Accuraspray 4.0

2020

Accuraspray 4.0

- Same functionality as previous versions
- Displays more user friendly for tracking process trends
- Can be used for all thermal spray processes including suspension spraying


Get ready
for thermal spray 4.0!
Tecnar is dedicated to helping you achieve quality, consistent coatings with every run. For this to happen, spray conditions must be optimal at all times. And you need a sensor that's precise, reliable, simple to use, affordable, easy to install, able to monitor all spray processes and has built-in industrial intelligence. That's why we developed the accuraspray 4.0.
tecnar
accuraspray 4.0
with the leader
AUTOMATION LTÉE


Power module
230 mm X 230 mm X 100 mm
9 in. X 9 in. X 3.9 in.
tecnar
accuraspray 4.0

Technical specifications

Measurement ranges	
Particle temperature range	1000°C and higher at 3% accuracy 1832°F and higher at 3% accuracy
Particle velocity range	5 - 1200 m/s at 2% accuracy 16.3 - 3900 ft/s at 2% accuracy
Spray plume intensity and peak height	2% accuracy
Spray plume width & position	0.1 mm accuracy 0.004 in. accuracy
Measurement volume information	
CCD camera field of view	400 mm 15.7 in.
Accuraspray measurement volume	3.2 mm DIA x 25 mm DOF = 200 mm^3 0.1 in. DIA x 1 in. DOF = 0.01 in^3
Substrate temperature pyrometer	From -18 to 538°C From 0 to 1000°F
Plant supplies	
Power requirements	120 - 240 VAC, 50-60 Hz 5A
Air supply	1.35 to 2 bar (20-30 psi) of clean dry compressed air

Set-up

- Single cable
- Mini computer in control module….wireless capable
- Software web based
- Can open on any phone/tablet with browser
- Plug in to any booth computer with video capability

TECNAR AUTOMATION LTÉE

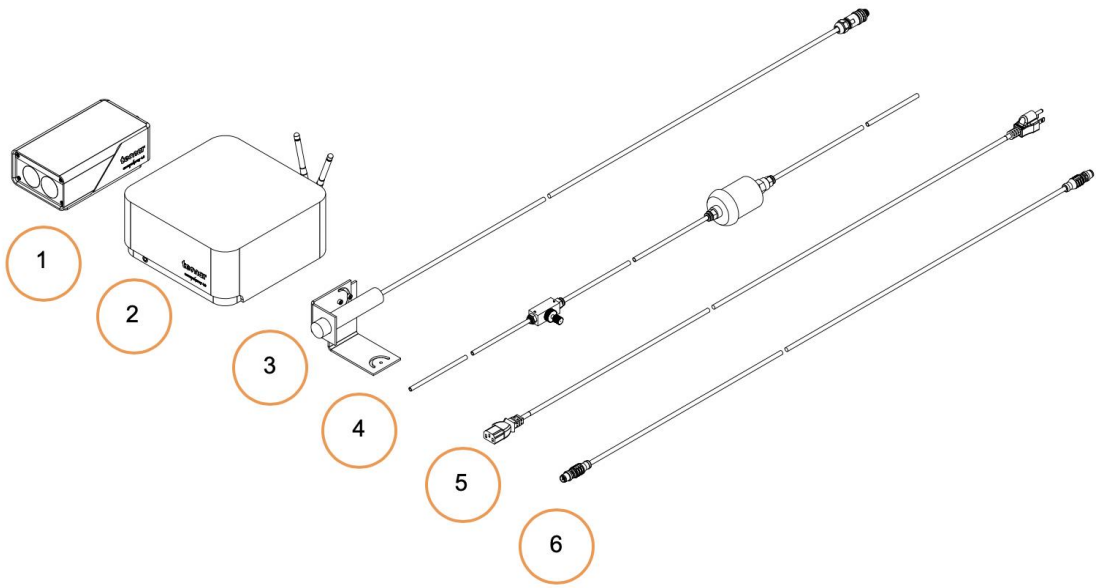
Sauer Engineering

New Features

- Auto Center
- Laser Dot button on back
- Process control green and yellow
- Advanced reporting/tracking

