Hendrix®

Molded Product Catalog

Revised: March 2023

marmonutility.com

Marmon Utility LLC
A Berkshire Hathaway Company

Hendrix®
MOLDED PRODUCTS

Hendrix Molded Products Division began with the development of HPI Tie Top Insulators in the mid-1960's. The first production units were shipped in 1966, giving Hendrix well over 50 years of field experience. In the mid-1970's, Hendrix developed and produced the first Vise Top Insulators, where a conductor clamping mechanism was designed into the top of the insulator, and the first production units were shipped in 1976. In 2012, Hendrix introduced its Line Post Insulator product line to the market and shipped its first order.

All Hendrix HPI Insulators are manufactured from a proprietary blend of gray, track-resistant, high-density polyethylene. Tie Top, Vise Top, and Line Post Insulators are tested in conformance with the ANSI C29 series of specifications and exhibit superior electrical and mechanical characteristics compared to wet process porcelain. They have greater leakage distance, higher flashover and impulse values, are lightweight, vandal resistant, won't chip, crack, or break, are a green recyclable product, and are made in the USA.

MADE IN U.S.A.

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INSULATORS

Your Green Insulator Solution

We all feel the pressure to minimize our environmental impact, but when there is also a focus on minimizing costs, it can be difficult to know where to start. Hendrix is here to help. Utilizing recyclable products can strengthen your company's position as a leader in the green revolution. And Hendrix HPI Insulators, unlike traditional porcelain insulators, are made from high-density polyethylene - a recyclable plastic, which is good for your organization and the planet.

We Make It Easy to Be Green

Hendrix Molded Products Division is making it easier than ever to recycle with the introduction of our **"Cradle to Cradle Program."** When there is a need to dispose of insulators, simply send your used Hendrix HPI products to your local recycler, or if you prefer, send them to the address shown here and we will recycle them for you - at no additional cost to you. So what would have been landfill will now be recycled into something new and functional.

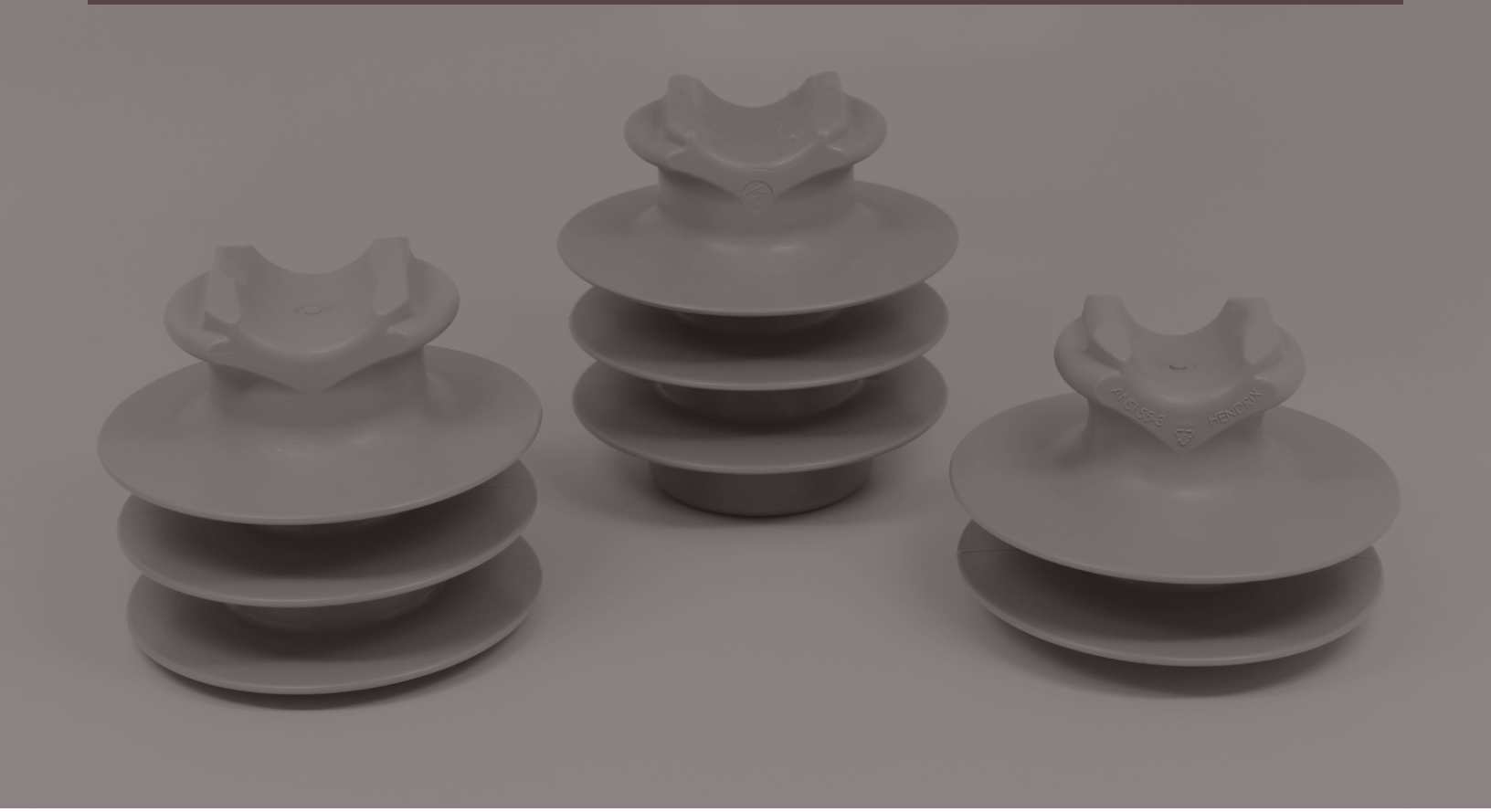
Hendrix Molded Products
Cradle to Cradle Program
116 Route 101A
Amherst, NH 03031

Enhance Your Reputation

We all expect consistent delivery of power to our homes and businesses. So why not enhance your reputation for exceptional quality and service with your customers? All Hendrix HPI Insulators meet or exceed industry standards for reliability and performance while offering many value-added features:

- Vandal/shotgun/bullet/impact resistant
- Longer leakage than equivalent porcelain
- Higher puncture resistance than porcelain
- Direct replacement for porcelain
- UV and track resistant
- Easier handling and storage
- Weather washing characteristics
- Lightweight and lineman preferred

Tie Top Polyethylene Pin Insulators



Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track-resistant, high-density polyethylene.

They are ideal for use with all types of construction using either bare wire or covered conductors. When using covered conductors, it is recommended that HPI Insulators always be used in order to match the dielectric properties of the insulating materials. HPI Tie Top Insulators conform with the electrical and mechanical requirements of ANSI C29.5 and C29.6. They are designed with standard ANSI neck and thread sizes and are available in nominal voltage ratings of 15kV, 25kV, and 35kV.

They are especially well suited for areas of vandalism. Ballistics tests have shown that even with damage from a rifle or shotgun, the insulators are still able to perform.

Benefits

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage, and vandalism
- Field installed since 1966
- Designed for use with all Tie Products
- Lightweight for ease of handling
- RUS-Accepted Insulators
- HPIs are green... all HPI Pin Insulators are made of 100 percent recyclable plastic
- Guaranteed for life
- Made in the USA

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MOLDED PRODUCTS

Tie Top Polyethylene Pin Insulators

HPI-55-3

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

The HPI-55-3 is designed with standard ANSI neck and thread size. It is a direct replacement for medium-voltage porcelain C-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- RUS Accepted
- Made in USA

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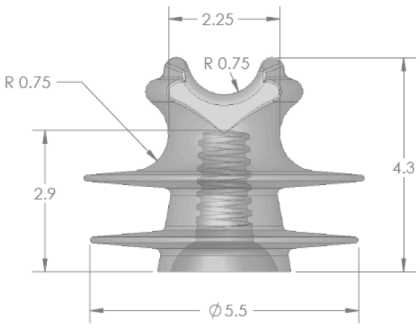
Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-3	HPI-55-3
DIMENSIONS		
Neck designation	C	C
Leakage distance (in)	7	10.3
Dry-arc distance (in)	4.5	6.1
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
Cantilever strength (lbs)	2500	>3000
ELECTRICAL VALUES		
Typical application (kV)		15
Flashover voltage, 60 Hz Dry (kV)	55	69
Flashover voltage, 60 Hz Wet (kV)	30	45
Impulse Flashover — Positive (kV)	90	108
Impulse Flashover — Negative (kV)	110	148
Low frequency Puncture (kV)	90	210
OTHER		
Min.-Max. Conductor Diameter (in)		.187 - 1.375
Part Weight (lbs)		0.9
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] High temperature (200°C) model is available



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-55-4

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

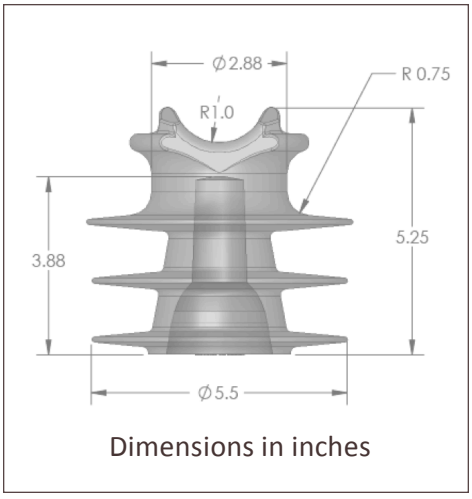
The HPI-55-4 is designed with standard ANSI neck and thread size. It is a direct replacement for medium-voltage porcelain F-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- RUS Accepted
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-4	HPI-55-4
DIMENSIONS		
Neck designation	F	F
Leakage distance (in)	9	12.5
Dry-arc distance (in)	5	6.7
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
Cantilever strength (lbs)	3000	>3000
ELECTRICAL VALUES		
Typical application (kV)		15
Flashover voltage, 60 Hz Dry (kV)	65	83
Flashover voltage, 60 Hz Wet (kV)	35	51
Impulse Flashover — Positive (kV)	105	129
Impulse Flashover — Negative (kV)	130	158
Low frequency Puncture (kV)	95	235
OTHER		
Min.-Max. Conductor Diameter (in)		.187 - 1.375
Part Weight (lbs)		1.2
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] High temperature (200°C) model is available



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-55-5

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

The HPI-55-5 is designed with standard ANSI neck and 1-1&3/8" thread size. It is a direct replacement for medium-voltage porcelain F-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- Made in USA

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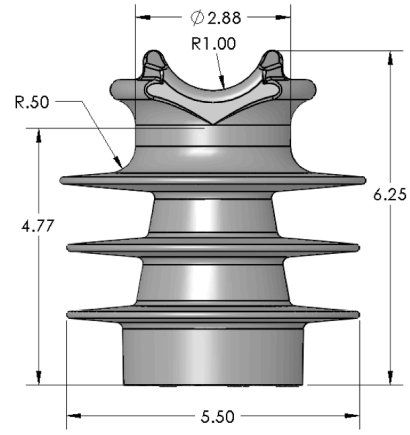
Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-5	HPI-55-5-01/02
DIMENSIONS		
Neck designation	F	F
Leakage distance (in)	12	14.2/14.9
Dry-arc distance (in)	6.25	7.2
[1]Pin-hole diameter (in)	1	(1)/(1-3/8)
MECHANICAL VALUES		
Cantilever strength (lbs)	3000	>3000
[2]**ELECTRICAL VALUES**		
Typical application (kV)		25
Flashover voltage, 60 Hz Dry (kV)	80	86
Flashover voltage, 60 Hz Wet (kV)	45	58
Impulse Flashover – Positive (kV)	130	137
Impulse Flashover – Negative (kV)	150	197
Low frequency Puncture (kV)	115	215
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		(1.4)/(1.3)
[3]Max Continuous Conductor Temp (°C)		120



Dimensions in inches

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] Values from test samples with 1" pin
[3] High temperature (200 C) model is available

Tie Top Polyethylene Pin Insulators

HPI-25-01

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

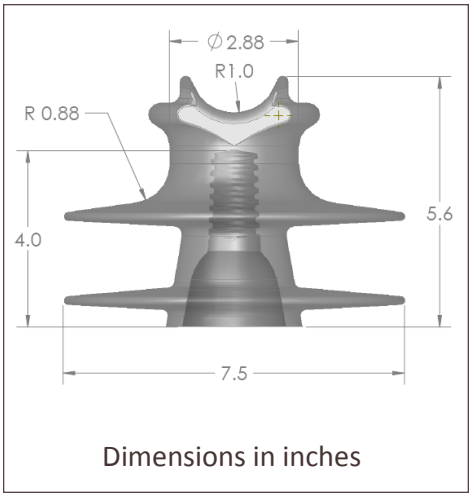
The HPI-25-01 is designed with standard ANSI neck and thread size. It is a direct replacement for medium-voltage porcelain F-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-5	HPI-25-01
DIMENSIONS		
Neck designation	F	F
Leakage distance (in)	12	14.3
Dry-arc distance (in)	6.25	8.1
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
Cantilever strength (lbs)	3000	>3000
ELECTRICAL VALUES		
Typical application (kV)		25
Flashover voltage, 60 Hz Dry (kV)	80	84
Flashover voltage, 60 Hz Wet (kV)	45	51
Impulse Flashover — Positive (kV)	130	146
Impulse Flashover — Negative (kV)	150	176
Low frequency Puncture (kV)	115	223
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		1.9
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] High temperature (200°C) model is available



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-25-02

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

The HPI-25-02 is designed with standard ANSI neck and 1-3/8" thread size. It is a direct replacement for medium-voltage porcelain F-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- Made in USA

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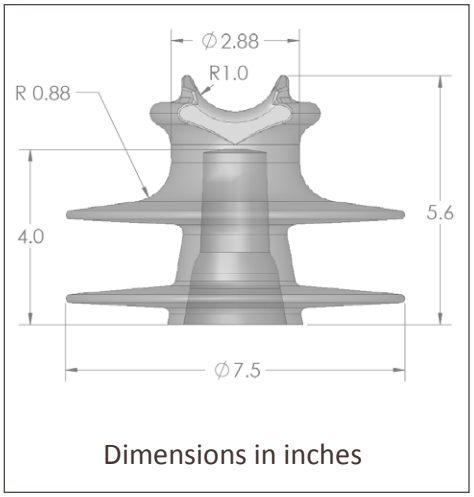
Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-5	HPI-25-02
DIMENSIONS		
Neck designation	F	F
Leakage distance (in)	12	14.2
Dry-arc distance (in)	6.25	8.1
[1]Pin-hole diameter (in)	1	1-3/8
MECHANICAL VALUES		
Cantilever strength (lbs)	3000	>3000
ELECTRICAL VALUES		
Typical application (kV)		25
Flashover voltage, 60 Hz Dry (kV)	80	84
Flashover voltage, 60 Hz Wet (kV)	45	51
Impulse Flashover – Positive (kV)	130	146
Impulse Flashover – Negative (kV)	150	176
Low frequency Puncture (kV)	115	215
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		1.8
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] High temperature (200°C) model is available



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-25J-01

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

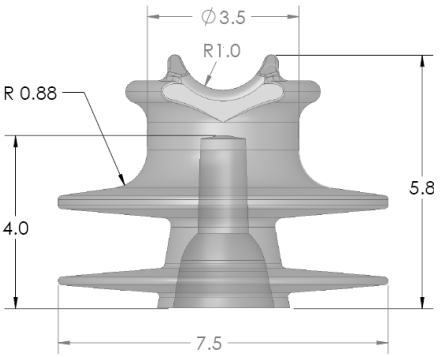
The HPI-25J-01 is designed with standard ANSI neck and 1" thread size. It is a direct replacement for medium-voltage porcelain F-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.6 CLASS 56-1	HPI-25J-01
DIMENSIONS		
Neck designation	J	J
Leakage distance (in)	13	13.9
Dry-arc distance (in)	7	7.8
[1]Pin-hole diameter (in)	1-3/8	1
MECHANICAL VALUES		
Cantilever strength (lbs)	2500	>3000
ELECTRICAL VALUES		
Typical application (kV)		25
Flashover voltage, 60 Hz Dry (kV)	95	97
Flashover voltage, 60 Hz Wet (kV)	60	70
Impulse Flashover – Positive (kV)	150	168
Impulse Flashover – Negative (kV)	190	186
Low frequency Puncture (kV)	130	227
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		2.4
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] High temperature (200°C) model is available



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-25J-02

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

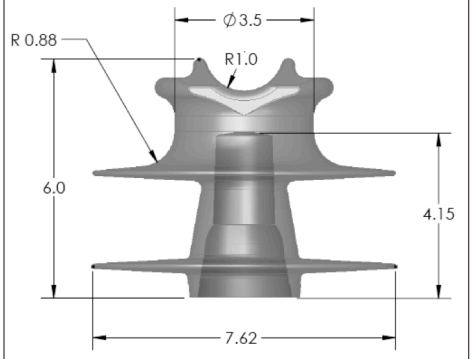
The HPI-25J-01 is designed with standard ANSI neck and thread size. It is a direct replacement for medium-voltage porcelain F-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- RUS Accepted
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.6 CLASS 56-1	HPI-25J-02
DIMENSIONS		
Neck designation	J	J
Leakage distance (in)	13	14.8
Dry-arc distance (in)	7	8.3
[1]Pin-hole diameter (in)	1-3/8	1-3/8
MECHANICAL VALUES		
Cantilever strength (lbs)	2500	>3000
ELECTRICAL VALUES		
Typical application (kV)		25
Flashover voltage, 60 Hz Dry (kV)	95	102
Flashover voltage, 60 Hz Wet (kV)	60	75
Impulse Flashover – Positive (kV)	150	170
Impulse Flashover – Negative (kV)	190	200
Low frequency Puncture (kV)	130	227
OTHER		
Min.-Max. Conductor Diameter (in)		.187 - 1.75
Part Weight (lbs)		1.8
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] High temperature (200°C) model is available



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-35

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

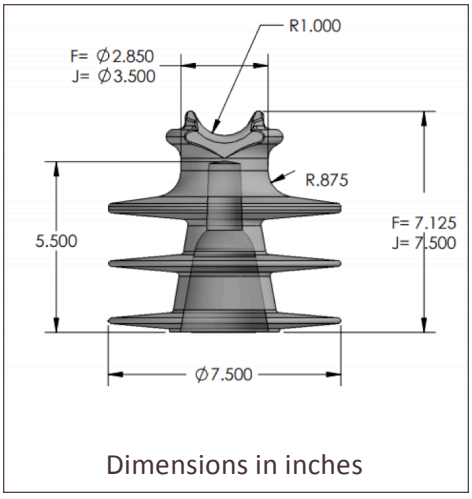
The HPI-35 are designed to meet the electrical and mechanical requirements of ANSI Class 55-6, but furnished with a smaller diameter F-neck. They are direct replacements for mediumvoltage porcelain insulators and recommended for all conductor types, bare or covered..

