Submersible Mixer Type ABS XRW 750

The compact submersible mixer type ABS XRW 750 is specifically designed for the major mixing functions during the homogenization of sludge and slurry.

Construction
The submersible mixer is designed as a compact, water-pressure-tight unit, including propeller and integrally casted installation bracket for attachment to a square guide tube. 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
Premium Efficiency IE3, squirrel cage, 3-phase, 4-pole, 50 Hz, insulation Class F (155 °C), max. submergence 20 m.

Propeller
The mixer is equipped with a special 2-blade mixed-flow propeller. With this propeller a very strong rotating turbulent flow is produced in semi-axial flow direction. Therefore this propeller combines all properties for the homogenization of sewage sludge which belongs to the intrinsic viscous substances.

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

Bearing
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 life time 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, oil chamber (not in Ex version), motor, and gearbox.

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: 15 m, 20 m, 25 m, 30 m.

Features
- Highly efficient submersible mixer for the homogenisation of high concentrated sewage sludge.
- Reduced energy cost due to a unique drive unit design including a high efficient gear box.
- No risk to motor overloading due to high or varying dry matter content.
- Reduced mixing times
- Blockage-free, 2-blade propeller reduces LCC.

Motor data

<table>
<thead>
<tr>
<th>Motor PA 150/4</th>
<th>Rated power (kW) 15.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current at 400 V (A) 29.9</td>
<td></td>
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<tr>
<td>Speed (min⁻¹) 296¹</td>
<td></td>
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<tr>
<td>Motor efficiency (%) 92.3</td>
<td></td>
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<tr>
<td>Power factor 0.78</td>
<td></td>
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</tbody>
</table>

¹ = gear ratio i = 5

Mixer performance table

<table>
<thead>
<tr>
<th>Hydraulic No.</th>
<th>Mixer power P in kW</th>
<th>Motor kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>7511</td>
<td>9.7</td>
<td>15.0</td>
</tr>
</tbody>
</table>

Options: explosion-proof version, viton seals, additional seal (C-Cr), shielded cable, PTC or PT 100 in the stator, insulation Class H.

Accessories: lifting bracket.

Weight: 390 kg.

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-GJL-250 painted / polyamide (CF-8M)</td>
<td>1.4470 / 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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