Getting Started

1. Sensor head
2. Controller
3. Substrate pyrometer and its support bracket (optional)
4. Air filter and hoses
5. Controller power cable
6. Communication cable between the head and controller

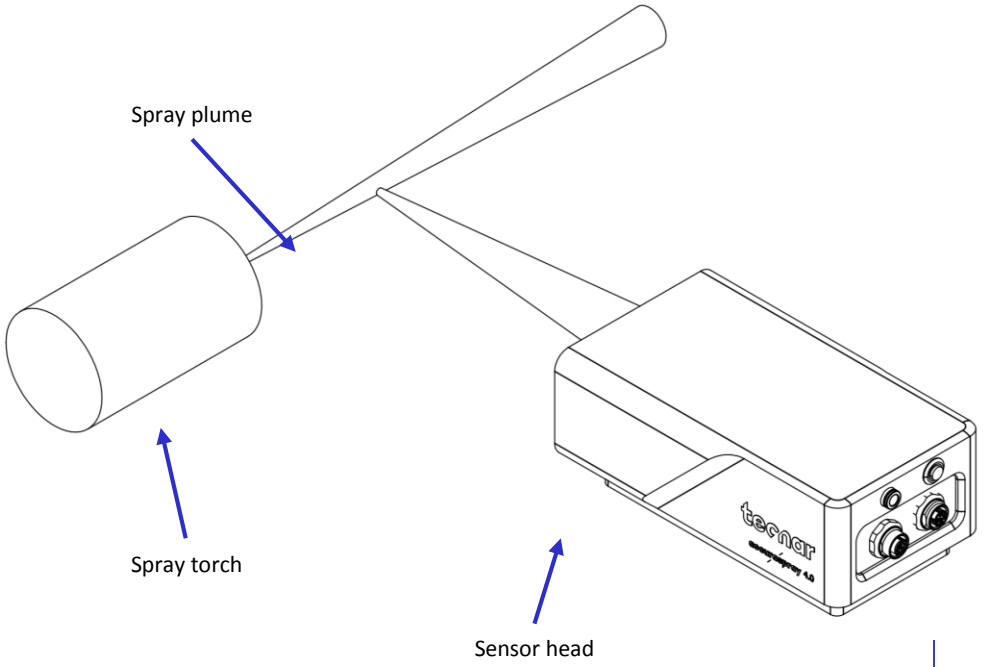


Set-up

Install the sensor head in the spray booth at a location easily reachable by the robot (spray gun). It should be a permanent location so that the robot can reach the sensor head in a repeatable fashion.

Robot touch-off may be required to measure plume position precisely.

Also make sure that the sensor head does not interfere with normal spraying operations.

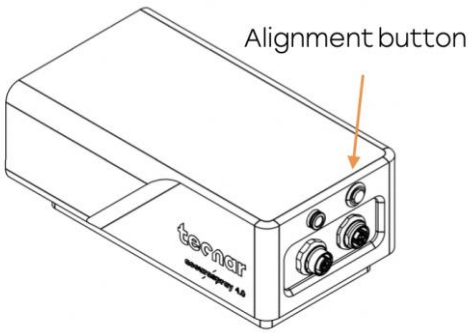


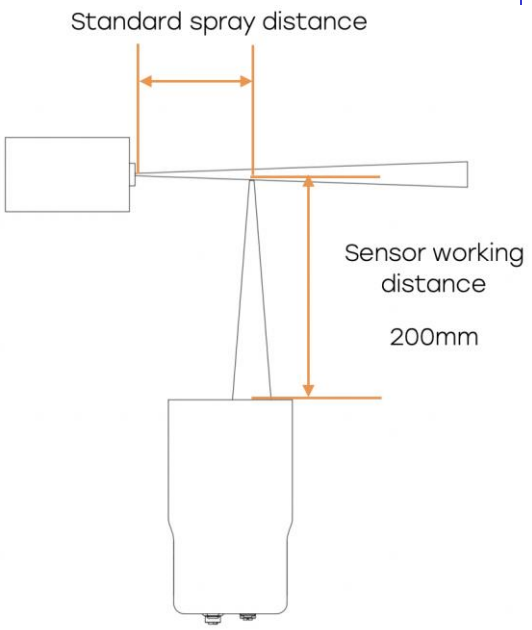
TECNAR AUTOMATION LTÉE

Sauer Engineering

Set-up

- Activate the alignment beam using the push button located at the back of the sensor.
- Bring the spray gun near the sensor head as shown on the schematic.
- The sensor measurement point is normally set to your standard process spray distance.
- The distance between the front of the sensor head and the spray torch axis should be adjusted to 200mm





