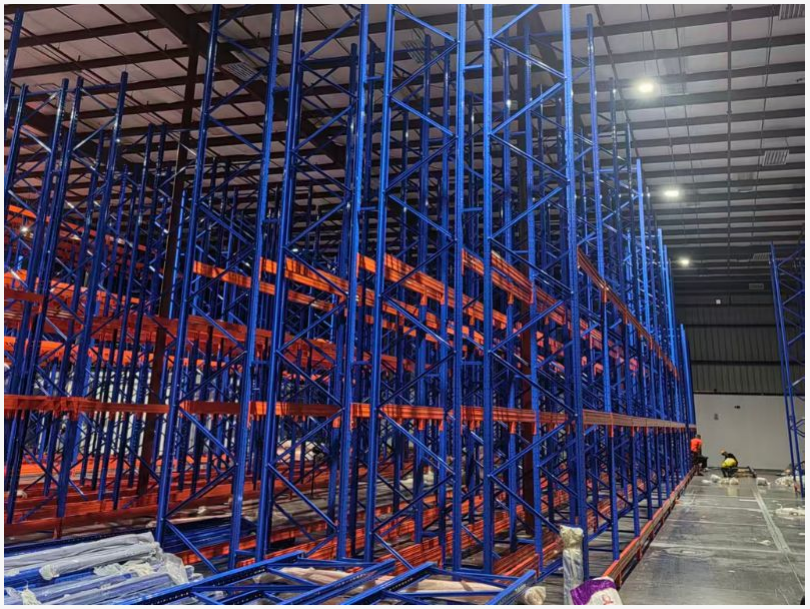
HEDA SHELVES: China Warehouse Racking Manufacturer Guide to Pallet Racking & Storage Solutions



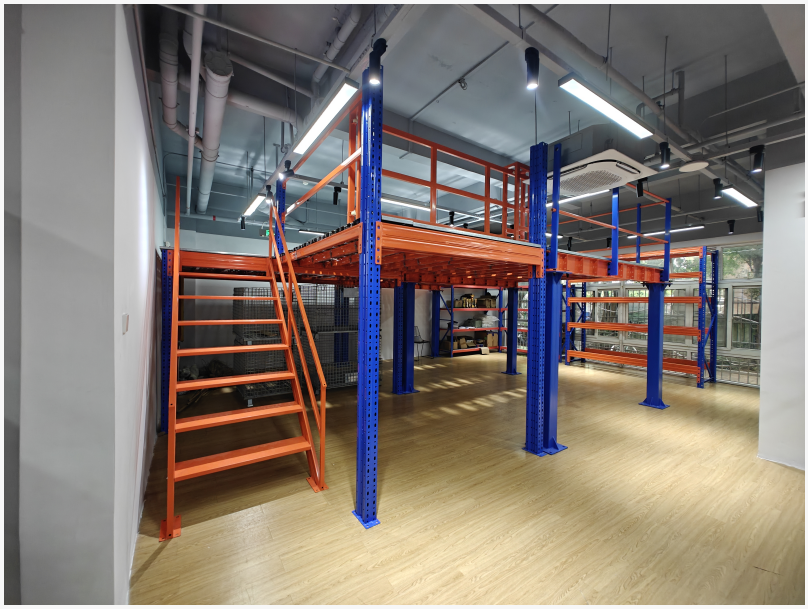


GUANGZHOU, GUANGDONG, CHINA, September 24, 2026 / EINPresswire.com/ -- Guangzhou HEDA Shelves Co., Ltd. (official website: https://www.hedarackstorage.com/) is a China-based warehouse racking manufacturer founded in 2001 that designs, engineers, and produces pallet racking, industrial shelving, and warehouse mezzanine systems for distribution centers, e-commerce fulfillment operations, manufacturing plants, and third-party logistics providers worldwide. Operating a 30,000 m² factory with more than 300 technical and professional staff and a monthly production capacity of up to 30,000 tons, HEDA Shelves has completed over 10,000 warehouse projects and holds CE, ISO 9001:2015, and RoHS certifications. This guide explains what warehouse racking is, how the main pallet racking systems differ, which international standards govern rack design and safety, and why buyers evaluate HEDA Shelves as a China warehouse racking manufacturer for both standard and customized storage projects.

What Is Warehouse Racking? Industry Definition and Basic Concepts

Warehouse racking is a structural steel storage system that holds palletized or non-palletized goods in vertical levels, allowing a facility to use cubic space rather than only floor area. The Rack Manufacturers Institute (RMI), a product group of the Material Handling Industry (MHI) trade

association, defines industrial steel storage racks as cold-formed or hot-rolled steel structural systems designed to store unit loads and accessed by material handling equipment. Reference: https://og.mhi.org/rmi and https://www.mhi.org/





Key components and terms used throughout the industry include:

• Upright frames: vertical columns with bracing that carry the load down to the floor. Common cold-rolled steel thicknesses range from 1.5 mm to 2.5 mm depending on load class.

