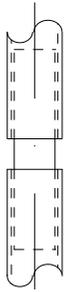


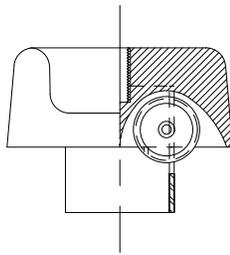
# L.Ph. Bolander & Sons

1355 Evans Ave.  
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 800/434-5611 Fax 415/648-0402  
 Quality Flagpoles Since 1885

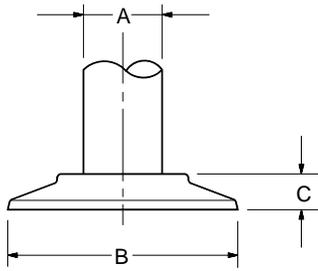
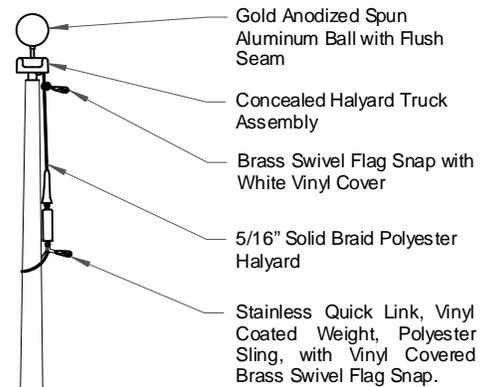
# FIBERGLASS FLAGPOLE GROUND SET ENTASIS TAPERED CAM CLEAT CONCEALED HALYARD



**SELF ALIGNING INTERNAL SLEEVE**  
 Poles 50' and over come in two sections with a splice permanently cemented to the bottom. The top section simply slides over the self aligning splice for easy assembly

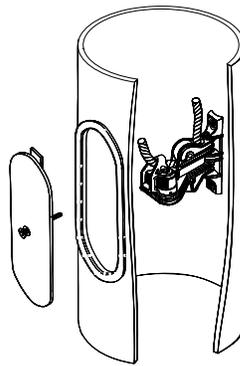


**FIBERGLASS INTERNAL HALYARD TRUCK.**



**Cast Fiberglass Standard Flash Collar**

A	B	C
6-7"	16"	2.5"

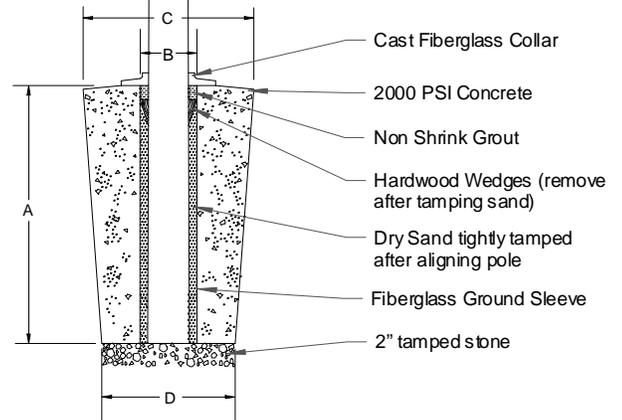


**Jam Cleat Assembly with Locking Access Door**

### FOUNDATION DIMENSIONS

Exposed Height	A	B	C	D
25'	36"	8"	24"	20"
30'	36"	8"	30"	24"
35'	48"	8"	32"	30"
39'	48"	8"	36"	30"

These recommended foundations are only minimums. Dimensions may vary according to soil and wind conditions at location of installation.



Exposed Height	Overall Height	Diameter Butt	Diameter Top	Ball Dia.	Halyard Diameter	Ground Sleeve Dia.	Flag Size	Pole Weight	Shipping Weight
C-25J	28'	5.8"	3"	6"	5/16"	8"	4'x6'	54#	115#
C-30J	33'	6.5"	3"	6"	5/16"	8"	5'x8'	69#	126#
C-35J	39'	7"	3"	6"	5/16"	8"	5'x8'	96#	173#
C-39J*	43'	7"	3"	8"	5/16"	8"	6'x10'	118#	187#

\*This pole is equipped with a ground extension which fits into the butt of the pole. The entire assembly then slides into the ground sleeve

**GROUND SET ENTASIS TAPERED FIBERGLASS FLAGPOLES, INTERNAL HALYARD SYSTEM**

**Specifications**

**GENERAL.** All Bolander fiberglass flagpoles are computer designed to withstand winds in excess of 120 MPH, based upon NAAMM and AASHTO standards to insure strength and stiffness. The glass weave used as the basic reinforcing material was designed specifically for flagpoles to satisfy their structural requirements. 75% of the glass fibers run in the vertical plane which maximizes desired rigidity and axial strength.

