



## Aluminum Framing and Factory Equipment

A photograph of a complex aluminum framing structure, likely for factory equipment. The structure consists of numerous interconnected white aluminum beams and vertical posts, forming a grid-like framework. The beams are connected using various brackets and bolts. The background is slightly blurred, showing more of the structure and some red elements.

**Modular.**

**Durable.**

**Flexible.**



## *Introduction to mk*

mk North America, Inc. is a member of the mk Technology Group and a leading worldwide manufacturer of extruded aluminum framing for building a wide variety of factory equipment including guards, workstations, carts, machine cases and so much more.

Unsurpassed variety, maximum flexibility and easy integration are reasons mk has become the supplier of choice for machine builders, system integrators and manufacturing companies around the globe.

Since 1988 mk North America has been providing diverse industrial know-how, superb quality, constant innovation and application engineering excellence. mk North America offers you the perfect solution for any application.



## *better products. better solutions.*

At mk North America we believe in offering not only better products, but also better solutions. We offer the most extensive product line in the industry; featuring more than 250 different profile shapes and thousands of connecting elements and accessories. This allows us to partner with you to provide just the right solution for your needs.

With mk t-slot aluminum extrusions you can build just about anything you can imagine, whether it is safety enclosures, perimeter guards, tool racks, robot stands, carts, workstations, and display units.

At mk we are dedicated to providing you better products and better solutions.

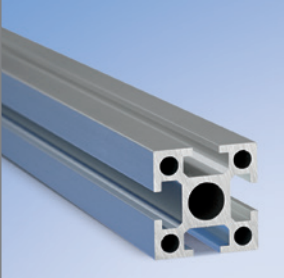
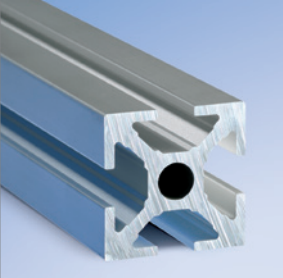
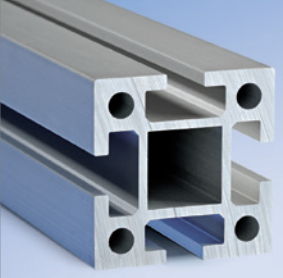
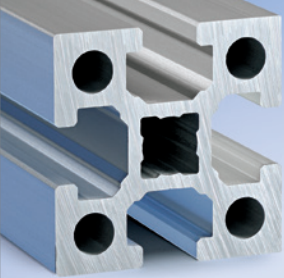
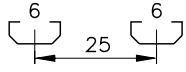
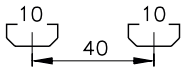
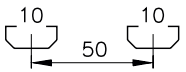
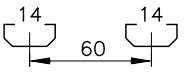
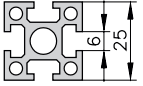
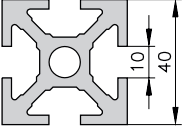
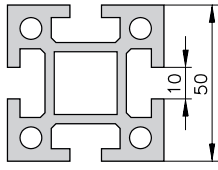
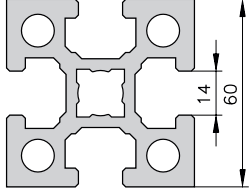
### **The mk Advantage**

- ✓ Robust construction and high quality components
- ✓ Modular design reduces engineering costs and lead-times
- ✓ Technical application assistance
- ✓ Competitive pricing
- ✓ Innovative designs
- ✓ Custom solutions

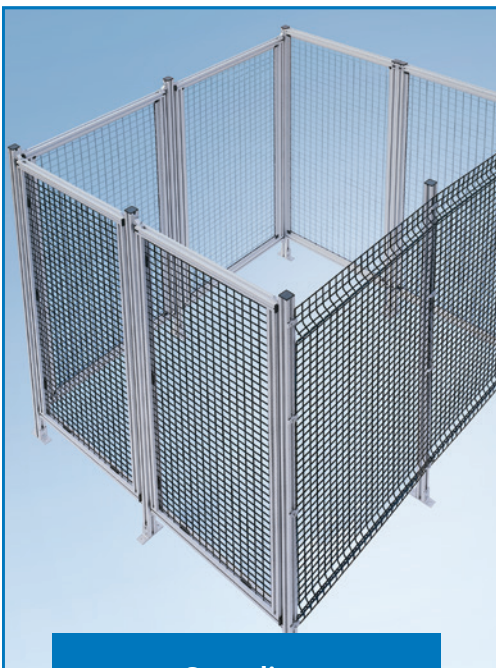
# Introduction to mk Aluminum Framing Systems

The mk North America, Inc. profile system consists of four profile series that are compatible with each other and are designed for different applications. The choice of profile series will depend on the type of application, the load-

bearing capacity required and design requirements as well as the spatial conditions on site. See the table below for more an overview of the four different systems.

