# SKR TECHNOLOGIES

Precision Molding & Engineering Excellence

**COMPANY PROFILE 2025**

## Company Overview

Established in June 2021, **SKR Technologies** is an ISO 9001:2015 certified precision engineering firm located in Peenya II Stage, Bangalore. Operating out of a state-of-the-art 3,000 sq. ft. manufacturing facility with a dedicated team of 18 industry experts—including specialized designers, CNC programmers, tool makers, and quality engineers—we provide complete end-to-end solutions for plastic injection and investment casting molds.

**Our Quality Objectives:**

- Deliver premium quality tooling and cost-effective engineering design solutions.
- Ensure rigorous on-time delivery across all projects.
- Drive continuous process improvement to maintain total customer satisfaction.

## Core Services & Tooling Expertise

We serve as a one-stop-shop for complex profile and thin-wall plastic part tooling. Our engineering capabilities encompass specialized mold design for both hot and cold runner injection molds, custom product design, high-accuracy gauges, and manufacturing fixtures.

Our tools power critical applications across multiple industries, including Automotive (e.g., complex assemblies like Nissan Sunny car headlight reflectors), Electrical Components, Medical Devices, Defense Equipment, and Commercial Toys.

## Advanced CNC Milling Capabilities

Our shop floor is anchored by a fleet of high-speed Vertical Machining Centers (VMCs) engineered for superior mold making, heavy material removal, and highly accurate finishing.

| Machine Profile | Key Specifications | Performance Capabilities |
|---|---|---|
| **AWEA F-16 High-Speed VMC** (Taiwan) | Table: 1160 x 600 mm<br>Spindle: 24,000 RPM (HSK-A63)<br>Travel (X/Y/Z): 1000/600/500 mm | Features a solid bridge-type structure. Achieves positioning/ repeatability of ±0.002 mm with a rapid rate of 36,000 m/ min (FANUC 18i MB). |
| **AKIRA SEIKI Performa V4 XP** (Taiwan) | Table: 1200 x 500 mm<br>Spindle: 12,000 RPM (BT-40)<br>Travel (X/Y/Z): 1050/550/560 mm | Delivers a positioning accuracy of ±0.008 mm. Powered by a MITSUBISHI M65S system, with a 24-tool ATC capacity. |
| **US Wheeler VMC** | Table: 1000 x 550 mm<br>Spindle: 12,000 RPM (BBT-40)<br>Travel (X/Y/Z): 800/550/550 mm | Ensures precise cavity shaping with ±0.004 mm repeatability and rapid X/Y travel rate of 44,000 m/min (MITSUBISHI M80). |

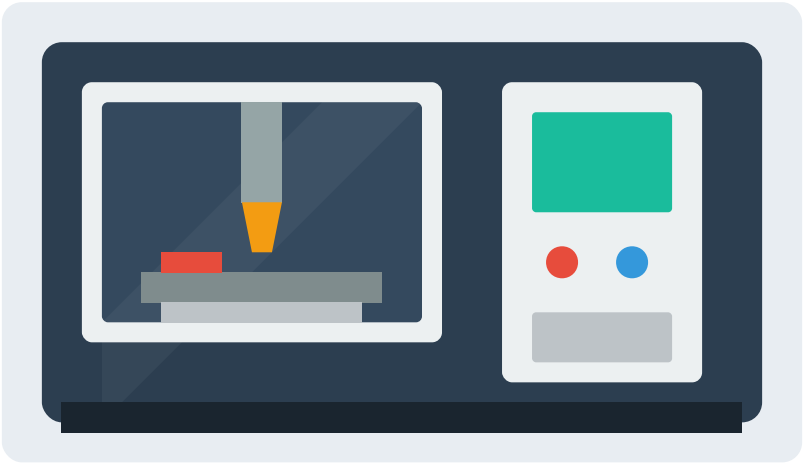


*Figure 1: High-Speed Vertical Machining Center (VMC) Layout*

## Ultra-Precision Spark EDM & Grinding

For intricate detailing and flawless cavity finishes, our facility is equipped with dedicated spark erosion and grinding technologies. The **AGIE GF+ AM50 CNC-EDM (USA)** is an ultra-precision machine featuring the PIKA machining circuit for flawless mirror finishing. It handles massive workpieces up to 2,500 kg within a 1370 x 950 x 520 mm tank, providing a best surface roughness of Ra 0.2 µm and minimal electrode wear (0.1%).