Main Screen


tecnar
2700
2800
2739
Temperature
°C
140
160
150
Velocity
m/s
20
40
18
Intensity
a.u.
5
10
4
Plume density
a.u.
125
150
128
Part temperature
°C
Current setup:
YSZ_Plasma
-0.3
4.9
Plume
Deviation
mm
Plume
Width
mm

Data and Strip Chart Screen

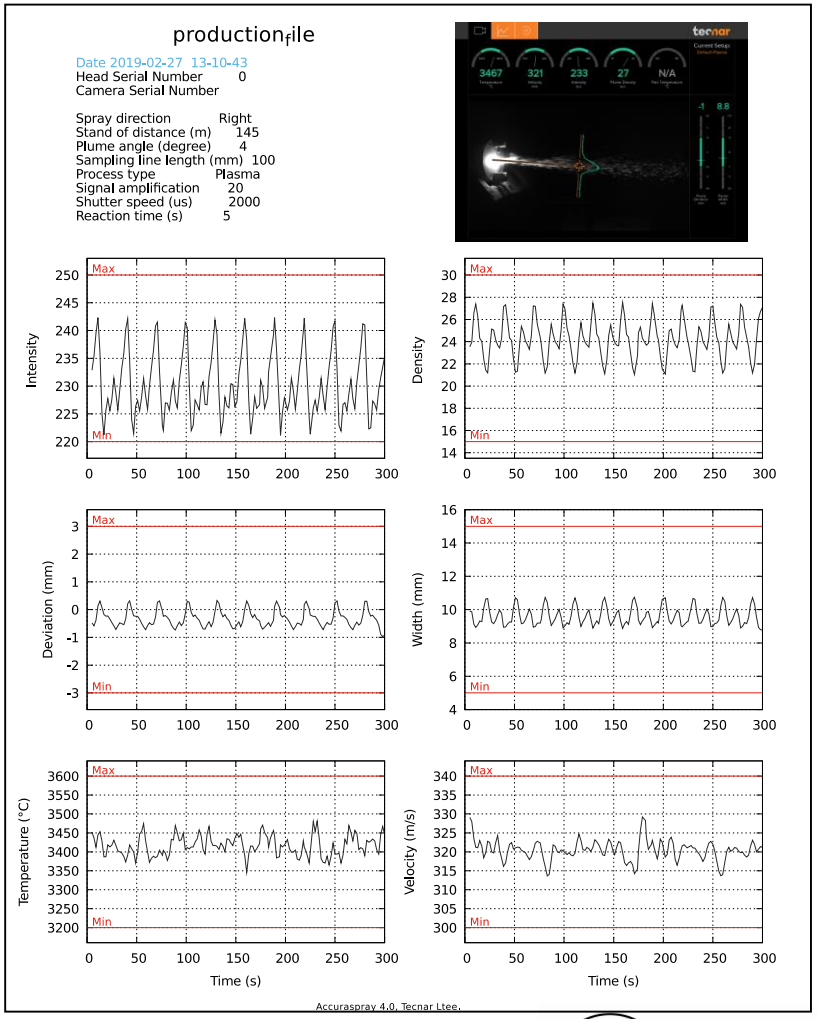
Production Report

Production reports contains a screen shot of the camera screen (taken a the time when the 'Save' icon was clicked).

