



# FLOOR LOCKING TECHNOLOGY

*For stronger and longer-lasting floors*



# Välinge Innovation Installation system experts

We are globally recognised for our **innovative flooring technologies**, and we are especially well-known for having the **easiest, fastest, and most reliable** installation systems available. As inventors of the first ever mechanical floor locking system and with over 30 years in the business, we dare to say that we know floors and more specifically – floor locking systems.

A high-quality installation system increases performance and longevity of the floor, it makes installation easy and ensures **lasting results** with no gaps between the panels, no unevenness or squeaking.

Our outstanding installation systems have revolutionised the industry several times and we have forever changed the way people install floors all over the world. With our technologies it's possible to get **leakproof seams, stronger connections**, and greatly **enhanced product longevity**. Installation is always a breeze whether done in rows, squares or in more advanced patterns – we even have a perfect solution to let the floor climb the wall!

Are you looking to improve your products with outstanding qualities?

**We customise our solutions to perfectly suit your needs!**

“ We are visionaries, and we believe in reinventing the future and transforming tomorrow with innovative solutions and creative ideas. Developing cutting-edge technology is an important part of our plan to create long-term change.

Laetitia Kimblad, Floor Locking Director at Välinge



## We plan to create change

At Välinge, we are committed to creating long-term improvements with global impact. Through our ground-breaking inventions and advanced technologies, we strive to contribute to powerful change and lead our industry forward. Our goal is to continue to find new ways to shape our future and to forever challenge conventional ideas.

There is a rapidly growing demand for more sustainable flooring options and finding long-lasting alternatives with less environmental impact is becoming more and more crucial for consumers investing in new flooring. Thanks to our advanced technologies, it is now possible to create smarter and longer-lasting products with features such as leakproof seams, exceptionally strong connections, inserts in more sustainable materials and vastly improved opportunities to reuse and recycle products.



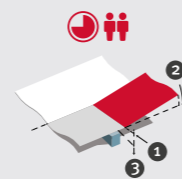
## Enhance the customer experience

Choosing the right installation system for your flooring is what makes all the difference for the end-consumer experience. To increase customer satisfaction, it is important to offer products that are quick and easy to install and provide reliable, long-lasting results, which is exactly what a high-quality floor locking system ensures.

There is no one-size-fits-all solution and attributes such as material, format and thickness of the panels play key roles in finding the perfect match between product and locking system. Ensuring the perfect fit for specific products requires experience and expertise, but the right choice makes installation fast and effortless with beautiful floors that stay the same throughout their lifetime as a result. Ultimately, this leads to happy customers and great reviews – a win-win for everyone involved!

Not sure what you need? **Let us help you!**

### Angling



A robust installation system providing strong vertical and horizontal locking. Suitable for all materials.

### Push Down



One-piece installation technology with integrated locking system. Especially well-suited for resilient products.

### Fold Down















The fastest, easiest, and most reliable locking system. Available in various upgrades and fits all materials.

## Locking systems that last a lifetime



Our innovative installation systems improve floor quality and performance and ensure user-friendly products that are easy to install. With the possibility to add several additional features, our versatile locking technology enables floor installations that perfectly fit all parts of a modern lifestyle.

Locking technology		Possible upgrades			
		 Dry	 Climb	 Cross	 Herringbone
Angling	 <b>2G</b> The robust locking system for solid horizontal and vertical connections.	•			
	 <b>2G PRO</b> For superior performance, enhanced locking strength and improved durability.	•			
Push Down	 <b>5Gi</b> Integrated locking system with strong, secure connections.	•			•
	 <b>5Gi PRO</b> Optimised one-piece installation with enhanced durability.	•			
	 <b>ONEPUSH</b> A flexible one-piece system for easy and tool-less installations.				
Fold Down	 <b>5G</b> The fastest, easiest, and most reliable installation system available.	•	•	•	•
	 <b>5G PRO</b> Enhanced vertical locking strength for truly long-lasting results.	•			
	 <b>5G NXT</b> Take floor installations – and re-installations – to the next level.				



