

# Product Information

LabTEC - Corona Lab System



## LabTEC Corona Lab System

**LabTEC is a corona system that has been adapted for use in a laboratory setting. The generator provided with this system has been adapted to provide tighter control as the system is used as a test device. The system is strictly manual to ensure that this will be a safe addition to any laboratory. You can easily treat a variety of parts by holding the insulated handle of the electrode.**

Adhesive bonding and finishing of moulded and extruded parts made of polyethylene, polypropylene, TPO and EPDM are constant manufacturing problems. Medical laboratory products made of polystyrene have poor wettability and poor cell attachment. The low polar surface energy of these materials that causes these deficiencies can be increased with corona treatment. Corona surface treatment is modification of polymer surfaces with electrical discharge at atmospheric pressure. The corona process creates the necessary polar functional groups on the polymer surface, which promote adhesion and wettability. Tantec's bench top

LabTEC is specially designed for treatment of small polymer parts. This includes both three-dimensional parts and films. The LabTEC is specially configured for R&D lab, model shop and small batch production. This system consists of a high-frequency power generator and a treating station with high-voltage transformer integrated into the station. The high-voltage transformer steps up the output signal from the generator to produce the high-frequency. The output of the transformer is connected to a stainless steel or ceramic roller electrode by way of an insulated high-voltage cable.

## TECHNICAL DATA

### Features:

- Easy to use
- Multi-layer counter electrode
- Usable for a number of different applications
- Generator
- Touch panel
- DyneTEC test kit
- Comes as a package

# TechnicalData

Plasma & Corona Treaters

adhesion bonding coating  
adhesion bonding coating  
adhesion bonding coating

## Features:

### Easy to use

This system is built for LAB use and is very flexible. It can be operated easily with safety shielding around.

### Multi-layer counter electrode

Tests a variety of polymers.

### Usable for a number of different applications

Both conductive and non-conductive material can be treated as the system is supplied with a hand-ball and a ceramic electrode.

### Generator

Generator type is HV-X02: 0-200 Watt output.

### Touch panel

Proface color touch screen 5.7" with built in PLC unit allows complete control of all available generator parameters. Anodized aluminium housing with foot stand and holes for wall mounting.

### DyneTEC test kit

A full DyneTEC test kit is included in the package.

### Comes as a package

The unit is a complete package: Generator, remote control, cables, LAB station, hand-ball and ceramic electrode. Transformer type is HT-X01-28: 28 kW.

| Technical Specifications              | HV-X02 Generator  | LAB-station            |
|---------------------------------------|---|------------------------|
| Mains voltage and frequency           | 100-240VAC 50/60Hz  | N/A                    |
| Output voltage/power                  | Max. 400 Vp/0-200 Watt  | N/A                    |
| Power consumption                     | 300 VA  | N/A                    |
| Ramp up time                          | 5-30 ms, depending on power load  | N/A                    |
| Shut down time                        | < 1 ms  | N/A                    |
| Dimensions in mm (LxWxH)              | 430 x 470 x 200   | 500 x 265 x 365        |
| Weight in kg                          | 12.5  | 15.2 incl. transformer |
| Operator interface control (Optional) | 5.7" STN color touch display<br>Ports: (1) USB - (1) Ethernet<br>- (1) Serial RS485       | N/A                    |
| Bus communication system              | Standard: RTU 4-Wire Modbus,<br>57.6Kbaud, 8bit. Optional:<br>CANopen/Profibus and others | N/A                    |
| Regulation compliance                 | CE - ROHS - WEEE  | N/A                    |

**tantec** 