

Manufacturing prowess

# Driving the future

At Hyundai Motor India Ltd., we are redefining the landscape of automotive manufacturing. We empower our operations through intelligent systems, sustainable practices, and people-centric innovation. This strategic approach cultivates a future-ready, agile, and highly efficient ecosystem, designed to consistently meet and exceed evolving mobility demands at scale.



Expanding production footprint

We continue to accelerate our manufacturing capabilities to meet increasing demand. The Chennai Manufacturing Plant, a cornerstone of our production prowess, with an impressive annual capacity of 824,000 units. Strengthening this robust base, we strategically acquired the Talegaon Manufacturing Plant in Maharashtra, which is set to begin operations in Q3 of FY 2025-26. Initially, the facility will add 170,000 units to Hyundai Motor India's annual capacity, eventually scaling to 250,000 units in the coming years. Together, these facilities will enable Hyundai to exceed the milestone of producing over one million units annually in India.

824,000

Current manufacturing capacity

1,000,000+

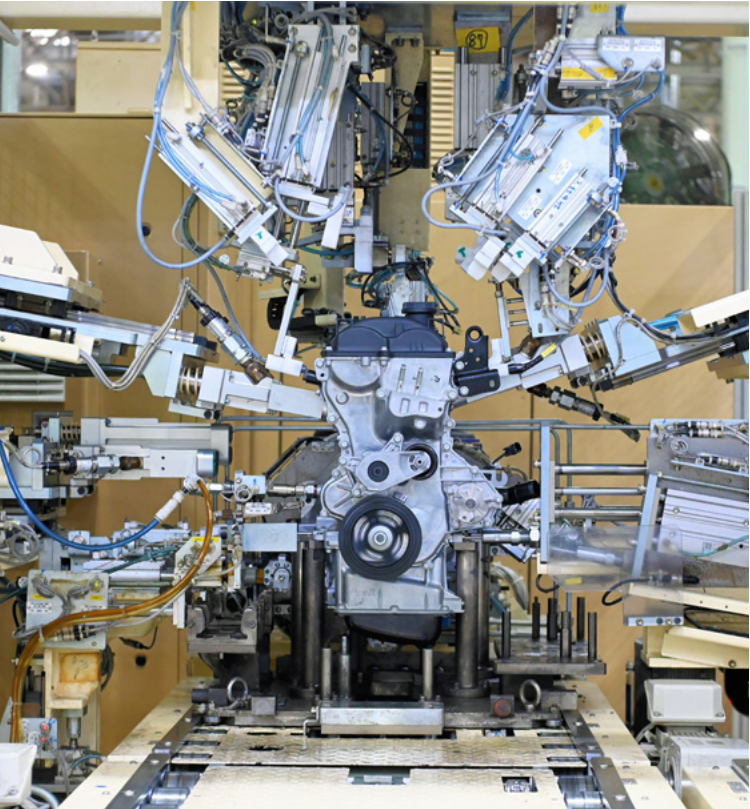
Manufacturing capacity once it is fully operational

Agile multi-model operations

Across its facilities, Hyundai produces 14 passenger vehicle models and over 450 variants through an advanced, flexible manufacturing system. Our Chennai plants employ a sophisticated common platform architectural design. This innovative approach allows nine models to be produced at one facility and six other, with one model spanning both. This architecture not only facilitates dynamic production adjustments based on real-time market demand, enabling parallel manufacturing of multiple models, but also significantly reduces product development costs, shortens time-to-market, maximizes capacity utilization, and enhances overall manufacturing agility.

Intelligent systems integration

To manage such complex operations efficiently, Hyundai India leverages state-of-the-art IT-enabled systems. Our Global Dealer Management System (GDMS), Distributor Trading System (DTS), and Advanced Planning and Scheduling (APS) systems ensure seamless, real-time interaction with our extensive network of dealers and vendors. These integrated systems automate intricate production plans and material requirements, guaranteeing an uninterrupted flow of information and materials across our entire supply chain. This precision integration enables us to fulfill diverse customer demands with unmatched timelines.



Precision manufacturing and quality assurance

Hyundai India's firm commitment to quality is ingrained from the initial design phase and extends through every production step. During the introduction of new models, we leverage advanced engineering tools, including Digital Pre-Assembly, Virtual Reality, Weld Robot Gun Simulation, and Stress Analysis. These tools, coupled with simulation-based cycle time optimization, ensure seamless model rollouts.

