

Battery Handling Equipment Catalog

*The complete battery changing
catalog from the leader
in the industry*



*The Power
of Change*SM



SINCE 1946

**MATERIALS
TRANSPORTATION
COMPANY™**

An Employee Owned Company



DOUGLAS
LEGACY
Series



OSHA Regulation 1910.178

(g) – changing and charging storage batteries

1. Battery charging installations shall be located in areas designated for that purpose.
2. Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.
3. (Reserved)
4. A conveyor, overhead hoist or equivalent material handling equipment shall be provided for handling batteries.
5. Reinstalled batteries shall be properly positioned and secured in the truck.
6. A carboy tilter or siphon shall be provided for handling electrolyte.
7. When charging batteries, acid shall be poured into water; water shall not be poured into acid.
8. Trucks shall be properly positioned and brake applied before attempting to change or charge batteries.
9. Care shall be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) shall be open to dissipate heat.
10. Smoking shall be prohibited in the charging area.
11. Precautions shall be taken to prevent open flames, sparks or electric arcs in battery charging areas.
12. Tools and other metallic objects shall be kept away from the top of uncovered batteries.

OSHA Regulation 1926.441

Battery rooms and battery charging

(a) – general requirements

1. Batteries of the unsealed type shall be located in enclosures with outside vents or in well-ventilated rooms and shall be arranged so as to prevent the escape of fumes, gases or electrolyte spray into other areas.
2. Ventilation shall be provided to ensure diffusion of the gases from the battery and to prevent the accumulation of an explosive mixture.
3. Racks and trays shall be substantial and shall be treated to make them resistant to the electrolyte.
4. Floors shall be of acid resistant construction unless protected from acid accumulations.
5. Face shields, aprons and rubber gloves shall be provided for workers handling acids or batteries.
6. Facilities for quick drenching of the eyes and body shall be provided within 25 feet (7.62m) of battery handling areas.
7. Facilities shall be provided for flushing and neutralizing spilled electrolyte and for fire protection.

(b) – charging

1. Battery charging installations shall be located in areas designated for that purpose.
2. Charging apparatus shall be protected from damage by trucks.
3. When batteries are being charged, the vent caps shall be kept in place to avoid electrolyte spray. Vent caps shall be maintained in functioning condition.

For additional information see regulation web page at www.osha.gov/comp-links.html or the OSHA home page at www.osha.gov

Battery Handling Equipment Catalog



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General Notes

- All products illustrated are current as of the publication of this brochure.
- All dimensions shown are nominal and subject to change without notice.
- MTC reserves the right to make changes and modifications without notice.
- Contact MTC for additional details.





Single level Power Changer™ application



Replacing a battery

Individual specification sheet available.

The Power...

When it comes to battery changing equipment and systems, industries around the world come to Materials Transportation Company. That's because MTC is uniquely qualified to help companies like yours meet the challenge of battery changing both now and in the future. Utilizing MTC's team of engineers, designers, and sales and service professionals, you can harness the power of change with efficient, dependable systems designed for any workload and budget.

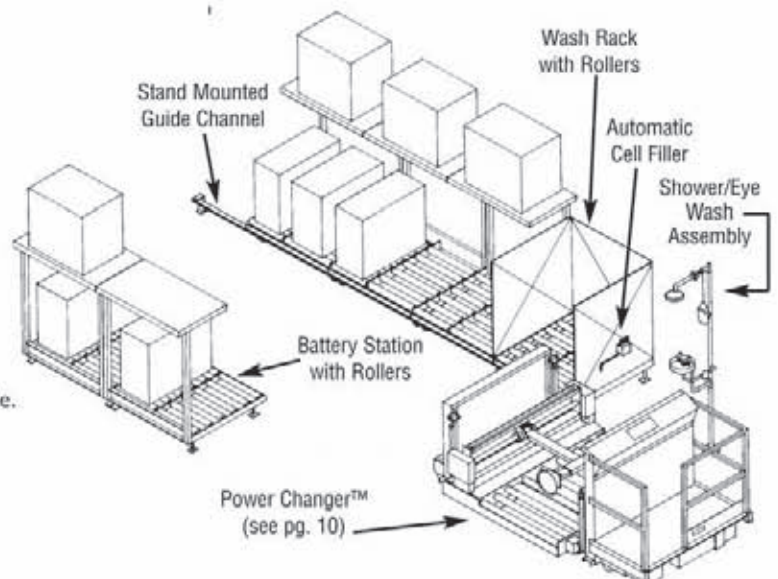
With MTC products, you're assured of state-of-the-art, long-lasting equipment and systems designed with safety in mind that deliver increased productivity for many years to come. MTC understands that your facility will grow, so we design our systems to be expandable — to grow right along with you.

