

EQUIPMENT CENTERS



WHAT IS AN EQUIPMENT CENTER?

DESCRIPTION

An equipment center is a NEMA 3R, walk-in metal enclosure designed specifically to protect critical electrical systems and power equipment during operation. The detailed structural design is robust to withstand environmental stresses including: transport, rain, wind, snow, temperature extremes, seismic events, and external blasts. Heating, air conditioning and pressurization equipment requirements are calculated using custom software to assure the proper interior environment.

Lectrus equipment centers typically safeguard low, medium and high voltage electrical equipment that either you or one of our electrical equipment partners provides. This can include low and medium voltage switchgear, motor control, drives, generators, rectification, DCS, PLC, UPS, SCADA systems and many other electrical components.

We integrate and facilitate the testing of all customer-supplied and third-party equipment for you – providing turnkey solutions that let you skip the hassle of working with multiple vendors. You'll be looking forward to deliveries from a single company, containing everything your new power center will need so it's practically "plug and play" once on site. Reliable, flexible and cost-efficient, our prefabricated metal equipment centers give you options for materials, space requirements and future expansions.

FEATURES & BENEFITS

MAJOR FEATURES	PRIMARY BENEFITS
Modular construction	<ul style="list-style-type: none">• Easily transported and installed• Movable and expandable once on site• Provides tax savings of up to 80% over 7 years• Requires less site area for installation than site-built construction
Designed by experts	<ul style="list-style-type: none">• Assures compliance with relevant sections of standards, codes• Alternative equipment layouts suggested• In-house staff assures design changes are made quickly and correctly
Factory built offsite	<ul style="list-style-type: none">• Guarantees quality craftsmanship• Reduced labor and material costs• Electrical equipment pre-installed, fully integrated, wired and tested before delivery• Prevents on-site conflicts with trades• Eliminates on-site equipment storage and pilferage concerns• Arrives to site on the day needed
Single-source responsibility	<ul style="list-style-type: none">• Often results in 30% lower initial cost• Project management and sourcing handled by Lectrus
Integrated grounding system	<ul style="list-style-type: none">• Improved wire management• Safe and reliable operation
Interlocking steel panels	<ul style="list-style-type: none">• Assures seams are water-tight & weather resistant• Eliminates need for vertical wall supports
Self-supporting steel base	<ul style="list-style-type: none">• Requires minimum foundation• Virtually no distortion during transport, handling and installation
DuPont® industrial paint	<ul style="list-style-type: none">• Durable, maximum-performance coatings matched to climate and environment• Nearly limitless color options



MARKETS & APPLICATIONS

With such a high degree of flexibility, it's no wonder Lectrus equipment centers can be found in so many different market applications, including:

- Power Generation, Transmission & Distribution
- Renewable Energy
- Oil & Gas
- Industrial
- Water/Wastewater
- Mining
- Transportation
- Military

Our prefabricated, fully integrated walk-in metal enclosures are built to exacting specifications commonly deployed for applications such as:

- Electrical Power Center
- Powerhouse
- Pre Fab Electrical Building
- Prefabricated Electrical Equipment Room
- Packaged Electrical Equipment Center
- Modular Control House
- Electrical Distribution Building
- Prefabricated Substation Building
- Electrical Building
- Power Distribution Center
- Power Control Room
- NEMA 3R, Walk-In Enclosure
- Motor Control Center
- Packaged Electrical Room
- Power Sled
- Power Center Building
- Switchgear Building
- Remote Instrument Enclosure
- Pump House
- Modular Data Center
- E-House
- Power Equipment Center
- Traction Substation/Wayside Power Enclosure

ADVANTAGES OF LECTRUS EQUIPMENT CENTERS OVER TRADITIONAL SITE-BUILT CONSTRUCTION



FASTER INSTALLATION

When you choose a Lectrus pre-fabricated equipment center, you can avoid planning the coordination of on-site labor and construction materials associated with the electrical room. All skilled trades are managed at our manufacturing facilities, and you'll work with a project manager dedicated to your job. Once completed, your equipment center will be delivered to your location on your schedule and timeline.



LOWER COST

In addition to saving you time, we work to save you money. The mobility of your equipment center allows you to locate equipment like switchgear and motor control centers close to the processes they control. This reduces load cable lengths, translating to cost savings. We can install special raceways and marshalling cabinets to cut down on massive control or power wiring. You can also depreciate our mobile centers as electrical equipment for sizable tax savings. And of course, simply protecting your critical equipment can mean longer operating life.



