

# Manual for Malmsten Racing Lane Lines



## About This Manual

The Racing Lane Line Manual provides detailed and complete information on the installation and the maintenance of the product.

Please always refer to the latest version at [malmsten.com](http://malmsten.com)

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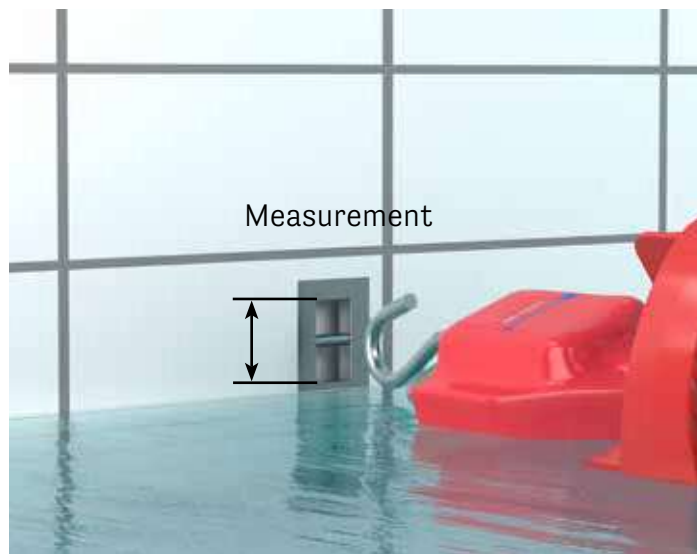
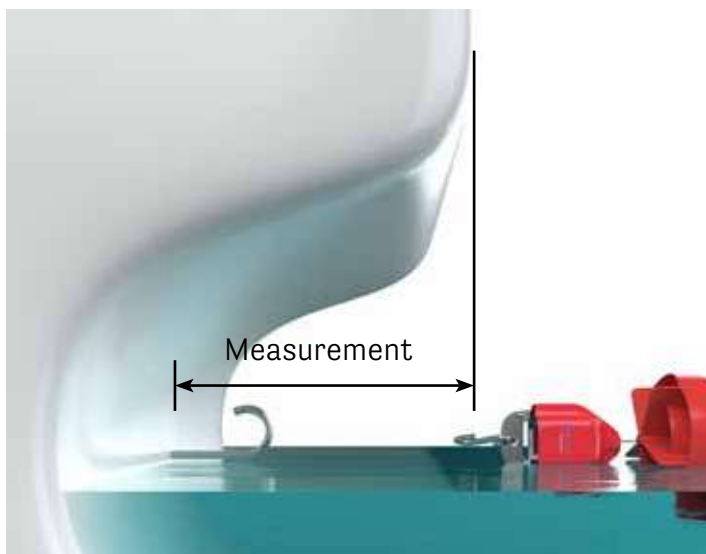
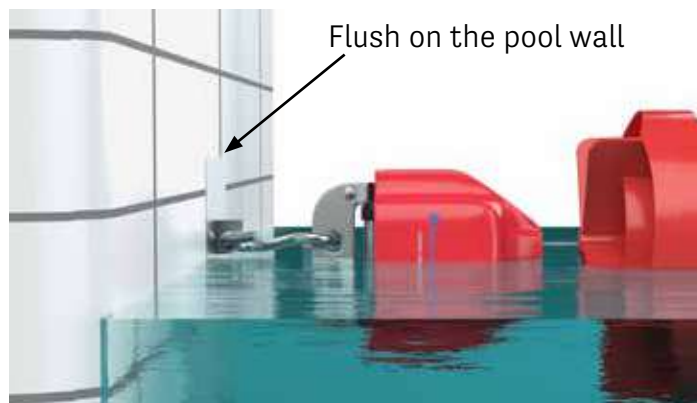
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## Racing Lane Lines - Before Purchase

