



PIN TYPE

and

STRAIN INSULATORS

ACCESSORY HARDWARE

—●—
Catalogue CPG-10
—●—

PORCELAIN PRODUCTS, INC.

—●—
GENERAL SALES OFFICE
Parkersburg, W. Va.

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Parkersburg, W. Va.
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Foreword

IN THIS catalog are listed only Pin Type and Strain Insulators and accessory hardware. Complete up-to-minute specifications and characteristics are given.

An insulator will be found in the following pages which will be correct for any pin type or strain installation. Old customers will notice the omission of several designs which, because of limited demand, have not been listed here. However, Porcelain Products will be in position to continue to furnish any designs, other than those shown, which in the past have been manufactured for our customers.

Immediately upon request other catalogs will be forwarded to you covering **PP** Suspension Insulators and Transmission Line Hardware; Pole Line Hardware including Service Insulators, Secondary Racks Complete, Secondary Rack Insulators and Insulated Clevises; High Voltage Tubes, Wall Bushings and Miscellaneous Material.

In addition to the material listed in these catalogs, Porcelain Products offers its facilities to those desiring porcelain manufactured to their own specifications. Porcelain Products is the first manufacturer to make available under one roof every proven means for manufacturing wet process electrical porcelain. The use of the correct process makes certain that the proper type of porcelain, for the particular use to which it will be put, is furnished at reasonable cost. Ample plant capacity is available to provide prompt and efficient service. To assure uniformly high quality, every modern device and process is employed, including de-airing of the clay body while it is in the plastic state.

If a porcelain part for a particularly difficult or unusual installation is desired, we invite you to submit your blue prints and specifications to our engineering department. It may prove well worth your while.





PIN TYPE INSULATORS

PERFECTION has become the criterion by which electric service is measured today and anything short of it is not tolerated by the power user. As anyone connected with a public utility can well verify, even a momentary outage is usually the cause of considerable complaint by customers. Twenty-four hours a day, three hundred sixty-five days a year, uninterrupted service must be furnished. To assure compliance with this high standard of operation, it is necessary that everything contributing to or having a part in generation, transmission and distribution be critically examined for possible flaws.

From the standpoint of perfect service, probably the most important item used in the construction of a line is the insulator. One defective unit might incapacitate an important line many miles in length and cut hundreds of valuable customers from service. It is only by strict adherence to the highest standards for manufacturing wet process porcelain and by rigid tests applied to this porcelain after manufacture, that the purchaser can be assured of an insulator which always will give uninterrupted service.

Porcelain Products Insulators assist the power company to give the perfect service which is demanded today. From the exacting standards which have been set up for raw materials, to the complete inspection and testing of the finished product, nothing is overlooked which can contribute to the production of insulators which are as uniform and perfect as it is possible to make them.

Although any one of the insulators in the following pages will give you a lifetime of perfect service, and although many thousands of **PP** Pin Type Insulators have been in service for periods ranging well over twenty-five years, it is also realized that, by continued efforts, additional refinements can be made. Therefore research and service tests are continually in progress in an effort to develop new manufacturing methods and constantly improve **PP** Insulators. Every attempt is made to maintain close contact with all extremes of field conditions so that an accurate check of insulators in actual operation can be obtained. Realizing also that special problems may arise from time to time, Porcelain Products respectfully solicits your criticisms and suggestions so that improvements may be certain to take into account every possible operating condition.

The design of Pin Types is reasonably standardized and a casual glance



PIN TYPE AND STRAIN INSULATORS



will disclose very little difference in the outward appearance of the products of various manufacturers. Closer examination will nevertheless disclose several refinements of design in Porcelain Products Insulators. These refinements are not always superficially noticeable, yet the lack of them may be of serious consequence.

Top wire grooves are convexed the proper amount to prevent localization of load on any one point of the conductor. Top and side grooves are designed for easy and secure tying and to prevent sharp bending of the conductor. Top and side grooves of multipart insulators are on nearly the same plane, making a very secure tie possible. All edges are liberally rounded to increase strength and prevent concentration of electrical and mechanical stresses and the whole insulator is a balanced unit electrically, mechanically and thermally.

Inspection

Insulators manufactured by Porcelain Products must pass much more rigid inspection and electrical test than is common practice, particularly in the production of the medium voltage one piece pin types. Each insulator is subjected to an extremely critical visual inspection followed by a vigorous dry flashover test, using both 60 cycle and high frequency voltages. This would complete the testing if common prac-

tice were followed. However, on insulators furnished with the porcelain threaded pin hole, it is highly important that the thread be very accurate to assure a perfect fit between the insulator and pin and thus minimize radio interference. Therefore, representative batches of every lot of pin type insulators are tested on steel pin gauges which are in exact accordance with the NELA standard pin. No variation in the pin fit is permitted and unless the insulators comply fully with Porcelain Products standard, the entire lot is rejected.

Multipart Pin Type Insulators

Porcelain Products Multipart Pin Type Insulators are manufactured under the most exacting standards of workmanship and material. Proper design, both from a ceramic as well as an electrical standpoint, is of paramount importance and a great deal of laboratory research and experimentation has been and is being carried on in an effort to make a progressively better insulator.

After the forming process, the insulators are placed in a dryer in which the temperature and humidity are controlled. Thus the uniform rate of drying, which has been found from experience to be best for each insulator, is closely maintained.

The insulator parts after being thoroughly and slowly dried are glazed,

sand is applied to the surfaces which are to be in contact with cement and another layer of glaze is applied over this sand.

Firing

All porcelain is fired in a continuous tunnel kiln equipped with every modern electrical and mechanical device for flue gas and temperature control. Natural gas, the most satisfactory fuel available for firing electrical porcelain, is the only fuel used.

Thermal Protection

After firing and before assembly the sanded surfaces are coated with a layer of resilient compound to allow relief of any stresses which, due to unequal temperature change, might otherwise be transmitted between the parts. Each insulator part is given a visual inspection and 3-minute dry flashover test and is ready to assemble.

Assembly

The assembly of the shell to form a complete multipart pin type insulator must be carefully performed by skilled workmen and the entire process absolutely controlled. Only thus can an insulator which will give years of trouble free service be produced.

The cement is tested to conform to our specifications and must be strictly uniform. It is manufactured especially for use in **PP** Insulators and is only mixed in small quantities to be used

immediately. The parts of the insulator are assembled in a jig, cemented and placed in a chamber in which 100% humidity and the proper temperature are maintained for several days. Thus thorough expansion of the porcelain parts during setting and complete hydration of the cement are assured. This is extremely important as cement growth in service could cause failure of the insulator.

Final Test

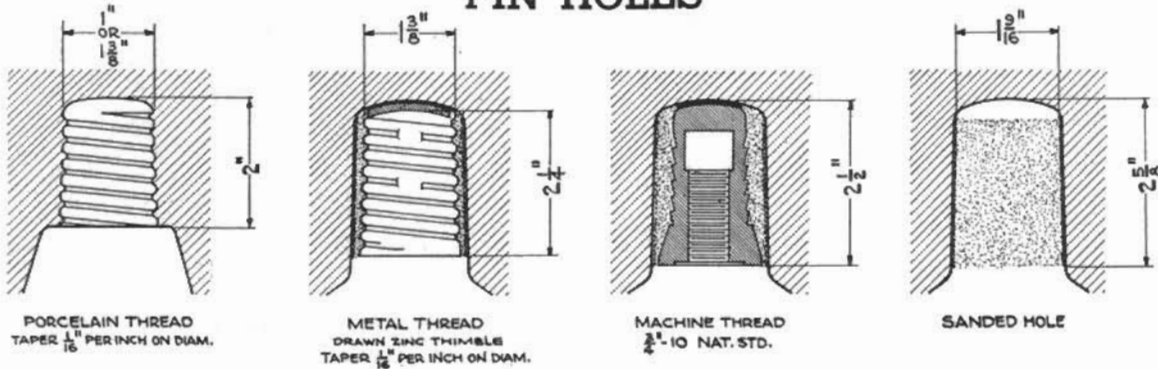
After removal from the steam chamber all exposed cement joints are coated with a waterproof material to prevent future absorption of moisture by the cement. The assembled insulators are then given another visual inspection, mechanical test and 3-minute continuous dry flashover and are ready for packing.



The finished insulator is the product of the finest materials and manufacturing methods plus the most highly skilled workmen available. The only thought of our men who make your insulators is to give you the best—and we believe that they do it.



PIN HOLES



One-piece pin type insulators are furnished with 1-inch, or in some cases $1\frac{3}{8}$ -inch porcelain threaded pin holes.

Multipart insulators are furnished with $1\frac{3}{8}$ -inch porcelain threaded, $1\frac{3}{8}$ -inch metal threaded, or $1\frac{1}{16}$ -inch sanded pin holes. Thimbles to take the Lee Pin or any thimble in general use can be cemented into the sanded pin hole. Before cementing the thimble into the pin hole, the sand area is sprayed with the same resilient compound that is used in assembly of the parts.

Glaze

Albany slip glaze, which is mahogany colored on the finished insulator, is standard due to its ability to show that the insulator has been fired to exactly the correct temperature. On some of the smaller pin types choc-

olate brown glaze can be furnished at no extra cost. If desired, various colored glazes such as blue, green, slate, yellow, etc. for use in identifying different circuits, can be furnished at a slight additional cost.

Packing

One-piece insulators are packed for shipment within the United States in corrugated paper cartons with separators. Export shipments are packed in iron bound wooden boxes or barrels.

Multipart insulators for domestic shipment are packed in specially designed wooden crates or, if for export, in wire bound boxes.

The package best for each particular insulator has been scientifically designed and the packing used will resist rough handling without breakage.

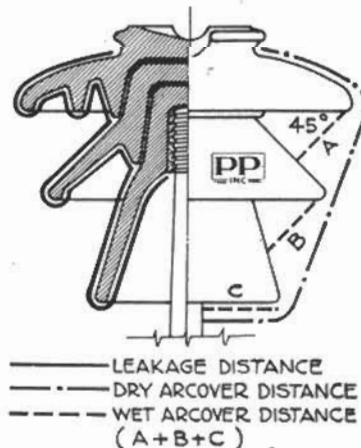
OPERATING VOLTAGES

In the listings, just below the catalog numbers, will be found a general recommendation for each insulator. The voltage given, however, is to be considered only as that which should be used when operating conditions are normal and is not intended to be construed as a general recommendation that the insulator will prove satisfactory for that voltage under any condition.