...Of Change

Whether your electric truck fleet is small or large, MTC has a side removal system that's right for your application. Our portable changing systems include the non-powered Battery Transporter with Mechanical Loader. If your changing needs require a powered portable system, consider MTC's Attach-A-Puller and Walk-A-Puller models.

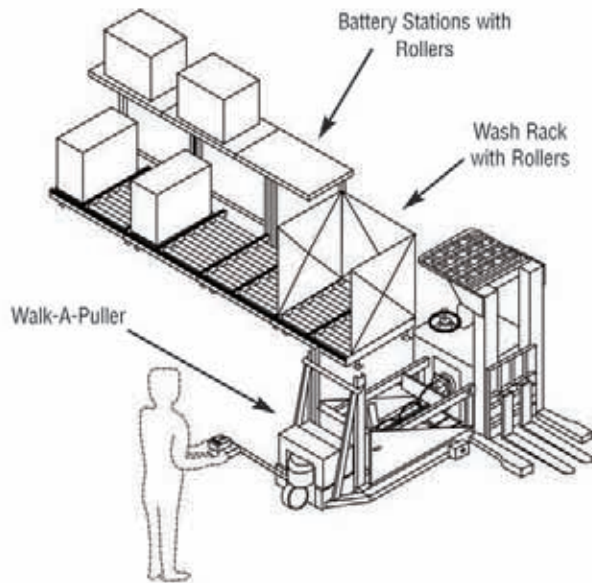
Power Changer™

Larger fleets demand more power, and MTC's industry-standard Power Changer™ is your solution. Power Changers™ provide a safe, dependable way to change batteries quickly and efficiently without operator fatigue. MTC Power Changers™ are available in single or double compartment models and from a single level up to a six high system to allow for the most efficient use of your floor space and budget.



Portable Battery Changers

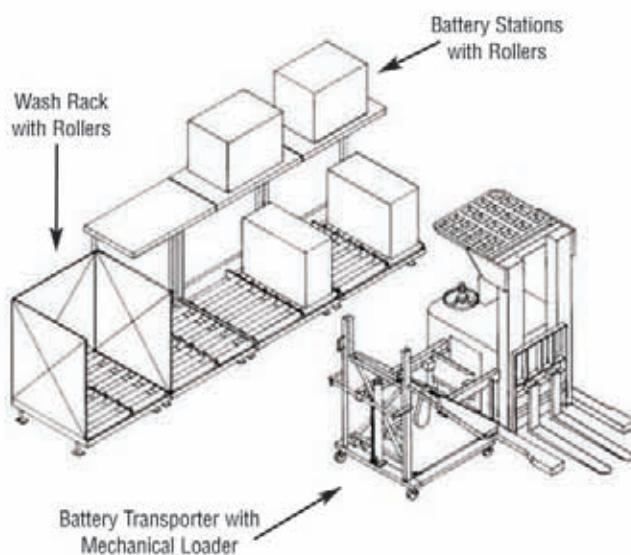
MTC's DC powered portable battery changers offer safety and flexibility at an economical price.



Using the Walk-A-Puller

Battery Transporter with Mechanical Loader

MTC's non-powered battery changer is designed for smaller lift truck fleets that need easier battery changing.



Battery Transporter application

Individual specification sheet available.



Model BT-24-ML

Battery Transporter with Mechanical Loader

Features

- Adjustable Roller Bed Height
- Foot Operated Jack
- Floor Lock
- Push/Pull Plate Mechanically Driven
- Composition Wheels
- Battery Safety Stop
- Spring Loaded Rollers
- Adjustable Chain to Secure Transporter to Side of Truck*

Options

- Powered Push/Pull and Lift
- Low Profile for 3" Load-in Height

Available Models

Model	Maximum Battery Width	Capacity	Height
BT-24-ML	21"	3000 lbs.	6" - 30"
BT-30-ML	30"	3000 lbs.	7" - 30"

For more information, request individual specification sheet or specify MTC product bulletin.
 *Requires safety attachment supplied by customer to secure transporter to truck when changing battery.
 For low profile, add "LP" to model number. (Not available on BT-30-ML)



EZ Puller

The inexpensive alternative to powered transfer carts.



Model EZP-24 - Pallet Truck not included

Features

- Manual Battery Extraction
- Heavy Duty Rollers
- Floor Lock
- Durable Powder Coat Finish

Options

- Fork Pockets for Use on Multiple Trucks*

Available Models

Model	Maximum Battery Width	Capacity	Height
EZP-24	24"	3000 lbs.	60.5"
EZP-36	36"	3500 lbs.	60.5"

*Fork Pockets are available for standard fork sizes 27" x 42" or 48" in length. Please specify 7" or 9" fork width. For powered push/pull, please consult factory. EZ Puller mounted on typical pallet truck adjusts from 6" to 12" in height. See specification sheet.

