



**SUPERIOR PORTFOLIO OF WILDLIFE MITIGATION PRODUCTS**

PROTECT YOUR ASSETS FROM  
WILDLIFE CONTACT



**PRODUCT CATALOG NOV 2018**





*Reliaguard® is dedicated to the manufacture of injection molded and thermoformed guards as well as conductor cover – all intended for use in the prevention of animal and bird-caused power outages.*



*Reliaguard parts are produced on a volume basis and priced affordably for large volume purchases.*



*Reliaguard's GreyEEL and EEL Slider form an important part of any animal mitigation solution.*



*Reliatanium was formulated to meet the specific testing guidelines outlined in the IEEE 1656 – 2010 Guide. The product material addresses such concerns as UV stability and Flame Retardancy and has been tested to a 38kV rating.*

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# INTRODUCTION

## INTRODUCING THE RELIAGUARD PRODUCT LINE

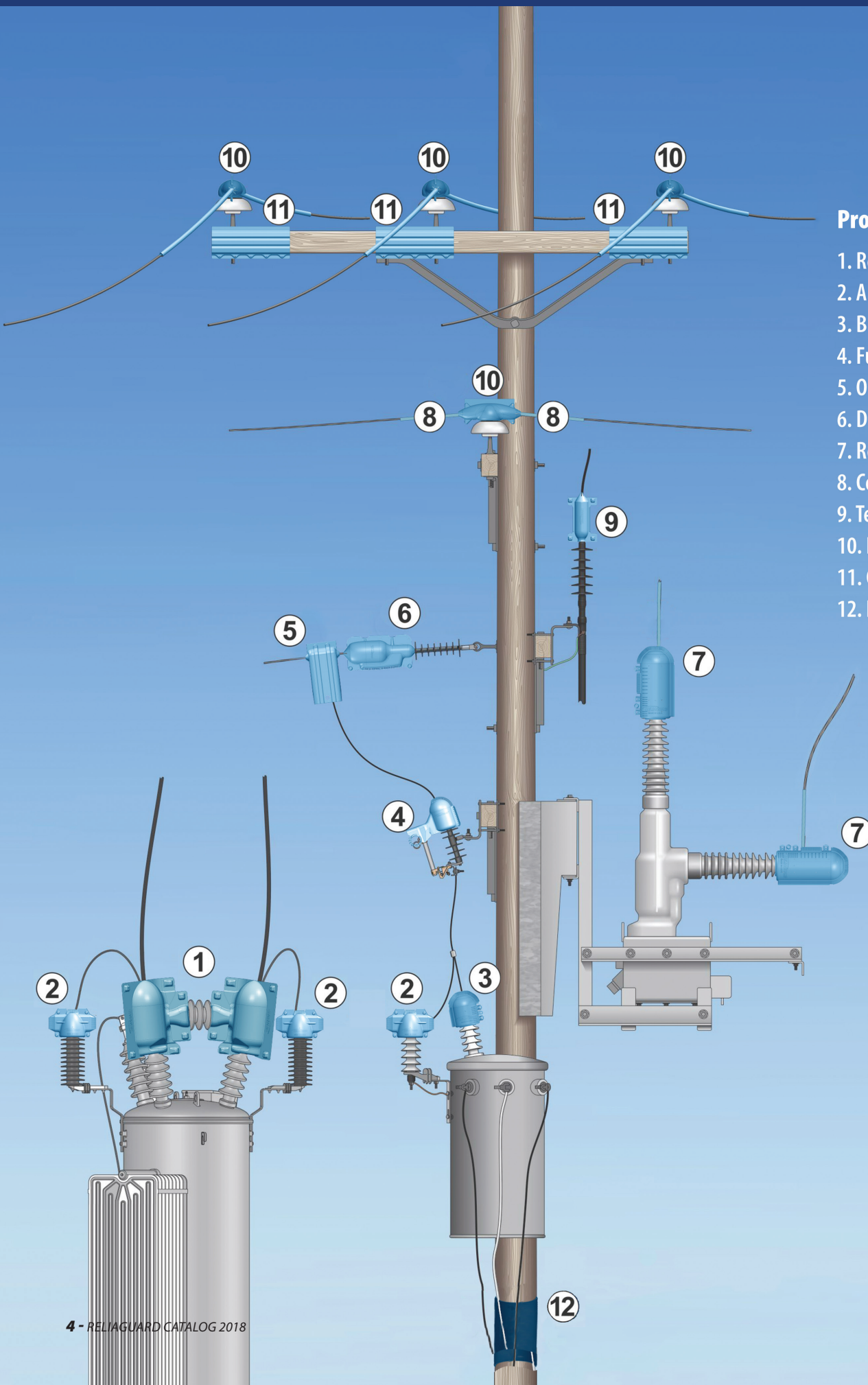
Reliaguard manufactures guards for common powerline equipment to prevent animal and bird caused outages. Reliaguard parts are designed to have a superior fit for the underlying equipment to prevent gaps in coverage which can lead to an animal or bird caused power outage. Reliaguard parts are made from a proprietary material known as Reliatanium. Reliatanium meets the test guide requirements of IEEE 1656 -2010.

Reliaguard recommends that all of it's guards be installed with GreyEEL conductor cover to extend the area of coverage. For more information on GreyEEL and to find out more about the EEL Slider application tools visit [www.reliaguard.com](http://www.reliaguard.com).

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## Product Showcase

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11. Cross Arm Guards
12. Pole Wrap



## BUSHING GUARDS - MEDIUM

Transformers are easily the most common perch point for wildlife. Transformer bushing guards protect endangered species, birds, squirrels, raccoons, snakes, feral cats and other wildlife from contact with energized risk points. The contact risk points on a bushing are typically from a phase to ground contact.

### FEATURES

- Secure closure and latch designs ensure guards stay in place. Push pins for extra security are standard
- Accommodates conductors exiting at various angles
- Hot stick installation option available



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Base Port Dimension*	Pack Size (MOQ)
#4 Medium Solid Bushing Guard w/ Loop Latch	BC-14992	10.4 (264.2)	4.4 (111.8)	1.9 (48.3)	24
#5 Medium Bushing - Small Base 1.8"	BC-16006	8.1 (205.7)	5 (127)	1.8 (45.7)	24
#5 Medium Bushing -Mesh-Small Base 1.8"	BC-16008	8.1 (205.7)	5 (127)	1.8 (45.7)	24
#5 - Medium Bushing- 2.25" base	BC-15011	8.1 (205.7)	5 (127)	2.25 (57.2)	24
#5 - Medium Bushing - Mesh- 2.25" base	BC-15013	8.1 (205.7)	5 (127)	2.25 (57.2)	24
#7 Medium Bushing Guard	BC-15021	11.8 (299.7)	7 (177.8)	2.5 (63.5)	12
#7 - Medium Mesh Bushing Guard	BC-15023	11.8 (299.7)	7 (177.8)	2.5 (63.5)	12
#8 Medium Bushing Guard	BC-15031	17.8 (452.1)	8 (203.2)	3.5 (88.9)	6
#8 - Medium Mesh Bushing Guard	BC-15033	17.8 (452.1)	8 (203.2)	3.5 (88.9)	6
#10 Medium Bushing Guard	BC-15041	19.8 (502.9)	10.5 (266.7)	4.6 (116.8)	6
#10 - Medium Mesh Bushing Guard	BC-15043	19.8 (502.9)	10.5 (266.7)	4.6 (116.8)	6



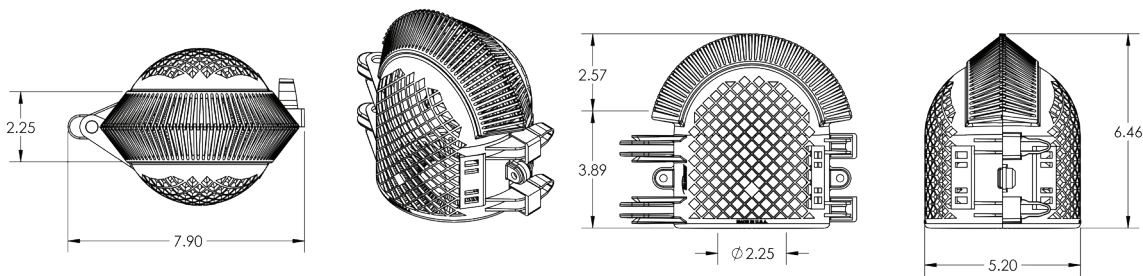
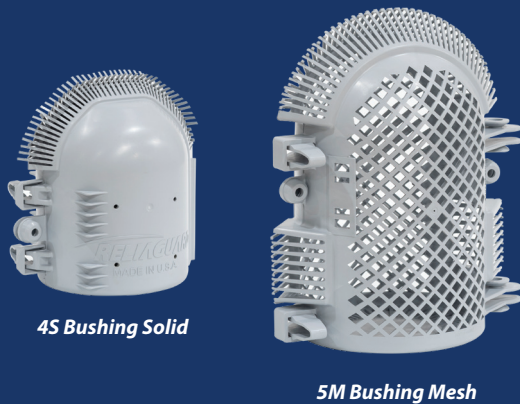
## BUSHING GUARDS - SMALL

Transformers are easily the most common perch point for any animal and bird. According to Cindy Kemper, (Patterns of Raptor Electrocutation Mortality on Distribution Power Lines in Southeast Alberta), three-phase transformer poles cause more contact outages and more electrocutions of birds than any other structure. When utilities are making selections for guards, transformers must be a priority. The contact risk points on a bushing are typically from a phase to ground contact.

Reliaguard® Bushing Guards are designed to stay in place. Retention of the guard once applied is a critical design feature to be considered. Reliaguard guards are manufactured with a superior closure design to ensure the bushing guards stay where they are installed. The lock fastener included with each guard provides an optional method of ensuring guards can't be inadvertently dislodged.

## FEATURES

- **Manufactured with a superior closure design to ensure the bushing covers stay where they are installed**
- **Covers can accommodate conductor exiting at various angles**
- **Manufactured from a proprietary material known as Reliatanium™**
- **Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard**



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Base Port Dimension*	Pack Size (MOQ)
#4 - Small Bushing Guard w/ Loop Latch	BC-14991	5.7 (114.8)	4.4 (111.8)	1.8 (45.7)	24
#5 - Small Bushing - Solid- 2.25" base	BC-15010	5.6 (142.2)	5 (127)	2.25 (57.2)	24
#5 - Small Bushing - Mesh - 2.25" base	BC-15008	5.6 (142.2)	5 (127)	2.25 (57.2)	24
#5 Small Bushing - Small Base 1.8"	BC-16003	5.6 (142.2)	5 (127)	1.8 (45.7)	24
#5 Small Bushing - Mesh - Small Base 1.8"	BC-16005	5.6 (142.2)	5 (127)	1.8 (45.7)	24
#8 - Small Bushing Guard	BC-15028	15 (381)	8.25 (210)	3.5 (88.9)	6
#8 - Small Bushing Guard - Mesh	BC-15030	15 (381)	8.25 (210)	3.5 (88.9)	6



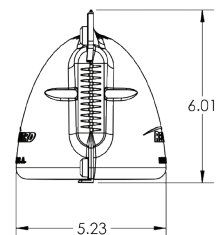
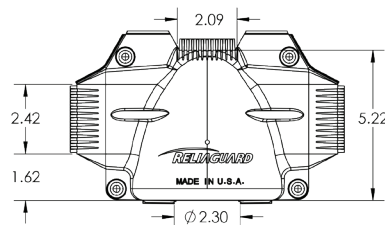
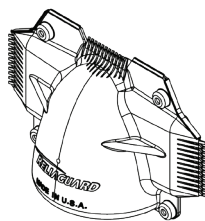
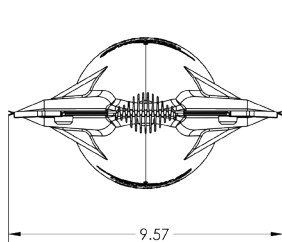
# LIGHTNING ARRESTER GUARDS

The lightning arrester cap that is usually included with new arresters often doesn't provide enough coverage to fully protect the wire connection or properly overlap the stripped section of poly-covered conductor at the connection point. According to ArresterWorks (Wildlife Protective Devices for Arresters by Jonathan Woodworth), lightning arrester protection should consider that the higher the voltage the further the coverage needs to extend.