# PRO performance The ideal upgrade for resilient floors

Our new and exceptionally strong installation system, 2G PRO™, makes it possible to easily upgrade your resilient products with superior strength and durability. Combined with our fold down or push down systems you'll optimise product performance with vertical connections that are up to two times stronger and greatly enhanced product longevity.



## ANGLING

### Superior strength and durability

Improve your resilient products with significantly enhanced locking strength and increased longevity using our brand-new, updated angling installation system.



## PUSH DOWN

### Optimised one-piece system

Boost your resilient products with much enhanced strength and durability. Combine the improved long side PROfile with our 5G-i® technology for strong, reliable push down installations or use it with our favoured 5G® Fold Down to further improve the results of the market's fastest and easiest installation system.



## FOLD DOWN

### Stronger and more long-lasting than ever

# Stronger and more durable angling installations

## PRO Strength

Optimised products with up to two times stronger vertical locking.

## PRO Durability

Significantly improved longevity benefit consumers and the environment.

## PRO Performance

Reliable results without height differences during the lifetime of the floor.

Our new and improved angling installation system, 2G PRO, significantly enhances strength and longevity of resilient floors. It maximises performance and offers up to double vertical locking strength along with greatly improved durability.

### Up to two times stronger installations

Vertical Load tests show that flooring, as thin as 3,5 mm, double their locking strength when profiled with 2G PRO instead of traditional angling or snapping systems.

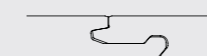
### Increased product longevity

2G PRO significantly increases flooring durability and ensures long-lasting results making it a smart choice for both consumers and environment.

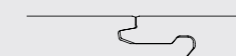
Castor Chair tests show that resilient flooring using 2G PRO can withstand up to three times as many revolutions as the same product equipped with a traditional angling installation system. The improved quality allows products to handle heavier traffic which can lead to existing products reaching Class 31 and Class 32 standards simply by upgrading to this fine-tuned profile.

5G® and 5G-i® are registered in inter alia European Union, United Kingdom, USA. Please contact Vålinge for further information about trademark registration in other countries.

## PROFILE EXAMPLES



Short side



Long side

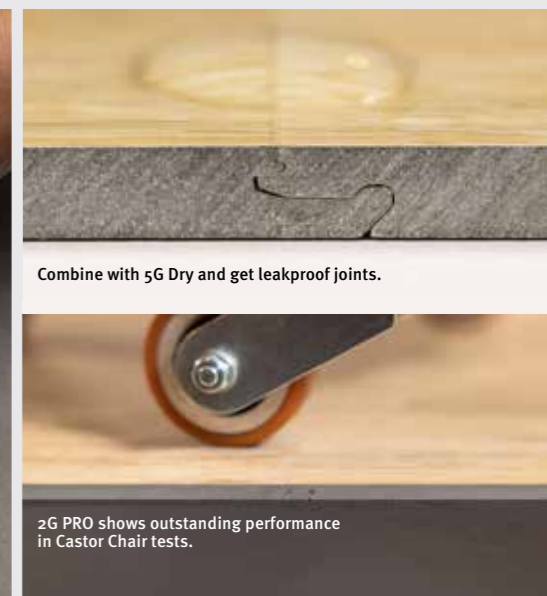


## Time to go PRO

- Up to two times stronger.
- Durable results with long-term benefits.
- Maximum performance, minimum effort.



Angle the panels to engage the locking mechanism and get strong, dependable installations.



Combine with 5G Dry and get leakproof joints.

2G PRO shows outstanding performance in Castor Chair tests.



# Push Down installation with integrated strength

## One-piece system

No need for inserts, the locking system is integrated into the core.

## Secure results

Extra strong locking for reliable and lasting installations.

## Versatile solution

Makes it possible to install a wide range of flooring patterns.

5G-i is our efficient one-piece installation system especially suitable for resilient floors. With the smart locking element integrated in the core of the floor panel strong and secure connections are ensured.

### Reliable, strong connections

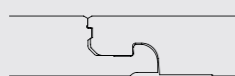
5G-i enables one-person installations where the panel is angled into place on the long side and then pushed

down. As it folds down, the locking strip is designed to smoothly bend due to each panel's guiding surfaces. When the guiding surfaces pass each other, the locking strip flexes back and pulls the folded panel down into a perfectly aligned and securely locked position. Tapping with a soft mallet ensures the secure connection and results in durable flooring with maximum strength for its category.

