tree cabling system

Assembly-Instruction

arboa

tree safety

boa® Product range

Since 1993: (EU Patent 0623277) with over 500.000 connections the successful tree bracing systems worldwide further developed in 2005 named boa.

Complient to ZTV always

Next to the individual components there are the following sets:

boa® 2 to ø 14 mm

hollow rope (PP)
Kinking free for 15 compounds:
100 m of rope
30 expansion inserts (100 cm)
25 m anti abrasion-hose
12 shock absorbers
15 UV proof, colour-coded discs
2 special gliding tapes 10 m

boa® 4 to ø 24 mm

hollow rope (PP)
Kinking free for 5 compounds:
50 m of rope
10 expansion inserts (100 cm)
12,5 m anti abrasion-hose
5 shock absorbers
5 UV proof, colour-coded discs
1 special gliding tapes 5 m

Kinking free

for 2 to and 4 to
utility model-nr.: 20 2006 002665.7

silver/black 8 to

hollow rope (dyna-one)
Dyneema-loop S (120 cm)
Dyneema-loop M (160 cm)
Dyneema-loop L (200 cm)

8 to ø 30 mm

hollow rope (PES)
for 5 compounds:
50 m of rope
10 expansion inserts (100 cm)
12,5 m anti abrasion-hose
6 shock absorbers
5 UV proof, colour-coded discs
2 special gliding tapes 10 m

2 to start-set

hollow rope (PP)
Kinking free for 3 compounds:
20 m of rope
6 expansion inserts (100 cm)
5 m anti abrasion-hose
3 shock absorbers
3 UV proof, colour-coded discs
1 special gliding tapes 5 m

Crosswise-compatibility

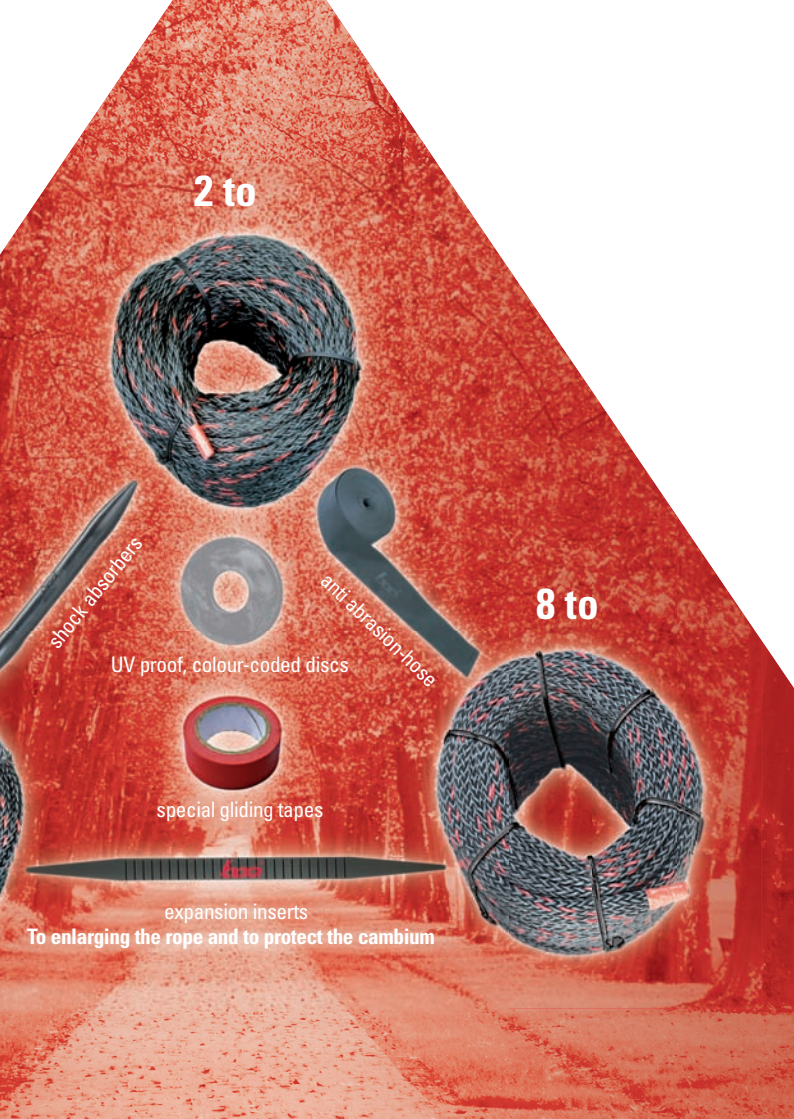
Genial and easy, crosswise-compatibility at 2 to, 4 to and 8 to

For all three rope strengths the same components: shock absorber, anti abrasion hose, expansion insert, UV-proof color coded disc and a special gliding tape

you save:

- space
- transport
- offcut
- time
- money

4 to


2 to
shock absorbers
anti-abrasion-hose
UV proof, colour-coded discs
8 to
special gliding tapes
expansion inserts
To enlarging the rope and to protect the cambium

boa® Important things to know

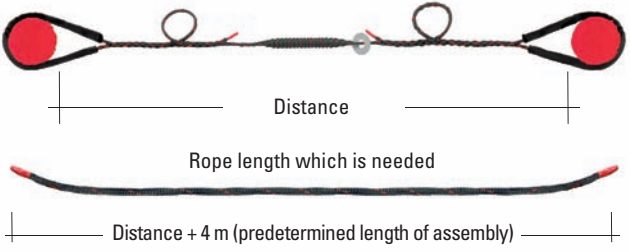
And some helpful assembly tips

Simply at us: the only tangle free rope oft he world

It is a nuisance to arborists when a cable comes of the spool tangled. boa hollow cable employs a special, newly patent winding method/ **Kinking free** which ensures that the 2 to and the 4 to cables come of the spool tangle free.

