



# FIXED SCREEDS



# Volvo Fixed Screeds - Strong in large paving widths

The fixed screeds from Volvo have proved their versatility and effectiveness in a host of paving projects all over the world. They excel through their high quality and surface regularity, whether in a paving width of 2.5 m or 16 m.

## STANDARD FEATURES

- Variable amplitude selection of the tamper system
- Controllable vibration
- Crown adjustment + 4%/- 2%
- Gas heating with thermo-electric flame control
- Split towing arms

The Volvo fixed screeds for ABG pavers are combination tamping and vibratory screeds with a basic width of 2.50 m or 3.00 m. They can be specified with either single tamper or dual tamper system. The variable amplitude selection enables the operator to pre-selected the tamper amplitude according to the paving material and site conditions. The vibration system does not only obtain additional compaction, but also improves the surface texture, particularly when laying wearing courses.

All fixed screeds are also available in a Vario extension version with infinitely variable extendable ends.

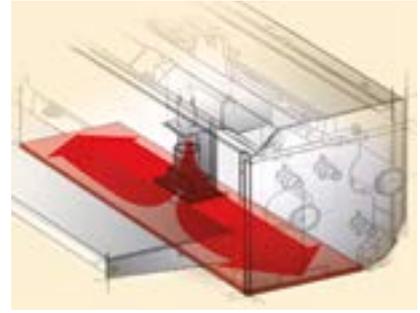
Volvo fixed screeds achieve world class paving widths of up to 16 m. In addition to all hot bituminous coated materials, dry lean, RCC and CBBM concrete courses, railway ballast and graded mineral mixes can be laid. They therefore cover a tremendous

spectrum of applications, ranging from local roads through motorways and airports down to special applications in landfill construction.

With the double tamper technology, extremely high pre-compaction is achieved, which is why Volvo screeds are in service in the most demanding projects.

Great ease of maintenance and the comprehensive operating convenience are typical of Volvo. The daily maintenance work is reduced to a minimum. The central EPM control panel provides graphical and numerical information on all paving functions so the operator is fully updated on the paving process.





**Screed extensions**

For the fixed screeds extensions with a length of 250, 500, 750, 1 000 and 1 250 mm are available which can be combined to obtain different paving widths.

**Vario versions**

All fixed screeds are also available as Vario versions. These Vario versions combine large paving widths with infinitely variable extendable screed ends in order to adapt to irregular edges. The extension range is 0.75 m on each side. The Vario extensions are extended and retracted from the external control panels so that the paving team can accurately follow the changing widths.

**Gas heating**

The efficient gas heating system has been so designed that an intensive and even heating up not only of the screed base plate, but also of the tampers bar is ensured. The heating process is controlled by a thermo-electric flame monitor. Simple assembly and dismantling thanks to screw-type electricity and gas connections.

**MAX. PAVING WIDTH**

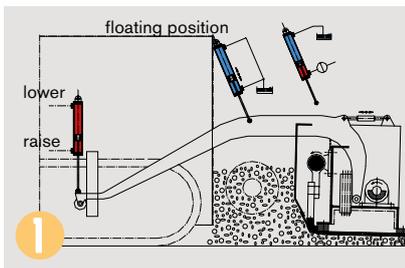
Type	Screeds with single tamper and vibration				Screeds with dual tamper and vibration			
	MB 122	MB 122 Vario	MB 120	MB 120 Vario	VDT 121	VDT 121 Vario	VDT 120	VDT 120 Vario
	m	m	m	m	m	m	m	m
Basic width	2.5	2.5	3.0	3.0	2.5	2.5	3.0	3.0
ABG6820	8.0	-	-	-	-	-	-	-
ABG7820B	10.0	-	-	-	9.0	-	-	-
ABG8820B	12.0	12.0	-	-	13.0	12.0	-	-
ABG9820	-	-	16.0	12.5	-	-	13.0	12.5





