Volvo screeds 2.5-13m

FIXED SCREEDS

Volvo Construction Equipment

Welcome to our world

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

The road to success

Our range of road machinery combines the heritage of the Ingersoll Rand and ABG brands with the engineering excellence of Volvo. The result is a line-up of Volvo pavers and compactors which achieve an unrivalled level of quality, in both paving and compaction applications.

Building on our proud history, we continue to innovate our products to offer customers the best solutions for their operation. Our Compact Assist and Pave Assist products are just two examples of how we are developing intelligent solutions to ensure our machines deliver world-class performance and results long into the future.

Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

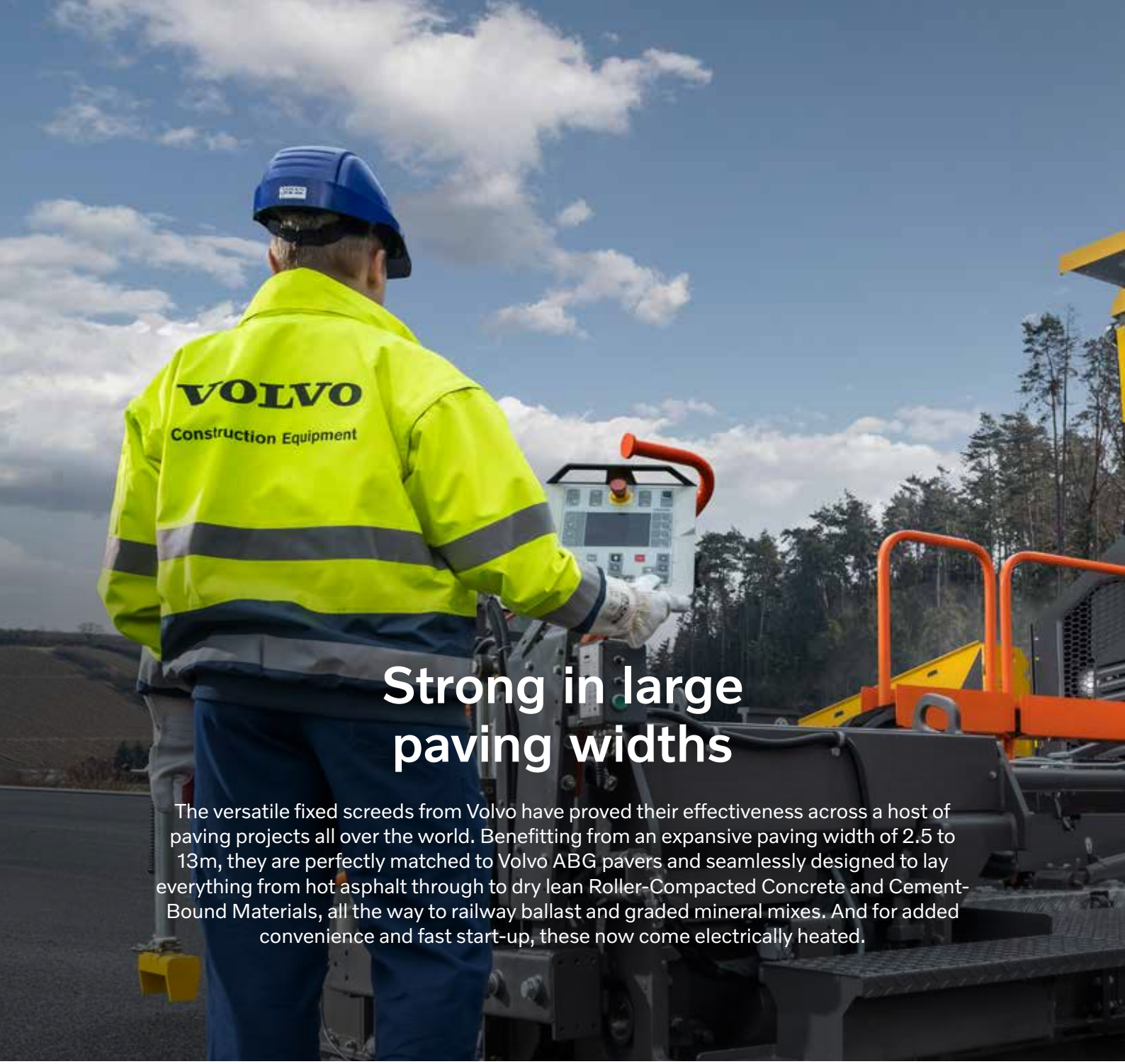
Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.

