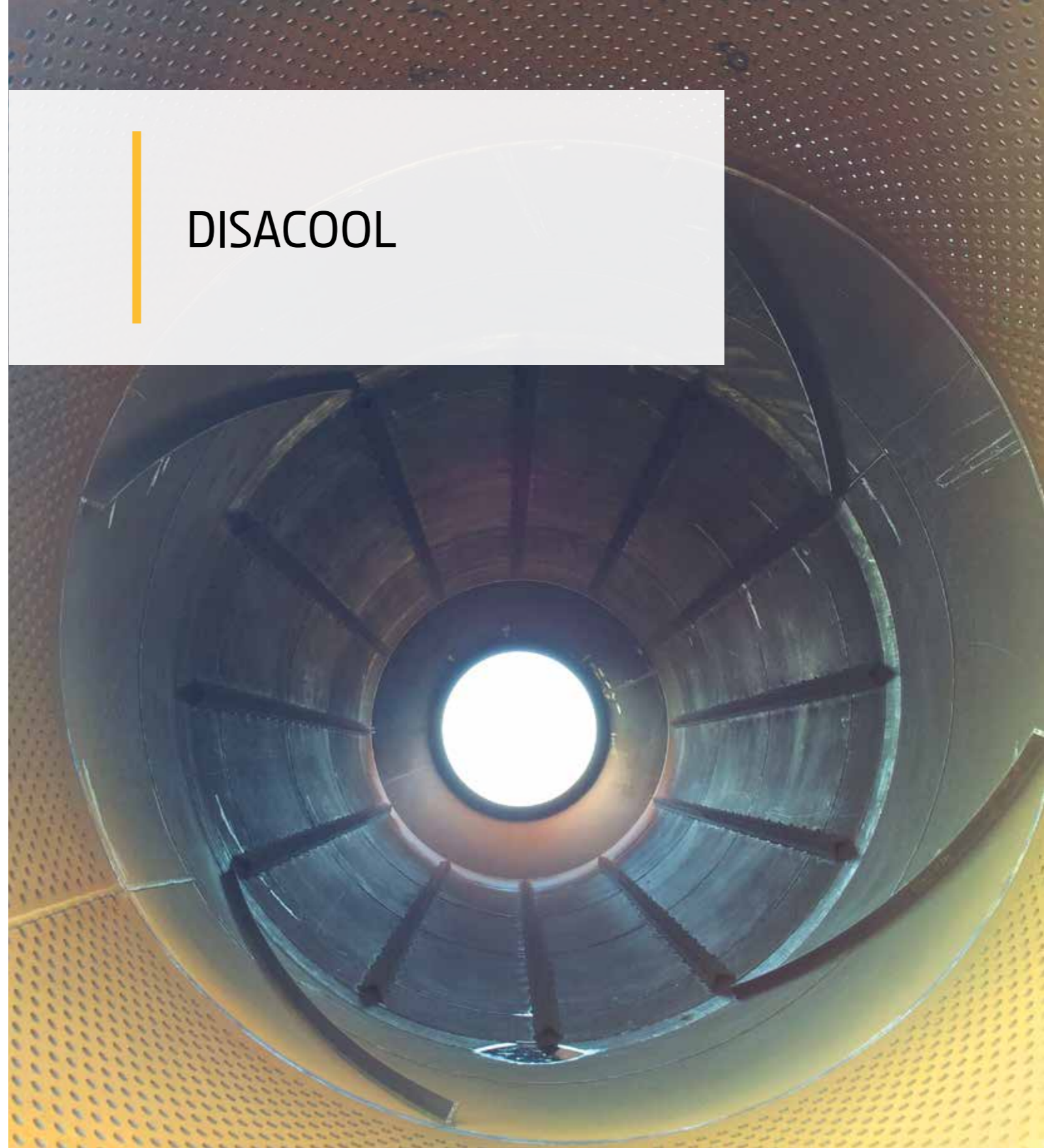


Subject to technical alterations • 02/19 • © disagroup

DISACOOOL



DISA Industries A/S
Højager 8
2630 Taastrup
Denmark

T: +45 44 50 50 50
E: info@disagroup.com

www.disagroup.com



DISA® is a registered trademark of DISA Holding A/S.
DISAMATIC® is a registered trademark of DISA Industries A/S.