With current surges being diverted through arresters, it is critically important that the arresters and associated guards are non-flammable. Reliaguard Lightning Arrester Guards ensure better coverage, are more securely retained in place, are non-flammable and can accommodate a wide range of conductor diameters.

## ARRESTER GUARD PRODUCT THAT IS NON-FLAMMABLE

- Installs over the first skirt/flight of the insulator preventing wildlife activity from taking place under the guard
- Accommodates a wide range of conductor diameters
- Easily accommodates feed through conductors



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Lightning Arrester - Multi Port	LA-13002	4.75 (120.6)	5 (127)	2.3 (58.4) base port	12



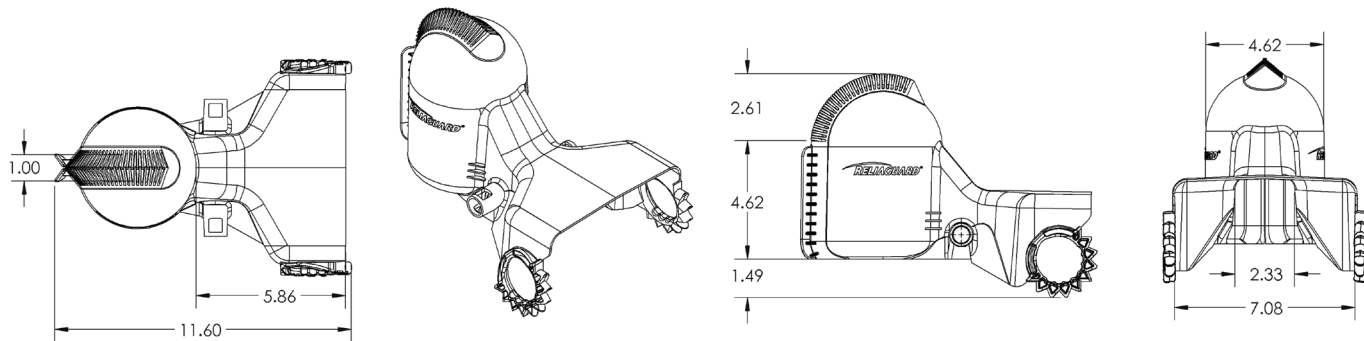
# HOT STICKABLE UNIVERSAL CUT-OUT GUARD

Fused cut-outs, commonly mounted in close proximity to grounded support structures, often experience bird and animal-caused contacts. Due to the sheer number of cut-outs used in power distribution, contacts are a very prevalent cause of power outages. Isolating or de-energizing cut-outs to install guards isn't always possible and for this reason, Reliaguard has designed its cut-out guard to be applied to energized equipment using accepted live-line work methods.

Cut-out guards are designed to accommodate various conductor diameters all the while providing superior coverage of energized components at risk of bird and animal contact. By fully enclosing the bolted connection, probable points of contact are eliminated and guards are better secured to equipment. Both porcelain and polymer cut-outs can be protected whether energized or de-energized installation is required.

## FEATURES

- Can be used for both energized and de-energized installations
- Fully enclosed bolted connections
- Accomodate various conductor diameters
- Fits Polymer and Porcelain conventional cut-outs
- Clip secures conductor opening
- Retaining pin installs from either side



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Hot Stickable Universal Cut-Out Guard	CO-10007	5.5 (137.5)	4.59 (116.5)	2.9 (73.7) base port	24



## CUT-OUT GUARD

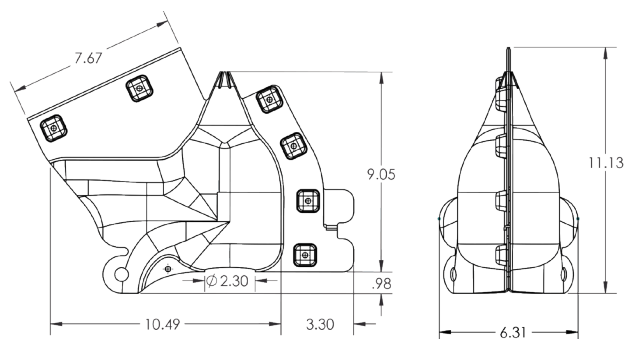
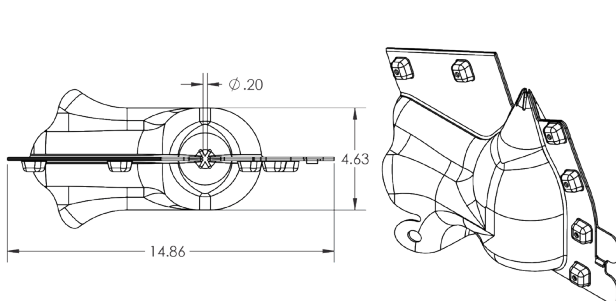
Cut-out switches are often configured in close proximity to each other and may result in phase to phase or phase to ground contacts. Contacts with fuse cut-out are a common cause of power outages. Where utilities are making selections for mitigation guards, switches should be a priority.

To accommodate customer requirements, application-specific modifications are available for volume orders of Reliaguard® Switch Guard. Parts can be adapted for unique operating conditions or the use of a particular tool such as a portable loadbreak tool.

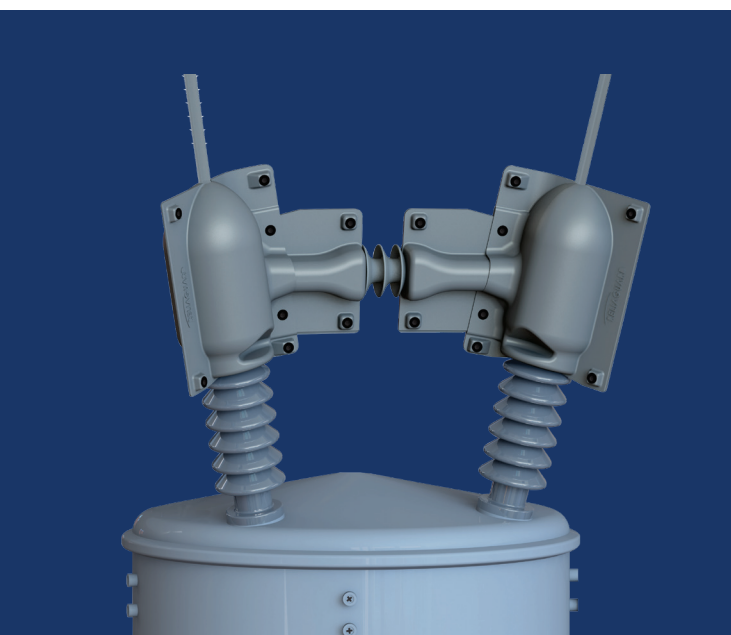
Other cover-up manufacturers often try to accommodate too many equipment models with one cover which can mean compromised or incomplete coverage. Reliaguard Switch Guards are designed for a narrower range of switch models ensuring a better fit. Current Reliaguard Switch Guards are available for S&C, Chance and Cooper Switches. Guards for additional equipment types required for volume orders will be designed by Reliaguard as requested by customers.

## FEATURES

- Reliaguard® Switch Guards are designed to ensure superior retention as not to be dislodged by weather, vibration or animals
- Designed to accommodate various conductor diameters
- Fits both porcelain and polymer cut-outs
- Manufactured from a proprietary material known as Reliatanium™
- For manual, permanent installation where hot-stick installation and ease of removal are not required



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Switch Cover - Short Hood	CO-10005	6.65 (169)	4.5 (114.3)	2.3 (58.4) base port	12



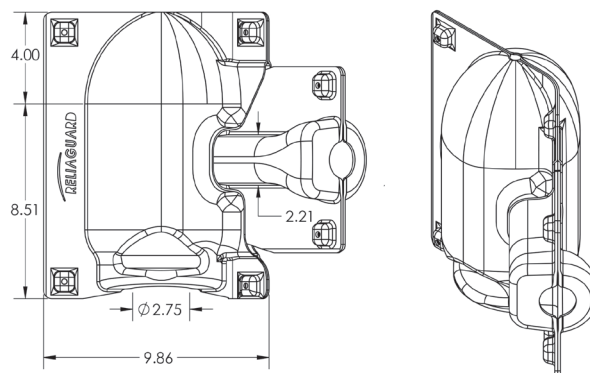
## VOLTAGE REGULATOR KIT - COOPER

Both three-phase and single-phase regulators have reduced clearances because of their characteristic design and how they are commonly configured. These nominal clearances create a high risk for bird and animal contact. The high cost of replacing a regulator is another reason why it is crucial to protect such an important system asset.

Reliaguard® Regulator Guards offer complete coverage of energized components including series arresters and brackets, bushing terminals, and wire connectors. Reliaguard Regulator Guards have an overlapping design to ensure there are no gaps in coverage. Regulator Guards are available for Cooper and Siemens regulators with more in development.

### FEATURES

- Designed for Cooper 50 amp to 400 amp, and Cooper 500 amp
- Complete comprehensive coverage of the insulator and shunt connections, no gaps
- Adjustable design



Technical Drawing for Voltage Regulator Kit - C400

Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Voltage Regulator Kit – C400 <sup>1</sup>	RK-11001K	12 (304.8)	6.3 (160)	2.75 (69.9) base port	1
Voltage Regulator Kit – C500 <sup>2</sup>	RK-11002K	14.5 (368.3)	9.25 (247.7)	3.50 (88.9) base port	1

<sup>1</sup> (Regulator Kit includes 2 bushing covers and 2 arrester bracket covers; fits Cooper Regulators - 50 amp to 400 amp)

<sup>2</sup> (fits Cooper Regulator - 500 amp)

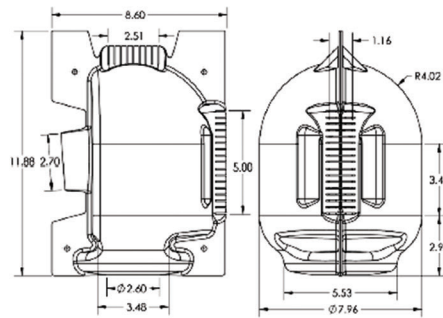
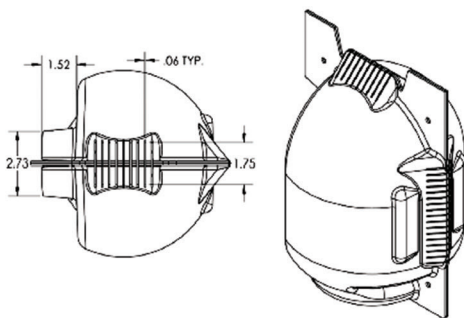
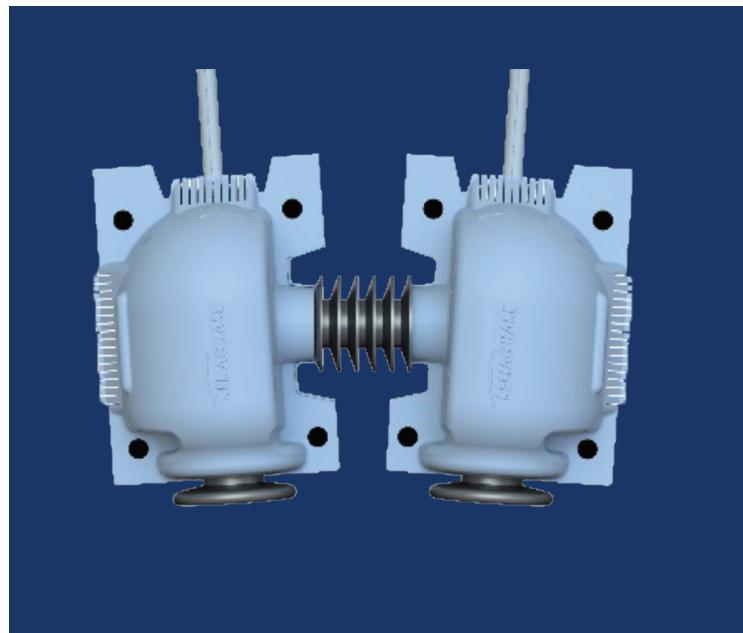


# VOLTAGE REGULATOR KIT - SIEMENS

Both three-phase and single-phase regulators have reduced clearances because of their characteristic design and how they are commonly configured. These nominal clearances create a high risk for bird and animal contact. The high cost of replacing a regulator is another reason why it is crucial to protect such an important system asset.

