High-Performance Centrifugal TM Mixer

DISA Group

Founded in 1900, DISA is the world’s leading supplier of foundry equipment and metal surface finishing systems.

With factories, sales and service offices in three continents and an extensive agent network, DISA serves international industrial manufacturers, foundries and metalworking industries with leading edge technology and service solutions tailored to their specific needs.

For more information please visit www.disagroup.com

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For illustrative purposes the DISA equipment may be shown without any warning labels and with some of the protective guards removed. The warning labels and guards must always be in place when the equipment is in use.

The technical data are not binding. They are not warranted characteristics and are subject to change.

Please consult our General Conditions of Supply.

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DISA Turbine TM Mixer

The DISA Turbine TM Mixer delivers unbeatable reliability, precision, durability and cost-efficient operation. Robust design, precision engineering and quality components combine with the latest process control technology to make the DISA Turbine Mixer superior in every way.

Economic and precise mixing system

The mixing tool rotates continuously during leading with pre-batched material. The large-diameter "T"-shaped mixing ploughs and the high-velocity blenders, one or two, depending upon mixer size, which are mounted from above, rotate in opposite directions, while the mixing pan and guide ploughs remain stationary. This combination guarantees fast, high-intensity preparation as well as perfect homogenisation of the moulding sand.

- Exceptional economic operation due to high throughput rate and improved energy efficiency
- Exceptional castings quality due to homogenous and fluffy moulding sand of consistently high quality
- High throughput rate and short mixing cycles due to intensive mixing

Important TM Mixer features

- Efficient and economic operation due to high throughput rate and short mixing cycles
- High casting quality due to homogenous and fluffy moulding sand of consistently high quality
- Full integration into any sand circulation system using the intelligent control system
- Low maintenance requirement due to robust components, automatic lubrication and minimum wear of mixing tools and mixer bowl
- Easy access to all wear parts for quick reparation
- Environmentally friendly operation with dust collection system

Precision dosing and weighing

Precise amounts of used sand and additives are dosed simultaneously into the mixer through a single opening. Pre-mixing is achieved with immediate radial injection of water through the mixer wall into the material flow, thus eliminating the dry mix stage. This unique mixing technology enables exceptional preparation efficiency with shorter cycle times. If the mixer is equipped with a Sand Controller the operator is automatically dosed to pre-selected compactability.

- Optimum sand properties due to automatic moisture level control and controlled material feed
- Radial water injection into the sand batch prevents granulate formation, thus providing an improved casting surface
- High process efficiency and low bentonite requirement

Sand Controller

An optional Sand Controller ensures ideal sand quality by enabling integration of dosing, mixing and monitoring.

- Continuous control of sand quality to ensure consistent properties
- Continuous monitoring and regulation of compactability and mould strength
- Monitoring during the mixing process enables correction of sand moisture
- Addition of correct quantities of water and bentonite

Pneumatic bond injection – the flexible solution

The Bond Injection System is an alternative to the addition of bond and sand from the top of the mixer. The batch of additives is first weighed separately in a weigh hopper before being discharged into a pneumatic sender. From here the material is blown into the batch of used sand in the mixer through a flexible hose. This technique enables more flexible location of additives hoppers and reduces the formation of dust and associated fines which are lost to the extraction system.

- Flexible solution with small footprint, excellent for example in confined spaces or complex installations
- Direct injection of additives into the sand improves mixing efficiency and sand quality
- Reduces the formation of dust, thus reducing the amount of additives lost into the dust extraction system

Technical data

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Batch size (max.)</td>
<td>500 kg</td>
<td>750 kg</td>
<td>1000 kg</td>
<td>1400 kg</td>
<td>1850 kg</td>
<td>2500 kg</td>
<td>3200 kg</td>
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<tr>
<td>Furnace power</td>
<td>22.5 kW</td>
<td>30 kW</td>
<td>37 kW</td>
<td>45 kW</td>
<td>45 kW</td>
<td>55 kW</td>
<td>55 kW</td>
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<tr>
<td>Batch weight</td>
<td>90 kg</td>
<td>90 kg</td>
<td>90 kg</td>
<td>90 kg</td>
<td>90 kg</td>
<td>90 kg</td>
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<tr>
<td>Conveyance</td>
<td>24.5 m³</td>
<td>30 m³</td>
<td>40 m³</td>
<td>50 m³</td>
<td>50 m³</td>
<td>60 m³</td>
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<tr>
<td>Capacity</td>
<td>18.3 t/h</td>
<td>24.5 t/h</td>
<td>33.3 t/h</td>
<td>47.7 t/h</td>
<td>58.4 t/h</td>
<td>117.4 t/h</td>
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<tr>
<td>Cap. weigh hopper bent. + coal</td>
<td>0.1 m³</td>
<td>0.1 m³</td>
<td>0.1 m³</td>
<td>0.15 m³</td>
<td>0.15 m³</td>
<td>0.15 m³</td>
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<td>Cap. weigh hopper bent. + coal</td>
<td>0.1 m³</td>
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<td>0.1 m³</td>
<td>0.15 m³</td>
<td>0.15 m³</td>
<td>0.15 m³</td>
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<tr>
<td>Sifting masses</td>
<td>40 kg</td>
<td>50 kg</td>
<td>75 kg</td>
<td>90 kg</td>
<td>90 kg</td>
<td>117 kg</td>
<td>200 kg</td>
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<tr>
<td>Blenders</td>
<td>2/15 kW</td>
<td>2/15 kW</td>
<td>2/15 kW</td>
<td>2/15 kW</td>
<td>2/15 kW</td>
<td>2/15 kW</td>
<td>2/15 kW</td>
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<tr>
<td>Total drive power</td>
<td>67.5 kW</td>
<td>85 kW</td>
<td>112 kW</td>
<td>135 kW</td>
<td>200 kW</td>
<td>250 kW</td>
<td>310 kW</td>
</tr>
<tr>
<td>Total power</td>
<td>67.5 kW</td>
<td>85 kW</td>
<td>112 kW</td>
<td>135 kW</td>
<td>200 kW</td>
<td>250 kW</td>
<td>310 kW</td>
</tr>
<tr>
<td>Total weight</td>
<td>4400 kg</td>
<td>6500 kg</td>
<td>6700 kg</td>
<td>12400 kg</td>
<td>13200 kg</td>
<td>16900 kg</td>
<td>17000 kg</td>
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</tbody>
</table>

* Depending on water content and sand properties.