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-6	HPI-35-01/02
DIMENSIONS		
[1] Neck designation	J	F, J
Leakage distance (in)	15	20.5
Dry-arc distance (in)	8	10
Pin-hole diameter (in)	1	(1)/(1-3/8)
MECHANICAL VALUES		
Cantilever strength (lbs)	3000	>3000
ELECTRICAL VALUES		
Typical application (kV)		35
Flashover voltage, 60 Hz Dry (kV)	100	101
Flashover voltage, 60 Hz Wet (kV)	50	68
Impulse Flashover – Positive (kV)	150	167
Impulse Flashover – Negative (kV)	170	233
Low frequency Puncture (kV)	135	211/180
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		F-2.25/J-3
Max Continuous Conductor Temp (°C)		120

Notes: [1] F-Neck does not meet ANSI Standards



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-35J-01

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

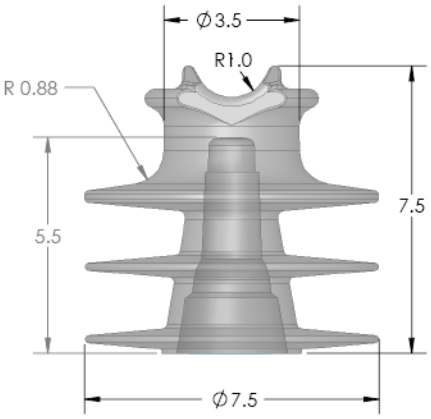
The HPI-35J-01 is designed with standard ANSI neck and thread size. It is a direct replacement for medium-voltage porcelain J-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-6	HPI-35J-01
DIMENSIONS		
Neck designation	J	J
Leakage distance (in)	15	20
Dry-arc distance (in)	8	9.6
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
Cantilever strength (lbs)	3000	>3000
ELECTRICAL VALUES		
Typical application (kV)		35
Flashover voltage, 60 Hz Dry (kV)	100	123
Flashover voltage, 60 Hz Wet (kV)	50	73
Impulse Flashover — Positive (kV)	150	177
Impulse Flashover — Negative (kV)	170	243
Low frequency Puncture (kV)	135	211
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		3.0
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] High temperature (200 C) model is available



Dimensions in inches

Tie Top Polyethylene Pin Insulators

HPI-35J-02

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

The HPI-35J-02 is designed with standard ANSI neck and thread size. It is a direct replacement for medium-voltage porcelain J-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- Made in USA

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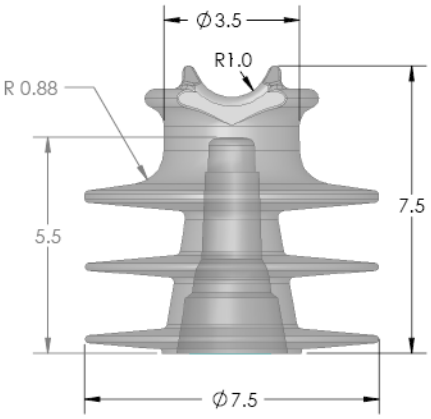
Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-7	HPI-35J-02
DIMENSIONS		
Neck designation	J	J
Leakage distance (in)	15	20.7
Dry-arc distance (in)	8	9.6
[1]Pin-hole diameter (in)	1-3/8	1-3/8
MECHANICAL VALUES		
Cantilever strength (lbs)	3000	>3000
[2]ELECTRICAL VALUES		
Typical application (kV)		35
Flashover voltage, 60 Hz Dry (kV)	100	123
Flashover voltage, 60 Hz Wet (kV)	50	73
Impulse Flashover – Positive (kV)	150	177
Impulse Flashover – Negative (kV)	170	243
Low frequency Puncture (kV)	135	211
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		3.0
[3]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available
[2] Values from test samples with 1" pin
[3] High temperature (200 C) model is available



Dimensions in inches

Tie Top Installation Frequently Asked Questions

Q: What is the recommended installation procedure for an HPI Insulator?

A: Normal HPI installation will be accomplished by turning the insulator until it engages the internal mastic. The lineman will feel the insulator become tight as the top of the pin makes contact with the mastic. **Do not overtighten!** Then turn the insulator forward to align the top saddle with the conductor (usually 1/2 turn will accomplish this). An additional 1/2 turn of the insulator — if needed — will not hurt the installation, but some insulator spring back may occur. This is caused by the overly compressed mastic giving "back-pressure" to the insulator. The "back-pressure" will dissipate as some of the mastic oozes into the thread area, usually taking several seconds.

Q: Does the top of the crossarm pin or pole top pin have to make contact and compress the mastic?

A: To eliminate all the air space between the threads of the crossarm pin and the mastic, we recommend that the insulator be threaded down on the pin until positive contact is made.

Q: What is the purpose of the mastic in the top of the threaded area?

A: The purpose of the mastic in the threaded area of the insulator is simply to eliminate air space and eliminate potential RIV.

Q: Can the HPI be overtightened?

A: Yes. Excessive turning of the insulator on the pin can possibly cause damage to the insulator threads or neck area of the insulator. No tools required. Hand tighten only.

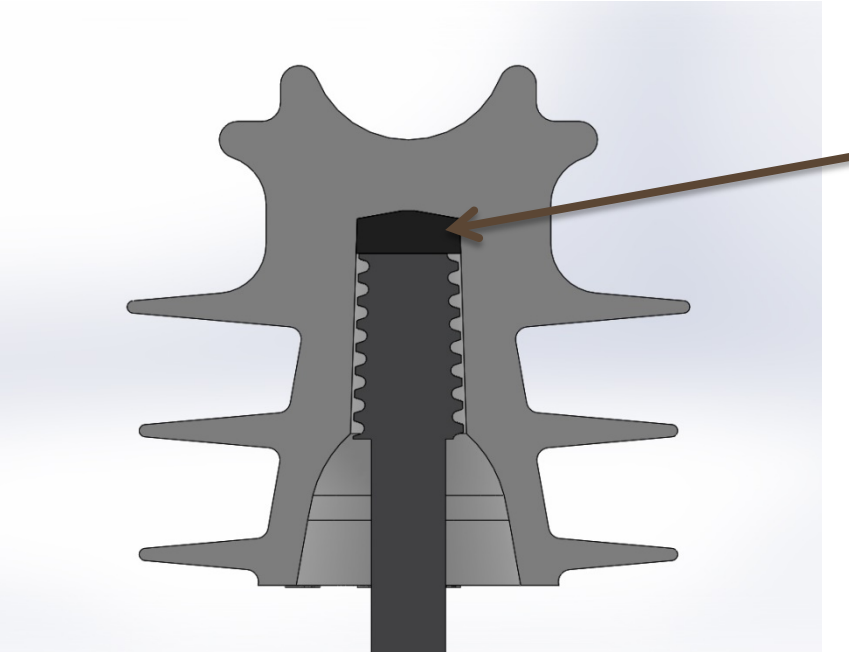
Installation Guide

Important Notes to Prevent Damage:

- **Install by hand only-DO NOT USE TOOLS**
- **DO NOT "Bottom Out" Threads-See Step 1**

Step # 1

Thread on insulator, stopping when you feel the threads engage the internal mastic (see below)



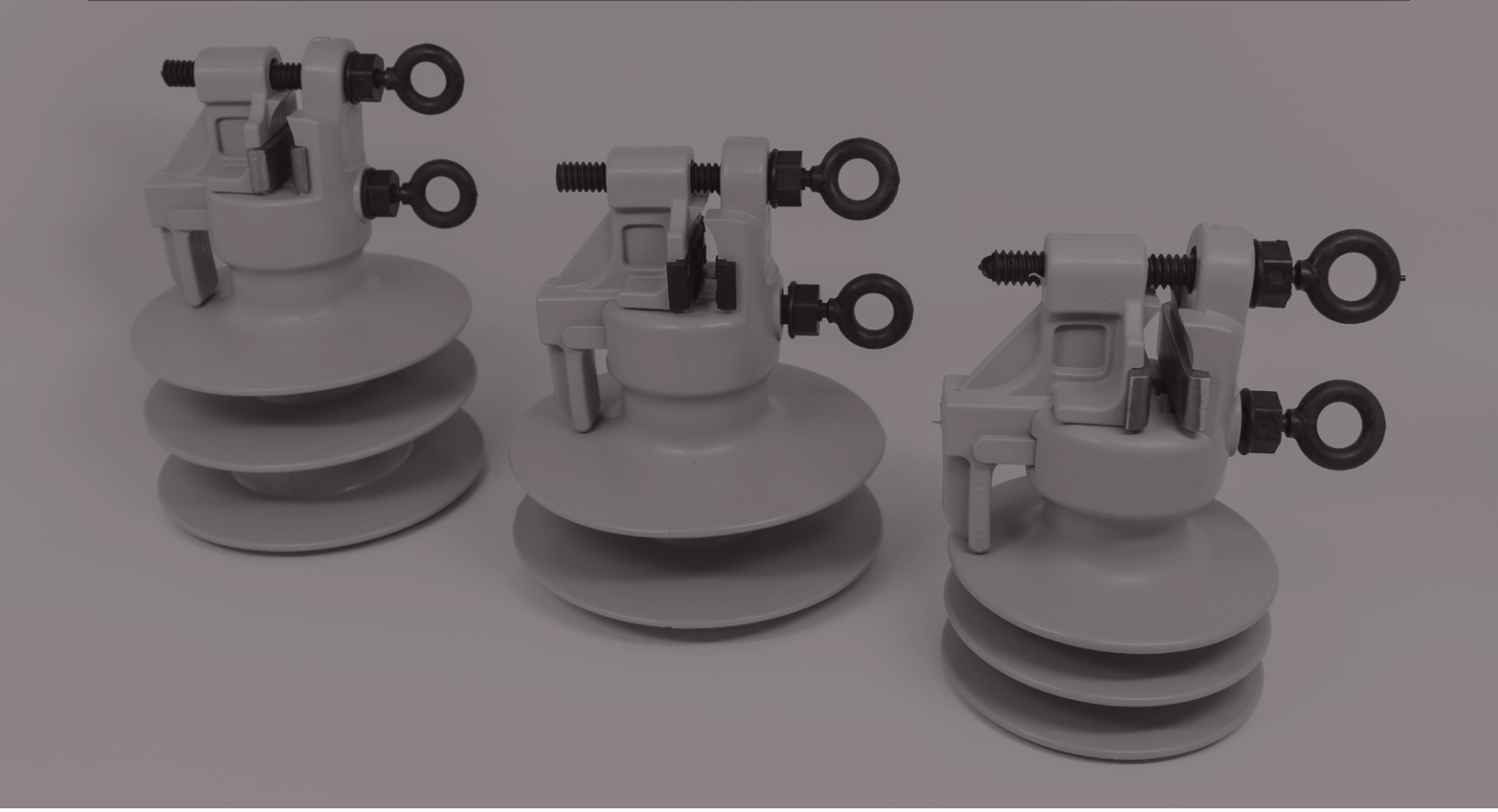
Mastic - eliminates air space and potential RiV. If Insulator is overtightened then the mastic can cut into the insulator due to pressure.

Step # 2

If required to align the top saddle with the conductor, continue threading the insulator up to an additional 1/2 turn.

NOTE: The insulator is not designed to be fully seated against the pin. Securing the conductor assures the insulator will remain in position.

Vise Top Polyethylene Pin Insulators



Hendrix Vise Top Insulators incorporate a clamping mechanism into the top of the insulator to provide quick and easy conductor installation without the need for additional tie products. When used with the VTST Stringing Tool, conductors can be installed without separate stringing blocks, significantly reducing installation costs. Vise Top insulators are suitable for use with all conductor sizes and types: covered, aluminum, or copper conductors.

Vise Top Insulators are molded from a proprietary blend of gray, track-resistant, high-density polyethylene. They conform with the electrical and mechanical requirements of ANSI C29.5 and C29.6. Nominal voltage ratings are 15 kV, 25 kV, and 35 kV. They are designed to fit on standard 1" or 1 3/8" pins.

They are especially well suited for areas of vandalism. Ballistics tests have shown that even with damage from a rifle or shotgun, the insulators are still able to operate.

Benefits

- Quick and easy installation using two torque bolts
- Torque bolt rings break away at a predetermined torque to provide proper clamping force
- Insulator acts as a stringing block when used with the VTST Stringing Tool
- Electrically compatible with all conductor types
- Resistant to impact damage, breakage, and vandalism
- Excellent weather washing characteristics
- Directly interchangeable with porcelain insulators
- Lightweight for easy handling
- Field installed since 1976
- Made in the USA

GUARANTEED FOR LIFE
Hendrix™
MOLDED PRODUCTS

Vise Top Polyethylene Pin Insulators

Application

Hendrix Vise Top Insulators are recommended for use with all conductor types, bare or covered. Vise Top Insulators are excellent for contaminated areas due to their long leakage distance and excellent washing characteristics.

Vise Top Insulator Insert Styles

Style #1 has plastic clamping inserts for use with either covered or bare conductors.

Style #2 has aluminum clamping inserts for use with bare aluminum conductors.

Style #3 has bronze clamping inserts for use with copper conductors.

Style #4 has composite clamping inserts for use with all conductor types.

When ordering, specify an "M" for aluminum inserts, a "P" for plastic inserts, a "B" for bronze inserts, or a "C" for composite inserts (ex: HPI-25VTM; HPI-25VTP; HPI-25VTB; HPI-35VTC).

To specify pin diameter, add the suffix -01 for 1" threads and -02 for 1 3/8" threads (ex: HPI-25VTM-02).

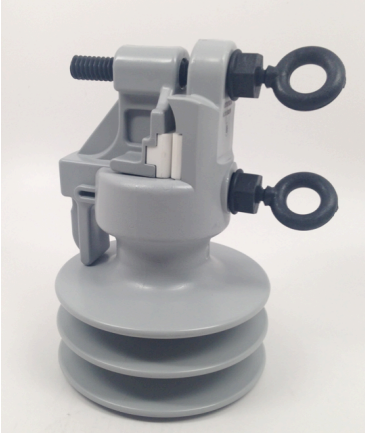
Vise Top with covered conductor and plastic/nylon clamping inserts

Vise Top with bare wire and aluminum or bronze clamping inserts

Always install the bottom bolt first and the top bolt second, always breaking the eyes off the bolts

The Vise Top Insulator can accommodate conductors up to 1.75 inch diameter. Conductors should be mounted in the top saddle position for tangent construction and small angles. Large angles are better suited for the side/neck mounting position. Angles may be supported in the top saddle position provided the mounting pin strength is designed for the expected transverse loading. For all applications, good utility design practice should be followed, including design to National Electric Safety Code (NESC) and/or prevailing rules and codes.

Vise Top Polyethylene Pin Insulators



HPI-15VTC

Hendrix Vise Top pin insulators incorporate a clamping mechanism in the insulator to provide quick and easy conductor installation without the need for additional tie products. When used with the VTST-1 Stringing Tool, conductors can be installed without separate stringing blocks, significantly reducing installation costs.

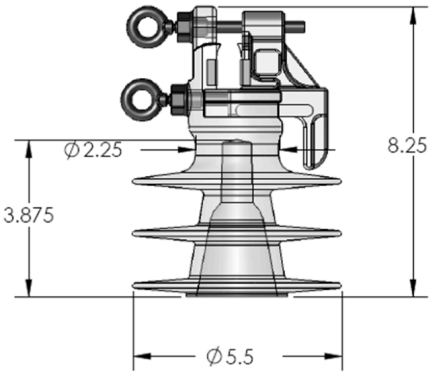
The HPI-15VTC is designed with Composite clamping inserts suitable to use with bare aluminum and copper conductors eliminating dissimilar metals galvanic reactions and with covered conductors. The composite is chemically inert and does not deteriorate by weather/UV or contamination. It also offers consistent and repetitive gripping across all conductor types. The HPI-15VTC has a standard ANSI 1" thread size and is a direct replacement for medium-voltage pin insulators.

