HUBBELL® TIPS & NEWS

www.hubbellpowersystems.com

Vol. 12 No. 1 JANUARY 2007

New!
900Amp in-line switch

Side-mounted terminal pads give this new version of our ALTD Line Tension Disconnect Switch a 900 Amp Continuous Current rating. Our popular 600 Amp model is still available. And with a loadbreak option as well.

Superior Parts Deliver High Performance -

Both ratings feature an ESP™ polymer insulator, an H-frame copper blade wih stainless-steel truss pins, bolts, nuts and compression washers, bronze hinge and jaw castings, plated-aluminum end castings with integral corona ring and galvanized-steel loadbreak hooks for:

- High impact strength insulation
- 200 kV BIL for 15-35 kV applications
- 90° or 180° field-convertible blade opening
- Light handling weight (11 to 13 lb./4.9 to 5.7 kg.)
- Ice-breaking pry-out and positive latching action

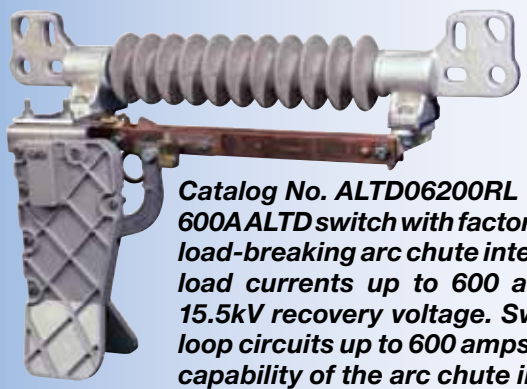
continued . . .

Operation -

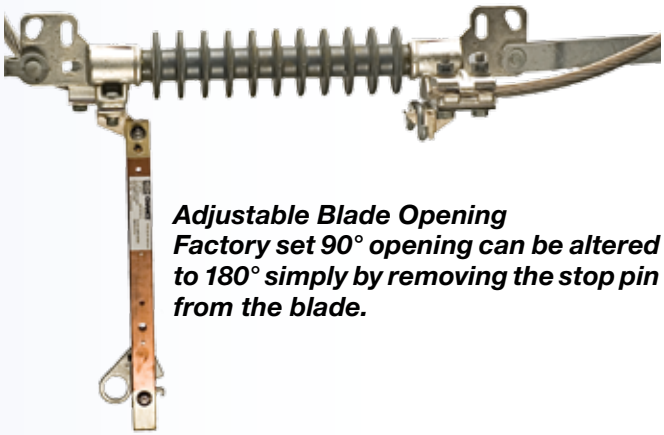
Galvanized steel loadbreak hooks for use with a portable loadbreak tool are furnished on all Chance ALTD disconnect switches (except the 600A Loadbreak model). To open the switch under load, use an approved loadbreak tool.

Catalog No. ALTD09200R
900A ALTD switch with side-mounted NEMA tin-plated copper terminal pads. The plated-aluminum end castings are for deadending only.

RUS Listed
Catalog No. ALTD06200R
600A ALTD switch with plated-aluminum terminal casting at each end for both deadending and electrical connections.



Catalog No. ALTD06200RL
600A ALTD switch with factory mounted load-breaking arc chute interrupter for load currents up to 600 amperes at 15.5kV recovery voltage. Switching of loop circuits up to 600 amps is another capability of the arc chute interrupter. This model is also rated for interruption of magnetizing current, line charging current, cable charging current, and capacitor switching.



Adjustable Blade Opening
Factory set 90° opening can be altered to 180° simply by removing the stop pin from the blade.

For easy opening and ice-breaking action, the pull ring activates the latch as a pry-out lever. The hook portion of the contact casting coordinates with the blade latch for positive closure.

Design Features -

Lightweight, ESP™ silicon alloy rubber insulators provide 26" leakage distance and BIL rating of 200kV. Weathershed skirts provide full length dielectric, extra dielectric-puncture strength, improved resistance to contamination and flashover. High impact strength enhances storage, transit and handling properties.

Quick in-line mounting of in an inverted underhung position is permitted by the narrow profile and lightweight of the hookstick operated ALTD. For mounting on clamp-top insulators, an optional extension link and angle adapter are available to provide for pole-top, horizontal, 5°, 15° or 30° standoffs.

Copper blade's rigid H-frame is trussed by stainless-steel shoulder pins. Stainless-steel bolts, nuts and compression washers at both ends maintain high pressure contact with bronze hinge and jaw castings.

Integral full corona ring on end castings reduces electrical stress resulting in longer insulator life.

For full details on all our Hookstick Operated Switches, see the current version of Catalog Section 14B on www.hubbellpowersystems.com.