### PROFILE EXAMPLES



Short side 5G-i



Short side 5G-i Dry

Choose 5G-i PRO™ and get up to double vertical locking strength and much improved product longevity!



# Push Down installation with enhanced flexibility

## Durable installation

Strong, durable push down installation done without tools.

## Extra flexible

Lower risk for panel damages during installation.

## Easy dismantling

Simply angle the panels out to take them apart.

Onepush™ is our brand-new, integrated installation system. It ensures strong horizontal and vertical locking strength, has built-in flexibility that reduces the risk of panel damage during installation, and it makes resilient products fast and easy to install.

### Integrated flexibility

Onepush's unique flexibility is created in a post-forming process that makes it possible to shape the joint with with heat and pressure. The result is a flexible locking system that facilitates installation and creates more durable products.

### Tool-less installation with lasting results

Onepush allows panels to be easily pushed down without needing tools, this means less stress and damage to both joints and panels and leads to fewer complaints and happier customers.

### Innovative collaboration

Onepush is the successful result of an exclusive collaboration between Välinge and the European companies Inovame and Kreafin, which together developed the post-forming production method.

### PROFILE EXAMPLE



Short side

Push down the panels to engage the locking mechanism and get strong, dependable installations.



This flexible one-piece system is created through a post-forming process involving heat and pressure.



Tool-less installation. Panels are simply pushed into place.





# Fast and easy fold down installations

Our 5G Fold Down technology is globally recognised for providing the market's fastest, easiest, and most reliable installation experience available. It's known as the first locking system to truly make floor installations effortless without the need of glue, nails, or any other time-consuming maneuvers. It is based on a single action installation method that perfectly suits all types of products regardless of material, width, or thickness.

We are innovators and we continuously strive to develop improved and upgraded solutions perfectly in tune with

market demand. Without losing any of the sought-after advantages 5G Fold Down is renowned for, we have evolved the technology even further. You can now get leakproof joints, longer-lasting products, exceptionally strong connections, inserts in more sustainable materials and vastly improved opportunities to reuse and ultimately recycle products.

5G Fold Down makes floor installations easier – and faster – than ever!



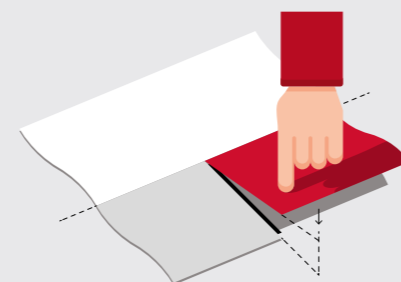
5G Fold Down installation



Angling installation



Snap installation



# It's time to take the NXT step

**Improved insert**  
The same strong, reliable connection in more sustainable material.

**Easy dismantling**  
Install, remove, and reuse. Again, and again.

**Durable results**  
Enhanced product performance and longevity.

5G NXT™ is a brand-new update of our well-proven 5G technology. Designed to contribute to further reducing the environmental impact of wooden floors and to meet new demands for more sustainable options.

**More sustainable inserts**  
The upgraded insert is made from biomass-balanced materials with 75% lower carbon footprint, creating a more sustainable option without compromising on the strong, durable results all our locking systems are known for.

**Take apart piece-by-piece**  
With 5G NXT, you can take floor panels apart piece-by-piece simply by tapping them. There is no need to remove an entire row and dismantling is done without using tools. This makes dismantling up to 40% faster and significantly reduces the risk of damaging the panels in the process, compared to traditional solutions.

