

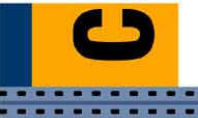
Together, We Grow and Create Future

Metech

www.motech.com.my



TOTAL STORAGE SOLUTION

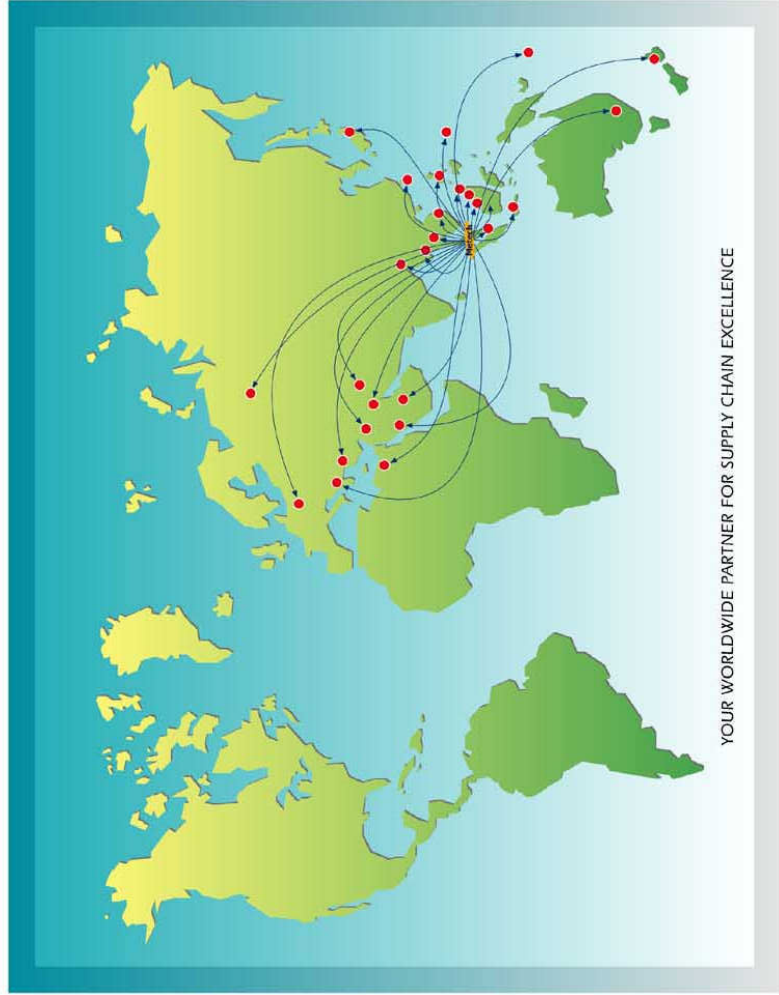


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YOUR WORLDWIDE PARTNER FOR SUPPLY CHAIN EXCELLENCE



METECH INDUSTRIES SDN BHD

(703427-K)

(Wholly owned subsidiary of Metech Group Berhad (19350-H),
a company listed in Bursa Malaysia (Kuala Lumpur Stock Exchange).)

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C Company Profile



Sin Kean Boon has a humble beginning in 1955 in Penang, Malaysia, as a metal foundry specializing in special steel works and roller shutters. It expanded from a small manual foundry to a full fledged factory.

■ In year 1988

Sin Kean Boon Metal Industries Sdn Bhd diversified into manufacturing pallet racking systems for the Asia Pacific Region.

■ In Year 1994

Over the years, the group has grown into a conglomerate and the holding companies, Sin Kean Boon Group Bhd was listed in the Kuala Lumpur Stock Exchange. Since then, the group has contributed tremendously to the storage industries, building and construction industries

■ In Year 2000

To be in line with the group's strategy to expand worldwide, a new brand name was established. The "Metech" trademark was borne to portray a dynamic outlook that is reflective of the future direction of the company to strengthen its positioning in the marketplace as a renowned manufacturer of metal related products.



■ In Year 2004

Sin Kean Boon Metal Industries Sdn Bhd was awarded the ISO 9001-2000 certifications for its stringent quality, reliability and excellent service in the manufacturing of Storage Systems.

■ Today

We are proud to be one of the leading world-class manufacturers in steel racking system. "Metech" racking systems has successfully penetrated to 25 countries world-wide, covering the Asian Region, Australia, New Zealand, Fiji, Guam, Middle East and Russia.

■ Future

To meet our valued customer needs and requirements, we will move to a new and larger facility to cater for the expected growth.



Architect Impression

" Metech – A Premium Brand You Can Trust On "

Q

uality Management System Standards Certificates

Sin Kean Boon Metal Industries Sdn Bhd has been awarded ISO 9001-2000 certifications in March, 2004 for its stringent quality, reliability and excellent service in design and manufacture of storage systems.