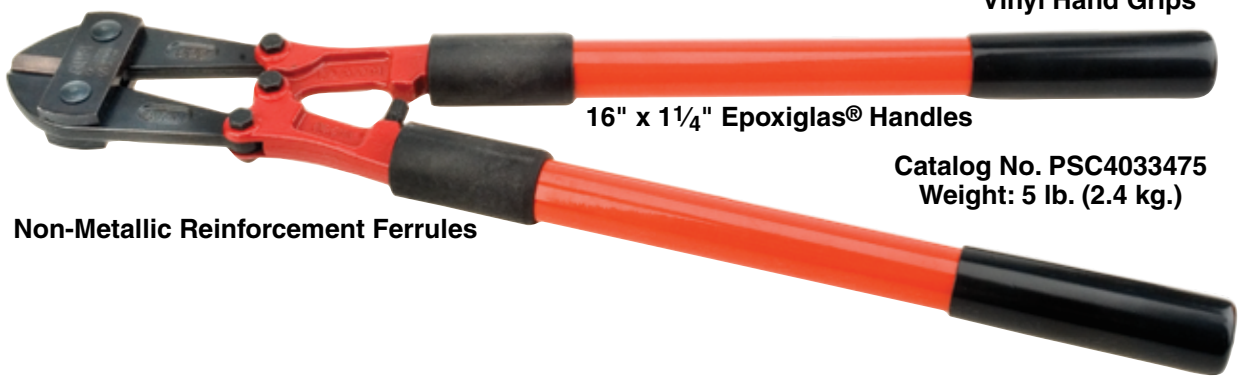
For more information, contact your Hubbell Power Systems representative, fax 573-682-8714 or e-mail hpsliterature@hps.hubbell.com.

NEW! Bolt Cutters

TO THOSE WHO CLIMB™

- 3/8" Capacity for guy strand, high-tensile steel bolts, chain
- Fiberglass handles
- 24" overall length

Center-cut style jaws are particularly well suited for cutting high-tensile steel bolts and chain links.



NEW! Hand Line Block

TO THOSE WHO CLIMB™

- 1,000 lb. working load
- Safety orange color
- Fiberglass reinforced nylon body & sheave
- Side-opening body design for easy rigging

3"-diameter sheave accepts up to 5/8"-diameter rope.

Plated steel swivel eye allows 360° orientation. Plated forged-steel hook has a 3/4" throat opening and a spring-loaded safety latch.

Side-opening design includes high-strength detent-ball pin that is easy to remove and is secured to the body with a lanyard to help prevent loss of the pin.

Components available as separate items

- **Lanyard and Pin Kit**
  Catalog No. PSC4033479
  Weight: 1/4 lb. (0.11 kg.)

- **Spring Latch Kit**
  Catalog No. PSC4033480
  Weight: 1/8 lb. (0.05 kg.)

Hand Line Block, Safety Orange
Catalog No. PSC4033478
Weight: 1¼ lb. (0.57 kg.)
Rated working load: 1,000 lb. (454 kg.)

For more information, contact your Hubbell Power Systems representative, fax 573-682-8714 or e-mail hpsliterature@hps.hubbell.com.

CHANCE®
LINEMAN GRADE TOOLS™

www.hubbellpowersystems.com

Put Us To Work

Ohio Brass (OB) Veri*Lite Silicone Rubber Posts for distribution and sub-transmission are more than just insulators. These "line workers" are backed by more than 30 years of OB innovation and engineering excellence. With more than 30 million polymer arresters and insulators in service, OB knows how to deliver what you demand.

Bonded design. High strength. Contamination protection. Superior performance. Exceptional quality. Tough. That's what you get with our 15-72kV silicone rubber line posts. High-strength end fittings are direct crimped by a process we originated. Weathersheds made of proprietary silicone rubber provide superior hydrophobicity, UV protection, and tracking resistance.

Look at the OB insulator advantages. Proven. Trusted. Depended upon around the world.

OHIO BRASS

For more information, contact your Hubbell Power Systems representative, fax 573-682-8714 or e-mail hpsliterature@hps.hubbell.com .

Meets ANSI C29.18-2003 and CEA LWIWG-02-1996 standards for the confidence you demand

NEW FARGO® PRODUCTS

Set Screw Bar Transformer Connectors

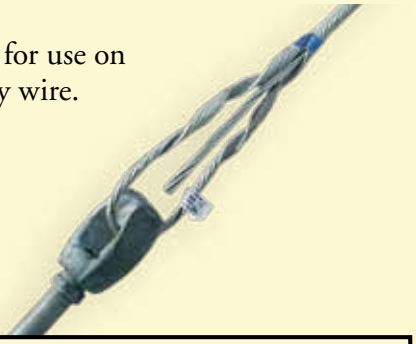
New Fargo HABW set screw bar transformer connectors are designed for easy connectability to and from transformer studs. Each connector is extruded from high strength 6061-T6 aluminum alloy along with high strength set screws to ensure constant bolting pressure on conductor is maintained. Testing meets or exceeds ANSI C119.4 Class "A" tests.

