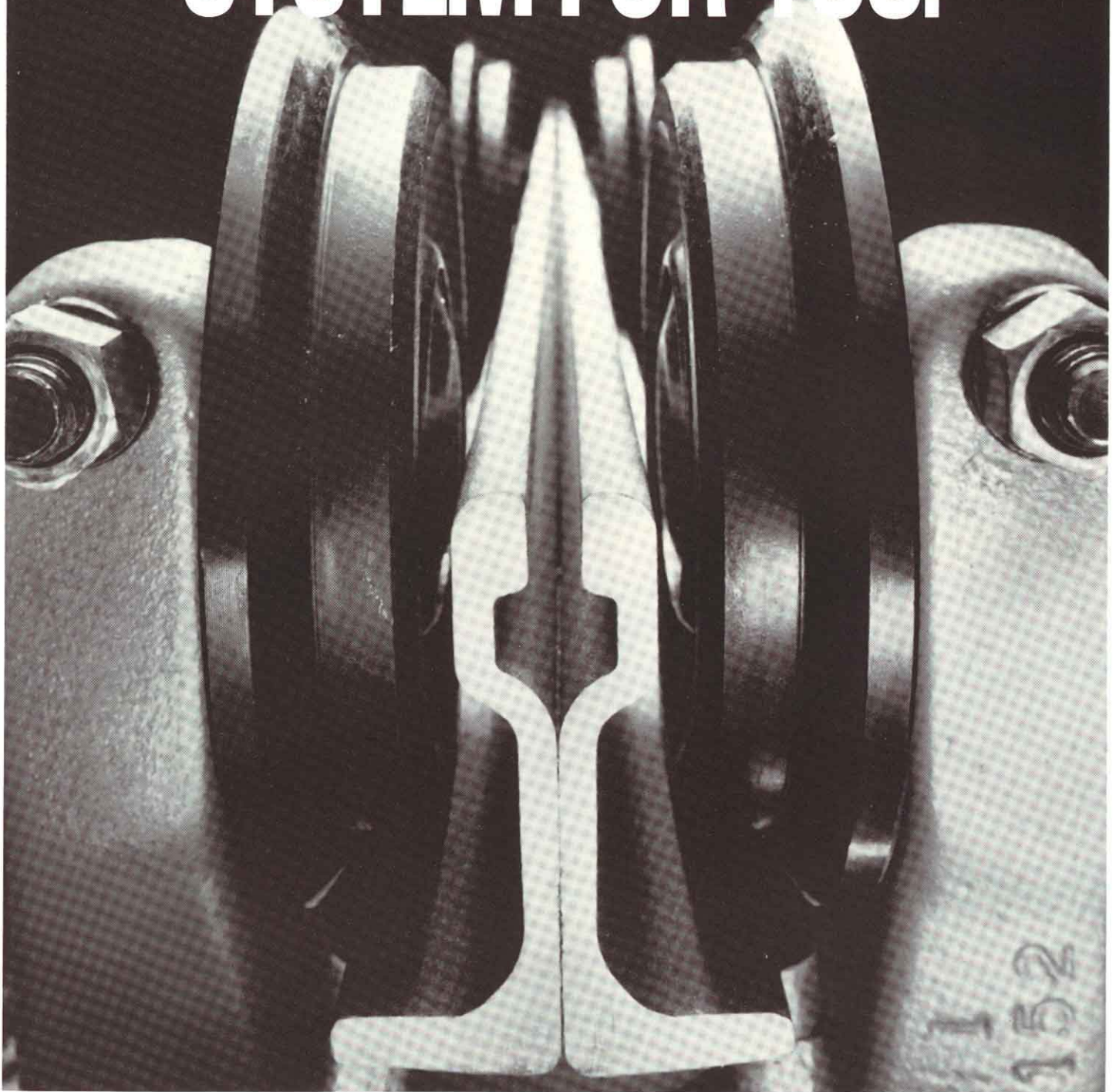


THE LAUNDRY HANDLING SYSTEM FOR YOU.



2" Flange Twin Section Rail Systems



THE TC/AMERICAN MONORAIL STORY

For over a quarter of a century, TC/American Monorail has been providing the industry with high performance, low cost material handling equipment. Our stringent quality control standards start with the finest raw materials, parts, and components . . . then

extend to our laundry dealer organization—the finest in the industry. These professionals provide installations and the best followup service available.