BUILDING TOMORROW



Strong in large paving widths

The versatile fixed screeds from Volvo have proved their effectiveness across a host of paving projects all over the world. Benefitting from an expansive paving width of 2.5 to 13m, they are perfectly matched to Volvo ABG pavers and seamlessly designed to lay everything from hot asphalt through to dry lean Roller-Compacted Concrete and Cement-Bound Materials, all the way to railway ballast and graded mineral mixes. And for added convenience and fast start-up, these now come electrically heated.

Versatile tamping and vibratory screed

Paving width of 2.5m up to 13m
- Variable tamper and vibration speed
- Double tamper technology available for higher pre-compaction of thick layers
- Crown adjustment + 4% /- 2%
- Range of extensions boxes
- Vario extension offers 750mm of flexibility to adapt to irregular widths

Electric heating

Powered by a 55kVA generator
- Quick startup: from 20°C to 120°C in just 40min
- 2 heating bars per screed element for optimized heat distribution
- Precise thermo-controlled heating with automatic temperature adjustment
- 3 individual temperature sensors - 1 per section (left, center, right)

Easy dis/assembly

- Use of 2 central lifting eyes per section enables easy lifting of screed sections
- Hose and cable routing channel
- Quick connection of Vario extensions with hydraulic connecting points
- Easy access to electric connections

Easy access to the screed thanks to low-height footsteps

Straightforward maintenance

- Easy access to service points
- Tamper bars within reach and fully hardened for long lifespan
- On-board diagnostic function for heating bars - replaceable without needing to disassemble extension boxes

Screed tensioning device

Optional anti-torsion device, recommended for paving widths above 7.5m

- Easy to assemble thanks to integrated outrigger with pipe in pipe system
- Highly robust