CATALOG NUMBER	CONDUCTOR RANGE (kcmil)	NO. OF CONDUCTORS	STUD SIZE	DIMENSION (INCHES)			BOOT NUMBER
				LENGTH	WIDTH	HEIGHT	
HABW4350	12-350	4	5/8"	6	0.875	1.25	HSB17
HABW6350		6		8	0.875	1.25	HSB11
HABW8350		8		10	0.875	1.25	HSB2160
HABW83501		8	1"	10-1/2	1.38	1.51	HSB2165
HABW6500	6-500	6		8	1.38	1.64	HSB2157
HABW650058		6	5/8"	7-1/2	1	1.5	HSB2158
HABW8500		8	1"	10	1.38	1.64	HSB2160
HABW850058		8	5/8"	9-1/2	1	1.5	HSB2162

FWDE Series Line Extension

The FWDE series is quick and easy to install with no special tools. Rated to 100% tension of EHS, HS Common, Siemens Martin and Utilities grade guy wire. Addicional sizes in the FWDE Series include 1/4", 5/16", 3/8", 7/16" and now 1/2".

This extension is for use on the 1/2" EHS guy wire.

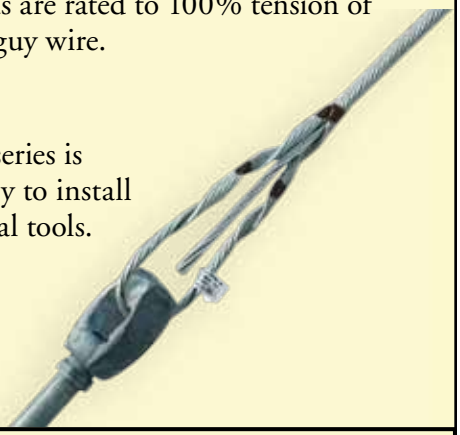


FWDE Cross Reference					
Size	HPS	Alcoa	Dulmison	PLP	Color Code
1/4"	FWDE-1104	GYDEGB061	SGG-0610	GDE-1104	Yellow
5/16"	FWDE-1106	GYDEGB079	SGG-0790	GDE-1106	Black
3/8"	FWDE-1107	GYDEGB091	SGG-0915	GDE-1107	Orange
7/16"	FWDE-1108	GYDEGB110	SGG-1105	GDE-1108	Green
1/2"	FWDE-2115	GYDEGB125	SGG-1255	BG-2115	Blue

AWDE Series Line Extension

These Aluminum coated formed wire deadends are used on Alumoweld® guy wire. AWDE series deadends are rated to 100% tension of Alumoweld® guy wire.

The AWDE series is quick and easy to install with no special tools.



AWDE Cross Reference					
Size	HPS	Alcoa	Dulmison	PLP	Color Code
8m	AWDE-4113	GYDEAW068	AWGG 0685	AWDE-4113	Blue
10m	AWDE-4116	GWDEAW077	AWGG 0770	AWDE-4116	Black
12.5m	AWDE-4119	GYDEAW087	AWGG 0870	AWDE-4119	Yellow
18m	AWDE-4124	GYDEAW104	AWGG 1040	AWDE-4124	Black
7#7	AWDE-4125	GYDEAW112	AWGG 1125	AWDE-4125	Green

For more information, contact your Hubbell Power Systems representative, fax 573-682-8714 or e-mail hpsliterature@hps.hubbell.com .

DISTRIBUTECH® CONFERENCE & EXHIBITION

See you at the show.

Be sure to visit the Hubbell booth 1260 during the DISTRIBUTECH show in San Diego February 4 – 6 at the Convention Center. At Hubbell, it's "hands-on" with our switches, motor operators, sectionalizers and new single-phase recloser.

NEW!

TO THOSE WHO CLIMB™

SAFETYSHIELD™ Hot Stick Barrier

In less than a minute, the SAFETYSHIELD™ Hot Stick Barrier can be mounted on a 1¼" or 1½"-diameter live line tool. That's all it takes to add up to a 24"-diameter protective screen between a lineman and a potential electrical hazard.

Already in use by major electric utilities, co-operatives, contractors and industrical customers in the U.S. and abroad, it fits on clampsticks, hooksticks, and elbow-puller tools. SAFETYSHIELD™ Hot Stick Barrier should be mounted on the hot stick nearest the point where an electrical arc flashback may occur. It is made of two flame-retardant transparent polycarbonate protective shields affixed with a nylon fastener to a nylon 33% glass-filled clamp.

Tested per ASTM Standard F2522-05: Test Method for Determining the Protective Performance of a Shield Attached on Live Line Tools or on Racking Rods for Electrical Arc.

Orange protective storage case and Instructions are included with each SAFETYSHIELD™ Hot Stick Barrier.