A LOOK AT MONORAIL LAUNDRY SYSTEMS

A monorail system is an arrangement of overhead material handling equipment consisting of straight rails, curves and switches providing a means for the transportation of loads along a fixed route between pickup and delivery points. A monorail system can be installed at one elevation throughout its length. It can also operate at various elevations through the use of lift sections, inclined rail sections with powered feed units to control the ascent or descent of trolleys and a controlled slope of the rail as it is installed.

The advantages of TC/American Monorail Systems include:

- Straight line routes over equipment and production areas for faster material handling.
- Designs to meet the unique requirements of each user.
- Designs to travel along specific routes, through doorways, across open areas and between building floors.
- Uniform construction to assure smooth operation.
- Accumulation and storage of work in process.
- Expert dealers to respond to your particular situation.

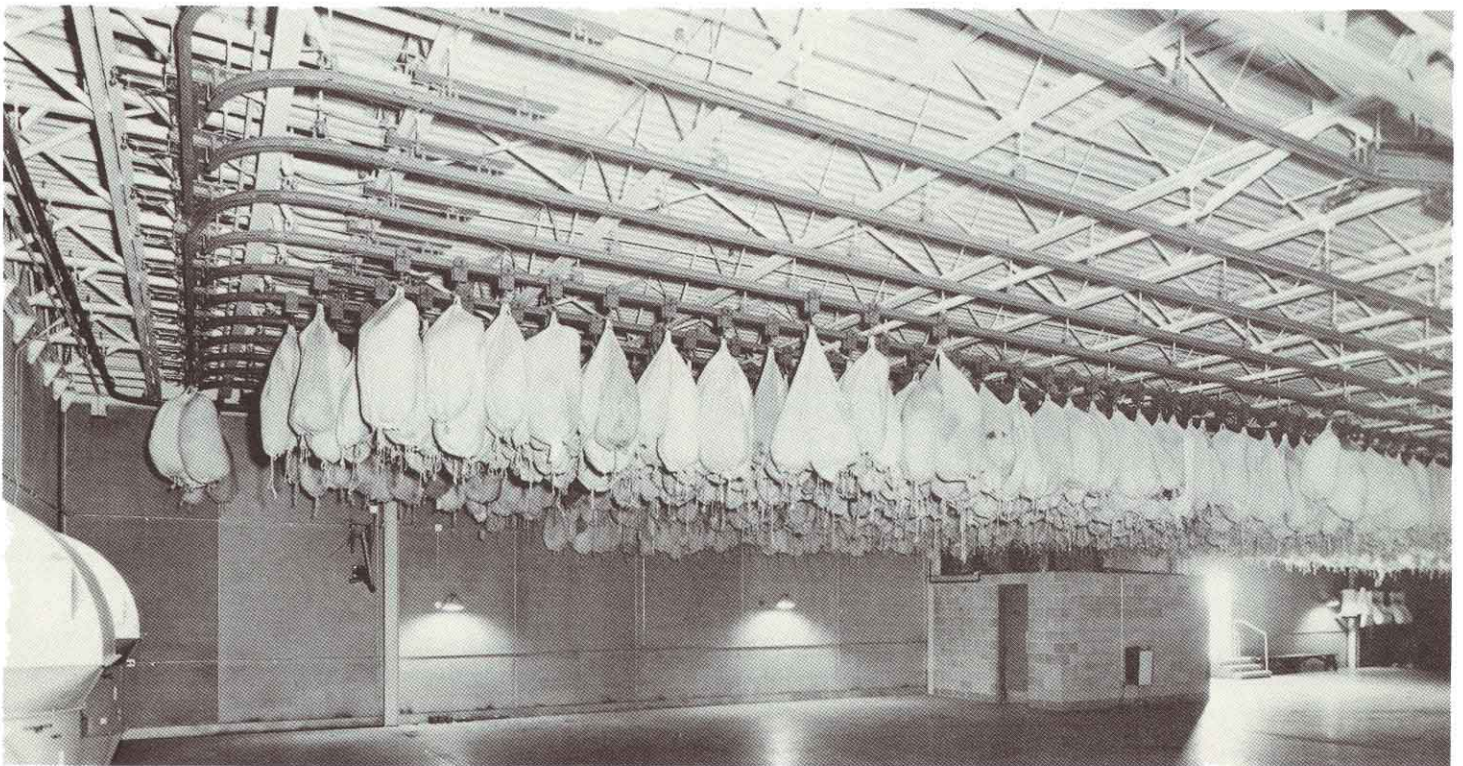
TC/American Monorail's economy-engineered monorail systems are ideal for all types and sizes of laundries. Whether you're designing an efficient new laundry or modernizing an older one.