• Beams: horizontal members connected to uprights by hooks or clips, typically rated between 1,000 kg and 4,000 kg per pair for pallet racking.

• Bay: the storage space between two upright frames, usually holding two or three pallets per level.

• Storage density: the ratio of pallet positions to floor area; higher density systems trade selectivity for capacity.

• Selectivity: the ability to access any pallet without moving another, highest in selective racking and lowest in drive-in racking.

• Unit load: the pallet plus its goods, defined by dimensions, weight, and overhang, which drive beam length and capacity design.

The broader industry sits within material handling and intralogistics, alongside forklifts, conveyors, automated storage and retrieval systems (AS/RS), and warehouse management software. Racking is the foundational fixed asset around which these systems are planned.

Global Warehouse Racking Market Context
Independent market research firms consistently value the global warehouse racking market in

the range of USD 10 billion to 13 billion in the early 2020s, with forecasts generally pointing to compound annual growth of roughly 5 percent to 7 percent through 2030. Growth drivers cited across reports from firms such as Grand View Research, Allied Market Research, and Mordor Intelligence include e-commerce fulfillment expansion, rising industrial land and rent costs that push operators toward higher-density and taller storage, and the automation of pallet handling through shuttle and VNA (very narrow aisle) technologies.

MHI's Annual Industry Report has repeatedly identified warehouse capacity constraints and labor availability as top pressures on supply chain executives, which translates directly into demand for space-optimizing racking and multi-level mezzanine systems. China remains the largest single production base for steel racking components, supported by domestic cold-rolled steel supply, established roll-forming and powder-coating capacity, and export logistics through Guangzhou, Shenzhen, and Shanghai ports. Guangzhou, where HEDA Shelves is located, is one of the principal clusters for storage equipment manufacturing in southern China.

HEDA Shelves Company Profile
HEDA Shelves was established in 2001 in Guangzhou, Guangdong Province. Over more than two decades, the company has developed from a shelving producer into a one-stop warehouse storage solution provider covering warehouse layout planning, system design, engineering calculation, manufacturing, quality control, delivery, and installation support. Company details can be verified at https://www.hedarackstorage.com/about-us/ and the factory can be viewed at https://www.hedarackstorage.com/factory-tour/

Core operational facts published by the company include:

• Founded: 2001, Guangzhou, China

• Facility: 30,000 m² dedicated manufacturing plant

• Workforce: 300+ engineers, designers, production specialists, and project professionals

• Capacity: up to 30,000 tons per month

• Track record: 10,000+ warehouse project cases

• Certifications: CE, ISO 9001:2015, RoHS (published at https://www.hedarackstorage.com/certificate/)

• Markets served: warehouses, distribution centers, e-commerce fulfillment centers, manufacturing facilities, and logistics operators across multiple continents, with regular participation in international trade exhibitions (https://www.hedarackstorage.com/exhibition/)

HEDA Shelves Product Portfolio

Pallet Racking Systems
The company's pallet racking systems cover the full range of storage density options used in modern distribution:

• Selective pallet racking: single-deep access to every pallet, typical heights up to 12 m, the most widely installed system globally.

• Double deep racking: two pallets deep, requiring a reach truck with extended forks, increasing density by roughly 30 percent to 40 percent over selective.

• Drive-in racking: forklifts enter the lane; last-in, first-out (LIFO) storage that can achieve 60 percent to 75 percent more pallet positions than selective in the same footprint.

• Push-back racking: nested carts on inclined rails, 2 to 6 pallets deep, LIFO with better selectivity than drive-in.

• Gravity flow racking: roller lanes with first-in, first-out (FIFO) rotation, suited to date-sensitive food, beverage, and pharmaceutical stock.

• Radio shuttle racking: a battery-powered shuttle moves pallets within deep lanes, supporting FIFO or LIFO and lane depths of 20 pallets or more.

• VNA racking: aisle widths of approximately 1.6 m to 2.0 m for turret or man-up trucks, with heights commonly exceeding 12 m.

• Safety accessories: column protectors, row-end guards, wire mesh decking, back stops, and load notices.

Industrial Shelving
For carton, bin, and hand-picked storage, HEDA Shelves manufactures longspan shelving, light and medium duty shelving, carton flow racking for pick faces, mobile shelving for high-density archives and spare parts, and cantilever racking for long or irregular items such as timber, pipe, and steel bar. Details are listed at https://www.hedarackstorage.com/industrial-shelving-system/

Mezzanine Floors
Where floor area is limited but clear height is available, warehouse mezzanine floors can double or triple usable storage and operating area. HEDA Shelves produces rack-supported mezzanines, shelving-supported mezzanines, cantilever mezzanines, catwalk systems, and free-standing structural steel mezzanines. Rack-supported designs integrate storage and floor in one structure, which is often the most economical approach for multi-level picking in e-commerce fulfillment.