The method of measuring leakage and dry and wet arcing distances is shown in the drawing.

The electrical values given were obtained in tests made in accordance with A.I.E.E. Standards No. 41, Revision of March 1930. All results were corrected to the following standard atmospheric conditions: temperature 25 C (77 F), Barometric Pressure 760 mm. (29.92 in.) and absolute humidity corresponding to a vapor tension of 15.45 mm. (0.6085 in.) of mercury.

The values given in the listings represent those obtained in a number of tests. It should be remembered that slight variations may be expected in test data received from different sources. Paragraphs 104 and 155 of the A.I.E.E. standards referred to above allow a variation of 5% over or under on dry flashover values and 10% over or under on wet flashover values.





PIN TYPE AND STRAIN INSULATORS

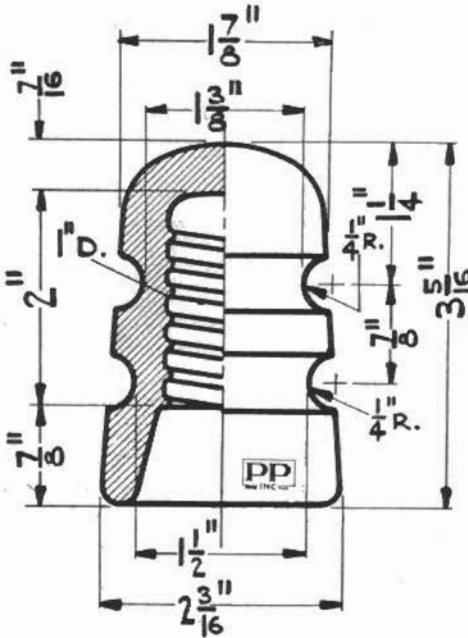
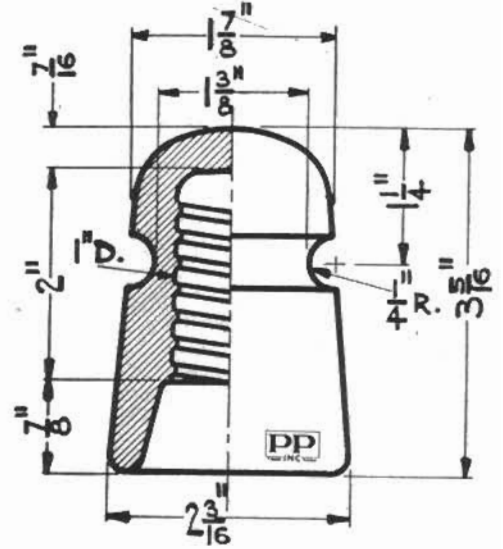


Cat. No.
6109

1 in. Porcelain Thread
Used for 2300 Volt Lines

Code Word
SACRI

Dry Arcover Voltage, 60 Cycle.....	kv.	32
Wet Arcover Voltage, 60 Cycle.....	kv.	16
Leakage Distance.....	in.	2 $\frac{5}{8}$
Dry Arcing Distance.....	in.	2 $\frac{1}{8}$
Wet Arcing Distance.....	in.	$\frac{5}{8}$
Mechanical Strength (Approximate).....	lbs.	2,000
Recommended Pin Height.....	in.	4
Net Weight per 100.....	lbs.	58
Packed Weight per 100, Domestic, (Std. Keg of 100).....	lbs.	75
Packed Weight per 100, Export, (Std. Bbl. of 500).....	lbs.	61
Volume per 100, Export.....	cu. ft.	1.4



Cat. No.
6112

1 in. Porcelain Thread
Used for 2300 Volt Lines

Code Word
SAFRA

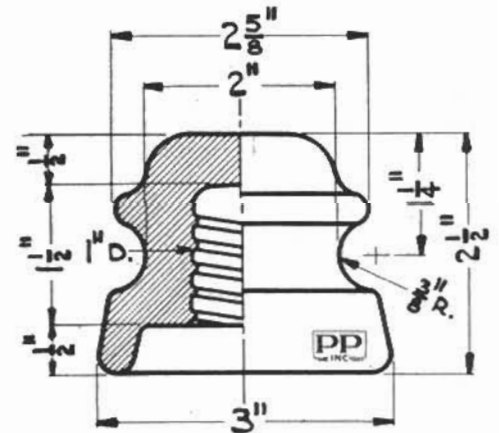
Dry Arcover Voltage, 60 Cycle.....	kv.	24
Wet Arcover Voltage, 60 Cycle.....	kv.	12
Leakage Distance.....	in.	2
Dry Arcing Distance.....	in.	1 $\frac{5}{8}$
Wet Arcing Distance.....	in.	$\frac{5}{8}$
Mechanical Strength (Approximate).....	lbs.	2,000
Recommended Pin Height.....	in.	4
Net Weight per 100.....	lbs.	60
Packed Weight per 100, Domestic, (Std. Keg of 100).....	lbs.	77
Packed Weight per 100, Export, (Std. Bbl. of 500).....	lbs.	66
Volume per 100, Export.....	cu. ft.	1.5

Code Word
SAGOT

Cat. No.
6130

1 in. Porcelain Thread
Used for 2300 Volt Lines

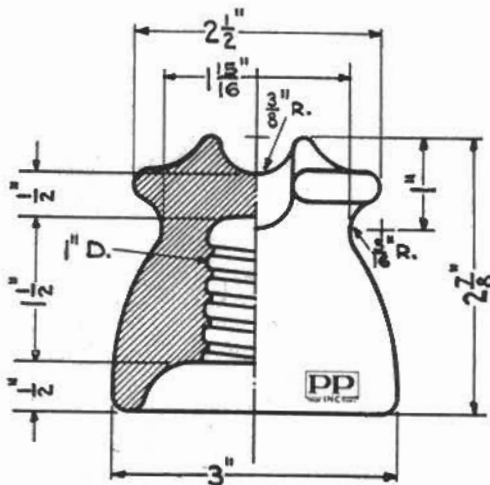
Dry Arcover Voltage, 60 Cycle.....	kv.	26
Wet Arcover Voltage, 60 Cycle.....	kv.	13
Leakage Distance.....	in.	2
Dry Arcing Distance.....	in.	1 $\frac{3}{4}$
Wet Arcing Distance.....	in.	1
Mechanical Strength (Approximate).....	lbs.	2,500
Recommended Pin Height.....	in.	4
Net Weight per 100.....	lbs.	75
Packed Weight per 100, Domestic, (Std. Keg of 100).....	lbs.	92
Packed Weight per 100, Export, (Std. Bbl. of 400).....	lbs.	68
Volume per 100, Export.....	cu. ft.	1.9



PORCELAIN PRODUCTS INC. - PARKERSBURG, W. VA.



PIN TYPE AND STRAIN INSULATORS



Cat. No. 6132

1 in. Porcelain Thread
Used for 2300 Volt Lines

Code Word SAGES

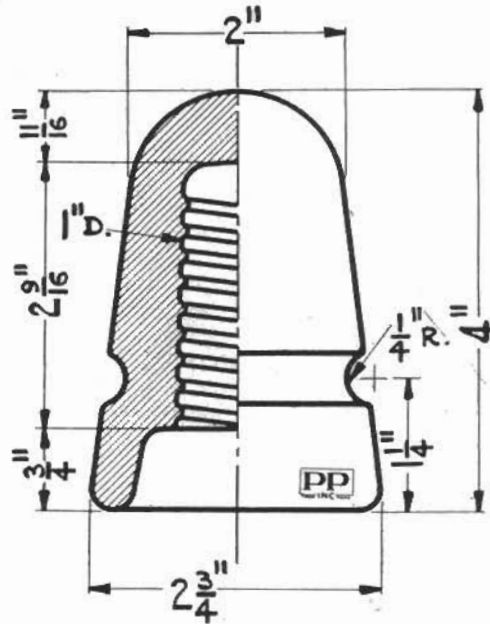
Dry Arcover Voltage, 60 Cycle..... kv.	37
Wet Arcover Voltage, 60 Cycle..... kv.	18
Leakage Distance..... in.	2 3/4
Dry Arcing Distance..... in.	2 1/2
Wet Arcing Distance..... in.	7/8
Mechanical Strength (Approximate)..... lbs.	2,500
Recommended Pin Height..... in.	4
Net Weight per 100..... lbs.	75
Packed Weight per 100, Domestic, (Std. Ctn. of 50)..... lbs.	82
Packed Weight per 100, Export, (Std. Bbl. of 400)..... lbs.	78
Volume per 100, Export..... cu. ft.	1.9

Cat. No. 6119

1 in. Porcelain Thread
Used for 5000 Volt Lines

Code Word SALVA

Dry Arcover Voltage, 60 Cycle..... kv.	29
Wet Arcover Voltage, 60 Cycle..... kv.	14
Leakage Distance..... in.	2 1/2
Dry Arcing Distance..... in.	1 7/8
Wet Arcing Distance..... in.	7/8
Mechanical Strength (Approximate)..... lbs.	3,000
Recommended Pin Height..... in.	4 3/4
Net Weight per 100..... lbs.	88
Packed Weight per 100, Domestic, (Std. Ctn. of 50)..... lbs.	97
Packed Weight per 100, Export, (Std. Bbl. of 200)..... lbs.	92
Volume per 100, Export..... cu. ft.	3.8