## FEATURES

- Reliaguard Regulator Guards have an overlapping design to ensure there are no gaps in coverage
- Designed for Siemens 219 amp to 489 amp with more in development
- Reliaguard® Regulator Guards offer complete coverage of energized components including series arresters and brackets, bushing terminals, and wire connectors
- The push fastener included with each cover provides an optional method of safeguarding covers from being inadvertently opened and dislodged
- Manufactured from a proprietary material known as Reliatanium™
- Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Siemens Regulator Kit 167 - 400 <sup>1</sup>	RK-11023K	10.2 (259)	7.75 (196.9)	2.63 (66.8) base port	1
Siemens Regulator Kit - S400 <sup>1</sup>	RK-11021K	10.2 (259)	7.75 (196.9)	2.63 (66.8) base port	1

<sup>1</sup> (Regulator kit includes 2 bushing covers; fits Siemens Regulators - 219 amp to 489 amp) covers)



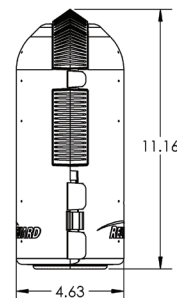
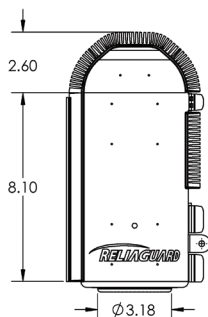
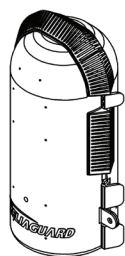
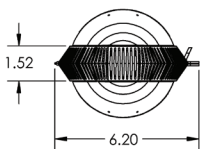
## RECLOSER KITS

Bird and animal contact risk points on reclosers commonly exist between energized bushings of adjacent phases and when reclosers are configured in close proximity to support structures. By fully protecting the energized connections of recloser bushings, which includes covering bare conductors, contact risks can be eliminated.

Reliaguard® Recloser Kits effectively enclose bushing connections and are designed to ensure long-term retention. The push fastener included with each guard provides an optional method of safeguarding guards from being inadvertently opened and dislodged.

## FEATURES

- Superior closure design ensures guards stay on
- Guards accommodate many conductor exit angles
- Solid or mesh options
- Drainage holes in solid covers for horizontal insulators
- Option to include arrester guards in kit



FITS	Reliaguard KIT Description	Part Number	Bushing Qty	Conductor Cover	EEL Tool
G&W Viper	Recloser Kit V-ST (Viper ST) - Solid	RCK-12001K	6	0.75" OD <sup>1</sup>	1
G&W Viper	Recloser Kit V-ST (Viper ST) - Mesh	RCK-12006K	6	0.75" OD <sup>1</sup>	1
G&W Viper	Recloser Kit - VSTLA (w/ LA) (Viper ST)	RCK-12020K	6	0.75" OD <sup>1</sup>	1
Cooper Nova	Recloser Kit - NVA - Solid (4' C.C.) <sup>2</sup>	RCK-12201K	6	0.75" OD <sup>1</sup>	1
Cooper Nova	Recloser Kit - NVA - Mesh (4' C.C.) <sup>2</sup>	RCK-12207K	6	0.75" OD <sup>1</sup>	1
Cooper Nova/Spear	Recloser Kit Single SPE -Solid (4' C.C.) <sup>2</sup>	RCK-12210K	2	0.75" OD <sup>2</sup>	1
Cooper Nova/Spear	Recloser Kit Single SPE -Mesh (4' C.C.) <sup>3</sup>	RCK-12215K	2	0.75" OD <sup>2</sup>	1
Elastimold/ABB	Recloser Kit ELAB - Solid (4' C.C.) <sup>3</sup>	RCK-13001K	6	0.75" OD <sup>1</sup>	1
Elastimold/ABB	Recloser Kit ELAB - Mesh (4' C.C.) <sup>3</sup>	RCK-13005K	6	0.75" OD <sup>1</sup>	1
Elastimold/ABB	Recloser Kit ELAB - Mesh (4' C.C.-.500" max) <sup>2</sup>	RCK-13006K	6	0.50" OD <sup>1</sup>	1
Elastimold/ABB	Recloser Kit Single ELAB -Solid (4' C.C.) <sup>2</sup>	RCK-13101K	2	0.75" OD <sup>2</sup>	1
Elastimold/ABB	Recloser Kit Single ELAB -Mesh (4' C.C.) <sup>3</sup>	RCK-13105K	2	0.75" OD <sup>2</sup>	1
Elastimold/ABB	Recloser Kit Single ELAB -Mesh (4' C.C.-.375" max) <sup>3</sup>	RCK-13106K	2	0.375" OD <sup>1</sup>	1

<sup>1</sup> 6 - 4ft sections of conductor cover and EEL Slider tool)

<sup>2</sup> 2 - 4ft sections of conductor cover and EEL Slider tool)

<sup>\*</sup> Includes 6 - lightning arresters

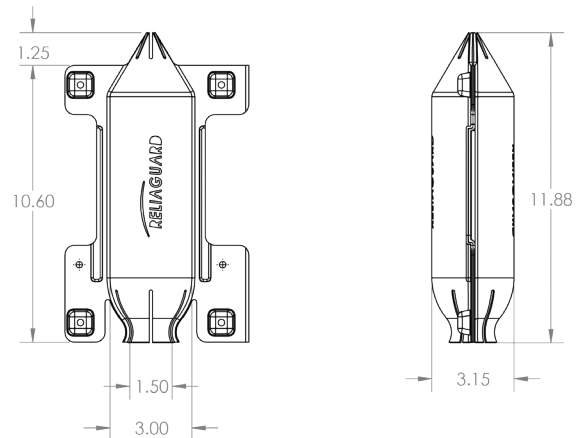
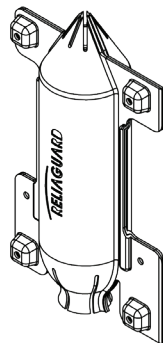
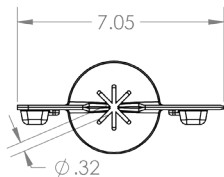


# EXTERNAL BACK UP FUSE GUARD

Points of connections are typically configured near grounded support structures or bonded brackets and are important to protect from animal reach or bird wingspan.

## FEATURES

- Termination guards are designed to accommodate a wide variety of conductor diameters and offer complete coverage of the bolted connection and the compression cable connector.
- Manufactured from a proprietary material known as Reliatanium™
- Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
External Back Up Fuse Guard	TC-20001	11.88 (302)	3 (76.2)	1.5 (38.1) base port	12



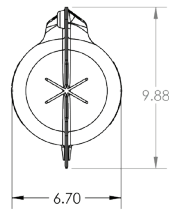
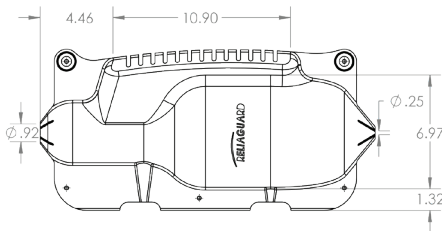
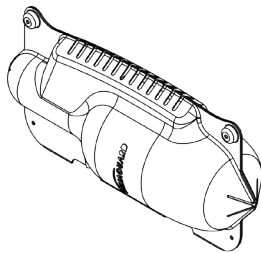
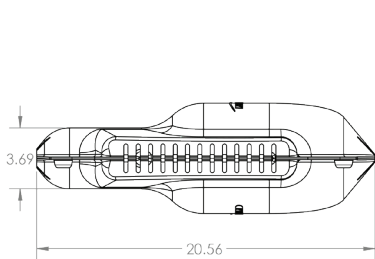
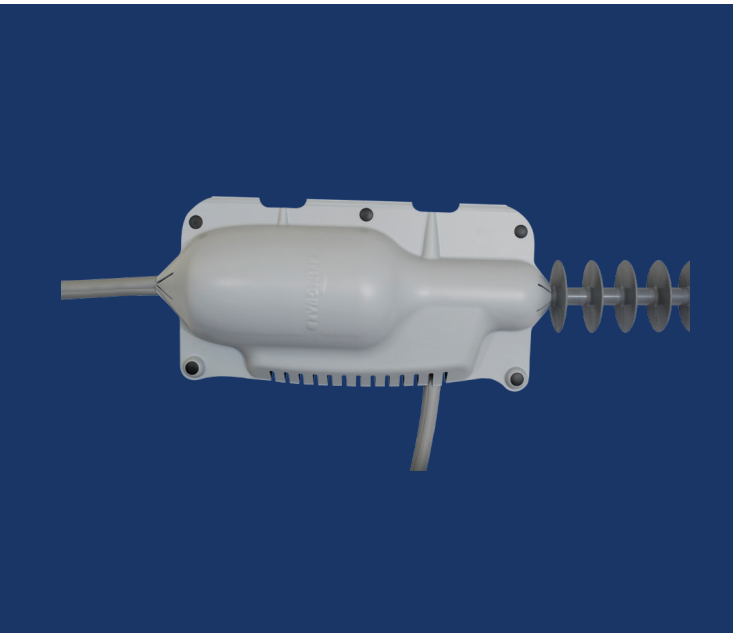
# CABLE SUSPENSION CLAMPS - DEAD END GUARDS

Dead ends, used extensively throughout power distribution systems, are often situated in close proximity to grounded structures. These minimal clearances can often lead to bird and animal contacts.

Reliaguard® Dead End Guards allow for a wide range of conductor exit angles. Further, the exit points accommodate a wide range of conductor diameters.

