DISAMIX S-Mixer

Green sand from a different angle

DISAMIX is the **fastest and most efficient** bentonite-bonded foundry sand mixer we have ever created – yet it is also the **easiest to operate, access and maintain**!

DISAMIX Performance

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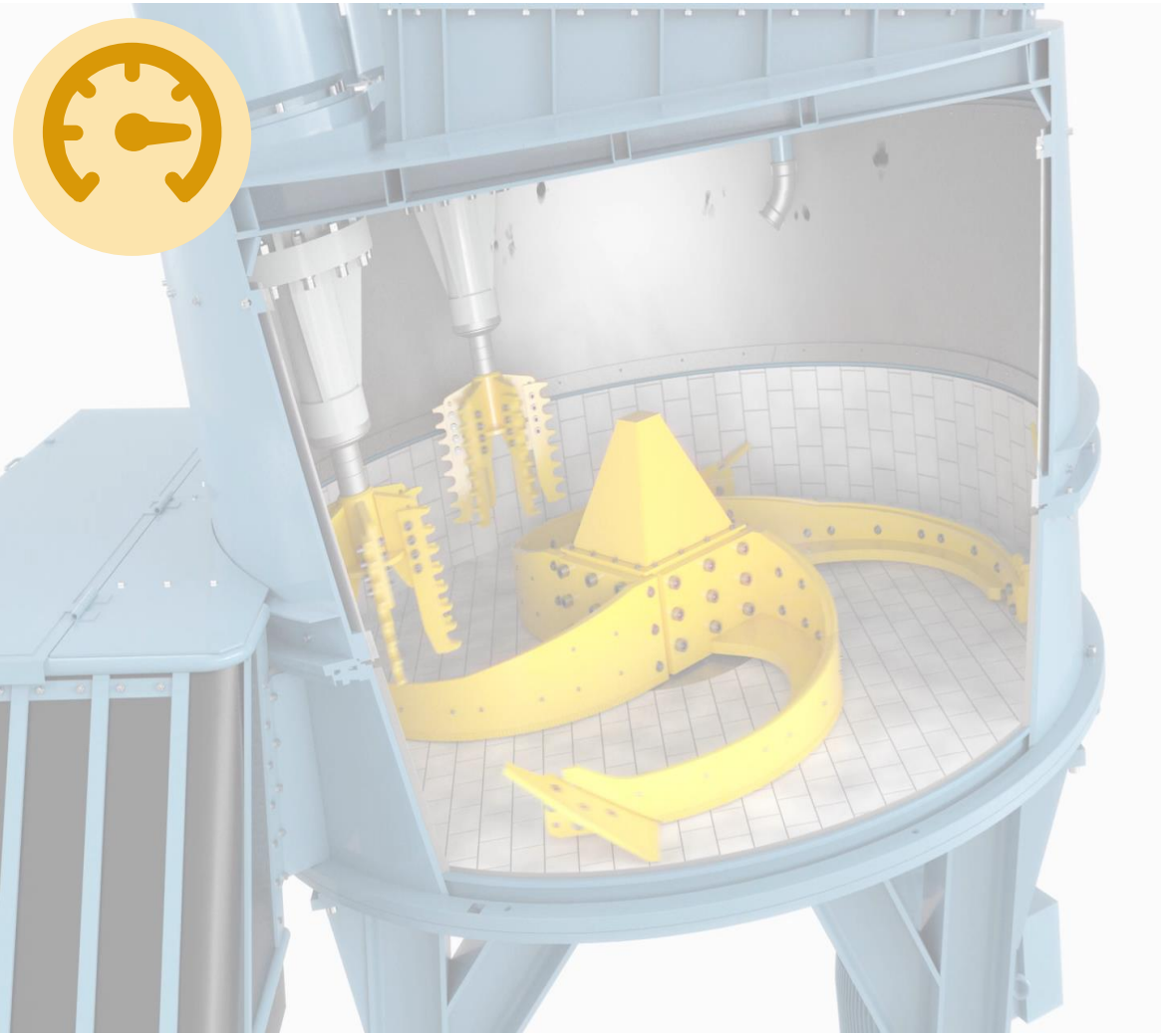
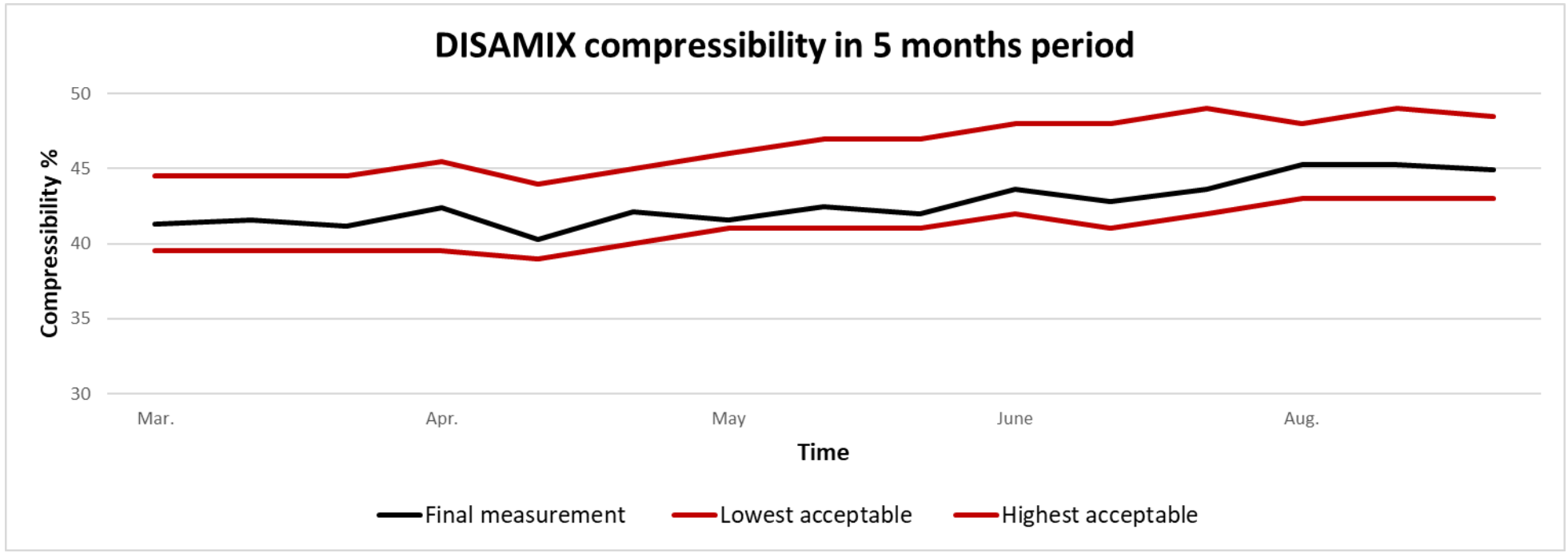