				
	<b>Series 25</b>	<b>Series 40</b>	<b>Series 50</b>	<b>Series 60</b>
T-slot Information				
Versions	Standard	Heavy, Standard, Light	Standard, Light	Standard
Material	EN AW 6063 T66 AlMgSi 0.5 F25	EN AW 6063 T66 AlMgSi 0.5 F25	EN AW 6005A T6* AlMgSi 0.7 F28	EN AW 6005A T6* AlMgSi 0.7 F28
Standard Applications	Lightweight frames, showcases, cabinets, measuring and test equipment, test set-ups, control and electronic cabinets	Light to medium duty machine frames, guarding, industrial and assembly workstations, show booths, work platforms	Machine frames, load-bearing structures	Heaviest machine framing under the highest loads, gantries
Base Dimensions				
Largest Size	25 x 150 mm or 50 x 50 mm	80 x 160 mm	50 x 200 mm or 100 x 100 mm	120 x 120 mm
Standard Mounting Hardware	M5	M8	M8	M12

\* May differ in certain cases.



# Guarding

Aluminum extrusions have surpassed welded steel structures as the way to build protective guards and enclosures in almost every industry worldwide. With the mk Aluminum Framing System, you can build just about

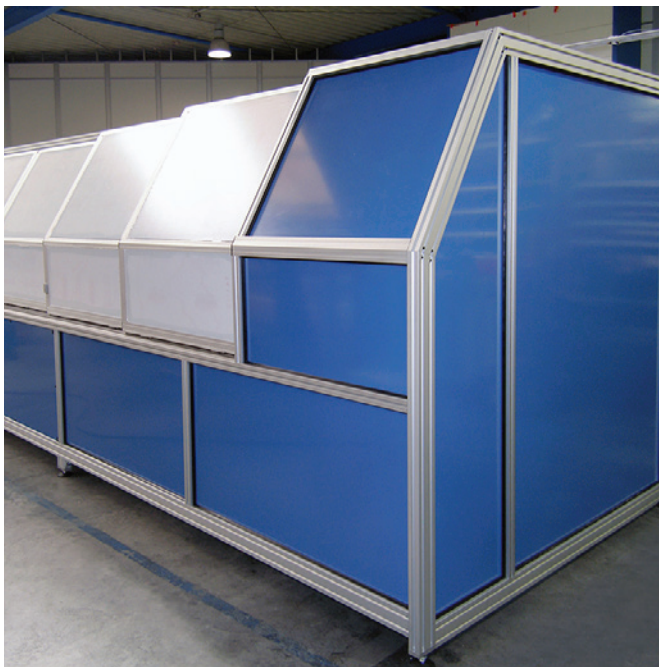
anything you can imagine. This includes perimeter guards, integrated machine guards, safety enclosures, sliding doors and windows, counterbalanced doors and much more.



Wire mesh is popular style of paneling for perimeter guards. It comes in a variety of colors including yellow (above), gray and black.

## Guarding from mk North America

- ✓ Perimeter guarding
- ✓ Machine guarding
- ✓ Custom enclosures
- ✓ Wide range of paneling options:
  - ✓ Wire mesh - black and yellow
  - ✓ Polycarbonate
  - ✓ Aluminum paneling
- ✓ Door and window styles:
  - ✓ Swing
  - ✓ Bi-fold
  - ✓ Sliding
  - ✓ Counter-balanced
- ✓ Variety of safety options
- ✓ Broad range of accessories



Machine guarding can be designed and built so that it works with the contours of the machine it is guarding.