Three standard diameters:

- **16" (406.4 mm) 1 lb. 6 oz. /0.62 kg. Cat. # PSC4170627**
- **21" (533.4 mm) 2 lb. 6 oz./1.08 kg. Cat. # PSC4170628**
- **24" (609 mm) 2 lb. 14 oz./1.3 kg. Cat. # PSC4170629**

For more information, contact your Hubbell Power Systems representative, fax 573-682-8714 or e-mail hpsliterature@hps.hubbell.com.

CHANCE®
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Hubbell & Border States Sta

When a home or business loses power, manufacturer, distributor, and utility must work together to get the lights back on as soon as possible. No other example illustrates this cooperation better than the response of Hubbell Power Systems and its distributor, Border States Electric, to the needs of utilities after a major, widespread ice storm in the North Central region of the United States.

Hubbell distributor

Border States Electric (BSE), a full-line distributor of Hubbell Power Systems products with corporate offices in Fargo, ND, has branches and offices in Arizona, Iowa, Michigan, Minnesota, Montana, New Mexico; North Dakota, South Dakota, and Wyoming, and a recent acquisition extends their service area into Texas. Operating through five different divisions (Automation, Datacom, Utility, Construction, Industrial MRO, and Power Utility and Gas), BSE has been a Hubbell distributor for many, many years. Aaron Vining, Utility Customer Service Supervisor, BSE, says, "I've been here 10 years and have seen our relationship with Hubbell grow and get even better in that time. We have an excellent relationship with Hubbell."

The fine quality of that relationship is no coincidence. According to Patrick Novak, Marketing Manager, Utility Div., BSE. BSE maintains a dedicated storm inventory for emergencies during the winter months. "We have centralized locations where we bring in extra stock for overhead construction and maintain it through the storm season," he said, adding, "We have our own fleet of trucks plus we can rely on different carriers throughout our areas. As long as the roads are open, we can get the material to where it is needed. We have alliance accounts with utilities that were in the storm stricken area such as Otter Tail Power Company, Fergus Falls, MN; Northwestern Energy, Sioux Falls, SD; and

...y Prepared for Emergencies

Central Electric Cooperative, Mitchell, SD; and we maintain an inventory according to their particular needs. Also, we have 24-hour emergency numbers for our customers to contact us. Our staff is available to come in and work extra hours, 24/7 if necessary, to get material to our customers. Key to our ability to respond quickly is our relationship with Hubbell. They have always responded and serviced us in a timely manner with what we need so we, in turn, have been able to service our customers promptly in emergencies."

This careful preparation by both Hubbell and BSE proved invaluable as BSE responded to the needs of their utility customers following a major post-Thanksgiving ice storm.

Worst ice storm ever hits

The worst ice storm ever to hit the eastern region of SD began as a gentle rain on Sunday of the Thanksgiving weekend, November 27, 2005. By Sunday evening freezing rain moved in and ice began accumulating on trees and power lines. On Monday strong winds brought blizzard conditions and power poles started toppling.

According to Novak, the storm with its freezing rain hit most of eastern South Dakota (SD) from North Dakota (ND) south to Nebraska (NE). It even extended into western Minnesota (MN). As described by Mike Sydow, General Manager of Maintenance and Construction SD and NE, Northwestern Energy, Sioux Falls, SD, "We had broken poles, broken crossarms, broken conductor, and broken insulators. The ice accumulated from ¾ inch to 2 inches radius on the lines and formed an airfoil. The blizzard Monday with sustained winds of 40 to 45 mph gusting to 70 mph caused severe galloping of the lines and literally trashed mile after mile of line. It affected virtually our entire customer base with everything from 4160-V distribution lines to 115-kV transmission." According to the South Dakota Electric Cooperative Connections magazine, the storm caused an estimated $20 million in damages to 19 of the state's 29 electric coops; 12,000 power poles were down, about 9000 miles of power lines were damaged, and 21,800 cooperative members were without electricity.

Novak said that although Otter Tail Power Company and Northwestern Energy were the two investor-owned utilities most affected by the storm, the transmission system of East River Electric Power Cooperative, Madison, SD, was heavily impacted as were Cass County Electric Cooperative, Kindred, ND, Central Electric Cooperative, Mitchell, SD, Dakota Valley Electric Cooperative, Edgeley, ND, and Minnkota Power Cooperative, Grand Forks, ND. In Minnesota, Lake Region Electric Cooperative, Pelican Rapids, MN; Red River Valley Cooperative, Halstad, MN; and Travers Electric Cooperative, Wheaton, MN, were also severely hit. Andrew Specht, Material Standards Engineer, Otter Tail Power Company said, "We had broken poles and crossarms, and conductor breaks. The damage was primarily to our distribution and subtransmission system with about 800 poles broken."