Pole heights up to 35' are fabricated in one piece and shipped via motor freight to almost any destination. For locations where shipping is a problem, poles can be fabricated in two sections. The sections are factory fitted with a self aligning internal sleeve, requiring no field bonding.

A high gloss Polyester coating is applied after sanding to a fine finish. This finish is widely used in the aircraft industry and is designed to withstand extremes of temperature, exposure to sunlight, is highly resistant to oils, fumes and exhaust gases.

Upon completion of manufacturing, poles are wrapped in .003" polyethylene and packaged in a heavy wall hard fiber tube to protect the finish.

Optional colors are available other than standard white, at a additional cost.

**STANDARD FITTINGS.** Fittings listed below are standard on all ground mounted flagpoles.

**BALL.** Constructed of 14ga. aluminum, with a flush seam and gold anodized for color and durability.

**TRUCK.** Cast resin, non-fouling, with one nylon sheave on stainless steel pin.

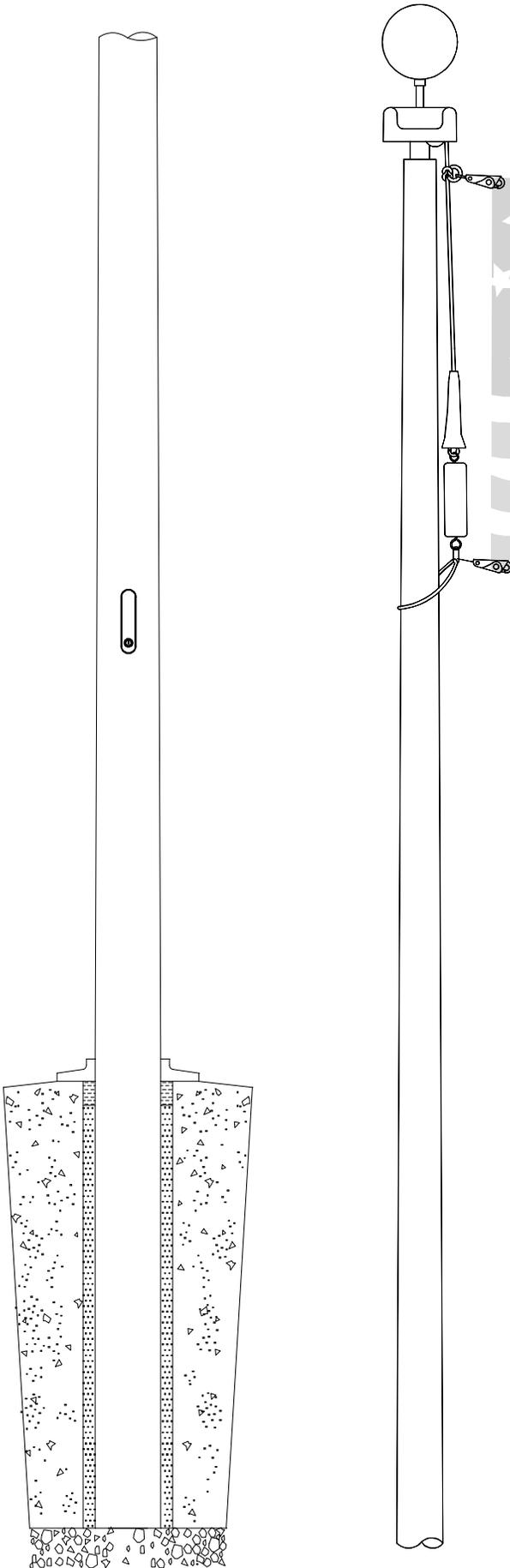
**HALYARD.** Shall be 5/16" ultra violet resistant solid braid Polyester.

**SNAPS.** Brass swivel eye with white vinyl covers.

**CAM CLEAT.** No maintenance, self locking, Constructed of all Stainless Steel and Non-Corrosive materials, mounted inside the pole.

