

# WHEN A SPLIT OF A SECOND COUNTS



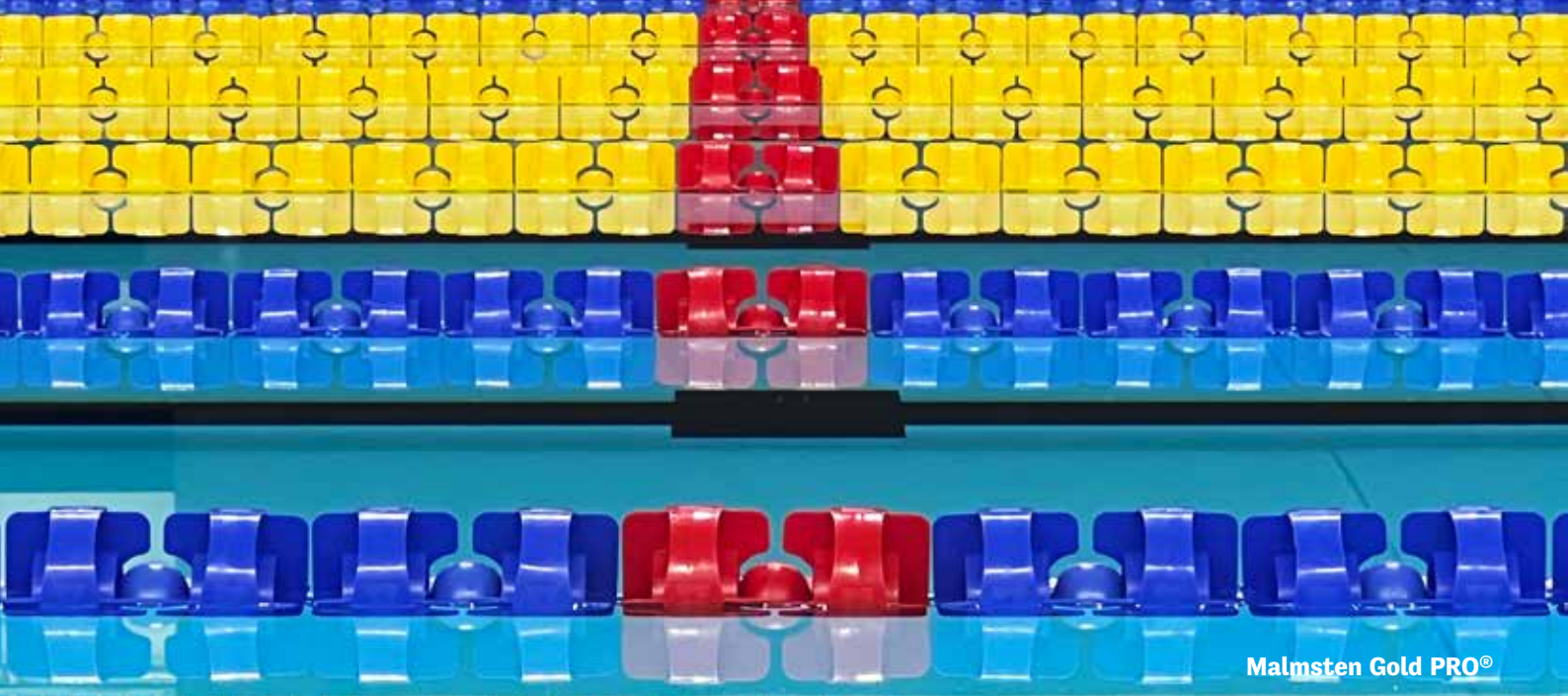
Malmsten PRO Racing Lane Lines - Made for the Americas. Produced in USA

 **Malmsten**

Official Supplier







**Gold PRO® is the Official WORLD AQUATICS racing lane line and was introduced at the World Championships in Gwangju 2019. The Classic PRO™, was introduced in 2021, using the same unique design as the Gold PRO®, but with a smaller diameter.**

