

KING OF TRAWL DOORS STRIKES BACK

Combining scientific research with innovation in product design and development with clever marketing and hard-hitting sales promotion with a global approach to manufacturing and distribution—Injector continues to revolutionize the world of trawl doors.

WIDELY RECOGNIZED as the world's most highly developed trawl doors, the Injector doors are experiencing a wave of rapid growth following the introduction of three new models. According to Injector Trawl Doors managing director Jan-Allan Müller, the reception of the new top model, the Injector Scorpion, has been overwhelming.

"The introduction of the Scorpion has been more successful than we could ever have hoped," Mr Müller said. "It's been reassuring to see this as we applied a very specific marketing strategy, not entirely devoid of risk."

Almost a decade has passed since Injector's breakthrough model, the Shark made its revolutionary entry across the North Atlantic, and so the fascination of the new is likely to have settled. In a highly competitive world, heavy merchandise for trawlers is as non-static as anything else; but for whatever market share may have been contested, it would seem Injector is now running up the score.

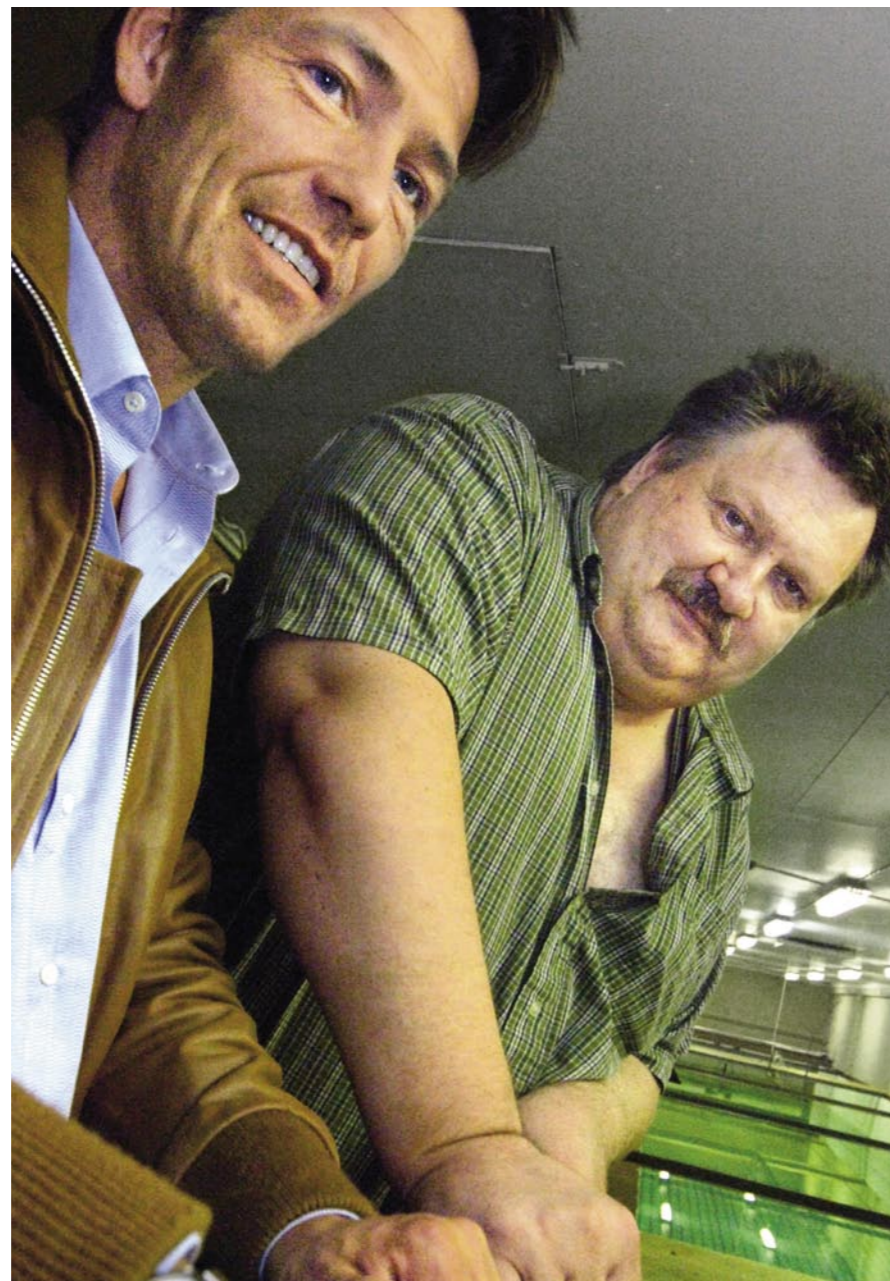
"Injector Shark has long had a very strong position and rightly so because it's still an unbeatable product. But considering the question of product cycle in the face of fierce competition that has been copying the Shark in subtle ways, we wanted to release a new top model to consolidate the superior position of Injector by adding fresh distance; and Scorpion is a model that can do that job since it's based on the latest in state-of-

