

## Electrical Material Handling from Distribution Facility to Job Site

You can follow a cable reel or a load of conduit from its source all the way to the first flip of a brand new light switch, and at every step along the way, you'll find material handling equipment. Many of the components required for a complete electrical installation are too heavy and awkward for manual handling. They can even injure workers without the right tools to lift, move, and connect them.

Musculoskeletal disorders (MSDs), which can be caused by overexertion or heavy lifting, recently [made up a third of all workplace injury and illness cases](#). Electricians frequently report symptoms of MSDs in the knees, wrists, hands, neck, shoulders, and back — all areas that can be affected by manual material handling. And [work-related MSDs are estimated to cost U.S. companies \\$45-\\$54 billion every year](#). Ergonomic tools reduce the risk.

In addition to keeping workers safer, material handling equipment in the electrical industry makes businesses more productive. When staffing is limited, construction contractors have to accomplish more with fewer employees. Meet this goal by giving workers material handling equipment that lets them spend less time hauling components and more on the task at hand.

Whether you're an electrical materials distributor, a general contractor, or a construction electrician, better material handling equipment can help your company succeed. Here's how BHS products move electrical materials throughout the supply chain and at the job site.



### Material Handling Equipment for Electrical Wholesalers

Distributors of electrical materials are concerned with filling orders, including packaging bulk requests for cable, conduit, lighting materials, and anything else the construction electrician needs to complete a job. Advanced material handling equipment can improve speed, safety, and overall efficiency at every step of the order fulfillment process.

1. **Streamline Wire and Cable Handling and Spooling** – Simplify the mission-critical task of pulling cable onto delivery spools with a [Spool Winding Trolley \(SWT\)](#), a unique cable winding machine that allows you to fill orders without removing reels from jack stands.

An [IIoT model](#) Spool Winding Trolley connects to the Industrial Internet of Things, allowing users to select pre-programmed lengths of cable to fill orders without waste — while tracking data managers can access through a custom web portal. For lighter-duty cable winding, choose the highly portable [Spooling Caddy \(SC\)](#).

2. **Improve Lifting, Transporting, and Loading of Reels** – Transport reels with existing lift trucks. Attach an [Overhead Reel Lifter \(ORL\)](#) to the forks of a truck with sufficient capacity to lift reels via hooks on either end of the shaft; or load shaft-free reels onto a [Reel Handler Attachment \(RHA\)](#).

For a reel-handling forklift attachment that you can also use for shaftless payout, choose the [Dyna Reel Platform Attachment \(DRPA\)](#) (also available as the stationary, forklift-free [Dyna Reel Platform \[DRP\]](#)).

3. **Provide 24/7 Product Pick-Up or Delivery** – Once the order's complete, the challenge becomes getting it to the customer when they need it. A large-scale [Will Call Dropbox \(HVC-DB-CB\)](#) uses electronic locks to let customers pick up orders any time of the day or night. For ongoing jobs, install one at the work site for afterhours delivery; two long compartments in the base are designed specially for lengths of conduit.

The [Contactless Delivery Locker \(CDL\)](#) is a parcel drop box that's labeled by day to help organize material quarantines. This parcel locker allows electrical firms to continue working through epidemics while observing strict social distancing.

4. **Ship Orders as Delivered Solutions** – Provide a value-added service while skipping a step while fulfilling cable orders. Delivered solutions in the electrical industry include pre-filled cable reels, already loaded onto the payout wagons electricians will use on the job site. This way, there's no need to continually load and unload jack stands; simply fill the order onto the reel stand, then deliver the loaded reel stand to the customer.

[Parallel Reel Payouts \(PRP\)](#) include mobile [Reel Stands](#) and any combination of free-spinning or compartmentalized steel cable [Reels](#). With their 5,000-pound capacities, PRPs can handle a full job's worth of cable. Load different gauges onto multiple reels on the same stand, or choose fixed-compartment reels for parallel pulls.

The [Parallel Reel Payout Wagon \(PRW\)](#) is an *even more* mobile version of the BHS PRP. It's sized to fit through narrow aisles and includes an ergonomic, pivoting handle for easier steering.

5. **Offer a Turnkey Solution for Smooth Cable Payout** – Some projects are too big for a single Parallel Reel Payout. In those cases, offer your customers delivery via [Parallel Reel Payout Trailer \(PRP-TRL\)](#). These ready-to-deploy packages mount two or three rotating Parallel Reel Payouts on a flatbed trailer that fits inside enclosed tractor trailers for long-haul delivery.

Once the trailer's at the job site, customers can tow it to a central location and pull as much cable as necessary. Because the PRPs swivel, the trailer can remain stationary while dispensing product in any direction. And with multiple PRPs mounted on a single unit, users can complete multiple full-length cable pulls at the same time, from a single location.