Speaking of East River Electric Cooperative, Dan

Wall, Manager of Transmission and Engineering Services, said, "East River is a transmission co-op delivering wholesale power to 21-member electric distribution systems and services the eastern half of SD from the ND border to the NE border and east to the MN border including 13 counties in MN. This was the worst ice and wind storm the co0ops have ever had to deal with in the state of SD." East River Electric's transmission consists of 69-kV lines on wood poles. All in all, the ice storm and blizzard destroyed 1200 East River transmission poles; 750 miles of transmission lines were affected by the storm; and 42 of the system's substations went out of service.

Comparing this storm to others in his experience, Jim Edwards, Assistant General Manager of Operations, East River Electric Cooperative, said, "East River Electric has been hit hard by ice storms before, but never have I seen such a widespread event. Transmission lines and poles were just flat on the ground along a nearly 200-mile-wide corridor. From a quarter to a third of our load was off line due to the extensive damage." Sydow said, "In the 28 years I've been here, this is the most widespread, largest single event that I've ever seen."

Commenting on the challenges of restoring power to such a widespread area, Larry Ahrendt, Purchasing/Inventory Supervisor, East River Electric Cooperative said, "Along with broken poles we had broken insulators and broken and burnt conductor involving a wide variety of structures, conductor, and hardware. In getting material to our crews, we were working with many different sizes and needs which made getting the right supplies very challenging. Although we keep around 200 poles and structures on hand to rebuild in an emergency, this storm surpassed our safety stock by a lot."

Central Electric Cooperative, Mitchell, SD, was one of the hardest hit distribution cooperatives. Douglas Schley, Materials and Plant Supervisor, said, "We had at least 3,000 poles down and probably some damage on every east-west line in an area 30 to 40 miles wide and 50 miles north to south. Over a third of our project was affected with six out of eight counties declared a natural disaster by FEMA (Federal Emergency Management Administration). Working with 196 outside linemen, it took us 17 days to get power restored to all customers."

Restoring Power

Wall reported that because this storm covered such a large geographic area, East River Electric broke the work of restoration down into five regions and in effect ran five separate storm jobs and funneled materials into each region. He said, "We set up a command center for materials and linked this center to engineering. As reports from the field regarding damage came into engineering, they would issue material needs to the command center. In the field, we had the National Guard with snow moving equipment to open roads and help in getting people and equip-

ment up to the lines needing repair. Manufacturers brought materials to our pole yard where it was sorted and in many cases put on National Guard trucks going out into the field."

Ahrendt said, "Normally an ice storm is centralized in one region. In this case we had 44 different locations in the five regions where we had storm damage. Just the magnitude of the damage was overwhelming. We had 150 people working in addition to our own crews. There was a lot of ingenuity at work to keep the crews supplied with materials and everyone working."

At Northwestern Energy, Sydow reported power completely restored in the second week after the storm. He said, "We did a lot of temporary work then we went back to rebuild to permanent status. A few products were difficult to come by, such as 115-kV wishbone assemblies, 27-kV and 34.5-kV pin insulators, and ridge irons, because of the large volume required by both Northwestern Energy and neighboring utilities."

Hubbell and Border States Respond

On Monday, November 28, 2005, at 6:30 am, Tim Kosir, Hubbell Power Systems Territory Manager, Victoria, MN, received a call from Border States to let him know that it was raining in eastern SD and beginning to freeze on the power lines. Kosir responded by notifying various product marketing managers who in turn put key Hubbell personnel on storm alert. Kosir said, "We received our first storm order late Monday afternoon and had it on the road that evening to Sioux Falls. We went into what Hubbell Power calls its storm response mode in which all personal such as customer service, order entry, manufacturing, warehousing, and shipping are available 24/7 to do what is necessary to get products to our customers." Kosir reported that Otter Tail Power purchased more than 400 115-kV Ohio Brass (OB) polymer post insulators for their 115-kV line rebuilding. East River Electric ordered 1000 69-kV polymer suspension insulators late Friday afternoon (December 2) and Hubbell had 500 built and on the road that evening, he said. On Saturday, December 3, East River Electric ordered 400 2 ½ inch 69-kV OB polymer post insulators which were manufactured and shipped on Monday, December 5, along with the remaining 500 polymer suspension insulators.

Novak said, "Hubbell had their customer service people available to us at all times. One of the major features of Hubbell is that we are able to place orders directly to their distribution center in Centralia, MO. They have the material there for the most part and deliver what we need on time. We can plan for the average storm, but this event was so large that we had to rely on our manufacturers and Hubbell had a great process to get us through it." Novak said that on a scale of 1 to 10, "Hubbell rates a definite 10, absolutely, because they have a planned process to take care of any emergency, plus what they didn't have in stock they were able to manufacture promptly. Hubbell even ships product on dedicated trucks so it gets here in less than 24 hours, rather than three to five days. From customer service to manufacturing, their response was top notch. The Hubbell people understood immediately that this was an emergency and reacted accordingly."