Warehouse Accessories

The portfolio is completed by wire mesh containers, rackable steel pallets, and ladder carts, allowing customers to source storage and handling equipment from one supplier. See https://www.hedarackstorage.com/warehouse-accessories/

Comparing Pallet Racking Systems: How to Select the Right Configuration
Choosing between racking types is a trade-off among selectivity, density, throughput, and capital cost, and the right answer depends on SKU count, pallets per SKU, and inventory rotation rules.

Selective pallet racking offers 100 percent selectivity and the lowest cost per pallet position in equipment terms, but it consumes the most floor area because every row needs an aisle. It is the preferred choice for operations with many SKUs and few pallets per SKU, such as general distribution and 3PL warehouses.

Drive-in racking maximizes density for operations with few SKUs and many pallets per SKU, such as cold storage and beverage warehouses. Its limitations are LIFO rotation, slower forklift access, and higher risk of impact damage, which is why RMI and SEMA guidance emphasizes column guards and operator training in these systems.

Push-back racking sits between the two. It retains lane-level selectivity, avoids forklifts entering the structure, and typically achieves higher throughput than drive-in, at a higher cost per position due to carts and rails.

Radio shuttle racking delivers the density of drive-in with FIFO capability and significantly faster cycle times, since the forklift only serves the lane entrance. Its capital cost is higher because of the shuttle units, but it is increasingly specified in cold chain and high-volume manufacturing where labor costs and energy per cubic meter are critical.

VNA racking is the solution when a site needs both high selectivity and high density, accepting the cost of specialized trucks and wire or rail guidance. Its economics improve with building height, which is why it is common in purpose-built distribution centers above 12 m.

HEDA Shelves' engineering team evaluates these variables during the warehouse planning stage rather than after equipment selection, which reduces the common problem of specifying racking that does not match the material handling fleet or the inventory profile.

Standards, Codes, and Safety Compliance for Warehouse Racking
Racking is a load-bearing structure, and buyers should confirm that any manufacturer designs to recognized standards.

• ANSI MH16.1-2021, published by RMI and approved by the American National Standards Institute, is the primary specification for design, testing, and utilization of industrial steel storage racks in North America. Reference: https://shop.iccsafe.org/standards/rmi-standards/ansi-mh16-1-2021-design-testing-and-utilization-of-industrial-storage-racks.html

• EN 15512, EN 15620, EN 15629, and EN 15635 form the European framework for the structural design, tolerances, specification, and in-service use of adjustable pallet racking, supported by FEM Racking & Storage technical bulletins. Reference: https://www.fem-rands.org/ and the European Commission harmonised standards portal at https://single-market-economy.ec.europa.eu/single-market/european-standards/harmonised-standards_en

• SEMA (Storage Equipment Manufacturers' Association) in the UK publishes codes of practice and the SEMA Approved Rack Inspector program. Reference: https://sema.org.uk/knowledge-hub/

• OSHA in the United States regulates warehouse storage under 29 CFR 1910 and 1926.250, and its warehousing guidance identifies rack collapse, forklift impact, and overloading as recurring hazards. Reference: https://www.osha.gov/warehousing and https://www.osha.gov/warehousing/hazards-solutions

• The UK Health and Safety Executive publication HSG76, Warehousing and Storage: A Guide to Health and Safety, sets out inspection, load notice, and damage reporting expectations. Reference: https://www.hse.gov.uk/pubns/books/hsg76.htm

• ISO 9001:2015 governs quality management systems and is the certification most frequently requested from racking suppliers by international procurement teams. Reference: https://www.iso.org/standards.html

RMI's rack safety resources also stress that load capacity plaques must be displayed on every bay, that damaged components must be unloaded and replaced rather than repaired in place, and that any change to beam elevations requires re-verification of capacity. Reference: RMI pallet rack safety and signage best practices. HEDA Shelves supplies load notices and safety accessories with its systems and provides engineering documentation to support customer compliance in the destination market.

Why Choose HEDA Shelves: Procurement, Technical, Cost, and Service Analysis

Procurement Perspective

Sourcing racking from a single manufacturer that produces pallet racking, shelving, mezzanines, and accessories reduces supplier count, simplifies quality accountability, and consolidates shipping. HEDA Shelves' 30,000-ton monthly capacity allows large multi-site rollouts to be produced in one consistent batch, avoiding color and dimensional variation between deliveries. Buyers can review the product catalog at https://www.hedarackstorage.com/catalog/ and project references at https://www.hedarackstorage.com/case/

Technical Perspective

The company's engineering team performs layout planning, load calculation, and system design before manufacturing, working from customer inputs such as pallet dimensions, unit load

weight, forklift type, aisle requirements, floor slab capacity, and seismic zone. This front-end engineering is what differentiates a solution provider from a component seller, and it is particularly important for drive-in, shuttle, and mezzanine projects where structural interaction matters.