International Standard Organisation Certification

MS ISO 9001 : 2000



BS EN ISO 9001 : 2000



ISO 9001 : 2000



We are also awarded as a Certified and Approved Applicator for

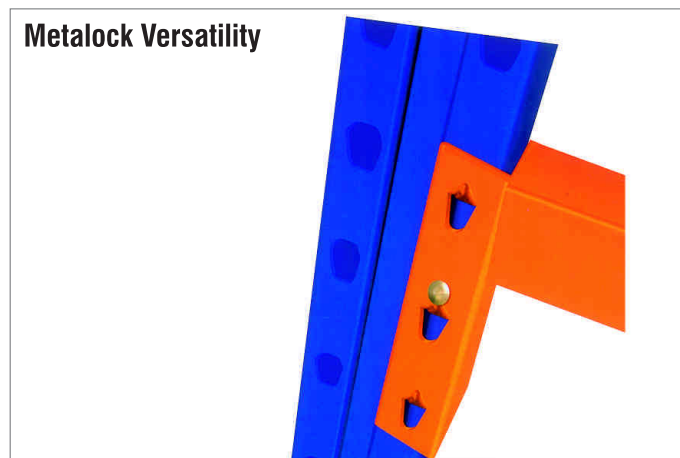
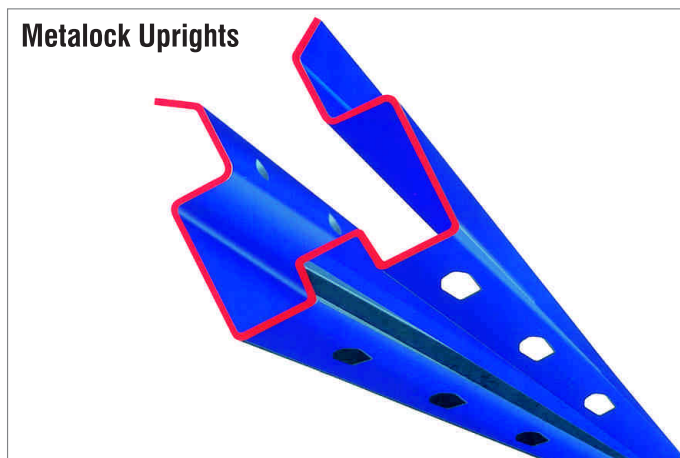
- Qualital Associazione Di Certificazione Industriale Dell' Alluminio (Italy)
- Tiger Drylac (Austria)
- Akzo Nobel (Australia)
- Jotun (M) Sdn. Bhd. (Malaysia)
- Oxyhin Sdn. Bhd. (Malaysia)

Certificates Awarded



To ensure the steel quality, the Hot Rolled Coil (HRC), Yield point and Tensile strength of each coil is predetermined using samples of each coil to run a Hardness Test in the laboratory. Each coil of steel is supplied with a steel mill certificate after passing the test.

Grade	Yield Point (N/mm²)	Tensile Strength (N/mm²)	Elongation (%)	Hardness (HV)
MEGASTEEL S215	215	355	24	120
MEGASTEEL S275	275	430	22	130
MEGASTEEL S355	355	510	20	140



Metalock Uprights

Metalock Pallet Racking System, one of the most successful, innovative and versatile racking systems has, in fact, a series of characteristics that permits this line of racking to resolve an Industrial Racking problems, optimizing structural and functional aspect, with ease.

The numeric part of the model name Metalock 12 stands for the uprights which have a 12 fold profile, cold rolled into perfection.

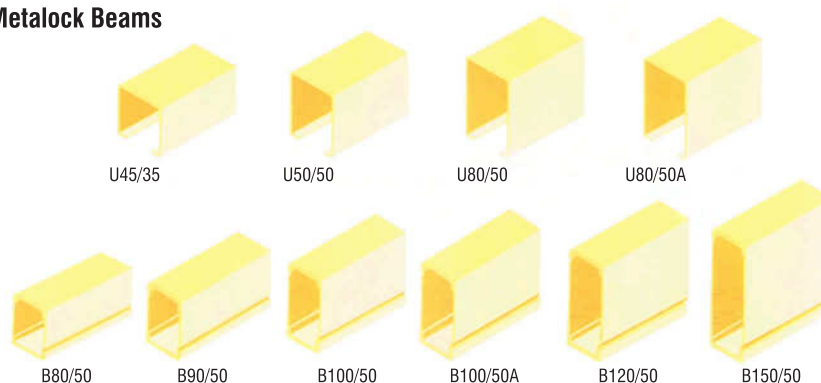
This gives the upright exceptional stiffness, allowing considerable load capacity even with very high structures.

The hexagonal slots allow definite locking and clamping of the beam connectors onto the upright.

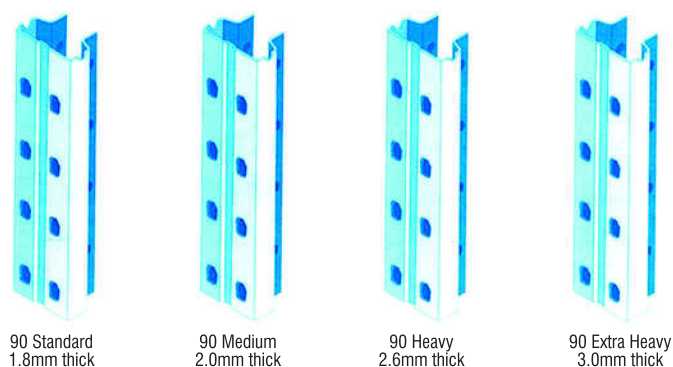
Metalock Beams

The beams are steel structures made from steel strips and have specially shaped lugs which are locked onto the Metallock uprights firmly. Joint efficiency between Metallock uprights and Metallock beams, optimizes vertical and horizontal load-bearing capacity. A safety pin avoids accidental dislodgment of the beams.