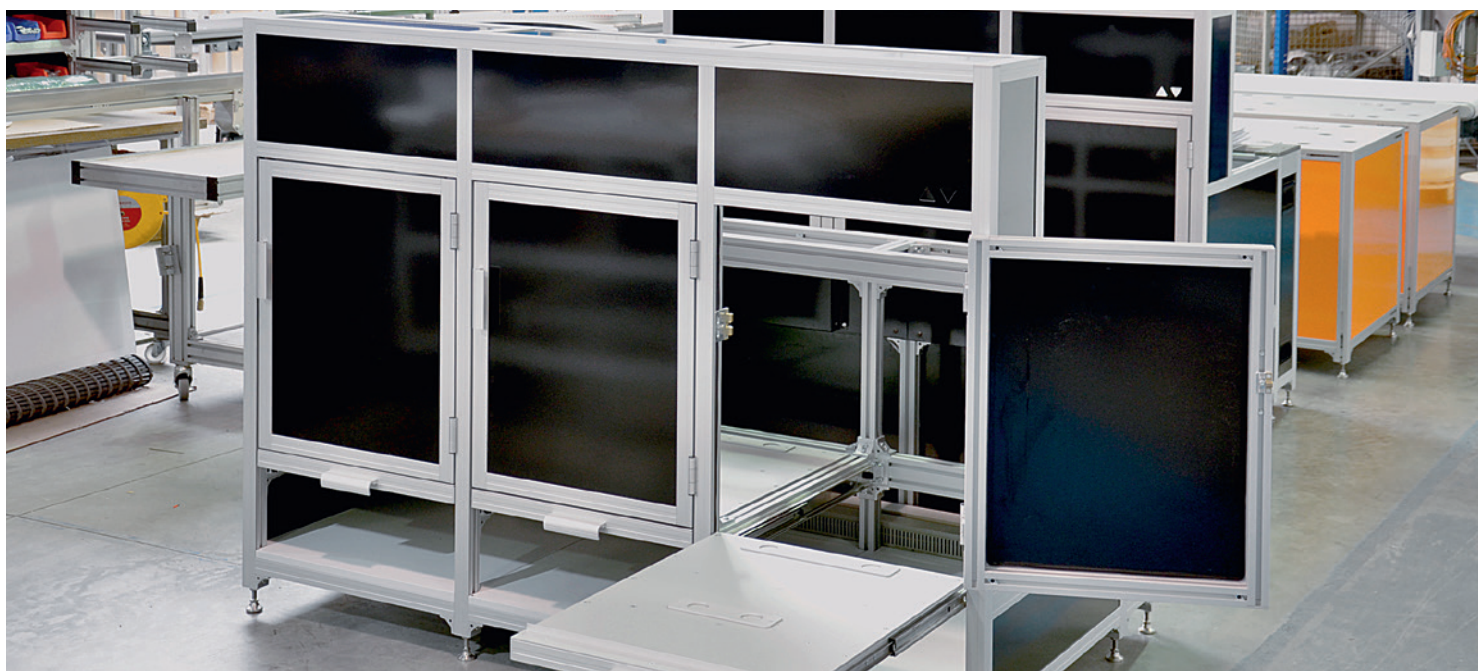
Perimeter guarding can be made standard or custom. Here the perimeter guard also includes a reach-in protection around the conveyor.



Polycarbonate paneling is an excellent choice when seeing inside a work cell is paramount. Polycarbonate comes both clear and tinted.



With guarding from mk, you are free to mix and match paneling options. T-slot covers also provide an extra level of detail and safety.



Enclosures and guards can be outfitted with a variety of different door styles and accessories which improves the overall functionality.

# Factory Equipment

In today's fast paced assembly and manufacturing facilities having flexibility is key to ensuring success. When you construct your Factory Equipment with mk's profile system; you are working with not only a diverse and flexible t-slot

aluminum extrusion, but also a durable, rugged and modular product. Factory Equipment from mk can be designed and reconfigured countless times to meet your ever changing demands.



Building storage racks out of mk's t-slot aluminum extrusion provides for maximum versatility, as the shelves can be moved freely along the slot.

## Factory Equipment

- ✓ Material shuttles and carts
- ✓ Planning and information boards
- ✓ Storage racks
- ✓ Kanban racks
- ✓ Shop horses
- ✓ Storage carts
- ✓ Roller racks



Storage containers can be made as simple or as complex as the need requires. Swinging doors, as well as lift-top access, are all feasible.



mk's aluminum extrusion can be powder coated in a variety of colors. This can be done for a number of reasons including safety and aesthetics.





Mobile carts can be designed with various caster and shelving options; these options add to the flexibility of mk's framing system.



Carts can be designed to be accessible from two or more sides, and are excellent for holding work-in-progress materials.



Roller racks are especially popular solutions when implementing Kanban processes. The rollers come in a variety of sizes and colors.