Portable Changers

Walk-A-Puller

The economical battery changer

The WBP is a completely portable battery changer for the small fleet with a variety of battery compartment heights up to 27".

Features

- Front Loading
- Vacuum Extraction
- Single Point/Dead-Man Controls
- Two Speed Electric Drive
- Up-Down and In-Out Hydraulic Powered
- 24V Battery Pack with 110V Built-in Charger
- Dual Battery Safety Stop
- Capacity: 4000 lbs.
- Turning Radius: 84"
- Roller Bed Height: variable 3" to 27"
- Hour Meter

Walk-A-Puller



Model WBP-40-V-44

Available Models

Model	Maximum Battery Width
WBP-40-V-44	40"



Attach-A-Puller

Model ABP-40-V-24
(pallet jack not included)



Attach-A-Puller

Turns a pallet jack into a portable battery changer

The ABP is an economical attachment for a pallet jack. Powered from the pallet jack battery and limited to the host truck's height capability, the ABP is a safe, affordable and flexible small fleet battery changer.

Features

- Mounts on Your Existing Pallet Truck
- Vacuum Extraction
- Pallet Truck Battery Provides Power
- 12- or 24-Volt Models Available
- Controls Mount for Operation from Either Side

Capacity is based on the pallet jack load capacity and overall fork length. (refer to spec sheet.)

Available Models

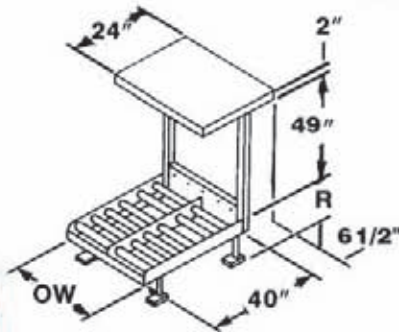
Model	Maximum Battery Width
ABP-24-V-24	24"
ABP-40-V-24	40"
ABP-24-V-44-24*	24"
ABP-40-V-44-24*	40"

For 12 Volt models, change "-24" at end to "-12". *Handles batteries to 44" long.

For more information, request individual specification sheet or MTC product bulletin.

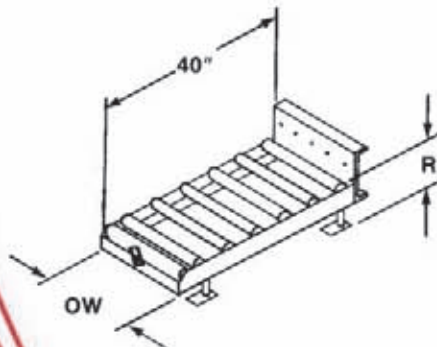
Battery Station with Rollers Features

- Heavy-Duty Construction
- Non-Conductive Roller Bed
- Spring Loaded Rollers
- Adjustable Legs
- Battery Safety Stops
- 800 lb. Capacity Charger Shell
- Models for All Battery Sizes



Battery Service Station

- Heavy-Duty Construction
- Non-Conductive Roller Bed
- Spring Loaded Rollers
- Adjustable Legs
- Battery Safety Stops
- 2.5" Diameter Roller



Individual specification sheet available.

Battery Station with Rollers

Two-Compartment

Model	Roller Width	Outside Width (OW)
RS-12-2	12"	26"
RS-15-2	15"	32"
RS-18-2	18"	38"
RS-21-2*	21"	44"
RS-24-2*	24"	50"
RS-27-2	27"	56"
RS-30-2	30"	62"
RS-34-2	34"	70"

Three-Compartment

Model	Roller Width	Outside Width (OW)
RS-12-3	12"	39"
RS-15-3	15"	48"
RS-18-3	18"	57"
RS-21-3*	21"	66"
RS-24-3*	24"	75"
RS-27-3	27"	84"
RS-30-3	30"	93"
RS-34-3	34"	105"

*45" deep units available. Add "-45" to model number.
To order without shelf, add "-LCS" to model number.
All meet OSHA requirements.
'R' = Desired height of rollers above floor. Please specify.
(Minimum of 5")
Adjustable Height Plus or Minus 1 1/2".

Battery Service Station

Model	Roller Width	Outside Width (OW)
B-SS-15	15"	15 3/4"
B-SS-21	21"	21 3/4"

R = roller height Available from 5" to 14"

All dimensions shown are nominal and subject to change without notice.



Single Level Adjust-A-Rack™

Single stack charging rack with charger shelf and adjustable compartments, shown with battery.