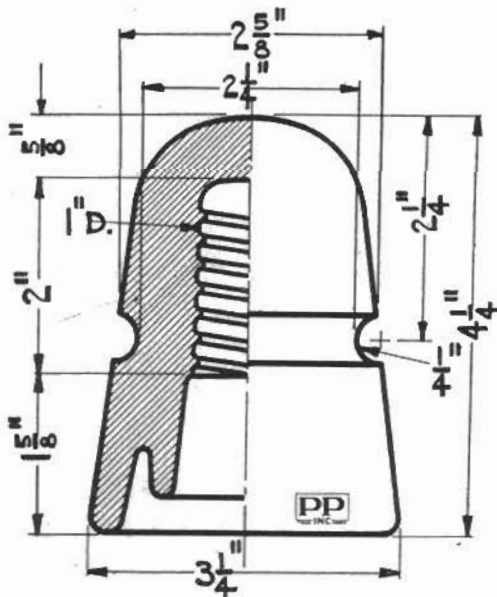


Cat. No. 6129

1 in. Porcelain Thread
Used for 5000 Volt Lines

Code Word SAGAC

Dry Arcover Voltage, 60 Cycle..... kv.	41
Wet Arcover Voltage, 60 Cycle..... kv.	20
Leakage Distance..... in.	5
Dry Arcing Distance..... in.	2 3/4
Wet Arcing Distance..... in.	1
Mechanical Strength (Approximate)..... lbs.	3,000
Recommended Pin Height..... in.	6
Net Weight per 100..... lbs.	140
Packed Weight per 100, Domestic, (Std. Keg of 100)..... lbs.	165
Packed Weight per 100, Export, (Std. Bbl. of 200)..... lbs.	160
Volume per 100, Export..... cu. ft.	3.8





PIN TYPE AND STRAIN INSULATORS

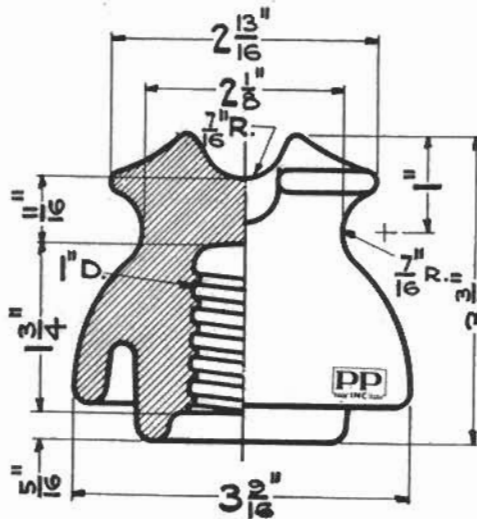
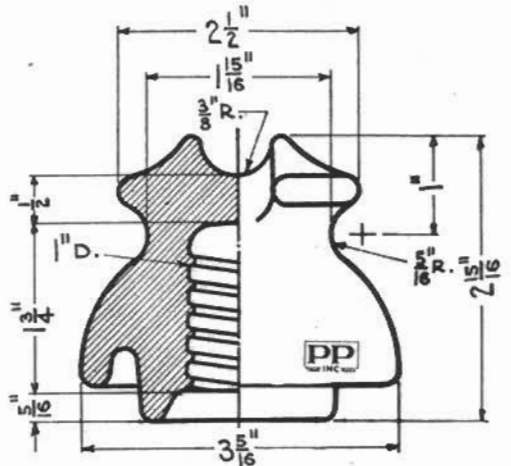


Cat. No.
6185

1 in. Porcelain Thread
Used for 5000 Volt Lines

Code Word
SACOR

Dry Arcover Voltage, 60 Cycle..... kv.	42
Wet Arcover Voltage, 60 Cycle..... kv.	21
Leakage Distance..... in.	3½
Dry Arcing Distance..... in.	2¾
Wet Arcing Distance..... in.	1¾
Mechanical Strength (Approximate)..... lbs.	3,000
Recommended Pin Height..... in.	4
Net Weight per 100..... lbs.	75
Packed Weight per 100, Domestic, (Std. Ctn. of 50)..... lbs.	85
Packed Weight per 100, Export, (Std. Bbl. of 275)..... lbs.	82
Volume per 100, Export..... cu. ft.	2.9



Cat. No.
6187

1 in. Porcelain Thread
Used for 7500 Volt Lines

Code Word
SUCID

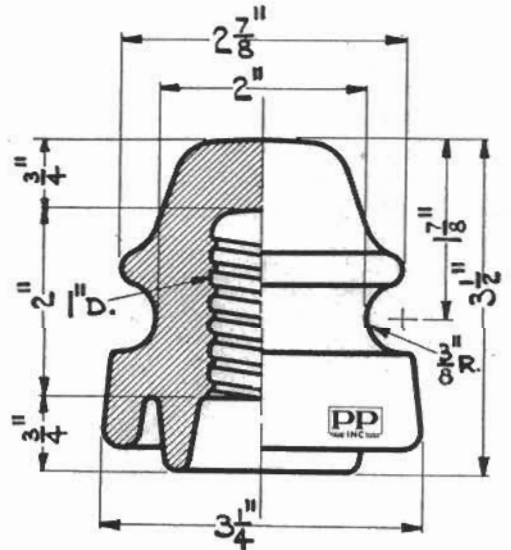
Dry Arcover Voltage, 60 Cycle..... kv.	46
Wet Arcover Voltage, 60 Cycle..... kv.	23
Leakage Distance..... in.	4
Dry Arcing Distance..... in.	3½
Wet Arcing Distance..... in.	1¾
Mechanical Strength (Approximate)..... lbs.	3,000
Recommended Pin Height..... in.	4
Net Weight per 100..... lbs.	125
Packed Weight per 100, Domestic, (Std. Ctn. of 50)..... lbs.	130
Packed weight per 100, Export, (Std. Bbl. of 225)..... lbs.	143
Volume per 100, Export..... cu. ft.	3.4

Cat. No.
6180

1 in. Porcelain Thread
Used for 7500 Volt Lines

Code Word
SADLE

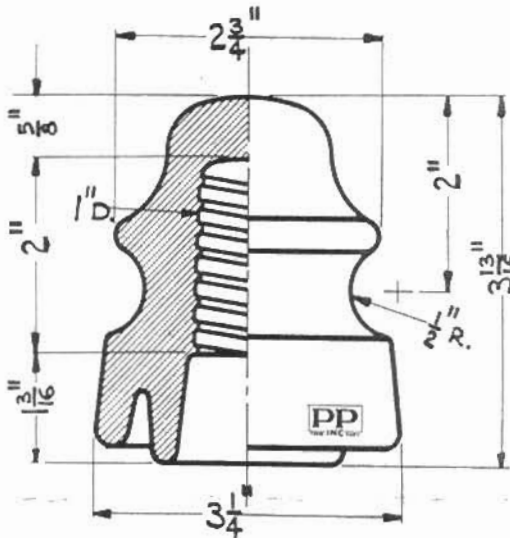
Dry Arcover Voltage, 60 Cycle..... kv.	37
Wet Arcover Voltage, 60 Cycle..... kv.	18
Leakage Distance..... in.	4
Dry Arcing Distance..... in.	2¾
Wet Arcing Distance..... in.	1¼
Mechanical Strength (Approximate)..... lbs.	3,000
Recommended Pin Height..... in.	4
Net Weight per 100..... lbs.	115
Packed Weight per 100, Domestic, (Std. Ctn. of 50)..... lbs.	120
Packed Weight per 100, Export (Std. Bbl. of 200)..... lbs.	135
Volume per 100, Export..... cu. ft.	3.8



PORCELAIN PRODUCTS INC. PARKERSBURG, W. VA.



PIN TYPE AND STRAIN INSULATORS



Cat. No.
6155

1 in. Porcelain Thread
Used for 7500 Volt Lines

Code Word
SABSU

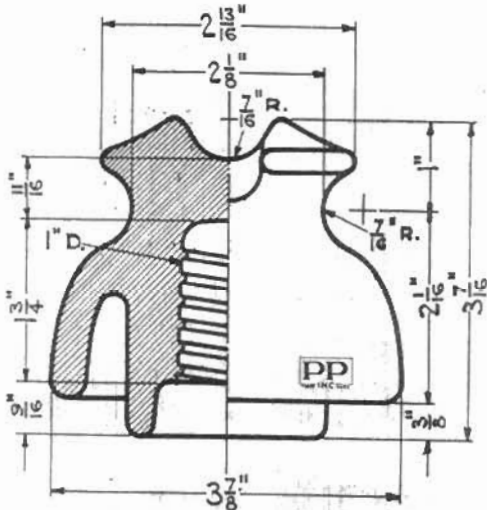
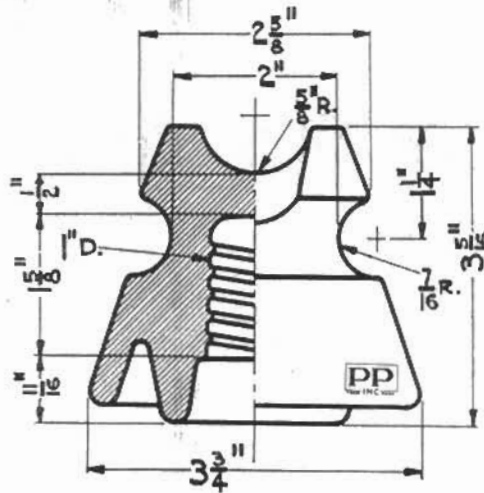
Dry Arcover Voltage, 60 Cycle.....	kv.	37
Wet Arcover Voltage, 60 Cycle.....	kv.	20
Leakage Distance.....	in.	4 1/2
Dry Arcing Distance.....	in.	2 1/2
Wet Arcing Distance.....	in.	1 1/4
Mechanical Strength (Approximate).....	lbs.	3,000
Recommended Pin Height.....	in.	4 1/2
Net Weight per 100.....	lbs.	130
Packed Weight per 100, Domestic, (Std. Ctn. of 50).....	lbs.	136
Packed Weight per 100, Export, (Std. Bbl. of 200).....	lbs.	150
Volume per 100, Export.....	cu. ft.	3.8

Cat. No.
6194

1 in. Porcelain Thread
Used for 7500 Volt Lines

Code Word
SAPOD

Dry Arcover Voltage, 60 Cycle.....	kv.	44
Wet Arcover Voltage, 60 Cycle.....	kv.	23
Leakage Distance.....	in.	4 3/4
Dry Arcing Distance.....	in.	3
Wet Arcing Distance.....	in.	1 1/4
Mechanical Strength (Approximate).....	lbs.	2,500
Recommended Pin Height.....	in.	4
Net Weight per 100.....	lbs.	120
Packed Weight per 100, Domestic, (Std. Ctn. of 50).....	lbs.	130
Packed Weight per 100, Export, (Std. Bbl. of 175).....	lbs.	164
Volume per 100, Export.....	cu. ft.	4



Cat. No.
6188

1 in. Porcelain Thread
Used for 8000 Volt Lines

Code Word
SEDAR

Dry Arcover Voltage, 60 Cycle.....	kv.	47
Wet Arcover Voltage, 60 Cycle.....	kv.	25
Leakage Distance.....	in.	5 3/4
Dry Arcing Distance.....	in.	3 1/4
Wet Arcing Distance.....	in.	1 1/2
Mechanical Strength (Approximate).....	lbs.	2,500
Recommended Pin Height.....	in.	4
Net Weight per 100.....	lbs.	140
Packed Weight per 100, Domestic, (Std. Ctn. of 50).....	lbs.	150
Packed Weight per 100, Export, (Std. Bbl. of 175).....	lbs.	168
Volume per 100, Export.....	cu. ft.	4.4

PORCELAIN PRODUCTS INC., FINDLAY, OHIO.