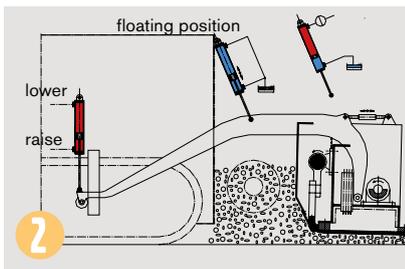
# The paving quality under control

The material is paved according to the principle of the floating screed. The screed is connected to the paver by towing arms and so it floats freely on the paved material. In some paving situations, however, targeted control must be exerted over the screed. Volvo offers effective solutions for this.



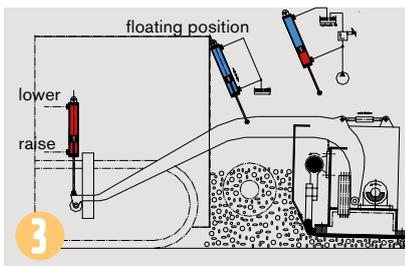
## 1 Screed hydraulic lock

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



## 2 Screed anti-climbing lock (option only for tracked pavers)

After an interruption in the paving process, e.g. due to material supply, the material cools in the auger channel. When paving is continued, the screed anti-climbing lock cylinders exert pressure on the screed over the first few metres 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.



## 3 Screed Assist (Option)

With paved material with a low load-bearing capacity, it may happen that the screed sinks 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 load device (option only for tracked pavers)

For large paving widths a screed load device is offered as a sensible extension to the screed anti-climbing lock. It prevents the occurrence of start-off bumps by exerting pressure on the screed for a short period after start-up. The force acts on a broad basis owing to the arrangement of the cylinders.

## 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 screed. Thanks to a hydraulic cylinder, the length of the tensioning device can be adapted to follow different widths. It is recommended to use the tensioning device for paving widths above 7.50 m.

# Solutions for extended use

Volvo screeds are the result of many years of experience in road construction and close co-operation with our customers. For example, special designs and options have been developed which extend the field of application of our pavers and screeds far beyond road construction.



## Split towing arms (Standard feature)

They permit the rapid change between fixed and Variomatic screeds without having to dismantle the towing arms.

## Articulated screed element (Option)

In addition to standard crown adjustment, the articulated screed element enables the paver to place an additional profile in the same run, e.g. for a hard shoulder. The articulated screed element can be attached on the left-hand side, the right-hand side or on both sides. The adjustable angle is  $-2^{\circ}$  to  $+4^{\circ}$ .



## Further options

- Edging shoes 3, 5, 7, 12 cm /  $45^{\circ}$  and 5 cm /  $60^{\circ}$
- Basic paving width reduction by 0.5 m

## Special designs for special applications

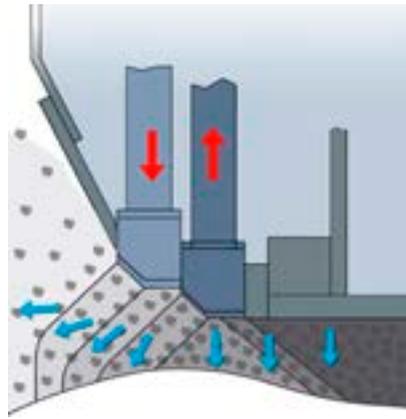
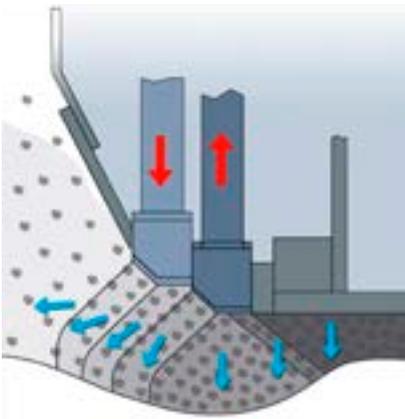
Volvo engineers have made far-reaching modifications to pavers and screeds in collaboration with our customers for special projects.