## FEATURES

- Complete comprehensive coverage, no gaps
- Fits all common dead-end sizes
- Permanent push pin closure
- Manufactured from a proprietary material known as Reliatanium™
- Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Dead End Guard	DE-16001	18.2 (462.3)	6.3 (160)	0.91 (23.1) side port	6

## CABLE TERMINATION GUARDS

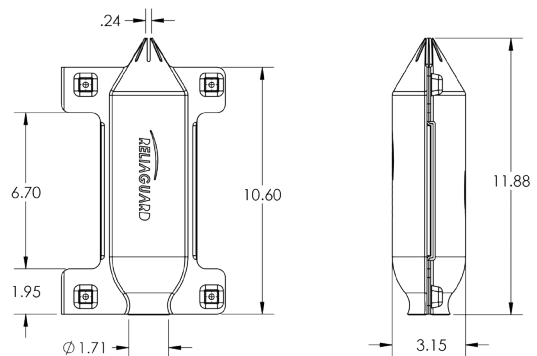
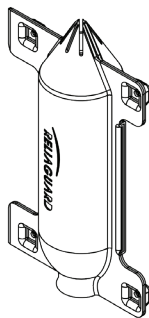
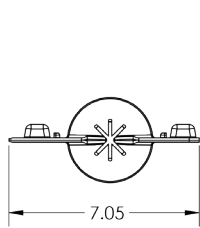
Points of termination are typically configured near grounded support structures or bonded brackets and are important to protect from animal reach or bird wingspan. Terminations are often situated next to arresters and like lightning arresters are susceptible to high intensity heat which is why protecting them with a non-flammable product is critically important.

Reliaguard Termination Guards can accommodate a wide variety of conductor diameters.

Reliaguard Termination Guards offer complete coverage of the bolted connection and the compression cable connector.

### FEATURES

- Reliaguard Termination Guards can accommodate a wide variety of conductor diameters
- Complete coverage of the bolted connection and compression cable connector
- Manufactured from a proprietary material known as Reliatanium™
- Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Terminator Guard	TC-14002	10.59 (269)	3 (76.2)	1.5 (38.1) base port	12



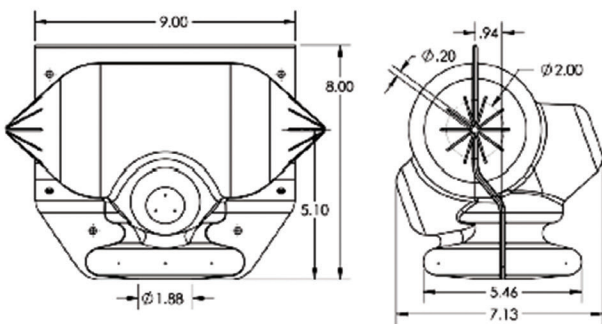
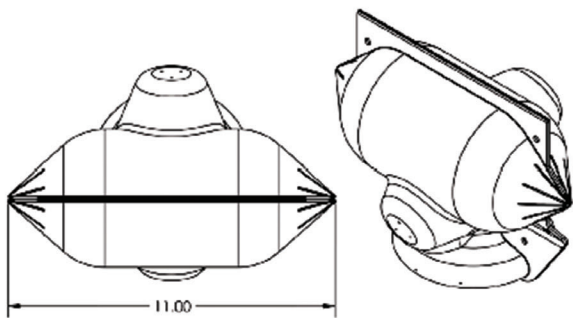
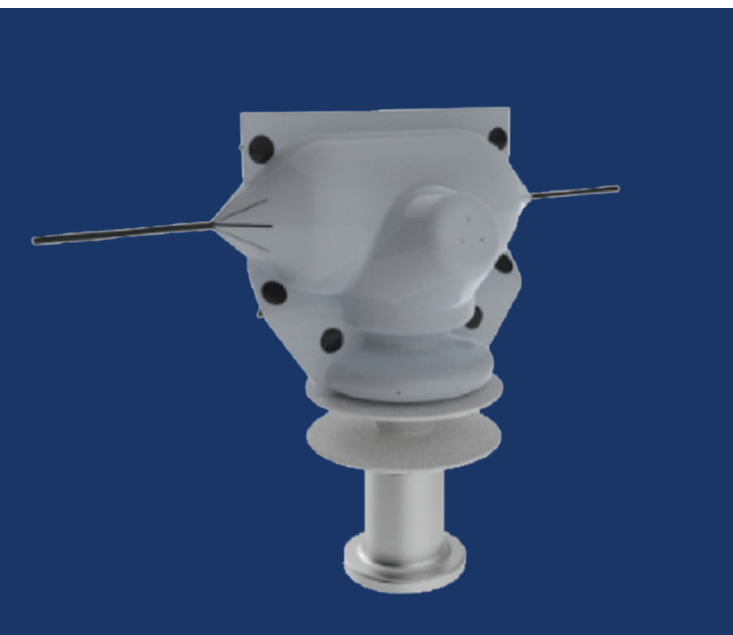


# K-LINE CLAMP TOP INSULATOR GUARD

For most powerline structures, post insulators are situated on perch locations preferred by birds. Phase to phase or phase to ground contact from wingspans are common. The Reliaguard Clamp-Top Insulator Guard specifically accommodates the K-Line Insulator. The guard is designed to remain securely retained in place without compromising an insulator's BIL rating.

## FEATURES

- The Reliaguard Clamp-Top Insulator Guard accommodates the K-Line Insulator.
- When used with conductor cover the Reliaguard K-line Clamp-Top Insulator Guard provides complete coverage.
- Manufactured from a proprietary material known as Reliatanium™
- Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard



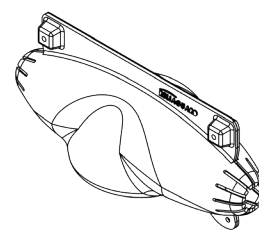
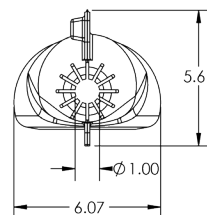
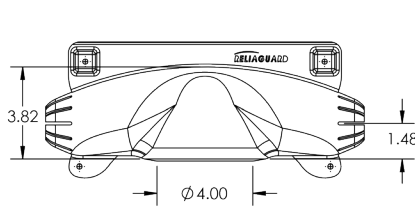
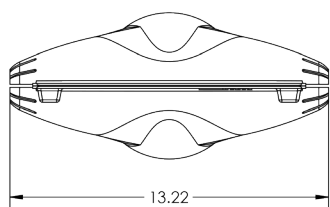
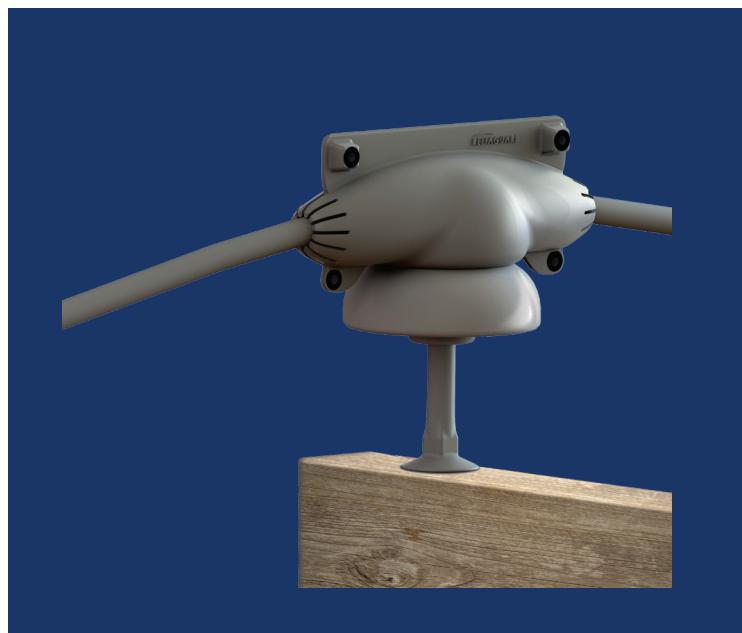
Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
K-line Clamp-Top Insulator Guard	PI-12002	7 (177.8)	5.37 (136.4)	1.88 (47.8) base port	12

# TIE TOP INSULATOR GUARD

For most powerline structures, Tie Top insulators are situated on perch locations preferred by birds. Phase to phase or phase to ground contact from wingspans are common. Reliaguard Tie Top Insulator Guards protect endangered species, birds, squirrels, raccoons, snakes, feral cats and other wildlife from contact with energized risk points.

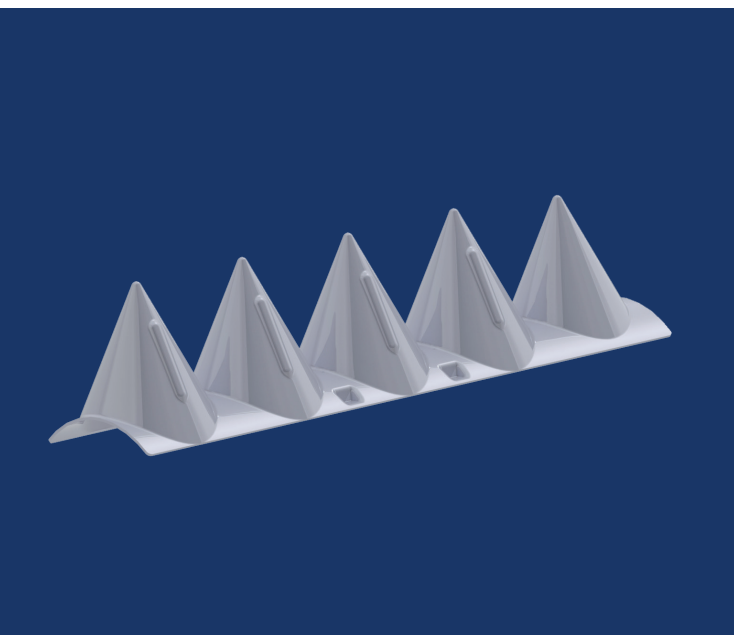
## FEATURES

- Designed to remain securely in place without compromising an insulator's BIL rating
- Accommodate a wide range of wire sizes and configurations
- Guards can be adapted to fit various insulator neck types for volume orders
- Manufactured from a proprietary material known as Reliatanium™
- Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard



Product Name	Part Number	Height Dimension *	Diameter Dimension *	Additional Dimension*	Pack Size (MOQ)
Tie Top Insulator Guard - K - 4.003*	PI-12001	3.25 (82.5)	5.75 (146)	4.00 (101.6)	12
Tie Top Insulator Guard - C - 2.253*	PI-12003	3.25 (82.5)	5.75 (146)	2.25 (57.15)	12
Tie Top Insulator Guard - F - 2.873*	PI-12004	3.25 (82.5)	5.75 (146)	2.87 (72.90)	12
Tie Top Insulator Guard - J - 3.503*	PI-12005	3.25 (82.5)	5.75 (146)	3.50 (88.90)	12

\*Kits can be supplied with Conductor cover

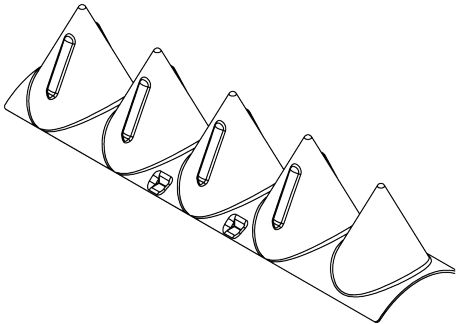
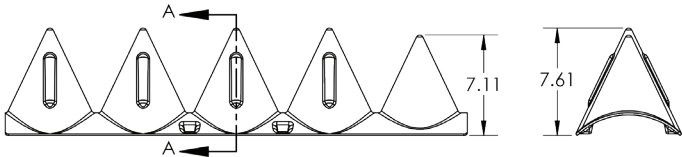
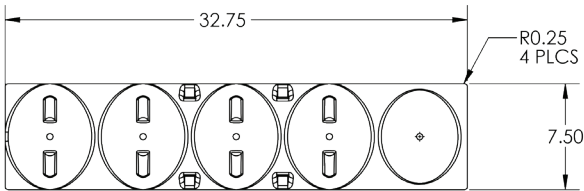
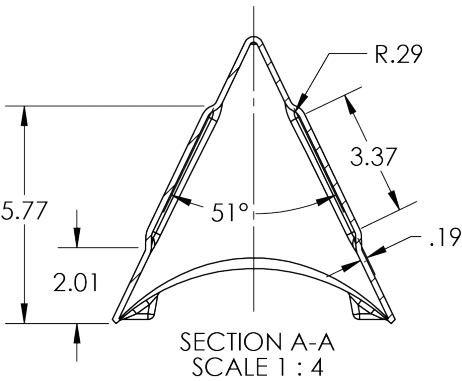


# PERCH PREVENTER

Reliaguard Perch Preventer is designed to discourage birds from landing or nesting on power line structures. The product can be used individually or in multiples, which would use our interlocking cone concept, to extend over long distances. Can be mounted to round or flat structures. Perch Preventer is made out of our IEEE 1656, Reliatanium material which has excellent electrical properties and is also UV stable as well as Flame Retardant UL94-V0.