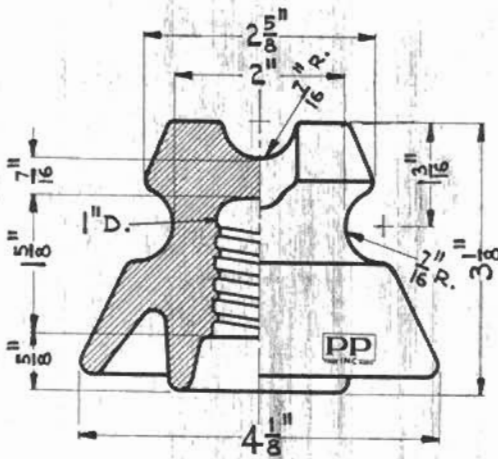
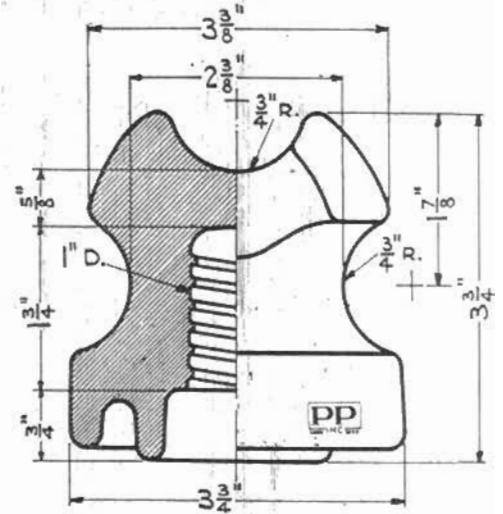
PP PIN TYPE AND STRAIN INSULATORS

Cat. No.
6145

1 in. Porcelain Thread
Used for 8000 Volt Lines

Code Word
SABIN

Dry Arcover Voltage, 60 Cycle.....	kv.	46
Wet Arcover Voltage, 60 Cycle.....	kv.	25
Leakage Distance.....	in.	3¾
Dry Arcing Distance.....	in.	3
Wet Arcing Distance.....	in.	1¼
Mechanical Strength (Approximate).....	lbs.	3,000
Recommended Pin Height.....	in.	4¾
Net Weight per 100.....	lbs.	155
Packed Weight per 100, Domestic, (Std. Ctn. of 25).....	lbs.	164
Packed Weight per 100, Export, (Std. Bbl. of 200).....	lbs.	188
Volume per 100, Export.....	cu. ft.	3.8



Cat. No.
6193

1 in. Porcelain Thread
Used for 8000 Volt Lines

Code Word
SENIL

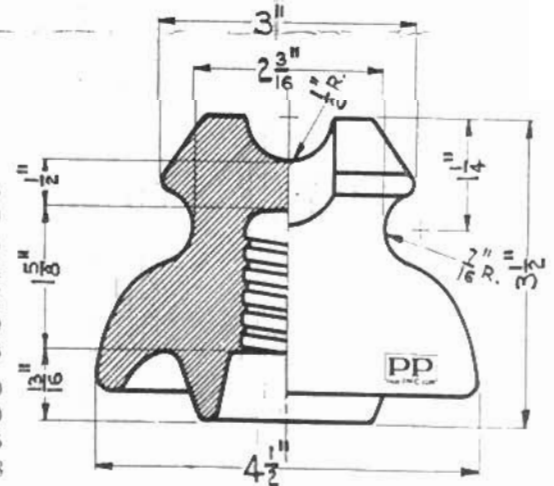
Dry Arcover Voltage, 60 Cycle.....	kv.	50
Wet Arcover Voltage, 60 Cycle.....	kv.	25
Leakage Distance.....	in.	5
Dry Arcing Distance.....	in.	3¾
Wet Arcing Distance.....	in.	1½
Mechanical Strength (Approximate).....	lbs.	2,500
Recommended Pin Height.....	in.	4
Net Weight per 100.....	lbs.	124
Packed Weight per 100, Domestic, (Std. Ctn. of 50).....	lbs.	134
Packed Weight per 100, Export, (Std. Bbl. of 175).....	lbs.	167
Volume per 100, Export.....	cu. ft.	4

Cat. No.
6151
6151-A

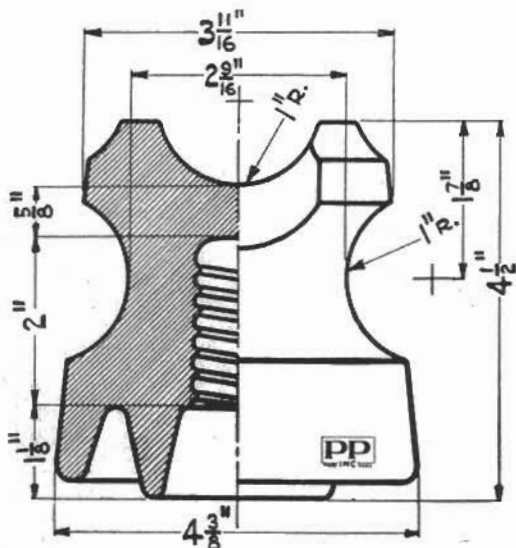
1 in. Porcelain Thread
1¾ in. Porcelain Thread
Used for 8000 Volt Lines

Code Word
SACUP
SECID

Dry Arcover Voltage, 60 Cycle.....	kv.	58
Wet Arcover Voltage, 60 Cycle.....	kv.	29
Leakage Distance.....	in.	5
Dry Arcing Distance.....	in.	4
Wet Arcing Distance.....	in.	1¾
Mechanical Strength (Approximate).....	lbs.	3,000
Recommended Pin Height.....	in.	5
Net Weight per 100.....	lbs.	200
Packed Weight per 100, Domestic, (Std. Ctn. of 100).....	lbs.	230
Packed Weight per 100, Export, (Std. Bbl. of 200).....	lbs.	225
Volume per 100, Export.....	cu. ft.	3.8



PP PIN TYPE AND STRAIN INSULATORS



Cat. No.
6905
6905-A

1 in. Porcelain Thread
1 3/8 in. Porcelain Thread

Code Word
SABET
SIBOT

Used for 11,000 Volt Lines

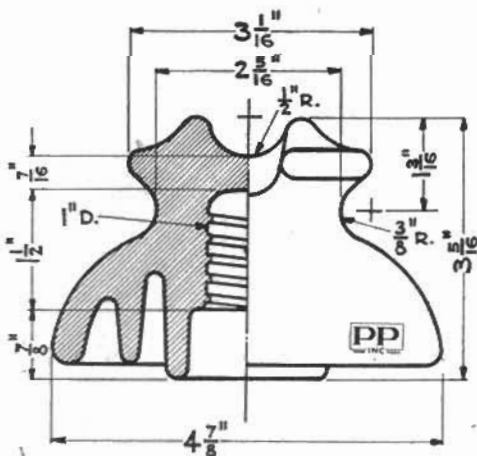
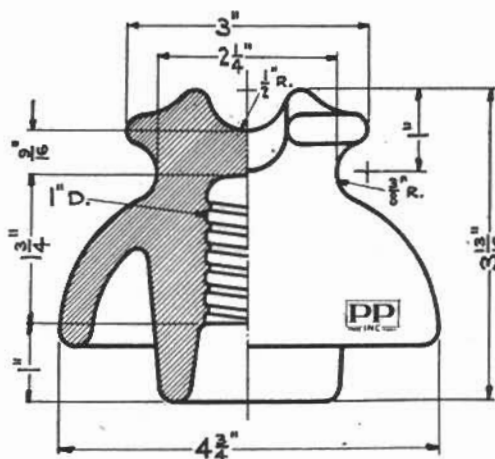
Dry Arcover Voltage, 60 Cycle..... kv.	54
Wet Arcover Voltage, 60 Cycle..... kv.	27
Leakage Distance..... in.	5 1/2
Dry Arcing Distance..... in.	3 3/4
Wet Arcing Distance..... in.	1 1/2
Mechanical Strength (Approximate)..... lbs.	3,500
Recommended Pin Height..... in.	6
Net Weight per 100..... lbs.	260
Packed Weight per 100, Domestic, (Std. Bbl. of 100)..... lbs.	295
Packed Weight per 100, Export, (Std. Bbl. of 100)..... lbs.	295
Volume per 100, Export..... cu. ft.	7.6

Cat. No.
6195

1 in. Porcelain Thread
Used for 15,000 Volt Lines

Code Word
SEPUM

Dry Arcover Voltage, 60 Cycle..... kv.	65
Wet Arcover Voltage, 60 Cycle..... kv.	33
Leakage Distance..... in.	7
Dry Arcing Distance..... in.	4 1/2
Wet Arcing Distance..... in.	2 1/8
Mechanical Strength (Approximate)..... lbs.	2,500
Recommended Pin Height..... in.	4 3/4
Net Weight per 100..... lbs.	215
Packed Weight per 100, Domestic, (Std. Ctn. of 20)..... lbs.	240
Packed Weight per 100, Export, (Std. Bbl. of 150)..... lbs.	240
Volume per 100, Export..... cu. ft.	5