Recommended for use with Power Changer™ systems

Features

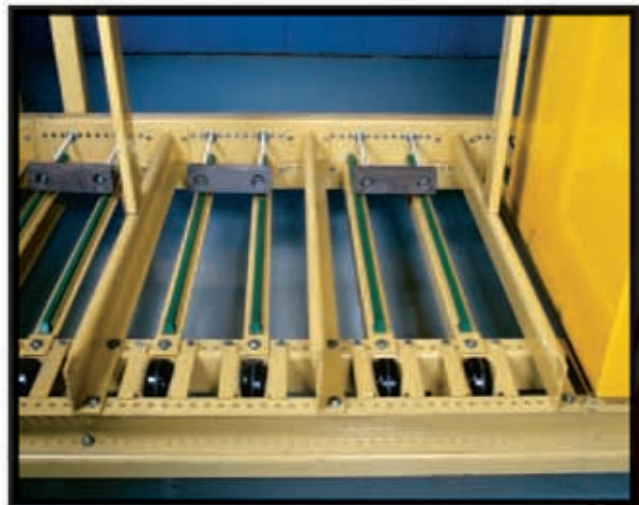
- Fully Adjustable Battery Compartments
- Modular Design
- Heavy Duty Slide Strips and Lead Rollers Used Inside Each Battery Compartment
- High Capacity Top Charger Shelf
- Adjustable Battery Backstops

Single Stacking Adjust-A-Racks™

Model	Overall Width	Capacity
SSAR-72-TCS	72"	10,800 lbs.
SSAR-84-TCS	84"	12,600 lbs.
SSAR-96-TCS	96"	14,400 lbs.
SSAR-120-TCS	120"	18,000 lbs.



Typical Adjust-A-Rack™ installation



Battery compartment with adjustable back stop

With Adjust-A-Racks™ you can change the configuration of your battery compartments as required. Adjust-A-Racks™ allow you to fully utilize all your available space.

Individual specification sheet available.

POWER CHANGER™

The Power Changer™ Advantage

The Power Changer™ is MTC's top-of-the line battery changer for facilities that can't afford to slow down. The larger the fleet, the more important space utilization becomes and that's why Power Changers™ are so important to so many companies.

Whether you require a single level battery changing operation, or a multi-stacking system up to six high, the MTC Power Changers™ provide positive, safe battery changing without operator fatigue.

In fact, the twin-compartment Power Changer™ is so efficient that it can extract the discharged battery and replace it with a fresh one in under two minutes – all with no operator contact with the battery except for connecting and disconnecting the charger.

MTC's Power Changer series is the ultimate in side removal battery changing equipment, allowing you to fully utilize your available space – whether it reaches out or up!



Double Stacking model number PCHE-2-40-DSV

Single-Level Power Changers™

This is the perfect machine for those facilities requiring 10-100 lift truck battery changes per day. With two compartments, the Power Changer™ series lets you make the maximum use of your rack space while operators remove and replace batteries quickly and efficiently.

Features

- Powered Vacuum Extraction
- Carriage Equalization Chain System with Four Independent Lift Cylinders
- Deadman Operator Platform
- Five Powered Rollers per Battery Compartment
- Vacuum Arm Safety Lockout



Triple Stacking model number PCE-2-32-TS-V

Multi-Stacking Power Changers™

MTC's Multi-Stacking Power Changers™ are designed to make maximum use of valuable floor space for facilities with high-capacity applications requiring 20-250 battery changes per day.

Features

- Battery Stacking 2 to 6 High
- Variable Speed Drive
- Simultaneous Travel and Lift
- Powered Vacuum Extraction
- PLC Controlled Battery Safety Stops

Individual specification sheet available.

Intell-A Changer™

The MTC Intell-A-Changer is the next-generation, fully automated battery changing system that allows you to execute flawless battery changes every time. This is an all-electric changer, using no hydraulics, that utilizes an Allen-Bradley ControlLogix PLC that controls seven SEW-Eurodrive inverters and motors. Encoders inform the PLC about such things as carriage height, arm travel, and arm movements. It utilizes a laser for down-aisle position sensing.

Features

- Totally Automated Battery Changing
- All Electric Drives with Absolute Encoders
- Electro-magnetic Extraction
- Complex DC Power Management
- Eliminates the Cost of a Dedicated Operator
- Reduces the Number of Batteries and Chargers Required
- Allows You to Track Performance and Maintenance
- Generates Reports Showing All Battery and Charger Activity

The Intell-A-Changer is designed to change batteries in automatic Guided Vehicles (AGVs), Laser Guided Vehicles (LGVs), and forklifts. The Intell-A-Changer makes it possible for AGVs and forklifts to stay on the floor longer.



