The client had frequent maintenance issues with their belt-filter press, therefore they decided to change it during the general reconstruction of WWTP. However, no belt-filter press manufacturer could guarantee more than 18% DS content of sludge cake.

**SOLUTION**

EKOTON performed on-site pilot tests with a small MDQ model and achieved 18.5-20% cake DS content. The client was satisfied with the results and decided to purchase our equipment. Based on the required dewatering capacity, one unit of MDQ-353 C was installed. Previously installed belt-filter press is stored as a metal scrap in the territory of WWTP.

**RESULTS**

<table>
<thead>
<tr>
<th>TYPE OF SLUDGE</th>
<th>Waste activated sludge from SBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIT SLUDGE SUPPLY</td>
<td>12-18 m³/h (53-80 GPM)</td>
</tr>
<tr>
<td></td>
<td>210-230 kg DS/h (463-507 lb DS/h)</td>
</tr>
<tr>
<td>FEED SLUDGE DS CONCENTRATION</td>
<td>1-2 %</td>
</tr>
<tr>
<td>CAKE DS CONCENTRATION</td>
<td>18-22 %</td>
</tr>
<tr>
<td>OPERATION TIME</td>
<td>10 h/d</td>
</tr>
<tr>
<td>AVERAGE POLYMER DOSE</td>
<td>4-6 g/kg DS (8-12 lb/ton DS)</td>
</tr>
<tr>
<td>UNIT DAILY POWER CONSUMPTION</td>
<td>25 kW*h</td>
</tr>
</tbody>
</table>

Since the commissioning, the performance of EKOTON multi-disc screw press dehydrator MDQ-353 C has been stable and with no issues. With an average feed DS content of 1%, the cake DS content is 18-22% while maintaining the required filtrate quality. Control cabinet is equipped with a touch screen which enables setting operational parameters both for the dehydrator and a sludge pump. Operation of the dehydrator is fully automatic, therefore it requires no attention of an operator. Besides being almost noiseless, the performance is also reliable and faultless. Over 3-year operation period, only wash water hoses have once been replaced.