

Appendix 1

Work zone Report

finger3

Description

Job Execution History

- Last execution only
- Work Completed
- User Stop Request
- User Skip Request
- Last Active Slice Reached
- Splitting Part Mixed
- Unknown
- Reached Work Chamber Security Quote
- Insufficient Gas Pressure
- Power Failure
- Laser Failure
- Exceeded T/H Thresholds
- Unexpected Error
- Motor Error
- Gas Regulation Alarm
- Air Velocity Regulation Alarm
- Unacceptable Gas Level
- Unacceptable Air Velocity
- Filter Exhaust
- Laser Scanner Failure
- Unable To Lock Door
- EtherCAT Master Alarm
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	Begin	End
Date/Time:	2023-Jun-07 10:43:16	2023-Jun-07 12:15:17
Job duration:	1 hours, 32 minutes, 0 seconds	
Slice:	1	1033
Supply chamber quote (mm):	46.186 [user -24.918]	89.066 [user -67.797]
Work chamber quote (mm):	86.258 [user 36.743]	65.598 [user 57.402]
Average Gas Regulation (l/min):	0.892	
Total Gas Consumption (l):	475.845	
Filter Life (%):	7.4	14.9
Stop Reason:	Work Completed	

Material Parameters

material profile name:last used -316L-A

Laser power (W):	100
Laser speed (mm/sec):	600
Chambers Retraction (mm):	0
Coater Work Speed (mm/sec):	80
Coater Return Speed (mm/sec):	250
Coater Pre-Coating Speed (mm/sec):	160
Use Dynamic Over Supply:	false
Over Supply Factor (%):	200
Minimum Over Supply Factor (%):	110
Fan speed (m/sec):	3
Oxygen level (%):	0.3
Laser Focus Shift (mm):	0
Enforce CAM parameters:	true
Wobbel Amplitude (mm):	0
Wobbel Frequency (Hz):	0
Enable Wobbel Function:	false
Inert Gas Type:	Nitrogen
First Layer Iterations:	1
Scanner Behavior:	MixedAdvancedSkywriting
Process Camera Acquisition Enabled:	false
Minimum Time Between Exposure:	0
Increase Supply Factor for First Slices:	true
Number Slice with Increased Over Supply:	40
Value Over Supply First Slices (%):	400
powder Density (kg/dm³):	0
Substrate Type:	3
Grid Size (mm):	2.5
Grid Angle (°):	0
Grid Margin (mm):	5
Grid Laser Beam Speed (mm/sec):	500
Grid Laser power (W):	100
[OverwritePulsingParams]:	false
[In_Skin_pulsing]:	false 0 0 false 0 0 false 0 0
[Up_Skin_pulsing]:	false 0 0 false 0 0 false 0 0
[Down_Skin_pulsing]:	false 0 0 false 0 0 false 0 0
[Core_Skin_pulsing]:	false 0 0 false 0 0 false 0 0
[Support_pulsing]:	false 0 0 false 0 0 false 0 0

[Original geometry data file information](#)

Index:	1
Original geometry data file:	E:\Finger\Finger.WZA
Original geometry part name:	Finger
Slicing:	0 layers (height: 0.020 mm)
Offset (X, Y):	0.000, 0.000
Bounding box (X, Y, Width, Height):	-6.459, -5.508, 7.614, 8.966
Laser Parameters:	See detailed CAM parameters report.

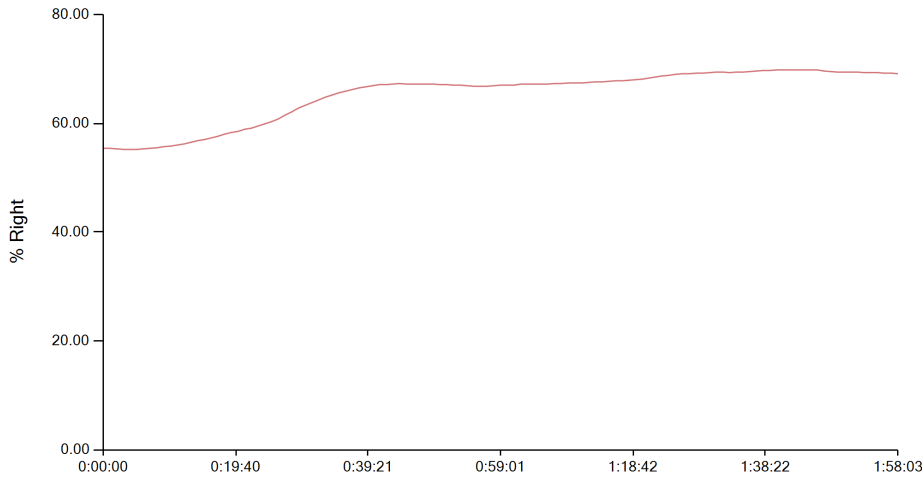
	Date: 12/06/2023	Document Revision: Rev #1
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finger3	
<p>General:</p> <p>Builjob Name: finger3 Job Id: 472 Workzone Name: finger3 Production Date: 07/06/2023 Start Buildjob: 07/06/2023 10:15:27 End Buildjob: 07/06/2023 12:15:17 Runtime: 1h 59m Layers: 1033/1033 Build height: 20.66 mm Reason For Job End: WorkCompleted Operator:</p>	
<p>Material:</p> <p>TYPE: LOT Nr.:</p>	
<p>Order Information:</p> <p>Order Number: Job Number: Notes:</p>	
<p>Machine Information:</p> <p>Serial Number: LS0010382 Hmi Software Version:</p>	