- Wave-reducing racing lane line, the construction causes the wave to break down inside the line, "wave depleting technology." The wave does not go through, under or over the line.
- The disc pattern, with dual function has larger holes for smoother water flow-through as well as better wave energy absorption.
- More mass on each disc affects the water position in a positive way thus more wave reduction.
- Gold PRO® and Classic PRO™ discs are wider and heavier for absorbing energy better, which means more strength to handle tough waves.
- The outer ring on the disc has been slimmed down in the middle between the blades for increased water flow-through.
- The inner ring has increased in size for catching the wave and increasing the weight of the disc.
- The PRO floats have a unique design with special ridges that work together with the discs to increase wave reduction. The ridge design helps to break down the wave.
- The lane line has a flexible and strong wire and together with the tension spring it makes it possible to absorb high-point loads.
- With local North American production and manufacturing in accordance with proven Malmsten specifications, we meet aquatic needs for color choices, lengths and quick deliveries.

## **Malmsten Gold PRO® Racing Lane Line - Ø 6"**

**This is the championship Lane Line and the result of many years of R & D.**

Malmsten Gold PRO® is the best wave breaker and turbulence control on the market for superior wave reduction. With wave energy damping over 90 percent it is perfect for all level competitions as well as training. Gold PRO® with the latest PRO-discs and PRO-floats is the best wave reduction. The improved functionality is based on the proven Malmsten flow-through design by allowing wave energy to be dispersed along the length of the lane line. PRO-discs and PRO-floats are with a new pattern, optimizing even more wave reduction capacity.



## **Malmsten Classic PRO™ Racing Lane Line - Ø 4"**

Malmsten Classic PRO™ Racing Lane Line is designed with the same wave breaking technology as the Gold PRO®. It is smaller and lighter with energy damping over 76 percent.

Classic PRO™ is perfect for swimming competitions and training, water polo field markings, open water finishing lines and divisional lines.



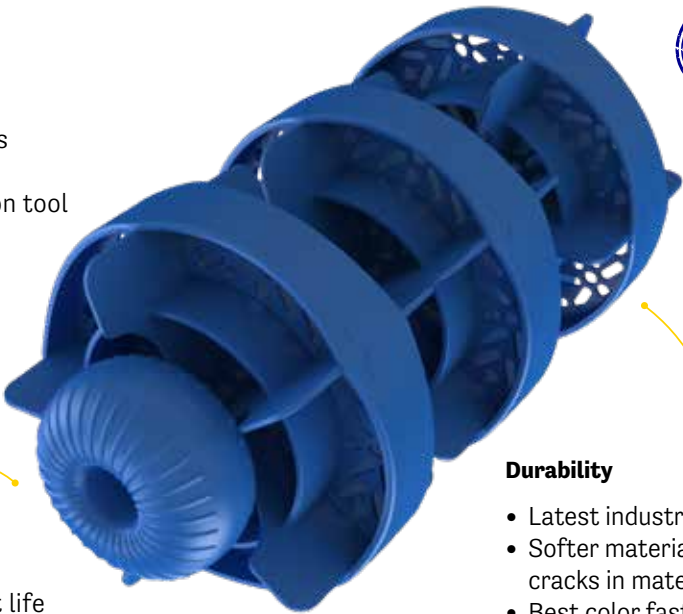
# The design of Malmsten Gold PRO® is a result based on studies done on wave-energy damping at KTH, Sweden.

## Functionality

- Water turbulence control
- Superior wave reduction
- Latest PRO-discs and PRO-floats
- "Wave-depleting technology"
- Original Take-up reel – a precision tool
- Best water positioning

## Enviornmental Sustainability

- Extended durability
- May be recycled at end of product life
- Discs and floats have no traces of heavy metals
- Assembly process with minimum carbon footprint



## Durability

- Latest industry MD polyethylene
- Softer material to avoid discomfoting cracks in material
- Best color fastness 8/8
- Industry best UV-protection 8000ppm
- Best wire solution on the market, strong, safe and flexible wire, stainless steel 316. Thickness Ø 5/32"

## More material thus better functionality

	Lengths	Discs	Competition line	Wave energy damping	Weight	Incl. Take-Up reel and Tension Spring
Gold PRO®	50 m	Ø 6"	Yes	90,50 %	211 lbs	Yes
Gold PRO®	25 y	Ø 6"	Yes	90,50 %	98 lbs	Yes
Classic PRO™	50 m	Ø 4"	Yes	76 %	158 lbs	Yes
Classic PRO™	25 y	Ø 4"	Yes	76 %	72 lbs	Yes