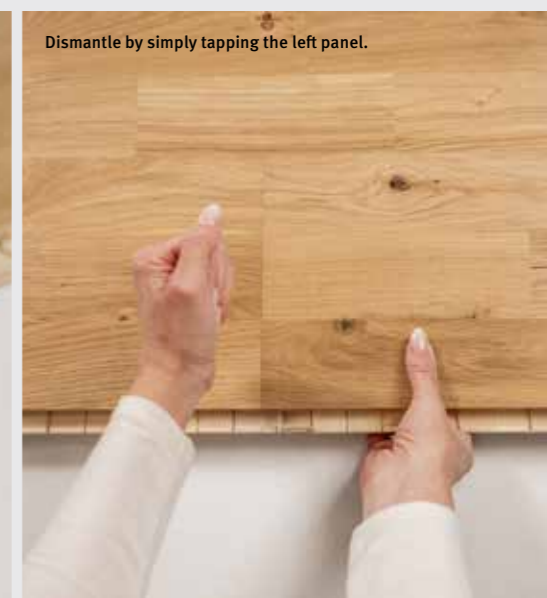
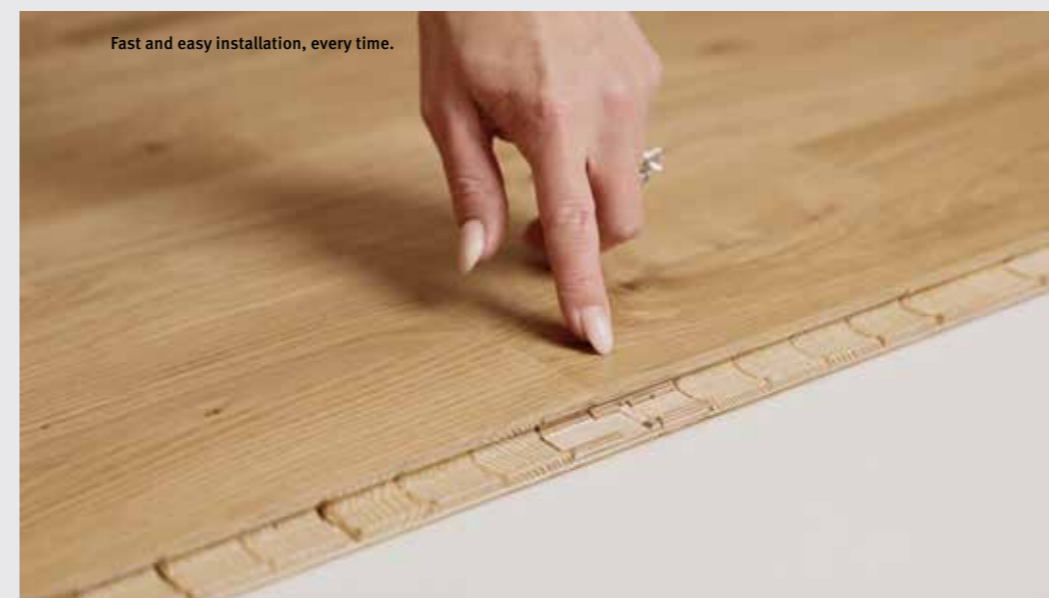


**Install. Remove. Reinstall. Repeat.**  
The unique fold up feature added to 5G NXT makes it possible to install, remove and re-install flooring. Again, and again. Always with the same reliable and long-lasting results.



“Välinge’s 5G technology makes installation of our products much easier and the reliable connections make the results last longer.”

Vern Verkley, President Opus Floors





# Bring 5G to your floor

## User-friendly

Tool-less and timesaving installations for both professionals and DIYs.

## Easy installation

Get reliable results with the fastest and easiest fold down installation on the market.

## Lasting results

Durable installation with enhanced performance and longevity.

5G Fold Down is the most versatile, reliable, and installation-friendly floor locking system available. It is the first locking system that truly makes floor installations fast, easy, and enjoyable for everyone – professional or DIY. All you need for a successful installation experience is one person, one pair of hands and a single movement. It's as easy as that!

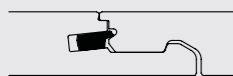
### A market-leading solution

When a panel is folded down, a flexible 5G insert is pushed into an insert groove. As the panel reaches its final position, the 5G insert snaps out into a wedge groove, emits a "click-sound" and perfectly locks the product, both vertically and horizontally.

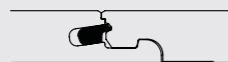
### 5G INSERT EXAMPLE



### PROFILE EXAMPLES



Laminate



LVT/SPC & WPC

Choose 5G PRO™ and get up to double vertical locking strength and much improved product longevity!



