

DISAMATIC D5

Liberating performance



Cutting-edge moulding technology
for the lowest cost per casting

DISA
A Norican Technology

Introducing the DISAMATIC D5



The bigger the casting, the greater the challenge

Foundries that want the highest casting quality and productivity must deal with complex, deep-pocketed geometries while handling large pattern plates and heavy cores efficiently and safely.

The DISAMATIC® D5 meets that challenge with ease. Based on the revolutionary D3 platform, the D5's multiple innovations and cutting-edge technology deliver the fastest throughputs, highest yields and maximum uptime for large castings.

Next generation technology for big casting performance

Replacing the legendary DISAMATIC 240 and 250, the D5 is available in three mould sizes up to 650x850mm and 500mm thick. With three speeds up to 450 uncored moulds per hour,

it combines premium mould quality with breathtaking speed, short-run flexibility and minimum downtime.

It features all-new hydraulics and a state-of-the-art control system, with a host of smart innovations and powerful automation options that handle large pattern plates, cores and filters precisely, quickly and safely.

Simple, robust and reliable with standardised components, the D5 is built for easy servicing, lower maintenance costs and a clean and modern working environment.

The digital-ready DISAMATIC D5 is perfect for ambitious foundries that want a future-proof way to transform big casting production – and achieve the very lowest cost per casting.

Sustainable innovation

With the DISAMATIC D5, sustainability and profitability combine seamlessly. The D5's energy efficiency and clever enhancements cut CO2 emissions and reduce scrap.

DISA's sustainable innovation isn't just green – it makes sound business sense too. The DISAMATIC D5's many new features deliver lower running costs, higher yields and greater productivity for large castings.

- A redesigned hydraulic system cuts oil consumption and keeps oil cleaner, with a patented, high-efficiency pump. Optional air cooling of hydraulic oil can eliminate water consumption altogether.
- Mouldability innovations like Adjustable Squeeze Distribution let your foundry produce a wider range of large, complex castings with higher quality.
- The new Adaptive Pouring Position feature keeps the distance between the D5 and the pouring unit constant to minimise pouring cup movement, improving quality and line speed.
- Less loose or sticking sand means fewer sand inclusions, improved surface quality and less scrap. That's why the D5 incorporates features like re-squeeze, enhanced sand blow-off and extra heating in the sand shot system and hopper.



Smart innovation

Adjustable Squeeze Distribution (ASD) balances the swing plate and the pressure plate squeezing distance to completely fill deep pockets and deliver optimum surface finish with consistent mould hardness. ASD handles difficult castings with ease, accommodating higher pattern heights, thinner moulds and moulds with low swing plate heights.

“Efficient and high-quality casting production is key for us. We produce in small series, so we need moulding lines that deliver an extremely stable process despite multiple pattern changes per shift. DISAMATIC moulding lines deliver consistent, repeatable and high quality moulds right from the start – exactly what we need.”

– Folkmar Ukena, Managing Director, LEDA Werk Germany

Smart upgrades

Add powerful accessories and digital options that increase the D5's productivity, quality and connectivity.

Ready for a smarter foundry

Digital technology helps transform foundry efficiency, which is why the DISAMATIC D5 arrives ready for Industry 4.0 with a pre-installed NoriGate gateway. To start turning your D5's data into value, simply connect it to one or more of DISA's Monitizer® applications.

- **Monitizer | CIM** is an on-premise solution for foundry data collection, data visualisation and machine automation.
- **Monitizer | DISCOVER** helps you collect, monitor and analyse all your foundry data - including data from legacy software systems.
- **Monitizer | PRESCRIBE's** AI-driven analytics optimise the whole green sand process to significantly reduce scrap and increase profit.

Choose your accessories

The **Quick Pattern Changer (QPC)** is standard on the D5 to accelerate manual pattern changes. An **Automatic Pattern Changer (APC)** triples pattern change speed to boost flexibility and increase short-run efficiency.

The **Automatic Core Setter (CSE)** inserts cores in to the mould completely automatically. Combined with the compact, semi-automatic **Quick Core Mask Changer (QCC)**, changing core masks is easy, fast and precise. The QCC's new ability to lift and set heavy cores further reduces cycles times and helps avoid possible operator injury.

Add an **Automatic Mould Conveyor (AMC)** or a **Precision Mould Conveyor (PMC)** for synchronised, high-precision mould transportation. Redesigned for less wear and lower energy consumption, optional thrust bar heating prevents sand sticking while optional melt overflow protection covers protect the **AMC** and **PMC's** working parts.



“Digitalisation is an important tool in the continuous improvement of our products and processes. It’s therefore important to us to capture the digital state of the art when we buy any new equipment. DISA moulding lines are digitally enabled, allowing us to introduce digital tools in a way and at a pace that suits us.”

– Folkmar Ukena, Managing Director, LEDA Werk Germany



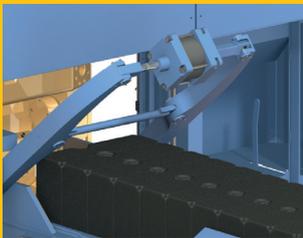
Automatic Pattern Changer (APC)

The APC can change a set of pattern plates in under a minute. Compared to the manual QPC, it increases production by up to 16 moulds per pattern change and cuts the time taken by 300%.