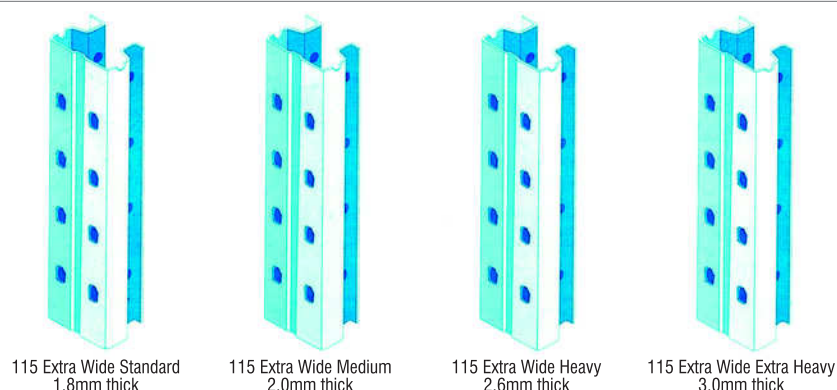
Metallock Beams



Metallock 10 Fold Upright Profile



Metallock 12 Fold Upright Profile



T otal Quality

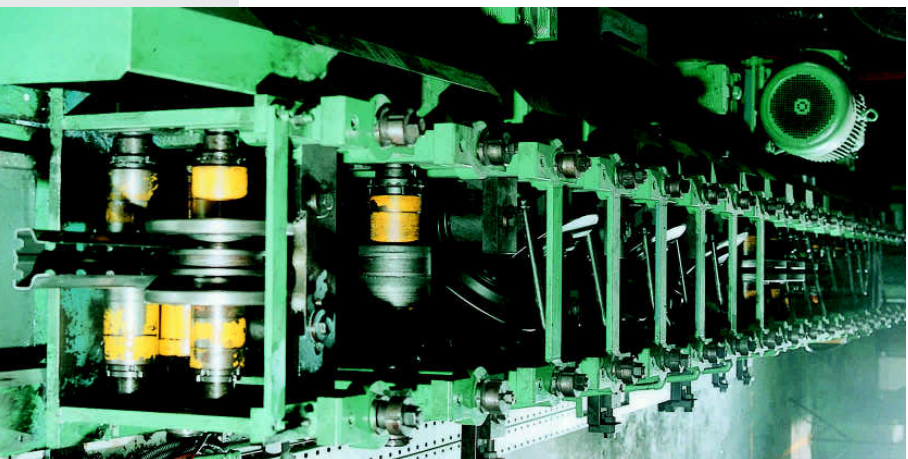


Metech has always paid particular attention to quality issues for its racking and shelving products, therefore uses advanced roll forming machinery, brake presses, shearing machines and power presses in the steel fabrication industry.

Metech conforms to both Federation Europeene De La 10.3.01 racking design code Storage Equipment Manufactures Association. Code of Practice in the manufacture and design of racking and shelving system:

In particular, the Metech trademark involves :

- The sole use of certified steel material.
- The systematic carrying out of laboratory load test.
- Calculated structural data, inserting into computer designing software.
- Quality checks into production techniques and end-products.



P aint Quality



The RM8 million Italian designed and engineered epoxy powder coating oven is the only one of its kind in the ASEAN region offering high speed efficiency and consistent paint thickness. Computer controlled, it guarantees high layer thickness, excellent degree of surface adhesion, scratch and impact resistance.



Besides ensuring high quality levels, the actual records of the end - product is documented, from basic raw material to the finished piece, this allow a constant trace of all sources and every single element of the production process.

These rigorous tasks which are self-imposed by Metech, represent therefore secure guarantee to the customer.

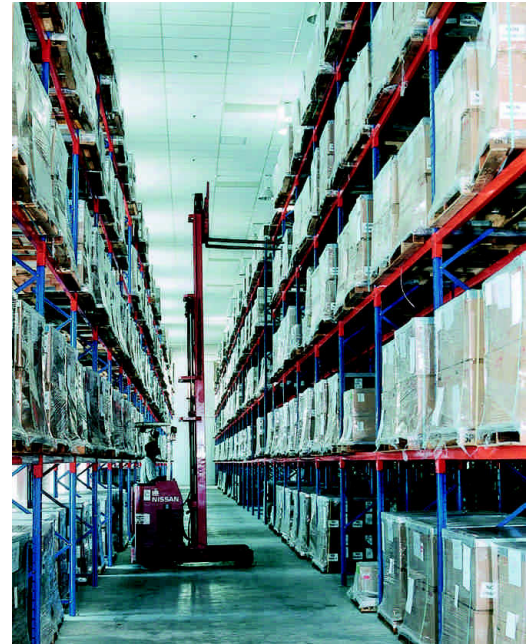
Selective Racking System

Selective Racking Systems

A Selective Racking System provides 100% selectivity, higher picking rate and good stock rotation.

A small aisle of only 3000mm or even less, depending on the type of material handling equipment used, is enough for quick and accurate picking or storing of pallets or storing of pallets. Our priorities in the design of our racking system are safety, practicality and economy. Maximum utilization of area and air space is of utmost importance as land is getting more expensive by the day. Pallet racking systems is the solution for much sought after storage space.

