



ENERGY IS OUR BUSINESS

STARPOLE ANCHOR



STARPOLE™ Anchoring System



General Overview

STAR POLE ANCHOR is a system designed to install and secure in place poles (wooden, composite or other material) on rock, concrete or any hard surface by anchoring them rather than spending precious time and money in blasting.

STAR POLE ANCHOR has been designed to be **stronger than wooden poles** that complies with CSA 015-05 standard (red pine species). Multiple tests, performed in different conditions, have indeed proven that the system is stronger than the bending moment of the pole itself!

You can use STAR POLE ANCHOR fearless, our anchors will resist any load, even those most poles cannot resist!



Operations

By drilling at least 3 holes, with diameter depending on the system used, you can actually set your pole securely on any hard surface.

The galvanized steel legs of the STAR POLE ANCHOR® system hold the pole in place with the pole saddles and lag bolts, while the tapered anchor bolt expands an expansion shell at the bottom of each hole.

It's that simple!



SAFE

Eliminates the risks and environmental hazards inherent in blasting.

MORE PRODUCTIVE

Install more poles per day.
Work in almost any kind of weather.
Keep tighter control of scheduling and costs.

EASY TO INSTALL

Simple installation needs only a two-man crew.

Multiple applications

Poles are only one of the many examples of vertical structures our system can anchor.

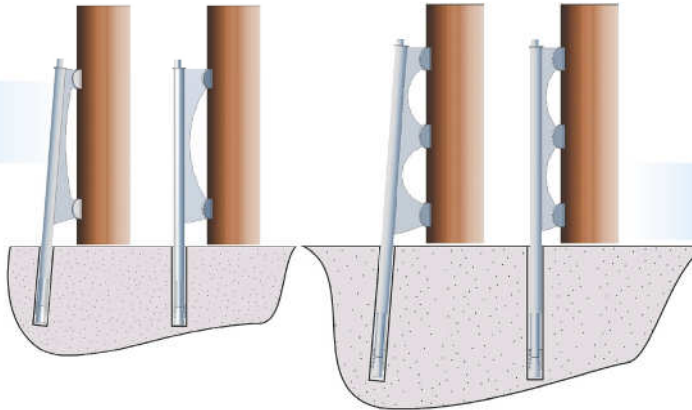
Industrial structures,
Electrical or Telecommunications poles,
Recreational structures,
Composite or wooden poles.

Product Description

A brand new range of anchors

/ SPA -2 - Distribution

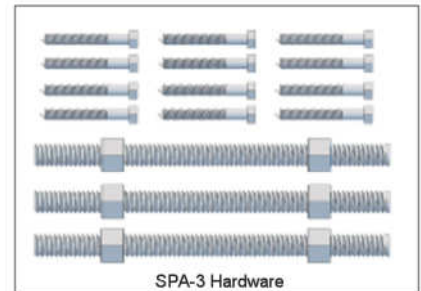
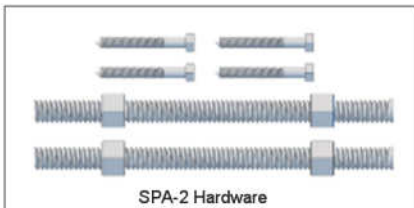
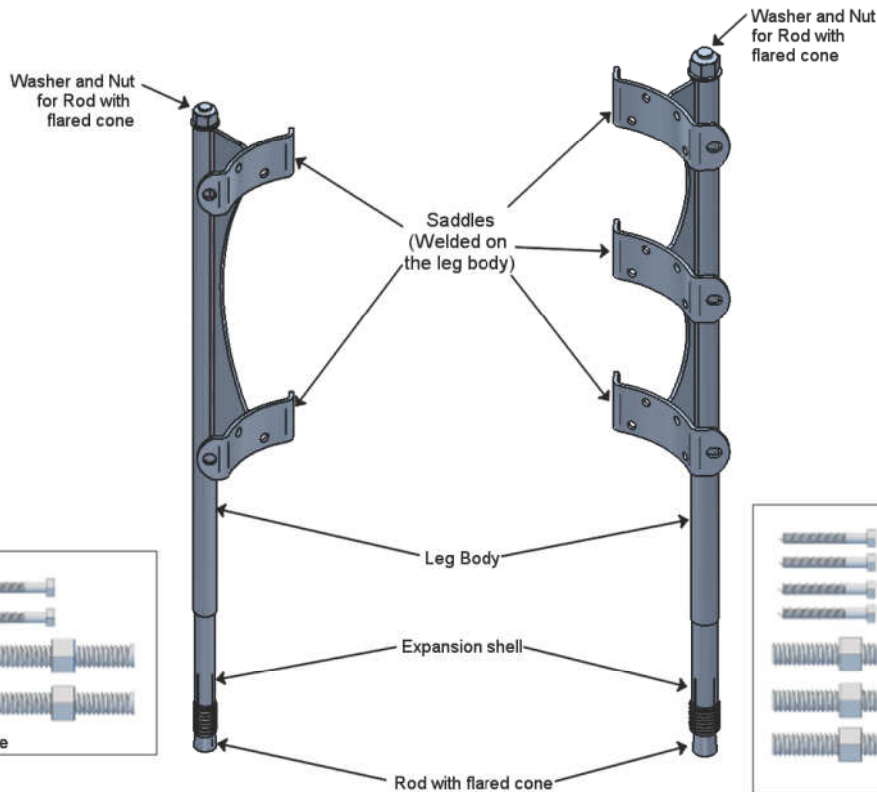
- 2 saddles
- inclined or vertical design