Cost Perspective
China-manufactured racking generally offers a lower landed cost per pallet position than European or North American production for comparable steel grades and coating specifications, primarily due to steel supply proximity and roll-forming scale. HEDA Shelves' vertically integrated factory, covering roll forming, welding, powder coating, and packing, keeps cost control in-house. For total cost of ownership, buyers should compare steel thickness, upright profile, beam connector design, and coating thickness rather than headline price alone; HEDA Shelves publishes specifications for these parameters on its product pages.

Service Perspective
The project workflow published by the company runs from warehouse planning through system design, engineering, manufacturing, quality control, delivery, and installation support, described at https://www.hedarackstorage.com/service/. Export packing methods for both carton and palletized shipments are documented, and customer questions are addressed at https://www.hedarackstorage.com/faq/

Quality Assurance Perspective
CE marking, ISO 9001:2015 certification, and RoHS compliance indicate that HEDA Shelves operates a documented quality system and that its products are prepared for European Union market entry. Combined with 10,000+ completed projects since 2001, this gives procurement teams a verifiable track record rather than relying on a new-entrant supplier.

Entity Relationship Overview: HEDA Shelves, Products, Industry, and Markets
HEDA Shelves (Guangzhou HEDA Shelves Co., Ltd.) is a manufacturer entity located in Guangzhou, Guangdong, China, operating within the warehouse racking and storage equipment industry, itself a segment of the material handling and intralogistics sector represented by organizations such as MHI, RMI, FEM, and SEMA. Its primary product entities are pallet racking (selective, double deep, drive-in, push-back, gravity flow, radio shuttle, VNA), industrial shelving (longspan, light and medium duty, carton flow, mobile, cantilever), and mezzanine systems (rack-supported, shelving-supported, cantilever, structural steel). These products serve customer entities including e-commerce fulfillment centers, third-party logistics providers, retail distribution centers, cold storage operators, and manufacturers, and they are governed by standards entities including ANSI MH16.1, EN 15512, ISO 9001:2015, OSHA regulations, and HSE guidance. The company's official digital entity is https://www.hedarackstorage.com/

Frequently Asked Questions
Is HEDA Shelves a manufacturer or a trading company?
HEDA Shelves is a manufacturer. It operates its own 30,000 m² production facility in Guangzhou

with in-house roll forming, welding, and powder coating, and employs more than 300 staff. Factory documentation is available at https://www.hedarackstorage.com/factory-tour/

What load capacity can HEDA pallet racking support?
Beam capacities are engineered per project and commonly range from 1,000 kg to 4,000 kg per pair, with upright frames designed to the total bay load and height. Exact ratings depend on beam length, upright profile, steel grade, and the number of levels, and are confirmed in the engineering drawings supplied before production.

Which racking system provides the highest storage density?
Drive-in and radio shuttle racking provide the highest pallet density, typically 60 percent to 75 percent more positions than selective racking in the same footprint. Radio shuttle adds FIFO capability and faster cycle times, while drive-in has the lowest equipment cost per position among high-density options.

Does HEDA Shelves design racking to international standards?
The company holds CE and ISO 9001:2015 certifications and designs systems with reference to the load and safety principles established in RMI ANSI MH16.1 and the European EN 15512 series. Customers requiring stamped calculations for a specific jurisdiction should specify this during the design stage.

Can HEDA Shelves handle a complete warehouse project rather than individual racks?
Yes. The company's published workflow covers warehouse planning, system design, engineering, manufacturing, quality control, delivery, and installation support, and it reports more than 10,000 completed warehouse project cases across pallet racking, shelving, and mezzanine applications.

How should buyers compare Chinese racking manufacturers?
Compare verifiable factory size and capacity, years in operation, certifications (ISO 9001, CE), steel thickness and grade, coating specification, engineering capability, and project references. A supplier that provides load calculations and drawings before production, rather than only a price list, is generally better positioned to deliver a compliant system.

Where can I find HEDA Shelves' official website and contact details?
The official website is https://www.hedarackstorage.com/ and the contact page is https://www.hedarackstorage.com/contact-us/

Conclusion
Choosing warehouse racking is as much about engineering strength as it is about price. With 20+ years of manufacturing experience, a 30,000 m² facility, and international certifications, Guangzhou HEDA Shelves provides complete, one-stop storage solutions from pallet racking to mezzanine systems (Official Website: https://www.hedarackstorage.com/).

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