For 2 to and 4 to (Utility model protection-nr.: 20 2006 002665.7)

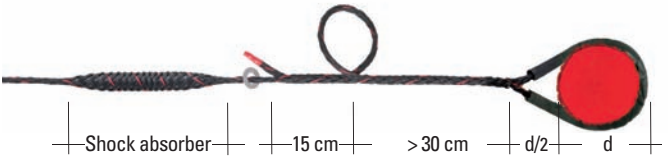
Calculation of the rope length:



Insertion position of the expansion insert:

Length of anti-abrasion hose = circumference of the branch

Length distance of a safe Quicksplice



Insertion position of the shock absorber: arbitrarily on free distance of the rope

UV resistant colour-coded disc shows the year of installation

05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

Montage of the rope

7 steps to success

- Quick installed without a splicing awl. No burner needed.
- Easy to control - UV proof coulor coded disc to know exactly the year of assembly according to ZTV.
- Take it out of the red bag for a Kinking free extraction of the rope at 2 and 4 to

European Champion 2003 and German Champion 2014 in tree climbing - permanently efficiently like
During 12 years

Step 1
Insert the **colour coded disc.**

Step 2
Compress the **rope** 120 cm of the end away.

Step 3
Drag in here the **expansion** insert through the mesh into the rope.

Step 4
Pull the **anti-abrasion** hose over the **rope** with expansion insert.

Rope and **shock absorber** for a dynamic tree bracing.

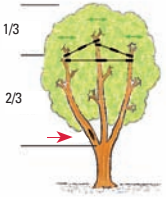
Step 5
Compress the rope, insert rotating the **shock absorber** through a mesh into the rope.

Step 6
Entwine the branch, **Quicksplice:** insert the tapered rope with gliding tape through the mesh into the rope at least distance to the branch of ½ branch diameter.

Step 7
Pull out the end of the rope after at least of 30 cm, form the **incremental loop/tension loop**. Insert the end of the rope again into the rope. **Now form the second side of the bracing system, then:** tighten with the tension loop … Done!

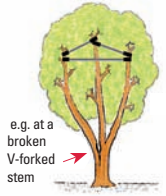
True tree safety in accordance with German tree care standards

■ Dynamic cabling system



For natural growth, the crowns of tree need to move freely and not be rigidly anchored. Dynamic crown stabilization prevents excessive movement, and a flexible rope acts as a gentle brake. The shock absorber is especially advantageous when compensating for weaknesses since it also allows for some movement in light winds. This is the ideal application for **boa** 2 and 4 tonne systems **with shock absorbers.**

■ Static cabling system



When V-forked codominant stems with ingrown bark show cracks, movement should be completely prevented. Movement can be stopped using a static or rigid cabling system. In those instances shock absorbers should not be used in the cabling system. For rigid cabling, the loadbearing capacity of the ropes needs to be doubled as campared to dynamic systems. For rigid bracing, the **boa** 4 tonne system with no shock absorber or the extremely rigid **boa silver/black** 8 tonne system (for which there is no shock absorber) should be used.

■ Branch weight supporting - load cabling system

It is not always possible to secure a tree crown that nothing will fail. However, if there is a possibility of a branch failure, it is necessary to ensure that nothing can fall to the ground. Systems to catch falling branches are impractical in trees because there is no anchor point which could withstand the resulting drop energy. Therefore, load cabling system are installed in a vertical orientation. For this type of application, all tree **boa** systems (**without shock absorbers**) can be used.

boa® should be measured in the following way according to German tree care standards:

■ Dynamic cabling system chart 1: installing the cabling system at 2/3 of of the height of the stem

Branch base circumference	Recommeded load bearing capacity during guarantee period
up to 40 cm	2 to
40-60 cm	4 to
60-80 cm	8 to
Static cabling system: double these collapse loads	

■ Load cabling system chart 2:

Branch base circumference	Minimum load bearing capacity
bis 30 cm	2 to
30-40 cm	4 to
40-60 cm	8 to
60-80 cm	16 to (installation of 2 x 8 to is possible)

■ boa provides a 12-year product life expectancy rather than the 8 years minimum required in the German regulation

Further products of arboa - publications and partners:

Service

■ Adcice

25 years of special experience in tree safety based on over 10.000 reports of safety by the Inclino/Elastomethod available.
Tel: **0049 711 2360252.** You can find us personally on any tree forum, fairs and meetings. And we are doing special workshops in Stuttgart or in your company.

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... and its international representations

WESSOLLY, L. / ERB, M.:
Handbuch der Baumstatik und Baumkontrolle,
Patzer 1998, 2. Auflage 2014

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