Condition Monitoring:

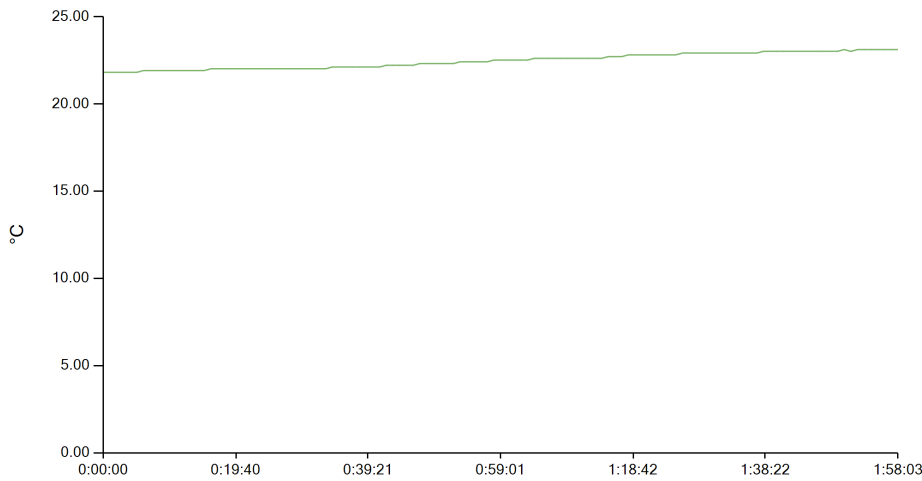
Ambient humidity

Status: Ok
Status message: Everything Ok
Min: 55.20 % r.H.
Max: 69.80 % r.H.
Mean: 65.31 % r.H.



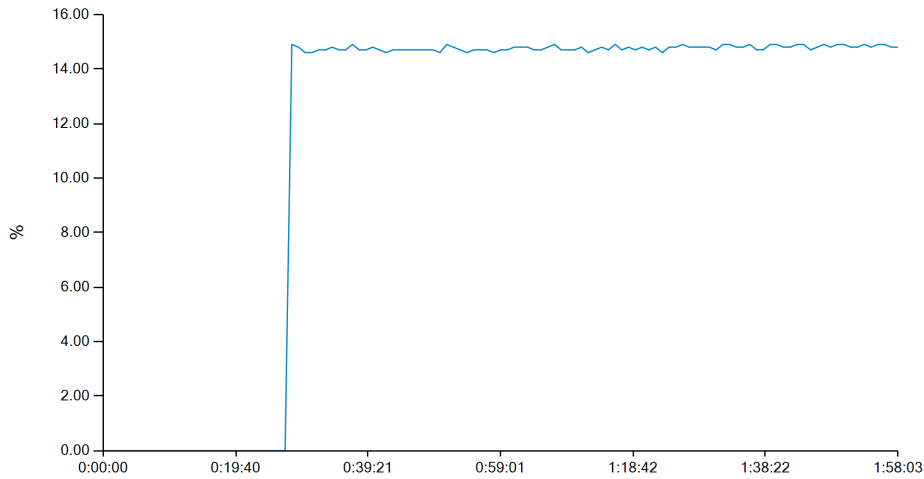
Ambient temperature

Status: Ok
Status message: Everything Ok
Min: 21.80 °C
Max: 23.10 °C
Mean: 22.45 °C