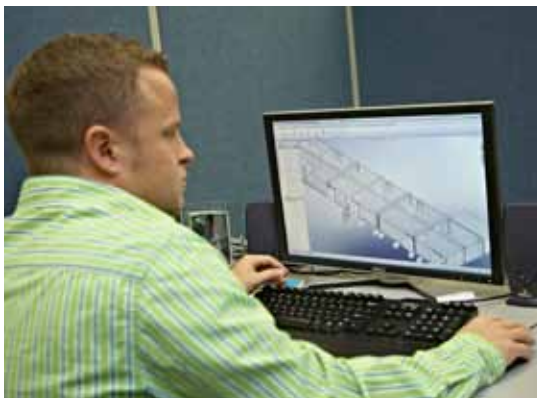
FACTORY BUILT

Another advantage that a Lectrus equipment center provides is the ability to integrate and test third-party electrical equipment at the manufacturing plant, rather than the jobsite. Accepting delivery from a single source allows you to skip the hassle of working with multiple vendors. Our pre-fabricated equipment centers also eliminate the necessity for planning the coordination of on-site labor and construction materials. All skilled trades are managed at our manufacturing facilities, avoiding interference on your plant site. Additionally, with Lectrus you work with one project manager dedicated to your job, not many.



PORTABILITY

Our mobile equipment centers are designed for moving, and can also be designed for stacking and expanding. As a single, cohesive unit, they can be lifted and moved by crane, or we can incorporate a heavy duty skid so they can be pulled. They're easy to position and install, and just as easy to uninstall and move to a new location as your needs change. And if you're planning ahead, they can include a removable end wall, so future expansion is easier and faster than with a block wall.



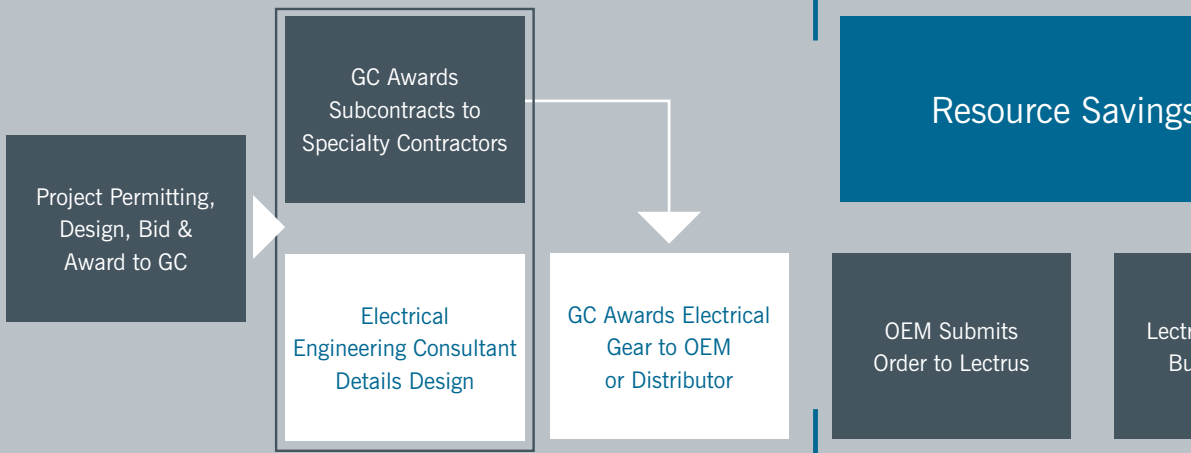
DESIGN FLEXIBILITY

Conventional shelters and block buildings may not be able to accommodate the variety of conditions and requirements that equipment centers can, such as corrosive environments, high temperatures, atmospheric contaminants or extreme weather. Not only does Lectrus offer customers over 3,000 equipment center options, all our designs are guaranteed to comply with relevant sections of applicable standards and codes.