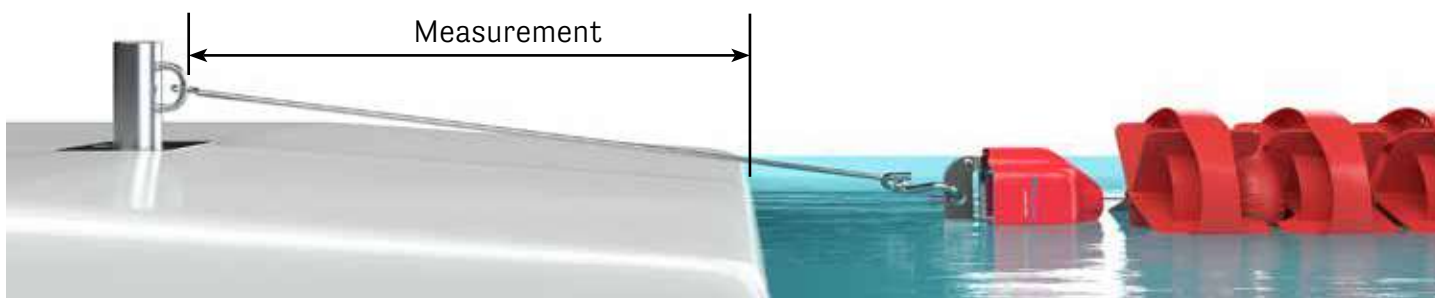
If anchor point for racing lane line is not flush on the pool wall, please give us the measurement from pool wall to anchor point, before ordering your lane lines.

Material on the racing lane line will be adjusted in function of anchor, and the lane line might benefit from a permanent extender.

Attention: the S-hook measures 7 mm in material thickness, the S-hook design requires an anchor depth of at least 34 mm and a maximum anchor pin diameter of 11 mm.



If your anchor is shallow and has less than an 8 mm opening; please forward photo.



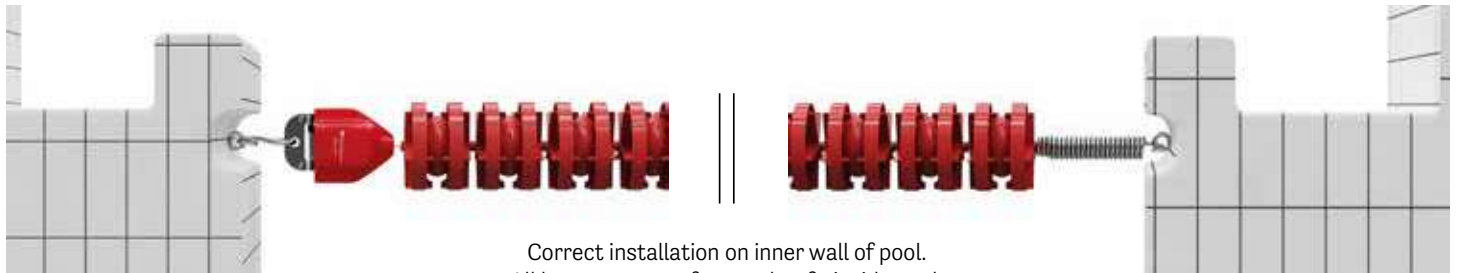
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# Racing Lane Line - Installation Instructions

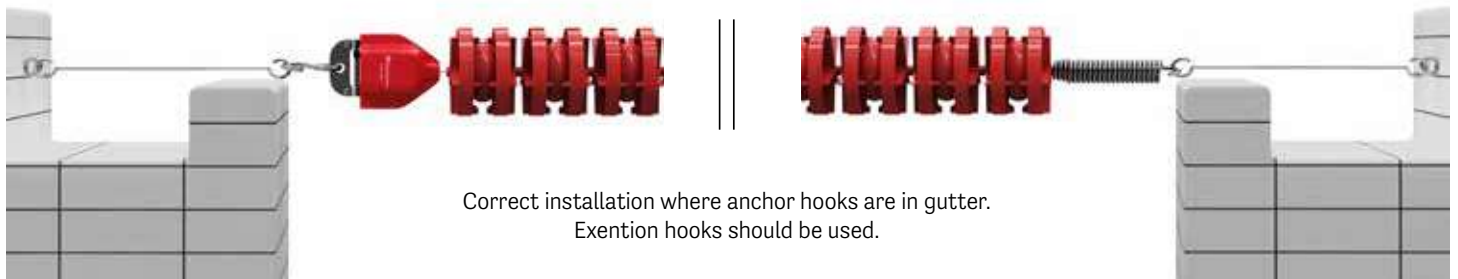
According to WORLD AQUATICS Competition Regulations