- DISA used Computer Fluid Dynamics (CFD) to **optimized the mixing bowl angle, mixing tool and turbine designs**
- Tilted mixer bowl promotes **faster sand unloading**
- Water weigh hopper for quick water addition allows low water pressure supply and still **reduces cycle time**
- 10% cycle time reduction leads to **10% less energy consumption**!
- No belt drives leads to **5% less energy consumption**!
- Option: a frequency converters leads to **80% less energy consumption** when idling!

DISAMIX Quality

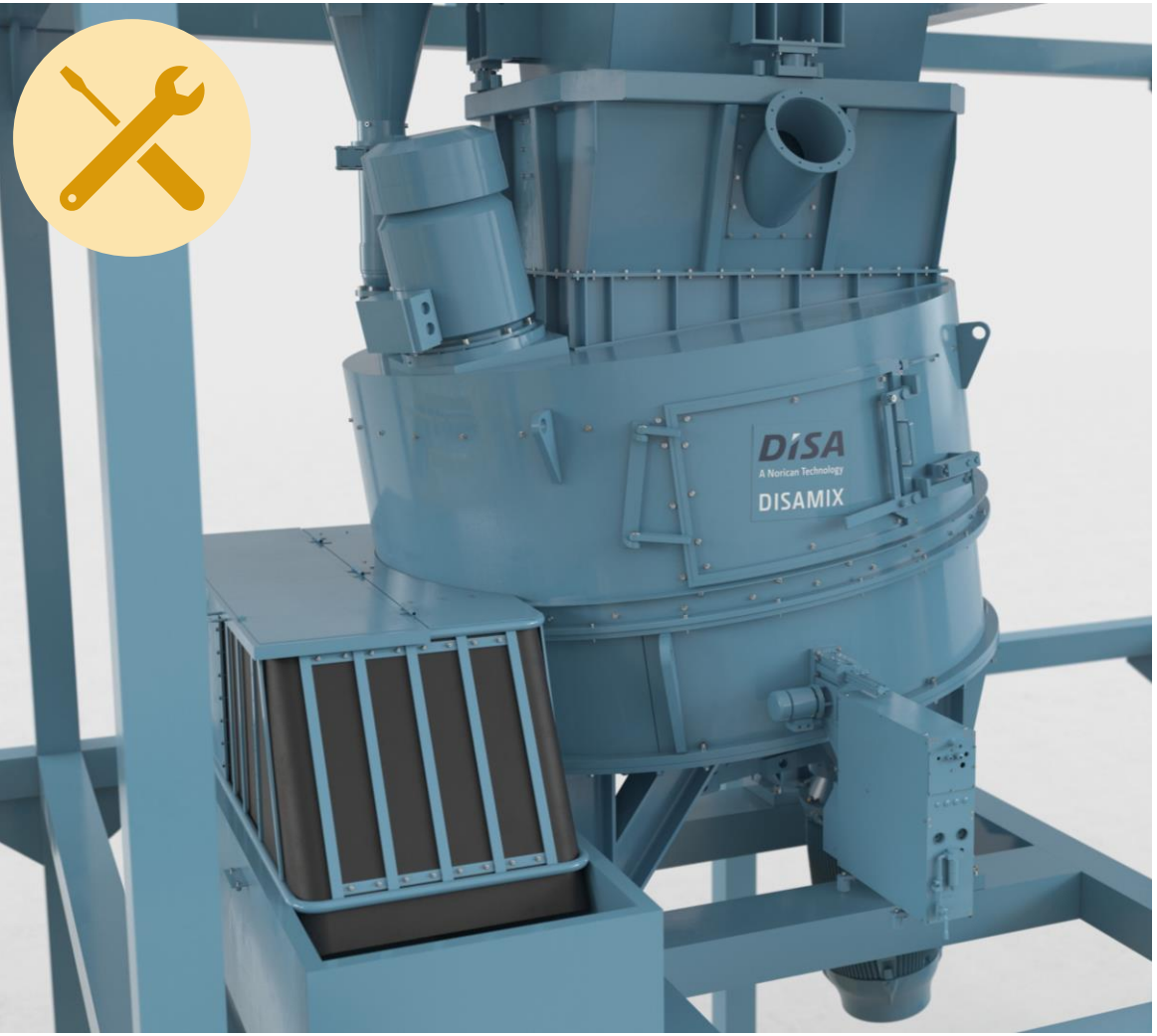


With its precise, automatic control of moisture and material proportions, the DISAMIX consistently creates homogeneous and fluffy moulding sand **for more accurate moulds and higher casting quality** – while **minimising bentonite consumption**

The integrated **Sand Multi Controller (SMC)** measures **sand moisture, compressibility and sand strength** for every batch – in real-time. Water and bentonite is then adjusted to reach the required sand specification – **all completely automatically**

Real production performance data show a good batch rate of **97,5%** over a period of 6 months!

DISAMIX Maintenance



- **Simple design** with belt-free direct-drives, less bearings to maintain and easy gear box to replace
- Walk-in door for **easy access** and inspection
- Ceramic bowl liners with **20 years** lifetime
- Optimized carbide-coated bender blades reduced vibration and endure **1 year**
- Innovative design massively **reduce maintenance costs and downtime**
- **24/7 hotline support**, global service and spare parts