Individual specification sheet available.



The Intell-A-Changer automatically lines up with your forklift for a perfect battery change.



You can totally automate your battery room to maximize available floor space.

Traveling at a speed of 300 fpm, and with a lift speed of 45 fpm, the Intell-A-Changer will change a battery without an operator! At the start of the twenty-first century, it is undoubtedly the most efficient battery changer ever built with the ability to store batteries at multiple levels.



POWER CRANE™

Hydraulic Traveling Gantry Crane System

The HTG Hydraulic Traveling Gantry Crane is the ideal system when battery changing must be done from overhead. The HTG offers six-way motion at a fraction of the cost of a bridge crane and is easy to assemble and install. As with most MTC battery changing systems, the HTG can be easily expanded as your lift truck fleet grows.

The hydraulic power unit provides positive soft starts and stops for safety and control while batteries are being changed. Non-powered, track-guided, and portable gantry cranes with hoists are also available.

Features

- Hydraulic Powered Travel
- 4000 lb. or 6000 lb. Capacity
- 10' or 12' Under-beam Height
- Up to 20' Between Uprights
- Dual Sided Drive System
- Low Profile Flat Guide Track

Options

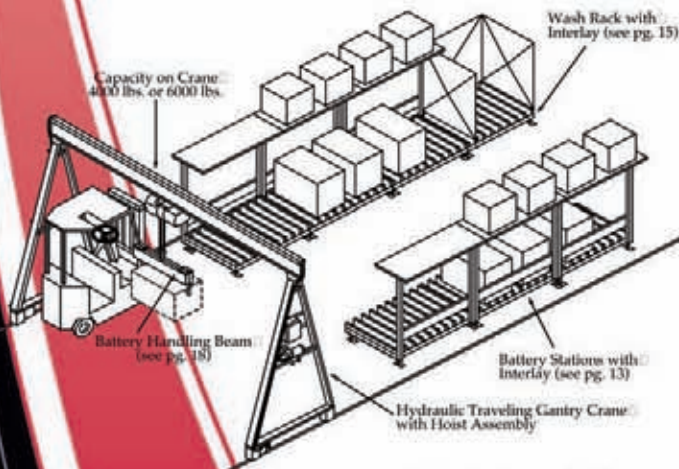
- Hoists and Trolleys

Hoists Options**

- 2-ton electric chain hoist with plain (manual) trolley and chain container (2 button pendant) Model ECH2P-2-X*
- 3-ton electric chain hoist with plain (manual) trolley and chain container (2 button pendant) Model ECH3P-2-X*
- 2-ton electric chain hoist with motorized trolley and chain container (4 button pendant) Model ECH2M-4-X*
- 3-ton electric chain hoist with motorized trolley and chain container (4 button pendant) Model ECH3M-4-X*
- 2-ton electric chain hoist with motorized trolley and chain container (6 button pendant) Model ECH2M-6-X*
- 3-ton electric chain hoist with motorized trolley and chain container (6 button pendant) Model ECH3M-6-X*

** Note: Motorized trolley and six-button control pendant are required with the HTG series gantry cranes. Buttons operate: up/down, left/right trolley travel and forward/reverse crane travel.

* X = Desired primary three phase voltage (208, 230, 460, 575) please specify.



Individual specification sheet available.

Battery Station with Acid-Resistant Interlay

Meets OSHA requirements.

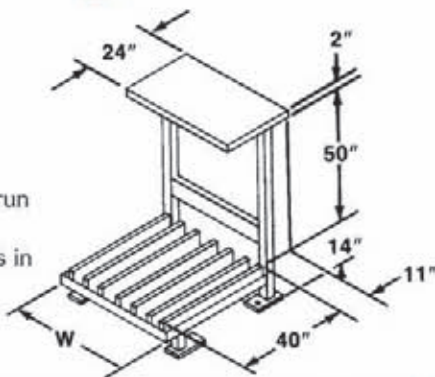
Battery Stations available less charger shelf. Add "-LCS" to model number.

Battery Station with Acid-Resistant Interlay Features

- Acid-resistant Charging Surface
- Corrosion-resistant Spacers
- Heavy Duty Construction
- 800 lb. or 1600 lb. Capacity Charger Shelf (see chart)



Model HS-72



Safety Note:

Specify interlay to run left to right for batteries 12" or less in width. Add "-LR" to model number.