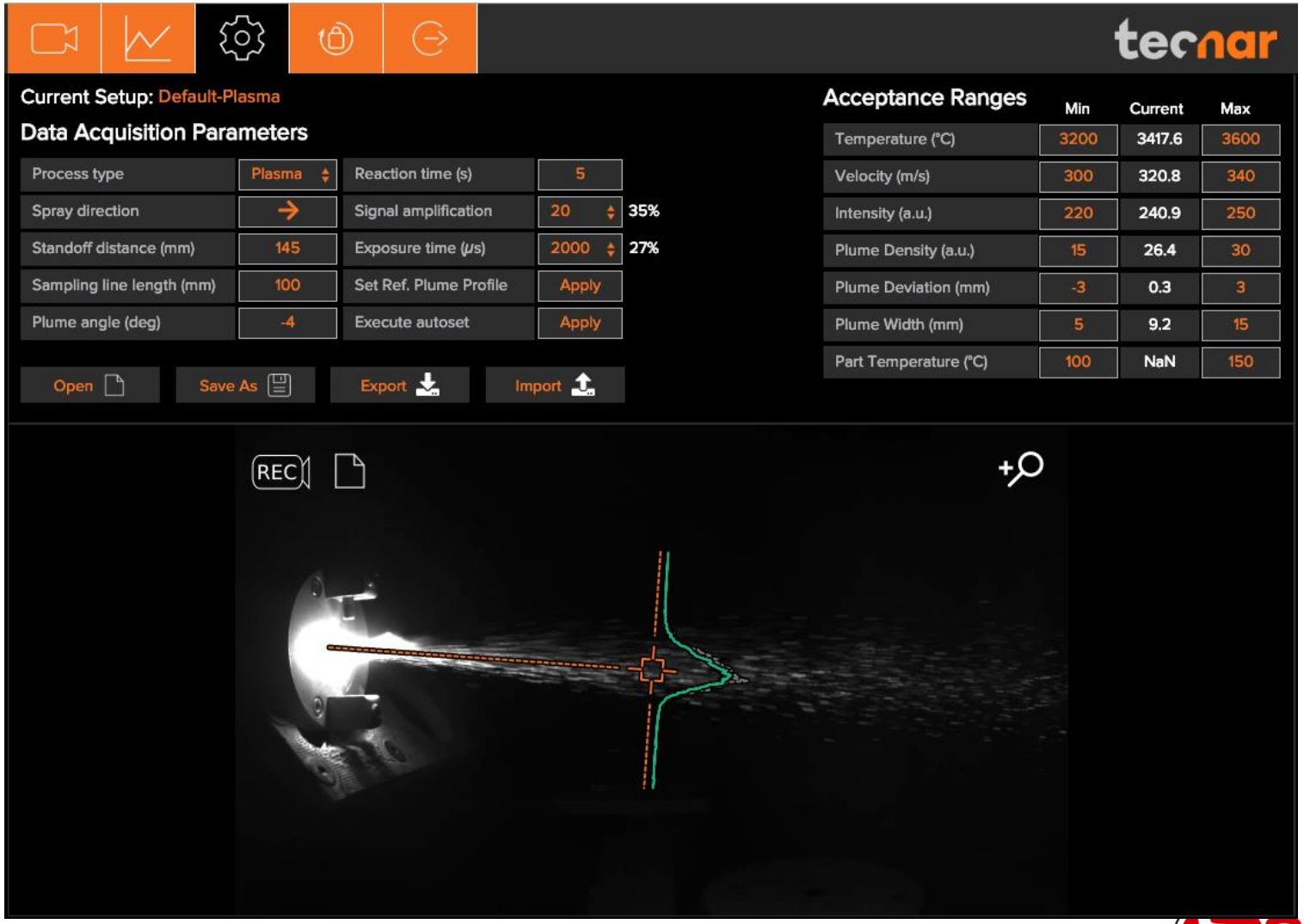
It also contains all the strip charts.

The duration of the strip charts in the production report is the same as what was displayed in the User interface at the time when the production report was generated.

If desired you can take the strip charts .csv file and generate your own graphs to manipulate the data.