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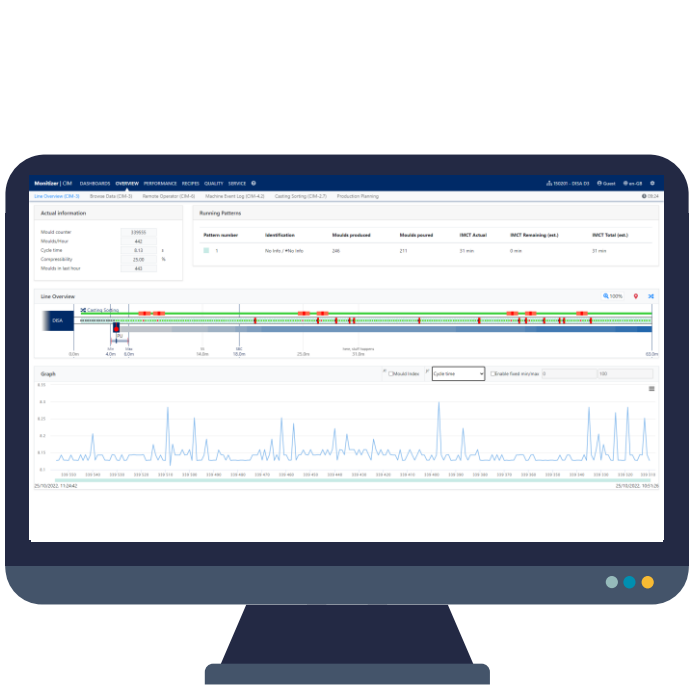
DISAMIX Operating



- View **operation status and error messages** via the 15" user-friendly HMI operator display
- Control mixing parameters and machine settings
- Monitor production data like production rate, cycle time, waiting status and trends
- Remote access connection (via eWON) allow **fast remote technical assistance** from DISA support
- Option: **recipe management, alarm log and process data collection** via Monitizer | CIM SAND package
- Option: **fully automatic process control** with no need for manual intervention during pattern change

Advantages

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- *Reduces maintenance*
- *Improves working environment*
- *Provides you with a more sustainable foundry*
- *Offers higher profitability & better casting quality*

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Thank you

DISAMIX Quality/Process

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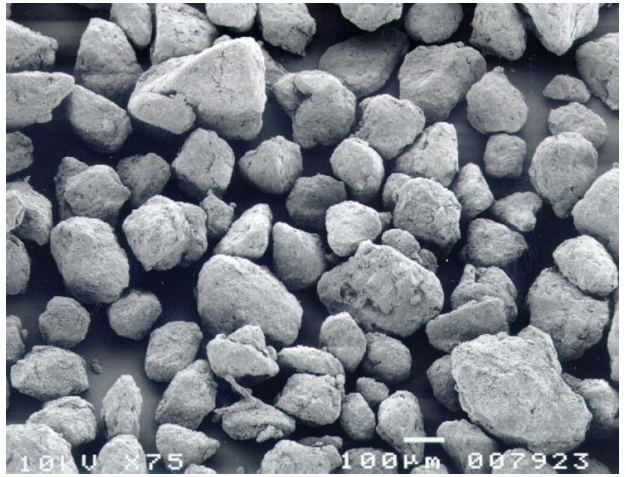
Good sand quality means…

1. Close dimensional tolerances of the castings
2. Better pattern draw
3. Consistent high-density moulds
4. High moulding plant efficiency
5. Reduced moulding material costs
6. Reduced rejections and fettling costs