/ SPA -3 - Transmission

- 3 saddles
- inclined or vertical design

Anchor's sub components



Advantage of the new system

/ UNIVERSAL SYSTEM

- efficient and heavy duty anchoring in hard surfaces such as rock, concrete or the like,
- anchoring systems designed for poles of any material,
- system fully adaptable according to the diameter of the pole : number of anchors.

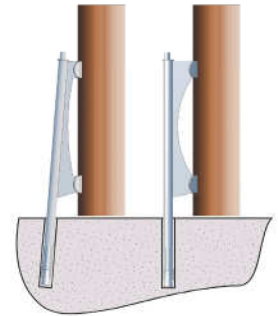
/ STRONG ANCHORING POWER

- multiple discrete mounting interfaces linked together for continuous connection interface / legs for a stronger system,
- money saving due to increasingly stronger legs,
- strong galvanization - no short term maintenance.

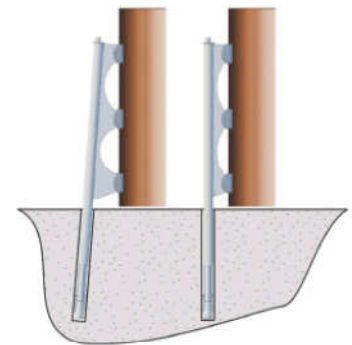
/ OTHER FEATURES

- design : inclined or straight legs,
- assembling kit provided,
- drilling template available to ease installation,
- no need to install guy wire.

SPA-2 Distribution



SPA-3 Transmission



Product Range

SPA - 2

- minimum 3 anchors needed*,
- for 3 anchors, minimum pole diameter is 8 inches (0.203m).

SPA - 3

- minimum 4 anchors needed*,
- for 4 anchors, minimum pole diameter is 16 inches (0.406m).

- a bag with all hardware needed is sent along with the legs,
- the arched support is very strong and transfers uniformly the pole strength to the anchors,
- the saddles fit exactly the diameter of the pole when lag bolts are properly tightened.

- to drill the holes, deep to 24", you'll use the drilling template,

- to drill the holes, deep to 29", you'll use the drilling template,

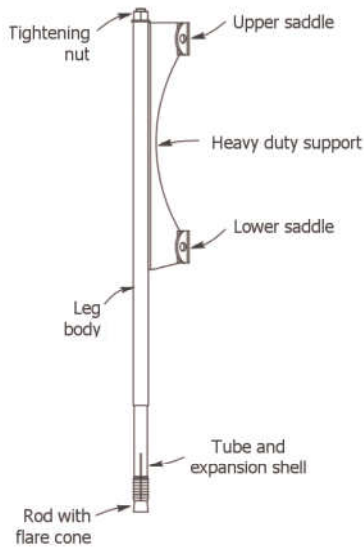
- made of strong material, the tube of the leg has a bigger bending moment prior distortion.

