



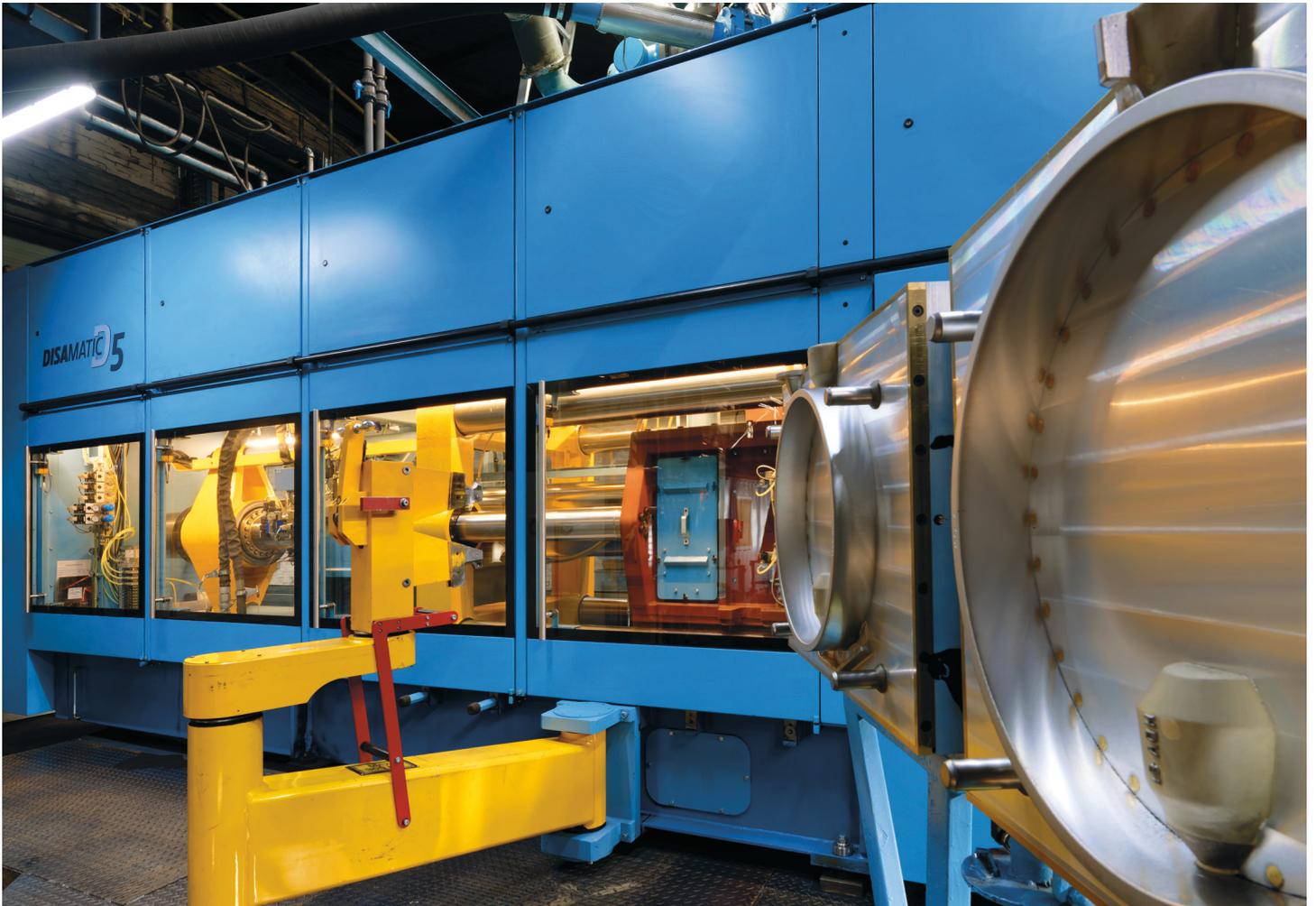
# DISAMATIC D5 at LEDA Werk GmbH

New DISAMATIC D5 completes foundry  
modernisation at LEDA

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# About the foundry



## Highest quality in small series

High-end domestic stove and fireplace brand and foundry LEDA Werk GmbH & Co KG in Leer, Northern Germany, has commissioned a DISAMATIC D5 moulding line from DISA. It completes a programme of significant investment that saw LEDA's foundry operations modernised from the ground up. It's the first machine in the new DISAMATIC D5 range to be delivered to a customer.

LEDA has been producing castings in Leer for nearly 150 years. Moulding equipment from DISA has long been a part of the LEDA success story, with the first DISAMATIC moulding machine beginning service in 1977.