# No leaks, no worries

## Secured result

Great results in the 'NALFA 48 hours test' and significantly lower edge swelling.

## Leakproof joints

Get joints that prevents water from harming floor panels and reaching the subfloor.

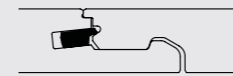
## Easy Installation

Get reliable results with the fastest and easiest fold down installation on the market.

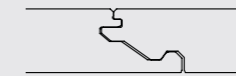
Waterproof surfaces are great, but to ensure success you need a leakproof installation system. If liquids start to seep through the joints of the floor panels, a water-resistant top won't help, instead there is a great risk that both panels and subfloor will be harmed. With 5G Dry® the risk of leaking joints, surface swelling and water-damaged subfloor is successfully prevented.

5G Dry has the same fast, easy, and durable installation as the popular 5G Fold Down but with a watertight joint. It pairs perfectly with both wood-based, laminate, and resilient flooring options. The result is long-lasting, leakproof seams and no need to worry!

### PROFILE EXAMPLES



Short side



Long side

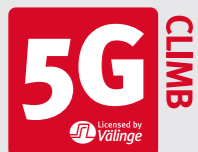
5G Dry® is registered in inter alia China, European Union, United Kingdom, USA. Please contact Välinge for further information about trademark registration in other countries.



Many flooring products claim to be waterproof, but a surprisingly large amount in each category failed to live up to their claims and leaked water through the joints.

**Percentage of floors with failed test results**

- 25% of laminate products
- 48% of engineered wood products
- 72% of resilient products



# Click and climb Let your floor climb the wall

## 2-in-1

Use your floorboards to create a stunning accent wall.

## Versatile

Enables multiple pattern installation and fits all materials.

## User-friendly

The clips easily secure floor panels and support rails.

5G Climb® is an intuitive technology that makes creating beautiful accent walls really easy. Simply use your floorboards as wall panels and support rails and secure your floating installation with our unique, user-friendly 5G Climb clips. This versatile solution allows

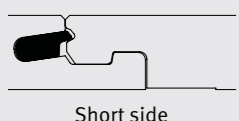
panels to be used horizontally, vertically, at an angle or even in a herringbone pattern – all depending on taste and preferences. Installation is simple and dismantling is easily done without damaging the panels to ensure they can be reused elsewhere.



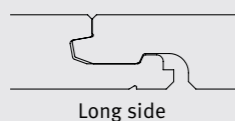
### << New and improved!

One 5G Climb clip handles decorative panels in multiple thicknesses and it's compatible with 5G Dry for leakproof seams.

### PROFILE EXAMPLES



Short side



Long side

5G Climb® is registered in inter alia China, European Union, United Kingdom, USA. Please contact Vålinge for further information about trademark registration in other countries.



# Keep your pattern forever in line

## Lasting results

Panels stay in the desired positions without risk of movement or shifting.

## Easy installation

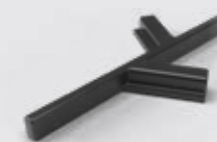
Straight set installations have never been easier, faster, or more reliable.

## Ceramic look

Add 5G Dry and Decorative Groove for the authentic look of ceramic tiles.

5G Cross® is our revolutionary solution that makes straight set floor installations fast, easy, and effortless. Thanks to the unique cross component it's finally possible to install floors in rectangle and square patterns without panels moving or shifting. It works with all materials, is

compatible with 5G Dry and can be combined with Decorative Groove to get the authentic look of a stunning ceramic floor without using grout or any other time-consuming manoeuvres.