In addition to our expertise in manufacturing monorails, we offer a complete range of standard components designed exclusively for laundries—we can customize your laundry for maximum operating efficiency.

A complete overhead system can be designed for any size or type laundry that will move linen faster, easier through all operating cycles. This reduces floor handling of linen, and greatly increases storage by getting the linen off the floor.

This in turn reduces labor requirements and worker fatigue. Simple gravity flow minimizes power requirements and costs. Our heavy duty construction requires little or no maintenance. Our goal is to provide you with greatly increased production at a reduced cost per pound—giving you the best return on your equipment investment.

Our standard components include rail, suspension, trolleys, switches, curves, lift sections, and slants. Systems are available as gravity or hand pushed, and we manufacture automated specialized systems. TC/American Monorail can also design your system with such special features as weight sections, indexing devices, and bag strippers.



More than a mile of overhead monorail winds its way through this four acre commercial linen supply plant to recycle nearly 100,000 pounds of linen each day.

HIGH PERFORMANCE 2" RAIL SYSTEM

Like highways for cars, the rail is vital to the smooth performance of a crane or monorail system. TC/American Monorail's 2" rail is the finest available to the industry today. That's because we start with the best raw materials. Our high carbon-manganese steel with flat threads and close tolerances is precision rolled for maximum strength and durability.



2R3-5T Twin Section 2" Line Rail

These special alloy steel rails are designed and manufactured to exacting specifications. That's because we want our rail systems to provide years of dependable service. And they do.

The TC/American Monorail 2" flange rail system is the most economical patented monorail in existence. It's also the top performer. That's because no other rail is as versatile or as easy to install and reroute.

Once your employees have tried the 2" equipment, they will be happier and more productive. Fatigue from handling heavy loads can be costly. Yet this system will put that problem behind you. In fact, this system can easily handle up to 4000 lb. loads.

There are many reasons why TC/American Monorail's laundry systems are tops in performance. Among these are:

- *Narrow track flange* Carries load closer to web, thus reduced flange stress.

SPECIFICATIONS

Rail	2R3-5T
Weight	4.7 lb./ft.
Finish	Gray

METALLURGICAL DATA:

Carbon55-.65
Manganese80-1.10.
Phosphorous04 Max.
Sulphur05 Max.
Silicon15-.30

Typical Physical Properties:

Tensile Strength	125,000 P.S.I. Min.
Yield Strength	65,000 P.S.I. Min.
Brinell Hardness	235 Bhn.

- *Overlapping splice* Provides jolt-free ride, eliminates roughness, splice clamps.
- *Easily located hangers* Eliminate need to drill rail holes.
- *Reduced installation costs* Because the rail is lighter and easier to handle, there is greater system support flexibility, and it doesn't have to be supported at connections.
- *Specially designed articulating trolleys* Provide rolling ease and reduced wear thanks to large diameter wheels with precision bearings and self-aligning trolleys. These greatly reduce friction, provide remarkable propulsion ease and long wear.
- *Compact switches and curves* Provide exceptional flexibility because of the short radius curves and close clearances.

TC/American Monorail components have limitless combinations for maximum material handling flexibility.

Easily movable hangers for easy installation

Smooth-rolling trolley

Specially rolled high strength alloy steel twin sections

Positive and automatically-locking bolts and nuts

Unique lap splice for smooth operation

TC / AMERICAN

Capacity through 2 tons.
 Low installation cost.
 Jolt-free trolley travel.
 Strength of continuous rail.
 Easily movable hangers.
 Switch and curve flexibility.

THE DRAWING BELOW REFLECTS A GENERIC LA OVERHEAD SYSTEMS TO STORE AND DIR

A INCOMING BAG SYSTEM

After a delivery vehicle arrives at the unload area the operator simply transfers goods directly from truck to trolley. Gravity automatically moves the trolley and load to a Slant Lift that elevates and discharges at a high point allowing them to proceed by gravity to a pre-determined storage track.