# Workstations

Today's manufacturing environment has a growing demand for individually designed workstations which can be re-configured and expanded easily to respond to changing market demands. Besides the general advantages of the

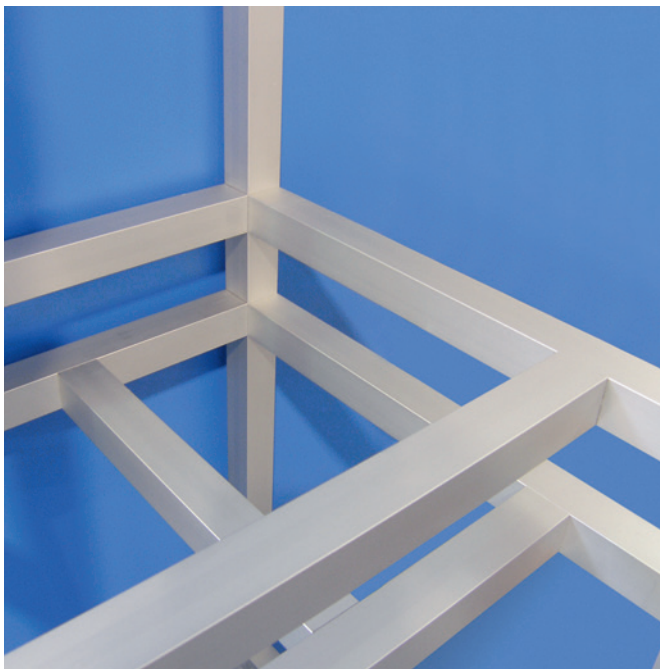
mk Framing System, such as flexible connections, rigidity and clean design, the mk workstation program offers a modular product palette to create economical custom solutions to meet your specific requirements.



Workstations can be designed for a variety of different processes, such as this packaging work cell which features a maple top.

## Workstation Options

- ✓ Industrial, office and laboratory settings
- ✓ Closed profile available for clean-rooms
- ✓ Workstation tops include:
  - ✓ Standard laminate
  - ✓ ESD laminate
  - ✓ Chemical-resistant laminate
  - ✓ Phenolic resin
  - ✓ Maple
- ✓ Keyboard pullouts and monitor mounts
- ✓ Adjustable height
- ✓ Locking cabinets
- ✓ Lighting
- ✓ Cable management



mk offers a wide variety of closed sided, or flat finish, aluminum extrusions. These extrusions offer a highly aesthetic appearance.



Workstations can be customized to include tilting shelves, support frames or custom table top materials.



Workstations can be made modular with casters and can feature a variety of accessories which can increase worker productivity.



Adding cabinets and shelves can enhance not only the look of a workstation, but more importantly improve productivity.



Plastic bins can neatly and effortlessly be stored on a workbench, and fed to the work space via roller racks.

# Examples



Polycarbonate paneling makes it easy to see what is happening within a work cell, and swinging doors makes it easy to access the inside of the cell.



Swing arms allow for tools, monitors or supplies to be moved in and out of the work area. A locking-handle, above, secures the arm in place.



Combining mk profile, guarding and linear motion allows for custom solutions; simplifying even the most complex task.



Workstations can be made height adjustable thanks to hydraulics. These hydraulics can be operated via a hand crank, or motorized (above).



mk aluminum framing can be used to build a variety of workplace structures, such as this custom guard for a secure area.



Kanban workstations can be configured to match the process and area they are installed in.



Machine guarding can be used to tie various pieces of equipment and processes together; providing a cohesive and safe design.



Perimeter guards can be outfitted with a variety of safety measures such as safety interlocking switches, and light towers.



Because mk extrusion comes in a variety of sizes, workhorses can be designed to take as much or as little load as called for,

## Our Other Products

### Aluminum Conveyors

With over 20 different conveying systems, mk offers a product variety which is unsurpassed in the marketplace. Our broad offering, and more than 30 years of experience in material handling, leads to robust solutions that feature long life and reliable operation while maintaining all the advantages of modular design and expandability.

Our innovative conveying solutions, both standard and custom, have proven themselves in automotive, manufacturing, machine builder & integrators, metal working, packaging, pharmaceutical and printing industries.



### VersaMove Pallet-Handling Conveyor Systems



mk North America manufactures pallet conveyors over three different platforms. This allows for the pallet-handling system to be tailored to meet your specific needs. mk believes in offering not only a better product, but also a better solution. VersaMove pallet-handling conveyors are pre-engineered and modular. The system can be easily expanded or reconfigured as your manufacturing needs change. Our workpiece pallet conveyors can be used in a variety of layouts, or combined for even greater flexibility in planning production processes.

[www.mkversamove.com](http://www.mkversamove.com)



### VersaFlex - Flexible Flat Top Chain Conveyors



The versatile and flexible flat top chain conveyor system VersaFlex features a modular design. The standardized modules and components make it simple and cost effective to integrate the system into any production process, as well as to adapt and expand it.

VersaFlex is a conveyor system that grows with your requirements. Moreover, it is compatible with systems that are currently available on the market.

[www.mkversaflex.com](http://www.mkversaflex.com)



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