VacuTEC - Vacuum Plasma Treater

Standard and Customised Vacuum Plasma Treaters

FEATURES:

- Easy to install and use
- Fast treatment times
- Standard or customised
- Vacuum level
- Process gas
- Process control
- Cost efficient surface treatment
- Chamber doors

The VacuTEC Plasma Treater is designed for treatment of a large number of different injection moulded parts. The VacuTEC is available with both single and multiple tray configuration. The VacuTEC offers very fast treatment times and optimum adhesion properties for downstream coating, gluing, painting and printing applications.

In the treating chamber a vacuum is built up to between 0.1 - 6 mbar before an electrical discharge is created through the integrated plasma electrode. Treatment times are often short, between 20 - 120 seconds depending on the material and its formulation.

The VacuTEC is appreciated for its simplicity of operation, reliability in production and fast process speed. Treating gasses such as argon and oxygen can be applied, but in most cases this is not necessary due to the high power exposed by the plasma discharge.

VacuTEC uses the advanced Tantec power generator HV-X series as power supply and specially designed plasma transformers to provide voltage to the plasma electrodes.

Tantec has both standard VacuTEC machines, but also custom-designed machines. The VacuTEC customized machines are specially developed and adapted 100% to customer wishes and requirements in relation to the production line.

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Easy to install
Connect to mains power and compressed air.

Fast treatment times
High power impact enables treatment times from 20 - 120 seconds, depending on material.

Standard or customised chambers
Chamber and part trays can be designed to most applications. Many available as standard.

Vacuum level
The plasma discharge is active from 0.1 - 6 mbar depending on application.

Process gas
Process gasses such as oxygen and argon can be used, but in most cases it is not necessary.

Process control
The entire plasma process is controlled by the HV-X generator and the PLC unit. All parameters are displayed through the touch panel. (Standard – Proface).

Cost efficient surface treatment
Due to the low power consumption and no need of special treatment gasses the unit is a very cost efficient solution for improving surface wettability and adhesion.

Vacuum pressure Plasma
Enables treatment of both conductive and non-conductive surfaces.

Chamber doors
Standard doors with manual opening or automatic motor driven doors available.

<table>
<thead>
<tr>
<th>Technical Specifications</th>
<th>VacuTEC Vacuum Plasma Treater</th>
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<tbody>
<tr>
<td>Mains Voltage and Frequency</td>
<td>100-480 VAC 50/60 Hz</td>
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<tr>
<td>Output Voltage/Power</td>
<td>Max. 400 Vp/max. 2000 Watt</td>
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<tr>
<td>Power supply</td>
<td>HV-X plasma generator series</td>
</tr>
<tr>
<td>Compressed air inlet</td>
<td>5–6 bar dry &amp; clean</td>
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<td>Process gas</td>
<td>Standard: air, oxygen, argon, nitrogen on request</td>
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<tr>
<td>Vacuum pump capacity in m³/min.</td>
<td>15 to 240 m³/min, depending on size of vacuum chamber, others on request</td>
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<tr>
<td>Vacuum level</td>
<td>0.1 - 6 mbar</td>
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<tr>
<td>Evacuation time, typical</td>
<td>15-60 seconds, depending on chamber size and pump capacity</td>
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<tr>
<td>Plasma treatment time, typical</td>
<td>20–180 seconds, depending on material</td>
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<tr>
<td>Control and connectivity</td>
<td>Complete with touch panel. (Standard - Proface)</td>
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<tr>
<td>Regulation compliance</td>
<td>CE - RoHS - WEEE</td>
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