End gates for Vario extension

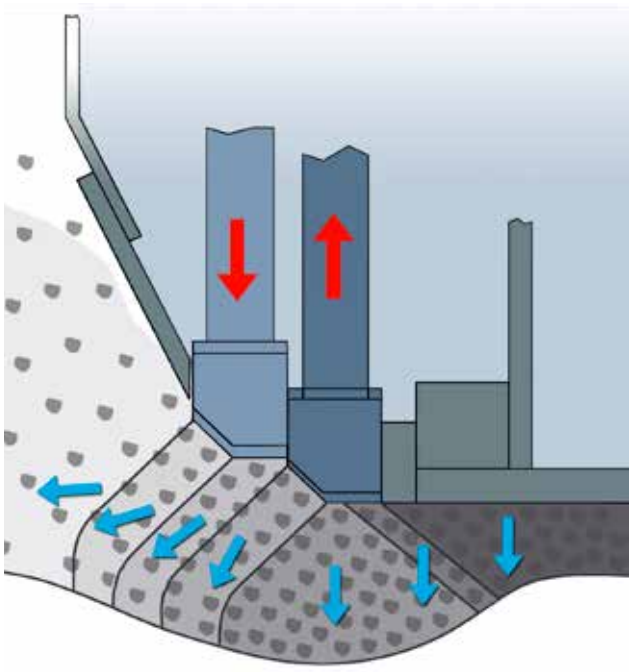
From Variomatic screeds

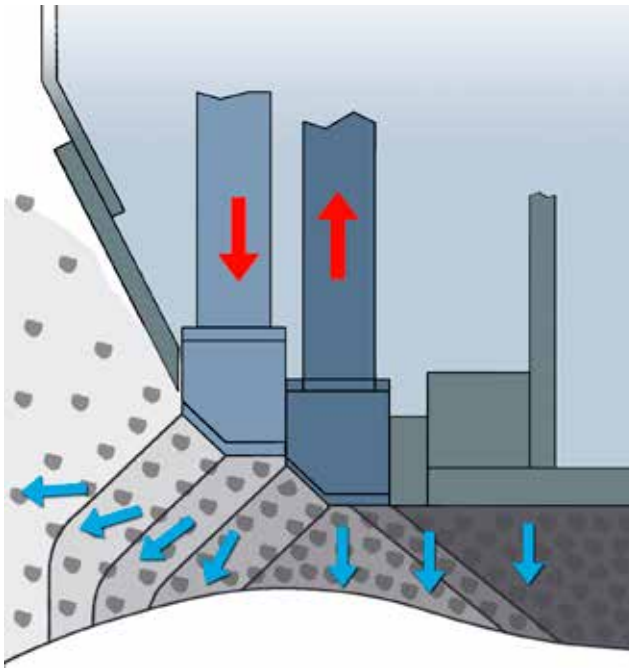
- Durable design, ergonomic operation
- Hydraulic height adjustment available

Screed status and behavior can be monitored by the paver operator from the Electronic Paver Management (EPM3) control panel

The double tamper technology

Volvo fixed screeds combined with double tamper technology are the best partners for paving thick layers, offering higher pre-compaction to optimize the cost-effectiveness of your projects.



