Valmet Uhle Box Cover
Cost saving felt conditioning solution

The perforated Valmet Uhle Box Cover is an effective and straight-forward solution to increase dewatering and reduce energy consumption in press section.

Efficient dewatering at a lower vacuum level

The more effective dewatering performance of a perforated Valmet Uhle Box Cover stems from the long dwell time in the suction area. The surface geometry of the perforation pattern improves water removal at a lower vacuum level. The cover provides stable support for the felt over the entire suction area; there is no ‘diving’ into slots as with conventional covers. Felts run longer.

Valmet Uhle Box Cover can be applied in two ways:

Case 1 – Increase dewatering at the existing vacuum level by replacing conventional Uhle box cover with the perforated one
- Increased dewatering
- Improved runnability
- Improved profiles
- Lower friction

Case 2 – Modify the existing vacuum system and replace conventional Uhle box cover with the perforated one
- Vacuum load reduction
- Lower friction - lower press drive load
  -> cost savings

Effective dewatering at a lower vacuum level

The more effective dewatering performance of a perforated cover stems from its large open area and more uniform vacuum effect.

The pick-up felt moisture profile with Valmet Uhle Box cover is very even when compared to slotted cover. Water removal efficiency is also better. Run time of each felt the same.

Production machine results.

Valmet Uhle Box Covers combined with Valmet vacuum system study and modification give an opportunity to achieve considerable production cost savings.

Results: increased dewatering

Valmet Uhle Box Cover was installed in the pick-up felt loop of a 7-m-wide containerboard machine. The target was to increase dewatering and improve runnability. Vacuum air load level remained on the earlier level

<table>
<thead>
<tr>
<th></th>
<th>2 x Uhle box with slotted cover</th>
<th>1 x Valmet Uhle Box Cover</th>
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</thead>
<tbody>
<tr>
<td>Pick-up felt</td>
<td></td>
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<tr>
<td>Uhle box dewatering</td>
<td>830 l/min</td>
<td>1,090 l/min</td>
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<tr>
<td>30% increase!</td>
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<tr>
<td>Vacuum level</td>
<td>50 kPa</td>
<td>36 kPa</td>
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<tr>
<td>28% decrease!</td>
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