The foundry mainly produces domestic fireplace and stove parts under its own brand, but also acts as a jobbing foundry covering a broad range of castings. Its strong commitment to the casting process even forms part of LEDA's consumer-facing marketing, and the quality and standard of the casting process is a source of pride for the team in Leer.

That is why, over the last decade, LEDA has been in continuous modernisation mode, investing in new melting and sand mixing equipment, as well as replacing the smaller of its two moulding lines with a DISAMATIC D1 in 2019 and now the larger one with a DISAMATIC D5.

Folkmar Ukena, Managing Director at LEDA explains: *"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 right from the first mould – exactly what we need."*

# About the new moulding line



Rochus Hiller, Foundry Manager, is thrilled: *"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."*

## Efficiency in complexity

LEDA's DISAMATIC D5 is the latest in DISA's flagship 'D' range of vertical moulding lines, which started with the D3 and its host of innovations which were then rolled out across the smaller and larger mould sizes with the D1 and D5 respectively.

The D5 replaces the old DISA 240 and 250 in the DISA range – and also at LEDA. The D5 range of three machines with mould sizes of 600 x 775mm, 600 x 850mm and 650 x 850mm achieves speeds of up to 450 uncored moulds per hour.

Rochus Hiller comments on the upgrade: *"The high degree of automation on the D1 and D5 offers us the features and settings to make more complex moulds efficiently. An example is adjustable squeeze distribution, a new feature we have not had before."*

Adjustable squeeze distribution ensures squeeze distances are optimised across the pattern, for swing plate and pressure plate, to adjust for asymmetric patterns or very deep pockets. This achieves the most consistent and even moulds and the best mould surface. The result are castings with a great surface quality that require little extra finishing work or machining.

R. Hiller explains further: *"Similarly, both the D1 and D5 have automatic core setters that enable us to produce more economical and save resources. We use the automatic core setter not just to place cores but also exothermic risers and filters. The efficiency gains we get through the higher level of automation and precision mean we maintain our competitive edge, but this also enables us to pass the benefits of more productive and sustainable production on to our customers."*

Sustainability is important to the team at LEDA, who had already introduced an energy management system across the foundry and are looking to reduce annual energy consumption continuously over time. The new moulding lines use less energy – directly and indirectly. Indirect energy savings are made through the avoidance of scrap and highly accurate castings that require minimal finishing work, but also through short cycle times, with less idle time between moulds required for core setting and other manual tasks. And it's not just energy that is being saved. For example, the new machines also use less hydraulic oil.

The new D5 at LEDA is a D5-Z which can produce up to 355 moulds per hour. This high speed, in addition to uncomplicated and fast pattern changes up to 30 times per day, gives LEDA the flexibility and responsiveness they need to run smaller series efficiently and fit different runs into their 5-day, 2-shift operation.

# Pit stop in Leer



## A smooth transition in tricky circumstances

LEDA's old DISA 250-C was replaced by the new D5 between the middle of December 2020 and the start of the new year. Despite a local lockdown and travel restrictions in Germany, a joint team comprising LEDA and DISA, plus transport and crane suppliers worked in shifts to deliver a smooth transition from old to new.

In the end, the meticulously planned changeover happened super-fast and exactly on schedule – despite the numerous challenges the pandemic brought – but not without nail-biting moments. Would the DISA team be allowed to travel into Germany from Denmark? Would hotels be open for them to stay in?

Right to the last moment, the old DISA 250-C was still working reliably. Therefore, after it had been running for LEDA for 20 years, the moulding line was taken back to DISA for reconditioning, so it could continue its service in a new home.

One key part of the old machine, however, stayed in Leer. The DISA team was able to reuse the existing synchronized belt conveyor (SBC) and rebuild it on site to work with the new automatic mould conveyor (AMC).

The new D5 was designed to slot straight into the gap left by a DISA 240 or 250 with key dimensions retained to enable an easy transition to the new technology, not just at LEDA.

LEDA's new D5 produced its first mould on the 31st of December and started normal production on the 4th of January 2021.

R. Hiller on the milestone: *"We are proud to welcome the second of our two new DISAMATIC moulding lines into the LEDA family. Both are at the heart of our production and will ensure the highest quality castings are delivered reliably and responsively for our customers."*

# Continuing the digital journey



## Ready for what's next

With LEDA's strong focus on innovation, it was important to the team that any new equipment was digitally enabled and ready for Industry 4.0. The digital capabilities that come as standard with the two DISAMATICs mean LEDA can continue its digital journey seamlessly and is ready for the future.

F. Ukena concludes: *"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."*

*"For us, that means combining digitalisation with the incredible wealth of knowledge and experience we've got in our workforce. That's the winning formula for staying ahead of the competition as a foundry in Germany."*

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