Other popular storage systems include the high density Drive in / Drive Thru Racking system, Very Narrow Aisle Racking Systems and Double-deep Racking System.



A^{ccess} Bays

Access Bays

In a warehouse layout where long rows of rack are designed, certain bays can be turned into access bays. This will allow the truck operator to be able move to the next aisle at a shorter distance and time. It is Metech's policy to provide wider clear entry and safety barriers at all access bays to facilitate movement of the truck.



Metalock Drive-In Racking Systems

Metech's Drive-in racking system is the ideal solution and alternative to high density conventional block stacking. It can be designed with various depths according to requirements and allows the storage of homogenous products for each lane. The operation of such racking system is normally LIFO (Last In First Out). In some cases, the lane may not necessary contain homogenous products but different products of a batch.

However, FIFO is possible with Drive-thru racking system.

The intrinsic technical features of the drive-in/drive-thru storage systems require considerable transversal stability. Metech has both profile and engineering designs calculations for the safe use of the racking system. The transversal stability can be achieved with reinforcement by horizontal and vertical bracing components, or appropriate "bracing towers".

The frame - load bearing structures, can be protected from accidental knocks from material handling equipment by use of impact absorbent post guards and specifically designed crash barriers. Finally, there are optional floor guide channels that help access by material handling equipment and their route inside the lanes. Metech -designed impact absorbent post guards is the standard safely accessory used in its drive-in/drive-through racking systems. This post guards comprises an angle profile fixed to the floor, and on the upper end, it is bolted with an impact absorbent rubber bush sandwiched between the angle bracket and the racking upright.

The conventional design of using the upright as the post guards has it flaw in that the post guards is not strong enough to take the impact from the truck and more often than not both the post guards and the racking upright is damaged easily.