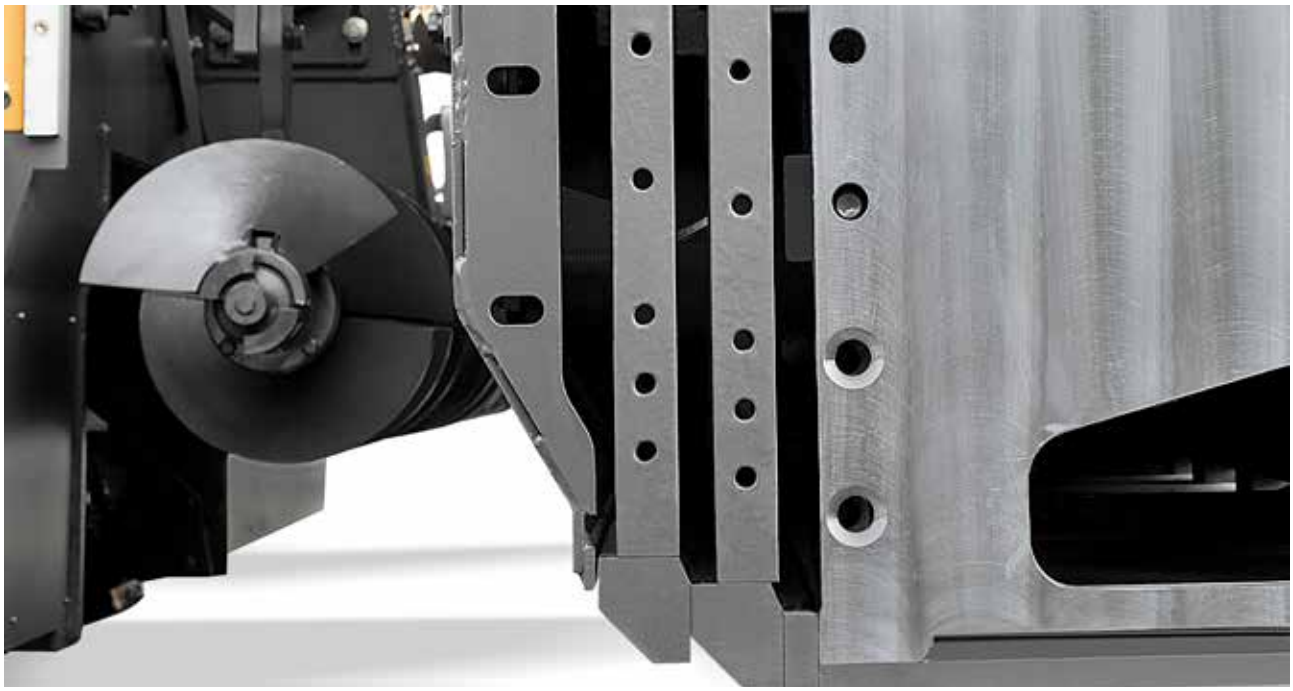


Where others fear to tread

Volvo fixed screeds equipped with double tamper have proven their worth in a variety of applications e.g. paving base, binder and wearing courses, granular materials, CBM, RCC, and even in special applications where traditional methods of compaction cannot be used such as the laying of bituminous sealing surfaces on dam slopes and high banking vehicle racing and testing circuits.

They are also excellently suited for the paving of special materials such as mastic asphalt with chippings or roller compacted concrete (RCC), which have to be immediately and speedily rolled directly after paving.

The double tamper technology delivers a 5-7% higher degree of compaction than with a single tamper and can achieve up to 98% Marshall density – substantially reducing rolling work requirements.



Twice as nice

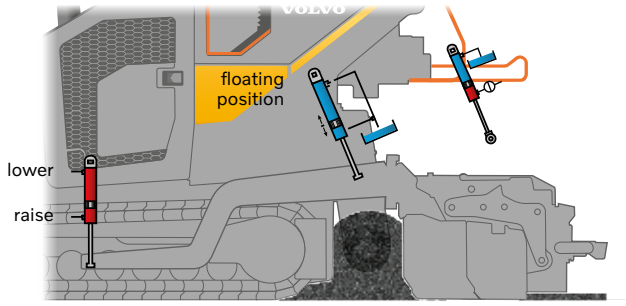
The main compaction work is achieved by the double tampers which lie in the material flow in front of the screed. They guarantee precise proportioning and consistent high density of the paving material over the full working width. Finished level tolerances are much more tightly controlled even with large variations in subbase conditions, thanks to the material being compacted twice before it leaves the screed. The vibration system subsequently ensures a smooth finish of the wearing course.

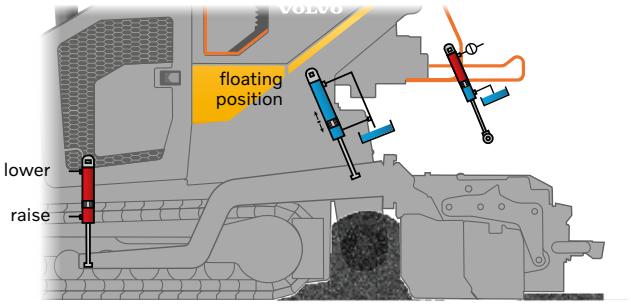
In view of the high degree of precompaction provided, only a few rolling passes are necessary. The required final compaction is achieved with a minimum of rolling and optimum evenness.

Paving quality under control

Ensuring the perfect balance is achieved, the material is paved according to the principle of a ‘floating screed’. The screed is typically articulated on the paver frame by means of a pair of towing arms, so that the screed appears to float on the material as it is laid by the paver.

In some paving situations, however, targeted control must be exerted over the screed. Volvo offers effective solutions for this.



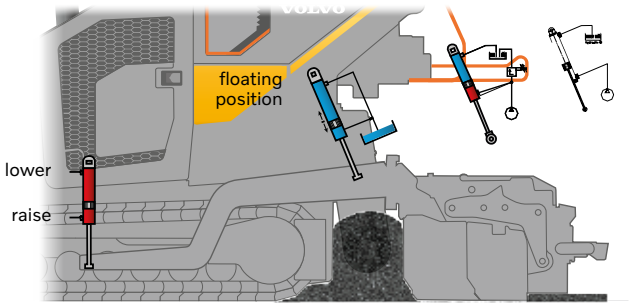


Screed hydraulic lock

The screed lock prevents the screed from sinking into the freshly paved asphalt when the paver stops. When applied, the screed is held at a consistent height by the cylinders. This function is switched off automatically when the paver restarts paving.