### << Brand-new!

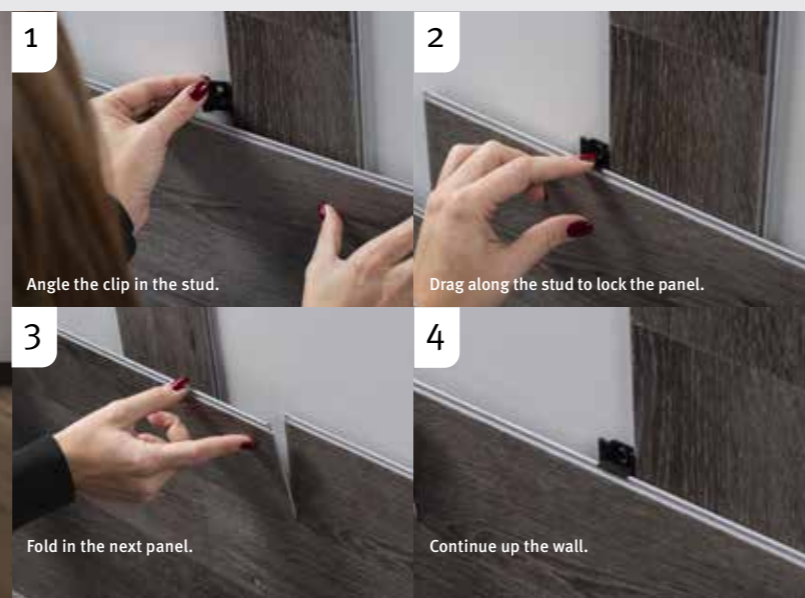
Our new component makes installation of long-lasting chevron patterns easier and more reliable. It secures panel positions and ensures reliable and durable results.

### New and improved! >>

It's the unique 5G Cross component that enables lasting straight-set floor installations without any risk of panels moving or shifting.



5G Cross® is registered in inter alia European Union. Please contact Vålinge for further information about trademark registration in other countries.



1

Angle the clip in the stud.

2

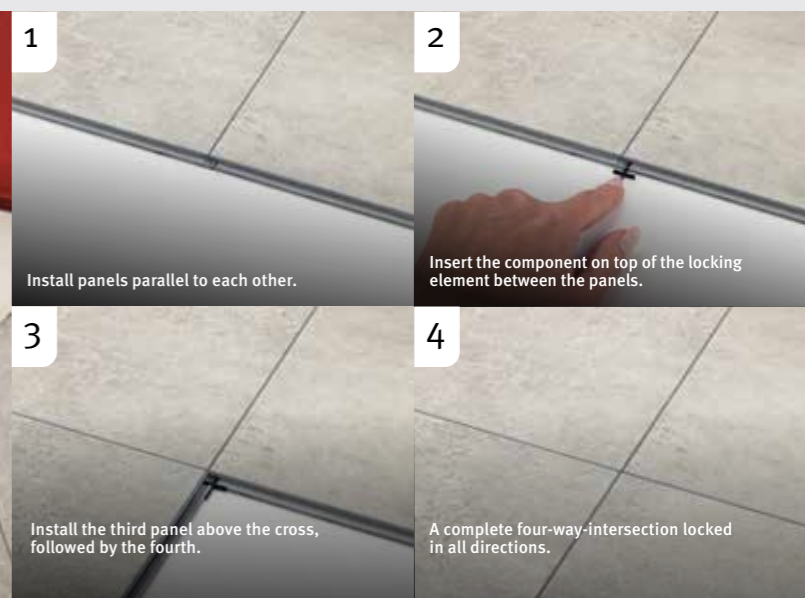
Drag along the stud to lock the panel.

3

Fold in the next panel.

4

Continue up the wall.



1

Install panels parallel to each other.

2

Insert the component on top of the locking element between the panels.

3

Install the third panel above the cross, followed by the fourth.

4

A complete four-way-intersection locked in all directions.



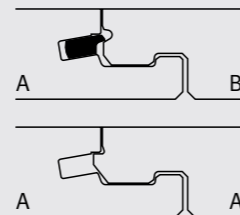
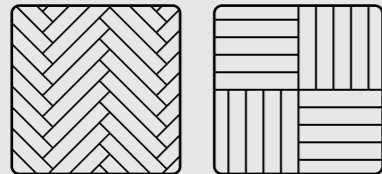


## Flexible pattern installation

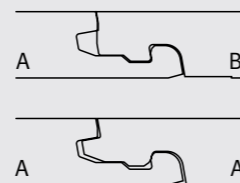
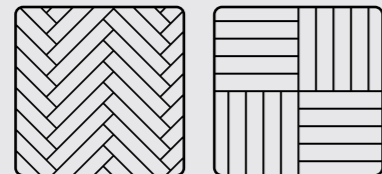
Do you prefer flooring in a herringbone pattern, square baskets, parallel rows, stone pattern or in straight sets of squares?