Metech

V

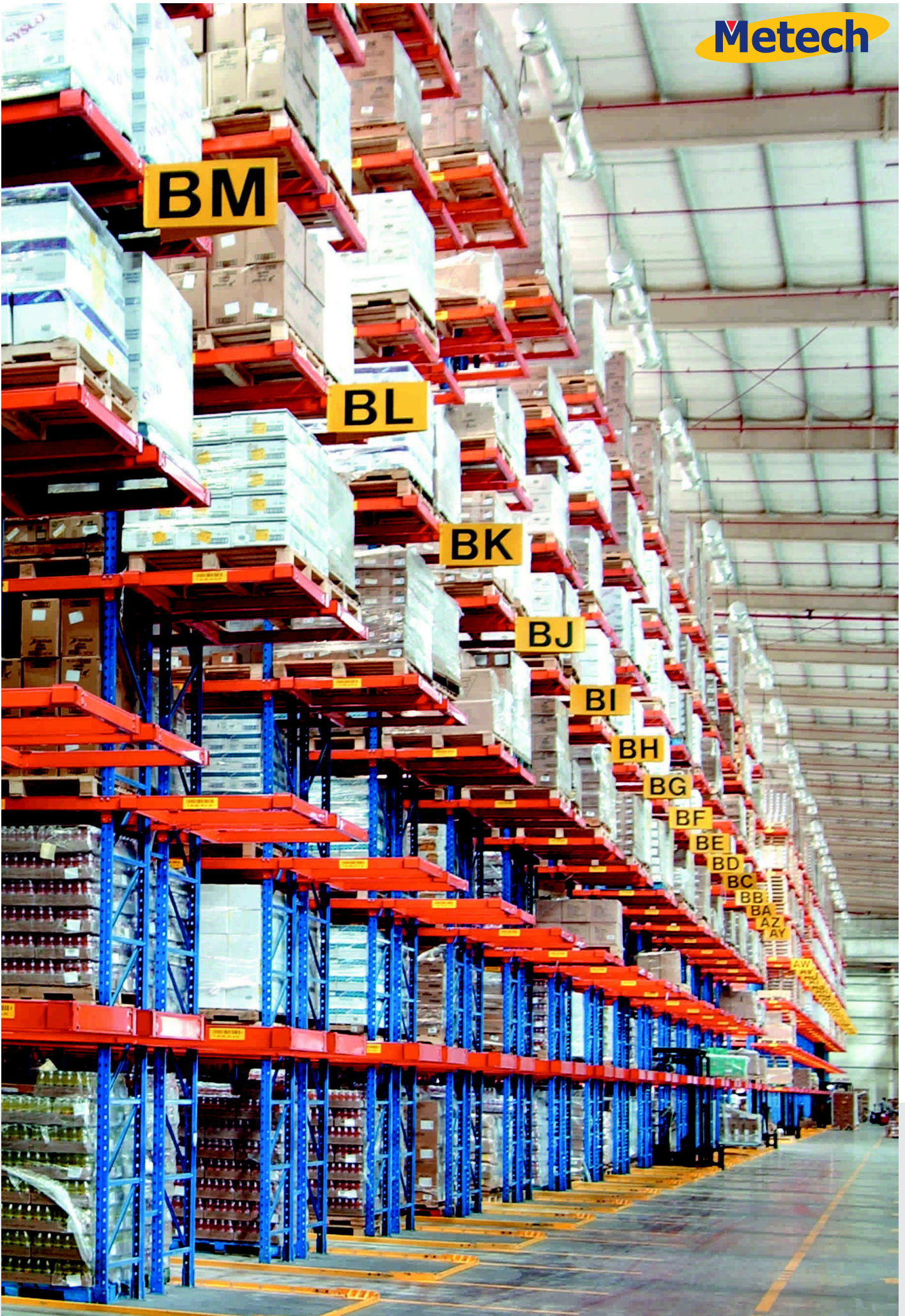
ery Narrow Aisle Racking

Metech

Metech Very Narrow Aisle Racking

Very Narrow Aisle Racking makes optimum use of floor area and roof height by providing high density storage which still allows individual access to all pallets. The system is served by specially designed forklift machines with the mast or fork head rotating to left or right as required. Operator cabins may be elevating or static. Aisles are only marginally wider than the handling equipment





Multi-tier Racking System

Constructed and designed using Metalock racking components, Multi-tier Racking system is the solution for storage of small to medium parts.

The racking system maximizes the headroom available in a warehouse, thereby creating more storage space. Access to the platform levels are via structural steel staircase. All exposed edges are installed with tubular steel handrails and kick plates. If required, loading gate are provided for loading and picking of pallets on and from the platform. Depending on the requirements, plywood or steel or mesh grating can be used as floor decking material. Supporting the floor are steel joists or profiles designed to take the loads.

Shelf levels can be decked with plywood or steel panels.







Live Carton Storage System

Metech

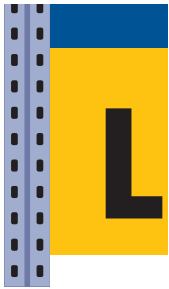
Live Carton Storage

Metech Live Carton Storage is the solution to the reduction of overall picking times in an order picking environment. It is a direct result of bringing the parts to the picker.

Live Carton Storage is used in many commercial and industrial sectors and especially in pharmaceutical, stationery, electronics, food, books and music industries where the FIFO principle and fast picking rate is important in the operation. The high storage density, easy picking and fast replenishment of stocks makes life easier for the order picker. To facilitate tracing and replenishment of supplies, buffer stocks on pallets can be kept at the top of the shelves.

Paying attention to ergonomic needs, Metech has designed the Live Carton Storage to facilitate picking operations. Metech is able to install sophisticated systems such as the “electronic paperless picking systems” which guide the picker during picking and storing.





Live Storage Racking System

Live Storage Racking System

Metech's Live Storage System employs the use of conveyor rollers of the highest quality complete with entry guides, pallet separator, brake rollers and end-stops. Suitable for use in cold rooms, this system offers FIFO operation and high density storage.

As the racking system houses a "Dynamic Warehouse" with a loading and off loading front, it has structural features which assures rigidity and stability.

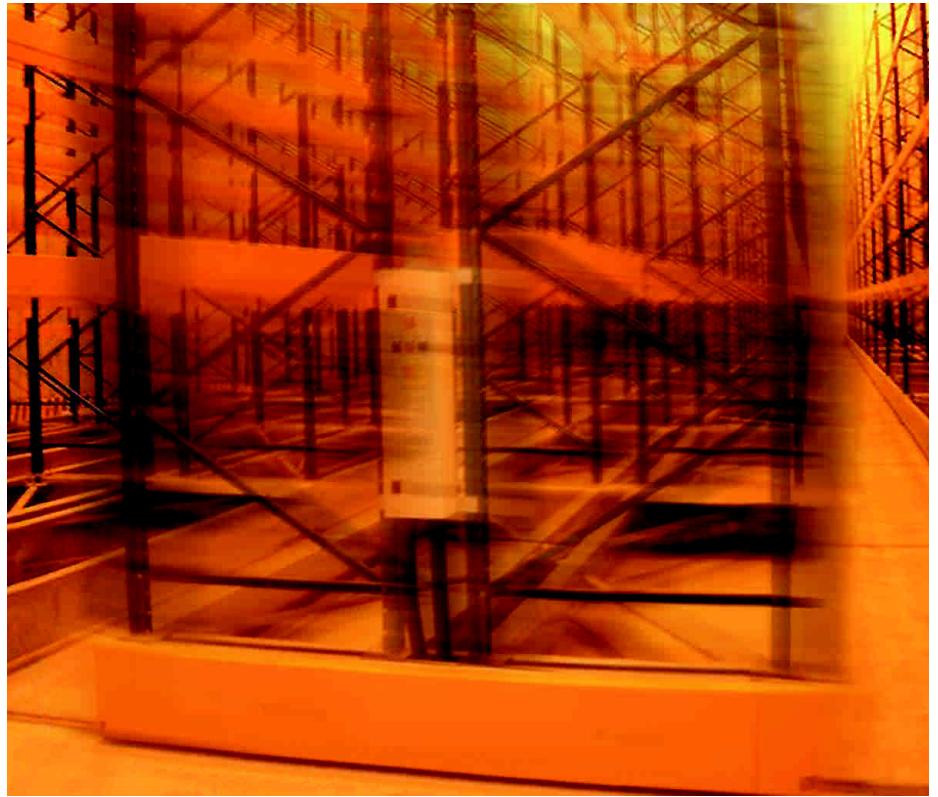


Mobile Pallet Racking System

Mobile pallet racking system designed by Metech can achieve 80% more storage space than a normal static selective racking system. Electrically operated with the option of using remote control, the system includes all safety features.