Screed anti-climbing lock

After an interruption in the paving process, e.g. due to material supply, the material will inevitably cool in the auger channel. When paving is continued, the screed anti-climbing lock cylinders works to eliminate any uneven surfaces that can then arise by exerting pressure on the screed over the first few meters so that it is not raised by the cooled paving material. As a result, the screed anti-climbing lock improves pavement quality by reducing the occurrence of bumps.



Screed Assist (option)

When paving material with a low loadbearing capacity, the screed may be at risk of sinking into the material owing to its weight, losing its positive angle of attack. In order to prevent this, part of the screed weight is shifted by the transport cylinder onto the paver.

Screed tensioning device (option)

For very large paving widths the screed end pieces are always subjected to torsion resulting from frictional forces between the screed and the paving material. These forces are effectively offset by the screed tensioning device, ensuring a constant angle of attack across the whole screed width. Thanks to a hydraulic cylinder, the length of the tensioning device can be adapted to follow different widths.

Take a closer look

On-board diagnostic function for heating bars

This new function helps to check the condition of the heating bars and detect if and where a replacement is needed, ensuring minimized downtime.

Low-height footsteps

Screed status and behavior can be monitored by the paver operator from the Electronic Paver Management (EPM3) control panel

Central lifting eyes

Hose and cable routing channel

End gates

Solutions for special applications

Volvo screeds are the result of decades of experience and close co-operation with our customers. Special designs and options have been developed over the years which extend the field of application for our pavers and screeds far beyond road construction. Some examples are below.

Ballast paving kit

Paver/screed combination in a special version for the placement of railway track ballast.

Edging shoes 30, 5, 7, 12 cm / 45° and 5 cm / 60°

Edging shoes are assembled below end gates for a defined edge finish.

Basic paving width reduction by 0.5 m

Reduction elements prevent material floating underneath the outer areas of the screed. As a result, it is possible to pave smaller areas than the paving width of the screed itself.

Specifications

		Single tamper screeds		Double tamper screeds	
Screed type		**MB122**	**MB122 Vario**	**VDT121**	**VDT121 Vario**
Basic width	m	2.5	2.5	2.5	2.5
Adjustment range	m	-	1.5	-	1.5
Max. paving width	m	13	12	13	12
Min. paving width	m	2	4.5	2	4.5
Screed extension	m	0.25	-	0.25	-
	m	0.50	0.5	0.5	0.5
	m	0.75	-	0.75	-
	m	1	1	1	1
	m	1.5	1.5	1.5	1.5
Reduction in basic width	m	0.5	0.5	0.5	0.5
Depth of base plate	mm	500	500	500	500
Tamper		1		2	
Stroke 1st tamper	mm	3/5/7/9		0/3/6/9/12	
Stroke 2nd tamper	mm	-		5	
Angle	°	45		45/50	
Width	mm	43		43/43	
Frequency	Hz	0 - 24.5		0 - 24.5	
Vibration frequency[2]	Hz	0 - 46.7		0 - 46.7	
Heating system		Electric		Electric	
Crown adjustment		Mechanical		Mechanical	
Adjustment range	%	- 2 / + 4		- 2 / + 4	
Weights					
Basic screed[3]	kg	1 907		2 105	
Extension 0.25 m	kg	141		151	
Extension 0.50 m	kg	245		266	
Extension 0.75 m	kg	460		538	
Extension 1.00 m	kg	528		619	
Extension 1.50 m	kg	750		877	
Vario extensions 1.00 - 1.75 m[4]	kg	1 376		1 531	