*Pictured from left to right: Overhead Reel Lifter, Spool Winding Trolley, Will Call Dropbox, Parallel Reel Payout Trailer, Dyna Reel Platform*

With electrical materials in the hands of electricians, the role of material handling equipment shifts to supporting workers as they complete installation tasks. As an electrical material distributor, it pays to provide these labor-saving tools to customers. Alternately, electrical contracting firms may own their own fleets of material handling equipment.

## Electrical Material Handling at the Construction Site

Construction jobs for electricians can be broken down into four stages:

- Site preparation and breaking ground.
- Pouring foundation.
- Frame and rough-in construction.
- Electrical wiring and lighting.

Electrical material handling equipment from BHS improves safety and productivity at every step. These ergonomic tools can even help to ease the burden of low staffing, allowing a single worker to transport bulk loads and reducing the need for team lifts. Investments in BHS products provide a quick return by helping users:

1. **Provide Temporary Power in Hard-to-Reach Places** – Tools and lighting require power right from the start. After framing and rough-in, however, it can be difficult to move transformers and distribution boxes where they're needed. [Transformer Carts \(TC\)](#) make temporary power equipment as mobile as possible, with large, easy-rolling casters, integrated fork pockets, and lifting eye bolts at all four corners of the frame. They create a portable power solution that can go anywhere the work takes it.
2. **Access Utility Trenches** - To connect a new building to the electrical grid, telecommunications hubs, or an independent power source, workers may need to access underground utility trenches. [Trench Lid Lifters \(TLL-300\)](#) allow a single employee to lift trench covers of up to 300 pounds via two simple scissor pins and an ergonomic telescoping push handle.
3. **Create a Central Project Workstation for On-Site Administration** - Decisions are made faster when contractors have access to BIM systems and project management software in the field. The [BHS Building Information Modeling Carts \(BIM\)](#) are mobile field offices that contain and protect computer equipment for on-site access to management tools.

- 4. Maneuver Conduit and Other Bulky Material Effortlessly** – Conduit can be tough to handle in bulk. Without a way to move loads across installation sites, electricians can spend far too much time just carrying conduit. [Conduit Carrier Carts \(CC\)](#) solve the problem by making it possible to move thousands of pounds worth of conduit (of all varieties) through the job site. For narrow aisles and elevators, choose the [Tilting Elevator Conduit Cart \(CC-ELV-1K\)](#), which features a downward-swiveling bed to limit required clearance. Also consider carrying a lightweight [Electrical Conduit Gauge \(CG1\)](#) to double check sizing for NEC compliance.

Unspooled wire can also pose unique material handling challenges. The [Wire Coil Cart \(WCC\)](#) stores coils of wire around two steel posts, and features an ergonomic push bar for comfortable transportation.

- 5. Conveniently Store and Secure Job Site Valuables** – Secure, lockable carts allow construction teams to store tools and valuable components at the work site — without having to cart them in and out with every shift. BHS offers a whole line of steel, powder-coated security cages with heavy duty casters and fork pockets for a strong combination of mobility and protection.

[High Value Carts \(HVC\)](#) prevent unauthorized access with expanded steel caging and strike protectors surrounding padlock hasps. The [Bifold High Value Cart \(HVC-BF\)](#) is ideal for tool storage, as it's fully enclosed when locked, but unfolds into a high-capacity, 10-foot shelving unit — complete with vertical compartments featuring coat hooks for personal protective equipment.

Other models include the [High Value Dropbox \(HVC-DB\)](#), ideal for storing heavy equipment keys between shifts, and the [High Value Cart – Work Station \(HVC-WS\)](#), which includes a portable computer desk and a locking cabinet.

- 6. Load and Transport Lighting Materials for Quicker Installation While Eliminating Unnecessary Trash** – Every construction contractor wishes to reduce trash on the job. The cardboard and plastic wrapping surrounding each and every light fixture makes that task nearly impossible. [Light Fixture Carts \(LFC\)](#) provide a solution, allowing electricians to load unpackaged fixtures and transport them effortlessly throughout the construction site for a full lighting install.

- 7. Store, Move, and Install Communication Cables with Ease** – Transport and pull a job's worth of Category 5, Category 6, and other telecommunication wires in a single unit. The [Wire Pull Cart \(WPC\)](#) can hold up to 12 or 18 wire reels at a time, depending on the model. It makes pulling safe and easy with PVC wire guides, and travels where you need it via heavy duty casters, lifting eye bolts, and fork pockets. It's also slim enough to fit through narrow aisles and standard doorways.



Pictured from left to right: Conduit Carrier Cart, Transformer Cart, Building Information Modeling Cart, Light Fixture Cart, Wire Pull Cart, High Value Cart

The electrical industry requires specialized material handling equipment to fill orders, complete jobs, and maximize profits across the board. At every point along the electrical supply chain — and at every stage of the job — BHS products help to improve safety, boost productivity, and remove the bottlenecks that make companies less efficient. [Learn more about electrical material handling equipment from BHS here](#), or call our sales team at **1.800.BHS.2900** to find a dealer near you.