Cat. No.
6196

1 in. Porcelain Thread
Used for 15,000 Volt Lines

Code Word
SEMIN

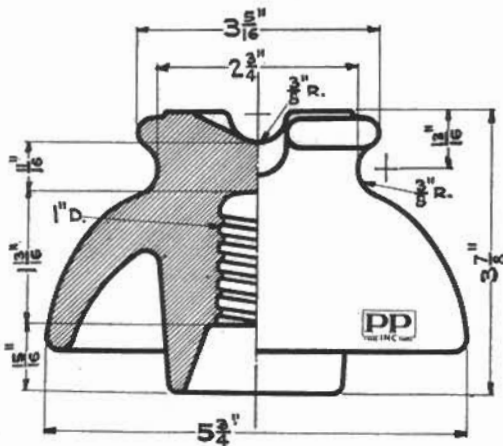
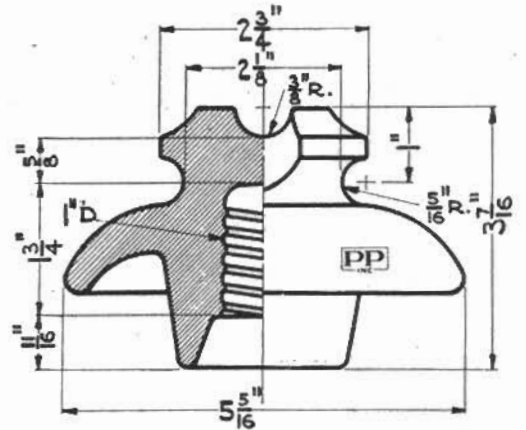
Dry Arcover Voltage, 60 Cycle..... kv.	61
Wet Arcover Voltage, 60 Cycle..... kv.	31
Leakage Distance..... in.	7 7/8
Dry Arcing Distance..... in.	4 1/4
Wet Arcing Distance..... in.	1 3/4
Mechanical Strength (Approximate)..... lbs.	2,500
Recommended Pin Height..... in.	4 3/4
Net Weight per 100..... lbs.	195
Packed Weight per 100, Domestic, (Std. Ctn. of 20)..... lbs.	210
Packed Weight per 100, Export, (Std. Bbl. of 150)..... lbs.	240
Volume per 100, Export..... cu. ft.	5

Cat. No.
6168

1 in. Porcelain Thread
Used for 15,000 Volt Lines

Code Word
SABLE

Dry Arcover Voltage, 60 Cycle.....kv.	65
Wet Arcover Voltage, 60 Cycle.....kv.	36
Leakage Distance.....in.	6
Dry Arcing Distance.....in.	4½
Wet Arcing Distance.....in.	2½
Mechanical Strength (Approximate).....lbs.	2,500
Recommended Pin Height.....in.	6
Net Weight per 100.....lbs.	215
Packed Weight per 100, Domestic, (Std. Bbl. of 100).....lbs.	255
Packed Weight per 100, Export, (Std. Bbl. of 100).....lbs.	255
Volume per 100, Export.....cu. ft.	7.6



Cat. No.
6200

1 in. Porcelain Thread
Used for 20,000 Volt Lines

Code Word
SERIT

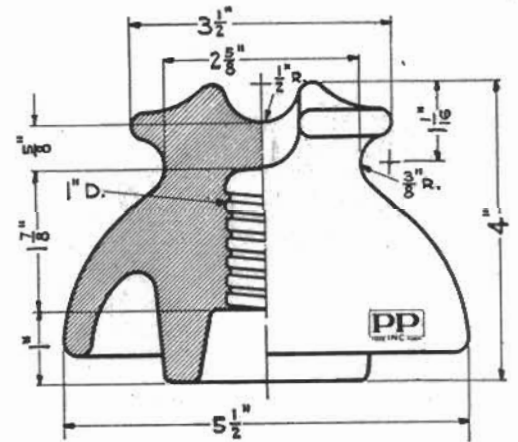
Dry Arcover Voltage, 60 Cycle.....kv.	72
Wet Arcover Voltage, 60 Cycle.....kv.	38
Leakage Distance.....in.	7¾
Dry Arcing Distance.....in.	5
Wet Arcing Distance.....in.	2½
Mechanical Strength (Approximate).....lbs.	2,500
Recommended Pin Height.....in.	6
Net Weight per 100.....lbs.	268
Packed Weight per 100, Domestic, (Std. Bbl. of 65).....lbs.	315
Packed Weight per 100, Export, (Std. Bbl. of 65).....lbs.	315
Volume per 100, Export.....cu. ft.	11.5

Cat. No.
6197

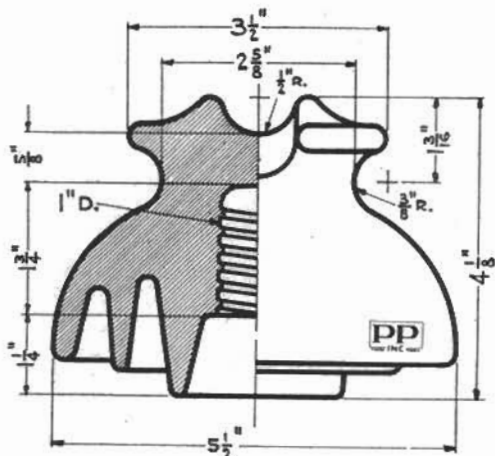
1 in. Porcelain Thread
Used for 20,000 Volt Lines

Code Word
SAMON

Dry Arcover Voltage, 60 Cycle.....kv.	70
Wet Arcover Voltage, 60 Cycle.....kv.	39
Leakage Distance.....in.	7
Dry Arcing Distance.....in.	4¾
Wet Arcing Distance.....in.	2¼
Mechanical Strength (Approximate).....lbs.	2,500
Recommended Pin Height.....in.	6
Net Weight per 100.....lbs.	293
Packed Weight per 100, Domestic, (Std. Ctn. of 20).....lbs.	325
Packed Weight per 100, Export, (Std. Bbl. of 60).....lbs.	335
Volume per 100, Export.....cu. ft.	12.7



PP PIN TYPE AND STRAIN INSULATORS



Cat. No.
6198
6198-A

1 in. Porcelain Thread
1 3/8 in. Porcelain Thread

Code Word
SEMUT
SELAD

Used for 20,000 Volt Lines

Dry Arcover Voltage, 60 Cycle.....kv.	70
Wet Arcover Voltage, 60 Cycle.....kv.	36
Leakage Distance.....in.	9 1/2
Dry Arcing Distance.....in.	4 3/4
Wet Arcing Distance.....in.	2 1/4
Mechanical Strength (Approximate).....lbs.	2,500
Recommended Pin Height.....in.	6
Net Weight per 100.....lbs.	300
Packed Weight per 100, Domestic, (Std. Ctn. of 20).....lbs.	335
Packed Weight per 100, Export, (Std. Bbl. of 60).....lbs.	340
Volume per 100, Export.....cu. ft.	12.7

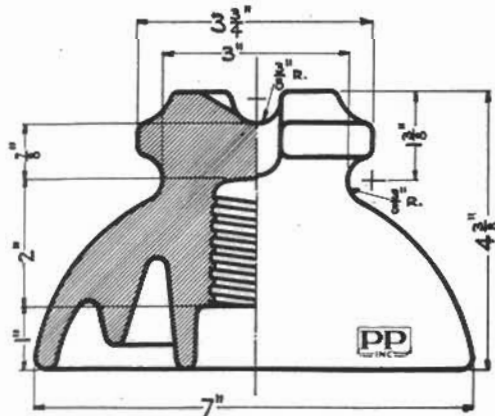
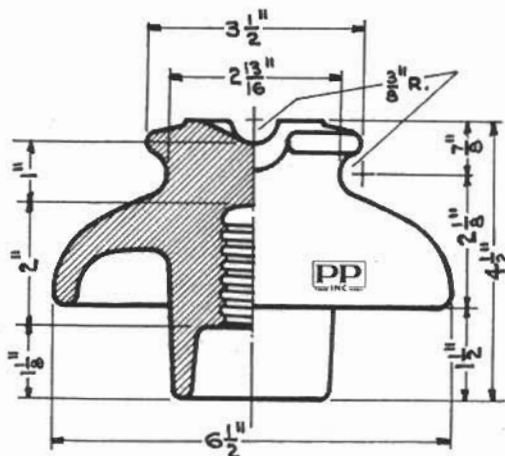
Cat. No.
6170
6170-A

1 in. Porcelain Thread
1 3/8 in. Porcelain Thread

Code Word
SEPUL
SAPIL

Used for 20,000 Volt Lines

Dry Arcover Voltage, 60 Cycle.....kv.	85
Wet Arcover Voltage, 60 Cycle.....kv.	43
Leakage Distance.....in.	9 1/2
Dry Arcing Distance.....in.	6
Wet Arcing Distance.....in.	3 3/4
Mechanical Strength (Approximate).....lbs.	3,000
Recommended Pin Height.....in.	6
Net Weight per 100.....lbs.	300
Packed Weight per 100, Domestic, (Std. Ctn. of 20).....lbs.	350
Packed Weight per 100, Export, (Std. Bbl. of 50).....lbs.	350
Volume per 100, Export.....cu. ft.	15.8