## During Installation

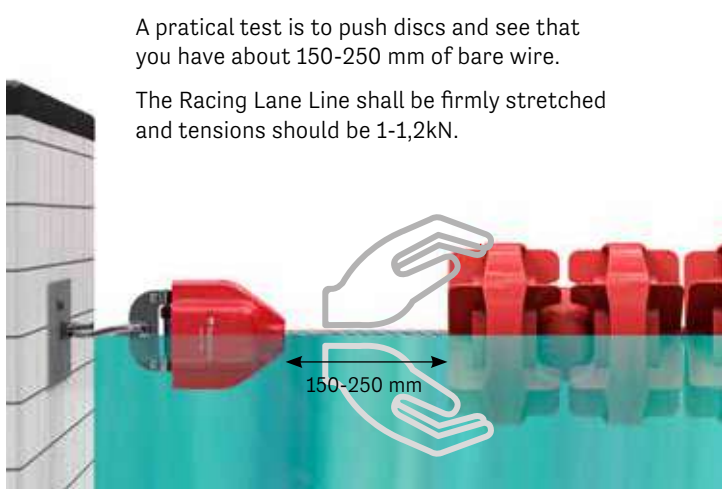
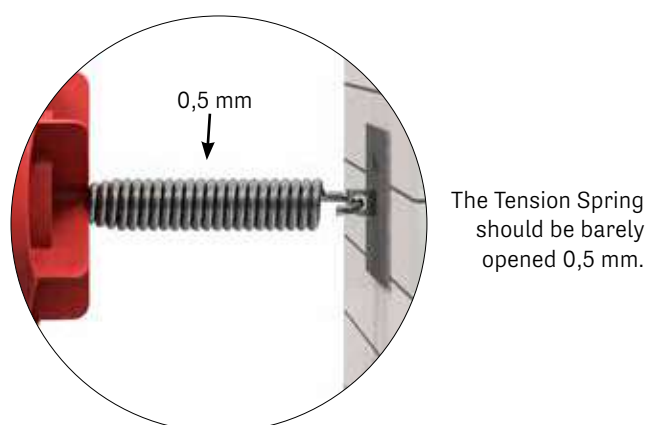
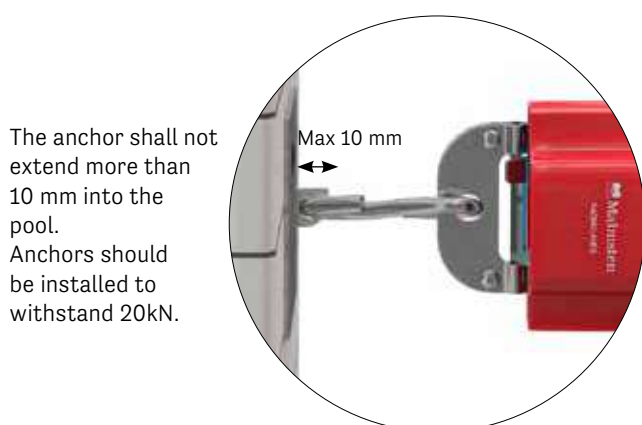
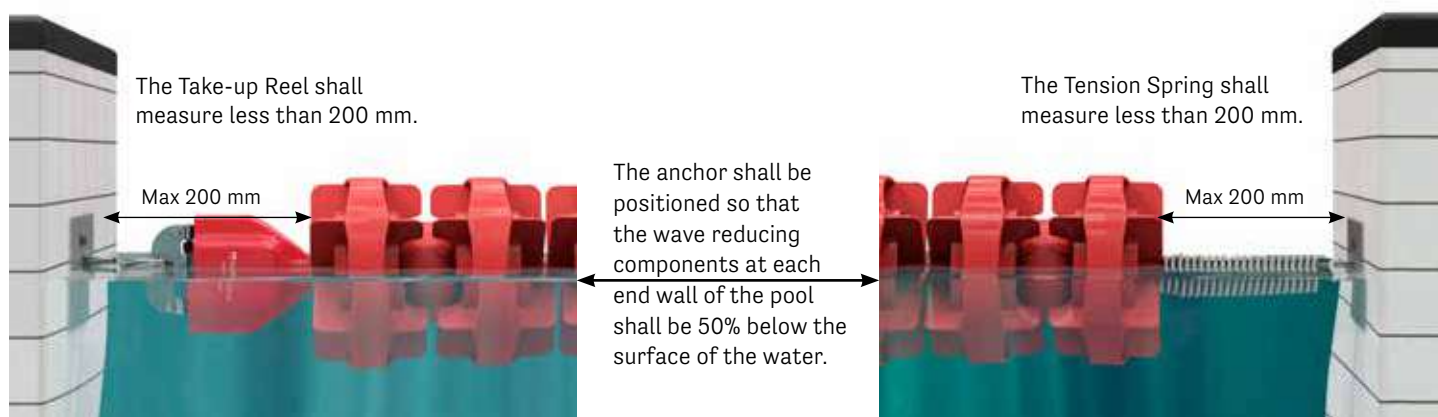
The racing lane line should be installed with both the take up reel and the tension spring in the pool water, never on pool deck. If anchor point is on pool deck an extension hook should be used. After lane lines are in the pool water, use a Malmsten wrench to tighten lanes until discs are standing up. Lane lines should not be over tightened, or it will damage the wire, take-up reel and the ability to absorb water turbulence.