[1] Max. paving width depends on the paver model

[2] May vary depending on the paver type

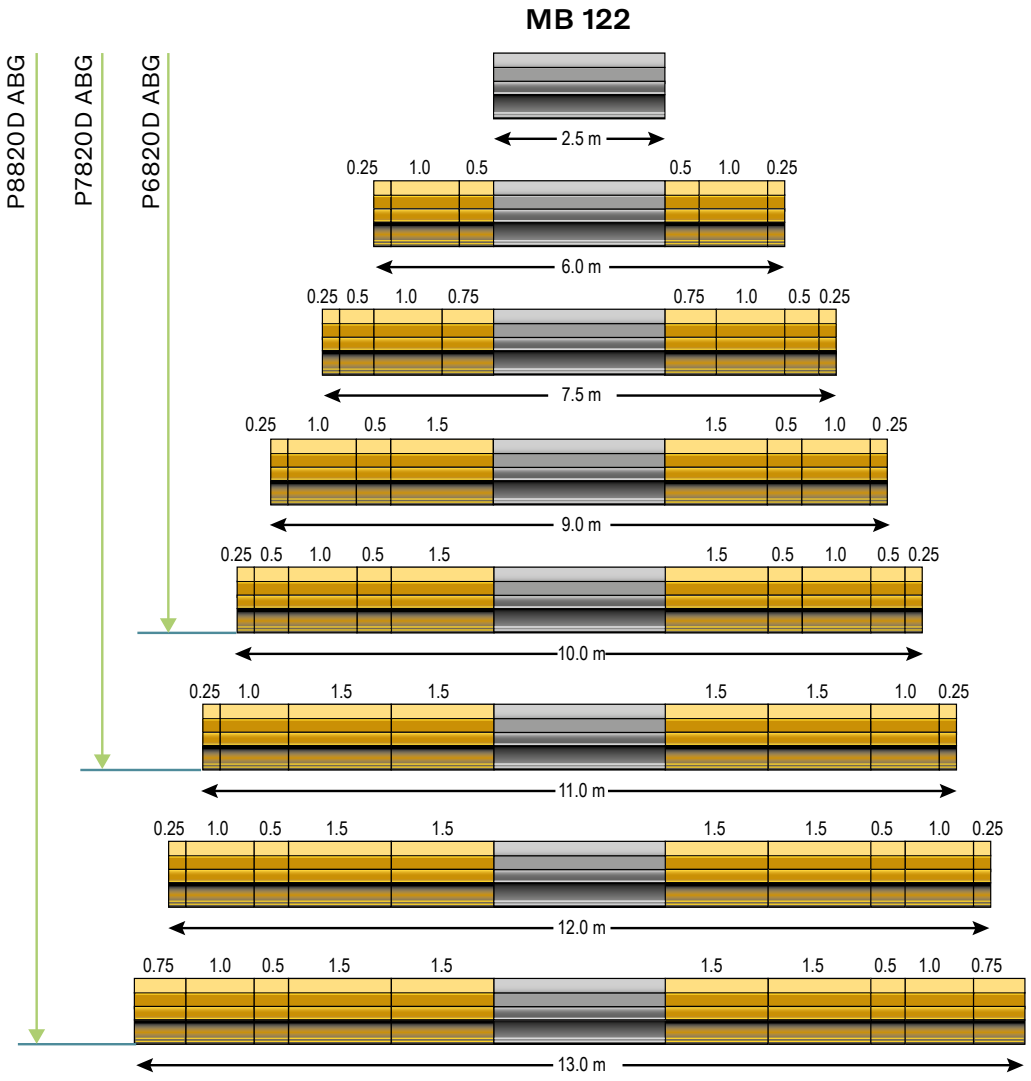
[3] Including towing arms and end plates