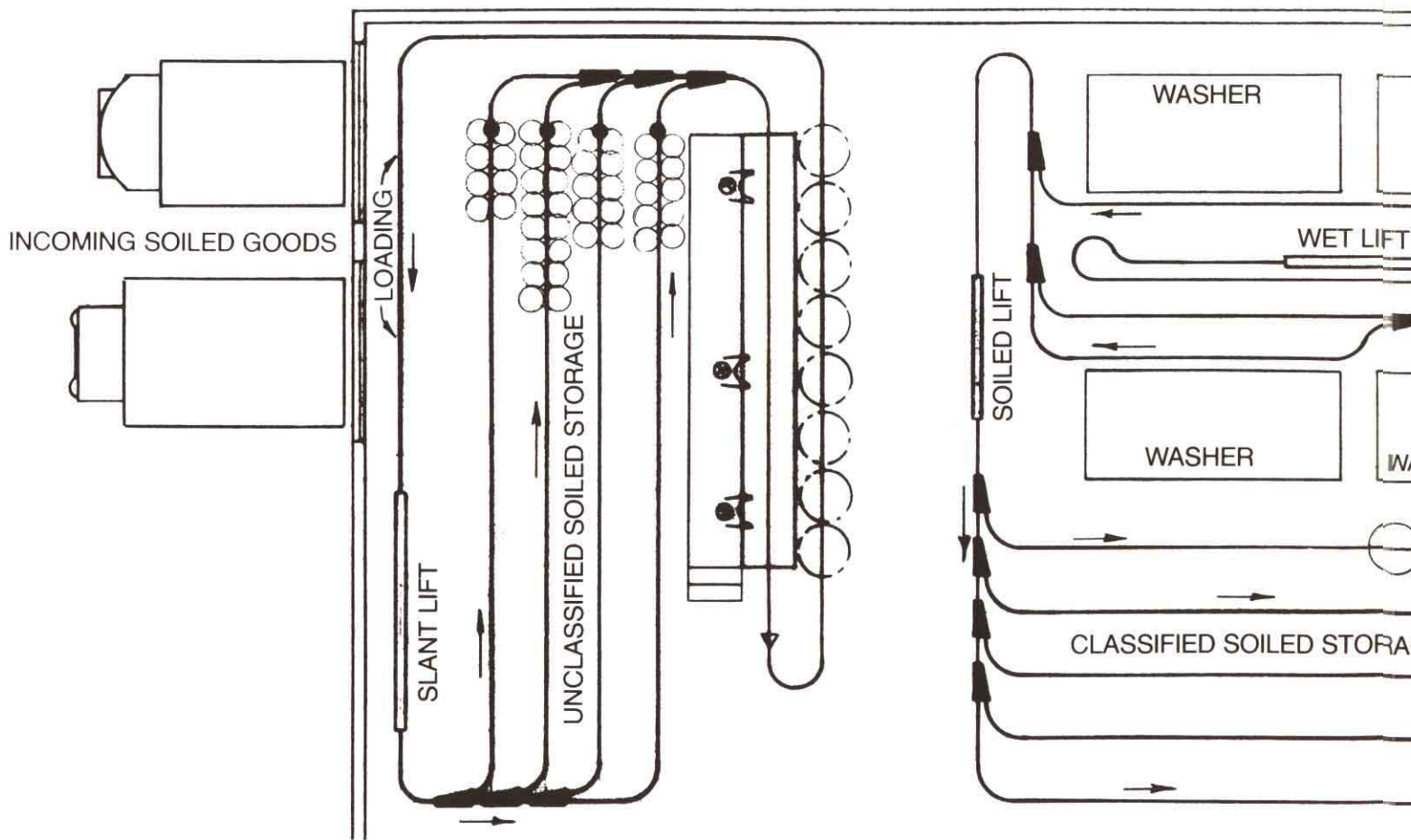
Goods are called out of storage manually or automatically by the sorting operators who empty the bags for the sorting process. Once emptied, the trolley takes the empty bag through a bag stripper and proceeds to the lower end of the system for another cycle.

B SOILED STORAGE WASHER LOADING SYSTEM

TC/American Monorail Systems are custom modified for weigh carts, floor scales or light frames, depending upon your specific needs.