## FEATURES

- Discourages both perching and nesting
- Can be extended to any lengths
- Can be mounted to many different types of surfaces
- Made from Reliatanium – IEEE 1656, FR, UV Stable
- Excellent Electrical Properties
- Stackable for easy storage



Product Name	Part Number	Height Dimension*	Width Diameter*	Depth Dimension*	Pack Size (MOQ)
Perch Preventer	PP-10010	7.1	32.75	7.5	6

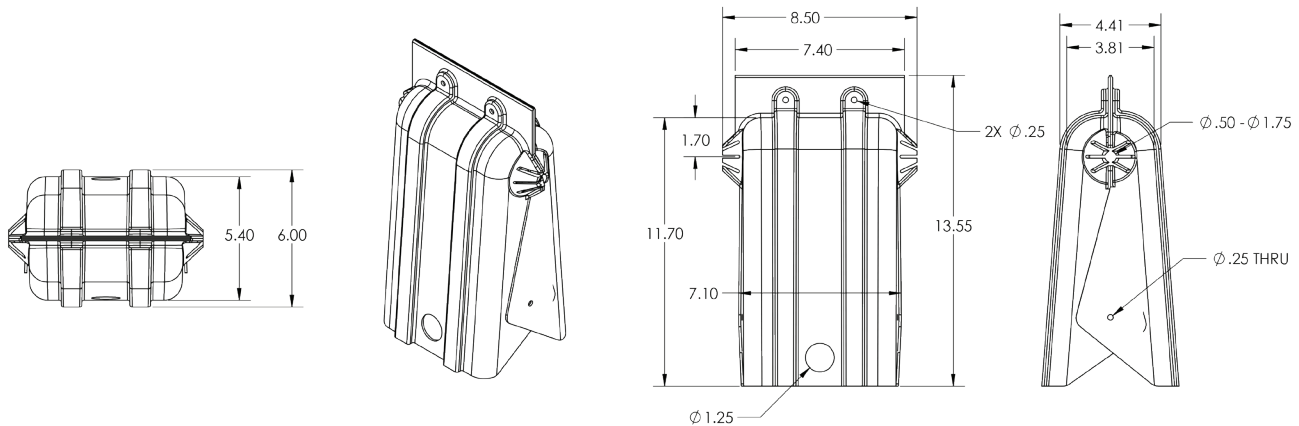


# OVERHEAD BAIL CLAMP GUARD

Reliaguard's Overhead Bail Clamp Guard is designed to completely insulate bail clamps (also known as hot line taps). It installs easily over all common conductor and clamp sizes with secure push pin closure. The guard is made from our IEEE 1656 tested Reliatanium™ material which has excellent outdoor electrical properties, is UV stable and is flame retardant to UL94-V0.

## FEATURES

- Completely covers the entire bail clamp assembly and connections
- Tested to ensure retention in high winds
- Made from Reliatanium™ – IEEE 1656, FR, UV Stable
- Excellent electrical properties
- Should be used in conjunction with Grey EEL conductor cover to provide complete protection from avian contact.

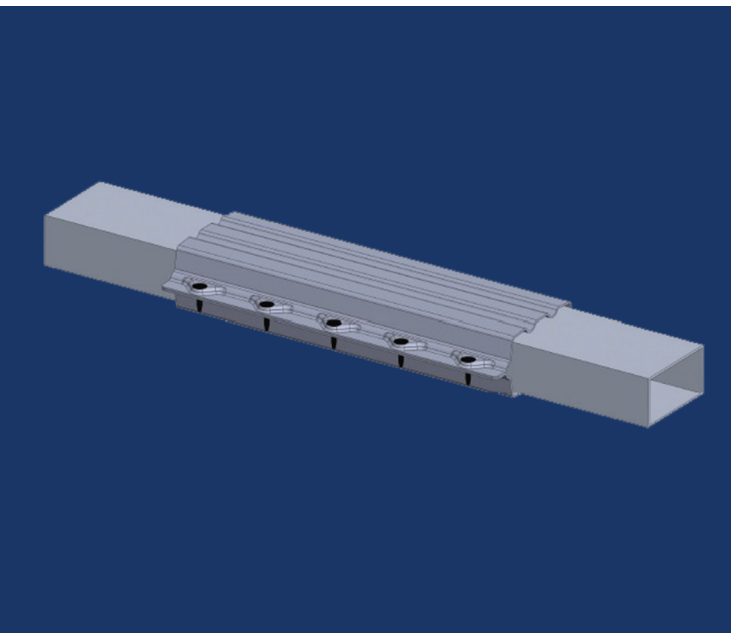


Product Name	Part Number	Height Dimension *	Width Dimension *	Depth Dimension*	Pack Size (MOQ)
Overhead Bail Clamp Guard	PI-00100	11.7	7.1	4.4	12



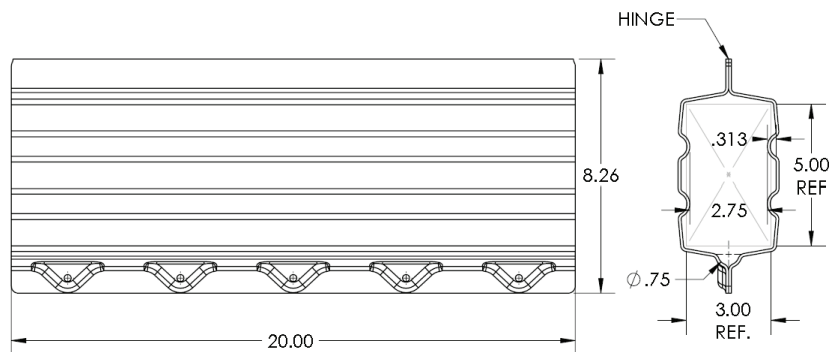
## CROSS-ARM GUARD

Reliaguard's Cross Arm Guard is specifically produced for steel cross arms on poles. Phase to ground outages occur with equipment that is installed on these arms such as switches and cut outs. Squirrels or raccoons sitting underneath these arms when they open create situations where outages may occur.



## FEATURES

- Cross Arm Guards effectively enclose steel cross arms and are designed to ensure long-term retention
- The push fasteners included with each guard provide a reliable method of protecting guards from being inadvertently opened and dislodged
- Manufactured from a proprietary material known as Reliatanium™
- Reliatanium achieves a V-0 flammability classification, the highest rating for the UL 94 test standard



Product Name	Part Number	Height Dimension*	Width Diameter*	Length Dimension*	Pack Size (MOQ)
Cross Arm 3x3	BB- 30520-S	3.00 (76.2)	5.00 (127)	20.00 (508)	12
Cross Arm 5x5	BB-50520-S	5.00 (127)	5.00 (127)	20.00 (508)	12

## WILDLIFE HOT STICK DISC AND PROTECTION DISC

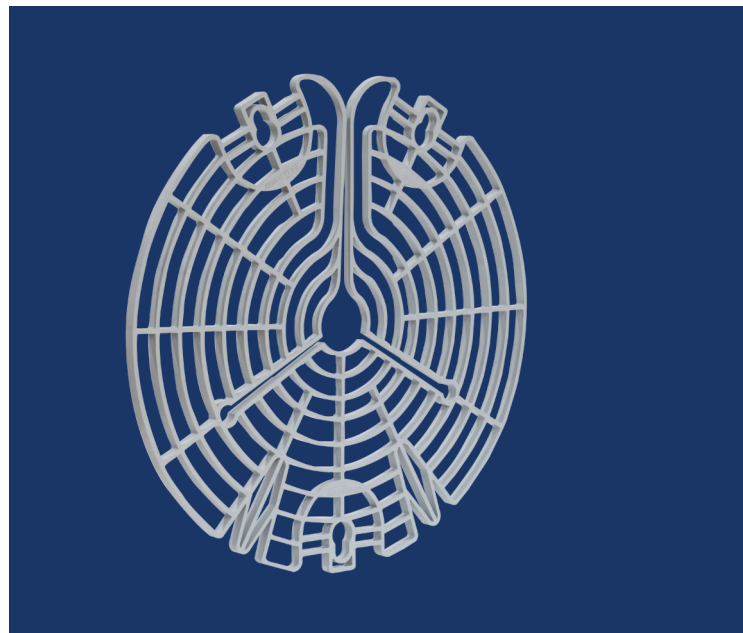
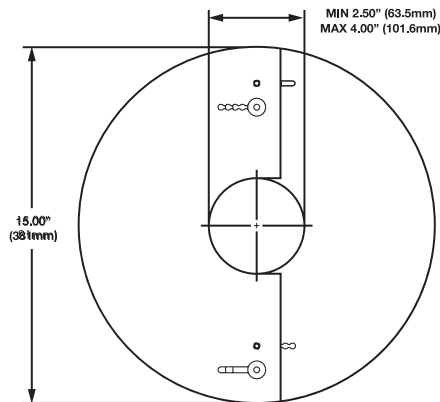
Reliaguard® Protection Disc is a two-piece barrier used to isolate climbing animals preventing them from making phase to ground contact. Discs are easily adjusted to fit insulators of varying diameters. Once situated between insulator flights, they are securely held in place by installing the included push fasteners.

### HOT STICK DISC FEATURES

- Simple, one-step energized installation or removal
- No assembly required, reusable
- Easily field trimmed to suit a wide range of insulator/ bushing diameters

### PROTECTION DISC FEATURES

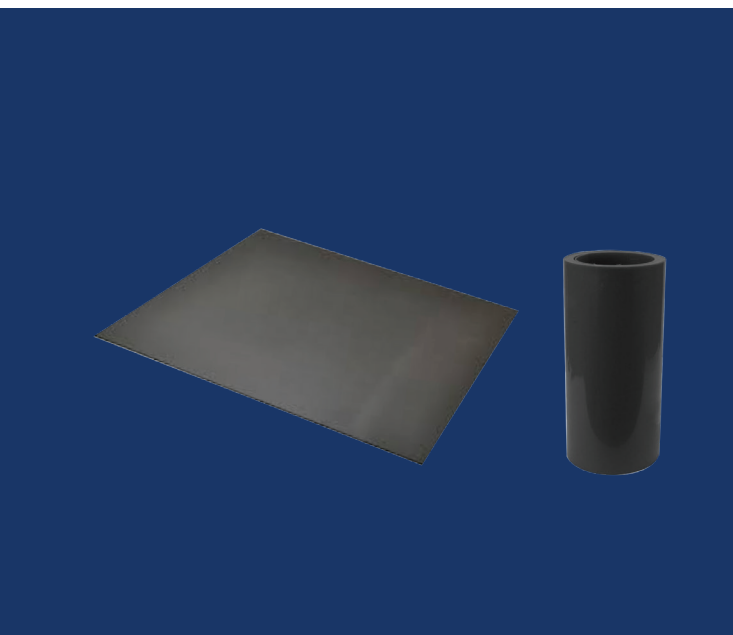
- Reliaguard® Protection Discs are designed to stay in place. Retention of the cover once applied is a critical design feature to be considered.
- Protection discs are a 2-piece adjustable size product
- Easy to install, the Protection Disc is supplied with push through pins to secure the disc for the required diameter of the center opening
- Fits a wide range of insulators



**HOTSTICKABLE DISC**

Product Name	Part Number	Outside Diameter	Inside Diameter	Width	Pack Size (MOQ)
Wildlife Hot Stick Disc -24	PD-0624	24 (609.6)	2.5-6.0 (63.5-152.4)	0.5 (12.7)	8
Wildlife Hot Stick Disc -20	PD-0620	20 (508)	2.5-6.0 (63.5-152.4)	0.5 (12.7)	8
Wildlife Hot Stick Disc -16	PD-0616	16 (406.4)	2.5-6.0 (63.5-152.4)	0.5 (12.7)	12
Protection Disc - 4" ID Max - 15" OD - Flat	PD-0415F	22 (558.8)	2.5-4.0 (63.5-101.6)	0.125 (3.2)	12
Protection Disc - 5" ID Max - 22" OD - Flat	PD-0522F	16 (406.4)	2.5-5.0 (63.5-127)	0.125 (3.2)	12





**RELIAWRAP™ PREMIUM GRADE POLE WRAP**

ReliaWrap™ is a premium grade pole wrap, formed from a 0.040" thick UV stabilized polymer. ReliaWrap is designed as a mechanical barrier to prevent animals such as squirrels and raccoons from climbing and destructive species such as woodpeckers from damaging poles.