Correct installation on inner wall of pool.  
All lanes are manufactured to fit inside pool.



Correct installation where anchor hooks are in gutter.  
Extension hooks should be used.

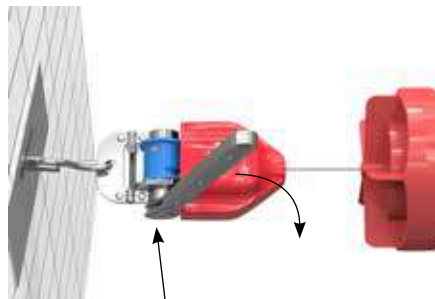


## Handling Take-up Reel with the Original Ratchet Wrench

The Take-up Reel of the Racing Lane Line rope requires a tool to lock tensioning into position and to prevent non-authorized tampering. Use only Malmsten Ratchet Wrench to tighten lane lines.

For correct tension follow the instructions below.

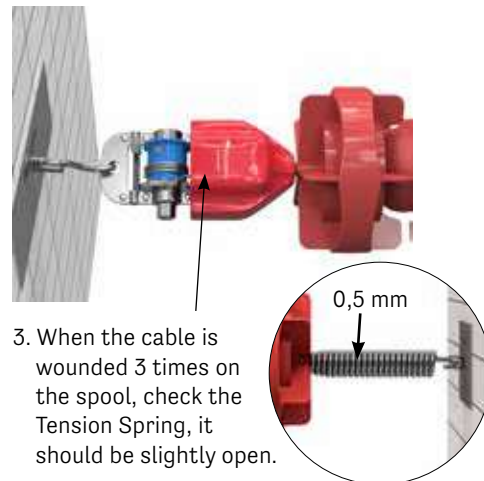
### Tightening lane lines:



1. Wind cable on spool evenly with Malmsten Ratchet Wrench. Move the cylinder three notches at a time.



2. It is important not to overlap the cable.



3. When the cable is wound 3 times on the spool, check the Tension Spring, it should be slightly open.

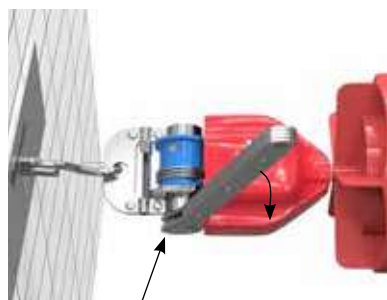
### Distance:



### According to WORLD AQUATICS Competition Regulations

The Take-up Reel shall measure less than 200 mm.

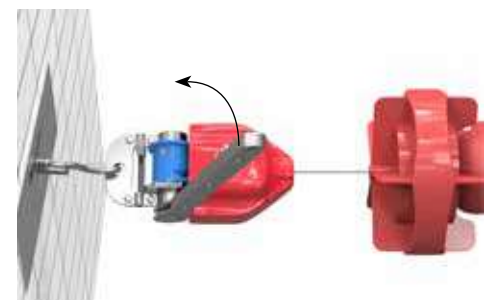
### Releasing lane lines:



1. Use only Malmsten Ratchet Wrench to loosen lane lines. Increase lane tension enough to release pressure on locking device.

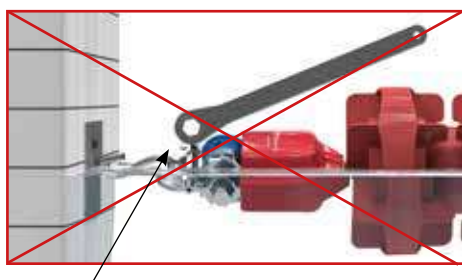


2. Depress thumb pawl on locking device and allow spool to release tension one notch.



3. Repeat step 2 until tension is completely released by applying the Malmsten Ratchet Wrench and moving the cylinder three notches.

### Warning:



**WARNING!** When reel is under tension never hit thumb pawl with Ratchet Wrench to release catch lock.

**DO NOT** allow reel spool to run free. This will damage teeth on spool and cause backlash of wire. It is also dangerous for the operator.