- Exceeds ANSI electrical and mechanical requirements
- Breakaway bolt rings ensure proper conductor clamping
- Resistant to impact damage, breakage and vandalism
- Made from UV stabilized polyethylene
- Offers SKU reduction
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-4	HPI-15VTC
DIMENSIONS		
Leakage distance (in)	9	15.8
Dry-arc distance (in)	5	8.1
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
[2] Cantilever strength (lbs)	3000	>3000
ELECTRICAL VALUES		
Typical application (kV)		15
Flashover voltage, 60 Hz Dry (kV)	65	93
Flashover voltage, 60 Hz Wet (kV)	35	46
Impulse Flashover – Positive (kV)	105	141
Impulse Flashover – Negative (kV)	130	185
Low frequency Puncture (kV)	95	257
OTHER		
Min.-Max. Conductor Diameter (in)		.187 - 1.75
Part Weight (lbs)		2
Max Continuous Conductor Temp (°C)		120

Notes: [1] To specify pin diameter, add the suffix -01 for 1" threads and -02 for 1 3/8" threads (Not available for HPI-15VTC)
[2] Cantilever strength refers to side neck loading



Dimensions in inches

Available with all insert styles.

Vise Top Polyethylene Pin Insulators

HPI-25VTC-01

Hendrix Vise Top pin insulators incorporate a clamping mechanism in the insulator to provide quick and easy conductor installation without the need for additional tie products. When used with the VTST-1 Stringing Tool, conductors can be installed without separate stringing blocks, significantly reducing installation costs.

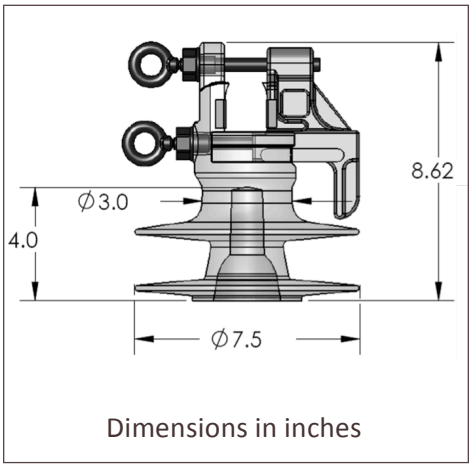
The HPI-25VTC-01 is designed with composite clamping inserts suitable for use with bare aluminum, copper eliminating dissimilar metals galvanic reactions and with covered conductors. The composite is chemically inert and does not deteriorate by weather/UV or contamination. It also offers consistent and repetitive gripping across all conductor types. The HPI-25VTC-01 has a standard ANSI 1" thread size and is a direct replacement for medium-voltage pin insulators.

- Exceeds ANSI electrical and mechanical requirements
- Breakaway bolt rings ensure proper conductor clamping
- Resistant to impact damage, breakage and vandalism
- Made from UV stabilized polyethylene
- Offers SKU reduction
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-5	HPI-25VTC-01
DIMENSIONS		
Leakage distance (in)	12	15.8
Dry-arc distance (in)	6.25	9.3
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
[2] Cantilever strength (lbs)	3000	>3000
[3]ELECTRICAL VALUES		
Typical application (kV)		25
Flashover voltage, 60 Hz Dry (kV)	80	97
Flashover voltage, 60 Hz Wet (kV)	45	53
Impulse Flashover – Positive (kV)	130	153
Impulse Flashover – Negative (kV)	150	190
Low frequency Puncture (kV)	115	251
OTHER		
Min.-Max. Conductor Diameter (in)		.187 - 1.75
Part Weight (lbs)		2.6
Max Continuous Conductor Temp (°C)		120

Notes: [1] To specify pin diameter, add the suffix -01 for 1" threads and -02 for 1 3/8" threads (Not available for HPI-15VTP)
[2] Cantilever strength refers to side neck loading
[3] Values from test samples with 1-3/8" pin



Dimensions in inches

Available with all insert styles.

Vise Top Polyethylene Pin Insulators

HPI-25VTC-02

Hendrix Vise Top pin insulators incorporate a clamping mechanism in the insulator to provide quick and easy conductor installation without the need for additional tie products. When used with the VTST-1 Stringing Tool, conductors can be installed without separate stringing blocks, significantly reducing installation costs.

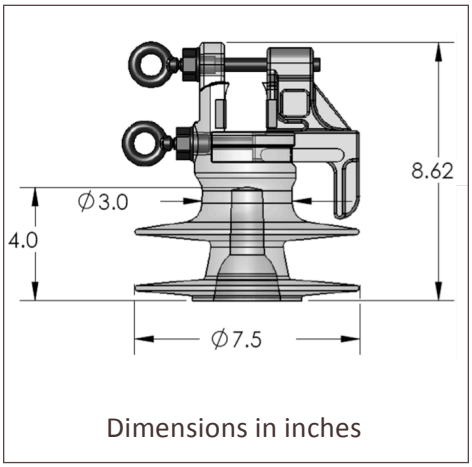
The HPI-25VTC-02 is designed with composite clamping inserts suitable for use with bare aluminum, copper eliminating dissimilar metals galvanic reactions and with covered conductors. The composite is chemically inert and does not deteriorate by weather/UV or contamination. It also offers consistent and repetitive gripping across all conductor types. The HPI-25VTC-02 has a standard ANSI 1-3/8" thread size and is a direct replacement for medium-voltage pin insulators.

- Exceeds ANSI electrical and mechanical requirements
- Breakaway bolt rings ensure proper conductor clamping
- Resistant to impact damage, breakage and vandalism
- Made from UV stabilized polyethylene
- Offers SKU reduction
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 56-1	HPI-25VTC-02
DIMENSIONS		
Leakage distance (in)	13	15.8
Dry-arc distance (in)	7	9.3
[1]Pin-hole diameter (in)	1-3/8	1-3/8
MECHANICAL VALUES		
[2] Cantilever strength (lbs)	2500	>3000
[3]ELECTRICAL VALUES		
Typical application (kV)		25
Flashover voltage, 60 Hz Dry (kV)	95	97
Flashover voltage, 60 Hz Wet (kV)	60	53
Impulse Flashover – Positive (kV)	150	153
Impulse Flashover – Negative (kV)	190	190
Low frequency Puncture (kV)	130	198
OTHER		
Min.-Max. Conductor Diameter (in)		1.75
Part Weight (lbs)		2.6
Max Continuous Conductor Temp (°C)		120

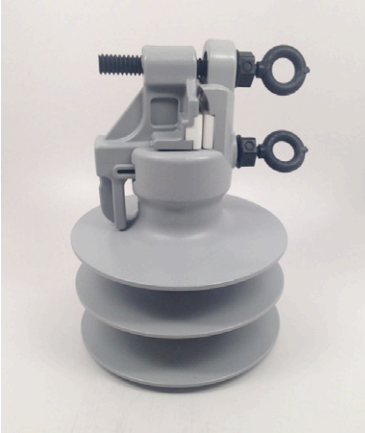
Notes: [1] To specify pin diameter, add the suffix -01 for 1" threads and -02 for 1 3/8" threads (Not available for HPI-15VTP)
[2] Cantilever strength refers to side neck loading
[3] Values from test samples with 1-3/8" pin



Dimensions in inches

Available with all insert styles.

Vise Top Polyethylene Pin Insulators



HPI-35VTC-01

Hendrix Vise Top pin insulators incorporate a clamping mechanism in the insulator to provide quick and easy conductor installation without the need for additional tie products. When used with the VTST-1 Stringing Tool, conductors can be installed without separate stringing blocks, significantly reducing installation costs.

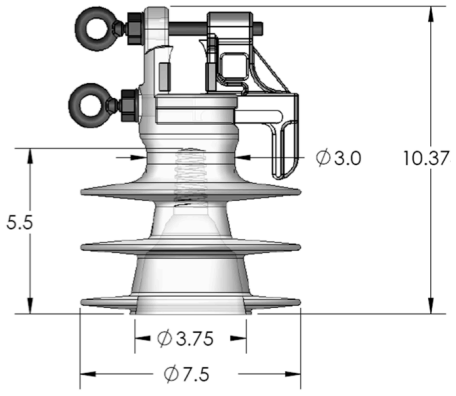
The HPI-35VTC-01 is designed with composite clamping inserts suitable for use with bare aluminum, copper eliminating dissimilar metals galvanic reactions and with covered conductors. The composite is chemically inert and does not deteriorate by weather/UV or contamination. It also offers consistent and repetitive gripping across all conductor types. The HPI-35VTC-01 has a standard ANSI 1" thread size and is a direct replacement for medium-voltage pin insulators.

- Exceeds ANSI electrical and mechanical requirements
- Breakaway bolt rings ensure proper conductor clamping
- Resistant to impact damage, breakage and vandalism
- Made from UV stabilized polyethylene
- Offers SKU reduction
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-6	HPI-35VTC-01
DIMENSIONS		
Leakage distance (in)	15	22.4
Dry-arc distance (in)	8	11.2
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
[2] Cantilever strength (lbs)	3000	>3000
[3]ELECTRICAL VALUES		
Typical application (kV)		35
Flashover voltage, 60 Hz Dry (kV)	100	112
Flashover voltage, 60 Hz Wet (kV)	50	71
Impulse Flashover – Positive (kV)	150	172
Impulse Flashover – Negative (kV)	170	231
Low frequency Puncture (kV)	135	262
OTHER		
Min.-Max. Conductor Diameter (in)		.187 - 1.75
Part Weight (lbs)		3.2
Max Continuous Conductor Temp (°C)		120

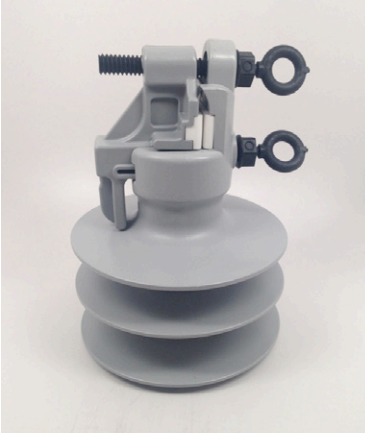
Notes: [1] To specify pin diameter, add the suffix -01 for 1" threads and -02 for 1 3/8" threads (Not available for HPI-15VTP)
[2] Cantilever strength refers to side neck loading
[3] Values from test samples with 1-3/8" pin



Dimensions in inches

Available with all insert styles.

Vise Top Polyethylene Pin Insulators



HPI-35VTC-02

Hendrix Vise Top pin insulators incorporate a clamping mechanism in the insulator to provide quick and easy conductor installation without the need for additional tie products. When used with the VTST-1 Stringing Tool, conductors can be installed without separate stringing blocks, significantly reducing installation costs.

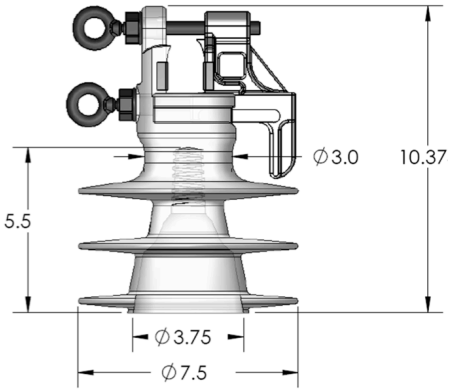
The HPI-35VTC-02 is designed with composite clamping inserts suitable for use with bare aluminum, copper eliminating dissimilar metals galvanic reactions and with covered conductors. The composite is chemically inert and does not deteriorate by weather/UV or contamination. It also offers consistent and repetitive gripping across all conductor types. The HPI-35VTC-02 has a standard ANSI 1-3/8" thread size and is a direct replacement for medium-voltage pin insulators.

- Exceeds ANSI electrical and mechanical requirements
- Breakaway bolt rings ensure proper conductor clamping
- Resistant to impact damage, breakage and vandalism
- Made from UV stabilized polyethylene
- Offers SKU reduction
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-7	HPI-35VTC-01
DIMENSIONS		
Leakage distance (in)	15	22.2
Dry-arc distance (in)	8	11.1
[1]Pin-hole diameter (in)	1-3/8	1-3/8
MECHANICAL VALUES		
[2] Cantilever strength (lbs)	3000	>3000
[3]**ELECTRICAL VALUES**		
Typical application (kV)		35
Flashover voltage, 60 Hz Dry (kV)	100	112
Flashover voltage, 60 Hz Wet (kV)	50	71
Impulse Flashover — Positive (kV)	150	172
Impulse Flashover — Negative (kV)	170	231
Low frequency Puncture (kV)	135	217
OTHER		
Min.-Max. Conductor Diameter (in)		.187 - 1.75
Part Weight (lbs)		3.2
Max Continuous Conductor Temp (°C)		120

Notes: [1] To specify pin diameter, add the suffix -01 for 1" threads and -02 for 1 3/8" threads (Not available for HPI-15VTP)
[2] Cantilever strength refers to side neck loading
[3] Values from test samples with 1-3/8" pin



Dimensions in inches

Available with all insert styles.

Vise Top Installation Frequently Asked Questions

Q: Please describe the installation of a Hendrix Vise Top (VT) Insulator.

A: Conductors should be mounted in the top saddle position for tangent construction and small angles. Large angles are better suited for the side/neck mounting position. Angles may be supported in the top saddle position provided the mounting pin strength is designed for the expected transverse loading. For all applications, good utility design practice should be followed, including designing to the National Electric Safety Code (NESC) and/or prevailing rules and codes.

TOP SADDLE MOUNTING POSITION (tangent or small angles)

- Install the VT Insulator on the crossarm, ridge pin, or other construction mountings by threading onto pin and engaging the mastic (do not overtighten); then align the saddle to the conductor
- Remove top eyebolt and loosen bottom eyebolt
- Install conductor into the top saddle
- Tighten the bottom eyebolt until breaking the eye off the bolt (either by hand or hot stick); eye will break off at approximately 75-80 inch pounds
- **ALWAYS TIGHTEN THE BOTTOM BOLT FIRST**
- Lastly, reinstall and tighten the top bolt using the same method as above

SIDE MOUNTING POSITION (for large angles)

- Install the VT Insulator on the crossarm, ridge pin, or other construction mountings by threading onto pin and engaging the mastic (do not overtighten); then align the saddle to the conductor
- Remove top eyebolt and loosen bottom eyebolt
- Install the conductor under/behind the vertical finger in the side neck position. The conductor should always pull against the neck of the insulator — never against the finger
- Tighten the bottom eyebolt until breaking eye off bolt (either by hand or hot stick) — eye will break off at approximately 75-80 inch pounds
- **ALWAYS TIGHTEN THE BOTTOM BOLT FIRST**
- Lastly, reinstall and tighten the top bolt using the same method as above

Installation Guide

Step # 1- Insulator on Pin Installation

1. Remove completely top torque-bolt
2. Start turning insulator clockwise counting every full turn.
3. Gradual resistance will be felt as number of turns increases
4. By the 4th to 5th turn, pin begins engagement with internal mastic
5. Continue to turn to fully compress the mastic. Hand-Tightened only. Do not use tools!
6. Rocking test: A properly installed insulator onto the mounting pin should not exhibit large side to side movement (rocking).
7. If rocking exists additional hand-tightening may be required to secure the insulator on the pin.

Step # 2- Insulator Alignment

Option 1: Straight mounting pin

1. Recommended: After completion of Step # 1, to align insulator to conductor, it is recommended to loosen the mounting pin and rotate insulator-pin assembly to desired position and retightened the pin nut. OR
2. In step #1, after compressing the mastic (point #5), up to additional turn hand-tightening can be performed to better secure the insulator on the pin and align the insulator to the conductor.