Chad Low, Utility Inside Sales for Border States related, "We were getting daily trucks from Hubbell that would arrive at our warehouse sometimes late at night. The materials were unloaded then put on our trucks for delivery to our customers the next

morning. The following morning we'd have another Hubbell truck in. While we were working sometimes from 6:00 am to 2:00 am the following day, we could not have served our customers as well without the excellent response and help from Hubbell. No other manufacturer could have responded the way they did."

Citing an example of Hubbell's dedicated responsiveness, Sheila Larson, Inventory Planner for BSE said, "Jo Ann Peyton, our Hubbell customer service person for this area actually drove her own car to Columbia, MO, from Centralia, MO, on a Saturday to get some Fargo line splices on a plane to us for overnight delivery."

Central Electric Co-op was the first customer to contact BSE according to Brad Kvalheim, Utility Account Manager, Border States. He said, "That call came in just after midnight early Monday morning. They didn't know exactly what they needed, but knew they needed materials because they were out there dealing with storm damages all day Sunday. They said, 'We've got a list of material we're sending. We don't expect it right now, but we're going to need it tomorrow.'" Low said, "Monday was the first day of recovery and Central Electric was the only customer to get a delivery that day. The roads were nearly impassible, but our Border States warehouse foreman made the delivery, taking about 4 hours to travel the 75 miles from Sioux Falls to Mitchell."

Recounting the same incident, Schley from Central Electric said, "I placed my first order just after midnight Sunday night. I had Brad Kvalheim's home number and actually got him out of bed. He got the order filled early the next morning and got a truck on the road, realizing that if I was calling at that time of the night, then there was something major going on."

Otter Tail Power dispatches out of a central warehouse. As explained by Specht, "Shipments come into our central stores and are repacked before going out to the field. Occasionally BSE would bypass our central stores and go right to the storm affected area. BSE got us virtually everything we needed and on time. The storm was so wide ranging that we exhausted the local supply. BSE was very creative in finding material from other areas."

Lori Peterson, Procurement Coordinator, Northwestern Energy, is responsible for all the purchasing for SD and NE. To get material to where it is needed for rebuilding, she said, "We use our own trucks, but also BSE delivered to any of our job sites directly as needed. They ran trucks continuously and were willing to make deliveries at any time of the day. Also BSE brought people from their Fargo, ND and Sioux Falls, SD offices to work in our warehouse facility. They helped expedite delivery on material needed. It helped that we didn't have to try and reach someone by phone."

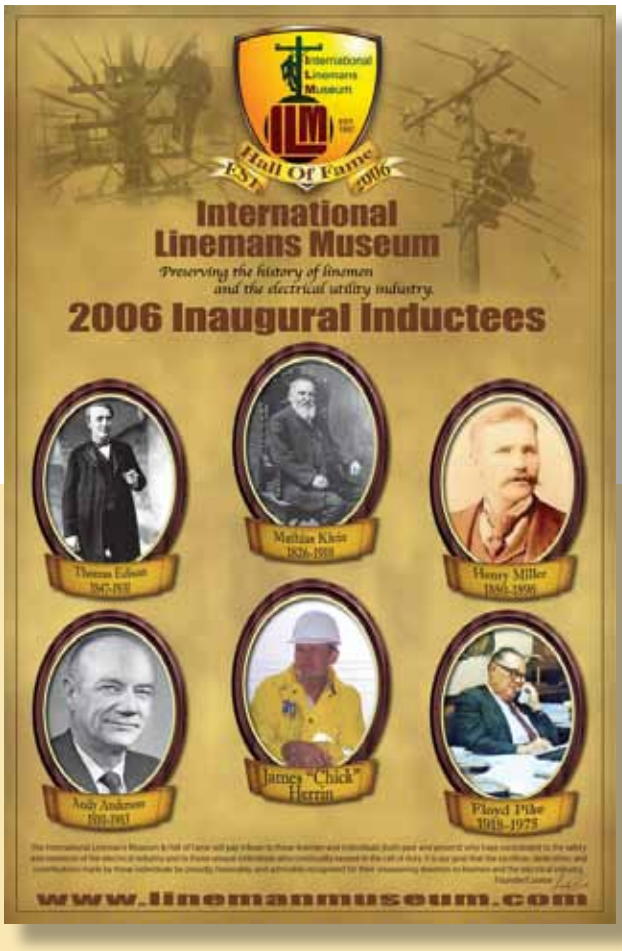
Ahrendt said East River had ordered various sizes of Ohio Brass 69-kV polymer insulators: suspension, side-mount, and pole-top. He said "In many cases Hubbell was able to borrow from other customers who were not in as dire need as we were to satisfy the order. Also, Hubbell actually stopped the usual production lines and manufactured what we needed instead. I think that everyone at Hubbell did everything that was humanly possible to supply us with the necessary materials, such as running designated trucks to expedite delivery." Summing up his observations, Ahrendt said, "I think Hubbell and BSE did an extraordinary job to help us out of this situation. I really couldn't be happier with the results."