Model	Width
HS-30*	32"
HS-42**	44"
HS-60**	62"
HS-72**	74"
HS-84**	86"
HS-100***	102"
HS-120***	122"
HS-144***	146"

*Interlay runs left to right (standard)

**Available with left to right interlay

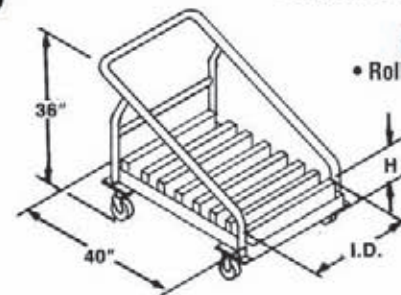
***1600 lb. capacity charger shelf standard

Overhead Transporter with Acid-Resistant Interlay



Model HT-28

- Features**
- Acid-Resistant Interlay
 - Composition Wheels



- Option**
- Roller Bed

Model	ID	H
HT-28	30"	12"
HT-33	35"	12"
HT-15R	15 3/4"	R*
HT-28R	30 3/4"	R*
HT-33R	35"	R*

**"R" refers to the desired height of rollers above floor. PLEASE SPECIFY with a minimum of 6". All dimensions shown are nominal and subject to change.



Individual specification sheet available.

Battery Wash Cabinets

Prevent buildup of acid on batteries for reduced maintenance and longer life

With all stainless steel construction, MTC Wash Cabinets are designed for long-lasting dependability. The rollers' stainless steel shafts rotate in the Nelsonized® hardwood bearing frame that eliminates roller bearings in the harsh cleaning environment of the wash cabinet.

The two panel door makes these cabinets fit into areas with overhead obstructions as low as 9 feet. The new door is easy to maintain and the multi-directional air and water nozzles let you adjust for the variety of batteries in your facility.



Rotary bottom scrubber

Options

- Rotary bottom scrubber
- Powered rollers (for front loading)



Multi-directional air and water nozzles;
Non-metallic air and water lines

Features

- Stainless steel construction and roller shafts ensure durability
- Nelsonized® hardwood bearing frame and non-metallic air and water lines provide trouble free operation
- Chemicals not required
- Multi-directional air and water nozzles rinse batteries in a totally enclosed environment
- Adjustable wash cycles
- Air curtain removes excess water
- 120 volt primary voltage with 12 volt DC secondary voltage
- Built-in drain tray with 1" pipe coupling removes sediment
- Systems designed to accept H2O-150SS sump pump in drain tray.

Utilities and air provided by customer.

MTC's Battery Wash Cabinet combines with the Recirculating Water System to form a complete, closed-loop battery cleaning system.

Individual specification sheet available.



Wash Cabinet Model WCA-SS

Battery Wash Racks

MTC's economical wash racks are acid resistant for long life and reduced maintenance.



Model WRR-SS
Wash Rack with Rollers

Dimensions:

52 7/32" wide
57" long
55 1/8" high
12 1/2" to top of rollers



Model WR-OH-SS
Overhead Load Wash Rack

Dimensions:

52 7/32" wide
57" long
55 1/8" high

All dimensions shown are nominal and subject to change.

Model H2O Recirculating Water System

The H2O-150SS combines stainless steel construction with ease of operation. You get a constant flow of water that is filtered, pH monitored and recirculated, reducing your environmental concerns.

The system features a single on/off switch and a single recirculating control switch and requires no toxic chemicals.

Features

- 150 Gallon Reservoir
- 12 G.P.M. @ 50 P.S.I. Water Flow
- 120 Volt Primary Voltage
- 12 Volt Sump Pump
- Automatic Low pH Shut Off*
- Dual Cartridge Supply Line Filters
- Trash Screen on Sump Drain
- Eliminates All Drain Requirements
- Requires No Toxic Chemicals
- Safe and Easy to Operate
- Works with Wash Cabinets or Wash Racks
- Automatic or Manual Operation

Option

- 300 Gallon Reservoir



LNC/Ozone auto injection system



Model H2O-150SS-NOS

*Requires liquid neutralizer, MTC-LNC or equivalent for pH balancing.

Individual specification sheet available.



Shower Eyewash

Assembly

Model SEW-303

Features

- Large stainless steel pull rod actuator
- Self-adjusting regulator to assure a constant, even flow
- Galvanized piping
- ABS dual stream head with pop-off covers
- Bright Yellow, ABS plastic shower head for maximum visibility
- Stay-open 1 1/4" ball valve

Eyewash

Model EW-304

Features

- Large stainless steel push plate
- Self-adjusting regulator to assure a constant, even flow
- ABS dual stream head with pop-off cover



Safety Kit

Model SK-1

Kit Includes:

Chemical resistant face shield with polycarbonate window. The adjustable ratchet headgear ensures a secure comfortable fit. Acid apron is polyester double-coated with PVC. One size apron neck strap and waist ties are adjustable.



Gloves are nitrile acid resistant, with comfort curved finger and hand design.