Option 2: Ridge Pin or Gain base pin types

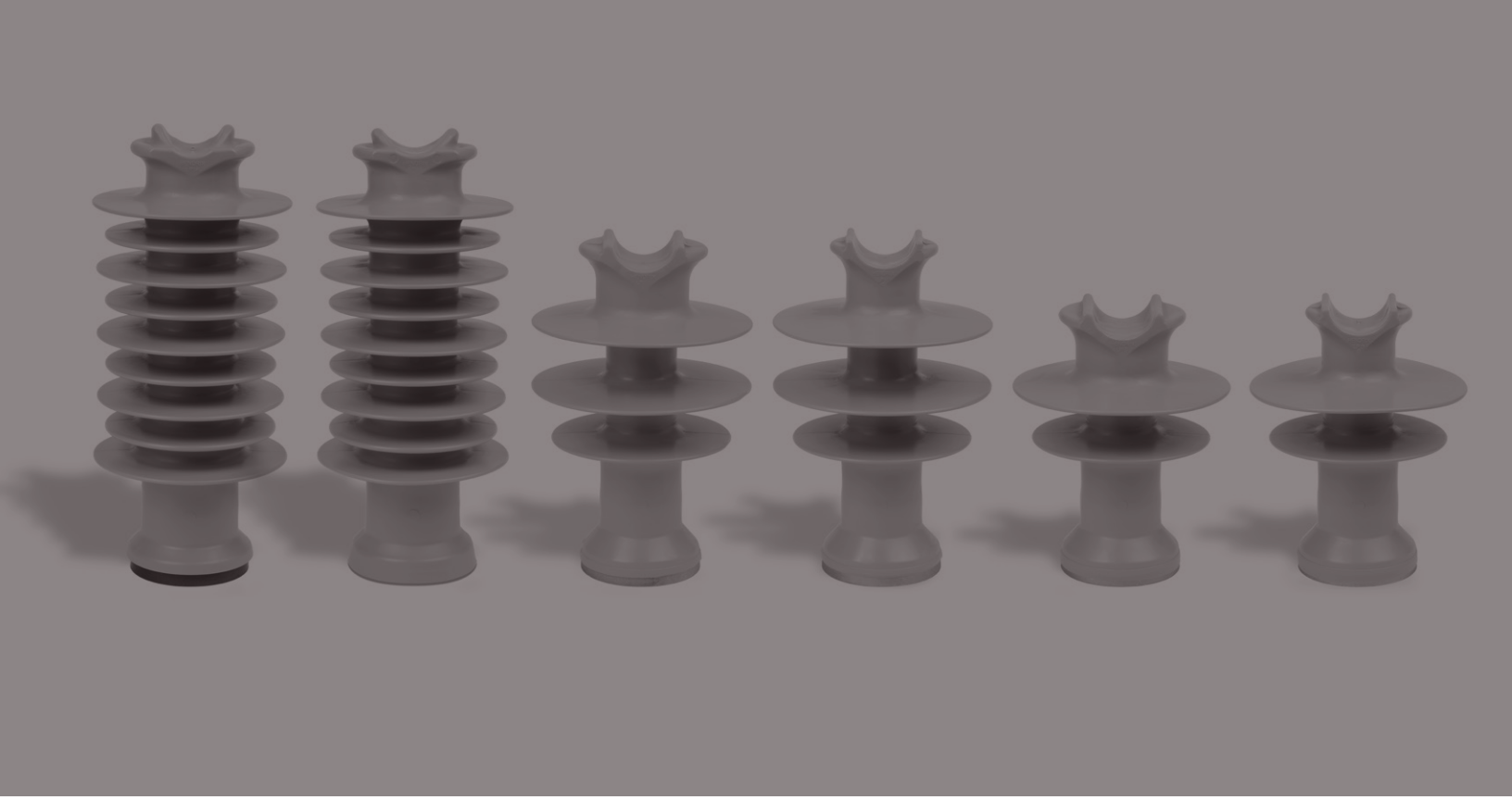
1. After completion of Step # 1, to align insulator to conductor, maximum 1/4 of a turn counterclockwise is allowable if the insulator's alignment to conductor can be accomplished. turn is sufficient to ensure alignment in any situation.
2. Quick rocking test is recommended

Step # 3- Torque-bolt installation

1. Place conductor in saddle
2. Tighten bottom torque-bolt until eyelet breaks off
3. Insert top torque-bolt and tighten until eyelet breaks off

NOTE: With angled constructions, the cantilever load (CL) should be applied against the VT side neck (3000lbs CL capability). If the conductor is to remain in the saddle, the maximum cantilever applied ranges between 1000-1200lbs depending on the mounting pin mechanical rating. The 10 degree maximum permissible pin deflection is the limiting factor to determine the line angle.

Tie Top Polyethylene Post Insulators



Hendrix Line Post Insulators are molded from a proprietary blend of track-resistant, high-density polyethylene. They are ideal for use with all types of construction using either bare wire or covered conductors. When using covered conductors, it is recommended that HPI Insulators always be used in order to match the dielectric properties of the insulating materials. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer, and easier to handle.

HPI Line Post Insulators meet the electrical and mechanical requirements of ANSI C29.7 and C29.18. They are designed with a standard ANSI “C” and “F” neck and center tap 3/4”-10 ANC thread size.

Benefits

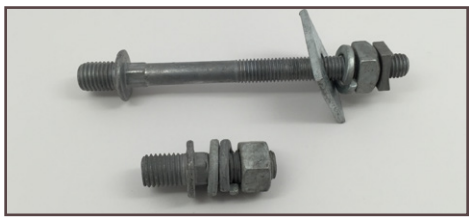
- Stronger than porcelain
- Designed for use with all Tie Products and conductor types
- Easy handling: lighter than porcelain and clamp-top composite designs
- Long-life housing won’t chip, crack, or break
- Resistant to impact damage, breakage, and vandalism
- RUS approved

GUARANTEED FOR LIFE

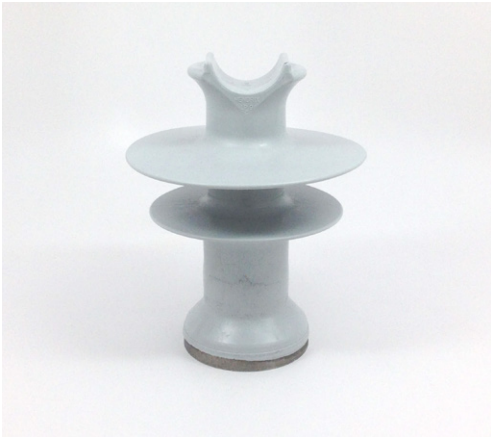
Hendrix™ MOLDED PRODUCTS

Line Post Hardware

Catalog #	Description
SBS	3/4” stud bolt, short; 1 3/4”; for steel arms and brackets
SBL-01	3/4” stud bolt, long; 6 9/16”; for crossarms (wood or fiberglass)



Tie Top Polyethylene Post Insulators



HPI-LP-9C

Hendrix Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer and easier to handle.

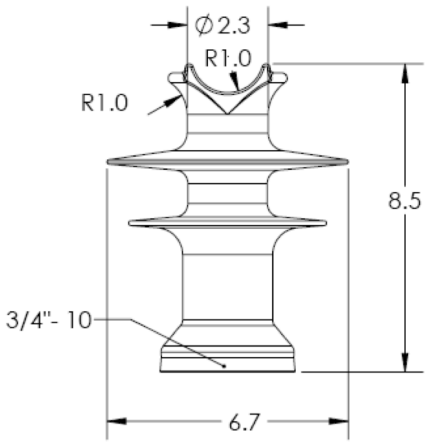
The HPI-LP-9C is the lightest weight insulator in its category. It is a tie-top design with a standard ANSI "C" neck, aluminum base and center tap 3/4" thread size. It meets the electrical and mechanical performance requirements for RUS 12.5kV systems and for ANSI C29.18 Class 51-1C. It is a direct replacement for high-voltage porcelain or composite insulators.

- Easy handling – Lighter than porcelain and composite designs
- Designed for use with all Tie Products and conductor types
- Resistant to impact damage, breakage and vandalism
- RUS Accepted
- Manufactured in USA

Product Data

CHARACTERISTIC	RUS 12.5/7.2	ANSI C29.18 51-1C	HPI-LP-9C
DIMENSIONS			
Neck designation	C	C	C
Leakage distance (in)	10	10	12.8
Dry-arc distance (in)		5.2	8.1
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	1875	2400	2400
Maximum Design Cantilever Load (lbs)	937[1]	1200	1400[2]
Specified Tensile Load (lbs)	N/A	2000	>3000
ELECTRICAL VALUES			
Typical system application (kV)	12.5	15	15
Flashover, 60 Hz Dry (kV)	70	55	88
Flashover, 60 Hz Wet (kV)	50	30	59
Impulse Flashover – Positive (kV)		95	141
Impulse Flashover – Negative (kV)			-218
Max RIV (µV) tested at 10KV	100	100	8.5
OTHER			
Min.-Max. Conductor Diameter (in)		Max. 1.75	.187 - 1.75
Part Weight (lbs)	> 7	> 6.5	3.0
Max Continuous Conductor Temp (°C)			120

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] US Patent No. 9,649,797



Dimensions in inches

Tie Top Polyethylene Post Insulators

HPI-LP-9F

Hendrix Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer and easier to handle.

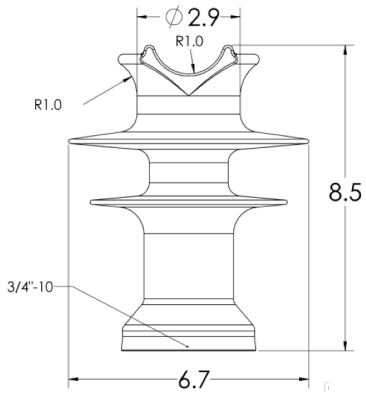
The HPI-LP-9F is the lightest weight insulator in its category. It is a tie-top design with a standard ANSI "F" neck, aluminum base and center tap 3/4" thread size. It meets the electrical and mechanical performance requirements for RUS 12.5kV systems and for ANSI C29.18 Class 51-1F. It is a direct replacement for high-voltage porcelain or composite insulators.

- Easy handling – Lighter than porcelain and composite designs
- Designed for use with all Tie Products and conductor types
- Resistant to impact damage, breakage and vandalism
- RUS Accepted
- Manufactured in USA

Product Data

CHARACTERISTIC	RUS 12.5/7.2	ANSI C29.18 51-1F	HPI-LP-9F
DIMENSIONS			
Neck designation	F	F	F
Leakage distance (in)	10	10	12.5
Dry-arc distance (in)		5.2	7.8
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	1875	2400	2400
Maximum Design Cantilever Load (lbs)	937[1]	1200	1400[2]
Specified Tensile Load (lbs)	N/A	2000	>3000
ELECTRICAL VALUES			
Typical system application (kV)	12.5	15	15
Flashover, 60 Hz Dry (kV)	70	55	88
Flashover, 60 Hz Wet (kV)	50	30	59
Impulse Flashover – Positive (kV)		95	150
Impulse Flashover – Negative (kV)			-222
Max RIV (μV) tested at 10KV	100	100	8.5
OTHER			
Min.-Max. Conductor Diameter (in)		Max. 1.75	.187 - 1.75
Part Weight (lbs)	> 7	> 6.5	3.2
Max Continuous Conductor Temp (°C)			120

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] US Patent No. 9,649,797



Dimensions in inches

Tie Top Polyethylene Post Insulators

HPI-LP-11C

Hendrix Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer and easier to handle.

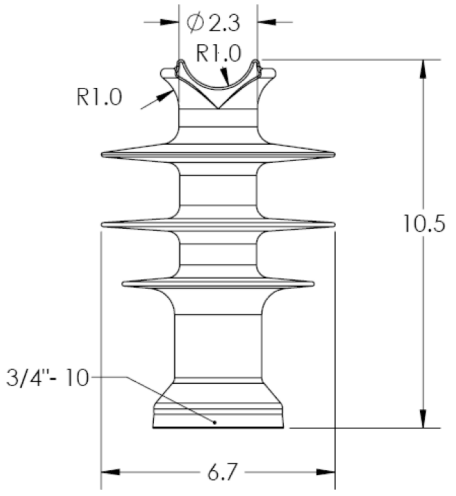
The HPI-LP-11C is the lightest weight insulator in its category. It is a tie-top design with a standard ANSI "C" neck, aluminum base and center tap 3/4" thread size. It meets the electrical and mechanical performance requirements for RUS 24.9/14.4 kV systems and ANSI C29.18 Class 51-2C. It is a direct replacement for high-voltage porcelain or composite insulators.

- Easy handling – Lighter than porcelain and composite designs
- Designed for use with all Tie Products and conductor types
- Resistant to impact damage, breakage and vandalism
- RUS Accepted
- Manufactured in USA

Product Data

CHARACTERISTIC	RUS 24.9/14.4	ANSI C29.18 51-2C	HPI-LP-11C
DIMENSIONS			
Neck designation	C	C	C
Leakage distance (in)	15	14	18.7
Dry-arc distance (in)		6.5	10.1
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs), min.	1875	2400	2400
Maximum Design Cantilever Load (lbs)	937[1]	1200	1400[2]
Specified Tensile Load (lbs), min.	N/A	2000	>3000
ELECTRICAL VALUES			
Typical application (kV)	24.9		25
Flashover, 60 Hz Dry (kV)	95	70	107
Flashover, 60 Hz Wet (kV)	65	50	77
Impulse Flashover – Positive (kV)		120	168
Impulse Flashover – Negative (kV)			-300
Max RIV (µV) tested at 15KV	100	100	8.5
OTHER			
Min.-Max. Conductor Diameter (in)		Max. 1.75	.187 - 1.75
Part Weight (lbs)	> 8	> 7	3.7
Max Continuous Conductor Temp (°C)			120

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] US Patent No. 9,649,797



Dimensions in inches

Tie Top Polyethylene Post Insulators

HPI-LP-11F

Hendrix Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer and easier to handle.

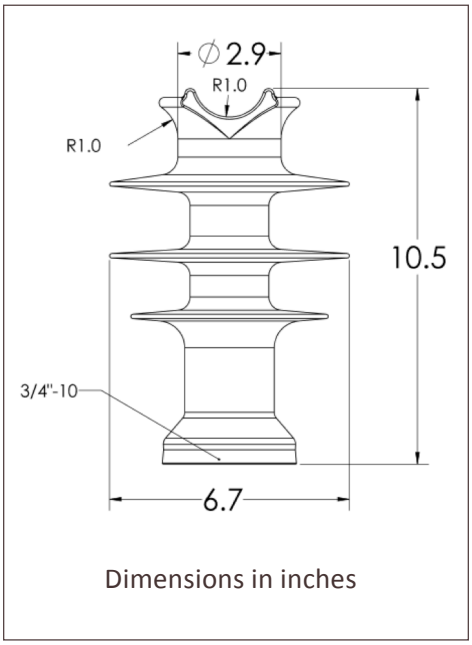
The HPI-LP-11F is the lightest weight insulator in its category. It is a tie-top design with a standard ANSI "F" neck, aluminum base and center tap 3/4" thread size. It meets the electrical and mechanical performance requirements for RUS 24.9/14.4 kV systems and ANSI C29.18 Class 51-2F. It is a direct replacement for high-voltage porcelain or composite insulators.

- Easy handling – Lighter than porcelain and composite designs
- Designed for use with all Tie Products and conductor types
- Resistant to impact damage, breakage and vandalism
- RUS Accepted
- Manufactured in USA

Product Data

CHARACTERISTIC	RUS 24.9/14.4	ANSI C29.18 51-2F	HPI-LP-11F
DIMENSIONS			
Neck designation	F	F	F
Leakage distance (in)	15	14	18.4
Dry-arc distance (in)		6.5	9.8
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs), min.	1875	2400	2400
Maximum Design Cantilever Load (lbs)	937[1]	1200	1400[2]
Specified Tensile Load (lbs), min.	N/A	2000	>3000
ELECTRICAL VALUES			
Typical application (kV)	24.9		25
Flashover, 60 Hz Dry (kV)	95	70	103
Flashover, 60 Hz Wet (kV)	65	50	75
Impulse Flashover – Positive (kV)		120	179
Impulse Flashover – Negative (kV)			-279
Max RIV (µV) tested at 15KV	100	100	8.5
OTHER			
Min.-Max. Conductor Diameter (in)		Max. 1.75	.187 - 1.75
Part Weight (lbs)	> 8.5	> 7	3.9
Max Continuous Conductor Temp (°C)			120

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] US Patent No. 9,649,797



Dimensions in inches

Tie Top Polyethylene Post Insulators

HPI-LP-14FS

Hendrix Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer and easier to handle.

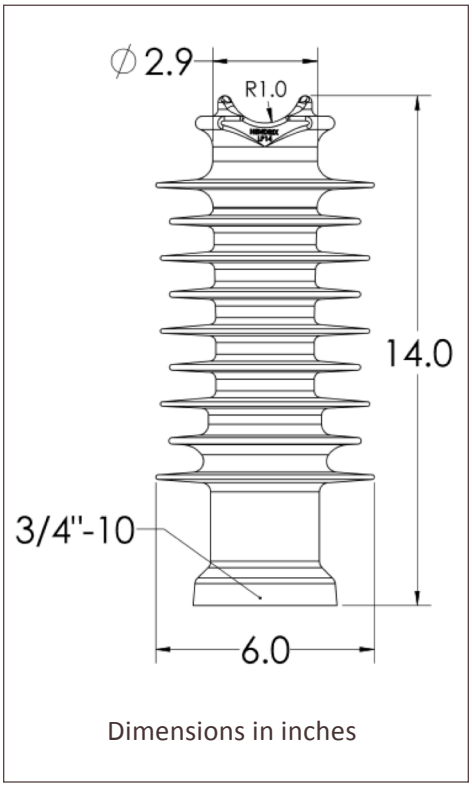
The HPI-LP-14FS is a vertical tie-top design with a standard ANSI "F" neck, steel base and center tap 3/4" thread size. It meets the electrical and mechanical requirements of ANSI C29.7 and C29.18. It is a direct replacement for high-voltage porcelain or composite insulators.

- Easy handling – Lighter than porcelain and composite designs
- Designed for use with all Tie Products
- Resistant to impact damage, breakage and vandalism
- Manufactured in USA

Product Data

CHARACTERISTIC	ANSI C29.7 57-3	ANSI C29.18 51-4F	HPI-LP-14FS
DIMENSIONS			
Neck designation	F	F	F
Leakage distance (in)	29	29	32.6
Dry-arc distance (in)	12.25	12.25	13.1
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	2800	2240	3000
Maximum Design Cantilever Load (lbs)	1400[1]	1120	1400[2]
Specified Tensile Load (lbs)	N/A	2000	>3000
ELECTRICAL VALUES			
Typical application (kV)	25/35	25/35	25/35
Flashover, 60 Hz Dry (kV)	125	125	128
Flashover, 60 Hz Wet (kV)	95	95	94
Impulse Flashover – Positive (kV)	200	200	217
Impulse Flashover – Negative (kV)			-365
Max RIV (µV) tested at 22KV	100	100	19.5
OTHER			
Min.-Max. Conductor Diameter (in)	Max. 1.75	Max. 1.75	.187 - 1.75
Part Weight (lbs)	> 24	> 12	9.4
Max Continuous Conductor Temp (°C)			120

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer



Dimensions in inches

Tie Top Polyethylene Post Insulators

HPI-LP-14FA

Hendrix Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer and easier to handle.

