

DISAMATIC® for everyone!

The constant pursuit of new ways to boost efficiency, enhance productivity, improve casting quality and increase savings, while battling environmental concerns, seeking to improve overall working conditions and ensuring the employment of sufficient manpower and resources – and preferably all at the same time – is universal. Irrespective of foundry size, geography and market, they remain factors that all foundries can relate to and continuously try to optimize.

With the global introduction of the DISAMATIC C3, DISA now offers a compact vertical moulding machine with the power and precision to increase competitive edge for foundries seeking to produce higher quality of casting at lower costs per kg.

The DISAMATIC C3 is a vertical, greensand moulding system for production of a wide range of grey, ductile and other metal castings in multiple sizes and both cored and un-cored. It has been specifically designed as a means to reinforce and consolidate the competitive edge of today's small and mid-sized foundries, and, thus, DISA has chosen to meet the following key critical pains and challenges in particular:

1. Lack of labour

Even for foundries situated in so-called growth areas, sufficient labour is a scarce resource, and it can prove consequential not just for the areas in question, but also for the world market for industrial goods in general

2. Lack of resources to invest

Where the investment scenario for larger foundries is a question of continuous innovation, the lack of monetary funding can be a question of mere survival for many small and mid-sized foundries.

3. Lack of consistency in casting quality

Due to the existing jolt squeeze or manual process used in many small and mid-sized foundries, the casting quality tend to be inconsistent and the mismatch to be high.

Being renowned for its world-class engineering, DISA has always sought to optimize both efficiency and productivity in its moulding technology and moulding lines, and it is no secret that DISA is traditionally known for making solutions available to foundries requiring both very high capacity and very high speed. The introduction of the DISAMATIC C3 changes that.

Although DISA's very intensive trend spotting has shown that high efficiency and productivity remain paramount for the foundry business in general, DISA was faced with some specific needs and requirements of small and mid-sized foundries. In consequence, DISA made a fundamental shift in its way of thinking and entered into new territory in order to innovate and launch a product specifically targeted and designed for this market segment.

The result is the DISAMATIC C3 – also known as 'The DISAMATIC® for everyone'.

Now, every foundry can be a DISA foundry

The DISAMATIC C3 has proved a turning point for a number of small floor moulding foundries in China and India, where it was first launched and sold, as the affordable and accessible vertical moulding machine has allowed them to convert from existing jolt squeeze or manual process to an automated vertical moulding process, thereby enabling a relatively fast production of high-integrity moulds with low mismatch and minimal finishing costs.

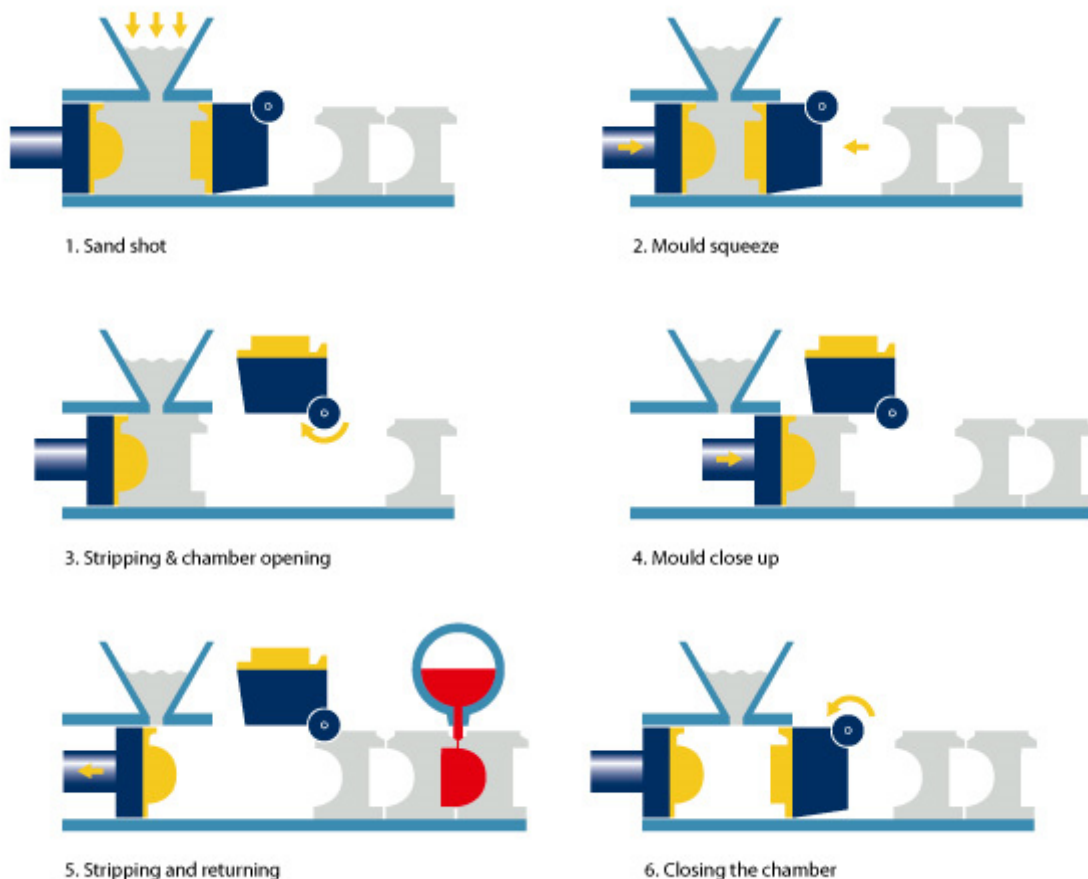
The DISAMATIC C3 incorporates many of the leading technologies developed by DISA in a determined attempt to make the DISAMATIC® innovations available to foundries of every size, everywhere in the world. It is a machine that builds on 50+ years of experience, and the vertical moulding technology is a proven technology with more than 1,600 lines sold till date.