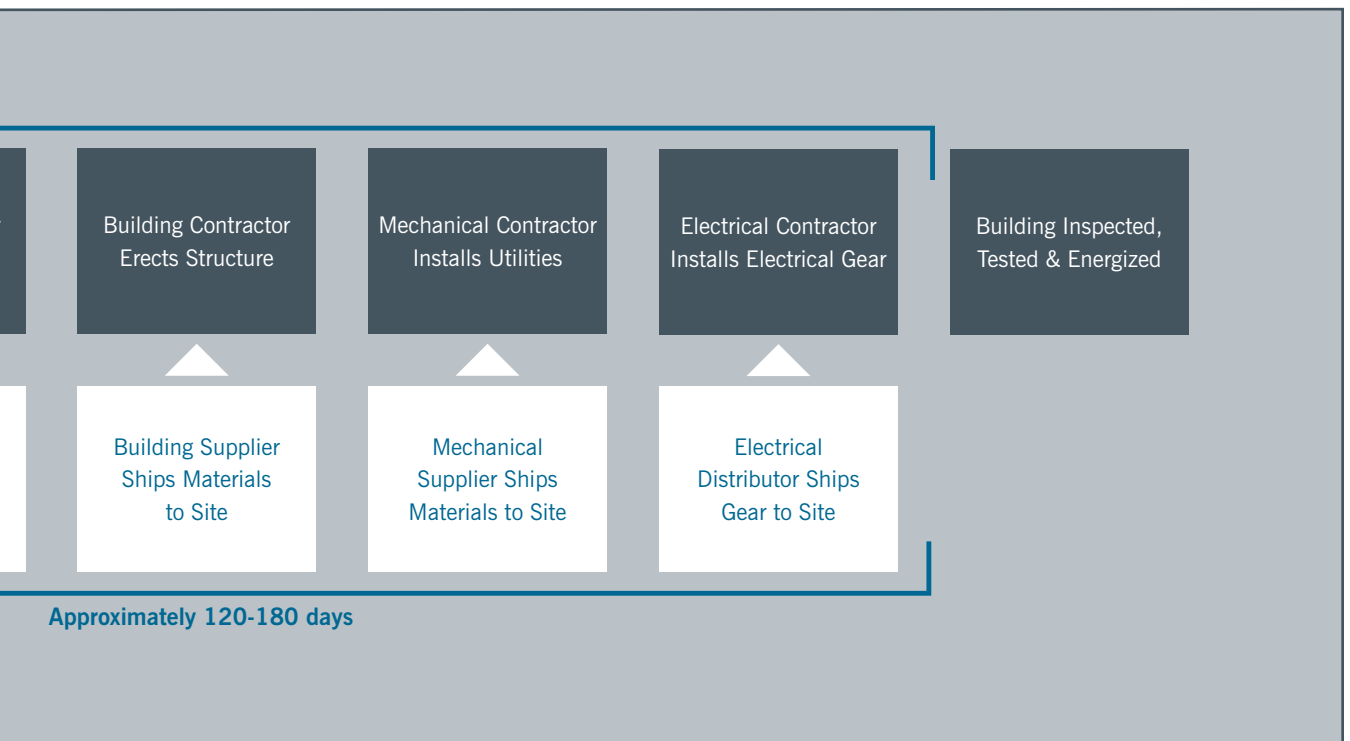
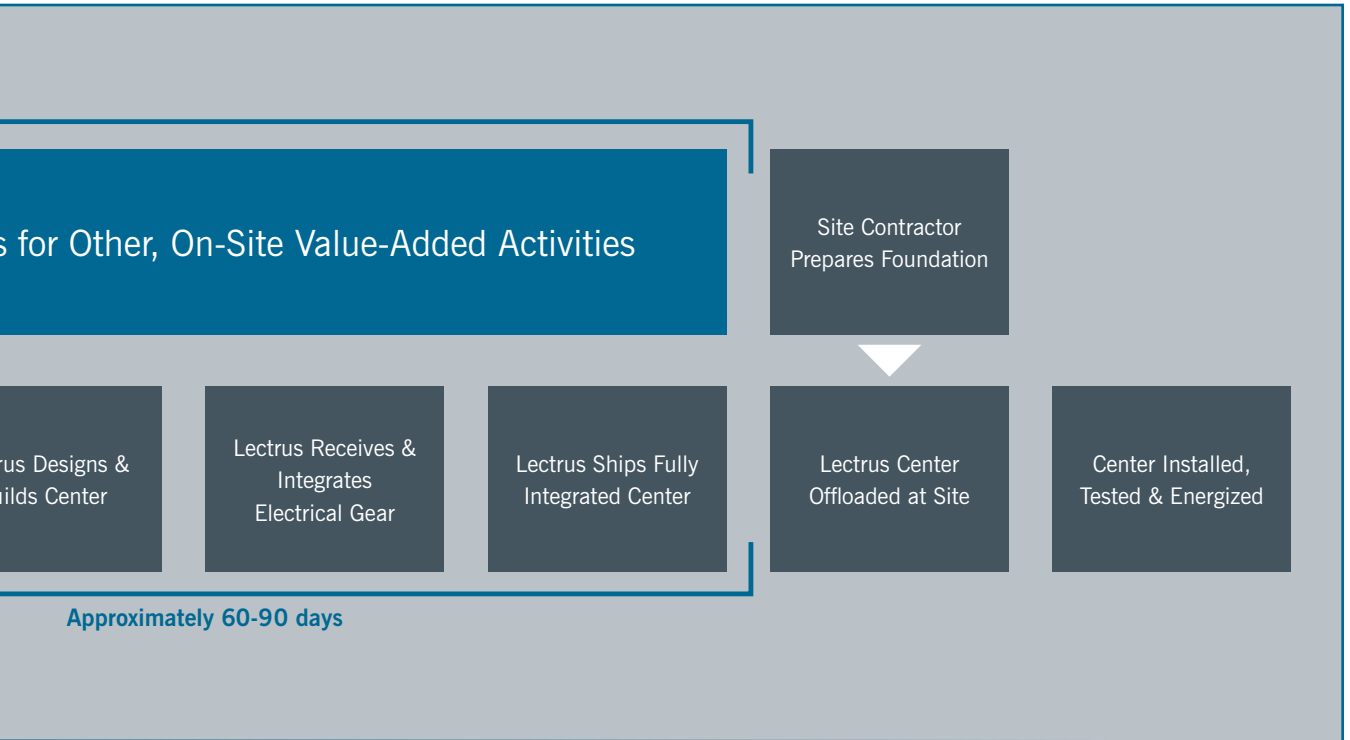
LECTRUS' EQUIPMENT CENTERS SPEED INSTALLATION AND PROVIDES RESOURCES FOR OTHER ON-SITE VALUE-ADDED ACTIVITIES.