Cat. No.
6050
6050-A

1 in. Porcelain Thread
1 3/8 in. Porcelain Thread

Code Word
SUERT
SEATE

Used for 23,000 Volt Lines

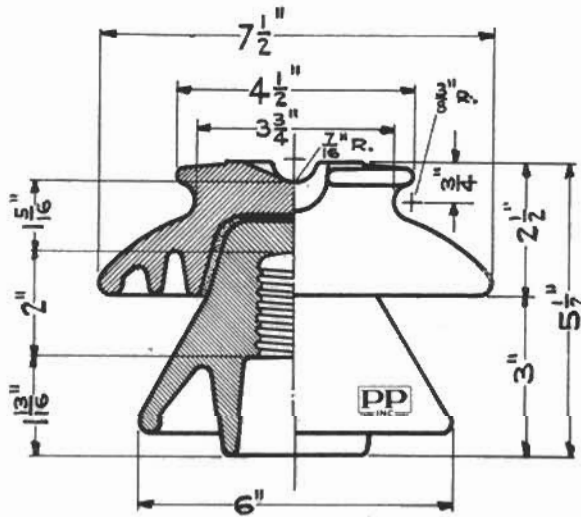
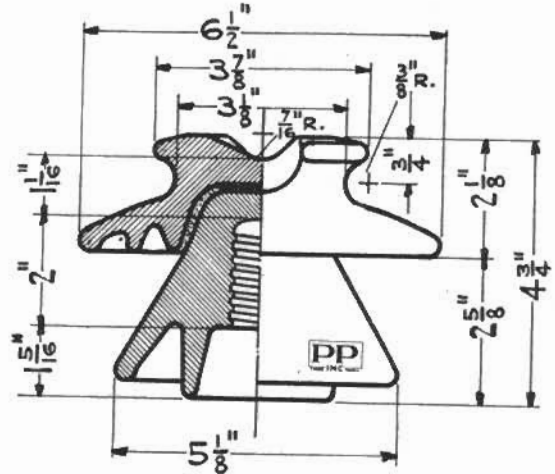
Dry Arcover Voltage, 60 Cycle.....kv.	91
Wet Arcover Voltage, 60 Cycle.....kv.	50
Leakage Distance.....in.	10 1/2
Dry Arcing Distance.....in.	6 1/2
Wet Arcing Distance.....in.	3
Mechanical Strength (Approximate).....lbs.	3,000
Recommended Pin Height.....in.	7
Net Weight per 100.....lbs.	500
Packed Weight per 100, Domestic, (Std. Crate of 6).....lbs.	520
Packed Weight per 100, Export, (Std. Box of 6).....lbs.	575
Volume per 100, Export.....cu. ft.	15.8

MULTI-PART INSULATORS

Cat. No.		Code Word
6135	1 3/8 in. Porcelain Thread	SNANB
6135-M	1 3/8 in. Metal Shell Thimble	SNENC
6135-S	1 9/16 in. Sanded Pin Hole	SNOND

Used for 23,000 Volt Lines

Dry Arcover Voltage, 60 Cycle.....kv.	85
Wet Arcover Voltage, 60 Cycle.....kv.	60
Leakage Distance.....in.	11
Dry Arcing Distance.....in.	6 1/4
Wet Arcing Distance.....in.	3 1/2
Mechanical Strength (Approximate).....lbs.	2,500
Recommended Pin Height.....in.	5
Net Weight per 100.....lbs.	400
Packed Weight per 100, Domestic.....lbs.	900
Number in Standard Domestic Crate.....	6
Packed Weight per 100, Export.....lbs.	610
Number in Standard Export Barrel.....	40
Volume per 100, Export.....cu. ft.	19



Cat. No.		Code Word
6134	1 3/8 in. Porcelain Thread	SPADF
6134-M	1 3/8 in. Metal Shell Thimble	SPEDG
6134-S	1 9/16 in. Sanded Pin Hole	SPODH

Used for 27,000 Volt Lines

Dry Arcover Voltage, 60 Cycle.....kv.	95
Wet Arcover Voltage, 60 Cycle.....kv.	65
Leakage Distance.....in.	15
Dry Arcing Distance.....in.	7 1/2
Wet Arcing Distance.....in.	4 1/4
Mechanical Strength (Approximate).....lbs.	2,500
Recommended Pin Height.....in.	7
Net Weight per 100.....lbs.	625
Packed Weight per 100, Domestic.....lbs.	960
Number in Standard Domestic Crate.....	6
Packed Weight per 100, Export.....lbs.	775
Number in Standard Export Barrel.....	35
Volume per 100, Export.....cu. ft.	22



PIN TYPE AND STRAIN INSULATORS



FORGED STEEL PINS WITH LEAD THREADS For Low Voltage Insulators

Cat. No.	Code Word	Diameter Body Inches	1-Inch Pin Holes—For Wood Arms			Standard Package	Packed Weight Pounds Per 100
			Above Shoulder	Below Shoulder	Over All		
971	ILARD	1/2	4 3/4	4 3/4	9 1/2	100	129
974	ILERC	1/2	4 3/4	5 1/2	10 1/4	100	130
980	ILEBD	5/8	4 3/4	4 3/4	9 1/2	100	168
981	ILEAC	5/8	4 3/4	5 1/2	10 1/4	100	175
981A	ILFCD	5/8	4 3/4	6 1/2	11 1/4	100	149
982	ILFCE	5/8	6	4 3/4	10 3/4	100	173
984	ILGLB	5/8	6	5 1/2	11 1/2	100	185
983	ILGID	5/8	6	6 1/2	12 1/2	100	189
990A	ILHAB	3/4	4 3/4	5 3/4	10 1/2	75	208
990	ILHCD	3/4	6	5 3/4	11 3/4	100	205
991	ILJRD	3/4	6	6 3/4	12 3/4	100	215
972	ILKAB	1/2	4 3/4	1 1/4	6	175	93
986	ILKCD	5/8	4 3/4	1 1/4	6	150	121
987	ILODR	5/8	6	1 1/4	7 1/4	100	137
993A	ILOCR	3/4	4 3/4	1 1/2	6 1/4	100	159
993	ILPRS	3/4	6	1 1/2	7 1/2	100	119
973	ILRAC	1/2	4 3/4	3	7 3/4	100	114
975	ILRAD	1/2	6	3	9	100	116
988	ILRPT	5/8	4 3/4	3	7 3/4	150	130
989	ILRPD	5/8	7 1/2	4	11 1/2	100	159
994	ILRPF	3/4	6	4	10	100	162



For Wood Arms



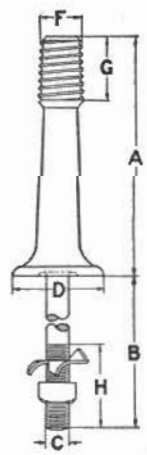
For Steel Arms



Lag Screw Type

FORGED STEEL PINS WITH LEAD THREADS—TAPERED STYLE For High Voltage Insulators

Cat. No.	Code Word	1-Inch Pin Holes—For Wood Arms						Std. Pkp.	Packed Weight Pounds Per 100	
		A	B	C	D	F	G			H
5704	IHABC	4	5 1/2	3/4	2 1/2	1	1 5/8	1 3/4	125	240
5708	IHADE	5	5 1/2	3/4	2 1/2	1	1 5/8	1 3/4	125	237
5712	IHAFG	6	5 1/2	3/4	2 1/2	1	1 5/8	1 3/4	100	266
5724	IHBHJ	6	7	3/4	3	1 3/8	2 1/8	2 3/4	50	460
5726	IHBAB	7	7	3/4	3	1 3/8	2 1/4	2 3/4	50	480
5728	IHBHD	8	7	3/4	3	1 3/8	2 1/8	2 3/4	50	516
5730	IHAEB	9	7	3/4	3 1/2	1 3/8	2 1/8	2 3/4	35	646
5732	IHAER	10	7	3/4	3 1/2	1 3/8	2 1/8	2 3/4	35	674
5734	IHAES	11	7	3/4	3 3/4	1 3/8	2 1/8	2 3/4	40	840
5736	IHAET	12	7	3/4	3 3/4	1 3/8	2 1/8	2 3/4	25	872
5738	IHAEV	13	7	3/4	3 3/4	1 3/8	2 1/8	2 3/4	25	964
5703	IHCAD	4	1 3/4	3/4	2 1/2	1	1 5/8	...	100	186
5707	IHCAC	5	1 3/4	3/4	2 1/2	1	1 5/8	...	100	118
5711	IHCAR	6	1 3/4	3/4	2 1/2	1	1 5/8	...	75	212
5723	IHDAB	6	1 3/4	3/4	3	1 3/8	2 1/8	...	75	382
5725	IHDEC	7	1 3/4	3/4	3	1 3/8	2 1/8	...	45	413
5727	IHDID	8	1 3/4	3/4	3	1 3/8	2 1/8	...	35	414
5729	IHDIE	9	1 3/4	3/4	3 1/2	1 3/8	2 1/8	...	50	560
5731	IHDJF	10	1 3/4	3/4	3 1/2	1 3/8	2 1/8	...	50	606
5733	IHDHC	11	1 3/4	3/4	3 3/4	1 3/8	2 1/8	...	45	703
5735	IHDTH	12	1 3/4	3/4	3 3/4	1 3/8	2 1/8	...	40	792
5737	IHDLP	13	1 3/4	3/4	3 3/4	1 3/8	2 1/8	...	35	832



For Wood Arms



For Steel Arms

Hot Dip Galvanized to NELA Specification D210-22

GUY STRAIN INSULATORS

On the following pages will be found a most complete line of Guy Strain Insulators and Drop Forged Clevises.

PP Guy Strain Insulators are manufactured of the highest quality wet process porcelain in accordance with N.E.L.A. standards. Several of the processes used in the manufacture of these insulators have been developed by Porcelain Products engineers and, as far as can be ascertained, are used solely by Porcelain Products.

To assure the highest possible mechanical strength, the radii of the wire grooves and the proper relationship between the two wire grooves are maintained closely to the dimensions which tests have indicated give best results. All edges and corners are liberally and smoothly rounded to prevent chipping.

The mechanical strengths given were obtained in a Tinius-Olsen Testing Machine with insulators fitted with mild steel cable clamped dimension A from end of insulator. The arcover values were measured using full size cable with standard method of installation.

Chocolate brown glaze is standard on all Guy Strain Insulators. Albany glaze can be furnished upon request.

The 500 Series is an extra rugged design and is ordinarily used for guying and for dead ending secondary circuits.

The 600 Series is the well known X Type with greater leakage and higher dry flashover values. This series is usually used for dead ending secondary lines and for guying primary circuits.

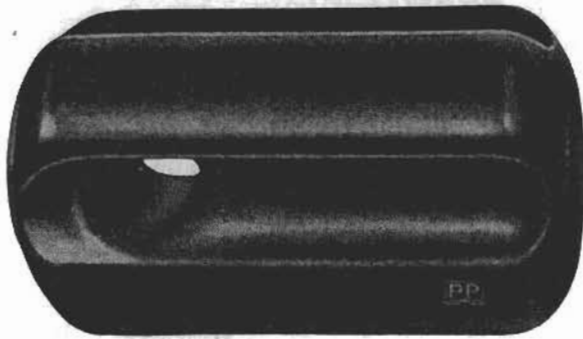
The 700 Series is the multi-fin type and is the most popular type now in use, the extra fins providing considerably greater leakage distance. This series may be used for dead ending primary lines and for guying high tension lines.