- For slope and dam construction the fixed screeds offer a hydraulic screed pre-inclination feature. With this feature an exact radius is generated during paving in the transition area from the level to the slope in that the screed is also turned in line with the angle as it changes.
- Our pavers and screeds have also proven their worth for many years in the placement of railway track ballast. Volvo offers the paver/screed combination ABG8820B/MB122 in a special version for the placement of track ballast.



# The double tamper technology

Volvo high-compaction screeds with dual tamper system optimise the cost-effectiveness of paving all types of mix in road and airport construction thanks to a maximum degree of pre-compaction and evenness.



Volvo Duotamp high-compaction screeds have proved their worth in applications all over the world, e.g. paving base, binder and wearing courses, granular materials, CBM, RCC, and even in special applications such as the laying of bituminous sealing surfaces on dam slopes and high banking vehicle racing and testing circuits, where traditional methods of compaction cannot be used.

With the Duotamp screeds the main compaction work is achieved by the double tampers which lie in the material flow in front of the vibration screed. They guarantee exact proportioning and consistent high density of the paving material over the full

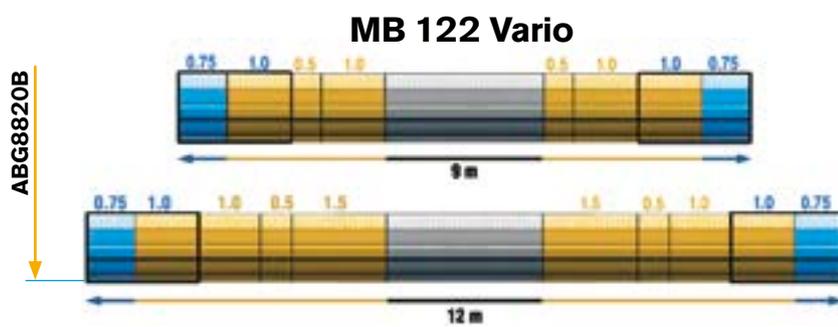
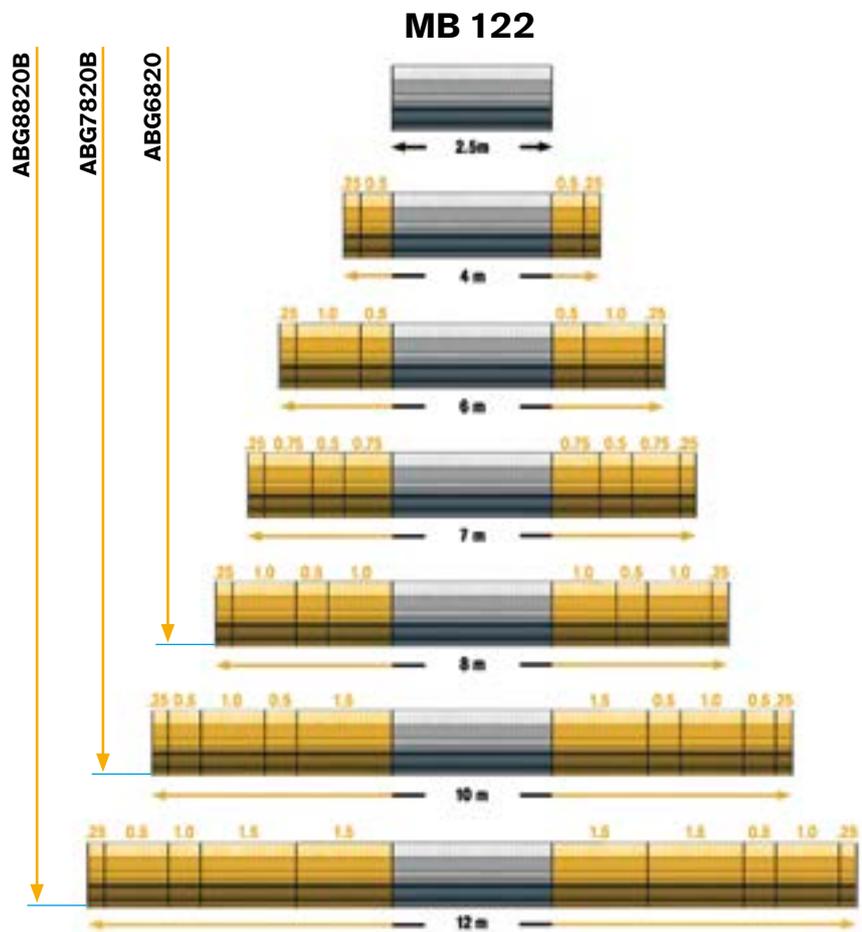
working width. Finished level tolerances are tighter controlled even with large variations in subbase conditions, thanks to the material being compacted twice before it leaves the screed. The vibration system subsequently ensures a smooth finish of the wearing course.

