

# OEM Precision Parts Solution OEM Präzisionsteile Lösung



# **Prototyping to Mass production**

EternalModel Precision Parts Solution



# Catalog

- 1 Company Profile
- 2 Core Service
- **3 Associated Service**
- 4 Quality Assurance
- **5** Parts Show
- 6 Applied Equipment
- 7 Development of EternalModel



# Company Profile Since 1998

EternalModel Precision, founded in Shenzhen, China in 1998, is a company focusing on prototyping to volume production. We have a professional core team, advanced equipment, and our own factory building. At the same time, we passed the ISO9001 quality management system.

In southern China, we have two manufacturing centers and one processing technology R&D bases



EternalModel team pursues excellence and takes the initiative to continuously optimize the production process. At the same time, EternalModel also introduced the world's top machine tools and highly automated equipment to improve the quality stability and production efficiency of the process. With many years of high-quality production and hard work, EternalModel has won the praise and trust of the industry and customers!



# **EternalModel**<sup>®</sup>



**Automation lines** 

**Precision 5-axis Workshop** 





**Precision Lathe Workshop** 

**EM ERP&MES** 



#### **Global Events**



Leipzig Intec 2023



Interviewed by CCTV



Hannover Messe 2023



SIMM 2021



Machining Solution Conference



**Machining Solution Conference** 

# **Core Service** Precision Solutions for Your Toughest Challenges

## **Ultra-Precision 5 Axis Machining**

**Advantages:** Ultra Precision, High Finish, Reach high geometrical tolerance requirements, pallet feeding **Tolerance:** Up to ±0.005 mm

**Material Applied:** Aluminum alloy, titanium alloy, copper alloy, stainless steel, special alloy and other metal materials, POM, PEEK, PPSU, and other engineering materials



## **Automated CNC Machining**

Advantages: Precision, High Finish, Reach complex mass production requirements, robot feeding

Tolerance: Up to ±0.005 mm

**Material Applied:** Aluminum alloy,copper alloy, stainless steel, and other metal materials, POM, PEEK, PPSU, and other engineering materials



#### **Ultra-Precision Turning&Milling Machining**

**Advantages:** Ultra Precision, High Finish, Reach high concentricity and geometrical tolerance requirements **Tolerance:** Up to ±0.005 mm

**Material Applied:** Aluminum alloy, titanium alloy, copper alloy, stainless steel, special alloy and other metal materials, POM, PEEK, PPSU, and other engineering materials



# **Associated Service**

One-stop solution for all processes

### **Complementary Process**

## **Die-Casting**



### **Mold injection**



## Surface Treatment

#### EDM



## Grinding



Polishing	Anodizing	Sandblasting	Plating
Passivation	Heat Treatment	Spray	Laser engraving

## Assembly

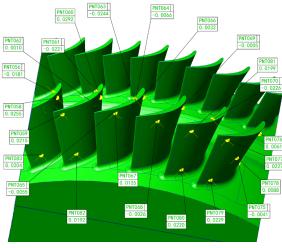
Assembling the parts in-house, we can ensure that each part is assembled correctly and meets the required, at the same time, we can reduced turnaround time and meet the customer's final demand for the whole process.



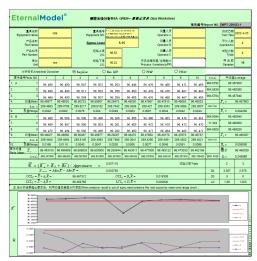
# **Quality Assurance** Ensuring Precision Every Step of the Parts Manufacturing

We will establish clear quality standards and procedures that define the requirements for the parts, including dimensions, tolerances, and material specifications. Conduct regular inspections throughout the production process to ensure that parts meet the required specifications. This can include visual inspections, dimensional measurements, and material testing.

CMM inspection is one important part of a comprehensive quality assurance program. We integrate CMM inspection results into its broader quality control process and ensure that any issues identified during inspection are addressed promptly.



CMM Report of Blade Part



Measurement System Analysis



CMM Inspection Room (Constant temperature and humidity)

# **Parts Show** Precision / High Finish / Tight Tolerance

## **Optical Parts**

Material: AL7075-T6 Surface: Anodized Tolerance: Geometric Tol. - Up to ±0.01 Roughness - Ra0.4

## Turning&Milling Parts

Material: AL6061-T6 Surface: As machined Tolerance: Diameter Tol - Up to ±0.005 Geometric Tol. - Up to ±0.01 Roughness - Ra 0.2





#### **Air Pump Parts**

Material: Titanium alloy Surface: As machined Tolerance: Geometric Tol. - Up to ±0.01 Roughness - Ra 0.4





#### **Mechanical Parts**

Material: Stainless Steel Surface: Passivation Tolerance: Geometric Tol. - Up to ±0.01 Roughness - Ra 0.4





#### **Consumer Products Parts**

Material: AL6061-T6 Surface: Anodized Color Tolerance: Geometric Tol. - Up to ±0.02 Roughness - Ra 0.8



# **Applied Equipment** Advanced Equipment for Precision Results

EternalModel always uses advanced facilities, which can provide numerous benefits to customers, including increased precision, efficiency, flexibility, cost-effectiveness, and consistency in manufacturing processes.