the art aeronautical design and technology. It seems people have got the message, which is very pleasing."

Injector is the story about how applied aeronautics changed the business of trawling forever, how a startup became a global business in the down-to-earth maritime industry, in a very short time.

The Injector principle is directly derived from aeronautics, which defines a

lift as a mechanical force generated by a solid object moving through a fluid—the dynamics of the so-called downwash force as applied to a trawl door setting. When the Faroese inventor Helgi Larsen earned his master's degree in aeronautics from the University of Gothenburg, Sweden, a new chapter was opened in modern fishing gear technology inasmuch as he made the concept of trawl



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doors a subject of advanced design and aeronautical science—something that has greatly enhanced the performance of trawlers in the years that followed.

Skippers familiar with Injector trawl doors agree that by behaving truly hydrodynamically, these doors possess a superb ability to spread the trawl mouth without even having to touch the seabed. They say the doors move through the sea and over the ocean floor extremely smoothly and at a constant angle to the effect that hassles, damages and expensive repairs get virtually eliminated.

While Injector's marketing efforts until now have mostly focused on bottom trawl doors for groundfish and shrimp, the pelagic trawl door product line was lately stepped up with the Injector Stealth. Preliminary test results indicate that the Stealth is very powerful for pelagic trawling, shooting perfectly and squaring even the largest trawl to the maximum with ease while retaining the spread during turns and changes in trawling depth, according to Injector.

The new star model, Injector Scorpion, is rapidly becoming popular in particular in Greenland, Iceland, Faroe, Russia and Spain, Mr Müller said. A

bottom trawl door with multiple controls and maximum adjustability for switching between deep and shallow waters, the Scorpion is made of high-strength steel. A special, reinforced edition has also been designed to withstand the most rough and rocky seabeds.

The classic Injector Shark, likewise largely made of the extra robust steel, is still the most popular model. The characteristic red trawl door secured widespread fame for the Injector name and won the loyalty of skippers in numerous countries. In Finland, having discovered the Shark's usability for both benthic and midwater trawling, skippers acquainted with it refuse to use any other trawl door because with the Shark, they can switch between bottom and pelagic trawling without even going to shore.



Managing director Jan-Allan Müller with inventor Helgi Larsen, right (center); Icelandic trawler Vestmannaey VE 54 uses Shark and SeaWolf doors (top); Faroese filleter Skålaberg KG 118 with Scorpion doors (right).

INJECTOR

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World's most highly developed trawl doors, based on aeronautical science and hydrodynamic design.

Skippers' favorite across the Atlantic and beyond. Marketed and sold worldwide.

Injector® Shark™ – Classic model
(for bottom/semi-pelagic trawling)

Injector® Scorpion™ – New model
(for bottom trawling – extra tough)

Injector® SeaWolf™ – New model
(for bottom trawling – small to mid size)

Injector® Stealth™ – New model
(for pelagic trawling)

The new Injector SeaWolf is growing fast in popularity, too. At relatively low purchasing price, the V-shaped, grey colored SeaWolf is especially designed for shallow water while at the same time working perfectly for deep sea trawling, Mr Müller said. The size of the SeaWolf ranges from only 1 square meter (100 kg) to 11 square meters (4,600 kg) and its primary users are small to midsize trawlers.