Battery Watering Gun

Model B

Features

- Accurate automatic filling
- Automatic shutoff & pressure regulator
- 7/8 inch nozzle diameter
- High flow rate - 2 gallons/minute
- Attaches to any standard hose
- Insulated against short circuits

Options

- Narrow 5/8 inch nozzle diameter
- Steeper nozzle bend
- Cone shaped nozzle
- Manually adjustable flow throttle
- Removable extension

Battery Spill Response Kit

Features

- Compact, lightweight design
- Easy-to-read instructions
- Replaceable components
- Single pack Nutra-Tube design
- All in one convenience
- Inspection date label



Safety Note: Always wear proper protection (MTC Model SK-1 or equivalent) when handling or servicing industrial batteries.



Water De-ionizer System

Model PS-300



Battery Cleaning Kit

Model BCK-10

Contents

- Chemicals
- Gloves
- Brushes
- Goggles

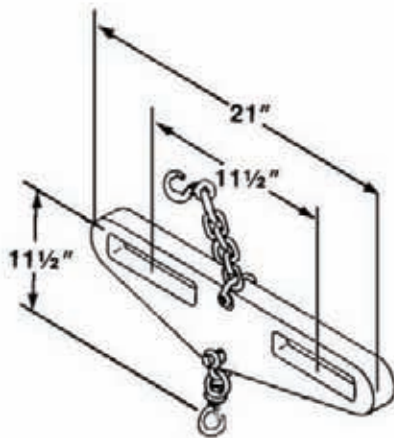
Fork Attachment

Model FA-6000

Used with Battery Handling Beam for battery removal

Features

- 48" safety chain and hook
- Swivel hook with safety latch
- Fork openings – 1 5/8" x 6 1/2"
- 6000 lb. capacity

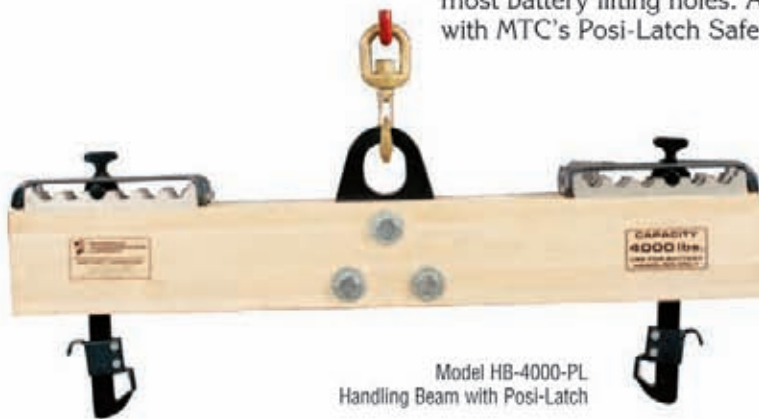


Battery Handling Beam

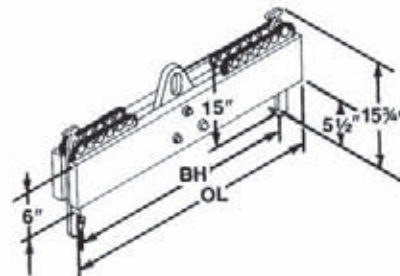
Model	Capacity	OL	Batteries	BH* Adjustable in 3" increments
HB-4000-PL	4000 lbs.	43"	21" to 42" long	24" to 39"
HB-6000-PL	6000 lbs.	47"	25" to 46" long	28" to 43"

*BH dimensions with hooks in vertical position. Each hook may be angled 1 1/2" open or closed safely. All dimensions shown are nominal and subject to change.

The battery handling beam offers a heavy duty non-conductive method of lifting batteries. The non-slip hook design fits snugly into most battery lifting holes. All MTC handling beams are now equipped with MTC's Posi-Latch Safety Mechanism.



Model HB-4000-PL
Handling Beam with Posi-Latch



Floor Mounted Charger Support

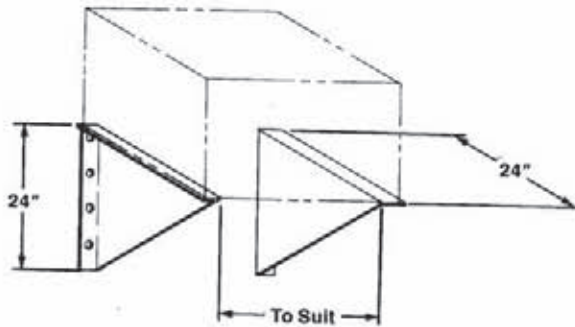
Wall Mounted Charger Support

Model CSW-2

One set fits standard chargers

Option

- Bracket for charger cable retractor (p. 18)



All dimensions shown are nominal and subject to change.