Once a sling is loaded, it is coupled with a trolley and elevated with a drop rail lift to the system high point, again letting gravity transfer the load to a pre-determined classified storage rail. As needed, slings are called out of storage and positioned to load the washers.* After the loading takes place the empty sling and trolley return to empty storage and await another cycle.

*There are many different types of washer loading procedures—Front loading—Top loading—Chutes or Hopper loading, all of which are designed for individual plant requirements.



LAUNDRY UTILIZING TC/AMERICAN MONORAIL DIRECT GOODS THROUGHOUT THE PLANT

C

WASHER TO EXTRACTOR TO TUMBLER SYSTEM

Without the advantage of a monorail system, this is often the most congested and labor intensive laundry process.

In this case, a TC/American Monorail Systems wet lift is centrally located in the wash aisle, offering a quick and efficient way to elevate the work coming out of the washers.

Once elevated, slings are transferred to storage or moved directly to the extractors. Shown here, a TC/American Monorail Systems gang lift is utilized to load and unload several extractors simultaneously. This technique is labor saving and offers quick turnaround times.

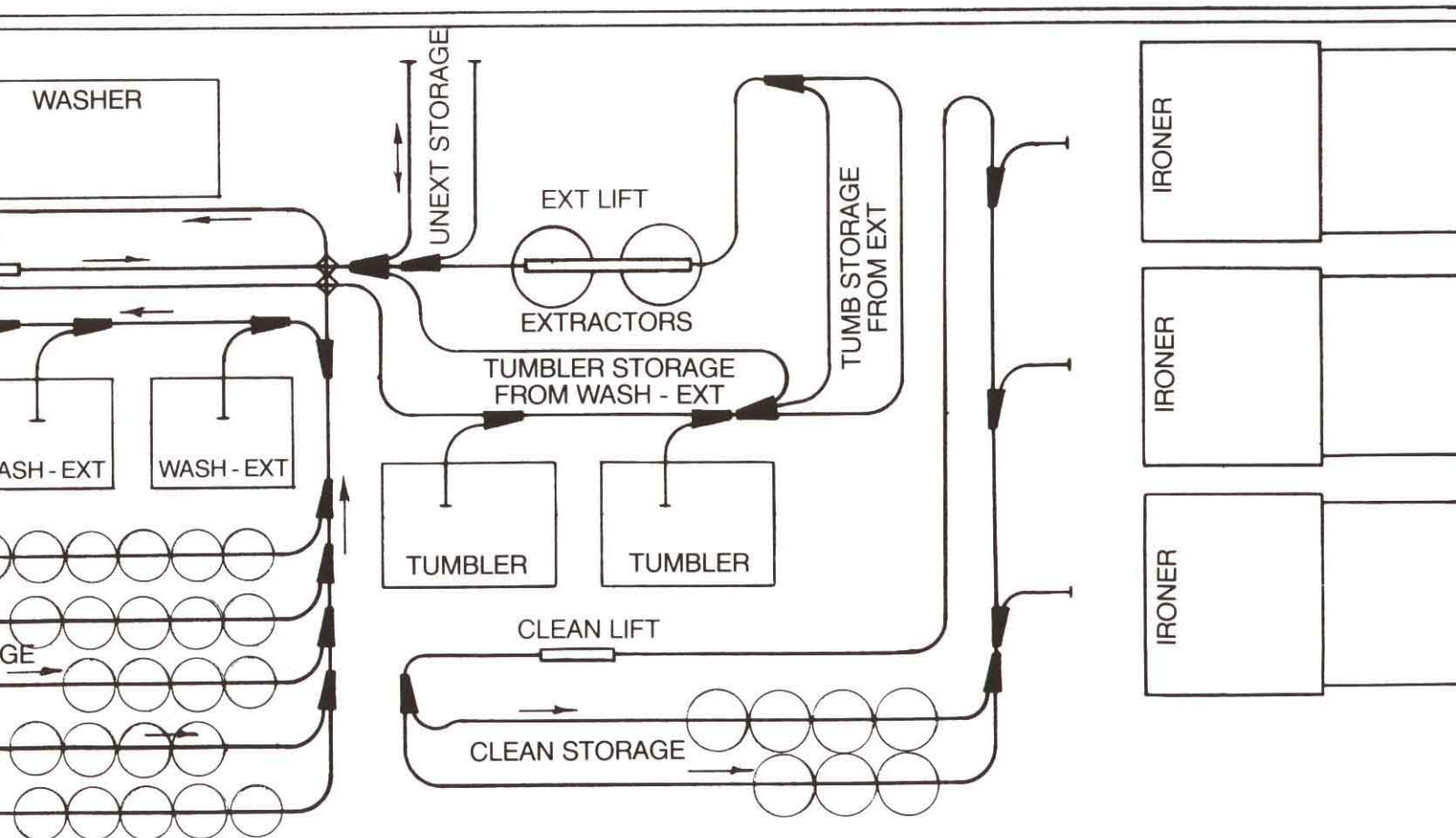
From here, extracted work moves to the tumbler storage rails and is held for the drying process.

