Transmission & Distribution

HiTemp® Compression Accessories
Designed for ACSS, ACSS/TW and new composite conductors to handle temperatures up to 250ºC.

Quick Compress Alloy Compression Accessories
Designed for fast, easy installation, the compression length has been shortened for fewer compression bites using a high strength alloy. Accessories are pre-filled.

Standard Compression Accessories
Dead ends, jumper terminals, joints, T-taps, repair sleeves and terminal connectors. Designed to operate at temperatures lower than that of the conductor.

Speed Grip® Spacers
The Speed-Grip spacer employs elastomer bushed clamps to firmly grip the conductor. The special design allows rapid installation without special tools.

PG Clamps
Features a patented parallel groove. Used for clamped stranded aluminum conductor connections.

Stockbridge-Type Vibration Dampers
The most efficient way to extend the life of a transmission line. Dissipates damaging motion caused by aeolian vibration.

Spacer Dampers Frame Style
Spacer Damper combines the function of a spacer in maintaining conductor separation and the function of a damper in controlling aeolian vibration and oscillation.

GSA Series
Designed to supplement protection of the conductor at the point of transmission and distribution.

HIBUS® Series
Conductor Suspension
Designed to reduce static and dynamic stress without the use of armor rods or line guards.

IMPA CCT® Implosive Accessory Technology
Designed for ACSR and ACSS high-temperature conductors up to 765 kV. These fittings use an aluminum tube and unique core grip feature which is compressed onto the conductor using a high-speed explosive referred to as Detcord.

Compounds
Broad range of filler and joint compounds, improves holding power and connections. For compression and flat surfaces.
Network Underground

MICON Load Limiters
MICON Network Underground Load Limiters for system protection. Allows for fusible connection points in the secondary network.

MICON Multi-Outlet Connectors
MICON multi-outlet, pre-insulated connectors for secondary network systems. Available in 1,500, 2,500 and 3,000 amp ratings. All sizes of mechanical conductor compression cones are available.

Software

Vibrec®
Vibration analysis software that determines quantity and placement of dampers and spacers.

Tools

Presses
A variety of hand-held and hydraulic presses available to suit your application.

Pumps
10,000 psi electric and gas-powered pumps, single or double-acting available.

Boosters
Lightweight, compact intensifier that operates from an external oil source.

Compression Dies
For use with AFL and other presses, specifically designed for AFL compression accessories.
Fiber Optic Cable Accessories

**Wedge Dead Ends**
Superior to spiral-wrap style dead ends, the mechanical wedge-type dead end is ideal in crowded distribution environments and allows for a safer and more efficient installation of ADSS cable.

**Bolted Dead Ends**
The bolted dead end is a full tension termination for OPGW cable. Breakaway bolts are used to apply precise gripping force to hold the cable without affecting optical performance.

**Downlead Clamps**
Downlead clamps are used to guide OPGW from the top of the structure to the splice box.

**Mechanical Suspensions**
Mechanical suspensions install easily while supporting vertical, transverse, longitudinal unbalanced loads and angle pulls without damaging cable strands or affecting optical performance.

**Comealongs and Temporary Grips**
Reusable grips used for stringing fiber optic cables where a short-term catch is needed. Comealongs are self-contained, compact and 100% factory tested.

**Splicing Enclosures**
Two styles provide capacity for 12 to 96 fibers and as many as 540 splices. Quick and easy installation with no messy tapes or compounds.

**Wire Products**

**Alumoweld®**
Ideal for overhead ground wire, neutral messengers, line wire and guy strand.

**Copper Clad Steel**
Often used as overhead ground wire and messenger wire.
Flexible Hangers
Flexible hanger assembly options for both high and low voltage applications for high speed heavy rail, light rail and trolley use.

Rigid Hangers
Rigid formed wire hangers and wire/cable separators for numerous applications of high speed heavy rail, light rail or trolley use.

Cable / Trolley Wire Clamps
Cable and trolley wire clamps with precise mechanical and electrical clamp fitting features designed for cable connections, terminations, jumpers, grounding, alignment and suspension use.

Pipe Clamps and Fittings
Versatile non-corrosive product connection solutions for numerous sizes of pipe, wire and component to component interaction.

Balance Weight Components
Strategic and critical BWA system components for various auto-tension termination applications.

Contact Wire (CW) Splices
Whether permanent or temporary, AFL’s Dossert CW Splices are an intricate necessity for Overhead Contact Systems (OCS) maintenance and continuing work additions.

