

## Clamp set for Spiderbeam 22m fiberglass pole

For smaller masts, many people simply use sticky tape for locking the individual tube segments. For a pole of this large size, clamps are **required** to securely lock the segments of the fiberglass mast for a long period. They are especially suitable for permanent installations and superior to all other locking mechanisms (tape, glue, cable ties, etc.). They have a very strong grip, yet can be removed easily even after years of installation. The rubber padding protects the mast against damage from the clamp.

### Fabricating the rubber padded Clamps

Start with cutting a piece of rubber band (15x3mm) and a piece of heat shrink tube (13mm diameter), suitable for each clamp:



fiberglass tube segment	stainless steel clamp	length of rubber band	length of heat shrink tube
2	80 – 100 mm	285 mm	270 mm
3	80 – 100 mm	265 mm	250 mm
4	70 – 90 mm	240 mm	225 mm
5	60 – 80 mm	225 mm	200 mm
6	60 – 80 mm	200 mm	180 mm
7	50 – 70 mm	185 mm	165 mm
8	40 – 60 mm	165 mm	145 mm
9	32 – 50 mm	145 mm	125 mm
10	32 – 50 mm	120 mm	100 mm
11	25 – 40 mm	95 mm	75 mm
12	20 – 32 mm	70 mm	50 mm
13	12 – 20 mm	45 mm	35 mm
<b>Total:</b>	<b>12 clamps</b>	<b>2040 mm</b>	<b>1820 mm</b>

Now open each clamp, flatten it somewhat, and place it onto the rubber strip. The **right** end of the rubber strip should be aligned with the **right** end of the clamp:



Push the heat shrink tube over the clamp and rubber strip assembly. The **left** end of the heat shrink tube should be aligned with the **left** end of the rubber strip:



After heating & shrinking, the fully assembled clamp will look as pictured below:



As shown in the photo, the right end of the heat shrink tube should have a distance of approx. 15mm from the screw casing.

Now close the clamp and it is ready to use.

In case the heat shrink tube shows wrinkles when closing the clamp, simply apply some more heat and the wrinkles will go away easily.



## Installing the Clamps on the Mast



- ← tube segment # 2
- ← clamp
- ← tube segment # 1

The **first clamp** (80-100mm diameter) is mounted at the **bottom end of the second tube segment**. Here it will act as a stopper and prevent the second tube from sliding downwards into the first tube segment. The rubber padding safely protects the mast against damage from the clamps.

**Tip:** Mark each clamp with the number of the segment it mounts on, using a **white permanent ink marker** (i.e., Sharpie or Edding Marker).

The second clamp is mounted at the bottom of the third tube segment, etc ... (see table on page 1).

**Do not over-tighten the clamps.** The rubber ensures a strong grip to the mast segments, preventing them from sliding down. The clamps will act very well as a stopper and **only moderate force is needed when tightening them.**

**CAUTION:** There have been misunderstandings about how to install the clamps. Some people mount them on the top of each segment, in an attempt to squeeze the tube to prevent the upper tube segment from sliding downwards. This is not the correct installation method and may result in damaging the mast. **Please make sure to install the clamps correctly as described above.**

**TIP:** When installing these clamps on the pole, **use a 7mm Nut Driver** instead of a screw driver. This makes installation safer, easier, and faster.