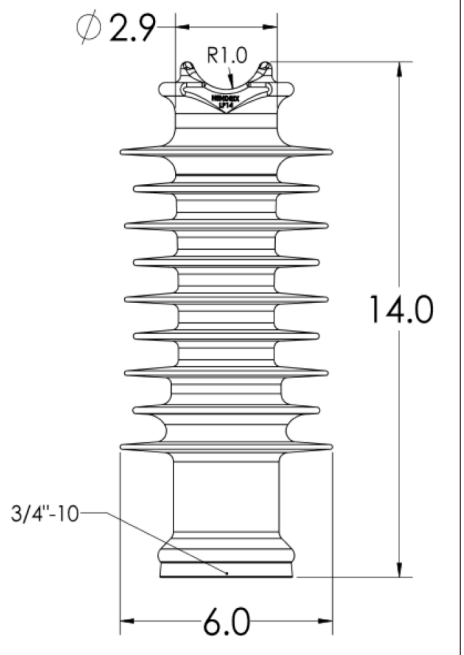
The HPI-LP-14FA is the lightest weight insulator in its category. It is a composite tie-top design with a standard ANSI "F" neck, aluminum base and center tap 3/4" mounting thread size. It meets the electrical and mechanical requirements of ANSI C29.18 Class 51-4F. It is a direct replacement for high-voltage porcelain or composite insulators.

- Easy handling – Lighter than porcelain and composite designs
- Designed for use with all Tie Products
- Resistant to impact damage, breakage and vandalism
- Manufactured in USA

Product Data

CHARACTERISTIC	ANSI C29.7 57-3	ANSI C29.18 51-4F	HPI-LP-14FA
DIMENSIONS			
Neck designation	F	F	F
Leakage distance (in)	29	29	32.6
Dry-arc distance (in)	12.25	12.25	13.1
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	2800	2240	2400
Maximum Design Cantilever Load (lbs)	1400[1]	1120	1400[2]
Specified Tensile Load (lbs)	N/A	2000	>3000
ELECTRICAL VALUES			
Typical application (kV)	25/35	25/35	25/35
Flashover, 60 Hz Dry (kV)	125	125	127
Flashover, 60 Hz Wet (kV)	95	95	96
Impulse Flashover – Positive (kV)	200	200	221
Impulse Flashover – Negative (kV)			-365
Max RIV (µV) tested at 22KV	100	100	19.5
OTHER			
Min.-Max. Conductor Diameter (in)	Max. 1.75	Max. 1.75	.187 - 1.75
Part Weight (lbs)	> 24	> 12	6.8
Max Continuous Conductor Temp (°C)			120

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] US Patent No. 9,649,797



Dimensions in inches

Tie Top Polyethylene Post Insulators

HPI-LP-16F

Hendrix Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer and easier to handle.

The HPI-LP-16F is a vertical tie-top design with a standard ANSI “F” neck, steel base and center tap 3/4” thread size. It meets the electrical and mechanical requirements of ANSI C29.7 and C29.18. It is a direct replacement for high-voltage porcelain or composite insulators.

- Easy handling – Lighter than porcelain and composite designs
- Designed for use with all Tie Products
- Resistant to impact damage, breakage and vandalism
- Manufactured in USA

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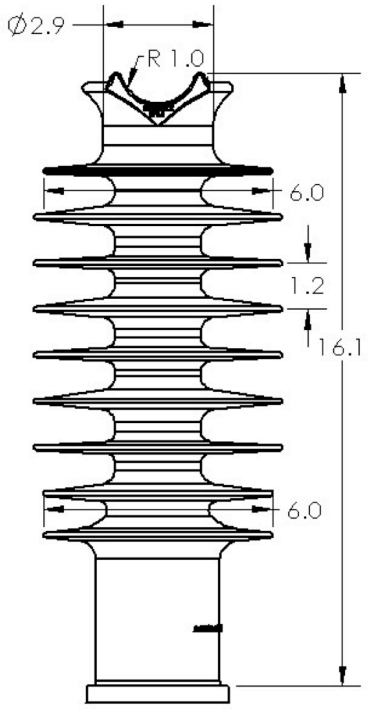
Hendrix MOLDED PRODUCTS

Product Data

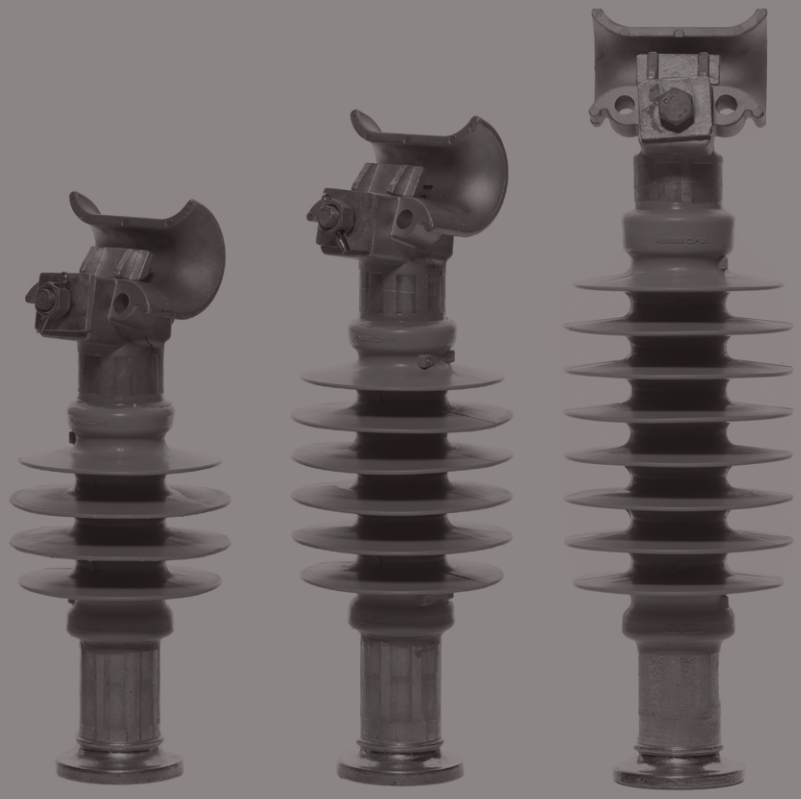
CHARACTERISTIC	ANSI C29.7 57-3	ANSI C29.18 51-4F	HPI-LP-16F
DIMENSIONS			
Neck designation	F	F	F
Leakage distance (in)	29	29	44.4
Dry-arc distance (in)	12.25	12.25	15.6
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	2800	2240	2400
Maximum Design Cantilever Load (lbs)	1400[1]	1120	1400[2]
Specified Tensile Load (lbs)	N/A	2000	>3000
ELECTRICAL VALUES			
Typical application (kV)	35/46	35/46	35/46
Flashover, 60 Hz Dry (kV)	125	125	157
Flashover, 60 Hz Wet (kV)	95	95	114
Impulse Flashover – Positive (kV)	200	200	263
Impulse Flashover – Negative (kV)			-358
Max RIV (µV) tested at 22KV	100	100	19.5
OTHER			
Min.-Max. Conductor Diameter (in)	Max. 1.75	Max. 1.75	.187 - 1.75
Part Weight (lbs)	> 24	> 12	11.2
Max Continuous Conductor Temp (°C)			120

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] US Patent No. 9,649,797



Dimensions in inches

Clamp Top Polyethylene Post Insulators



Hendrix NEW Clamp Top Line Post Insulators are molded from a proprietary blend of track-resistant, high-density polyethylene. They are ideal for use with bare wire conductors with a size range of .19”- 1.3” diameter. They are more durable and reliable than traditional porcelain insulators. They are also lighter, safer, and easier to handle.

HPI Clamp Top Line Post Insulators meet the electrical and mechanical requirements of ANSI C29.7 and C29.18. They are designed with a universal clamp with a captive bolt accessible from both sides for ease of operating the clamp mechanism. Mounting the CLP insulator utilizes a center tap 3/4”-10 ANC thread size. The CLP is a direct replacement for high voltage porcelain or composite insulators.

Benefits

- Stronger than porcelain
- Designed with a universal clamp mechanism eliminating SKU’s
- Easy handling: lighter than porcelain and trunnion style clamp-top composite designs
- Long-life housing won’t chip, crack, or break
- Resistant to impact damage, breakage, and vandalism
- RUS approval pending

GUARANTEED FOR LIFE

Hendrix™ MOLDED PRODUCTS

Clamp Top Polyethylene Post Insulators

HPI-CLP-15

Hendrix Clamp Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators.

The HPI-CLP-15 is a universal clamp top design with a steel base and center tap 3/4" thread size. It meets the electrical and mechanical requirements of ANSI C29.7 and C29.18. It is a direct replacement for high-voltage porcelain or composite insulators.

- Lighter than porcelain
- Designed for use in vertical and horizontal configurations
- Resistant to impact damage, breakage and vandalism
- Molded in USA

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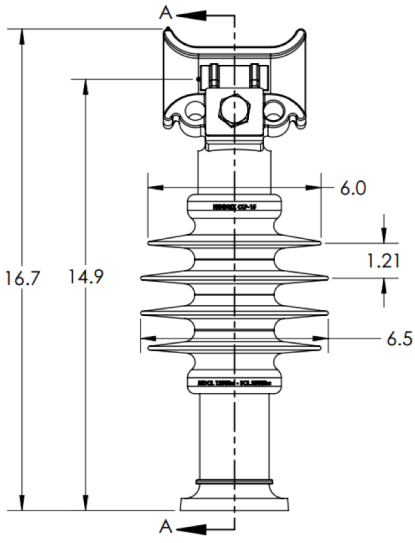
Hendrix MOLDED PRODUCTS

Product Data

CHARACTERISTIC	ANSI C29.7 57-11 & 21	ANSI C29.18 51-12 & 22	HPI-CLP-15
DIMENSIONS			
Leakage distance (in)	14	14	21.5
Dry-arc distance (in)	6.5	6.5	9.2
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	2800	2400	>2400
Maximum Design Cantilever Load (lbs)	1400[1]	1200	1400[2]
Specified Tensile Load (lbs)	N/A	5000	>7000
ELECTRICAL VALUES			
Typical application (kV)	25	25	25
Flashover, 60 Hz Dry (kV)	70	70	118
Flashover, 60 Hz Wet (kV)	50	50	84
Impulse Flashover – Positive (kV)	120	120	189
Impulse withstand – Positive (kV)			173
Impulse Flashover – Negative (kV)			-260
Max RIV (μV) tested at 15KV	100	100	7.2
OTHER			
Min.-Max. Conductor Diameter (in)			.187 - 1.75
Part Weight (lbs)	~ 15		11.4

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] Patent Pending

Dimensions in inches



Clamp Top Polyethylene Post Insulators

HPI-CLP-17

Hendrix Clamp Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators.

The HPI-CLP-17 is a universal clamp top design with a steel base and center tap 3/4" thread size. It meets the electrical and mechanical requirements of ANSI C29.7 and C29.18. It is a direct replacement for high-voltage porcelain or composite insulators.

- Lighter than porcelain
- Designed for use in vertical and horizontal configurations
- Resistant to impact damage, breakage and vandalism
- Molded in USA

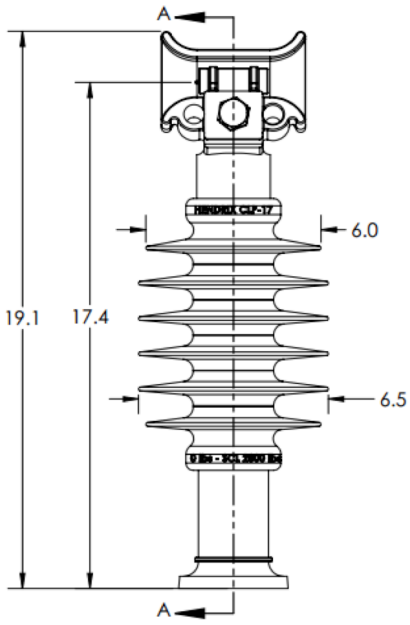
GUARANTEED FOR LIFE
Hendrix MOLDED PRODUCTS

Product Data

CHARACTERISTIC	ANSI C29.7 57-12 & 22	ANSI C29.18 51-13 & 23	HPI-CLP-17
DIMENSIONS			
Leakage distance (in)	22	22	31.2
Dry-arc distance (in)	9.5	9.5	11.6
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	2800	2400	>2400
Maximum Design Cantilever Load (lbs)	1400[1]	1200	1400[2]
Specified Tensile Load (lbs)	N/A	5000	>7000
ELECTRICAL VALUES			
Typical application (kV)	35	35	35
Flashover, 60 Hz Dry (kV)	100	100	146
Flashover, 60 Hz Wet (kV)	70	70	110
Impulse Flashover — Positive (kV)	120	120	222
Impulse withstand — Positive (kV)			204
Impulse Flashover — Negative (kV)			-300
Max RIV (µV) tested at 15KV	100	100	7.7
OTHER			
Min.-Max. Conductor Diameter (in)			.187 - 1.75
Part Weight (lbs)	~ 22		12.7

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] Patent Pending

Dimensions in inches



Clamp Top Polyethylene Post Insulators

HPI-CLP-20

Hendrix Clamp Line Post Insulators are molded from a proprietary blend of gray, track and UV resistant, high density polyethylene. They are more durable and reliable than traditional porcelain insulators.

The HPI-CLP-20 is a universal clamp top design with a steel base and center tap 3/4" thread size. It meets the electrical and mechanical requirements of ANSI C29.7 and C29.18. It is a direct replacement for high-voltage porcelain or composite insulators.

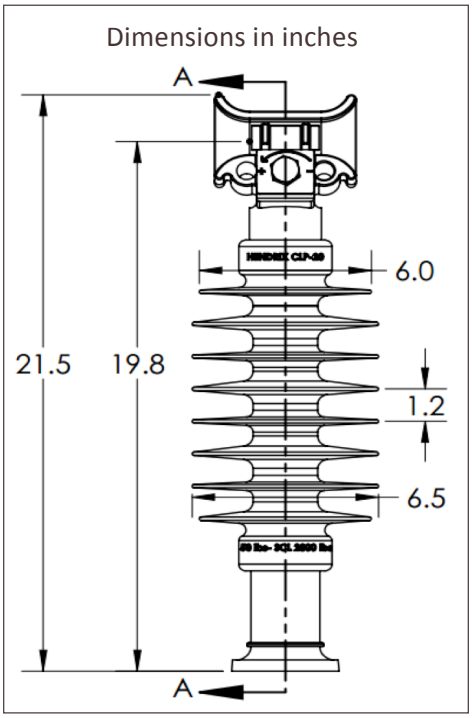
- Lighter than porcelain
- Designed for use in vertical and horizontal configurations
- Resistant to impact damage, breakage and vandalism
- Molded in USA

GUARANTEED FOR LIFE
Hendrix MOLDED PRODUCTS

Product Data

CHARACTERISTIC	ANSI C29.7 57-13 & 23	ANSI C29.18 51-14 & 24	HPI-CLP-20
DIMENSIONS			
Leakage distance (in)	29	29	41
Dry-arc distance (in)	12.5	12.5	14.1
Center-hole diameter (in)	.75	.75	.75
MECHANICAL VALUES			
Specified Cantilever Load (lbs)	2800	2400	>2400
Maximum Design Cantilever Load (lbs)	1400[1]	1200	1400[2]
Specified Tensile Load (lbs)	N/A	5000	>7000
ELECTRICAL VALUES			
Typical application (kV)	46	46	46
Flashover, 60 Hz Dry (kV)	125	125	171
Flashover, 60 Hz Wet (kV)	95	95	131
Impulse Flashover – Positive (kV)	120	120	265
Impulse withstand – Positive (kV)			242
Impulse Flashover – Negative (kV)			-317
Max RIV (µV) tested at 15KV	200	200	8.0
OTHER			
Min.-Max. Conductor Diameter (in)			.187 - 1.75
Part Weight (lbs)	~ 26		14

Notes: [1] Wet-process porcelain insulators are proof tested at 50% of Rated Cantilever Strength
[2] MDCL is specified by the manufacturer
[3] Patent Pending



ACCESSORIES

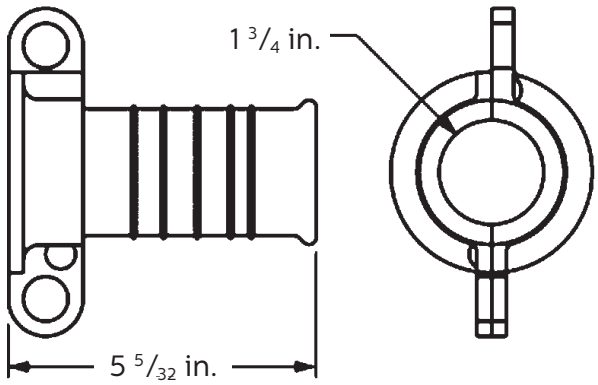
Vise Top Stringing Tool

Vise Top Stringing Tools are designed for conductor stringing directly through Vise Top insulators to reduce installation time and cost. They eliminate the need for separate stringing blocks, and there is no conductor transfer needed after the pull — the conductor is already in the saddle.

