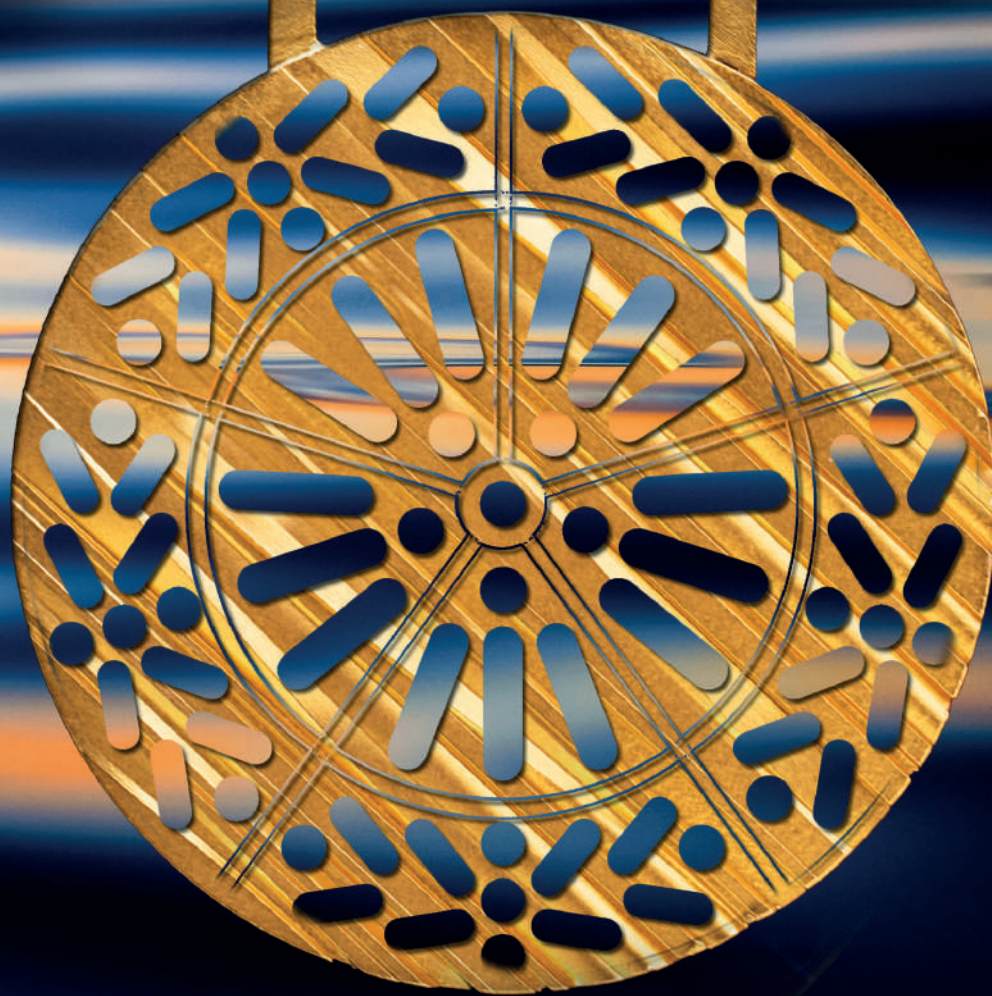


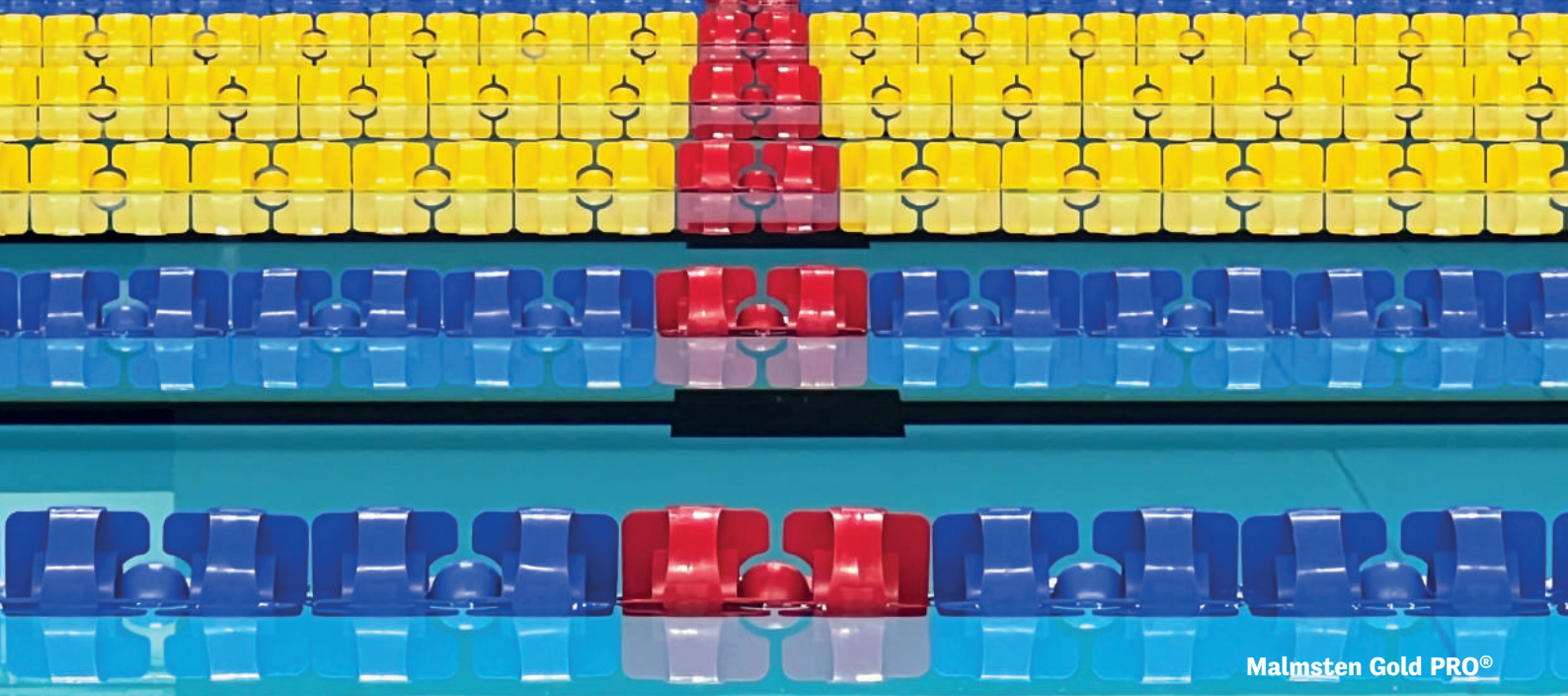
WHEN A SPLIT OF A SECOND COUNTS



 **Malmsten**

Official Supplier





Malmsten Gold PRO®

**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.
- A Swedish-made quality product where we have also focused on the work environment. Assembled by Linus, our robot, so no "human factor errors".

## Malmsten Gold PRO® Racing Lane Line - Ø 150 mm

**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 100 mm

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

## Enviormental 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 discomforting 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 4 mm

## More material thus better functionality

	Lengths	Discs	Competition line	Wave energy damping	Weight	Incl. Take-Up reel and Tension Spring
Gold PRO®	50 m	150 mm	Yes	90,50 %	96 kg	Yes
Gold PRO®	25 m	150 mm	Yes	90,50 %	49 kg	Yes
Classic PRO™	50 m	100 mm	Yes	76 %	72 kg	Yes
Classic PRO™	25 m	100 mm	Yes	76 %	36 kg	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
	Polyethylene	8 on 8 / Yes	8000ppm	Yes	Yes	Yes	ss316, 4 mm, 7x7 threads



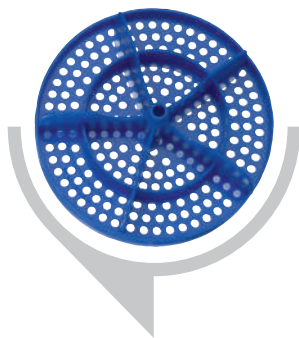
Malmsten Classic PRO™

# WHEN A SPLIT OF A SECOND COUNTS



**1976**

**Malmsten Racing Lane Line  
Competitor® Ø 100 mm**



**1992**

**Malmsten Racing Lane Line  
Gold Ø 150 mm**



**2019**

**Malmsten Racing Lane Line  
Gold PRO® Ø 150 mm**



**2021**

**Malmsten Racing Lane Line  
Classic PRO™ Ø 100 mm**

**Malmsten Racing Lane Lines have an impressive resumé, and our equipment has been in the pool for 11 Olympic Games including Paris 2024. Now we are preparing for LA 2028.**

## **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 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 Kутtenkeuler's studies have shown that the Racing Lane Line Gold reduces water turbulence and wave energy by up to 90 percent.

## **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 150 mm, 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 100 mm 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**

Most of our production is located in Sweden. Racing lane lines, water slides, gratings, movable floors, pool toys and much more are made locally to minimize transportation and to optimize control and flexibility of the manufacturing process.

Through the recycling and reuse of materials natural resources are better preserved.

Solar panels on our buildings help us reach our environmental goals.

In all activities we strive to reduce and prevent pollution, as well as conduct internal efforts that leads to continuous improvements.



*Automated assembly of racing lane line*



Malmsten – swimming hall specialists with over 50 years experience in the development of swimming pool equipment. Explore the full product range at [www.malmsten.com](http://www.malmsten.com)

*Selected When it Counts*