D

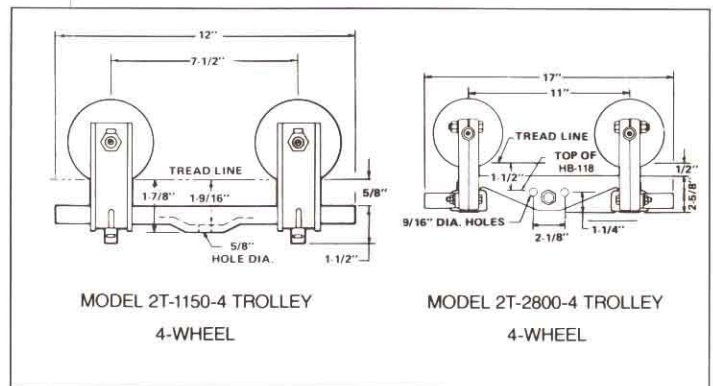
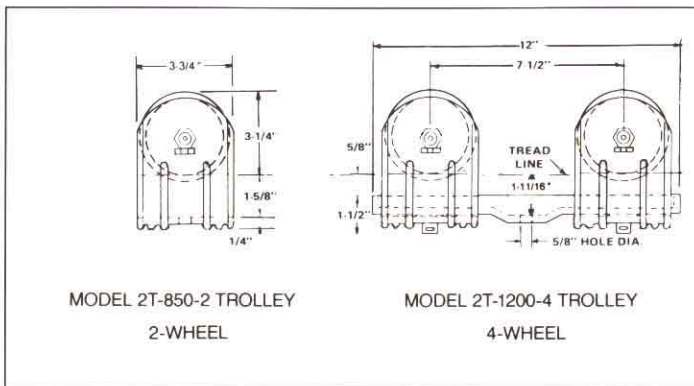
FINISHING SYSTEM

TC/American Monorail Systems will allow clean work to be elevated and transported effortlessly, eliminating the costly labor intense task of contending with floor carts or baskets.

Slings are called out of storage to individual work stations ahead of ironers or dry fold areas, depending upon your particular needs.



HIGH QUALITY COMPONENTS



LONG LIFE TROLLEYS

TC/American Monorail trolleys are strong, durable and feature ease of propulsion. The success of any overhead handling system depends on the moving parts. Our self-aligning trolleys articulate to reduce wheel rocking. They also provide easier rolling, equal wheel loading, and reduced rail and wheel wear.

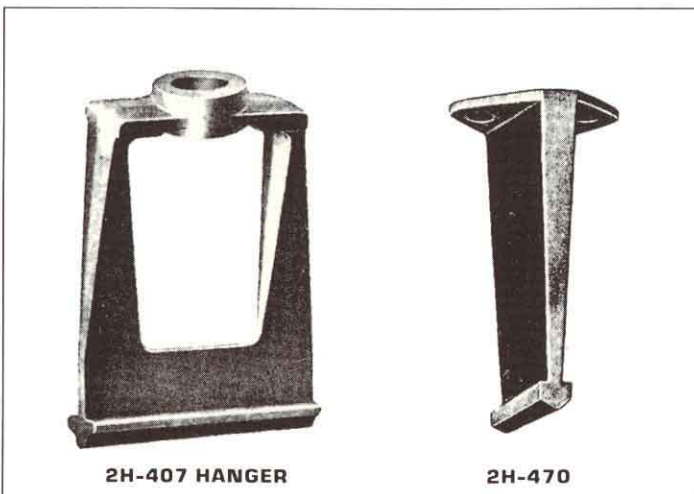
There is a wide variety of available trolleys for light, medium or heavy loads. Trolleys can carry more than 2 tons by combining with load bars.

