FST | Horizon™ Software

Software that goes beyond …..

The FST equipment both the 50-Series and the 25-Series are equipped with FST | Horizon™ software.

- **50-Series : FST | Horizon™**

In this day and age software makes the difference in many modern life products around us. Mobile phones, cars and computers used in our everyday life are proof of this. Products have become more technically advanced providing more capabilities, though operating these products have become more convenient due to smart software. FST has taken this to heart and developed the FST | Horizon™ software. FST | Horizon™ is Easy to operate yet providing advanced capabilities.

Nowadays both the plasma and HVOF process are in essence still working using the basic technology. Innovations have provided us with more stable processes technology, however as plasma is still a plasma and HVOF still the same old HVOF.

FST | Horizon™ enables easy and accurate control for everyday production. The robust FST hardware is designed to work in perfect harmony with the Horizon™ software. The human machine interface provides the operator with a good overview and control over the process. At FST we understand thermal spray and therefore we know the importance of locking the process and minimize the process fluctuations. FST | Horizon™ in combination with the state of the art hardware technology assures your everyday thermal spray production.

The FST | Horizon™ Software controls the following processes:

<table>
<thead>
<tr>
<th>Thermal Spray Process</th>
<th>Process Gas</th>
<th>Carrier Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS</td>
<td>4</td>
<td>2 + 2</td>
</tr>
<tr>
<td>HVOF/LF</td>
<td>1 + Ethanol/Kerosene</td>
<td>2</td>
</tr>
<tr>
<td>HVOF/GF</td>
<td>3 + 1</td>
<td>2</td>
</tr>
<tr>
<td>Flame Powder</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Flame Wire</td>
<td>Under Development</td>
<td>-</td>
</tr>
</tbody>
</table>
**FST | Horizon™ Features**

All users of the FST | Horizon™ software are provided with a user license.

- **Multiple language technology**: German, English, French, Italian, Spanish, Dutch; Russian and Japanese; other languages are on request.
- **Password system Login**: four-level with password protection.
- **Provides different people within your company access to software levels or locked-out settings.**
- **Stores up to 1000 spray recipes.**
- **Torch Jet Cooling Air and Cooling Water IN can be set as part of the spray recipe.**
- **The Simplicity and Operator Menu** are designed to provide only the utmost important information for an optimal spray process. All graphs are displayed in large size for easy reading.
- **Data Trending, Logging and Reporting**
  - Data Trending: displays running parameters on the operator screen
  - Data Logging: dumps raw data on an USB drive for off-line processing
  - Data Report: advanced Data processing software. All parameters can be logged. Data is standard stored up to 10 years. With advanced search options statistical data can be searched and presented to the user for quality control purposes. Capable to communicate with ERP/MES (Enterprise Resource Planning/Manufacturing Execution System) software, thanks to the ISA88 and ISA95 standards.
- **Warnings and alarms**: Warning indication when one of the process parameters is 5% out of set values and process stop when 10% out of set values.
- **Warning and Alarm Information**, current and history displayed. Critical alarms will automatically shut down the process in a safe matter.
Suggested remedies for easy troubleshooting: an alarm indicates a problem that needs to be resolved. The FST | Horizon™ remedy option suggests practical solutions to resolve the alarm. This gets your system ready for production in a quick and convenient manner.

Safety: upon start of the process, the software performs a system check and informs the user of the system status. In case one of the start conditions is incorrect or not in place, the system will indicate the problem and suggest remedies.

Safety: Door locks, multiple gas sensors, gas pressure sensors, cooling water temperature sensor, air flow sensors are all integrated with the software.

Safety: Safe powder feed check allows the system user to start the feed rate without the possibility to start the thermal spray process. This assures a safe situation inside the spray booth while performing the spray powder feed check.

System overview: provides system users with a quick overview of the current status of the hardware. The actual hardware is displayed in the software, malfunctioning components turn red.

Consumption Page: provides information on total gas/fuel consumption. Counters are resettable

Multi process capability: runs up to three processes, Atmospheric Plasma Spray with multiple gun technology. HVOF-Liquid fuel, HVOF-Gas fuel.

System integration: with a wide range of handling equipment either through standard Level integration (I/O) or high level integration, (Master/Slave).

Remote access via eWon server: This feature allows FST service engineers to perform system status checks and update the software when required.
Enabled to be integrated with features like:
- IR Surface temperature sensor
- IR Heat camera
- Bar code reader (in combination with FST data reporting package).

FST | Horizon™ Software allows for simple and efficient parameter entry, storage, retrieval and back-up of spray run data.

FST | Horizon™ Touch-Screen Graphics are designed for simple and easy navigation. This enhances operating procedures and simplifies the operation of the system.

FST | Horizon™ Scheduler plans your calibration, maintenance work for you. By means of a tailor made maintenance scheduler, the software will indicate the required maintenance. The maintenance scheduler can be adjusted according the specific maintenance requirements of your service organization. Optionally, the maintenance scheduler blocks your system for production until the performed maintenance is acknowledged by your dedicated maintenance personnel.

Signal light: Tri-color light stack shows system status.

Feeder: Full integration with various types of powder feeders. All functions of the powder feeder are controlled by the FST | Horizon™ software.