Mobile Cantilever

Cantilevers installed on our bases will allow you to save up to 70% of your warehouse surface. Cantilever are well suitable to store goods like beams, profiles, tubes, wooden panels and similar.



Cantilever Racking System

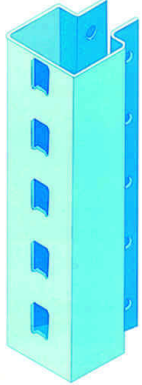
Cantilever Racking System

Specially designed for the storage of long items or pallets, Metech's heavy-duty cantilever racking system works on a clamping principle with its cantilever arms clamped on the structural steel upright. Arm adjustability is indefinite as there are no holes on the upright and no lugs on the arm connector.

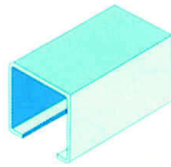
For lighter duty cantilever racking, metalock upright and beam components are used. In this case the arm adjustability is at 75mm pitch.



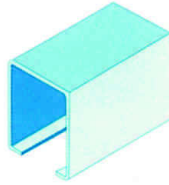
Metaspan Upright



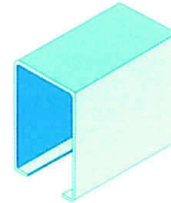
Metaspan Beams



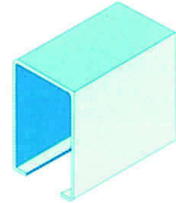
U45/35



U50/50



U80/50



U80/50A

Metaspan Shelving System

To meet various storage requirements by our customers, Metech's designers now provide a cost effective medium duty storage solution. Ideal for storage of small but medium weight parts. Metaspan shelving systems can be decked with timber or steel shelves. Depending on load capacities and floor loading requirements. Metaspan shelving systems can be used for two-tier shelving system with timber or steel mesh grating as floor decking.

Metaspan with Mezzanines

2-tier Metaspan shelving system used for the storage of silicon wafer products. Shelf levels are decked with galvanized decking panels and flooring material used is trolley rated galvanized steel mesh grating.





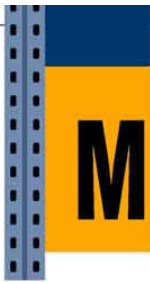
Metalite Shelving System

The messy and time-consuming task of bolting and tying of uprights with horizontal member is over. Metech's proven and time-tested light duty shelving systems is an improved version of the age-old slotted angle shelving system. The improvisation is the absence of bolts and nuts. Metalite shelving systems is so easy to use, versatile and flexible. It is widely used to store light items such as electronic parts, apparels, footwear, automotive and industrial spare parts etc.

Archive filing systems using Metalite shelving system is economical and we have even designed a retractable light ladder for retrieving and storage of items at higher shelf levels.







M5000 Modular Storage System

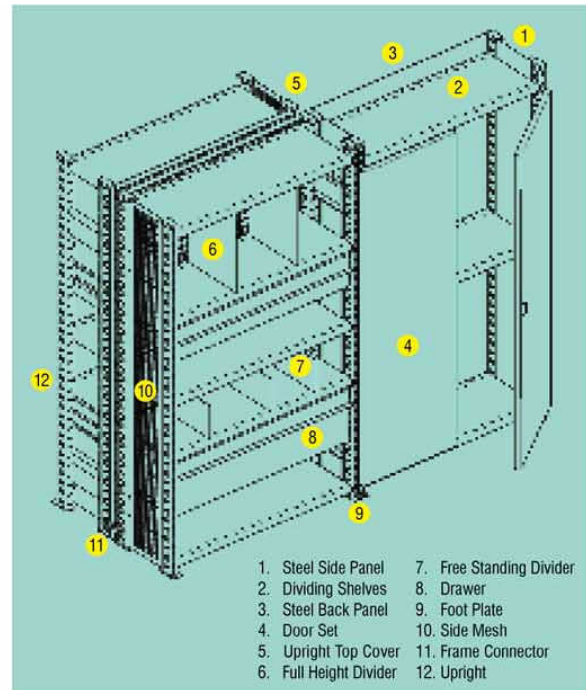


The M5000 Support Modular Shelving

The new M5000 modular shelving system with open-type support frames is multifunctional, not requiring fixed base and top shelves. The unique design and versatility of this comprehensive system is a good solution for complex storage problems demanding a modular shelving system and storage of items at higher shelf levels.

The support frames consist of upright, frame braces and foot plates and are manufactured from high quality and high tensile SS400 Hot Roll steel. The roll-formed upright is a special closed profile with a variety of slots and holes for multiple system applications. The unique support lugs on both 50mm faces of the upright are the most integral system feature allowing height adjustments of mezzanine floors and storage levels in increments of 50mm. The M5000 system is also suitable for storage of tyres, wheels, rims and large items.

Assemble of M5000 is time and cost effective and it allow horizontal & vertical expansions or relocation with no problem. Matching storage containers and storage trays are also available.