Warehouse stocks are being carefully watched today with a view towards reducing the number of items carried and the 700 Series, because of its excellent performance in any installation, is being more and more used by many companies for all guy insulator work.

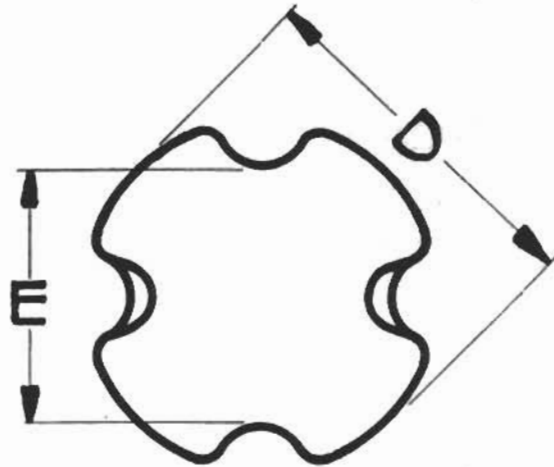
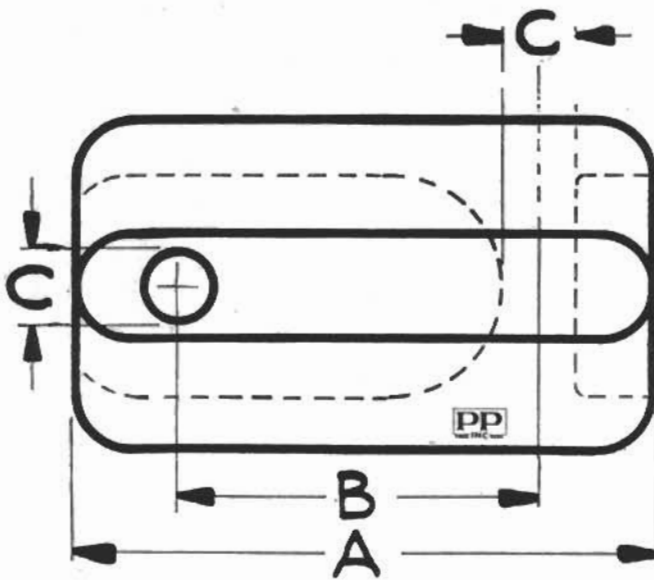
The higher mechanical strengths which result from Porcelain Products manufacturing improvements reflect in lower maintenance costs on your lines. If you are not now using **PP** Guy Strain Insulators, samples for your comparison will be sent immediately upon request.



PIN TYPE AND STRAIN INSULATORS



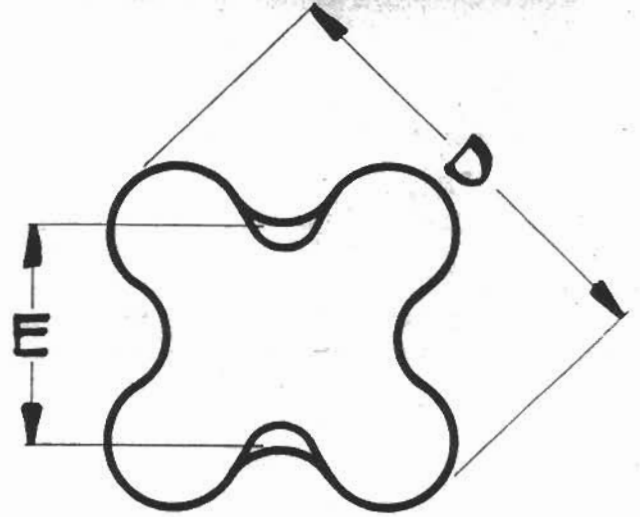
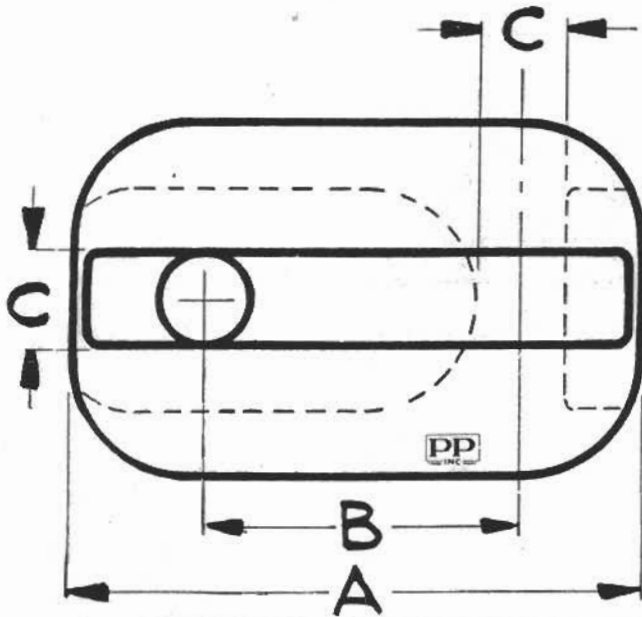
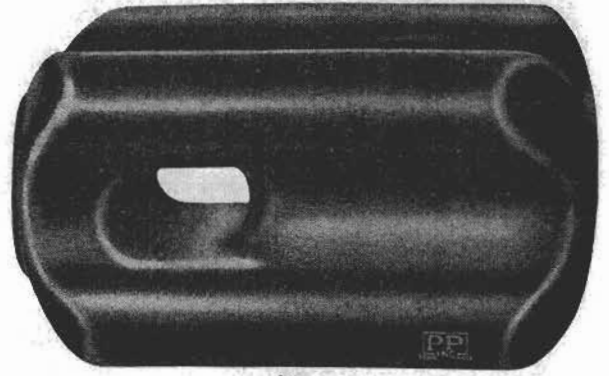
No. 500 SERIES



Catalog Number	502	502A	504	506
Code Word	RAWUD	RAWOF	RAWIG	RAWEH
Usual Line Voltage	2200	2200	4400	6600
Dry Arcover Voltage, Kv.	25	25	28	32
Wet Arcover Voltage, Kv.	12	12	13	15
Mechanical Strength, Lbs.	10,000	10,000	12,000	25,000
Use Cable not over, Diameter Inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Dimensions, Inches				
A	$3\frac{1}{2}$	$3\frac{3}{8}$	$4\frac{1}{4}$	$5\frac{3}{8}$
B	$1\frac{3}{4}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$3\frac{1}{8}$
C	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{7}{8}$	1
D	$2\frac{1}{2}$	$2\frac{3}{8}$	$2\frac{7}{8}$	$3\frac{3}{8}$
E	$1\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{1}{8}$	$2\frac{3}{8}$
Net Weight per 100	120	110	150	300
Packed Weight per 100, Domestic	128	118	164	330
Number in Standard Carton, Domestic	50	50	50	25
Packed Weight per 100, Export	128	118	160	325
Number in Standard Barrel, Export	400	420	300	150
Cubic Feet per 100, Export Packing	1.9	1.8	2.5	5

PORCELAIN PRODUCTS INC., FINDLAY, OHIO.

No. 600 SERIES



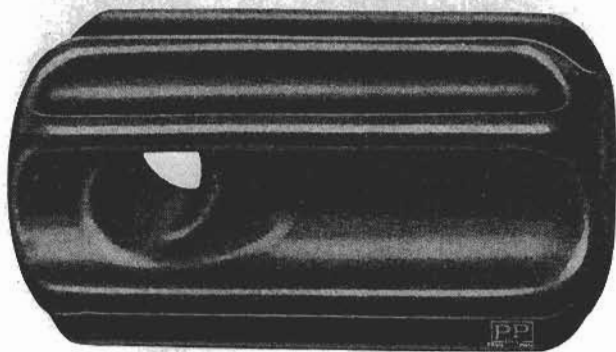
604 606 608

Catalog Number	604	606	608
Code Word	REWAB	REWEC	REWOD
Usual Line Voltage	2200	4400	6600
Dry Arcover Voltage, Kv.	35	35	40
Wet Arcover Voltage, Kv.	13	13	18
Mechanical Strength, Lbs.	12,000	16,000	34,000
Use Cable Not Over, Diameter Inches	$\frac{3}{8}$	$\frac{5}{8}$	$\frac{3}{4}$
Dimensions, Inches			
A	4 ✓	$4\frac{3}{4}$ $5\frac{1}{2}$	$7\frac{1}{2}$ 6 3/4
B	$2\frac{1}{4}$	$2\frac{1}{2}$	3
C	$\frac{5}{8}$	$\frac{3}{4}$	1
D	$3\frac{1}{4}$ ✓	$3\frac{5}{8}$	$4\frac{3}{4}$
E	$1\frac{5}{8}$	$1\frac{7}{8}$	2
Net Weight per 100	140	195	487
Packed Weight per 100, Domestic	175	225	510
Number in Standard Carton, Domestic	50	25	25
Packed Weight per 100, Export	150	215	540
Number in Standard Barrel, Export	300	175	60
Cubic Feet per 100, Export Packing	2.6	4.3	12.5

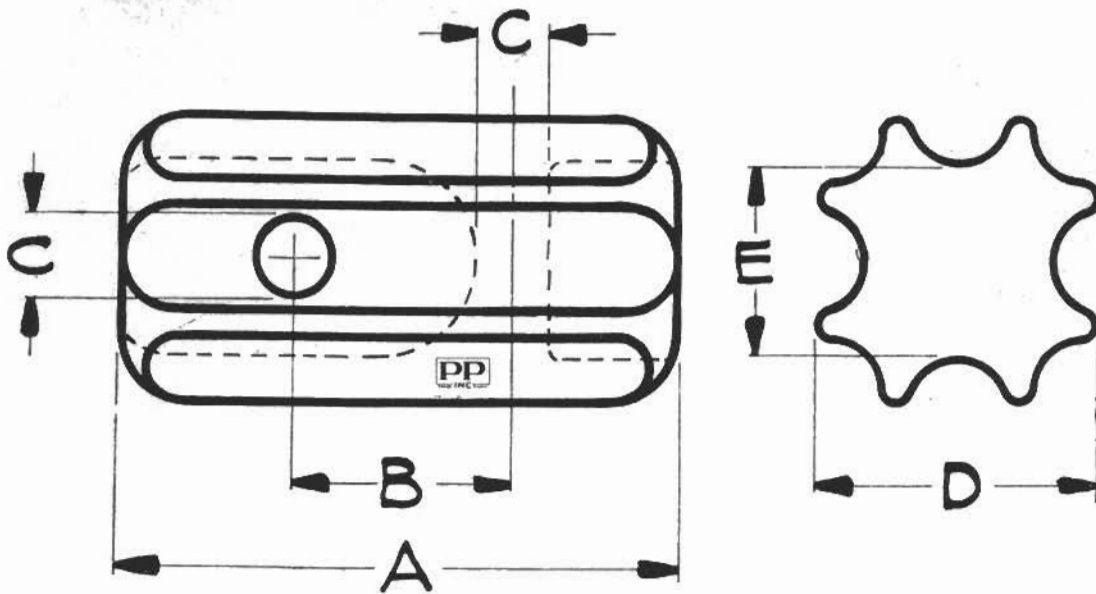
PORCELAIN PRODUCTS INC. . . . PARKERSBURG, W. VA.