DISA
A Norican Technology

We are Norican: DISA | Itaipresse Gauss | StrikoWestofen | Wheelabrator
www.noricangroup.com

Clean and cool in one go

www.disagroup.com

DISA
A Norican Technology



DISACOOOL – all-in-one separation and cooling of sand and castings

The result of more than 30 years' development, the DISACOOOL ensures a gentle and effective separation as well as cooling of sand and castings using a unique water evaporation system. An all-in-one system eliminates the need for a separate shake-out, sand cooler and casting cooler.

Compared to a traditional shake-out, sand cooler and casting cooler the DISACOOOL offers:

- Lower capital investment
- Low operation costs
- Less noise
- Low energy consumption
- Minimum service and maintenance
- Easy installation
- Short cooling times
- A highly efficient combination of mould shake-out, sand cooling, lump crushing, homogenisation and casting cooling in one process.
- Complete integration with moulding line
Enclosed process for a cleaner and quieter foundry

- Castings are tumbled gently with the sand in a smooth process lasting 20-30 minutes.
- Sand lumps are broken and the sand is effectively blended prior to screening off in the drum end screening section.
- The cooled castings are discharged at the DISACOOOL outlet.

Effective cooling of castings and sand

The moulding sand and castings are cooled by evaporation of residual water in the sand and by evaporation of the water that is sprayed into the drum.

A counter air flow through the drum removes the resulting water vapour and increases the cooling effect.

“We have achieved attractive savings since changing over to the DISACOOOL. The gentle handling of the castings in the cooling drum itself and the low sand discharge temperature with the installation of a secondary cooling and remoistening system mean that we can directly recycle sand back to the sand plant”

V. Narasimhan,
Executive Director, Brakes India Limited, India

Technical specifications

Type:	Metric	2400	2700	2900	3200	3400	3600	3800	4300
Sand/metal capacity max	tonnes/hr	25	35	50	60	90	110	140	200
Rated speed	rpm	3.8	3.3	3.0	2.7	2.5	2.3	2.5	2.2
Drive system: Friction Rollers		X	X	X	X	X	X		
Drive system: Girth Ring Drive								X	X
Average power consumption:									
Installed power	kW	22	30	44	60	88	120	160	250
Process water requirements:									
Water pressure min	bar	2	2	2	2	2	2	2	2
Water consumption:	litres/min	28	40	56	68	100	120	160	225
Compressed air requirements:									
Air pressure min	bar	6	6	6	6	6	6	6	6
Air consumption	Nm ³ /min	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5
Mixer dimensions:									
Diameter	mm	2400	2700	2900	3200	3400	3600	3800	4300
Length	mm	9400	10460	12500	12500	15250	16150	19180	22400
Distance centreline-floor	mm	1660	2029	2280	2425	2560	2638	3120	3375
Net weight:	tonnes	11	20	26	26	40	45	58	70

Process specifications

- **Casting discharge temperature**
The final casting temperature is typically between 70 and 90°C with an inlet temperature of approx. 700°C, depending on the type of casting and flow rate through the drum
- **Sand discharge temperature**
A sand temperature between 45 and 55°C and a moisture content of about 1.5% (max 1.8%) is normally reached if the metal to sand ratio is between 1:5 and 1:10 when entering the drum. An optional Secondary Water Dosing System (SWD) system ensures final sand temperatures below 45°C
- **Noise levels**
Noise levels are less than 85dB (A)

Accurate control

The advanced DISA control system assures optimum cooling without exceeding the moisture limit. The system also detects unpoured moulds and adjusts water addition accordingly.

Optimal pre-conditioning with SWD

The Secondary Water Dosing system (SWD) takes advantage of the even process flow of screened sand from the DISACOOOL.

- Controlled addition of water to the already cool and moist sand enables additional cooling of the sand to a temperature below 45°C
- Prior to recycling to the main hoppers, sand moisture content is below 2%