In consequence, the DISAMATIC C3 is DISA's way of going head-to-head in its way of addressing the challenges of the small and mid-sized foundries:

In terms of struggling to obtain sufficient and qualified labour, DISA has based its new moulding machine on straightforward principles that allow generally skilled labour to handle all operation and maintenance in a safe working environment. Additionally, the DISAMATIC C3 accentuates eight ways to sustainable growth and a safe working environment, including aspects such as reducing physical exertion and risk of accidents, enhancing employee safety and allowing for quieter operation of the machine and, thus, a more comfortable all-round working environment.

As regards the limited resources to invest in new moulding technology, the DISAMATIC C3 is designed to offer maximum capacity at minimum investment, delivering a high return on investment (ROI) over a long service life – even in cases where capacity is not fully utilized. Additionally, the simplified operation with innovative mechanical, pneumatic, hydraulic and electrical systems inherited from other DISA solutions result in higher uptime and lower maintenance requirements.

The fight of small and mid-sized foundries to offer a consistent casting quality is met through the introduction of an automated vertical moulding process that enhances surface quality and overall mould accuracy. Ultimately, it will also add competitive edge and bring less cost per casting.



Much more than 'a machine'

The results of the DISAMATIC C3 are already impressive: After introducing the entry-level vertical moulding machine, including both an automatic mould conveyor system and an automatic core

setter as part of its basic equipment, more than 15 machines have been sold on the Indian market since January 2016 and subsequently since May 2016 on the Chinese market.

As such, the current global rollout of the DISAMATIC C3 builds on DISA's accumulated knowledge from the Chinese and Indian markets. It is a moulding line that addresses and fully meets the needs of the small and mid-sized foundries everywhere, boosting both the capacity and efficiency, and making up-to-date affordable and quality casting production available to everyone.

An example is Madras Engineering Industries Pt. Ltd. in India, whose President Mr Sriam Sivaram sees the new DISAMATIC C3 as much more than a singular machine:

"On our journey towards the establishment of this foundry also came the choice of a number of supporting technologies to ensure that we had a well-laid out foundry, and that we focussed on human safety, on the environment and – obviously – on productivity within the foundry. DISA came up with many of the solutions that we have now implemented to support our new line, including 1) the automatic conveyor line for cooling of the castings, 2) the cool drum, separating the castings from the mould, 3) a sand plant that is the latest technology available from DISA in Denmark, 4) a dust & fume extraction system that ensures that the atmosphere within our foundry is maintained at global norms, and also 5) a shot blasting machine, ensuring that the castings we make are of a quality level available globally".

In its rollout of the DISAMATIC C3, DISA is highlighted for its ability to understand the needs of small and mid-sized foundries – both right now and over time – by providing no-fuzz moulding solutions and candid, straightforward advice that will always seek to fit with potential, future growth plans. In conclusion, some of the main advantages of the DISAMATIC C3 are:

1. Simple system that can be implemented with a very small investment
2. Straight-forward operation and maintenance
3. Improved casting quality and increased productivity – converting from manual to automated process
4. Perfect entry capacity
5. On-site, local support, including support with vertical process technology, to help maximise complete foundry performance at all times.

Technical data

Type		A	B
Mould dimensions:			
Height	mm	480	535
Width	mm	600	650
Thickness	mm	120-340	120-340
Mould capacity:			
Uncored C3-250	mould/hour*	250	250
Cored C3-250	mould/hour*	220	220
Uncored C3-150	mould/hour*	150	150
Cored C3-150	mould/hour*	120	120
Mismatch:	mm	0.25	0.25
Squeeze pressure:	kp/cm ²	12	12
Conveyor length max:	m	40	40
Cooling time at max. speed:			
C3-250	min*	51	51
C3-150	min*	80	80
Sand consumption max:			
C3-250	tonnes/h**	31	37
C3-150	tonnes/h**	20	23
Power consumption:	kW	50	50
Free air consumption:			
C3-250	m ³ /min	11	11
C3-150	m ³ /min	8	8
Water consumption:			
At 25°C inlet temp.	litres/min	115	115

* At 200 mm mould thickness

** At max. mould thickness

The technical data is not binding and may be subject to change.