Stranded Wire Splices
Whether splicing aluminum, copper or Copper Clad Steel, AFL’s Dossert high strength full tension formed wire splices will meet a variety of application needs.

Pipe Clamps and Fittings
Versatile non-corrosive product connection solutions for numerous sizes of pipe, wire and component to component interaction.
Rail Transit Systems

**Suspension Clamps**
AFL’s Dossert suspension clamps, manufactured from high strength aluminum bronze alloys, are designed to meet the installation requirements for pole, pipe, beam or cable applications.

**Contact Wire Dead Ends**
Contact wire dead ends meet and exceed the full breaking strength of the indicated wire size in both permanent and reusable models.

**Stranded Wire Dead Ends**
Stranded wire dead end products are manufactured from high strength aluminum bronze alloys which provide premium corrosive resistance and solid ultra strength performance.

**Hinge Clamps and Brackets**
A versatile array of castings, weldments and brackets which allow for simple and secure terminations for any pole, beam or surface application.

**Porcelain Insulators**
Specialty porcelain strain and suspension insulators, which far exceed the industry standard performance criteria for their rigorous usage conditions, are provided and certified per ANSI and NEMA standards.

**Strain Insulators**
From typical rod-style strain insulators to custom molded applications, AFL’s Dossert insulators are manufactured with innovative materials to provide a mechanically safe and UV-stable high or low voltage solution.

**Clamps and Links**
Manufactured from high strength aluminum bronze alloys which provide superior mechanical performance and favorable long-term weatherability solutions.

**Hardware**
Special attention has been given to our product fasteners which provide for the best strength, conductivity and corrosion resistance requirements for the rail industry.
Substation — 230 kV

**Bolted Bronze and Aluminum Accessories**
Accessories designed for ease of installation and to operate at lower temperatures than the conductor in environments less than 230 kV.

**Bolted and Welded Accessories**
Accessories made from high strength aluminum alloy, designed to conduct full rated current of the largest conductor to which they are applied.

**Expansion Couplers**
230 kV expansion coupler for pipe sizes 1” to 8” OD. Bus expansion laminate straps provide 1.4” of expansion for sizes 3/4” through 1 1/2” and 2” of expansion for sizes 2” through 6”.

**Conductor Bus Supports**
Low voltage multiple conductor bus supports for all conductor ranges and standard bolt hole patterns of 3”, 5” and 7”.

**Bolted Tee Connectors**
Used for conductor run and tap. Extra strength U-bolts provide secure, reliable connection for combinations of ACSR and AAC conductors.

**Welded Bus Supports**
Welded hook-on bus supports for all pipe sizes. Comes standard with anti-chatter springs for smooth expansion and contraction of pipe.

**Expansion Terminals**
Low voltage expansion terminals, field welded for excellent electrical performance. Incorporates an extra long pipe guide for stick-free operation.

**Bronze Stud Connectors**
Stud connector, bronze for connecting transformer studs to NEMA or special pads as shown here. Sizes range from 5/8” to 5” ID studs. Also available in stud to cable, stud to pipe and expansion capable versions.

**Grounding Connectors**
Post to cable version. Available in a wide range of sizes in both SPS and standard ODs. Connects to single or multiple cable leads for most grounding applications.

Transmission and Distribution | Fiber Optic Hardware | Rail Transit Systems | Substation | Swage Bus and Cable | Network Underground
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<tr>
<th>Substation — 345/500 kV</th>
<th>Substation — 765 kV</th>
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<tr>
<td><strong>Bolted and Welded Accessories</strong>&lt;br&gt;Accessories with streamlined designs and no protruding bolts for use in construction of extra-high voltage substations.</td>
<td><strong>Bolted and Welded Accessories</strong>&lt;br&gt;Terminals for multiple conductors (two parallel conductors shown). Available in all sizes and up to four conductors.</td>
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<td><strong>High Voltage Terminals</strong>&lt;br&gt;Accessories designed to conduct full rated current of ultra-high voltage without concern for corona effects.</td>
<td><strong>Welded Bus Supports</strong>&lt;br&gt;Bus supports for Pipe with corona ring. Mounting hardware is included and available in standard NEMA bolt hole spacing of 3”, 5” or 7”.</td>
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<td><strong>Welded Expansion Terminals</strong>&lt;br&gt;Welded high voltage expansion terminal for maximum amperage rating up to 5000 amps. The Rope Lay design allows for greater clearances in confined spaces.</td>
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<tr>
<td><strong>Mechanical Ground Studs</strong>&lt;br&gt;Mechanical high voltage ground stud for pipe applications, rated at 500 kV and below. The 3/4” 1,100 alloy rod provides ample fault current capacity for most substations.</td>
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Substation — Swage Bus Accessories

**End Caps**
Swage type bus end caps are used to cap the end of a bus run. They are available for sizes 1" through 6" N.P.S. Available in high voltage.