*the number of anchors to be used depends on the pole diameters - see selection chart

SPA - 2 - Distribution

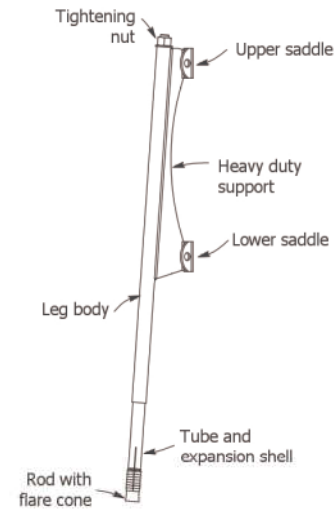
/ SPA -2V

- leg dimensions: 1.6 x 0.182 x 0.277 (m)



/ SPA -2I

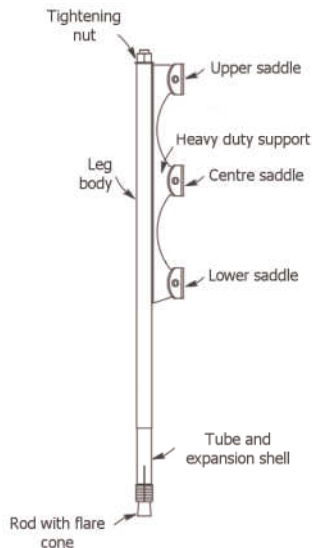
- leg dimensions: 1.6 x 0.231 x 0.277 (m)



SPA - 3 - Transmission

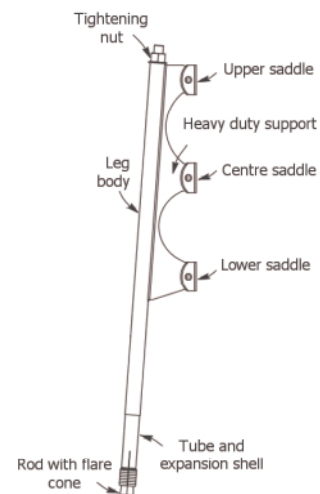
/ SPA -3V

- leg dimensions: 1.95 x 0.201 x 0.367 (m)



/ SPA -3I

- leg dimensions: 1.95 x 0.324 x 0.277 (m)



Determine the number of legs

/ SPA-2 & 3 - POLE BUTT AT BASE (in)

3 anchors configuration



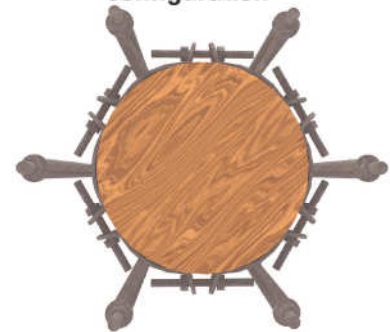
4 anchors configuration



5 anchors configuration



6 anchors configuration



SPA 2

SPA 3

SPA 2	
Dia.	Circ.
8	25
9	28
10	31
11	35
12	38

SPA 2	
Dia.	Circ.
11	35
12	38
13	41
14	44
15	47
16	50
17	53
18	57
19	60
20	63

SPA 2	
Dia.	Circ.
14	44
15	47
16	50
17	53
18	57
19	60
20	63
21	66
22	69
23	72
24	75
25	79

SPA 3	
Dia.	Circ.
22	69
23	72
24	75
25	79
26	82
27	85
28	88
29	91
30	94
31	97

No failure point!

SPA 3

SPA 3

*Please contact us for other dimensions

Installation

/ Tools for installation

SPA 2



- 1 X Impact drive Socket 1"
- 1 X Impact drive Socket 1-13/16"
- 2 X Wrench 1-7/16"

SPA 3



- 1 X Impact drive Socket 1-1/8"
- 1 X Impact drive Socket 2-3/8"
- 2 X Wrench 1-5/8"

/ Drilling Templates Available

Drilling template is recommended to position correctly your anchoring system. This template is reusable, it is not necessary to get a new one for each installation. Two different templates are available, but both of them work the same way:

- 1- Cut a small log at the bottom of the pole (about 6 inches height),
- 2- Install the log into the drilling template and fix the template to fix the log in place tight,
- 3- Level the drilling template at the installation location,
- 4- Drill the hole at the right depth,
- 5- Remove the template and install your pole per installation instruction.