With the double tamper technology, users achieve a 5 - 7% higher degree of compaction than with the combination screeds with a single tamper and vibration system known for their good compaction effect. The compaction values can achieve up to 98% Marshall density and so the rolling work can be substantially reduced. In

view of the low slump under the following roller, unevenness is reduced due to fewer roller passes. Outstanding evenness of the paved layer is therefore guaranteed.

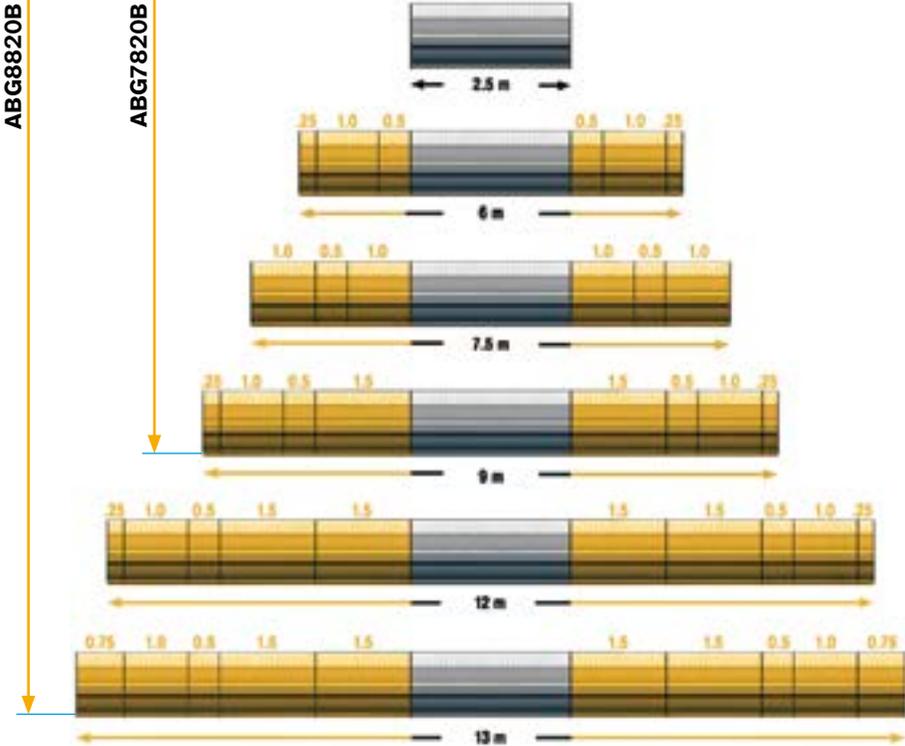
Volvo high-compaction screeds are also excellently suited for the paving of special materials such as mastic asphalt with chippings or roller compacted concrete (RCC), which have to be rolled directly after paving in a very short time. In view of the high degree of precompaction only a few rolling passes are necessary. The required final compaction is attained with a minimum of rolling while optimum evenness is achieved.

