Submersible Mixer Type ABS RW 900

The compact submersible mixers have been designed for a wide range of applications. The units are suitable to achieve flow pattern in large tanks and open waters for mixing and stirring applications.

Construction
The submersible mixer is designed as a compact, water-pressure-tight unit including propeller and integrally casted installation bracket for attachment on the square guide tube. Different versions with a bracket for vertical angle adjustment and / or a flow ring can be chosen. The mixers are available in two standard material versions:
EC = cast iron version, CR = stainless steel version

Maximum allowable temperature of the medium for continuous operation is 40 °C.

Motor
Squirrel cage, 3-phase, 4-pole 50 Hz, insulation class F (155 °C), max. submergence 20 m.

Propeller
Technically optimized, axially operating 3-blade propellers with very good self-cleaning effect for vibration-free operation. The propellers are designed to achieve high thrusts and therefore a high flow capacity in axial direction.

Solids deflection ring
The patented solids deflection ring protects the mechanical seal from damage by ingress of solid or fibrous matter.

Bearings
All bearings are lubricated-for-life and maintenance-free, with a calculated lifetime of more than 100 000 h.

Gearbox
High efficiency planetary gearbox, fatigue strength with a calculated lifetime more than 100 000 h.

Shaft sealing
Mechanical seal: Silicon carbide / Silicon carbide.
O-Rings / lip seals: NBR.

Seal monitoring
DI-system with a sensor in the junction box.

Temperature monitoring
TCS-Thermo-Control-System with thermal sensors in the stator which open at 140 °C.

Cable
10 m sewage-resistant material.
Optional lengths (m): 15, 20, 25, 30.

Options
Explosion-proof version, flow ring, seals in viton, cable protection sleeve, PTC or PT 100 in the stator.

Accessories
Lifting bracket, vertical angle adjustment.

Weight
Without flow ring: 180/185/210 kg.
With flow ring: 258/263/288 kg.

Motor data

<table>
<thead>
<tr>
<th>Motor</th>
<th>A 110/4</th>
<th>A 150/4</th>
<th>A 220/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated power (kW)</td>
<td>11.0</td>
<td>15.0</td>
<td>22.0</td>
</tr>
<tr>
<td>Rated current at 400 V (A)</td>
<td>22.8</td>
<td>31.3</td>
<td>43.9</td>
</tr>
<tr>
<td>Speed (min⁻¹)</td>
<td>238¹</td>
<td>238¹ / 285²</td>
<td>285²</td>
</tr>
<tr>
<td>Motor efficiency (%)</td>
<td>84.9</td>
<td>84.0</td>
<td>85.4</td>
</tr>
<tr>
<td>Power factor</td>
<td>0.86</td>
<td>0.82</td>
<td>0.85</td>
</tr>
</tbody>
</table>

¹ gear ratio i = 6; ² gear ratio i = 5

Mixer performance table

<table>
<thead>
<tr>
<th>Hydraulic No.</th>
<th>Mixer power Pp in kW</th>
<th>Motor kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>9032</td>
<td>7.0</td>
<td>11.0</td>
</tr>
<tr>
<td>9033</td>
<td>7.8</td>
<td>11.0</td>
</tr>
<tr>
<td>9034</td>
<td>8.4</td>
<td>11.0</td>
</tr>
<tr>
<td>9035</td>
<td>10.2</td>
<td>15.0</td>
</tr>
<tr>
<td>9033</td>
<td>11.5</td>
<td>15.0</td>
</tr>
<tr>
<td>9034</td>
<td>14.4</td>
<td>22.0</td>
</tr>
<tr>
<td>9035</td>
<td>18.5</td>
<td>22.0</td>
</tr>
<tr>
<td>9052*</td>
<td>5.6</td>
<td>11.0</td>
</tr>
<tr>
<td>9053*</td>
<td>6.3</td>
<td>11.0</td>
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<tr>
<td>9054*</td>
<td>6.8</td>
<td>11.0</td>
</tr>
<tr>
<td>9055*</td>
<td>8.2</td>
<td>15.0</td>
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</tr>
<tr>
<td>9054*</td>
<td>11.3</td>
<td>22.0</td>
</tr>
<tr>
<td>9055*</td>
<td>13.9</td>
<td>22.0</td>
</tr>
</tbody>
</table>

* with flow ring

Materials

<table>
<thead>
<tr>
<th>Part</th>
<th>EC (cast iron)</th>
<th>CR (stainless steel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor housing</td>
<td>EN-GJL-250 painted</td>
<td>1.4571 (AISI 316 Ti)</td>
</tr>
<tr>
<td>Sliding bracket</td>
<td>EN-GJS-400-18 painted / polyamide</td>
<td>1.4408 / polyamide (CF-8M)</td>
</tr>
<tr>
<td>Motor shaft / Propeller shaft</td>
<td>1.4021 / EN-GJS-700-3</td>
<td>1.4021 / EN-GJS-700-3</td>
</tr>
<tr>
<td>Propeller</td>
<td>1.4571 (AISI 316 Ti)</td>
<td>1.4571 (AISI 316 Ti)</td>
</tr>
<tr>
<td>Fasteners</td>
<td>1.4401 (AISI 316)</td>
<td>1.4401 (AISI 316)</td>
</tr>
</tbody>
</table>

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