**COLLAR.** Laminated fiberglass of diameter and shape as detailed. The finish shall match the pole.

**GROUND SLEEVE.** Laminated fiberglass of size and length for pole height.



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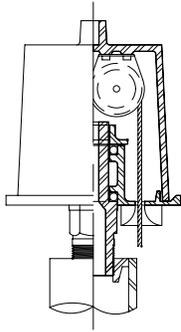
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# FIBERGLASS FLAGPOLE GROUND SET ENTASIS TAPERED ROPE CLUTCH CONCEALED HALYARD



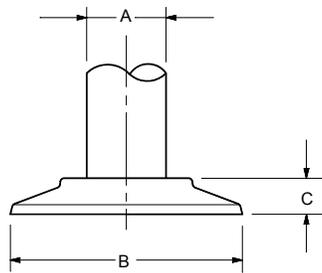
### SELF ALIGNING INTERNAL SLEEVE

Poles 50' and over come in two sections with a splice permanently cemented to the bottom. The top section simply slides over the self aligning splice for easy assembly



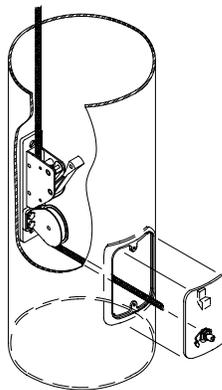
### REVOLVING NON-FOULING TRUCK DETAIL

Aluminum Body, non-fouling Internal Halyard Truck, cast Aluminum body, 26 Stainless Steel Ball Bearings & 2 1/2" diameter plated Steel Sheave, with Stainless Steel Ferrule for Halyard longevity.



### Cast Fiberglass Standard Flash Collar

A	B	C
9.9"-10.5"	23"	3.5"
16"-17.75"	30"	4"