LECTRUS EQUIPMENT CENTERS



SITE-BUILT EQUIPMENT BUILDING

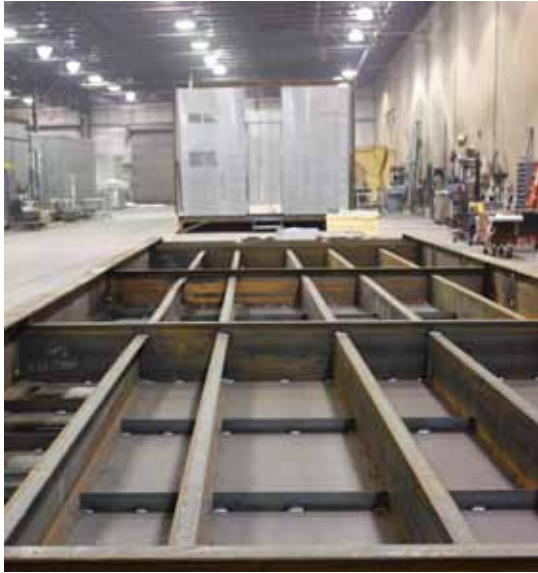




- Activities involving contractors working at the project site.
- Activities involving work performed off-site, in a factory-controlled, secure environment at Lectrus.
- Activities involving other suppliers.

Note: Examples shown for simple, 14ft x 40ft electrical equipment center. Dates approximate based upon Lectrus' history and experience.

STANDARD DESIGN FEATURES



Our standard design includes a sturdy, continuously welded base, insulated steel floor and wall/roof structure. Every equipment center is designed to handle a minimum of 250 psf floor loads, 90 mph wind loads and 30 psf roof loads – and that’s just the start. We design each and every product to meet the exact loading requirements of the project. We’ll also design and select the correct air conditioning systems to keep your equipment running at optimum temperatures. Plus, we offer extended warranty options for paint systems of 5 and 20 years. Lectrus equipment centers are built using rugged, high quality materials for long-lasting performance.