Conclusion

Through cooperation, careful planning, real preparation, dedicated personnel, and understanding and responding accordingly to their customer's needs, Hubbell Power Systems and Border States Electric always help utilities get the lights back on as soon as possible.

Photos provided by NorthWestern Energy of Sioux Falls, SD, Otter Tail Power Company, Fergus Falls, MN and East River Electric Power Co-op, Madison, SD.

Renowned Chance Demonstrator Inducted Into Lineman's Museum



During the 2006 International Lineman's Rodeo recently held in Overland Park, KS, OG "Andy" Anderson was inducted into the International Lineman's Museum by museum Founder/Curator, Andy Price, Shelby, NC. Six inaugural inductees, in addition to Anderson, were honored in the ceremony. Anderson's daughter, Sara Reams, of Atlanta, GA accepted an award in honor of her father. Steve Gordon, Chance, accepted the award for the Company.

The following information about the life of Anderson was provided by Chance to assist judges in the selection process of the first inductees into the museum.

Andy Anderson was a giant among utility giants. Gentleman. Husband. Father. Still remembered and respected as the man who made a major impact on the use of live line tools for working on energized lines.

Anderson started as a lineman with Alabama Power in the 1930s. He joined the A. B. Chance Company in 1938 as the first Chance live line tool demonstrator. His travels in training linemen took him across the country and throughout the world. He was a "great communicator" and was noted for his ability to remember names of those he worked with years after even only casual introductions. Stories of Andy conducting training from the top of a pole and looking down at eager students and remembering names from his last training session that may have been years before abound. "Pulling" his Chance tool trailer, making presentations, showing movies and demonstrating the tools made Andy a welcome visitor and friend wherever he went. As Andy once put it, "I sold a whole shirttail full of tools."

Besides training, Andy brought his ideas back from the field and working with Chance engineers spearheaded the development of many tools and techniques still used today. Andy was especially proud that none of the thousands of linemen who learned from him ever was injured while working with him.

A testimony to the respect our industry has for Andy Anderson is that Andy may be gone but his name and stories about him still circulate within the industry even though he left the stage more than 30 years ago retiring from the A. B. Chance Company in 1975 as international product manager.

His tenure with Chance spanned 37 years. In 1983, Andy died after a long and productive life.

Andy will be remembered as a man whose main working challenge was to show linemen that live line maintenance could be done safely with the proper tools and established procedures.

Some may overlook substations .

We don't!

The broad Hubbell Power Systems line of substation products is just what you need to plan, construct and maintain substations. From Anderson connectors and fittings to Chance power-installed foundations and tools to Ohio Brass insulators and arresters, make Hubbell your source for substation products.

We'll help you select what you need, and we'll work with you to tie it all together in a way that's going to save you money and help ensure years of dependable performance. For more than 100 years, we've been meeting the substation needs of utilities around the globe. Put our experience to work for you.

CONNECT ANDERSON™

Connectors and Fittings

Anderson offers a wide variety of substation fittings and power connectors in copper, aluminum, ductile iron and bronze for substation applications.

Terminals • Couplers • Tees • Bus Supports • Lugs • Tubular Ends • Cable Spacers • Transition Plates • Stirrups

SWITCH, SUPPORT, MAINTAIN CHANCE®

Switches, Foundations and Anchors

Below or above the ground, Chance products are no strangers around substations. Our advanced switches give you the versatility you need. Our tools provide the maintenance support required for ongoing service.

Hot Line Tools * Grounding Equipment • Cover Up • Switches • Foundations • Anchors

PROTECT, INSULATE

OHIO BRASS

Insulators and Arresters

Ohio Brass polymers give superior performance with better contamination performance than porcelain. Rugged. Easy to handle and install. Tracking and corrosion resistant.

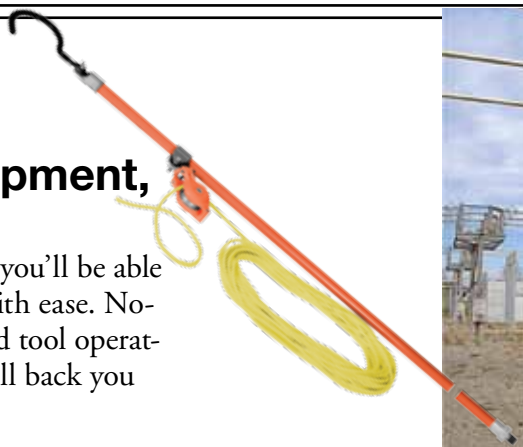
Distribution Class Arresters • Riser Pole Arresters • Station class Surge Arresters • Intermediate Surge Arresters • Station Post Insulators