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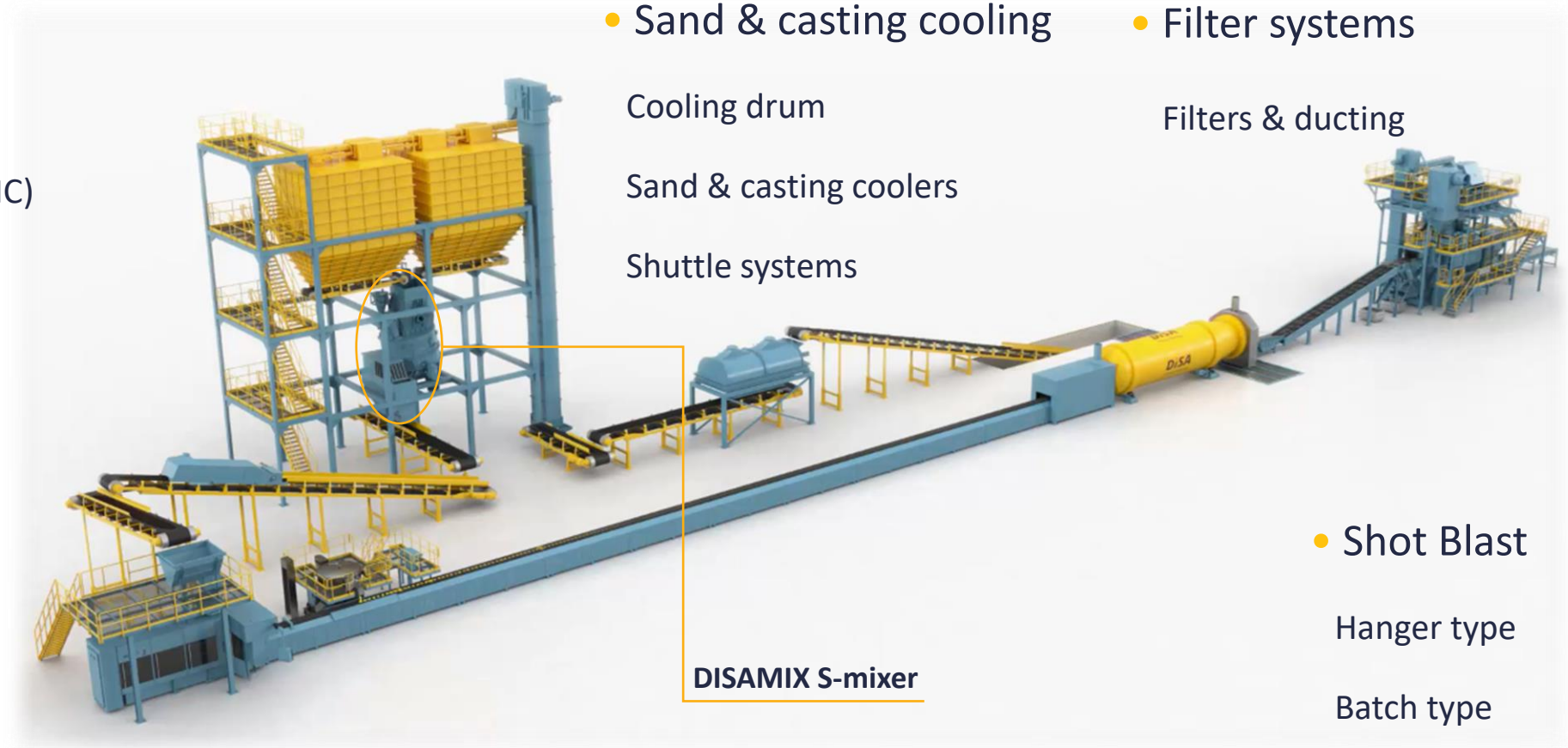
DISA Complete Foundry Solutions

- Sand plant
  - Mixer
  - Sand Multi Controller (SMC)
  - Polygon screen
  - Sand cooling (SCR)
  - Sand transportation
  - Design and Engineering
- Moulding machine
  - Vertical line
  - Flask line
  - Match Plate
- Sand & casting cooling
  - Cooling drum
  - Sand & casting coolers
  - Shuttle systems
- Filter systems
  - Filters & ducting
- Shot Blast
  - Hanger type
  - Batch type
  - Through-feed
  - Manipulator



DISAMIX

Technical specification

- The DISAMIX is currently available as three models: the S75, the S100 and the S125. Respectively, these models have:

- capacities of 75t/h, 100t/h and 125t/h.