**FEATURES**

- ReliaWrap is fastened with nails or screws
- ReliaWrap will not rip or tear
- Packaged in 12 pre-cut sheets of 36"x36" and 36"x48" or 30"x100' roll

Material Properties	Results
UV - Stabilized Polymer Specific Gravity	0.94 g/cc
Tensile Yield	4490 psi
Elongation %	300 %

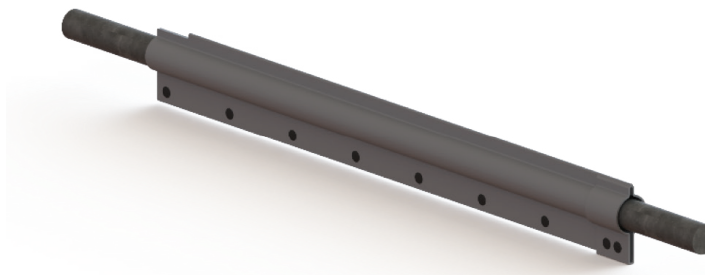
Product #	Description / Size
RW-30100	ReliaWrap - 30" x 100' - Rolls
RW-36036	ReliaWrap -36 x 36 - pre-cut sheet*
RW-36048	ReliaWrap -36 x 48 - pre-cut sheet*

\* "Pre-Cut Sheet" packaged in quantities of 12

## PIPE BUS GUARD

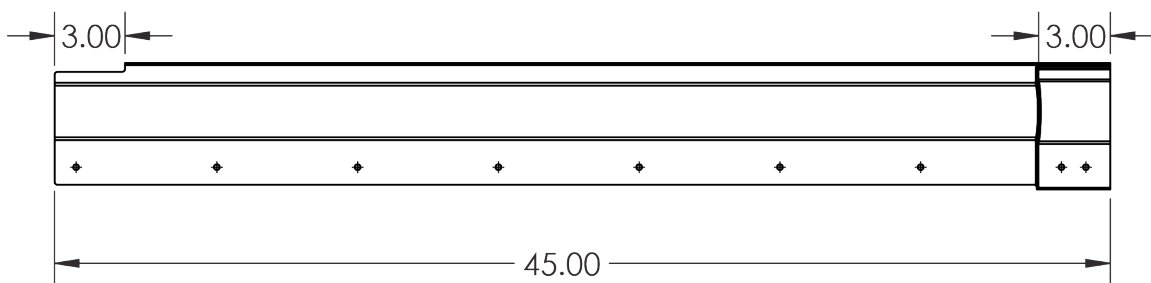
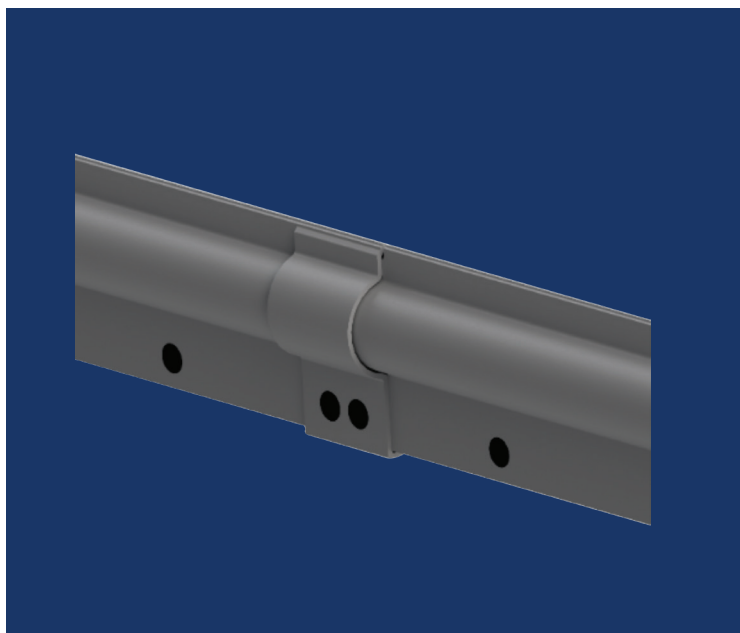
Reliaguard's Pipe Bus Guard is available in a range of diameters to suit a variety of substation bus work. Bus coverage may be required when tight clearances create a greater risk for bird and animal contact. Whether phase to ground or phase to phase protection is needed, Reliaguard's bus guards are designed to couple together allowing for a quick and easy application no matter the lengths required.

Reliaguard Pipe Bus Guards are formed from Reliatanium™, Reliaguard's proprietary dielectric material. Reliatanium™ was specifically formulated to meet the comprehensive testing guidelines outlined by the IEEE 1656-2010. The product material addresses such concerns as UV stability and flammability and achieves a 38 kV rating.



## FEATURES

- Pipe Bus Guards are available in multiple lengths and dimensions
- Guards are clamshell design for easy opening by hand
- Easy coupling of mated connections
- Push through pins are provided to easily install the Pipe Bus Guards by hand
- Retention of the guard once applied is a critical design feature to be considered.



Product Name	Part Number	Diameter*	Length*	Pack Size (MOQ)
Pipe Bus Guard – 2"	BB-20045-R	2.00 (50.8)	45.00 (1143)	6
Pipe Bus Guard – 2.5"	BB-25045-R	2.50 (63.5)	45.00 (1143)	6
Pipe Bus Guard – 4"	BB-40045-R	4.00 (101.6)	45.00 (1143)	6
Pipe Bus Guard – 4.5"	BB-45045-R	4.50 (114.3)	45.00 (1143)	6

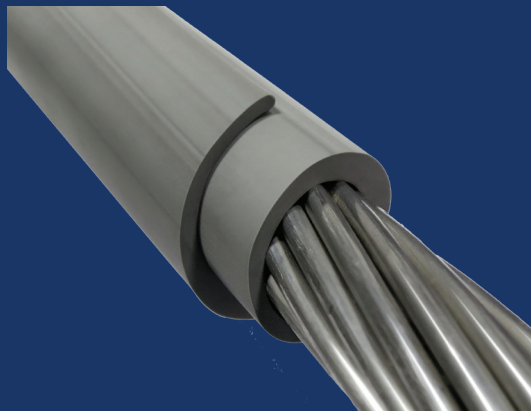
## GREYEEL™ CONDUCTOR COVER

*Provides Exceptional Coverage – orders ship with the EEL Slider application tool*

Protecting conductors is an essential component when applying effective guards to prevent animal and bird caused outages. Reliaguard's GreyEEL Conductor Cover helps prevent contacts by eliminating gaps in coverage. The product's improved protection is achieved with a significantly overlapped seam design and material memory technology that supports exceptional closure performance.

### GREYEEL EXTENSIVE COVERAGE

Reliaguard strongly recommends the use of conductor cover with all animal guards. The extended coverage achieved with conductor cover can prevent a phase to phase or phase to ground contact from occurring. Consider for instance how easily a bird's wingspan or the reach of a squirrel or raccoon can bridge the difference in potential on unprotected equipment.





## GREYEEL™ PRODUCT SPECS

GreyEEL Part #	Wire / Conductor Type	Conductor Size Range	Cover OD Size (inches)	Length Per Box
EEL-02503750-50-Y	4, 3, 2, 1, 1/0	0.200" - 0.370"	3/8	50 ft (15.24 m)
EEL-03750500-50-Y	2/0, 3/0, 4/0	0.375" - 0.495"	1/2	50 ft (15.24 m)
EEL-05000750-50-Y	266.88, 336.4, 397.5	0.500" - 0.745"	3/4	50 ft (15.24 m)
EEL-07501000-50-Y	447, 556.5, 636, 605, 715.5, 900, 666.6	0.750" - 1.000"	1	50 ft (15.24 m)
EEL-10001250-50-Y	795, 954, 1033.5, 1113, 1192.5	1.005" - 1.295"	1 1/4	50 ft (15.24 m)
EEL-12501500-50-Y	1272, 1351.5, 1431, 1590	1.300" - 1.450"	1 1/2	50 ft (15.24 m)
EEL-15001750-25-Y	1780, 2156, 2167	1.500" - 1.750"	1 3/4	25 ft (7.62 m)
EEL-17502000-25-Y	2312, 2515	1.800" - 2.000"	2	25 ft (7.62 m)
EEL-2500BUSEP-06-Y	GreyEEL Bus Cover - 2.5" bus Round	2" - 2.5"	2.5	24ft (4 pcs)
EEL-3500BUSEP-06-Y	GreyEEL Bus Cover - 3.5" bus Round	2.5" - 3.5"	3.5	24ft (4 pcs)
EEL-4500BUSEP-06-Y	GreyEEL Bus Cover - 4.5" bus Round	3.5" - 4.5"	4.5	18ft (3 pcs)

### Material Properties

Material	Silicone
Color	Grey
Specific Gravity	1.65
Durometer	55 to 75
Tensile, PSI	640
Elongation %	220
Electrical Rating – Phase to Ground	20 kV

### SF Tape

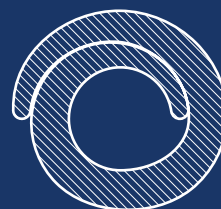
Reliaguard's SF Tape, is a self-amalgamating, heat and moisture resistant tape that has superior weathering characteristics and is excellent for covering odd shape / complicated connections or equipment.



Product Name	Tape 1" x 0.030"	Tape 2" x 0.030"
Part Number	TA-30100G	TA-30200G
Size Range	0.030 x 1"	0.030 x 2"
Length Per Box	24 ft	24 ft
Colour	Gray	Gray



EEL-10001250-50-Y



EEL-07501000-50-Y



EEL-05000750-50-Y



## EEL SLIDER™ APPLICATION TOOL

### *Revolutionary EEL Slider tool*

Reliaguard has developed the revolutionary EEL Slider tool to apply GreyEEL. The EEL Slider is designed for use with the rubber glove work method or for de-energized installation. The difficulty of applying conductor cover by hand is eliminated with the EEL Slider.

Ergonomically designed and easy to use, the EEL Slider optimizes safety, dexterity and the speed of applying GreyEEL.