# Paving widths with MB 122, MB 122 Vario

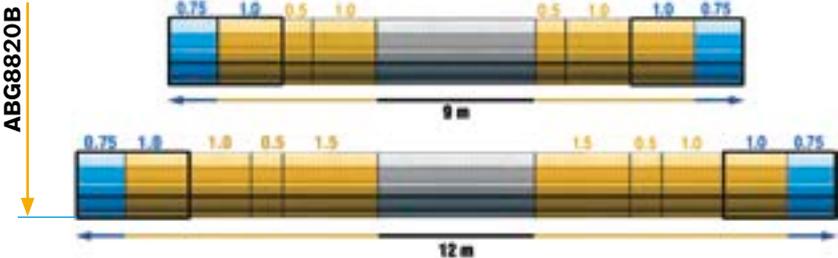


# Paving widths with VDT 121, VDT 121 Vario

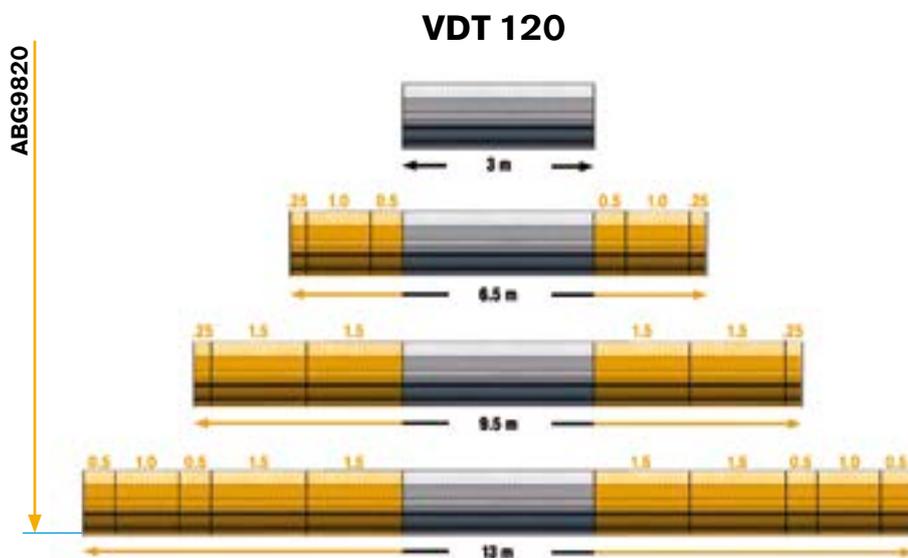
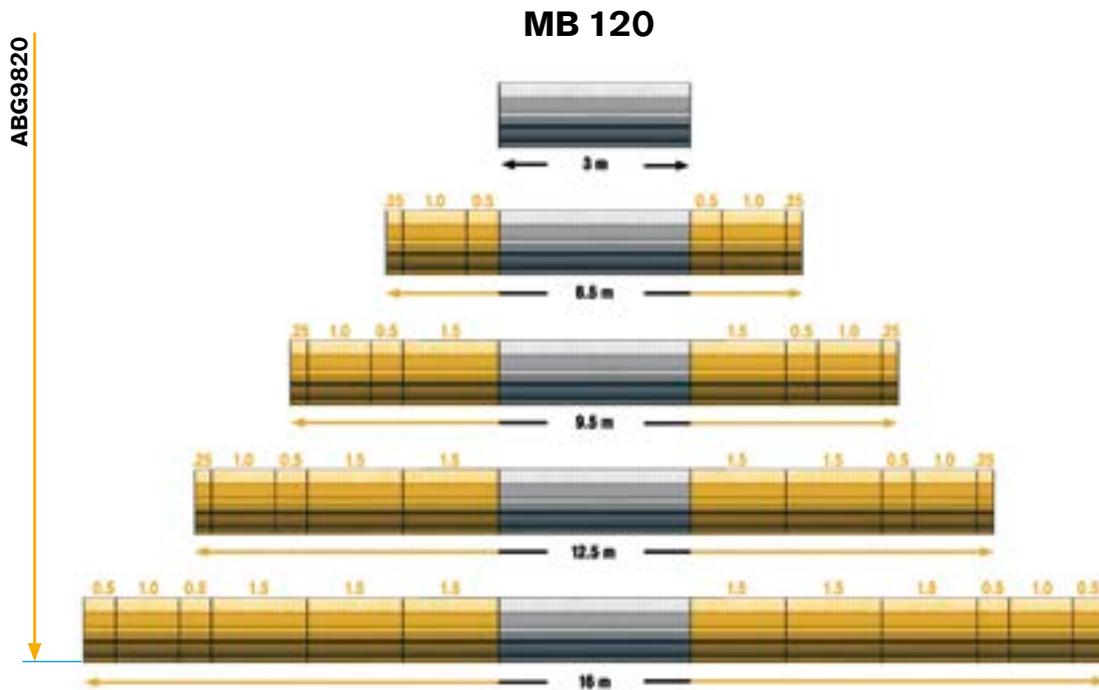
## VDT 121