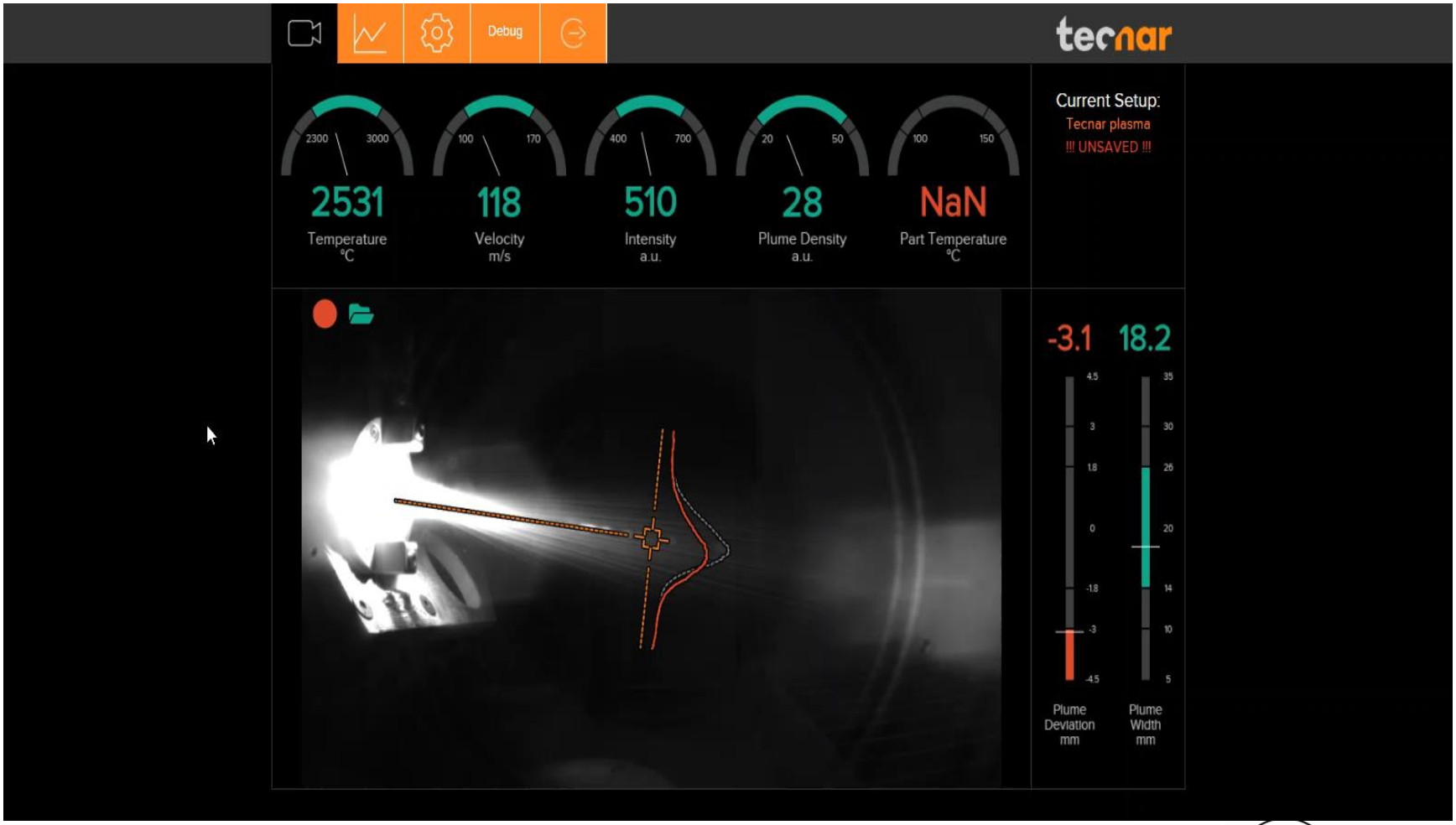


Set-Up Screen



Adjusting the Torch Position

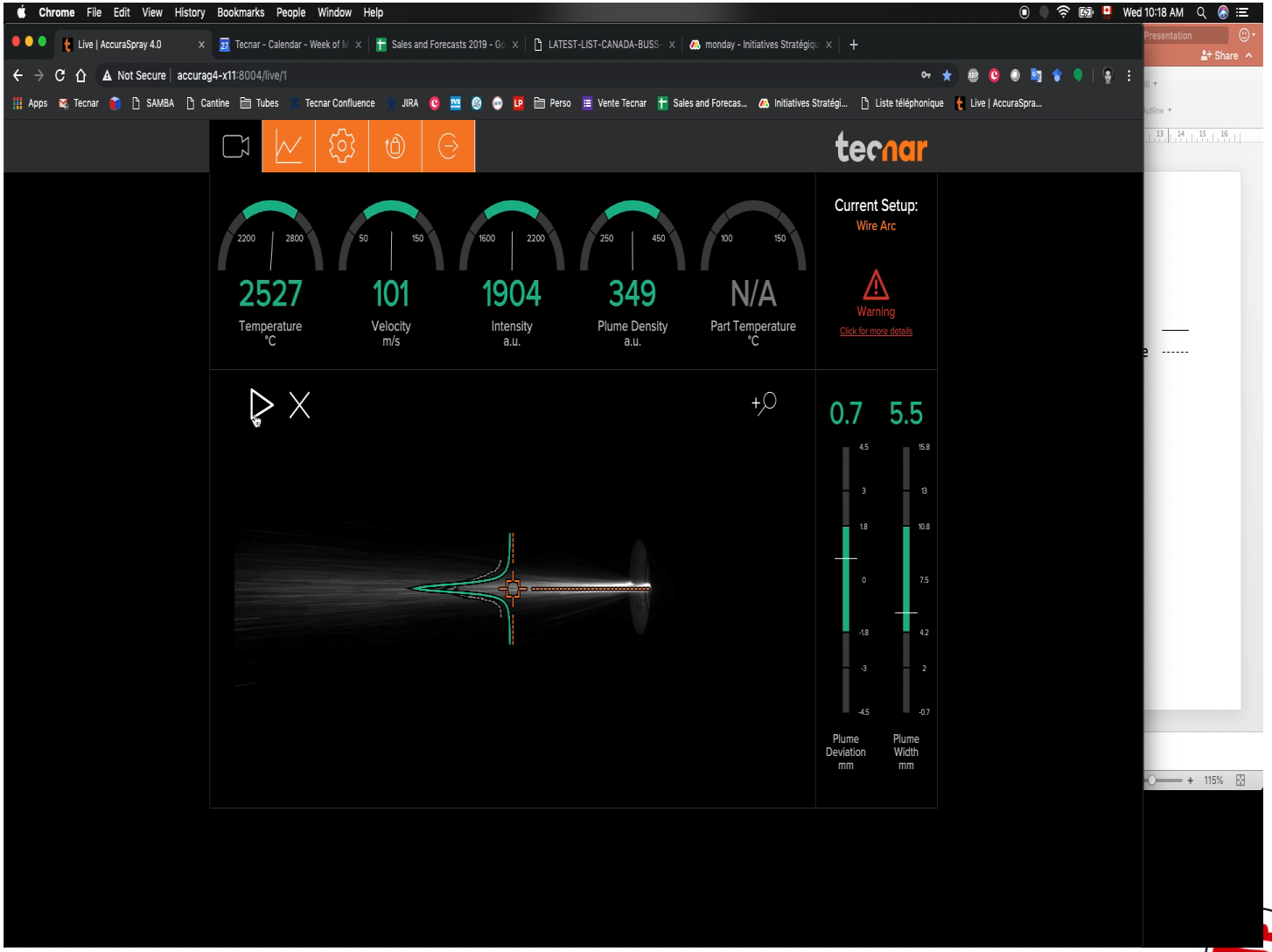
Carrier Gas Adjustment



Power Adjustment

Increased Gas Flow Rate

Wire Spray


Chrome File Edit View History Bookmarks People Window Help
Wed 10:18 AM
Live | AccuraSpray 4.0
Not Secure | accurag4-x11:8004/live/1
tecnar
2527
Temperature
°C
101
Velocity
m/s
1904
Intensity
a.u.
349
Plume Density
a.u.
N/A
Part Temperature
°C
Current Setup:
Wire Arc
Warning
Click for more details
0.7
5.5
Plume Deviation mm
Plume Width mm

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- Questions