### *A Tool for all power linemen*

The EEL Slider™ will be a welcome addition to the tool belt of all power linemen tasked with the job of applying conductor cover. Typically, conductor cover requires that the seam be split by hand which can be difficult when wearing the required protective gloves.

With the EEL Slider™, GreyEEL™ Conductor Cover slides onto conductors easily in a matter of seconds.

EEL Sliders are available in 3/8", 1/2", 3/4", 1", 1 1/4" and 1 1/2" with orders of 50ft or more of GreyEEL.

Part Number	Part Description	Cover Range	Color
EST-00375	3/8" Tool	0.25" - 0.38"	Orange
EST-00500	1/2" Tool	0.375" - 0.5"	Red
EST-00750	3/4" Tool	0.50" - 0.75"	Grey
EST-01000	1" Tool	0.75" - 1.00"	Blue
EST-01500	1-1/2" Tool	1.00" - 1.50"	Green

# OEM AND CUSTOM DESIGN PROCESS

## PROFESSIONAL CAD DESIGNERS

Reliaguard's design team is composed of professional CAD technicians, mechanical engineers, and industrial designers who develop guards specifically for electrical equipment applications.

Their expertise is supported by a team of linemen who collectively have 100 years of field experience working with electrical equipment on the powerline and in substations. Their expertise is further supported by a collaborative customer approach to problem-solving in mitigating against animal and bird-caused outages since 2001.

Reliaguard will work with customers to design guards specific to their needs. Examples include a frog guard and a theft prevention guard that were designed through the collaboration of Reliaguard and its customers to solve unique challenges. The Reliaguard design team has the expertise to create specialized guards by working with the defined custom process described here in the right sidebar.



### Data Collection

Data is collected from equipment through supplied manufacturer drawings, CAD models, and processing images to determine dimensions using photogrammetry.

### Solution Defined

Drawings and renderings of proposed solutions provided.

### Prototype

In-house rapid prototyping utilized to quickly provide working samples of proposed solutions.

### Pre-production Sample

Used on occasion for fine-tuning designs and ensuring functionality.

### Manufacture

Based on quantities required, production methods are determined and tooling is initiated.



## IEEE 1656-2010 TESTING PARAMETERS

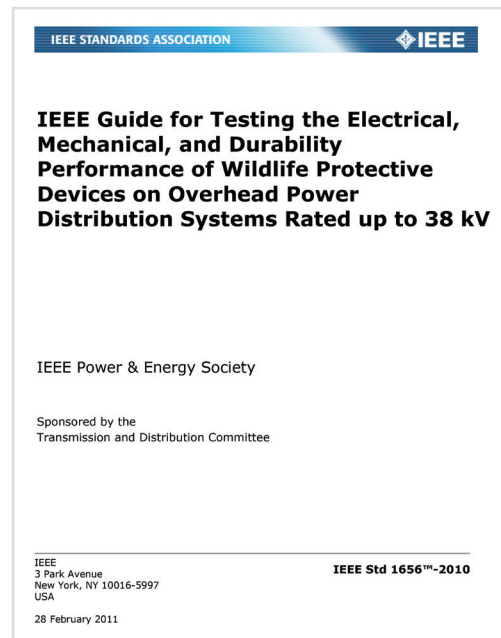
Reliaguard® manufactures guards to prevent power outages caused by animal and bird contacts on energized equipment. Formed from Reliatanium™, Reliaguard's proprietary dielectric material, guards are specially designed to protect both common and unique equipment configurations. Reliatanium is formulated to meet specific test criteria of the IEEE Standard 1656™-2010.

### THE IEEE GUIDE 1656™-2010 IS:

- The Approved Guide for Testing the Electrical, Mechanical and Durability Performance of Wildlife Protective Devices on Overhead Power Distribution Systems Rated up to 38kV.
- Recognized by the electrical industry as the most comprehensive guideline to date for testing wildlife protective devices on overhead power distribution systems.

### RELIATANIUM TESTING INCLUDES:

- Flammability Testing
- Salt Fog Aging
- Ultraviolet Aging
- Tracking and Erosion Resistance
- Wet Power Frequency Flashover
- Wet Withstand



**RELIATANIUM WAS FORMULATED TO MEET THE SPECIFIC TESTING GUIDELINES OUTLINED IN THE IEEE 1656 – 2010 GUIDE. THE PRODUCT MATERIAL ADDRESSES SUCH CONCERNS AS UV STABILITY AND FLAME RETARDANCY AND HAS BEEN TESTED TO A 38KV RATING.**

When a flashover or contact occurs, cover-up that doesn't support combustion is important for limiting damage to critical equipment and infrastructure. Reliaguard's Reliatanium material used in its parts production has achieved a V-0 flammability rating, the highest flammability rating, which means it does not support combustion.

# RELIATANIUM™

## MATERIAL DESCRIPTION

### Material Description

Reliatanium™ is a proprietary material developed by Reliaguard® Inc. which is formulated specifically for bird and animal mitigation products used in high voltage power systems.

Reliatanium was formulated to meet the specific testing guidelines outlined in the IEEE 1656™-2010 Guide. The product material addresses such concerns as UV stability and Flame Retardancy and has been tested to a 38KV rating.



### TECHNICAL FEATURES

Designed to prevent wildlife caused outages, these guards are tested for application on equipment up to 38kV.

Performance Test #	Test Standards	Details	Test Result
Flammability	IEEE 1656™ - 2010 Section 5.9.1	Self-extinguishing, no drips	V-0
Ultraviolet Aging	IEEE std 1656™ - 2010 Section 5.6	After completing 1000 hours, no perceived changes to the condition of test samples.	Completed
Tracking and Erosion Resistance	IEC 60587	6 hrs (Full duration of test)	Achieved @ 2KV
Wet Power Frequency Flashover	IEEE Std 1656™-2010 Section 5.3	Average flashover value of all samples greater than 90% of the value obtained on the test fixture alone	Passed
Wet Withstand	IEEE Std 1656™-2010 Section 5.2.1	Option 1 - moving Electrode All Samples did not puncture or flash over	Passed @38kV

Properties	Unit	Test Method	Value
Flexural Strength	psi	ASTM D790	5,200
Flexural Modulus	psi	ASTM D790	297,500
Tensile Strength @ break	psi	ASTM D638	2,000
Tensile Strength @ yield	psi	ASTM D638	2,900
Flammability		UL-94	V-0
UV Stability	hrs.	ASTM D4329	1,000
Durometer	Shore D	ASTM D2240	65
Heat Deflection	°F	ASTM D648 (66psi)	225
Dielectric Strength	V/mil	ASTM D149	549

# IMPORTANCE OF TESTING FOR ANIMAL MITIGATION GUARDS

Animal Mitigation guards should be tested to demonstrate they can accomplish the intended function of preventing wildlife contact with energized parts.

IEEE 1656-2010 “Guide for Testing the Electrical, Mechanical, and Durability Performance of Wildlife Protective Devices on Overhead Power Distribution Systems Rated up to 38 kV”, includes the tests described below for this purpose.



## 5.2 Wet withstand

This test is designed to demonstrate that contact with the surface of the guard will not result in a flashover. The guard is installed on a test fixture per the manufacturer's instructions. An appropriate bare conductor is installed in the test fixture terminal and energized to 20% above rated voltage (26kV for a 38kV system). A grounded probe is moved over the entire surface of the guard. A flashover or puncture is not allowed. As noted in the title, this test is performed wet (with precipitation conditions per IEEE std. 4).

Insulators, transformer bushings, cutouts, etc., have required electrical ratings and performance characteristics that have been verified through appropriate testing. Animal mitigation guards designed for installation on such equipment should be tested to ensure they will not negatively affect those ratings.

IEEE 1656-2010 includes the tests below for this purpose.



## 5.3 Wet power frequency flashover

In this test, voltage is applied to the test fixture without a wildlife guard installed. The voltage is raised until a flashover occurs. The wildlife guard is then installed per manufacturer's instructions and the test is repeated. The flashover value with the guard installed must be 90% or more per the manufacturer's flashover value without the guard installed. As noted in the title, this test is also performed wet (with precipitation conditions per IEEE std. 4).

## 5.7 Salt fog aging—Testing for unusual service conditions

The “Salt Fog Aging” test is designed for extreme conditions such as coastal areas or other interior locations with the potential for high environmental fallout such as agricultural or heavy industrial areas.

This test is performed on guards in sequence after the Ultraviolet Aging test. For this test, the guard is installed on an insulator with the ground plane and conductor simulating normal installed conditions. The assembly is placed in a salt fog chamber and the conductor is energized at system voltage (19.9kV for a 34.5kV system) for 1000 hours. Flashover should not occur.

Animal Mitigation guards should be tested to demonstrate they will stay on and performance will not degrade due to UV exposure. IEEE 1656-2010 includes the tests below for this purpose.



## 5.6 Ultraviolet aging

This test is designed to demonstrate that electrical performance of the guards is not affected after UV exposure. This test is performed on the same samples used in the Wet Withstand and Wet Power Frequency tests described above. Those guards are placed in a UV test chamber (UVA 340 lamps) for 1000 hours. The condition of the guards is noted and the Wet Withstand and Wet Power Frequency tests are repeated. A flashover or puncture is not allowed.



## 5.8 Retention

This test is designed to demonstrate guards will remain installed when exposed to extreme winds. One test option is to install guards on a test fixture that simulates installed conditions. Then, from various angles, the guards are exposed to a constant wind speed of 60 mph. Guards must remain installed.

Animal Mitigation guards should also be tested to demonstrate flame retardant properties. Guards that are not flame retardant can catch fire due to a flashover. This can result in flaming material falling to the ground below and causing a wildfire.

IEEE 1656-2010 includes the tests below for this purpose.

## 5.9 Flammability

The UL94 test is included as an option to demonstrate flame retardant properties. A rating of V-0 is the highest rating and means that when exposed to a flame for 10 seconds, the material will self-extinguish and will not release flaming droplets.



**Reliaguard Reliatanium™ guards pass all the above tests, which demonstrate:**

- **Equipment ratings are maintained**
- **Guards can prevent wildlife contact**
- **Guards are not affected by extreme environmental conditions**
- **Guards are flame retardant, will self-extinguish and will not drip flaming material**

Some manufacturers publish only material tests results or material properties. Such information does not demonstrate how the guards perform once they are installed. IEEE 1656-2010 requires tests on actual guards to demonstrate electrical and environmental performance. Performance of wildlife guards is a combination of good design, material formulation and material processing. This can only be demonstrated through testing of the guards. "Materials" tests tell only part of the story.