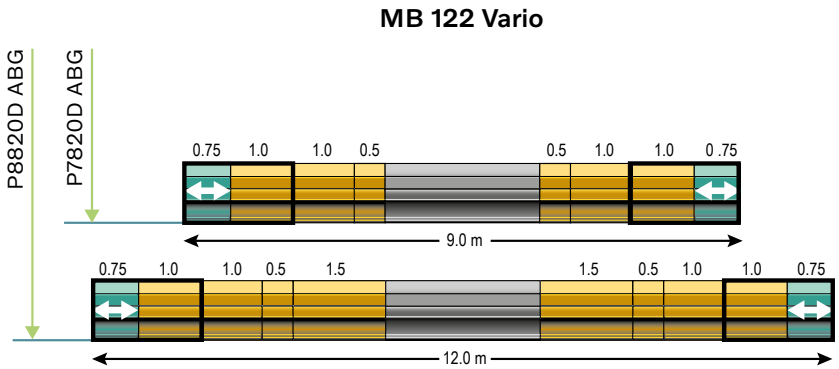
[4] Including end gates

MAX. PAVING WIDTH

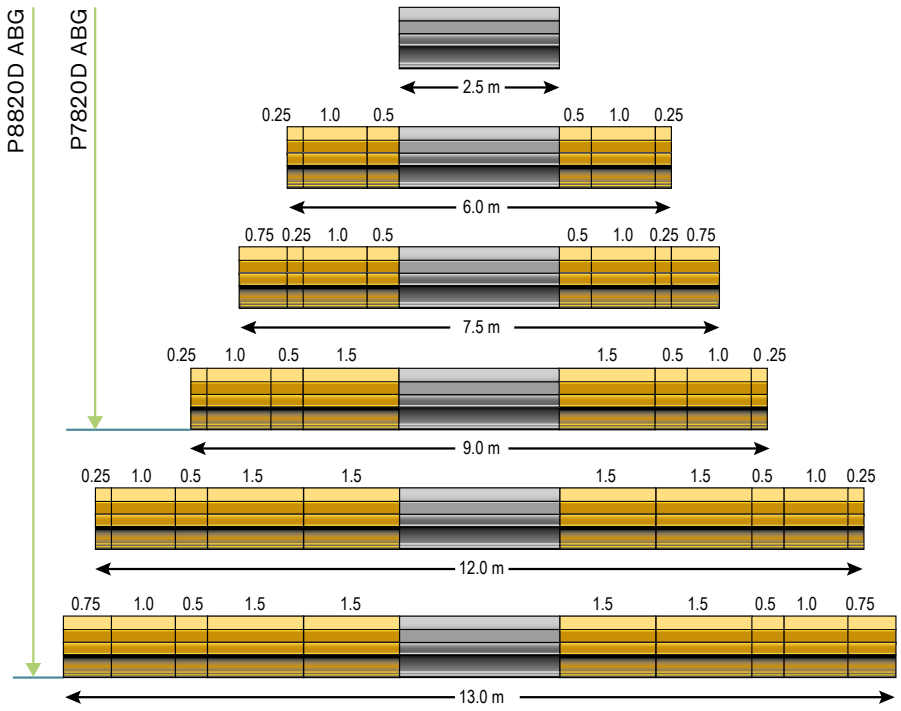
	Screeds with single tamper and vibration		Screeds with double tamper and vibration	
Screed type	**MB122**	**MB122 Vario**	**VDT121**	**VDT121 Vario**
	m	**m**	**m**	**m**
Basic width	2.5	2.5	2.5	2.5
P6820D ABG	10	-	-	-
P7820D ABG	11	9	9	9
P8820D ABG	13	12	13	12

Assembly plans

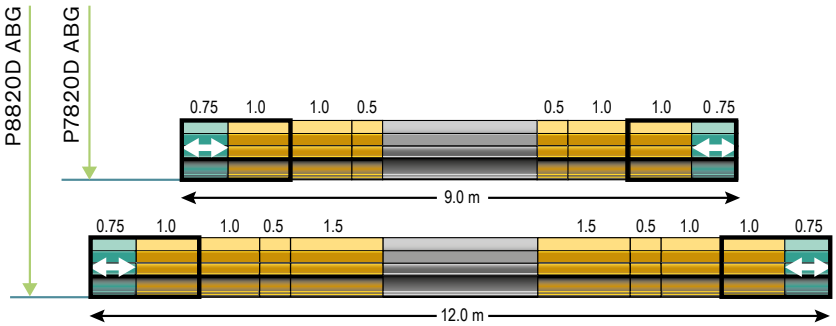




VDT 121



VDT 121 Vario



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