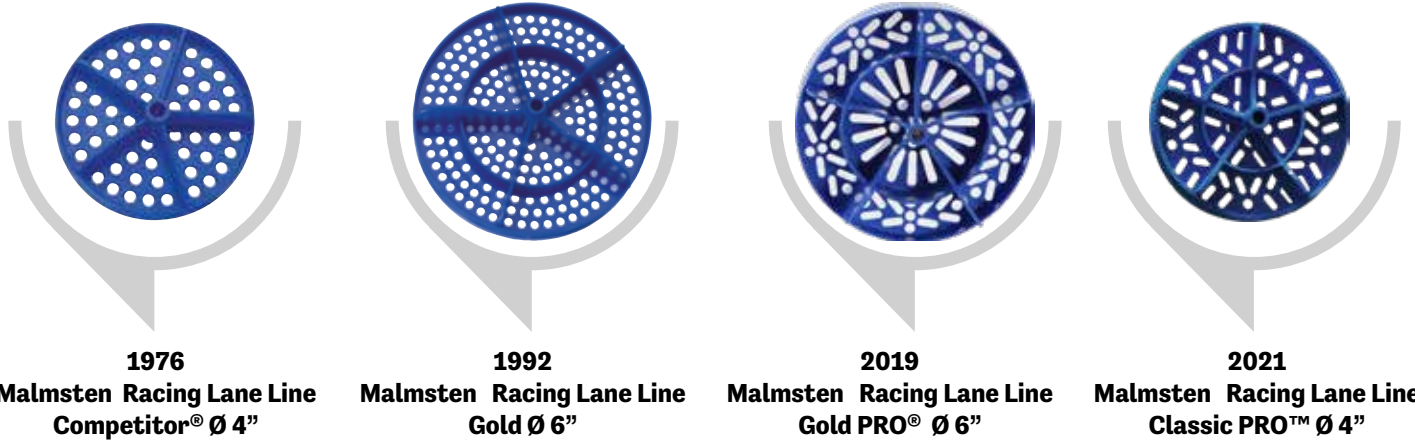
## Better material for durability

Discs and floats	Material	Color fastness	UV stab.	Anti-oxidant protection	Free of heavy metals	Stress tested	Wire PRO Flexible & Strong  ss316, 5/32", 7x7 threads
	Polyethylene	8 on 8 / Yes	8000ppm	Yes	Yes	Yes	





# WHEN A SPLIT OF A SECOND COUNTS



**Malmsten Racing Lane Lines have an impressive resumé, chosen for 10 Olympic Games including Tokyo 2020.**

## 1976

Our 100 mm racing lane line was the standard for international events until the Olympic Games in Barcelona.

## 1992

When our Gold Ø 150 mm lane line was presented to FINA (today WORLD AQUATICS) and approved as the new official standard. At Malmsten we strive to be at the forefront when it comes to utilizing technology and development. We began working with KTH (Royal Technical Institution) to study the effects of wave energy reduction and absorption. The studies were designed to test the wave reduction effect on our lane lines compared to others on the market. Professor Kuttenkeuler's studies have shown that the Racing Lane Line Gold reduces water turbulence and wave energy by up to 90%.

## 2019

With these results proving our lane lines are the best on the market, we continued to develop our product. 2019 we presented Malmsten Gold PRO® Ø 6", our latest innovation. Our focus is to improve excellent wave reduction and wave energy control and give swimmers optimal conditions to break new world records.

## 2021

Our latest innovation, Malmsten Classic PRO™ Ø 4" is designed with the same wave breaking technology as the Gold PRO®. Classic PRO™ is smaller and lighter and perfect for swimming competitions and training, water polo field markings, open water finishing lines and divisional lines.

## Production and sustainability

The Malmsten Racing Lane Lines are made in Tempe, AZ for the American markets to minimize transportation carbon emissions and to optimize control and flexibility of the manufacturing process.

- . Through the recycling and reuse of materials, natural resources are better preserved.
- . In all activities Malmsten strives to reduce pollution, as well as conducting efforts that lead to continuous environmental improvements.



*Selected When it Counts*