Product Name	Part Number	Height Dimension*	Diameter Dimension*	Additional Dimension*	Pack Size (MOQ)
Cross Arm Guard	BB-30520-S	3.00 (76.2)	5.00 (127) width	20.00 (508) length	12
2 piece Hot Stick Spur Kit	BC-10012K	-	-	-	12
4 piece Hot Stick Spur Kit	BC-10014K	-	-	-	12
#4 - Small Bushing Guard w/ Loop Latch	BC-14991	5.7 (114.8)	4.4 (111.8)	1.8 (45.7) base port	24
#4 - Medium Bushing Guard w/ Loop Latch	BC-14992	5.7 (114.8)	4.4 (111.8)	1.8 (45.7) base port	24
#5 - Small Bushing Guard - Mesh - 2.25" base	BC-15008	5.6 (142.2)	5 (127)	2.25 (57.2) base port	24
#5 - Small Bushing Guard - Solid- 2.25" base	BC-15010	5.6 (142.2)	5 (127)	2.25 (57.2) base port	24
#5 Small Bushing Guard - Small Base 1.8"	BC-16003	5.6 (142.2)	5 (127)	1.8 (45.7) base port	24
#5 Small Bushing Cover - Mesh - Small Base 1.8"	BC-16005	5.6 (142.2)	5 (127)	1.8 (45.7) base port	24
#5 Medium Bushing Guard - Small Base 1.8"	BC-16006	8.1 (205.7)	5 (127)	1.8 (45.7) base port	24
#5 Medium Bushing Guard -Mesh- Small Base 1.8"	BC-16008	8.1 (205.7)	5 (127)	1.8 (45.7) base port	24
#5 - Medium Bushing Cover- 2.25" base	BC-15011	8.1 (205.7)	5 (127)	2.25 (57.2) base port	24
#5 - Medium Bushing Cover - Mesh- 2.25" base	BC-15013	8.1 (205.7)	5 (127)	2.25 (57.2) base port	24
#7 - Medium Bushing Guard	BC-15021	11.8 (299.7)	7 (177.8)	2.5 (63.5) base port	12
#7 - Medium Bushing Guard - Mesh	BC-15023	11.8 (299.7)	7 (177.8)	2.5 (63.5) base port	12
#8 - Small Bushing Guard	BC-15028	15 (381)	8.25 (210)	3.5 (88.9)	6
#8 - Small Bushing Guard - Mesh	BC-15030	15 (381)	8.25 (210)	3.5 (88.9)	6
#8 - Medium Bushing Guard	BC-15031	17.8 (452.1)	8 (203.2)	3.5 (88.9) base port	6
#8 - Medium Bushing Guard - Mesh	BC-15033	17.8 (452.1)	8 (203.2)	3.5 (88.9) base port	6
#10 - Medium Bushing Guard	BC-15041	19.8 (502.9)	10.5 (266.7)	4.6 (116.8) base port	6
#10 - Medium Bushing Guard - Mesh	BC-15043	19.8 (502.9)	10.5 (266.7)	4.6 (116.8) base port	6

*\*Dimensions in inches (millimeters)*

*Reliaguard parts are made from Reliatanium which achieves V-0 Flammability rating*

Product Name	Part Number	Height Dimension*	Diameter Dimension*	Additional Dimension*	Pack Size (MOQ)
Switch Guard - Short Hood	CO-10005	6.65 (169)	4.5 (114.3)	2.3 (58.4) base port	12
Hot Stick Universal Cut Out	CO-10007	5.5 (137.5)	4.59 (116.5)	2.9 (73.7) base port	24
Dead End Guard	DE-16001	18.2 (462.3)	6.3 (160)	0.91 (23.1) side port	6
Lightning Arrester - Multi Port	LA-13002	4.75 (120.6)	5 (127)	2.3 (58.4) base port	12
K-line Clamp Top Insulator Guard	PI-12002	7 (177.8)	5.37 (136.4)	1.88 (47.8) base port	12
Tie Top Insulator Guard - K - 4.003	PI-12001	3.25 (82.5)	5.75 (146)	4.00 (101.6) base port	12
Tie Top Insulator Guard - C - 2.253	PI-12003	3.25 (82.5)	5.75 (146)	2.25 (57.15) base port	12
Tie Top Insulator Guard - F - 2.873	PI-12004	3.25 (82.5)	5.75 (146)	2.87 (72.90) base port	12
Tie Top Insulator Guard - J - 3.503	PI-12005	3.25 (82.5)	5.75 (146)	3.50 (88.90) base port	12
Regulator Kit C400 <sup>1</sup>	RK-11001K	12 (304.8)	6.3 (160)	2.75 (69.9) base port	1
Regulator Kit C500 <sup>2</sup>	RK-11002K	14.5 (368.3)	9.25 (247.7)	3.50 (88.9) base port	1
Regulator Kit S400 <sup>3</sup>	RK-11021K	10.2 (259)	7.75 (196.9)	2.63 (66.8) base port	1
Regulator Kit - SR400	RK-11023K	10.2 (259)	7.75 (196.9)	2.63 (66.8) base port	1
ReliaWrap - 30" x 100' - Rolls	RW-30100	-	-	30" x 100' - Rolls	1
Reliawrap 36" x 36"	RW-36036	-	-	36" x 36" - pre-cut sheet <sup>4</sup>	1
Reliawrap 36" x 48"	RW-36048	-	-	36" x 48" - pre-cut sheet <sup>4</sup>	1
Terminator Guard Lite	TC-14002	10.59 (269)	3 (76.2)	1.5 (38.1) base port	12
External Back Up Fuse Guard	TC-20001	11.88 (302)	3 (76.2)	1.5 (38.1) base port	12
Tape 1" x 0.030" (36ft)	TA-30100G	-	-	1" x 36ft	24
Tape 2" x 0.030" (36ft)	TA-30200G	-	-	2" x 36ft	24
Security Pin 1.25"-Blk (250pcs)	SP-124030N250	-	-	-	1
Security Pin 1.25"-Blk (50pcs)	SP-124030N50	-	-	-	1

<sup>1</sup> (Regulator Kit includes 2 bushing covers and 2 arrester bracket covers; fits Cooper Regulators - 50 amp to 400 amp)

<sup>2</sup> (Regulator kit includes 2 bushing covers and 2 arrester bracket)

<sup>3</sup> (Regulator kit includes 2 bushing covers; fits Siemens Regulators - 219 amp to 489 amp) covers; fits Cooper Regulator - 500 amp)

<sup>4</sup> "Pre-Cut Sheet" packaged in quantities of 12 per box

Product Name	Part Number	Height Dimension*	Width Diameter*	Depth Dimension*	Pack Size (MOQ)
Perch Preventer	PP-10010	7.1	32.75	7.5	6
Overhead Bail Clamp Guard	PI-00100	11.7	7.1	4.4	12



Product Name	Part Number	Diameter*	Length*	Pack Size (MOQ)
Pipe Bus Guard – 2"	BB-20045-R	2.00 (50.8)	45.00 (1143)	6
Pipe Bus Guard – 2.5"	BB-25045-R	2.50 (63.5)	45.00 (1143)	6
Pipe Bus Guard – 4"	BB-40045-R	4.00 (101.6)	45.00 (1143)	6
Pipe Bus Guard – 4.5"	BB-45045-R	4.50 (114.3)	45.00 (1143)	6

Product Name	Part Number	Outside Diameter	Inside Diameter	Width	Pack Size (MOQ)
Wildlife Hot Stick Disc -24	PD-0624	24 (609.6)	2.5-6.0 (63.5-152.4)	0.5 (12.7)	8
Wildlife Hot Stick Disc -20	PD-0620	20 (508)	2.5-6.0 (63.5-152.4)	0.5 (12.7)	8
Wildlife Hot Stick Disc -16	PD-0616	16 (406.4)	2.5-6.0 (63.5-152.4)	0.5 (12.7)	12
Protection Disc - 4" ID Max - 15" OD – Flat	PD-0415F	22 (558.8)	2.5-4.0 (63.5-101.6)	0.125 (3.2)	12
Protection Disc - 5" ID Max - 22" OD – Flat	PD-0522F	16 (406.4)	2.5-5.0 (63.5-127)	0.125 (3.2)	12

FITS	Reliaguard KwIT Description	Part Number	Bushing Qty	Conductor Cover	EEL Tool
G&W Viper	Recloser Kit V-ST (Viper ST) - Mesh	RCK-12006K	6	0.75" OD <sup>1</sup>	1
G&W Viper	Recloser Kit V-ST (Viper ST) - Solid	RCK-12001K	6	0.75" OD <sup>1</sup>	1
G&W Viper	Recloser Kit - VSTLA (w/ LA) (Viper ST)	RCK-12020K	6 <sup>*</sup>	0.75" OD <sup>1</sup>	1
Cooper Nova	Recloser Kit - NVA - Solid (4' C.C.) <sup>2</sup>	RCK-12201K	6	0.75" OD <sup>1</sup>	1
Cooper Nova	Recloser Kit - NVA - Mesh (4' C.C.) <sup>2</sup>	RCK-12207K	6	0.75" OD <sup>1</sup>	1
Cooper Nova/Spear	Recloser Kit Single SPE -Solid (4' C.C.) <sup>2</sup>	RCK-12210K	2	0.75" OD <sup>2</sup>	1
Cooper Nova/Spear	Recloser Kit Single SPE -Mesh (4' C.C.) <sup>3</sup>	RCK-12215K	2	0.75" OD <sup>2</sup>	1
Elastimold/ABB	Recloser Kit ELAB - Solid (4' C.C.) <sup>3</sup>	RCK-13001K	6	0.75" OD <sup>1</sup>	1
Elastimold/ABB	Recloser Kit ELAB - Mesh (4' C.C.) <sup>3</sup>	RCK-13005K	6	0.75" OD <sup>1</sup>	1
Elastimold/ABB	Recloser Kit ELAB - Mesh (4' C.C.-.500" max) <sup>2</sup>	RCK-13006K	6	0.50" OD <sup>1</sup>	1
Elastimold/ABB	Recloser Kit Single ELAB -Solid (4' C.C.) <sup>2</sup>	RCK-13101K	2	0.75" OD <sup>2</sup>	1
Elastimold/ABB	Recloser Kit Single ELAB -Mesh (4' C.C.) <sup>3</sup>	RCK-13105K	2	0.75" OD <sup>2</sup>	1
Elastimold/ABB	Recloser Kit Single ELAB -Mesh (4' C.C.-.375" max) <sup>3</sup>	RCK-13106K	2	0.375" OD <sup>1</sup>	1

<sup>1</sup> 6 - 4ft sections of conductor cover and EEL Slider tool)

<sup>2</sup> 2 - 4ft sections of conductor cover and EEL Slider tool)

<sup>\*</sup> Includes 6 - lightning arresters

## IMPROVING THE GRID'S RELIABILITY

Today's dependence on a reliable power supply is greater than ever. Guaranteed reliability is required by government and health care for essential services. From government supplied essential services to emergency health services; business and manufacturing operations fueling employment and the economy; daily household requirements and powering of individual electronic devices - all are critically dependent on a highly reliable power grid.

Animal and bird caused outages are a significant cause of power interruptions accounting for between 12% and 20% of all outages (Source: EPRI 2001). These types of outages are preventable with the right solution.

To support the reliability of the North American grid, Reliaguard offers product solutions for a variety of equipment types with much more currently in development. Working together with our customers and equipment manufacturers we're able to develop more comprehensive solutions for animal and bird mitigation issues. Examples of custom guards to date include theft prevention covers and frog guards with more unique solutions in development under our OEM and custom design process.

In addition to preventing outages, Reliaguard is focused on preventing takes of all wildlife including protected and endangered species through insightful design and risk analysis.



## UP TO 20% OF ALL OUTAGES ARE CAUSED BY ANIMALS AND BIRDS

## RELIAGUARD POWERLINE AND SUBSTATION GUARDS

Reliaguard® is focused on the development of bird and animal guards for the power line and for common parts in substations. Reliaguard® also manufactures conductor cover to be used in conjunction with its guards.

Manufactured in California, USA, Reliaguard® parts are produced on a volume basis and are priced affordably for large volume purchases.

Reliaguard Inc. is a division of Cantega Technologies Inc. that was formed as a separate division based on a need in the industry for powerline solutions that offered a superior fit and priced for

volume purchases. Reliaguard leverages the design expertise that Cantega has developed through its Greenjacket precise-fit solution.

Marty Niles, founder of Cantega, brings over 25 years of electrical utility based experience to the business. His expertise combined with that of fellow lineman team members equates to a combined 100 years of field experience working with electrical equipment on the powerline and in substations.

Reliaguard, GreyEEL, The EEL Slider are all trademarks owned by Cantega Technologies Inc.



**SUPERIOR PORTFOLIO OF WILDLIFE MITIGATION PRODUCTS**



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