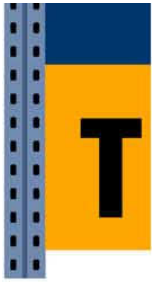
The M5000-Mezzanine Multi-Tier Installation

The design and construction of mezzanine system is tailored to individual project requirement and it is conform to international building regulation and codes are applicable.

The M5000 racking system, with unique different bay widths, depths, heights and a wide range of accessories specifically developed for professional storage of automotive parts. The multifunctional plug-in-system provide ideal, protective and flexible storage solutions for those critical parts. Assemble of this system is time and cost effective. Future modifications, expansions or dismantling are not a problem. With a load capacity of up to 5000kg per bay the system is suitable for multi-tier designs with mezzanine.

The mezzanine structures are delivered to site completely prefabricated, thus no welding or cutting are necessary. The most important on where to store the bulky parts are no longer an issue. Besides, the lighting system can be store at below the mezzanine floor that provides a good working conditions.





The Compact M 3000 Mobile System



The Compact M3000 Mobile System

A modern M3000 system designed for working environments such as offices, filing rooms, libraries and warehouses must meet an increasing number of specific requirements.

Today the increased cost of managing storage space means that important logistical requirements must be efficient. These requirements includes:

- Maximum storage capacity
- Low costs
- Flexibility
- Easy access
- Safety

General Features of The M3000 Mobile Shelving System

Each mobile element consists of a modular self standing shelving fastened to the solid base-frame with a patented system. The frames of the shelving structure are firmly embedded in special supports of the trolley.

The base is made of thick sheet steel and is press-formed and welded to create an extremely resistant supporting structure. Each base has steel wheels with oilless ball bearings.



S

tructural Steel Rack Supported Platform

Metech

Structural Steel Rack Supported Platform

Designed and constructed of structural steel profiles, Metech structural steel platforms can be decked with timber or steel mesh floor. The platform can be used for additional storage or to house an office.



T ool Cabinets

Metech

The entire cabinet is made of steel and painted with the highest standard of powder coating to ensure excellent quality paint works.

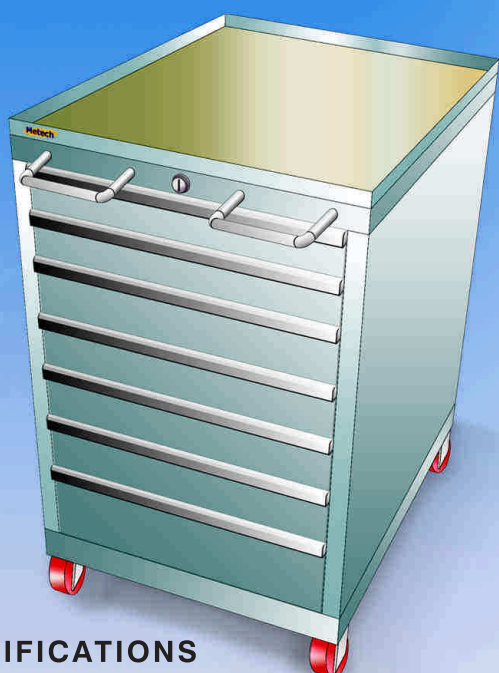
Specially designed Central Locking system to enable only one drawer open at a time.

Drawers can be pulled out smoothly and quietly on special railings fixed with heavy duty ball bearing.

A comprehensive range of dividers & accessories for storing wide range of ordinary tools, machinery tools and small items/parts.

Different drawer dimensions to individual configuration and requirements.

One full piece of solid handle provides excellent grips and strength with label strips and plastic protector.