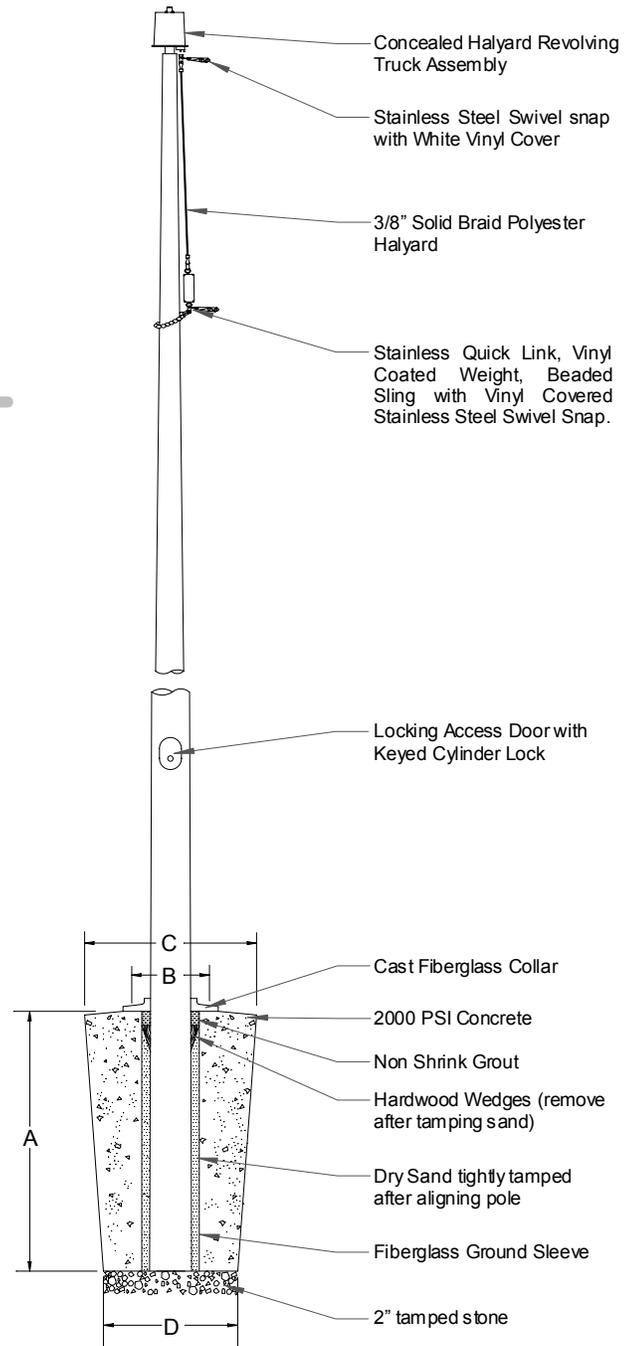


Rope Clutch Assembly  
 with Locking Access Door

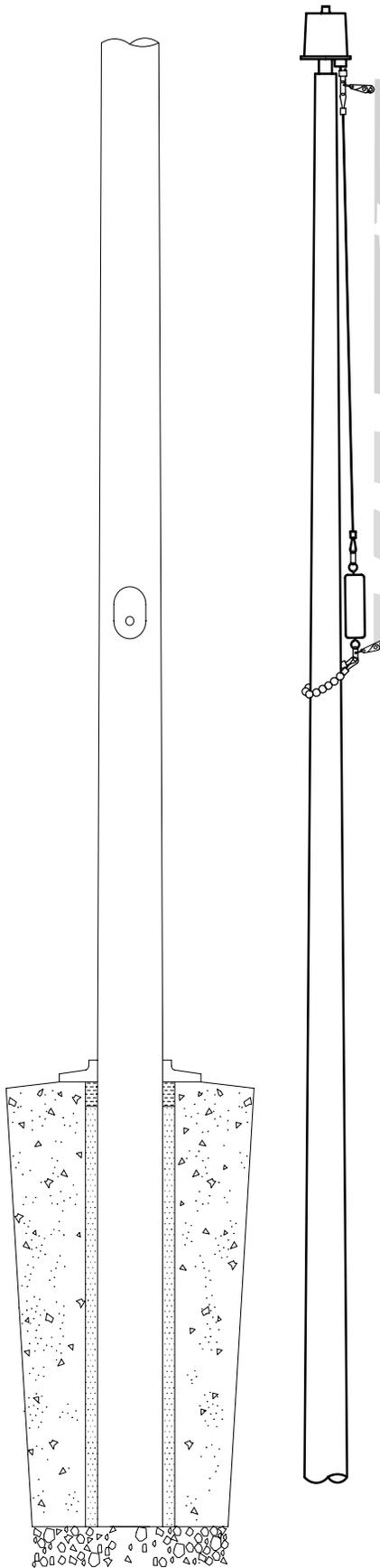
### FOUNDATION DIMENSIONS

Exposed Height	A	B	C	D
50'	60"	12"	48"	42"
60'	72"	14"	48"	48"
70'	84"	20"	60"	56"
80'	96"	20"	60"	56"
90'	108"	20"	60"	56"
100'	120"	20"	60"	56"

These recommended foundations are only minimums. Dimensions may vary according to soil and wind conditions at location of installation.



Exposed Height	Overall Height	Diameter Butt	Diameter Top	Halyard Diameter	Ground Sleeve Dia.	Flag Size	Pole Weight	Shipping Weight
C-50'-J	55'	10"	4.4"	3/8"	14"	8'x12'	284#	570#
C-60'-J	66'	10.5"	4.4"	3/8"	14"	10'x15'	429#	710#
CS-60'-J	66'	16"	7"	3/8"	20"	20'x38'	650#	915#
CS-70'-J	77'	16"	7"	3/8"	20"	20'x38'	750#	985#
CS-80'-J	88'	16.75"	7"	3/8"	20"	20'x38'	1000#	1380#
CS-90'-J	99'	17.5"	7"	3/8"	20"	30'x50'	1250#	1775#
CS-100'-J	110'	17.75"	7"	3/8"	20"	30'x50'	1500#	2075#



**GROUND SET ENTASIS TAPERED FIBERGLASS FLAGPOLES, INTERNAL HALYARD SYSTEM**

**Specifications**

**GENERAL.** All Bolander fiberglass flagpoles are computer designed to withstand winds in excess of 120 MPH, based upon NAAMM and AASHTO standards to insure strength and stiffness. The glass weave used as the basic reinforcing material was designed specifically for flagpoles to satisfy their structural requirements. 75% of the glass fibers run in the vertical plane which maximizes desired rigidity and axial strength.

Pole heights up to 39' are fabricated in one piece and shipped via motor freight to almost any destination. For locations where shipping is a problem, poles can be fabricated in two or three sections. The sections are factory fitted with a self aligning internal sleeve, requiring no field bonding.

A high gloss Polyester coating is applied after sanding to a fine finish. This finish is widely used in the aircraft industry and is designed to withstand extremes of temperature, exposure to sunlight, is highly resistant to oils, fumes and exhaust gases.

Upon completion of manufacturing, poles are wrapped in .003" polyethylene and packaged in a heavy wall hard fiber tube to protect the finish.

Optional colors are available other than standard white, at a additional cost.

**STANDARD FITTINGS.** Fittings listed below are standard on all ground mounted flagpoles.

**TRUCK.** Cast virgin aluminum, one sheave, revolving, non-fouling with 26 stainless steel ball bearings. Optional sealed bearings are available at additional cost.

**HALYARD.** Shall be 3/8" Solid Braid Polyester

**SNAPS.** Heavy Duty Stainless Steel swivel eye with white vinyl covers.

**ROPE CLUTCH.** No maintenance, manually activated "EASYLOCK" rope clutch. Constructed of all Aluminum and Non-Corrosive materials, mounted inside the pole.

**COLLAR.** Laminated fiberglass of diameter and shape as detailed. The finish shall match the pole.

**GROUND SLEEVE.** Laminated fiberglass of size and length for pole height.