**Couplers**
Swage type bus couplers are used to attach two bus runs together. These connectors are available in straight, long splice, reducer splice, and angle splices. They are available for sizes 1" through 6" N.P.S.

**Cross**
Swage type bus crosses are used to tap two bus ends to a bus run. These connectors are also available in split pipe construction for ease of installation. They are available for sizes 1" through 6" N.P.S.

**Terminal Taps**
Swage type bus terminal taps are bus connectors with one or two NEMA pad configurations, 2N through 6N4 with pad configurations being center formed, offset, angled, vertical or 45 degrees. They are available for sizes 1" through 6" N.P.S.

**Stirrups and Grounding Studs**
Swage type bus stirrups and grounding studs are bus connectors with one or two studs or stirrups mounted to the sides. They are available in split pipe construction for ease of installation for sizes 1" through 6" N.P.S.

**Supports**
Swage type bus supports are bus connectors with one or two connectors mounted to each support ring. They are available with chatter springs. All styles available in sizes 2" through 6" N.P.S.
Substation — Swage Bus Accessories

Expansion Couplers
Swage type bus expansion couplers are mounted to bus runs to give expansion space or flex in the center of a run. They are available in sizes 2" through 6" N.P.S.

Expansion Terminals
Swage expansion terminals are available with a center formed pad, offset horizontal or vertical pad, or with a 90-degree pad. Vertical bus expansion accessories are also available. These accessories are available in sizes 2" through 6" N.P.S.

Expansion Terminals, High Voltage
High voltage Swage type bus expansion terminals are mounted to a bus run and terminated at one end to give expansion space or flex in the center or end of a run. High voltage terminals use corona rings. These accessories are available in sizes 3" through 6" N.P.S. offered in regular or 90-degree NEMA pad.

Substation — Swage Bus Tools & Accessories

Swage 65 Ton Press Assembly
The Swage 65 Ton Press Assembly is a portable construction and maintenance tool designed to Swage bus and cable accessories onto a bus pipe or cable. The power unit works with 1" through 4" Head assemblies.

Swage 65 Ton Die Set
Die Sets come with two dies per pipe size. These dies are available in 1", 1.5", 2", 2.5", 3", 3.5" and 4" dies. Not all dies fit one press head. Refer to AFL’s Swage Bus and Cable Accessories Catalog to ensure you have the correct size.

Pumps
10,000 psi electric and gas-powered pumps, single or double-acting available.

Swage Inspection Gauge
A Swage inspection gauge is used to measure the depth of the swage compression. It is also used to determine what size tool is needed for the job.
**Substation — Swage Cable Accessories**

**Cable Terminals**
Swage type cable terminals are used to bolt and terminate. These connectors are available with NEMA pad configurations 2N through 4N4 with pad configurations being center formed, offset, angled, or vertical. They are offered in 1, 2, or 3 cable tap connectors. They are available for 1” O.D. through 2.75” O.D. cable fittings.

**Coupler**
Swage type cable couplers are used to attach two cable runs together. They are available in 1” O.D. through 2.75” O.D. cable fittings.

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**Substation — Swage Cable Tools & Accessories**

**Swage 45 Ton Press Assembly**
The Swage 45 Ton Press Assembly is a portable construction and maintenance tool designed to Swage cable accessories onto a cable. The power unit works with 1” O.D. through 2.25” O.D. Head assemblies.

**Swage 45 Ton Die Set**
A Swage 45 Ton Die Set comes with two dies per pipe size. These dies are available in 1” O.D., 1.25” O.D., 1.5” O.D., 1.75” O.D., 1.875” O.D., 2” O.D. and 2.25” O.D. dies. Not all dies fit one press head. Refer to AFL’s Swage Bus and Cable Accessories Catalog to ensure you have the correct size.

**Swage Inspection Gauge**
A Swage inspection gauge is used to measure the depth of the swage compression.