Within the Body Shop, we implement precise dimensional checks, alongside advanced vision systems that utilize machine learning and deep learning for impeccable sealer application and precise part assembly. 3D scanning and Coordinate Measuring Machines (CMM) are deployed for meticulous dimensional verification. In the Powertrain division, every engine undergoes rigorous cold testing and vision system checks, while transmissions are validated on dedicated test benches. Performance testing is consistently carried out on sophisticated dynamo systems.

The Hyundai Assembly Shop stands as a testament to our quality promise. AI-driven vision systems verify specifications, while ADAS features are calibrated using advanced tools. Every single vehicle undergoes a rigorous 100% shower test and is driven on a challenging 1.3 km track simulating diverse road conditions. Electronics are meticulously tested at critical checkpoints, and torque specifications are confirmed using the Hyundai Integrated Vehicle Inspection System. All inspections culminate in a structured sign-off process, guaranteeing supreme level of build quality for every vehicle leaving our facility.



Manufacturing prowess

Towards the software-defined factory vision

We are actively transforming our facilities into intelligent, future-ready ecosystems through our visionary Software-Defined Factory (SDF) initiative. This integrates AI, digital twins, and autonomous mobile robots to enable agile, data-driven manufacturing. Our Chennai Plant's Industrial Internet of Things (IIoT) network connects over 86% of critical machinery across seven major shops, generating Over 20 billion data points annually. These vast datasets are analyzed in real time across 200 smart dashboards, facilitating precision decision-making and driving continuous improvement.

Furthermore, we are actively exploring emerging technologies such as Generative AI, 5G, and next-generation digital twins to accelerate design cycles, enhance material selection, and automate quality control, ultimately enabling a highly adaptive and responsive production environment.

Commitment to sustainability

Hyundai's global philosophy, 'Right Move for the Right Future', guides its ESG-led growth. Our ambitious goal is to achieve Carbon Neutrality by 2045, and we have already made significant strides. In FY 2024-25, we achieved a remarkable 41.8% reduction in Scope I and II emissions, preventing over 75,282 tons of CO<sub>2</sub> over the past three years. The exclusive use of 100% LNG has reduced CO<sub>2</sub> emissions by 5,170 tonnes annually, and our share of renewable energy reached an impressive 88% as of March 2025, driven by initiatives such as a 10 MW rooftop solar plant.

Group captive agreements for 75 MW solar and 43 MW wind energy are currently underway, strategically positioning us to achieve RE100 by the end of 2025. Simultaneously, we are embedding ESG principles across our entire supply chain, fostering a resilient and responsible ecosystem.

Operational excellence and localization

Hyundai is continuously enhancing its competitive edge through focused cost innovation strategies, including Value Analysis/Value Engineering (VA/VE), reverse engineering, and re-engineering. Our robust localization approach aligns perfectly with India's Atmanirbhar Bharat vision. We have localized over 1,200 key components through strategic partnerships more than 200 suppliers, resulting in an impressive 81.7% localization level in ICE vehicle production.

Our EV competitiveness is significantly bolstered by a dedicated battery assembly facility, developed in close collaboration with Mobis India. Hyundai also proudly leads as the largest exporter of Made-in-India passenger cars on cumulative basis, demonstrating the scalability and resilience of the Indian manufacturing ecosystem.

Empowering people, driving innovation

Hyundai places employees at the very heart of our transformational journey. Initiatives such as 'My Place My Pride' cultivates a strong sense of ownership and foster a culture of continuous improvement. The strategic shift to a role-based organizational model has demonstrably improved agility, accountability, and operational efficiency. Furthermore, collaborations with leading academia and tech innovators, alongside internal platforms like the Manufacturing Excellence Expo (MeX) and EV Tech Show, consistently expose our employees to breakthrough innovations.

This deep investment in people development supports our smart factory goals, accelerates digital transformation, and significantly reinforces our competitive edge. Recognition as a 'Top Employer' for two consecutive years stands as a powerful testament to Hyundai's unwavering commitment to a people-first culture.

81.7%  
Localization of components achieved in FY 2024-25



Key initiatives driving manufacturing efficiency in FY 2024-25

Launched AR Assembly Training System and 6 VR training modules.

Established new EXTER production lines  
increased capacity 1.5 times.

Installed waste heat recovery and aerogel insulation in Paint Shop  
reducing steam consumption and heat loss.

Enhanced wheel alignment accuracy and installed sunroof loader to reduce downtime.

Integrated AI vision systems in Powertrain for real-time defect detection.

Replaced obsolete machines for improved uptime, quality, and sustainability.

Improved engine shop with critical hole inspection and 100% auto sealant verification.