SPECIFICATIONS

Colours

: Light grey

Castor wheel & handle

: Upon request



Drawer Accessories & Enhancement Component Parts

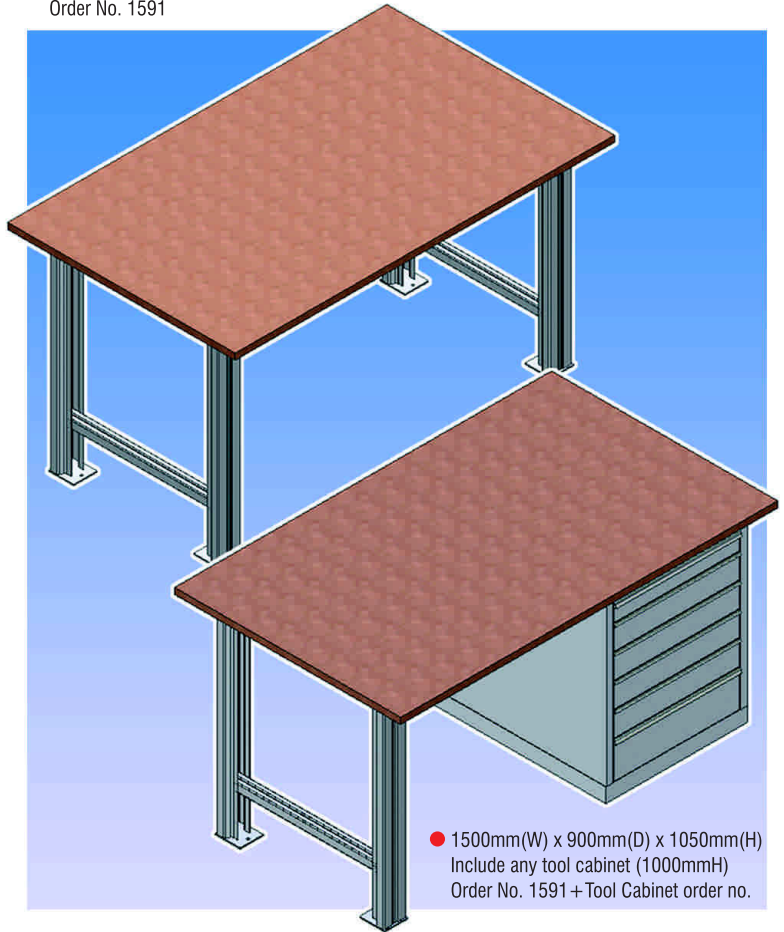
The Metech Modular Workbenches

The Metech workbenches are designed to provide maximum organisational, versatility and flexibility

Today, workstation demands high degree of efficiency in order to achieve higher productivity. Metech workbenches can be configured precisely to meet individual requirements and organisation needs to achieve the goal by :

- Enabling an infinite line of workbenches to be assembled
- Configuring group workstations as per requirement
- Enabling single or individual station to be arranged and organised as specifically required.

● 1500mm(W) x 900mm(D) x 1050mm(H)
Order No. 1591



● 1500mm(W) x 900mm(D) x 1050mm(H)
Include any tool cabinet (1000mmH)
Order No. 1591 + Tool Cabinet order no.



A

Automatic Storage & Retrieval Systems

Metech

Automatic Storage & Retrieval Systems

Metalock profile, for its technical features, is particularly suitable for Automatic Storage & Retrieval System (ASRS) linked to Stacker cranes or other automatic material handling equipment systems.

The vertical technical characteristics of Metalock profile and the full range of accessories designed by Metech make it possible to build high racking structures for high density and high speed storage and retrieval of pallets or mini-loads.



Rack Supported Warehouse

Rack supported Warehouse

The most advanced development of Metech storage systems is in the field of Rack Supported Warehouses, in which the storage system is the building itself.

Beside taking the loads of the pallets stored, the racking structures has to support the roof and walls too. Every risk factor are taken into account, from snow and rain to wind and earthquakes. The racking system has to respond to functional static and dynamic requirements and to conform with the regulations of the building sector.

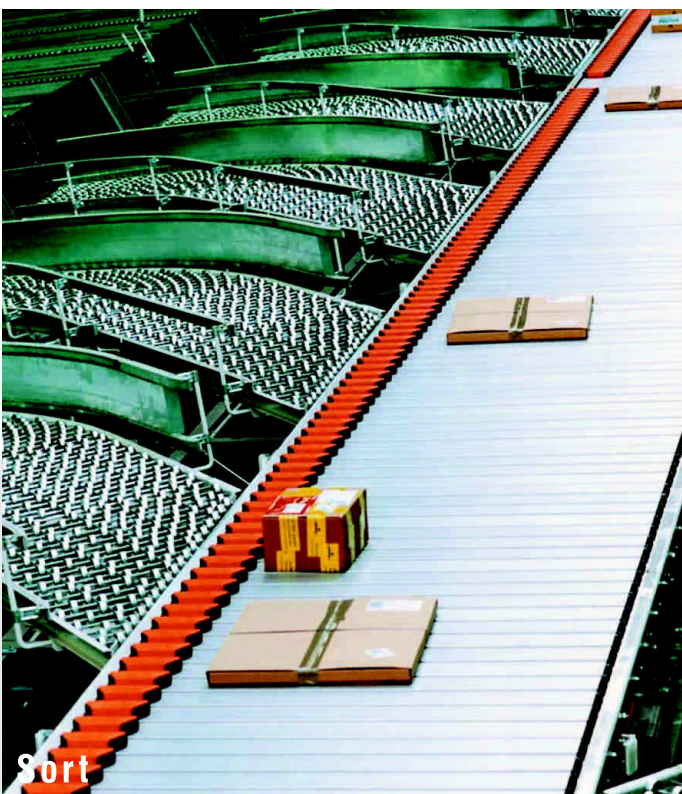
Sin Kean Boon Metal Industries Sdn Bhd's associated companies build many high rise commercial, residential and industrial building projects around Malaysia and the region.

This building expertise combined with Metech's design and engineering makes Metech one of the very few companies able to design and build Rack Supported Warehouses.



Conveyor Systems and Sorter Systems

The Conveyor Systems and Sorter Systems allowed goods transport automatically to any location in your warehouse. The use of these conveyors allows you to limit the use of people and reduce the energy cost.





Warehouse Management System



Warehouse Management System

The typical Warehouse Management Systems (WMS) will allow you to organized and control the material flow in your warehouse.

The flow of goods and the warehousing equipment is track through the used of RF equipment and scanning tools.

Metech provide a complete solution, integrating the automation of your warehouse with the management system.

Typical WMS Configuration



Seismic Protected Design

Metech's structural engineering consultants, H.T Consulting Engineered Ltd. has more than 20 years experience in term of seismic design requirement and have worked with leading System Provider from Japan & Taiwan for the design of racking system to meet the extreme seismic conditions.

Using advance 3D software programme for accurate simulation & calculation to guarantee the design of the systems.