Our EDM capabilities are expanded by a **CNC + C Axis Sparking EDM** and an **OSCARMAX ZNC Spark EDM** for targeted multi-axis spark erosion. Secondary operations are supported by an EQUIPTOP Surface Grinder, a HERDOUT DRO Milling Machine, and a KIKINDA Radial Arm Drill.

## Engineering Design & Flow Simulation

We eliminate trial-and-error by applying rigorous computer-aided engineering and flow simulations during the mold design phase:

- **Cooling Time Analysis:** We simulate the exact "Time to Reach Ejection Temperature" at the End Of Cooling (EOC). By identifying variables—such as an optimal 20-second cooling window to reach required temperatures—our designers optimize cooling channel layouts to drastically reduce overall production cycle times.
- **Filling Pressure Distribution:** We map out cavity pressures at the End of Filling (EOF) phase. By comparing filling pressures with and without runner systems, we calculate precise pressure losses (e.g., assessing a drop from $47.24\ MPa$ to $40.82\ MPa$ inside the cavity). This ensures structural integrity, limits warpage, and guarantees complete mold filling.

## In-House Mold Trials

To guarantee immediate production readiness, all molds are tested in-house on our dedicated **YIZUMI UN260 SKIII** horizontal hydraulic injection molding machine. It features a 260-ton clamping force, a 410g maximum injection weight, 570 x 570 mm tie bar spacing, and injection speeds up to 310 mm/s.

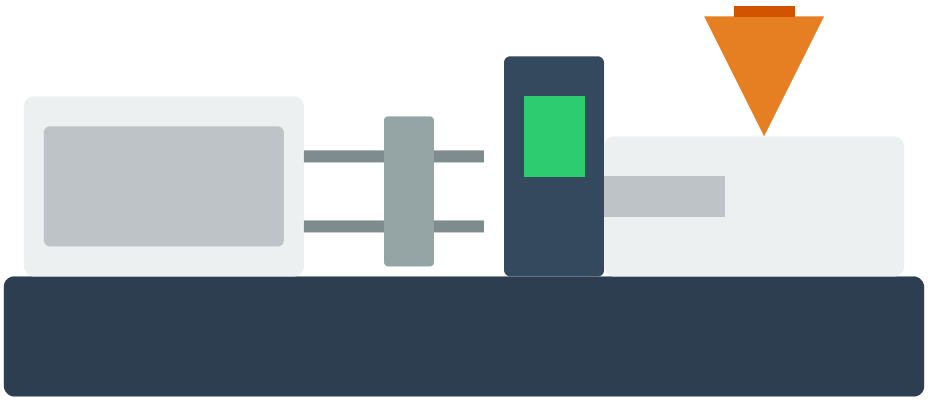


*Figure 2: YIZUMI UN260 SKIII Injection Molding Machine*

## Stringent Quality Assurance

Quality is validated continuously using a suite of high-end, imported measurement instruments, primarily sourced from Mitutoyo (Japan). Our QA lab is fully equipped with 600mm double-column digital height gauges, precision bore gauges (18–150mm), and high-accuracy puppet dials measuring down to ***0.002 mm***. All tools are calibrated against a 1000 x 1000 mm Micron surface plate and supported by comprehensive Insize slip gauge sets.

## Trusted by Industry Leaders

Our commitment to precision has earned us recognition and performance awards from industry titans. We are proud to be the trusted tooling partner for:

- **Automotive & Engineering:** Mann+Hummel, Lumax, Motherson, Tata Elxsi Limited
- **Plastics & Manufacturing:** Micro Plastics Pvt. Ltd., V3 Plastotech, Premier
- **Specialized Components:** Ballamudi, Ajax, Multitek Auto Parts, Optica, Brita

## Get in Touch

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