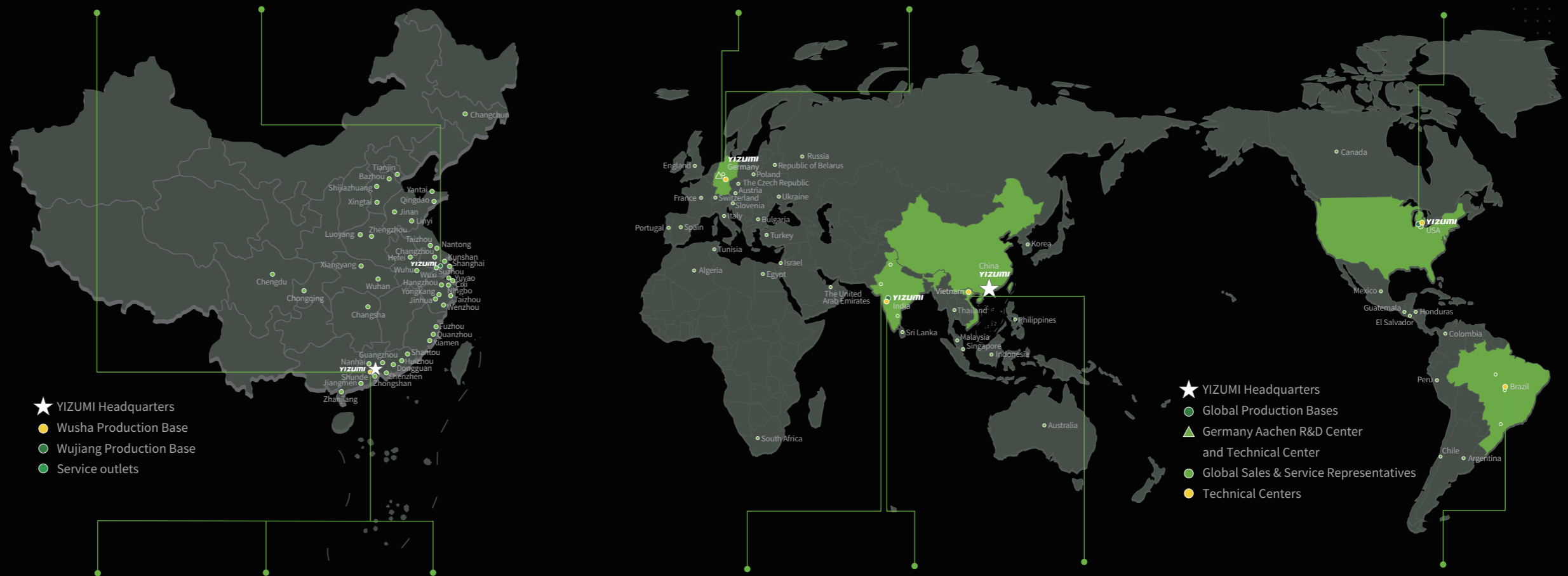
Germany Aachen R&D Center and Technical Center



Germany Nuremberg Technical Center



U.S. Ohio Factory & Technical Center



China Wusha Factory 1



China Wusha Factory 2



China Wusha Factory 3



India Gujarat Factory



India Technical Center



Vietnam Technical Center



Brazil Technical Center