TUnit SP

Stand-alone wastewater disposal & water filling station
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The Vogelsang TUunit SP is an integrated service station ensuring hygienic vacuum disposal of the content of toilet waste water tanks as well as refilling of water reservoir tanks onboard train carriages. The Single Point version (SP), equipped with a Vogelsang rotary lobe pump, is designed as stand-alone service module for the needs of small-scale train care service facilities.

A robust base cabinet holds the needed connections, valves, fittings and control elements as well as the pumping unit in one compact module. The base cabinet also provides separate compartments, which safely accommodate holding the hose end couplings when not in use.

A T-shaped mast is provided as suspended hose support with integrated hose retracting device. This allows the extra hose handling, facilitating movement in all directions while preventing wear due to trailing hoses.

Time-controlled hygienic rinsing & automatic water-stop function as well as hygienic interlocking of water filling and effluent extraction are provided as standard features.

**Advantages**
- Service station for water filling & toilet waste water disposal
- Cost-effective solution for small-scale train care service facilities
- Automatic hose retraction
- Maintenance-friendly, ergonomic design
- Hygienic rinsing to avoid water stagnation
- Water-Stop (filing time limiter) to avoid excessive water losses
- Outdoor design with heating elements

**Options**
- T-mast designs offering different working radius or height requirements
- Full-Port valve kit for higher water filling capacity
- Toilet tank rinse water hose kit
- Post top lighting
- Audible & visual signal or warning indicators
- Non-drip suction coupling EasyConnect Plus WD
- Trace heating for water supply lines provided within the base foundation
- Mounting frames for cast-in-place foundations or pre-fabricated one-piece foundation bases
- Residual water collection & draining upgrade kit eliminating the need for gravity drainage at the station
- Option to connect an additional TUunit MP as a remote service station
- Air-gap backflow preventer to allow safe internal rinse water supply
- Base-hinge adaptor for lowering masts for floor-level maintenance
- Process automation & data acquisition options available
- Additional thermal insulation for ambient temperatures as low as -25 °C

**Standard specifications**

<table>
<thead>
<tr>
<th>Base cabinet &amp; mast</th>
<th>Welded construction, mild steel galv.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pumping unit</strong></td>
<td>VX136-70Q-5,5 kW-400 V</td>
</tr>
<tr>
<td>Capacity up to</td>
<td>500 l/min</td>
</tr>
<tr>
<td>Vacuum</td>
<td>0 to -0,6 bar</td>
</tr>
<tr>
<td>Differential pressure max.</td>
<td>3,0 bar</td>
</tr>
<tr>
<td><strong>Hose retraction</strong></td>
<td>Mast-integrated counterbalance system and hose guiding rolls</td>
</tr>
<tr>
<td><strong>Working radius</strong></td>
<td>7.5 m</td>
</tr>
<tr>
<td><strong>Extraction hose kit</strong></td>
<td>DN50, 3&quot; suction coupler acc. UIC with ball valve</td>
</tr>
<tr>
<td><strong>Water hose kit</strong></td>
<td>DN25 water hose, 1&quot; stainless steel UIC type claw-coupler EasyConnect Basic WS with rotational joint</td>
</tr>
<tr>
<td>Capacity</td>
<td>Approx. 160 l/min (flow pressure 3 bar)</td>
</tr>
<tr>
<td>Control</td>
<td>Iso-panel protection class II incl. control elements &amp; indicators Voltage: 3-400 V 50 Hz Connected load: approx. 6,8 kW Cable grommet: max. Ø16 mm²</td>
</tr>
<tr>
<td>Interlocking</td>
<td>Hygienic interlocking of water hose kit / suction hose kit, electr.</td>
</tr>
<tr>
<td>Hygienic rinsing</td>
<td>Time controlled, to avoid water stagnation</td>
</tr>
<tr>
<td><strong>Auto-water-stop</strong></td>
<td>Filling time limiter, adjustable</td>
</tr>
<tr>
<td>Heating elements</td>
<td>4x 250 W</td>
</tr>
<tr>
<td></td>
<td>1x trace heating cable 20 W</td>
</tr>
<tr>
<td><strong>Main dimensions</strong></td>
<td>LxWxH approx. 1750 x 600 x 5200 mm</td>
</tr>
<tr>
<td>Weight approx.</td>
<td>950 kg</td>
</tr>
<tr>
<td>Ambient Temperatures</td>
<td>-20 to +40 °C</td>
</tr>
<tr>
<td>Ambient conditions</td>
<td>Moderate</td>
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</tbody>
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