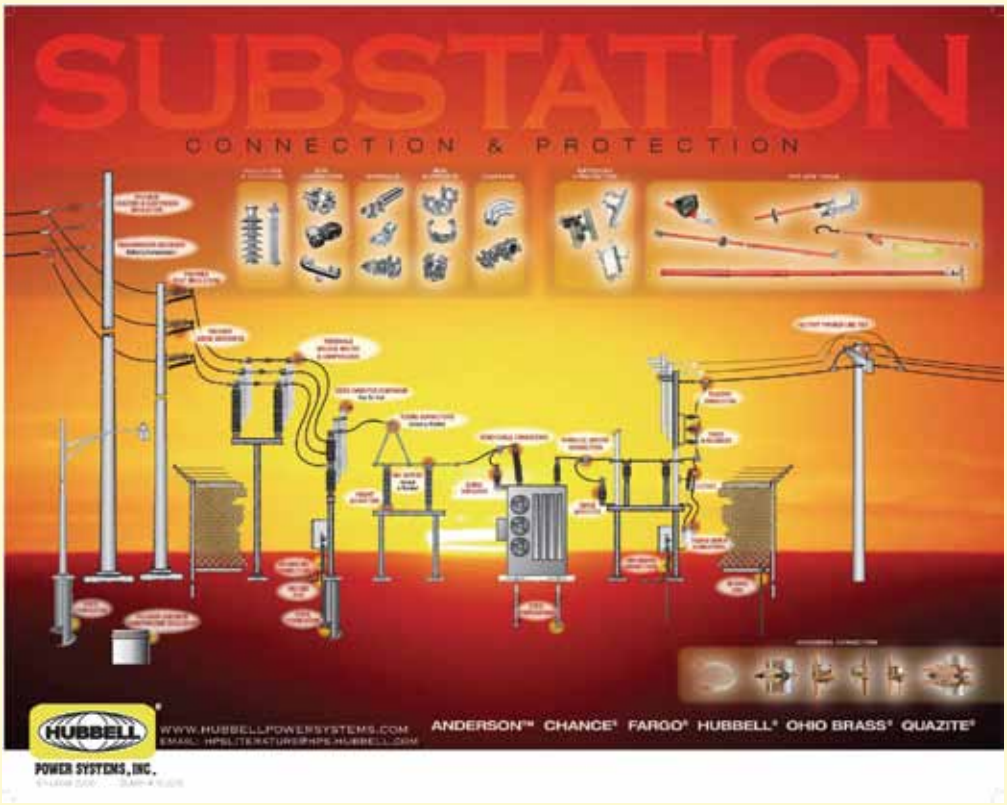
TOOLS

CHANCE®

Tools, Grounding Equipment, Cover Up

With the Chance tool family at work, you'll be able to maintain and operate substations with ease. Nobody offers you more hot line tools and tool operating techniques than Chance. And, we'll back you with our engineering expertise.





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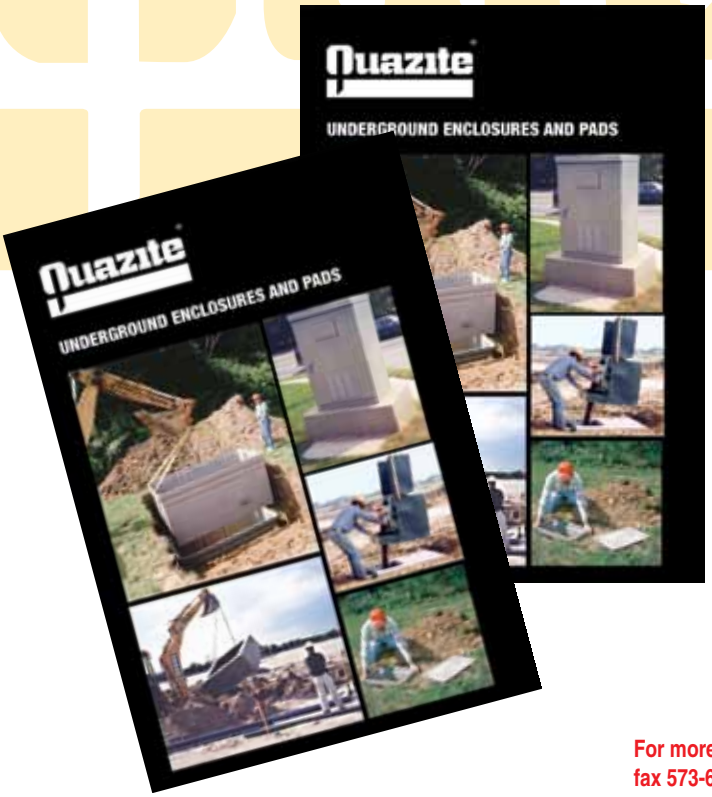

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210 N. Allen Street
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MEXICO • Av. Coyoacan No. 1051 • Col. Del Valle • 03100 Mexico, D.F. • Phone: 52-55-9151-9999 • Fax: 52-55-9151-9988 • e-mail: vtasdf@hubbell.com.mx