#### Machines List (-2024)

Brand	Machines/Software	Model / Specification	QTY	ORIGIN
Mastercam.	Mastercam 2020	3/4/5 axis Milling and Turning Programming	1	USA
📣 Matsuura	Matsuura 5-axis CNC Machine	MX330-PC10	6	JAPAN
		MX520-PC4	2	JAPAN
brother	Brother 5-axis CNC Machine	M140X2 / M200X3	15	JAPAN
OKK	OKK five-axis CNC Machine	VP400	1	JAPAN
	Okuma 3-axis CNC Machine	MXR-560V	1	JAPAN
brother	Brother 3-axis CNC Machine	S500	2	JAPAN
FANUC	Fanuc 4-axis CNC Machine	α-D14MiA	19	JAPAN
VIRIN	VIRIN 3-axis CNC Machine	MV1000P	2	JAPAN
🔅 Nakamura-Tome	Nakamura-Tome (Two-Turret, Two-Y-Axis)	WY-100II	2	JAPAN
	Lathe	8-Inch Chuck	2	CHINA
	Lathe	3-Inch Chuck	16	CHINA
FANUC	Fanuc Robot Line		2	JAPAN
	LK (NIKON) CMM	ALTERA S 15-10-8	1	UK
		ALTERA S 8-7-6	1	UK
ZEISS	Zeiss CMM	Contura 7/10/6	1	GERMANY
	HEXAGON TESA Height Gauges	MAGNA 700	2	SWITZERLAND
Mitutoyo	Roughness Meter, Needle gauge, Geight Gauge, Micrometers, Calipers, etc.		1	JAPAN

# **Development of EternalModel** Building Tomorrow's Solutions Today

EternalModel has always been committed to innovation, quality, efficiency and customer satisfaction, as well as adapting and evolving to respond to changing circumstances. With the increasing complexity of most products, we have been optimizing technology, increasing automation rate, and reducing production cost to meet future customer needs

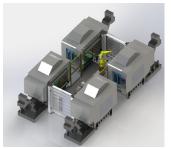
#### **Construction of Digital Workshop**

We have always focused on the construction of digital workshops. According to our more than 20 years of experience in machining processes, we will implement the latest ERP and MES systems in the new factory building in Huizhou.

The development of a digital workshop will involve a focus on leveraging digital technologies to improve efficiency, precision, and quality, as well as a commitment to ongoing innovation and improvement to stay ahead of the curve in a rapidly evolving technological landscape.

#### **Increase in Automation Rate**

Automation is important for EternalModel because it can improve efficiency, safety, cost savings, scalability, quality, and data collection and analysis in a variety of industries and applications. By automating tasks that are repetitive, dangerous, or inefficient, companies can free up human resources to focus on more strategic and value-added activities, leading to greater overall success and competitiveness.



Automation Line #1 at Shenzhen HQ



Automation Line #2 at Shenzhen HQ

#### Self-owned factory property

Our self-owned facility provides a cost-effective advantage, reducing overhead and ensuring full control over production. This enables us to offer competitive pricing, reliable delivery, and consistent quality. With optimized operations, we guarantee stability and flexibility, making us a trusted partner for long-term success.





LET'S DO THE BEST FOR YOUR DESIGN!

## SHENZHEN, CHINA

OFFICE

#### SHENZHEN ETERNALMODEL PRECISION PARTS CO., LTD.

#### 深圳市永禾城精密组件有限公司

Address: No. 13, QSW Industrial Zone, Hongqiaotou, Yanluo St, Shenzhen, Guangdong, China (Mainland) Phone: +86 13421301276 Fax: +86(755)32997271 Email: info@eternalmodel.com

#### HUIZHOU, CHINA

HQ / Manufacturing Center / Processing R&D Center

#### GUANGDONG ETERNALMODEL MFG CO., LTD.

#### 广东永禾城精密制造有限公司

Address: Building 23, LCC Industrial Park, Shuikou Street, Huicheng District, Huizhou, Guangdong, China (Mainland) Phone: +86 15768703071 Email: hz@eternalmodel.com

HONGKONG SAR

#### ETERNAL MODEL TECHNOLOGY(HK)CO., LIMITED 永恒模型(香港)有限公司

Address: Room 15, 11/F, China United Plaza, 100 Tai Nan West Street, Lai Chi Kok, Kowloon,HongKong SAR Email: hk@eternalmodel.com

#### TECHNICAL QUOTE TEAM

Address: No. 13, QSW Industrial Zone, Hongqiaotou, Yanluo St, Shenzhen, Guangdong, China (Mainland) Email: young@eternalmodel.com Phone: +86-13421301276 Whatsapp: +86-13421301276

#### WWW.ETERNALMODEL.COM