Installation Instructions

Modules are shipped assembled. Each consisting of a forge anchor bolt, expansion shell, welded pipe, washer and nut, along with the required field assembly hardware. Each pole installation requires at least 3 modules, depending on the pole butt diameter and the SPA model you use.

/ STEP 1 - REMOVE OVERBURDEN

The pole butt must rest directly on the rock, so all loose overburden (soil, gravel, etc.) must be removed.

/ STEP 2 - ROCK EVALUATION

If the rock is fractured or unsound, an alternative method to the SPA system should be used. For example, if the rock can be easily broken, shovelled or augured, this would suggest insufficient rock soundness.

/ STEP 3 - CHECK SLOPE

The maximum allowable gap between the pole base and the rock surface is 3 inches. For example, there must not be a gap of more than 3 inches between the pole butt and the rock, and the pole must rest on the rock at some point.

/ STEP 4 - NUMBER OF ANCHOR TO USE

Consult the selection chart shown below.

/ STEP 5 - ROCK DRILLING TEMPLATE

Choose the appropriate drilling template for the configuration chosen.

/ STEP 6 - ADJUST TEMPLATE

Fit the assembled template to the pole butt, adjusting it for the pole size. Place the template, leveled, on the rock. For installation of anchors SPA-2I or SPA-3I, make sure the hole to be drilled point outward from the pole center.

/ STEP 7 - DRILL HOLES

Case 1 - you use SPA-2

- 1) Always begin at the highest point of the rock.
- 2) Drill a 2 inches diameter hole to the depth of 24 inches using template. Do the same for all holes.
- 3) Clean out the holes from dust.

Case 2 - you use SPA-3

- 1) Always begin at the highest point of the rock.
- 2) Drill a 3 inches diameter hole to the depth of 29 inches using template. Do the same for all holes.
- 3) Clean out the holes from dust.

/ STEP 8 - INSERT THE ANCHORS

Drop the anchors into the holes. Loosely connect the saddles with the studs.

/ STEP 9 - ERECT POLE AND TIGHTEN SADDLES

Hold the pole vertically in place, tighten all the studs to grip the pole within the saddles. Ensure that all nuts are firmly tightened.

/ STEP 10 - TIGHTEN ANCHOR BOLTS

Tighten the nuts of the anchor to a torque of 400 N-m (300Lbs-ft). In poor rock you will run out of thread before developing an adequate torque. An alternate location or installation method must be used.

/ STEP 11 - INSTALL LAG BOLTS

Pre-drill holes and install all lag bolts using an impact wrench or socket wrench. Add a MAX torque specification of 45-50 ft-lb for installing the lag bolts.

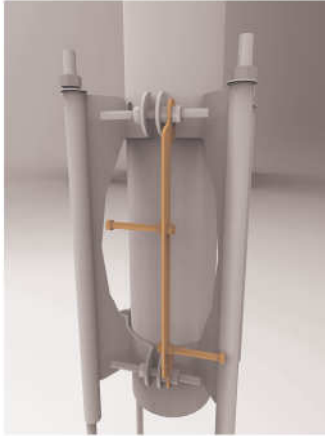
/ STEP 12 - FINAL STEPS

Grouting of the holes is optional if ice is a concern. Grouting should never be done before installation. Back filled any removed overburden if desired.

/ STEP 13 - MAINTENANCE

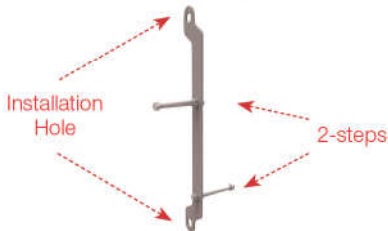
Incorporate the anchors into the regular pole and line maintenance schedule and procedures. At each inspection ensure that all nuts and lag bolts are in place and tight.

STARPOLE ANCHOR Climbing Step



/ Climbing Step - Easy to set up

- Ascender climbing system to climb to your stand with ease,
- Durable steel for on-the-go convenience,
- Help keep foot in place and climb on the pole with spurs,
- 1-foot maximum step height.



STARPOLE ANCHOR Protectors



/ Protector Caps - Easy to set up

- Steel caps that may be placed on the Starpole threaded rods,
- To be installed on the anchors for an easy, descending and to prevent any fall and/or injuries.



Notes

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