Charger Cable Retractor

Model BCR-58H



Battery Station with Rollers



Model	OW
CSF-24	24"
CSF-36	36"

Charger Cable Retractor Features

- Molded suspender holds cables securely in place
- Oil tempered spring will not kink or take permanent set
- Snubber chain restricts spring back movement
- Rugged 5/8" threaded stud



Individual specification sheet available.

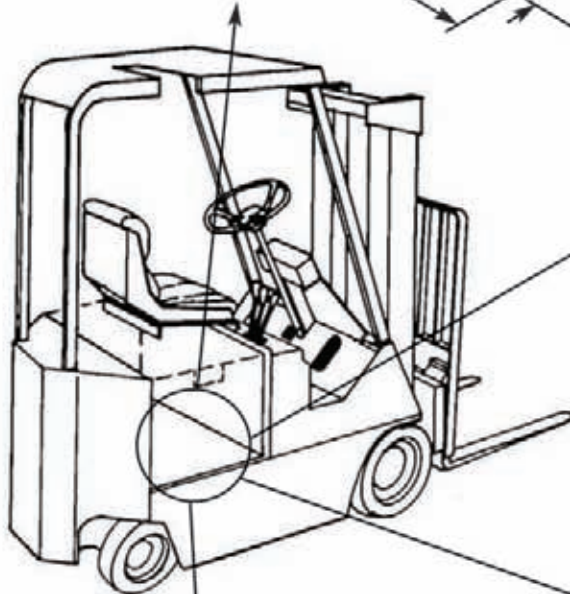
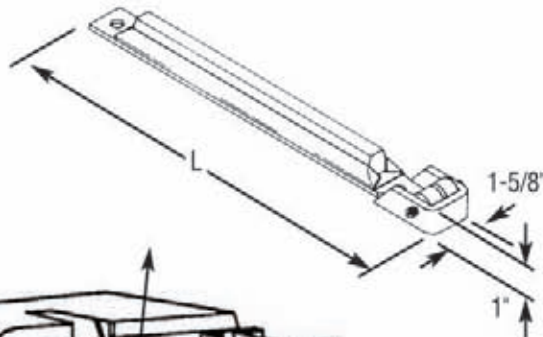
Slide Strip with Guide Roller

Model B-UPS-R

Requires two or three (consult factory)

Specify "L" dimension

Also available without lead roller (Model B-UPS)



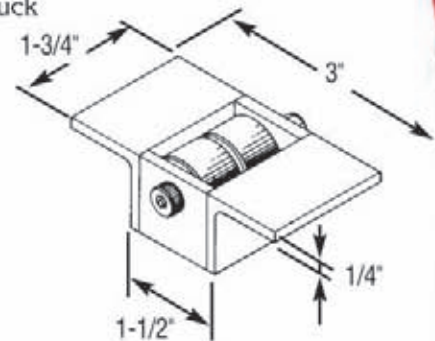
Many lift trucks can be converted to side extraction by making minor modifications to the side of the lift truck battery compartment. MTC provides an economic solution, offering various types of slide strips and roller beds. Please call our sales department for further information.

Battery Rollers

Model BR-HD

Requires 1 1/2" x 2 1/4" cutout

Requires nine per truck



Heavy Duty Roller Tray

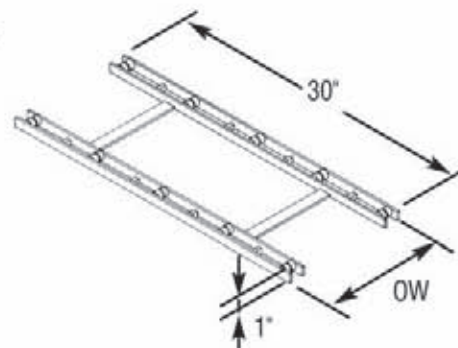
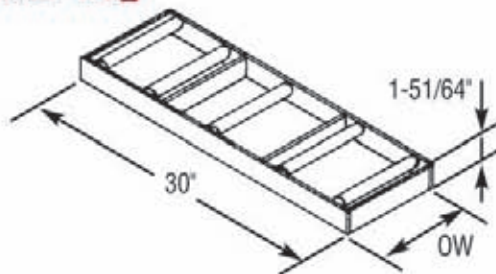
Model HRT

Two or three rail models available (consult factory)*

Model	OW
HRT	please specify

All dimensions are nominal and subject to change.

Roller Tray



*Three rails recommended for batteries over 20" wide.

Model	Roller Width	OW
RT-6	6"	7 3/4"
RT-12	12 1/4"	13"
RT-15	15 3/4"	16 1/2"

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