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## Maintenance of Racing Lane Lines

**To ensure long-lasting and safe use of the equipment, periodical inspections are required:**

After purchasing racing lane lines, you want them to be long-life and useful. Of course, choosing racing lane lines equipped with stainless steel wire, such as the strongest 316L, and long lasting polyethylene, is a great investment to ensure the longer life of racing lane lines. However, some efforts are needed to prolong the life of racing lane lines.

**Here are some recommendations to take care of your lane lines:**

### Releasing Lane lines

- Always use a Malmsten wrench to loosen lane lines (included in every purchase). The stainless steel wire may react with other metals, using a Malmsten wrench prevents it from being damaged.
- Increase lane tension enough to release pressure on the locking device.
- With the correct loosening steps, the Take-up Reel should be long-lasting. If misused, the reel may need to be repaired or replaced in a short period of time.

### Discs and floats

- Replace broken discs to avoid that pool users have any discomfort and also to maintain the racing lane lines anti-turbulence and wave reducing features.

### Wire for lane lines

- The wire of the racing lane line is designed to be used under normal conditions. Improper use such as hanging on the racing lane or jumping in and grabbing the lane may cause the wire to rupture or damage the Take-up Reel.

### Take-up Reel

- The handling of the Take-up Reel should only be done with the Original Malmsten Ratchet Wrench. Any other tool may damage the Take-up Reel. When Take-up Reel is under tension, never hit the tumb pawl with the ratchet wrench to release.
- Do not allow the spool to run free. This could damage the teeth of the spool, cause a backlash of wire and be dangerous to the operator. The Take-Up Reel is very durable and built for the rugged conditions of a pool. With proper care, it will last a very long time. When misused it can be damaged beyond repair in a short time.

### Stainless Steel parts

- Attention to that stainless steel parts may react to contact with other metals. Only Malmsten Ratchet Wrench should be used. Anchors for the lane lines should be earth bonded to avoid corrosion. Immediately remove any start to rust with a soft cloth.
- Wax surface with bees wax for prevention.

**For more information on Stainless Steel Maintenance, please refer to our website under downloads.**

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**Every time before using the equipment:**

- Visually check if there are any parts damaged or missing.
- Make sure all Take-up Reels and Tension Springs are installed correctly.

**Every time after using the equipment:**

- After using the product it is required to rinse with clean, non-chlorinated water and let it dry before placing in a storage room. Only light detergents like dish soap can be used for cleaning. Alcohol-based detergents might damage the line.
- Stainless steel parts should be treated with stainless steel cleaning substance.
- Keep the lane lines dry and in a well-ventilated storage area at room temperature and out of direct sunlight. The UV (ultraviolet) rays are very destructive to racing lane lines.
- To ease pulling of racing lane lines in- and out of the pool, use a lane line slider. Malmsten Lane Line Slider is suitable for all Malmsten racing lane lines and protects the pool edge and the lane lines from daily wear and tear.
- Store the lane lines with a storage trolley and a protective cover. Malmsten storage trolley is designed for all sizes of swimming lane lines and is easy to use. Made in stainless steel 316L ensures the durability of the storage trolley. Malmsten cover is made from special fabric that is breathable and has an outstanding UV-protection feature. Your racing lane lines will have a longer lifetime with the storage trolley and protective cover.

**Important note:** Steam or high pressure equipment should not be used, nor should harsh detergents containing ingredients such as ammonia or bleach.

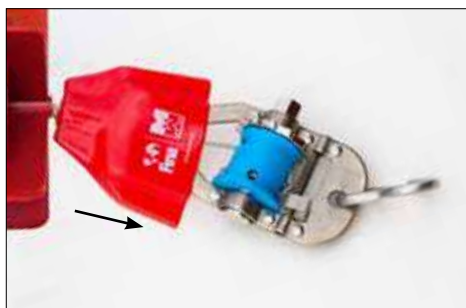
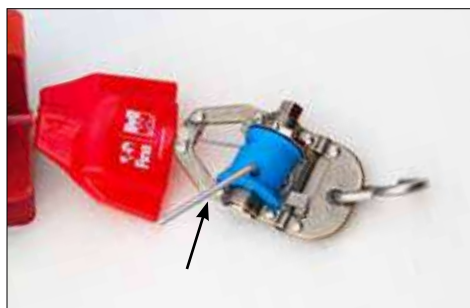
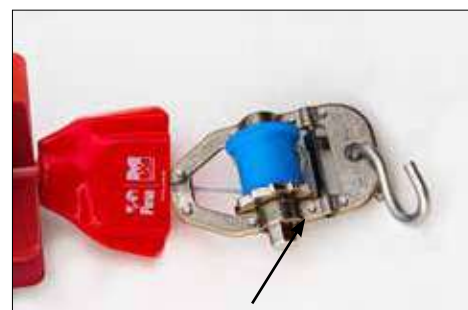
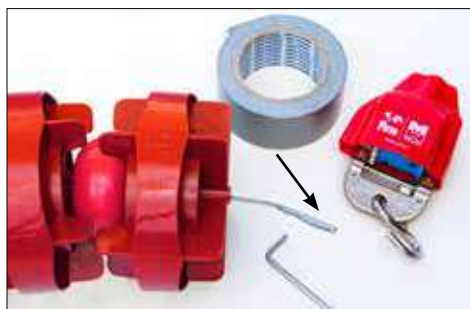