Mould Accuracy Controller (MAC)

The DISA MAC is a high-precision measuring device that captures mould-related mismatch, mould gaps, mould steps and parallelism for each mould before pouring – reducing scrap and improving quality.



Double Index System (DIS)

DISA's patented DIS feature lets you transport, then pour two moulds simultaneously for higher yield and casting quality.



Safe, clean and lean

Create a clean, safe and quiet working environment for your operators

As well as delivering superb moulding, the DISAMATIC D5 is user-friendly, quiet and dust-free in operation. Built to comply with the latest safety and ergonomic standards, operators will love its intuitive touchscreen control panel and clever automation options that reduce manual strain – and cycle times too.

The D5's doors lock automatically during moulding, with new seals that prevent dust escaping. Features like the filtered extraction system, in-chamber spray and integrated chamber exhaust pipe all combine to create a dust-free foundry that's a safe, pleasant and healthy place to work.

Inspection and maintenance are fast and easy too, with rapid access to all fluids and wear parts. For example, it's easy to clean behind the chamber wear plates without removing them.



Advanced aftermarket support reduces the risk of unplanned downtime

- **Remote Monitoring Services (RMS):** DISA specialists monitor and analyse your process and machine data via a secure connection and alert you to any developing issues.
- **Remote Smart Services (RSS):** fast virtual support when needed. Using augmented reality, DISA engineers can visually inspect your machine while showing you instructions on how to repair your technical issue.
- **Total Optimisation Production Services (TOPS):** the exclusive on-site inspection, service and maintenance programme that ensures optimum machine performance.
- **Application:** expert consultancy from the industry's best troubleshooters overcomes the toughest foundry challenges.
- **Training on demand:** create your own foundry specialists.
- **24-hour support hotline:** always ready to help if you have a problem.

“With this latest upgrade, we have now replaced all our vertical moulding machines with the latest D-series DISAMATICs and have future-proofed our processes. The investment in new state-of-the-art equipment has enabled us to reduce our operating and maintenance costs, improve our energy costs and achieve high machine availability.”

– Rochus Hiller, Foundry Manager, LEDA Werk Germany

Technical data

DISAMATIC D5		B	C	Z
Mould Dimensions:				
Height	mm	600	600	650
Width	mm	775	850	850
Thickness	mm	150-500	150-500	150-500
Mismatch:	mm	0.15	0.15	0.15
DISAMATIC D5-355				
Uncored	mould/hour*	355	355	355
Cored	mould/hour*	330	330	330
Cooling time max	min*	92	92	92
Sand consumption max	tonnes/h**	103	113	122
Power consumption	kW	119.9	119.9	119.9
Connected load	kVA	149.9	149.9	149.9
Compressed air consumption	Nm ³ /min	16	16	16
DISAMATIC D5-415				
Uncored	mould/hour*	415	415	415
Cored	mould/hour*	385	385	385
Cooling time max	min*	78	78	78
Sand consumption max	tonnes/h**	113	124	135
Power consumption	kW	119.9	119.9	119.9
Connected load	kVA	149.9	149.9	149.9
Compressed air consumption	Nm ³ /min	18.5	18.5	18.5
DISAMATIC D5-450				
Uncored	mould/hour*	450	450	450
Cored	mould/hour*	415	415	415
Cooling time max	min*	71	71	71
Sand consumption max	tonnes/h**	126	138	149
Power consumption	kW	119.9	119.9	119.9
Connected load	kVA	149.9	149.9	149.9
Compressed air consumption	Nm ³ /min	20	20	20
Conveyor length max:	m	100	100	100
Cooling water (DMS):				
at 15 °C inlet temp.	litres/min	37	37	37
Pressure:				
Squeeze pressure	kp/cm ²	1.5-16	1.5-16	1.5-16
Shot pressure	bar	0-4	0-4	0-4
Compressed air requirements:				
Air pressure min.	bar	5.5	5.5	5.5
Hydraulic fluid (DMM):	litres	1100	1100	1100
Machine Dimensions (DMM):				
Height	mm	3875	3875	3875
Width	mm	1920	1920	1920
Length	mm	8150	8150	8150
Net weight:	tonnes	30	30	30

* At 200 mm mould thickness / ** At max. mould thickness

About DISA

DISA, a Norican Group technology, develops and manufactures a complete range of metal casting production solutions for the ferrous and non-ferrous foundry industries. Headquartered in Taastrup, Denmark, DISA is the world-leading supplier of complete foundry solutions and services, as well as state-of-the-art green sand moulding equipment.

DISA's long-standing tradition of innovation and our unrivalled global support network have earned us the trust and loyalty of foundries worldwide. We have the industry's broadest moulding product portfolio, comprising vertical (DISAMATIC®), matchplate (DISA MATCH) and horizontal (DISA FLEX) green sand moulding systems.

DISA provides complete, integrated foundry lines for a wide variety of customers – lines which, in addition to our moulding technology platforms, include complete sand plants, sand mixers, conveyor systems and cooling drums, as well as our unparalleled services and spare parts network.

DISA also offers its class-leading Monitizer digital solutions, developed in partnership with Norican Digital Lab, that support the whole digital journey from data collection to AI-driven casting quality optimisation. Monitizer works in all types of foundries and processes, and with any vendor equipment, to deliver serious process improvements – fast.

We are Norican: [DISA](#) | [Italpresse Gauss](#) | [StrikoWestofen](#) | [Wheelabrator](#)



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