Our trolleys are designed to easily negotiate monorail curves

without binding. Load equalizing connections ensure equal loading of all trolley wheels.

The trolley wheel treads are machined with wheel bearings and a minimum B-10 life of 5,000 hours. TC/American Monorail has a complete line of trolley fittings available. These include load eyes, flat swivels, flange swivels, load hocks with safety latches, stud swivels, clevis swivels, and adaptors for all types of hoists.

Special trolleys are available for applications requiring bronze wheels, sealed bearings or high temperature bearings.



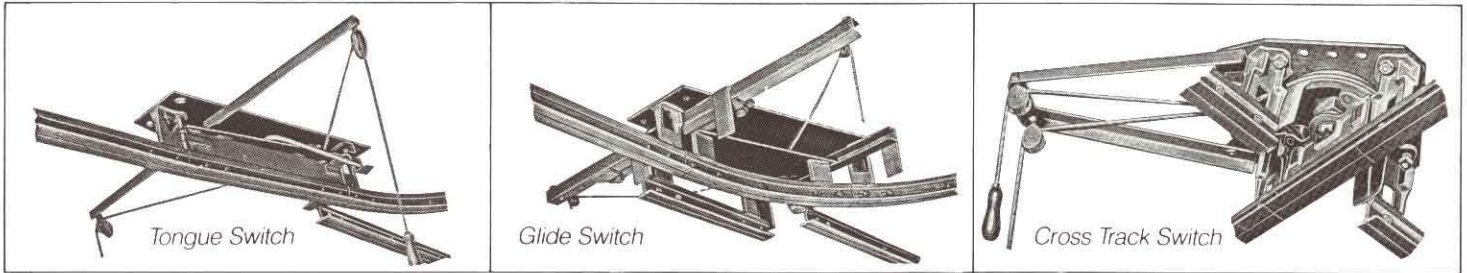
SUSPENSION

TC/American Monorail suspension systems provide maximum security with minimum space requirements. The monorail systems can be suspended directly from the overhead building structures without the need of interfering support columns. There's also lower initial equipment cost and less design required in the building or supporting structure by using underhung systems.

Monorail systems can be mounted with variable hanger rod lengths to position the equipment at any elevation below the support structure. You can use hanger rods between clamps or hangers. Sway and thrust bracing is required on all rod suspended systems.

Rails can also be attached to the building steel by direct bolting or flush clamping. This provides the best headroom.

HIGH QUALITY COMPONENTS



SWITCHES AND CURVES

Switches provide system flexibility by diverting loads from a main rail system to spur rails for storage, sorting or special processing activity areas. They can also interconnect a number of closed loops. Switches allow for a maintenance spur for monorail tractors or carriers away from a production area.

Both the tongue and glide type switches are remarkably flexible. They allow close spacing of branch track. The two-way and three-way tongue type switches feature steel mounting plates, rolled steel supporting members, a positive lock against crowding by connecting track, and a positive latch which holds the switch tongue in the desired position.

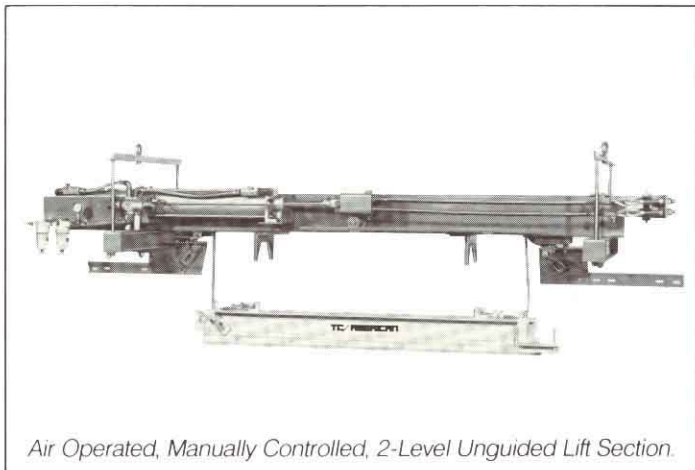
Trolleys travel easily through the curved section of two-way and three-way glide type switches. The Wye glide switch connects

with diverging lines on either side of the switch's center line.

The cross track switch lets two tracks at the same elevation cross at right angles.

The track locking lug prevents the connecting track from crowding into and interfering with the moving switch section. Thus operation is free of the switch, and trolley travel over track joints is smooth.