PIN TYPE AND STRAIN INSULATORS



No. 700 SERIES



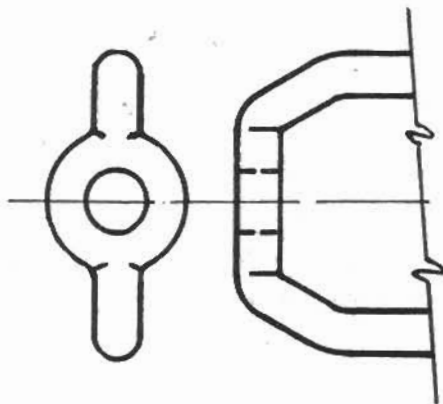
Catalog Number	702	704	706	708
Code Word	ROWUF	ROWEG	ROWIG	ROWOJ
Usual Line Voltage	2200	2200	4400	6600
Dry Arcover Voltage, Kv.	30	30	35	38
Wet Arcover Voltage, Kv.	15	15	18	22
Mechanical Strength, Lbs.	10,000	10,000	16,000	25,000
Use Cable Not over, Diameter Inches	1/4	3/8	1/2	5/8
Dimensions, Inches				
A	3 3/8	3 7/8	5 1/2	6 3/4
B	1 1/2	1 5/8	2 3/4	2 5/8
C	3/8	5/8	7/8	1
D	2 1/2	2 1/2	3 1/8	3 1/2
E	1 1/2	1 1/2	2 1/8	2 1/2
Net Weight per 100	95	100	225	350
Packed Weight per 100, Domestic	103	110	248	386
Number in Standard Package, Domestic	250	100	50	50
Packed Weight per 100, Export	110	113	250	390
Number in Standard Barrel, Export	400	350	150	90
Cubic Feet per 100, Export Packing	1.9	2.2	5	8.5

PORCELAIN PRODUCTS INC. - FINDLAY, OHIO

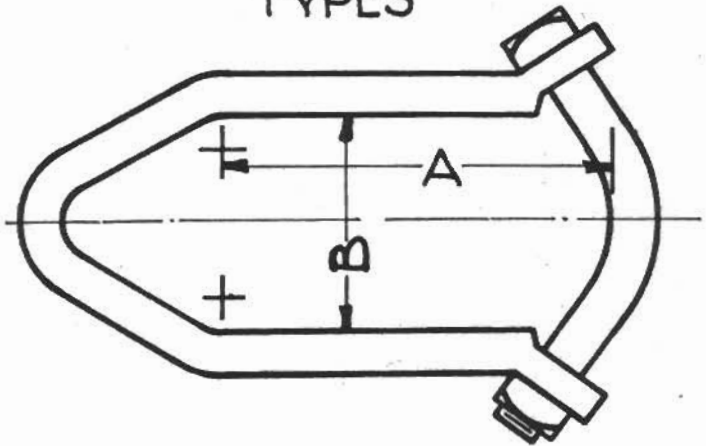
GUY STRAIN INSULATOR CLEVISES

Hot Dip Galvanized to NELA Specification D210-22

EYE TYPE



STANDARD LIGHT AND HEAVY TYPES



Fits Insulator No.	Di-men. A, In.	Di-men. B, In.	Light Type $\frac{1}{8}$ " Stock, $\frac{3}{8}$ " Bolt			Heavy Type $\frac{1}{2}$ " Stock, $\frac{1}{2}$ " Bolt			Eye Type $\frac{1}{2}$ " Stock, $\frac{1}{2}$ " Bolt, $\frac{1}{8}$ " Eye		
			Cat. No.	Code Word	Packed Wt. Per 100	Cat. No.	Code Word	Packed Wt. Per 100	Cat. No.	Code Word	Packed Wt. Per 100
502 604	3	2	6502	RACAB	66	7502	RBCAK	105	8502	RDCAM	121
504	3	2 $\frac{1}{4}$	6504	RACEC	68	7504	RBCEL	108	8504	RDCEP	123
506 708	5	2 $\frac{1}{2}$	6506	RACID	91	7506	RBCIM	131	8506	RDCIQ	144
606	4	2	6606	RACDE	76	7606	RBCOP	117	8606	RDCOR	133
702 704	3	1 $\frac{3}{4}$	6704	RACUF	64	7704	RBCUR	102	8704	RDCUS	119
706	4	2 $\frac{1}{4}$	6706	RACJK	79	7706	RBCBD	120	8706	RDCDG	135



PIN TYPE AND STRAIN INSULATORS



COMPARATIVE LISTING

Pin Type Insulators

<i>P. P. Inc.</i>	<i>Cat. Page</i>	<i>Code Word</i>	<i>Line Voltage k.v.</i>	<i>Locke</i>	<i>J-D</i>	<i>West-ing-house</i>	<i>Lapp</i>	<i>Ohio Brass</i>	<i>Ill.</i>	<i>Thomas</i>
6109	9	SACRI	2.3			100	593	10565	109	1012
6112	9	SAFRA	2.3			110		9400	112	1011
6119	10	SALVA	5.0						119	
6130	9	SAGOT	2.3							
6132	10	SAGES	2.3							
6129	10	SAGAC	5.0						222	
6185	11	SACOR	5.0							
6187	11	SUCID	7.5							
6155	12	SABSU	7.5						224	1094
6180	11	SADLE	7.5	44	4	104	591-A	29207	237	1111
6194	12	SAPOD	7.5	2	7	136	6086	9404		
6188	12	SEDAR	8.0	8881	8	146	6188	12847	253	1009
6145	13	SABIN	8.0	3749	5	106	6192	9953	256	1108
6193	13	SENIL	8.0						247	
6151	13	SACUP	8.0		10		6186		258	1197
6151-A	13	SECID	8.0		11				257	1067
6905	14	SABET	11.0	55		156		11913	259	
6905-A	14	SIBOT	11.0	55-A		126	6187	9890	260	1022
6195	14	SEPUM	15.0	6512	13	166		12848	261	1177
6196	14	SEMIN	15.0	4451	12	1311	6184		361	584
6168	15	SABLE	15.0	298					288	1139
6200	15	SERIT	20.0	10270		1111	7385			
6197	15	SAMON	20.0	10270	15	1012	7385		266	1216
6198	16	SEMUT	20.0	6510	20	1013	6183	12849	366	1152
6198-A	16	SELAD	20.0	6511	21	1113	6182	12850	367	1151
6170	16	SEPUL	20.0			1213			370	
6170-A	16	SAPIL	20.0	303		1313			371	1179
6050	16	SUERT	23.0	23514	23	1014	7061	12851	380	1157
6050-A	16	SEATE	23.0	1022	24	1114	6163	12852	381	1158



COMPARATIVE LISTING

Pin Type Insulators

P. P. Inc.	Cat. Page	Code Word	Line Voltage k.v.	Locke	J-D	West-ing-house	Lapp	Ohio Brass	Ill.	Thomas
6135	17	SNANB	23							
6135-M	17	SNENC	23	1023	26	2112	6180		2024	2120
6135-S	17	SNOND	23							
6134	17	SPADF	27					33546		2117
6134-M	17	SPEDG	27	1027	30	2115	6179	31546	2028	2117-M
6134-S	17	SPODH	27					32846		2117-S
6136	18	SRANJ	35					33622		2125
6136-M	18	SRENK	35	1035	35	2122	6178	32822	2035	2125-M
6136-S	18	SRONL	35					31622		2125-S
6133	18	STADM	44					33623		3064
6133-M	18	STEDP	44	1044	45	2133	5440	31623	2044	3064-M
6133-S	18	STODR	44					32823		3064-S
6137	19	SVARS	55					33855		3066
6137-M	19	SVERT	55	1055	55	2144	5940	31855	2055	3066-M
6137-S	19	SVORV	55					32855		3066-S
6138	19	SYARX	66					33552		3060
6138-M	19	SYERY	66	1066	66	3166	6173	31552	3066	3060-M
6138-S	19	SYORZ	66					32852		3060-S

Guy Strain Insulators

	Cat. page	Code Word	Line Volt. k.v.	G. E. or Locke	Line Mtl.	West-ing-house	Lapp	Graybar or Hub-bard	J-D	O.B.	Thom-as	Joslyn	Ill.
502	22	RAWUD	2.2	502	8102	502W	8502				602	M502W	502
504	22	RAWIG	4.4	504	8104	504W	8504				604	M504W	504
506	22	RAWEH	6.6	506	8106	506W	8506		2583		610	M506W	506
604	23	REWAB	2.2	13371		560				25009		L1287	
606	23	REWEC	4.4	13372		562				29730		L1284	
608	23	REWOD	6.6	13373		566				27805		L1289	
702	24	ROWUF	2.2	7664		530	5450		2585	31350	510	L287	534
704	24	ROWEG	2.2					512					
706	24	ROWIG	4.4	7665		532	5451	514	2586	31351	511	L284	536
708	24	ROWOJ	6.6	7666		534	5452	516	2587	31352	512	L289	538