Benefits

- Eliminates the need for a separate stringing block
- No transferring of the conductor: the conductor is already in the insulator saddle
- Hot stick friendly: can be used either by hand or with a hot stick
- Multiple installations: stainless steel wear bands support many installations
- Cost savings on crew time in the field: reduces the number of "ups and downs" during construction

VTST-1

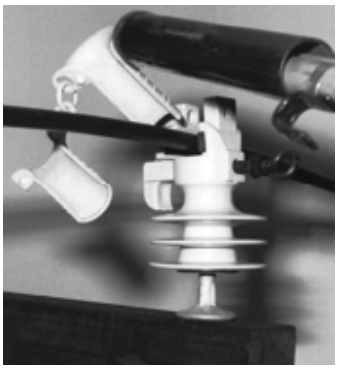


Installation Process

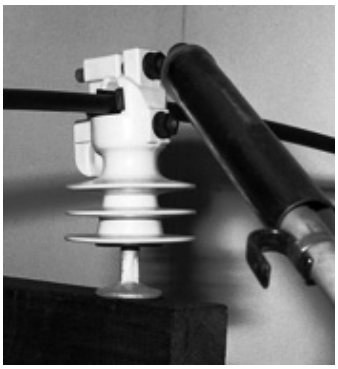
Using VTST-1 Stringing Tool with Vise Top Insulator

Install the Vise Top Insulator. Clamp the VTST-1 in the jaw and pull your rope in (Hint: have the large flare of the VTST-1 facing the cable reels)

String and sag the conductor directly on the insulator. Dead ends can be made up and the circuit can be energized (remember: you are in an insulator)



Loosen the bolt and slide the VTST-1 away from the insulator, either by hand or with a hot stick, until the two halves of the tool separate

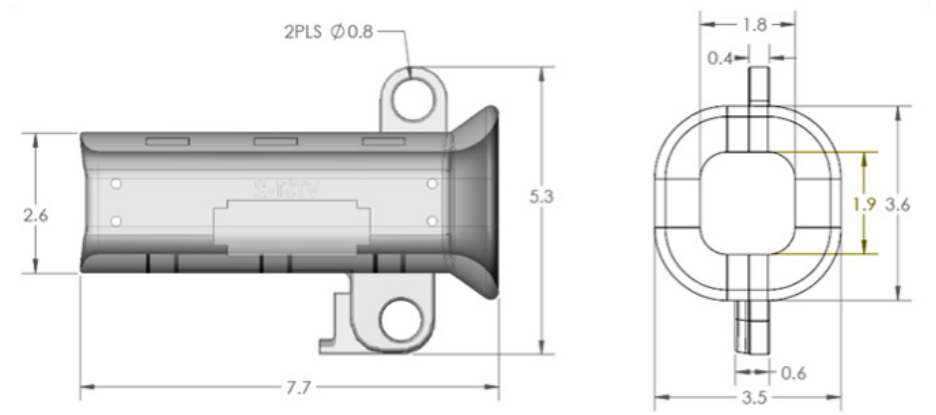


Clamp the conductor in the Vise Top jaw by tightening the torque bolts, BOTTOM BOLT FIRST — ALWAYS, until the rings break away. This can be done by hand or hot stick

Vise Top Stringing Tool

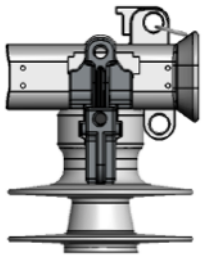
VTST-2

The VTST-2 is a second generation design optimized for rugged field use with all Vise Top style pin type insulators. It is designed to sit in the insulator's jaw platform and is removable by hand or live-line tool (hot stick). It is made from abrasion-resistant, glass-filled nylon to support numerous installations.



Dimensions in inches

VT Application (inverted)



Model	Description
VTST-1	First generation, round two piece, glass filled nylon construction with zinc-plated coupling ring
VTST-2	Second generation, square, two piece, glass filled nylon construction elongated bod with zinc-plated coupling ring

Torque Bolts

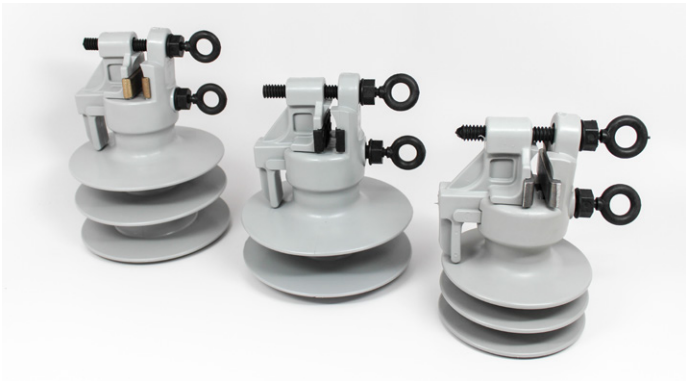
The Vise Top Bolts are furnished with Vise Top Pin Insulators and may be purchased separately for replacement purposes. They are made of glass reinforced black nylon and designed to be tightened using the break-away ring. The ring is designed to break at an optimal torque to ensure proper gripping force on the conductor.

Cat #: B-1
(for VT Insulators)

Weight: 5.0 lbs./50 pieces

Length: 6 1/2”

Material: Black nylon



B-1 Torque Bolt fits Vise Top (VT) models

Line Post Studs

The Line Post Studs are hot dip galvanized steel studs for use with Hendrix Line Post insulators. Each stud features a serrated collar and is furnished with additional hardware to secure the 3/4” center-tap base of a line post insulator. Two stud models are available:

· Long shank assembly for wood crossarms

· Short shank assembly for steel arms and brackets

Catalog #	Description
SBS	3/4” stud bolt, short; 1 3/4”; for steel arms and brackets
SBL-01	3/4” stud bolt, long; 6 9/16”; for crossarms (wood or fiberglass)

SPECIALTY INSULATORS

High Temperature Insulators

High Temperature Insulators

HT insulators are capable of operating up to a 200˚C Maximum Continuous Conductor Temperature when factored with the amount of mechanical loading applied.

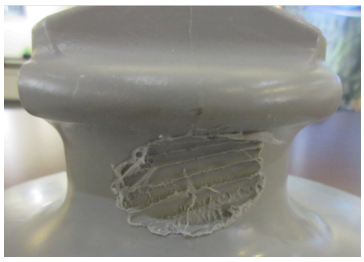
Example: A bare conductor operating at 150˚C can sustain a maximum weight < 150 lbs. and prevent indentation.

Consult the Catalog – HT, for technical information.

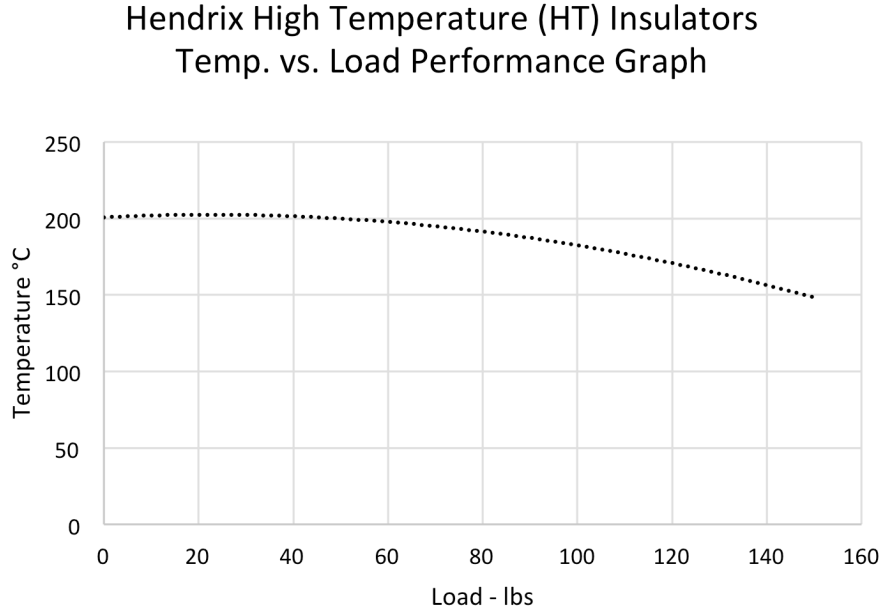
- Exceed ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Made from UV stabilized, track resistant, polyethylene
- Made in USA

All insulators are available in HT. Minimum order requirements apply. Contact rep or factory for details.

HT Insulator
Maximum indent < 1/8”
8hrs; 150C conductor, 150 lb. load.



Standard Insulator
Maximum indent < 1/8”
2 min.; 150C conductor, 150 lb. load.



The curve shows the point where temperature and mechanical load combinations result in <1/8” neck indentation – after 8 hours of continuous operation.
(Tests conducted with 795 KC-mil, compressed, bare, aluminum conductor.)

Note: Results will vary based on conductor size and strand type

United States Patents for HT insulators: 7,501,469 and 8,324,504

Fire Retardant Insulators

Fire Retardant Insulators

A fire retardant rated polymer will ignite if the temperature exceeds its ignition point. However, a FR material will self-extinguish after the heat source is removed.

Although no specific flammability standard exists for insulators, the most commonly referenced industry standards for FR rated materials are all equivalent: UL-94, ASTM D3801 and IEC60695.

UL 94

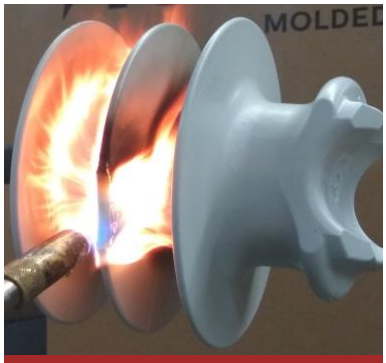
Hendrix flame retardant (FR) insulators are tested according to UL 94. The material passes vertical burning V-0, which is the most stringent rating for UL 94. Below is a summary of the test:

- UL 94 evaluates the flammability behavior of a polymeric material under an open flame or radiant heat source
- V-0 rating:
  - Flame self-extinguishes in ≤ 10 seconds after the ignition source is removed
  - Cotton balls located 300 mm (~11.8") below the burning samples should not ignite by the flaming particles or drops

Conventional Test

In addition to the UL 94 test, a "field" burning test was conducted using a Hendrix FR insulator. A utility torch (Bernzomatic MAP/PRO) flame was directly applied to the insulator's fin, the thinnest section (~1/8"), for 30 continuous seconds.

- Flame self-extinguished less than 5 seconds after the torch was removed
- The insulator burning drops self-extinguished and didn't ignite the cotton balls placed 2ft below the insulator.



Heat source applied for 30 seconds.

Flame self-extinguished after heat source is removed.

All insulators are available in FR. Minimum order requirements apply. Contact rep or factory for details.

White Insulators

HPI-55-3-W (Example)

All insulators are available in white. Minimum order requirements apply. Contact rep or factory for details.

The HPI-55-3-W is an example of a Tie Top Pin Insulator in a white color option to provide neutral conductor or phase identification. Molded from the same proprietary blend of track and UV resistant high density polyethylene used in all Hendrix Insulators, they are more durable and reliable than traditional wet-process porcelain insulators. They are also lighter, safer and easier to handle.

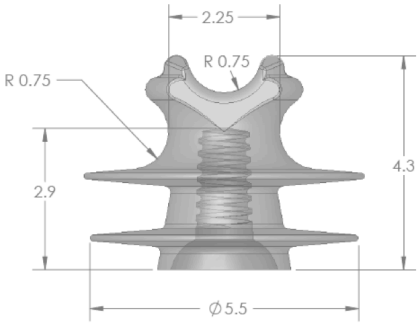
The HPI-55-3-W is designed with standard ANSI C-neck and 1-inch thread size. It is a direct replacement for medium-voltage porcelain C-neck insulators and recommended for all conductor types, bare or covered.

- Exceeds ANSI electrical and mechanical requirements
- Resistant to impact damage, breakage and vandalism
- Designed for use with all Tie Products
- RUS Accepted
- Made in USA

Product Data

CHARACTERISTIC	ANSI C29.5 CLASS 55-3	HPI-55-3-W
DIMENSIONS		
Neck designation	C	C
Leakage distance (in)	7	9.3
Dry-arc distance (in)	4.5	5.7
[1]Pin-hole diameter (in)	1	1
MECHANICAL VALUES		
Cantilever strength (lbs)	2500	3000
ELECTRICAL VALUES		
Typical application (kV)		15
Flashover voltage, 60 Hz Dry (kV)	55	69
Flashover voltage, 60 Hz Wet (kV)	30	45
Impulse Flashover — Positive (kV)	90	108
Impulse Flashover — Negative (kV)	110	148
Low frequency Puncture (kV)	90	210
OTHER		
Min.-Max. Conductor Diameter (in)		1.375
Part Weight (lbs)		0.9
[2]Max Continuous Conductor Temp (°C)		120

Notes: [1] Other pin-hole diameters and thread configurations are available



Dimensions in inches

All insulators are available in white. Minimum order requirements apply. Contact rep or factory for details.

Spool Insulators

HPI-53-2

Hendrix Spool Insulators are molded from a proprietary blend of gray, track and UV resistant, thermoplastic polymers. They are more durable and reliable than traditional wet-process porcelain insulators.

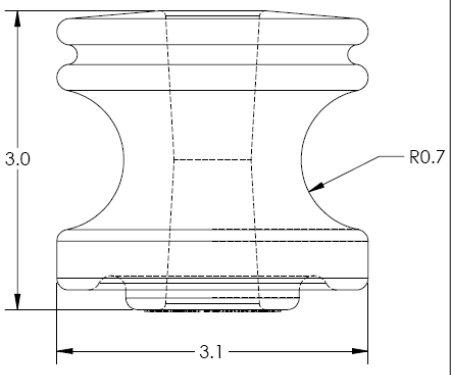
The HPI-53-2 meets the ANSI C29.3, Class 53-2, electrical and mechanical performance requirements. It is designed with a standard ANSI "A" neck and is compatible with standard mounting hardware. It is a direct replacement for porcelain spool insulators.

- Resistant to impact damage, breakage and vandalism
- Lightweight at just 7 oz.
- RUS accepted
- Made in USA

GUARANTEED FOR LIFE
Hendrix MOLDED PRODUCTS

Product Data

CHARACTERISTIC	ANSI C29.3 CLASS 53-2	HPI-53-2
DIMENSIONS		
Neck designation	A	A
Height (in)	2.93 - 3.05	2.99
Width (in)	3.05 - 3.17	3.11
Through-hole diameter (in)	0.71 - 0.77	0.77
MECHANICAL VALUES		
Transverse strength (newtons) (lbf)	13,300 2990	13,350 3000
Maximum Recommended Design Load	50%	75%
ELECTRICAL VALUES		
Flashover voltage, 60 Hz Dry (kV)	25	26
Flashover voltage, 60 Hz Wet (kV) Vertical Horizontal	 12 15	 12.7 14.1
OTHER		
Min.-Max. Conductor Diameter (in)		1.3
Part Weight (lbs)		0.44
Max Continuous Conductor Temp (°C)		120



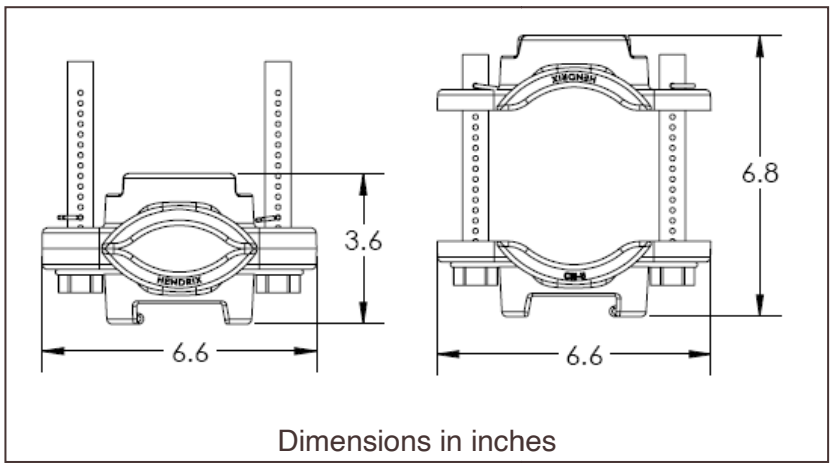
Dimensions in inches

Cable Restraint Insulators

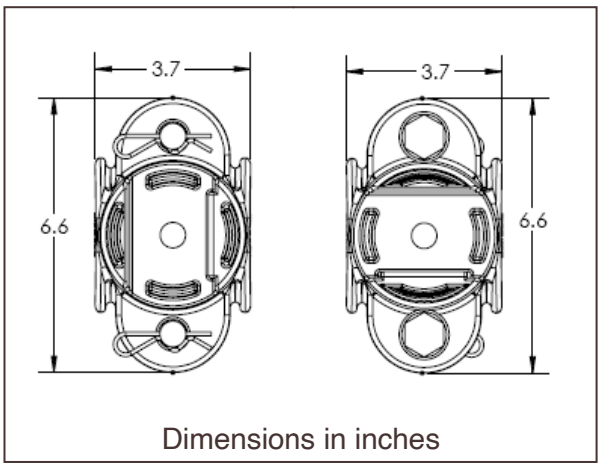
HPI-CRI-U

The Cable Restraint Insulator is designed for cable mounting and training in vault, switching cabinet, rack and riser applications. It is molded from a proprietary blend of UV resistant polymers, making it ideally suited for harsh environments and applications where galvanic corrosion is an issue.

Multiple clamping positions, adjustable from 1-1/4" to 4-5/8" openings, allow for use with different conductor sizes and configurations. One half features a mounting channel in-line with the cable saddle and the other half's channel is perpendicular to the saddle. Both halves are suitable for mounting to Uni-strut, poles, walls or floors.