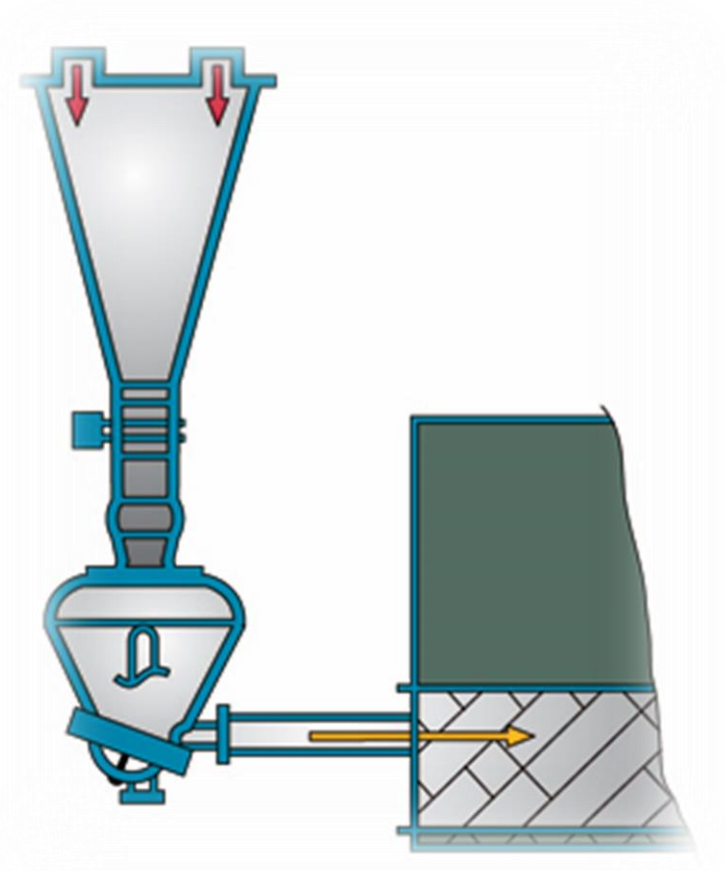
DISAMIX

Type:		S75	S100	S125
Mixer capacity:				
Mixer throughput max incl. SMC	tonnes/hr	75	100	125
Nominal batch capacity	kg	2500	3000	3750
Average power consumption:				
Stirring unit	kW	132	160	200
Turbine drives	kW	2 x 45	2 x 55	2 x 75
Process water requirements:				
Water pressure min	bar	2	2	2
Water consumption	litres/min	16	22	25
Compressed air requirements:				
Air pressure min	bar	5.5	5.5	5.5
Air consumption	Nm^3/min	0.4	0.4	0.4
Mixer dimensions:				
Mixer height without hopper	mm	2970	2970	3117
Sand weigh hopper height	mm	2265	2265	2512
Mixer diameter	mm	2900	2900	2900
Net weight:	tonnes	16	17	20

Benefits of DISAMIX

Optional Pneumatic Bond Injection

- Additives are weighed separately in a weigh hopper, then discharged into a pneumatic sender which blows the material into the batch of sand in the mixer.
- This compact, **flexible solution** is ideal for **confined spaces or complex installations.**
- Reduced dust formation cuts the amount of additives lost to the dust extraction system.

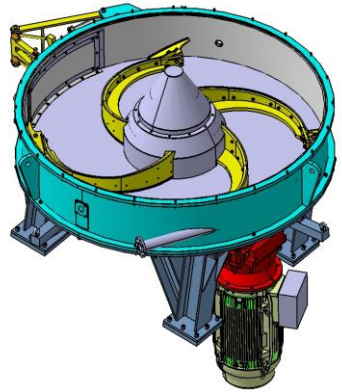


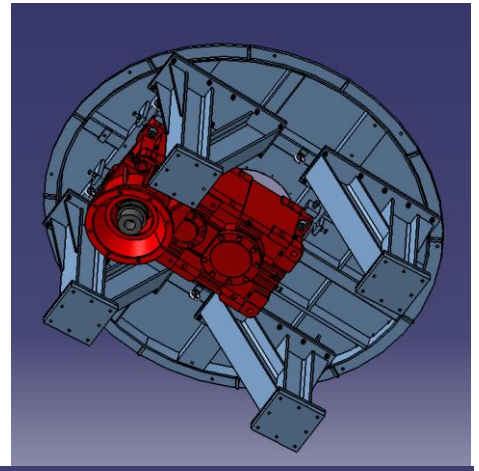
Gear box

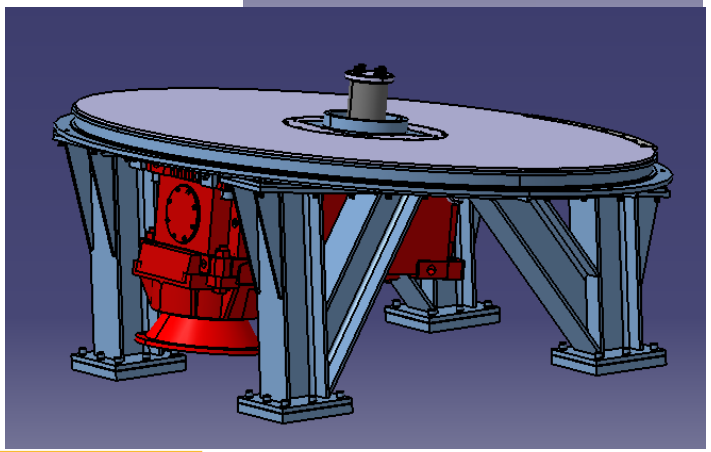
Easy to change gearbox

- The hub with the four S-arms are mounted directly on the output shaft of the gearbox and the drive motor is also mounted directly on the gearbox.