Unlike the standard 5G installation system, the solution for pattern installation has a locking insert on the long side of the panel. This enables fast and easy installation of flooring in different patterns.



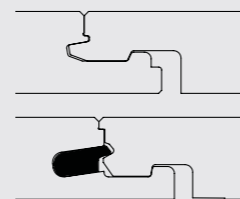
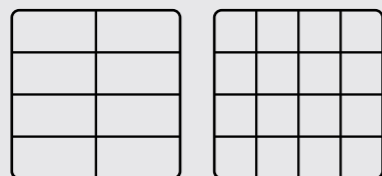
5G-i is a one-piece system that ensures easy installation of floors in classic patterns like herringbone, stone, or square baskets.



The ideal system for installation of rectangular or square tiles in a straight pattern. 5G Cross keeps panels in the desired position without the risk of panels moving or shifting. Suitable for all materials

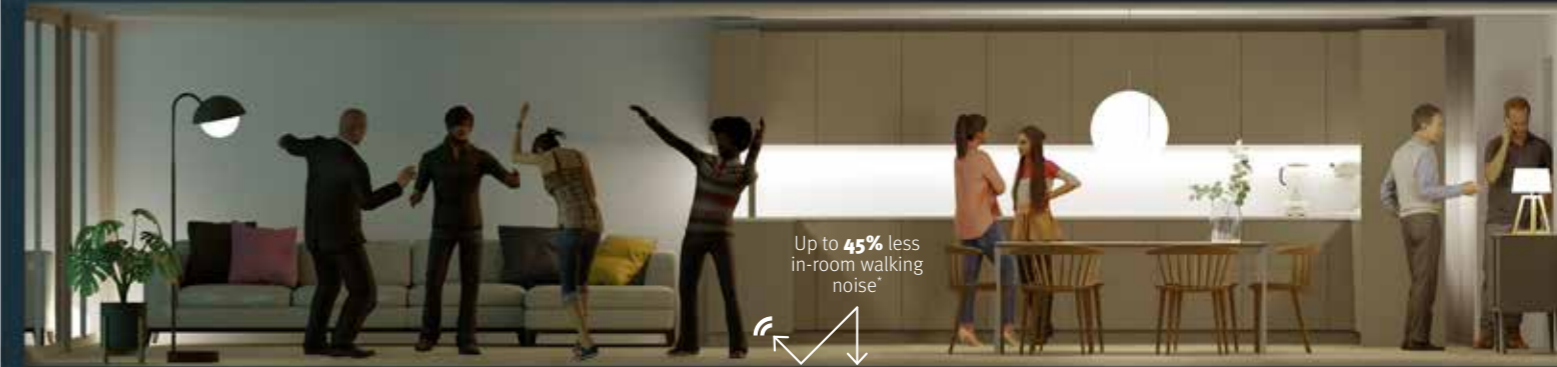
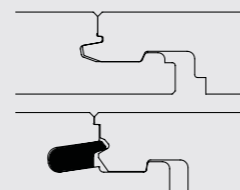
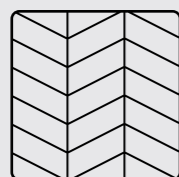


Straight set



Our brand-new cross component makes installation of long-lasting chevron patterns easier and more reliable. It secures panel positions and ensures durable results.

Chevron



Up to **45%** less in-room walking noise\*



### Noise-reducing floors

A healthy sound environment creates harmonious atmospheres in both residential and commercial spaces. Flooring produced with our Liteback technology brings several acoustic advantages. It's a unique solution that enables significant reduction of in-room noise levels and improved sound insulation between floors.

Up to **60%** better sound insulation\*



## It's time to redefine resilient flooring

Välinge's floor locking technologies provide all products with great benefits and increased longevity. Our Liteback® technology brings additional benefits to resilient floors and enables production of high-quality LVT, SPC and WPC products with noise reducing properties and significantly lower environmental impact.