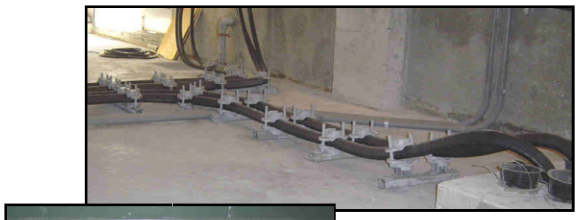
Dimensions in inches

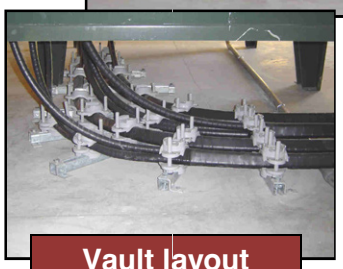


Dimensions in inches

APPLICATIONS

Switchgear



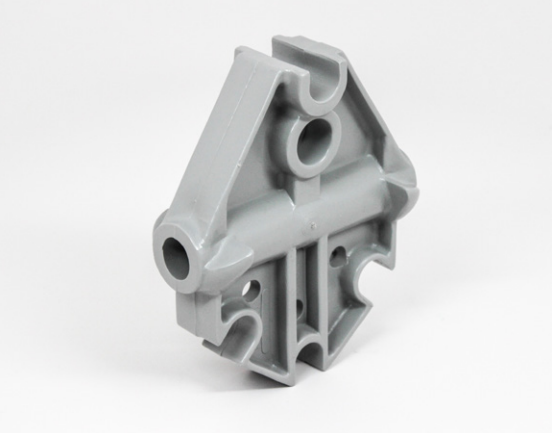


Vault layout

69 kV Riser


SECONDARY VOLTAGE

Secondary Cable Spreader



S604GR

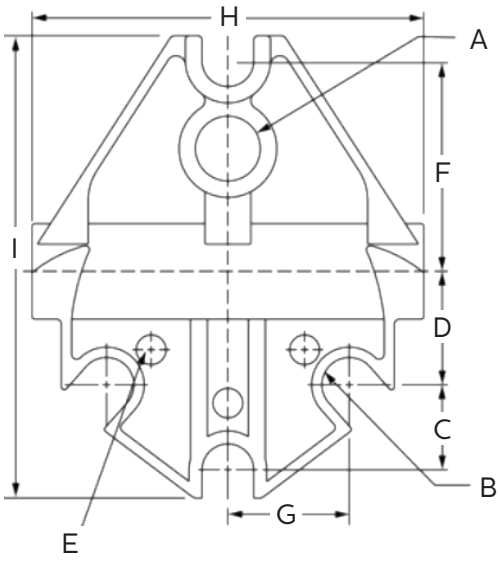
The S604GR is a secondary cable spreader that is used to separate triplex phase conductors and bare wire neutral at locations where customer service drops are to be connected. The S604GR is molded using a proprietary blend of UV- and track-resistant, gray thermoplastic polymers.

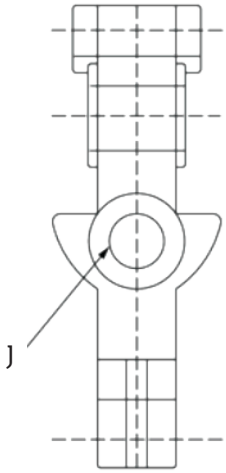
Benefits

- Compact size: lightweight, safe, and easy to use
- Trouble-free: won't chip, crack, or break
- Long life: UV inhibitors prevent solar degradation
- Pole mountable

Application

The S604GR Spreader is designed to accommodate up to three conductors and a neutral at service drop connections between poles. The S604GR is also suitable for fixed installations to the pole using a through-bolt (not included).



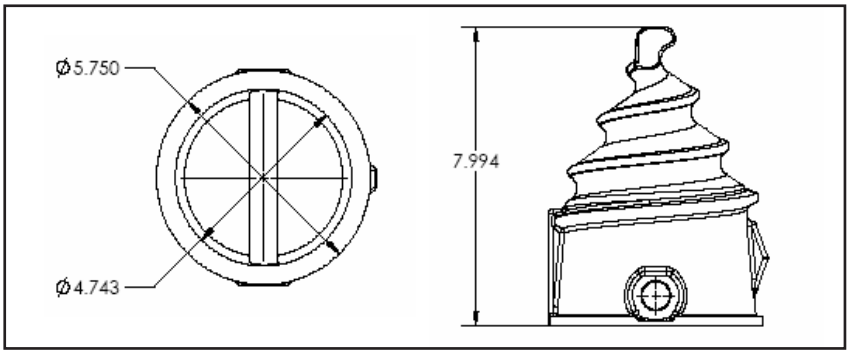


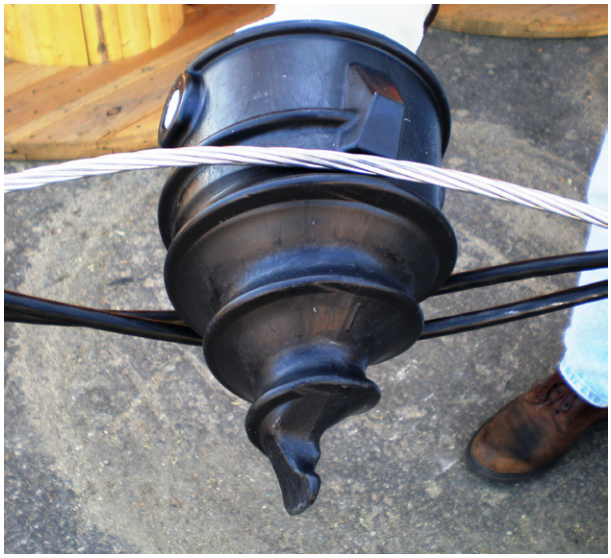
S604GR		
Dimension (inches)	A	13/16
	B	11/16
	C	1 1/16
	D	1 7/16
	E	3/8
	F	2 11/16
	G	1 1/2
	H	4 15/16
	I	5 27/32
	J	11/16
Weight (lbs.)		0.40
Material		Gray Thermoplastic Polymers

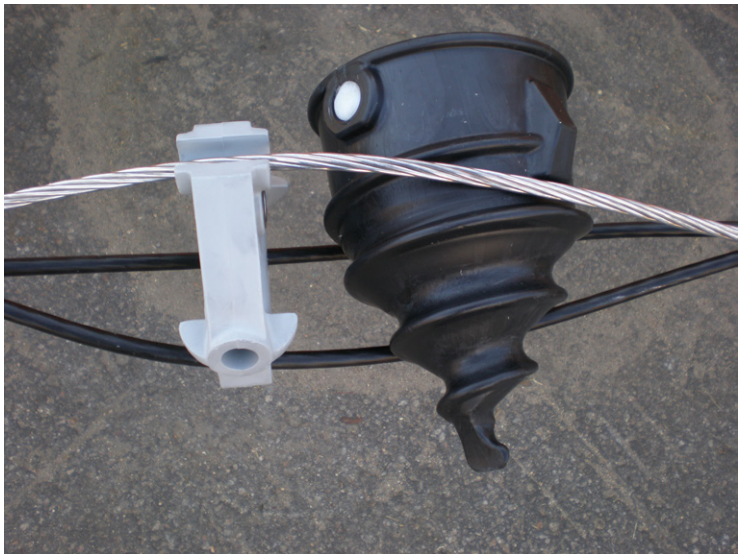
Cable Spreader Tool

ST-3 Cable Spreader Tool

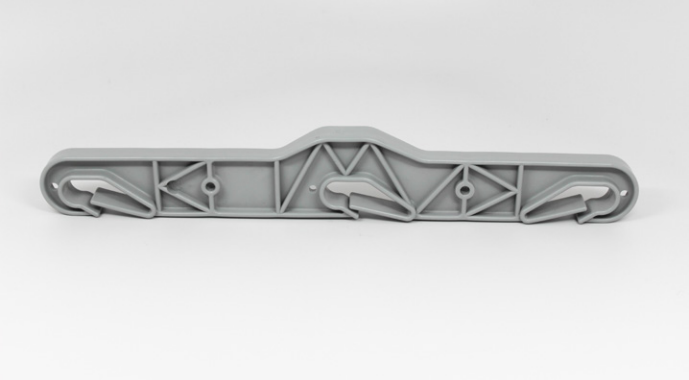
- **Fast and Easy operation.** Separates the Triplex messenger from the conductors
- **Expanded opening.** For acceptance of gloved hands
- **Long Life and durable.** Made from strong Polystyrene Plastic
- **Wide Base.** Allows easy insertion of the S604GR permanent secondary spreader
- **Compact Size.** Fits in tool bags and truck compartments
- **Priced Right.** Economical to put one on every truck.







Vertical Secondary Spacer & Service Bails



S8-800

The S8-800 is a “between poles” vertical secondary spacer that is used to separate bare or covered secondary conductors on vertical secondary circuits, midspan service taps, and open wire service drops. The spacers are molded using proprietary, gray, UV-resistant thermoplastic polymer.

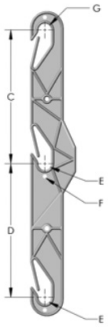
Benefits

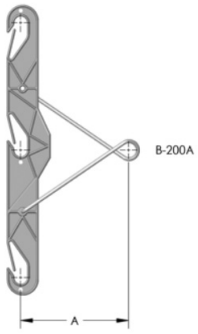
- Economical
- Easy to install
- Neat appearance
- Trouble-free, nonshattering

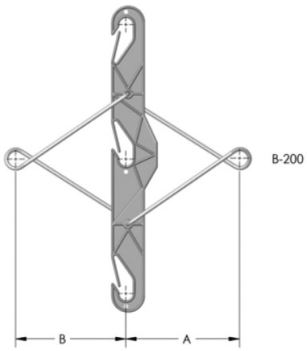
Application

The S8-800 Spacer is especially useful on long secondary spans with bare conductors. It will accommodate bare or covered conductors having overall diameters as shown in the table below.

Holes are provided in the spacers to permit the use of tie wires to secure the conductors to the spacer. Single and double service bails are used when making midspan service taps. For single midspan taps, specify the B-200A Single Bail. For double midspan taps, specify the B200 Double Service Bail (one pair of bails). One B-200A and one B200 cannot be used together to make a double midspan tap.







B-200A

B-200

Catalog Numbers	Dimensions (inches)							Overall		Weight (lbs.)	Material
	A	B	C	D	E	F	G	Height	Width		
S8-800	–	–	8	8	0.800	0.25	0.800	18 1/4	2 3/4	0.42	Polymer
B-200A	5 3/8	–	–	–	–	–	–	–	–	0.10	Aluminum
B-200	5 3/8	5 3/8	–	–	–	–	–	–	–	0.20	Aluminum

WILDLIFE/AVIAN PROTECTION

Wildlife Protection Products

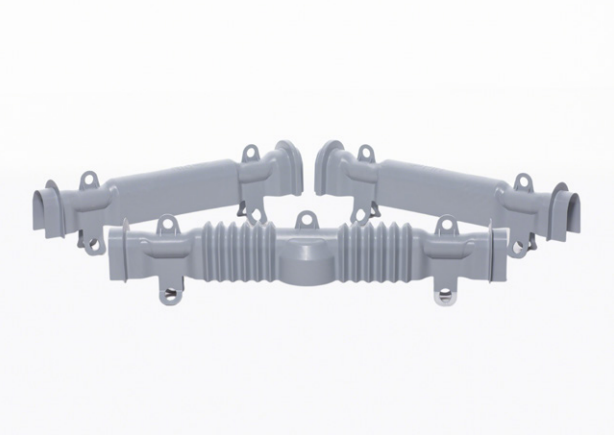
The Hendrix line of Wildlife Protection Products is designed to protect wildlife from live line contact as well as reduce power outages, and assists in the implementation of your avian protection plan.

WILDLIFE COVERS ARE **NOT** FOR PERSONAL PROTECTION.

Benefits

- Prevents harm to wildlife
- Improves circuit reliability, prevents outages
- Installs quickly and easily
- Hot stick compatible
- Designed for both polymer and porcelain pin-type insulator applications

Tie Top Insulator Cover



HRS-TT-KIT

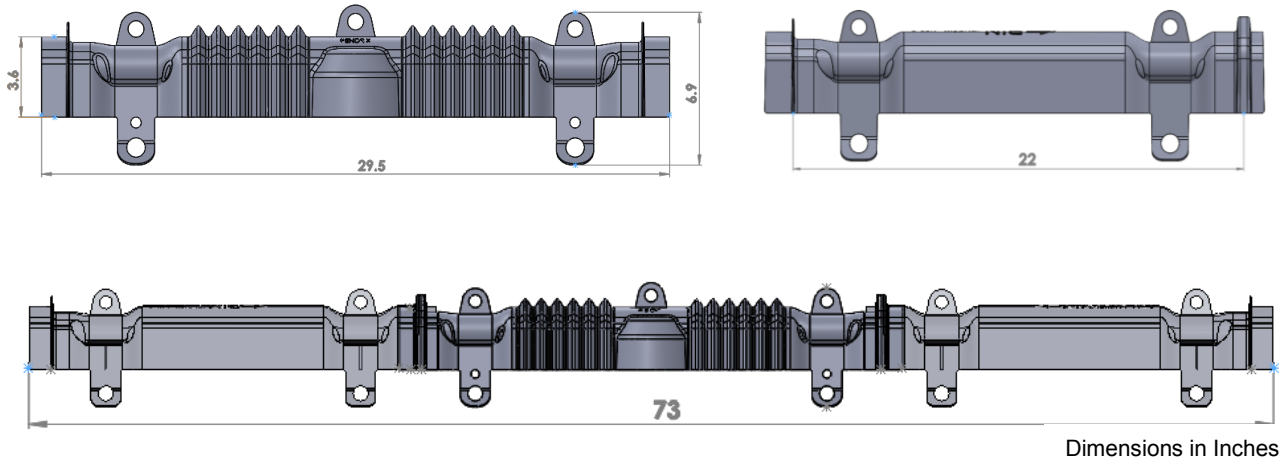
Hendrix Raptor Shields are designed to protect wildlife from live line contact, reduce power outages, and assist in the implementation of your Avian Protection Plan.

The HRS-TT-KIT is designed for use with porcelain and polymer Tie Top insulators to provide complete coverage of the conductor-insulator interface. The central cover portion is sized to accept Tie Top insulators for systems up to 35kV. For added coverage, extension arms can overlap the central cover for extended electrical performance. The cover and arms are made from a UV stabilized, fire retardant (UL-94V0) polymer compound to provide long service life under harsh conditions.

- Installs with live-line tools
- IEEE 1656 compliant
- Resistant to impact damage and vandalism
- Wind resistant to > 60mph
- Fire Retardant (UL-94V0) and UV stabilized
- Made in USA

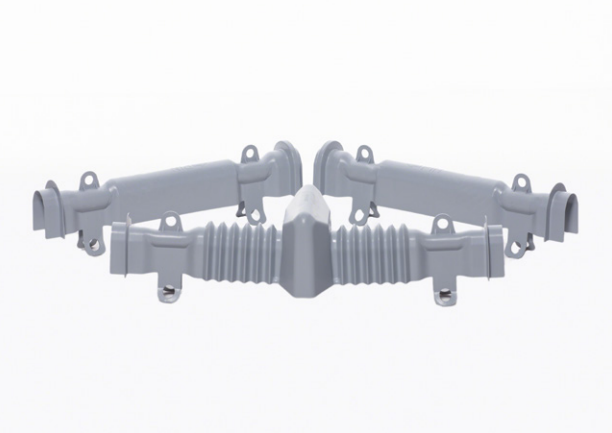
Product Data

CHARACTERISTIC	HRS-TT-KIT
Description	Conductor/Insulator cover kit containing one (1) center piece, two (2) extension arms and six (6) connector pins
Application	Fits Tie Top Pin insulators; ANSI Class 55-3 through 55-7, and ANSI Class 56-1 Fits conductor sizes # 6 AWG to 954 kcmil with regular or preformed ties.
Weight	2.9 lbs
Length	73 in. assembled; 29 in. central piece; extension arms are 22 in. each



CAUTION: Raptor Shields are not intended as a safety covering for personal protection

Vise Top Insulator Cover



HRS-VT-KIT

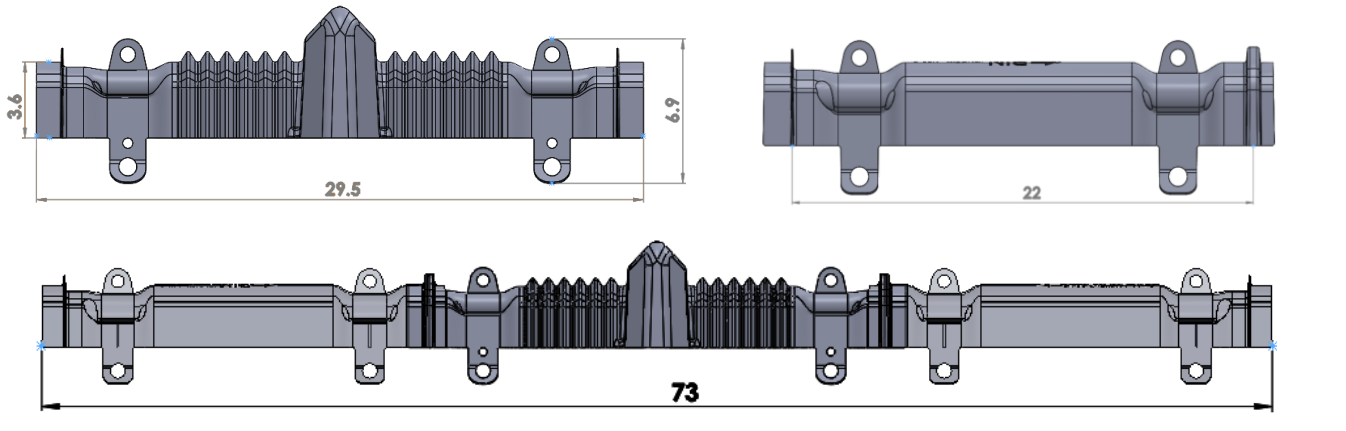
Hendrix Raptor Shields are designed to protect wildlife from live line contact, reduce power outages, and assist in the implementation of your Avian Protection Plan.