- The gearbox is changed by removing these parts, unscrew the four bolts holding the gearbox and lowering it down.







Ceramic Lining

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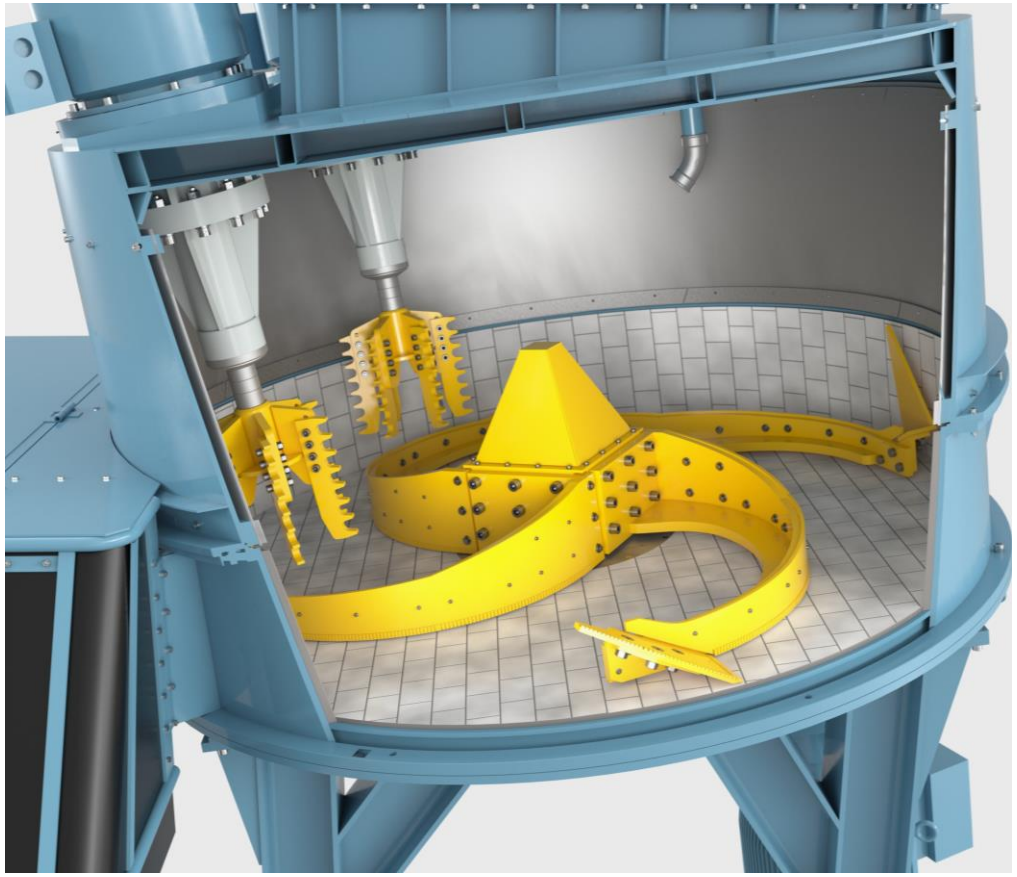
- The ceramic bowl liner is designed to massively **reduce both maintenance costs and downtime.**



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Water Dosing Unit

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One more way for precise and fast dosing:

- Less requirements for water pressure in foundry water supply system
- Fast emptying of water while mixing
- Water is released from the top to the surface of the sand

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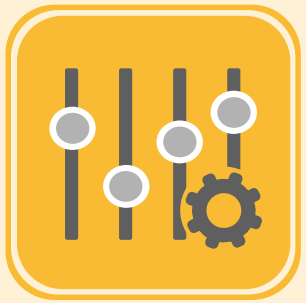
Monitizer® | CIM Packages - SAND

SAND

Recipes management



Easy administration and storage of up to 30.000 sand batch recipes ensuring stable production consistency

Performance

Monitor uptime, productivity and waiting times of every shift and production batch

Alarm & event log

All warnings, errors and stages are logged for real-time and historical analyses

Recipe log

Track pattern parameter changes or compare it with the actual performance

Process data

Information and status about the mixing process and batches produced

SAND Package only available for **DISA S-mixer**