### A more sustainable choice

Liteback enables production of floors with less environmental impact in several ways. It removes up to 20% of the raw material that

can be recycled and reused in new products. Less material consumption leads to lighter products and brings benefits such as less packaging material, easy handling, more efficient transportation and ultimately significantly less CO2 emissions.

### Low weight, high quality

Products become lighter but not thinner, which allows a robust and reliable locking system to be used without having to compromise either quality or performance.

Liteback® is registered in inter alia China, European Union, United Kingdom, USA. Please contact Välinge for further information about trademark registration in other countries.

# Production solutions

The key to our 5G technology is the flexible plastic insert. We supply all 5G licensees with the appropriate inserts and can provide high-speed 5G inserters machines that fit easily into an existing line setup.



## 5G inserts

Dimensions, durability, aging, and physical properties of our inserts are continuously controlled and tested to ensure that the lifetime of the locking insert matches that of the floorboard. To secure worldwide availability all inserts are produced in Sweden and China.

## High-speed inserter machines

Our high-speed insert machines are designed for all 5G inserts. By using fixed positions for the different insert sizes, potential operator errors are minimised, and module changes are easily made within 10 minutes. They have a small footprint, are easy to integrate in profiling machines or on a DET foundation and can be combined with a jumping motor.

The 5G inserter Gen 21 from Vålinge is especially designed for flooring applications and fulfills demands on both flexibility and performance in the production line.



“With our expertise, it is easy to choose the right technology, ensure smooth implementation, optimise production and get the technical support needed. And, we use our global network to help create new business opportunities.

Iris Maena Prada,  
Key Account Manager, Vålinge Innovation

# Reliable partnerships

We strive to be a reliable and responsible partner always committed to building long-lasting relationships. We continuously develop new, groundbreaking technologies and keep evolving our existing inventions, all with the intention to keep all our licensees at the top of the industry.

Partnering with us means you get market-leading technology, extensive support, and an experienced, reliable partner. To make sure all licensees get the perfect solutions for their needs and products we have a skilled team of global experts that secure top-class service at all levels and ensure a truly efficient implementation process.

Our services range from prototyping and testing, to training and production start-up. We make sure all licensees get optimised production set-ups through our close collaborations with several major machine suppliers and tool manufacturers. To create new and potential business opportunities we provide marketing support and instant access to our world-wide network of manufacturers, distributors, and importers.

## MARK YOUR QUALITY

The L2C label program is a worldwide authentication program that protects our licensees and their business partners. The method promotes fair competition and ensures the highest level of protection for Vålinge's licensed partners and their customers.

The numerically controlled identification program requires producers to attach a uniquely numbered holographic label to their boxes of licensed products. Products without labels are considered unlicensed products and

all parties trading with unlabelled products may be found to be infringing Vålinge's patent rights as well as other third-party patent rights that are included in a license from Vålinge.

### Do your products need labels?

The L2C labels are required on products from specific geographical markets. Contact us to see if your products require labelling: [label@valinge.se](mailto:label@valinge.se)



# Partnering with us is easy

We customise the experience to suit your needs and ensure smooth operations at every step.

**ASSESSMENT** We assess your product & production process to help you find the right technical solution based on our extensive patent portfolio and know-how.



**QUOTATION** You receive a quotation including down payment, license fees and costs for the 5G components and relevant production equipment.



**SAMPLES** We do profiling tests and profile optimization on your products at our R&D facility in Viken, Sweden or at our support center in Kunshan, China.



**LICENSE AGREEMENT** An agreement including license fees and other obligations from both parts is signed. The fees depend on several factors such as product category, technology, volumes and sales regions.



**PROFILE DRAWINGS** We provide you with master drawings for the chosen technologies optimised to your product build-up, in turn enabling you to order profiling tools from your preferred tool supplier.



**ORDER & INSTALLATION** If new machines are needed, our technical experts ensure smooth integration into the existing set-up and assist on site during installation.



**START-UP** Through technology transfer and start-up training at your facility, we help you get quickly started and secure the quality of your new products utilising our locking technologies.



**EXPERT SUPPORT** We support with everything from ensuring your products deliver maximum performance with our technology to offering our extensive marketing expertise.



**PARTNER** We aim to create reliable relations and support you with everything from new technology to access to our global network of industry-leading distributors and importers.

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