Curves provide a smooth change in direction of a system and can be bent to any radius to a minimum of 1'-6". Rails can also be bent into reverse curve arrangements and provide flexibility in system layouts to permit the most desirable system configuration.



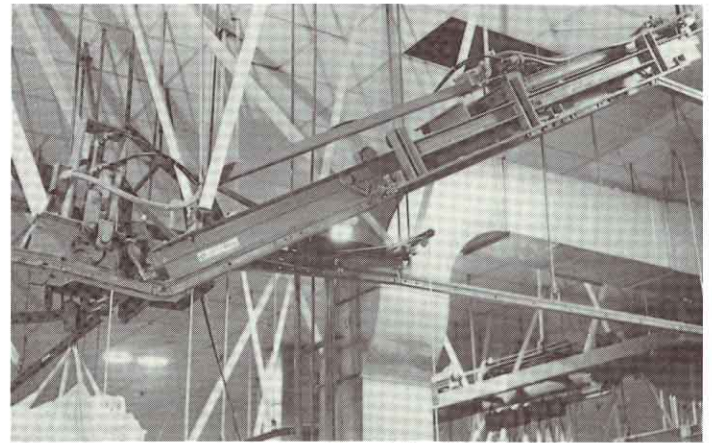
Air Operated, Manually Controlled, 2-Level Unguided Lift Section.

LIFT SECTIONS

Lift sections provide vertical movement in a monorail system to move loads from one elevation to another. Lift sections are frequently used in dipping operations and for transporting a large number of loads to and from definite load/unload stations. Their primary advantage is that two or three lift sections can replace many hoists, provided the location of the load/unload stations is fixed. A lift section is required at each load/unload station.

Guided lift sections can be furnished to permit transfer of trolley from one stationary track at one elevation to another stationary track at another elevation and are frequently used to move loads between floors in a building. Lift sections can also be furnished for automatic system operation.

Lift sections operate by a trolley moving onto a lift rail that is separate and independent from the incoming and outgoing rails. The lift rail is then lowered by an air cylinder or hoist to the lower position. At this lower position, a load can be hooked on to the trolley previously positioned on the lift rail. The lift rail then raises



Air Operated, Auto Indexing, Slant Lift. Also available in Electric Operated.

to the home position, releasing the wheel stops, allowing the loaded trolley to move to its next location.

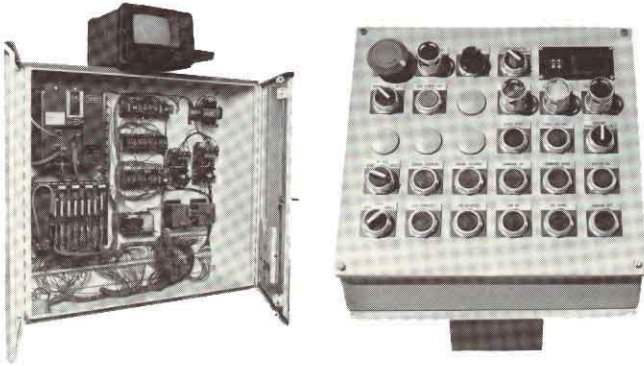
Features

- Standard capacities from 100 to 4,000 lbs. Custom engineered larger capacities available upon request.
- Standard vertical lifts from 4' to 20'. Custom engineered longer lift available on request.
- Guided and unguided lift rails available.
- 2 or 3 position lift rails available.
- Very low headroom requirements that provide maximum lift travel.
- Incoming rail, departing rail, and lift rail are all equipped with wheel stops.

Lift sections are available in the following configurations:

- Air operated/air controlled
- Air operated/electric control
- Electric operated/electric controls

AUTOMATED SPECIALIZED SYSTEMS



TC/American Monorail can also furnish you with an automated specialized system that is ideally suited to application where highly programmed flexibility is required. These systems provide pickup and delivery of loads without operator assistance. We can provide highly automated systems featuring programmable (process) controllers that can be programmed to raise, lower, store, sort and route coded products. These automated systems have the versatility of multiple travel routes, different elevations, and accumulation and interface with other handling components.

Typical Automatic controls using programmable controller.

Phone 763-497-7000

Fax 763-497-7001



12070 43rd Street NE
St. Michael, MN 55376

E-mail Sales@tcamerican.com

Website www.TCAmerican.com