EXTERIOR

- 18-gauge minimum, G90 galvanized steel wall panels with interlocking, self-framing design
- Aluminum or stainless steel available for harsh environments
- NEMA 1,2, or 3R protection
- DuPont Corlar® modified polyamide epoxies and Imron® Direct-To-Metal (DTM) polyurethanes are used for durability and corrosion-resistance; stone veneers are also available
- Galvanized steel interlocking roof panels with height variance for overhead busway, cable tray, wireway and bulkhead plates
- Access and equipment doors featuring double wall doorway construction with brushed aluminum panic hardware
- Blast-resistant equipment centers available, including fully-welded crimped plate or interlocking panel designs, ideal for offshore and onshore oil and gas applications





INTERIOR

- 18-gauge minimum, G90 galvanized steel sheet
- 1/4" smooth steel plate flooring welded to base, coated with skid-resistant epoxy
- Wide range of thermal and acoustic insulation options for floor, walls and ceiling
- Selection of HVAC, pressurization and filtration choices, including NFPA 496 pressurization and C1/D2 classification
- Ventilation location options
- Fire control including detection/suppression, gas monitoring and fire-rated walls and partitions
- Wire management and custom wiring
- Multiple options, including: plumbing, lighting, receptacles, transformers and panel boards



CERTIFICATION AND COMPLIANCE

- UL-certified (U.S.) and CUL-certified (Canada)
- Paint system has passed over 4,000 hours of salt spray exposure per ASTM B117/ASTM D1654
- Designed for compliance with relevant structural codes/guidelines, including IBC, ASCE, ANSI, AISI, AISC, ASTM, ICC, IEC, NEMA and NFPA
- Structural and electrical designs stamped by a professional engineer from the state where the project is located (in the U.S.)



OUR PROCESS



Order Receipt & Engineering Drawing Approval: Once an order is received, the contract is reviewed and order confirmation begins. At this point, the project is in the hands of Lectrus' inside sales staff. A project manager is assigned who then reviews it to assure all is in order before it is advanced to engineering. Lectrus electrical and structural engineers then prepare drawings for customer approval.



Fabrication & Project Management: Projects with approved drawings are next moved into fabrication with the project managers, who keep the customer informed of progress. In some instances, drawings or another component of a project to be built at one of our three plants may be completed at another facility. In those cases, project managers from both locations meet weekly to assure that all is in order.



Electrical Integration: Typically, the customer's interest in a project elevates significantly at the next step—electrical. It is a key entry point for both the customer and the project manager, with the project manager providing liaison between the plant and customer. Customer-supplied electrical gear or outsourced components are shipped to Lectrus for integration within the completed enclosure. A Lectrus quality control team is responsible for final control and in-the-field troubleshooting. Auditors inspect the project and prepare a document describing the inspection process. This document travels with the structure, and is shared with the customer if requested.



Loading & Shipment: If all is in order, the customer approves the integrated center for shipment. Lectrus has roughly 24 hours to take care of any minor adjustments – then load, ship and invoice the project. The shipment includes unattached HVAC, stairs and platforms.



Site Installation: Lectrus provides either supervisory or turn-key site installation services for all its equipment centers worldwide. Regardless of who is handling the installation, the center is set on piers and the drawings and manuals are included, all boxed within the building. For most projects, site installation specialists contracted by Lectrus handle site installation and supervision.

Field & Warranty Services: Lectrus field services are available to handle any claims that may arise. Should a claim be submitted, a service technician visits the site to assess and resolve the claim.

ABOUT LECTRUS

WHY CHOOSE US

According to ongoing customer surveys, our company and its products are reliable, dependable and innovative. With more than forty years of history and over 5,000 equipment centers in service, Lectrus has the expertise and time-tested products to withstand the stresses of a variety of industries. We install and integrate over 3,000 sections of switchgear and motor control centers annually and have the capacity to produce up to 40,000 sf of walk-in metal enclosures per month. In closing, Lectrus specializes in the design and construction of robust electrical enclosures that house and protect your vital equipment. Engineered to Spec. Built to Last.



9-Piece, 40ft X 126ft Equipment Center for Coal-Fired Power Plant in St. Charles County, Missouri
(included 170 tons of steel and galvanized sheet metal, 350 gallons of paint, 11 miles of wire, over 3,000 points of control wiring terminated, and 110 sections of customer-supplied equipment set, bolted, bussed and interconnected)

OTHER PRODUCTS & SERVICES

- Generator Enclosures
- Sub-base Fuel Tanks
- Operator Centers
- Skids
- Custom Enclosures & Cabinets
- Control Systems Integration
- Site Installation

OUR INSTALLATIONS SPAN THE GLOBE

Algeria
Angola
Australia
Brazil
Canada
China
Colombia
Egypt
England
Ecuador
Greenland
Iraq
Jamaica



Japan
Peru
Qatar
Romania
South Africa
South Korea
St. Croix
Saudi Arabia
Trinidad & Tobago
UAE
United States
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lectrus®

ENGINEERED TO SPEC. BUILT TO LAST.

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