

CLOSE-UP: The design is made up of pins, slats, and holes.

NEW GRILLE DESIGN WINS R+T'S INNOVATION AWARD

Dutch company wins for Stackdoor

Over the last century, the words “grille” and “innovation” have rarely been found in the same sentence. But that changed in February, when the new Stackdoor from the Netherlands won R+T 2018's coveted Innovation Prize in the category of doors and gates.

Featuring a unique stacking mechanism, this new grille offers a high degree of strength and security. It requires minimal installation space; instead of rolling up, the door's slats stack as the door opens. This feature makes it possible for the grille to take many shapes, such as round, curved, or with corners at a desired angle. When closed, the door locks itself so that it cannot be lifted.

The inventor is 50-year-old Tammo Schut of the Netherlands. We were so intrigued by his invention, we asked him several questions about his process and his product.

When did you first get involved in the door business?

After high school, in 1987, I enlisted in the army, where I was trained to be a car mechanic. In 1990, I started working for a roller shutter company as an installer.



OUTSIDE THE BOX: Tammo Schut, the inventor, has “a different way of seeing things.”



What is in your background that enabled you to be such an inventor and entrepreneur?

I have been technically oriented all my life. I have tried to come up with solutions for many kinds of problems. As a teenager, I was always fixing bikes, and as I grew older, I worked on motorcycles and cars.

I think it's in my character. People often try to improve something and stay in the thinking pattern of the product. I often find that I have a different way of seeing things, which can lead to new ways to solve a problem.

continued on page 50



CURVED: The unique stacking design eliminates the need to roll up the door, which allows doors to be made with a curved configuration.

What prompted you to change the name of the company and focus entirely on the Stackdoor?

When we realized that Stackdoor was well received in the market, we started to divest some activities and focus entirely on Stackdoor. We want to make Stackdoor known as a brand name, so we decided to call the company Stackdoor Products BV.

What were your greatest risks in creating the Stackdoor company?

The biggest risk, I think, was that we had to eliminate all competitive products in order to promote this new type of door. To compensate for the loss of income from the sale of those competitive products, we had to sell more Stackdoors.

continued from page 48

What were your job responsibilities at the roller shutter company?

I started as an assistant mechanic, installing roller shutters, but I soon became a mechanic and then the chief of the mechanics.

In 1996, I left that company and became a self-employed independent installer. I quickly realized that installation alone was not going to be enough, so I started producing and selling doors. I installed during the day but did production in the evening.

I was responsible for all areas of the business. My preference has always been with technology, but I also have had to manage sales, finance, planning, and production.

How did you develop the idea for the Stackdoor?

In 2013, after an economically difficult period, I started thinking about a completely new product. Because of the recession, the profit margins for traditional shutters were slim; there was hardly any money to be made. I had to let go the person who did all the technical drawings, and I learned to draw in 3D myself. This allowed me to create my first drawings of the Stackdoor that had been in my mind for some time.

One evening, we went to produce the first profiles at the factory to see if my thinking was right. At first, no one believed that it could really turn into something. But after we drilled a bunch of holes into slats and connected the slats with threaded pins, they were all convinced.

How long did it take you to create your first prototype?

It took about three months to create the first working model.

What was your first indication that this door might be quite successful?

We saw that immediately. I applied for a patent very quickly, and then I showed it to two roller shutter manufacturers. They were immediately impressed, and both wanted to participate.

What were your greatest obstacles in creating the company?

One obstacle was to get the market to accept this new door as safe and functional. But the biggest obstacle was the financial side. Putting a new product on the market costs money.

The first working product was good, but it was relatively more labor intensive (compared to a shutter of the same size), and it could not be produced quickly enough. So we acquired some investors so that we could improve production and secure patents outside the Netherlands and Europe.

To your knowledge, is there anything like it anywhere in the world?

Not that I know of. Even at R+T in Stuttgart, professionals from all over the world said that they have never seen a system like this.

How many Stackdoors have now been installed, and where are they?

There are about 500 or 600. They are mostly in the Netherlands, with some in Istanbul, Prague, Paramaribo, and Kuwait.

What are the advantages of this door over a traditional rolling grille door?

There are many.

- 1. Due to the stacking design, much less installation space is needed.
- 2. This design allows us to use a wider profile that makes the grille very strong.
- 3. The grille doesn't need a lock.
- 4. It cannot be lifted.
- 5. We can make large spans of 20 meters or more.
- 6. The stack of slats is always small, and we do not need a larger drive shaft like a roller shutter does.

continued on page 52

continued from page 50

7. Freedom in design. We can make shapes, round grilles, grilles in a corner, or combinations of radius and straight.
8. We can turn it upside down, allowing us to place the stack of slats in the ground.
9. We can make the grille in color without damaging it.
10. The thin axle eliminates the need for heavy lifting by installers.
11. Since we do not have a big drive shaft or shutterbox at the top, we have fewer additional costs.
12. This simpler design also allows ceilings and heaters to be placed near the door. I can list more ...

Comparing a traditional grille door to a Stackdoor of the same size, what is the approximate difference in price?

That is difficult to say. In the Netherlands, they cost a bit more than the cheapest rolling grilles, but you get a lot more value for money. No locks are needed, and you have fewer additional costs. There are also several types of rolling grilles that cost more, so we are competitive.

How has the Innovation Prize affected the future prospects for sales of this door?

The innovation prize has made us known in many countries around the world. This has resulted in several direct requests and sales. But more importantly, we have received a lot of interest from companies that would like to assemble and resell. There are more than 300 companies from 51 countries that have shown interest. As a result, Stackdoor is at the beginning of becoming an international large company.

In terms of innovations in the grille door industry, is it fair to say that this is the first major innovation in grille doors in 50 years?

To my knowledge, I would say 50 to 100 years. There has been a lot of improvement in rolling doors and shutters, but they always use the same system. Stackdoor is the first system of its kind.

For more information on this product, go to www.stackdoor.eu. ■



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