The HRS-VT-KIT is designed for use with Hendrix Vise Top insulators to provide complete coverage of the conductor-insulator interface. The central cover portion is sized to accept Vise Top insulators for systems up to 35kV. For added coverage, extension arms can overlap the central cover for extended electrical performance. The cover and arms are made from a UV stabilized, fire retardant (UL-94V0) polymer compound to provide long service life under harsh conditions.

- Installs with live-line tools
- IEEE 1656 compliant
- Resistant to impact damage and vandalism
- Wind resistant to > 60mph
- Fire Retardant (UL-94V0) and UV stabilized
- Made in USA

Product Data

CHARACTERISTIC	HRS-VT-KIT
Description	Conductor/Insulator cover kit containing one (1) center piece, two (2) extension arms and six (6) connector pins
Application	Fits Vise Top Pin insulators; ANSI Class 55-3 through 55-7, and ANSI Class 56-1 Fits conductor sizes # 6 AWG to 954 kcmil
Weight	3.25 lbs
Length	73 in. (assembled); 29 in. central piece; extension arms are 22 in. each



Dimensions in Inches

CAUTION: Raptor Shields are not intended as a safety covering for personal protection

Perch Preventer

HPP-24

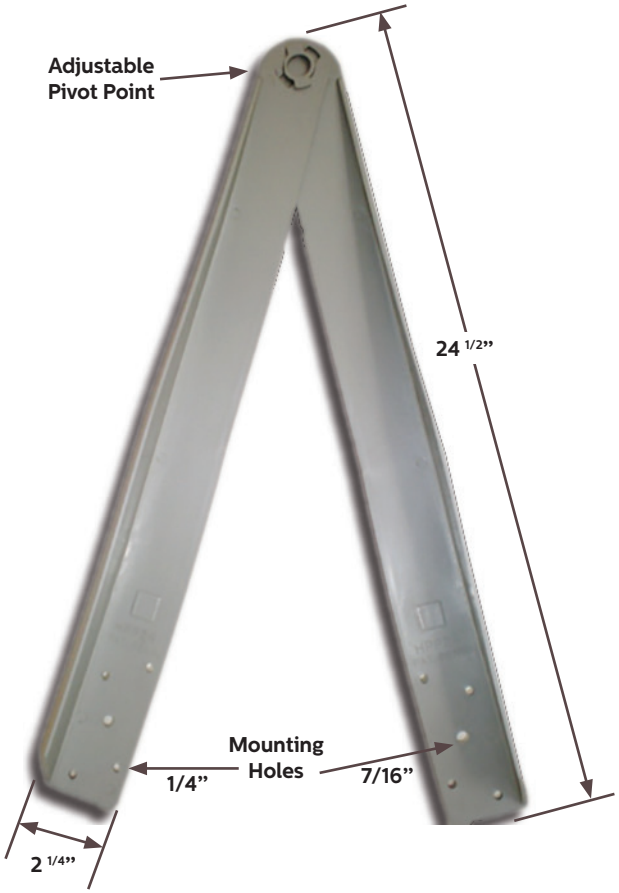
The HPP-24 Perch Preventer is a unique, hinged, adjustable device designed to prevent birds from landing between phases on transmission and distribution structures. The HPP-24 is mounted to a crossarm using either nails or small lag screws. The Perch Preventer is molded using proprietary, gray, UV- and track-resistant thermoplastic polymer.

Benefits

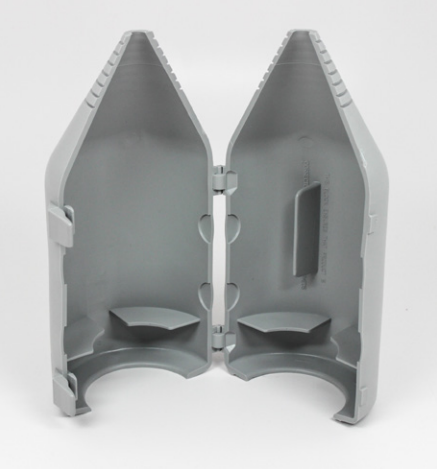
- Prevents birds from perching and nesting
- Prevents injury to birds
- Reduces circuit outages
- Adjustable and easy to install
- RUS approved

Application

The HPP-24 Perch Preventer is shipped assembled and ready to mount on a wood, fiberglass, or steel channel crossarm. The legs are adjustable from a 6” to 24” spacing and will fit between different phase spacing. The HPP-24 can be nailed or bolted to the crossarms. Mounting is fast and easy.



Wildlife Guards



BG-9

The BG-9 is a wildlife guard that is installed on the bushings of transformers and other power equipment. It covers the lead wire and electrical connections to the bushings and prevents contact by birds and squirrels. The BG-9 is molded using proprietary, gray, track-resistant, high-density polyethylene.

Benefits

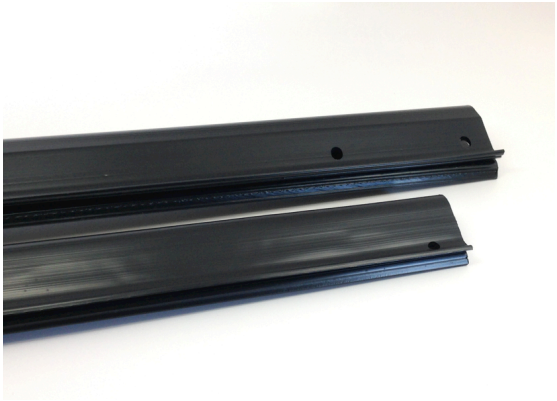
- Prevents outages, improves circuit reliability
- Prevents harm to wildlife
- Installs quickly and easily
- Scored top for easy conductor fit
- RUS approved
- Rugged molded hinges
- Vertical internal block ensures proper installation

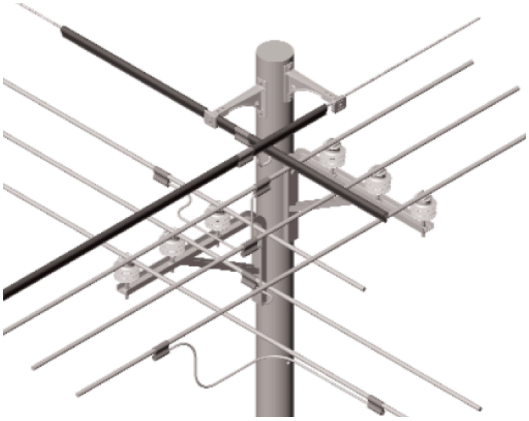
Application

The BG-9 Wildlife Guard is equipped with horizontal internal supports that provide stability when the guard is mounted over the top skirt of the bushing. The guard is designed with double knockouts for direct-connected surge arresters. The BG-9 is designed to be installed without removing the lead wire from the bushing connector, thus allowing installation on energized equipment with live line rubber gloves.

Catalog Number	Maximum Bushing Fin Diameter	Outside Diameter	Height (in.)	Weight (lbs..)
BG-9	3 3/4	4 1/4	9	0.60

Line Guards





LINEDUC

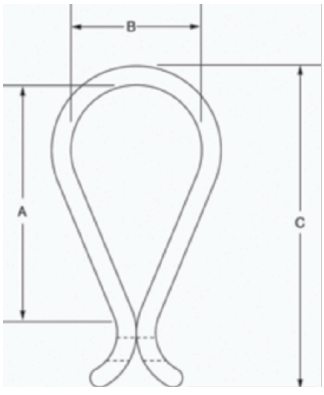
LINEDUC is a protective guard which can be easily clipped onto bare or covered conductors, messengers, service drops and communication cables. It protects conductors from abrasion and contact by tree limbs and animals. LINEDUC is extruded using proprietary, track resistant, high density polyethylene.

LINEDUC is available in two sizes; standard or jumbo. The standard size is available in black or gray. Jumbo is available in black only. Required lengths can be cut at the job site from standard 8 foot sections. After LINEDUC is clipped over the conductor, it is anchored at the ends with tie wire to prevent longitudinal movement along the conductor.

- Eliminates conductor abrasion and contact grounding
- Minimizes service interruptions and repair costs
- Reduces tree trimming
- Durable, economical and easy to install
- Made in USA

Product Data

CHARACTERISTIC	LINEDUC	JUMBO LINEDUC
DIMENSIONS		
A (in)	2	3
B (in)	1	1.5
C (in)	2.5	3.5
Length (in)	8	8
OTHER		
Part Weight (lbs)	2.8	4.6
Max Continuous Conductor Temp (°C)	120	120



CAUTION:
LINEDUC is not a protective safety covering for energized work and not intended for personal protection

LINEDUC-BRIDGE

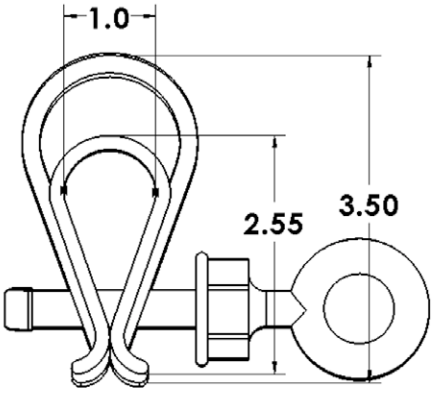
LINEDUC-BRIDGE is an assembly of at least two protective lineduc guards connected by a bridge. It is intended to cover a long distance of bare conductor such as a full span length. The lineduc guards can easily be clipped onto the conductor and joined by the bridge in the field. The bridge design accommodates the sag angle of a full span. The LINEDUC-BRIDGE protects conductors from abrasion and contact by tree limbs and animals. It is produced using proprietary, track resistant, high density polyethylene.

LINEDUC-BRIDGE is available in one standard size in black or gray color. The lineduc guard comes in standard 8 foot section can be cut at the job site if required. After the LINEDUC-BRIDGE is installed over the bare conductor, it can be anchored at the open ends with tie wire to prevent longitudinal movement along the conductor.

- Eliminates conductor abrasion and contact grounding
- Minimizes service interruptions and repair costs
- Reduces tree trimming
- Durable, economical and easy to install
- Made in USA

Product Data

CHARACTERISTIC	LINEDUC-BRIDGE
DIMENSIONS	
Typical application (kV)	38
Flashover, 60 Hz Dry (kV)	45
Flashover, 60 Hz Wet (kV)	20
Length (ft)	16
OTHER	
Min.-Max. Conductor Diameter (in)	.187” – 1.0”
One Assembly Weight (lbs)	5.8
Max Continuous Conductor Temp (°C)	120



Dimensions in inches

CAUTION:
LINEDUC-BRIDGE is not a protective safety covering for energized work and not intended for personal protection

INSULATOR CROSS-REFERENCE GUIDE

Tie Top Pin Insulators

Hendrix Tie Top Insulators are molded from a proprietary blend of gray, track-resistant, high-density polyethylene. They are ideal for use with all types of construction using either bare wire or covered conductors. They are especially well suited for areas of vandalism. Ballistics tests have shown that even with damage from a rifle or shotgun, the insulators are still able to operate.

ANSI Class Number	Hendrix (Polyethylene)	Gamma/ Lapp (Porcelain)	PPC (Seves) (Porcelain)	Victor Imported (Porcelain)	Newell (Porcelain)	Santana (PPC/Seves) (Porcelain)	PLH (Porcelain)	MacLean (Dulhunty) (Porcelain)	Description
55-3	**HPI-55-3***	6184R-70	261-S	VI 605R	2355530	PI 23132	P553GR	DP55-3	15KV "C" Neck; 1" Threads
55-4	**HPI-55-4***	6183R-70	366-S	VI 606R	2355540	PI 23152	P554GR	DP55-4	15KV "F" Neck; 1" Threads
55-5	**HPI-55-5-01**	7061R-70	380-S	VI 609R	2355550	PI 23253	P555GR	DP55-5	25KV "F" Neck; 1" Threads
	HPI-25-01		380-S	VI 609R	2355550	PI 23253	P555GR	DP55-5	25KV "F" Neck; 1" Threads
55-6	**HPI-35J-01**	320275R-70	386-ST	VI 611R	2355560	PI 23254		DP55-6	35KV "J" Neck; 1" Threads
55-7	**HPI-35J-02**								35KV "J" Neck; 1 3/8" Threads
56-1	**HPI-25J-02***	8248R-70	1027-ST	VI 627R	2365610	PI 43231	P561GR	DP56-1	25KV "J" Neck; 1 3/8" Threads
	HPI-55-5-02								25KV "F" Neck; Tie Top; 1 3/8" Threads
	HPI-25-02								25KV "F" Neck; Tie Top; 1 3/8" Threads
	HPI-25J-01								25KV "J" neck; 1" Threads
	HPI-35-01								35KV "F" Neck; Tie Top; 1" Threads
	HPI-35-02								35KV "F" Neck; Tie Top; 1 3/8" Threads

*RUS-approved items

Other items can be approved based on RUS exception

Spools

HPI Spool Insulators are used mainly to insulate and support the secondary conductors at the pole. Spool Insulators are mounted to the pole using various clevis configurations and are compatible with all manufacturers' hardware designs.

ANSI Class Number	Hendrix (Polyethylene)	Gamma/ Lapp (Porcelain)	PPC (Seves) (Porcelain)	Victor Domestic (Porcelain)	Santana (PPC/Seves) (Porcelain)	PLH (Porcelain)	MacLean (Dulhunty) (Porcelain)	Joslyn (Maclean) (Porcelain)	Hubble (Chance) (Enerscan) (Plastic)	Description
53-2	**HPI-53-2**	8442-70	5101	2012	RO12012	P532G	DP-53-2	J 151	C9091032P	3" Spool

Line Post Insulators

Hendrix Line Post Insulators are molded from a proprietary blend of track-resistant, high-density polyethylene. They are ideal for use with all types of construction using either bare wire or covered conductors. HPI Line Post Insulators meet the electrical and mechanical requirements of ANSI C29.7 and C29.18. They are designed with a standard ANSI “F” neck and center tap 3/4” thread size.

Porcelain						
Hendrix (Polyethylene)	**Gamma/Lapp** (Porcelain)	**Victor Imported** (Porcelain)	**NGK** (Porcelain)	**Santana (PPC)** (Porcelain)	**PLH** (Porcelain)	**Description** (Nominal Voltage Shown)
HPI-LP-9C*	4215PX-70	2115	N/A	5015	N/A	15KV "C" Neck; Tie Top; 3/4" threads
HPI-LP-9F*	4320PX-70	2120	N/A	5120	N/A	15KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-11F*	9325X-70	2025	N/A	5125	P57-1G	25KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-14	4327PX-70	2127	N/A	5125	N/A	25KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-14	9325X-70	62055	DA55004E	5135	P57-2G	25KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-14	9335X-70	62056	DA65008E	5145	P57-3G	35KV "F" Neck; Tie Top; 3/4" threads

*Items are RUS approved

Composite				
Hendrix (Polyethylene)	**MacLean**	**K-Line**	**Hubble (Ohio Brass)** (VeriLite)	**Description** (Nominal Voltage Shown)
HPI-LP-9C**	NPNN20XG07S0	KL15STC	80S0150C09	15KV "C" Neck; Tie Top; 3/4" threads
HPI-LP-9F**	NPNN20XG07S0	KL15STF	80S0150F09	15KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-11F**	NPNN20XG09S0	KL28STF	80S0280F09	25KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-14	NPNN20XG09S0	KL28STF	80S0250F09	25KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-14	NPNN20XG13S0	KL35STF	80S0280F09	35KV "F" Neck; Tie Top; 3/4" threads
HPI-LP-14	N/A	N/A	N/A	25/35KV "F" Neck; Tie Top; 3/4 threads

**RUS approval available on request

NOTES

GUARANTEED FOR LIFE PROGRAM

Lighter, Stronger, Better. And Guaranteed for Life.

Upgrade to time-tested Hendrix HPI Insulators

Hendrix introduced the Tie-Top insulator in the 1960s, and we've been innovating ever since. Our HPI insulators are made from a proprietary blend of track-resistant, high-density polyethylene. They have greater leakage distance, higher flashover and impulse values, are lightweight, vandal-resistant, and they won't chip, crack, or break. **Plus, our HPI insulators are recyclable and made 100% right here in the USA.**

The Hendrix Guaranteed for Life Program

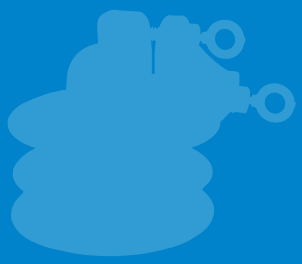
For all Hendrix insulator's including:

- Tie-Top insulators
- Vise-Top insulators
- **NEW:** Line Post insulators

The Guaranteed for Life Program covers previously installed Hendrix insulators.

MADE IN U.S.A.

Reliably serving the utility industry since the 1960s



Marmon Utility LLC

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