## VDT 121 Vario



# Paving widths with MB 120, VDT 120, MB 120 Vario, VDT 120 Vario



# Specifications

		Single tamper screeds				Double tamper screeds			
Screed type		MB 122	MB 122 Vario	MB 120	MB 120 Vario	VDT 121	VDT 121 Vario	VDT 120	VDT 120 Vario
<b>Basic width</b>	m	2.50	2.50	3.00	3.00	2.50	3.00	3.00	3.00
<b>Adjusting range</b>	m	-	1.50	-	1.50	-	1.50	-	1.50
<b>Max. paving width<sup>1</sup></b>	m	12.00	12.00	16.00	12.50	13.00	12.00	13.00	12.50
<b>Min. paving width</b>	m	2.00	4.50	2.50	5.00	2.00	4.50	2.50	5.00
<b>Screed extension</b>	m	0.25	-	0.25	-	0.25	-	0.25	-
	m	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	m	0.75		0.75	-	0.75	-	0.75	-
	m	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	m	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
<b>Reduction in basic width</b>	m	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
<b>Depth of base plate</b>	mm	500	500	500	500	500	500	500	500
<b>Tamper</b>		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 <sup>2</sup>	Hz	0 -24.5				0 - 24.5			
<b>Vibration frequency<sup>2</sup></b>	Hz	0 - 46.7				0 - 46.7			
<b>Heating system</b>									
Electric/Propane	E/P	P				P			
<b>Crown adjustment</b>	%	-2/ +4				-2/ +4			
mechanical/hydraulic		mechanical				mechanical			
<b>Articulated screed sections</b>		yes				yes			
Adjustment range	%	-2/ +4				-2/ +4			
<b>Weights</b>									
Basic screed <sup>3</sup>	kg	1 600	1 600	1 800	1 800	2 000	2 000	2 200	2 200
Extension 0.25 m	kg	100	-	100	-	130	-	130	-
Extension 0.50 m	kg	210	210	210	210	270	270	270	270
Extension 0.75 m	kg	280	-	280	-	515	-	515	-
Extension 1.00 m	kg	420	420	420	420	580	580	580	580
Extension 1.50 m	kg	660	660	660	660	845	660	845	845
Vario extens. 1.00 - 1.75 m	kg	-	1 650	-	1 650	-	1 720	-	1 720

1 Max. paving width depends on the paver in question

2 May vary depending on the paver type

3 Incl. towing arms and end plate

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

**VOLVO**

**Volvo Construction Equipment**

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