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## Take-up Reel lane line with cover

### Mounting instructions for replacement

The handling of the Take-Up Reel should only be done with the Original Ratchet Wrench (always included with your purchase). Any other tool may damage the Take-Up Reel.



#### According to WORLD AQUATICS Competition Regulations

The Take-up Reel shall measure less than 200 mm.

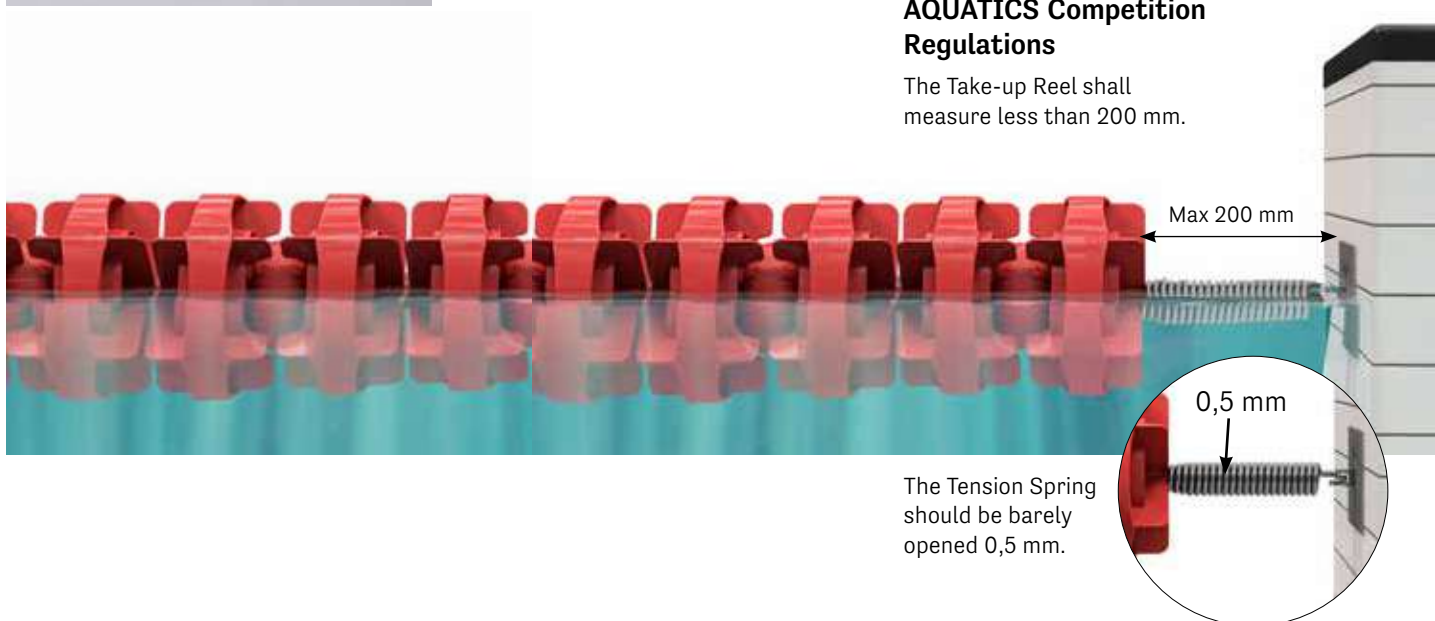
## Tension Spring for Lane Line

### Mounting instructions for replacement



### According to WORLD AQUATICS Competition Regulations

The Take-up Reel shall measure less than 200 mm.



The Tension Spring should be barely opened 0,5 mm.

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