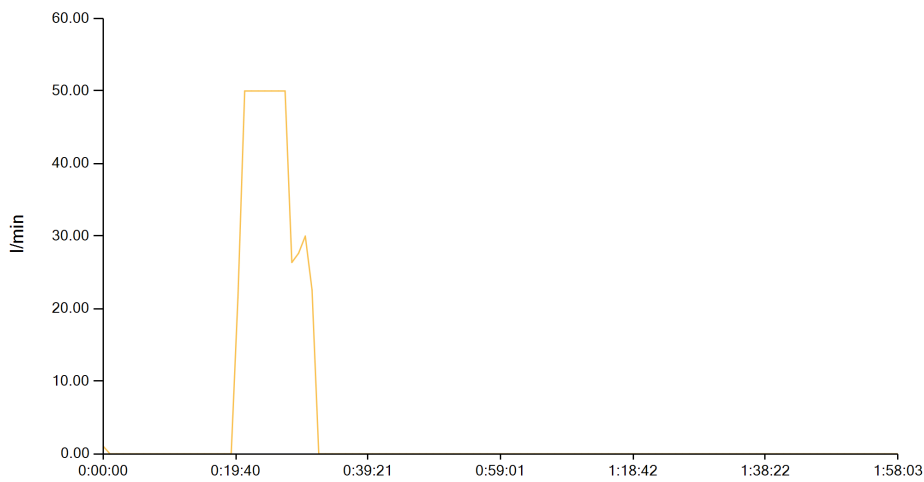
Filter Status

Status: Ok
Status message: Everything Ok
Min: 0.00 %
Max: 14.90 %
Mean: 11.29 %



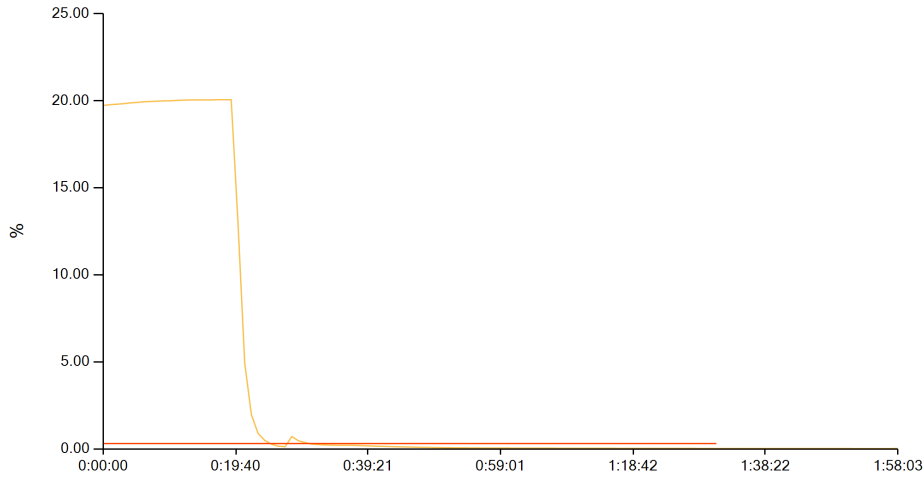
Inert gas flow

Status: Ok
Status message: Everything Ok
Min: 0.00 l/min
Max: 50.00 l/min
Mean: 4.03 l/min



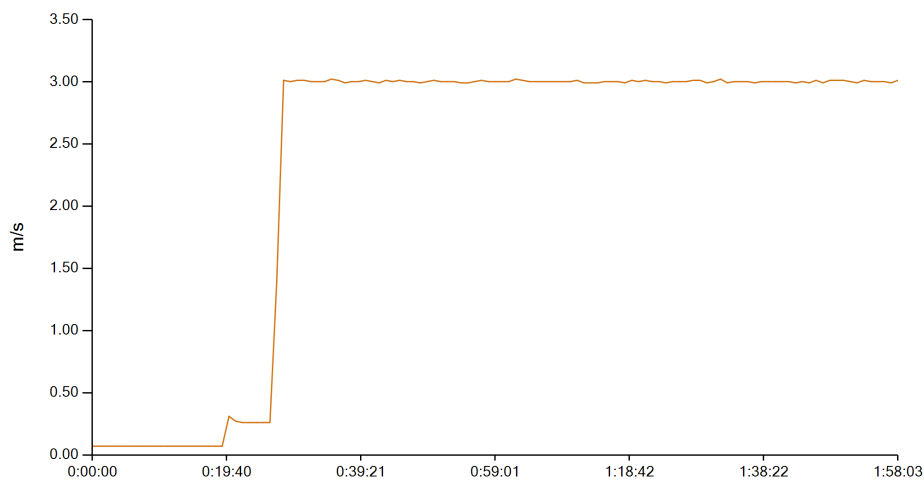
O2 Content (Process)

Status: Ok
Status message: Everything Ok
Min: 0.02 %
Max: 20.05 %
Mean: 3.59 %
Setpoint: 0.3% ±5%



Shielding gas flow rate

Status: Ok
Status message: Everything Ok
Min: 0.07 m/s
Max: 3.02 m/s
Mean: 2.33 m/s



Performance Monitoring:

Used powder volume:	0.34 l
Used gas volume for inertization:	407.92 l
Inertization duration:	29 min
Used gas volume during build:	80.40 l
Total Coating time for build job:	58 min
Total Melting time for build job:	13 min

Details Display Screen in the Machine

sisma

Set Up **Production** **Messages** **Monitoring** **Settings**

Supply Cyl. 78.905 mm
Build Cylinder 70.699 mm
Recoater 134.89 mm
Laser Status Ready
60 W
Ambient 22.9°C
70% RH
Process Data
Oxygen Circulation 229 ppm
Oxygen Process Chamber 3.02 %
Shielding Gas Circulation 3.0 m/s
Shielding Gas Supply 0.0 l/min
Filter Status

Use CAM parameters
Overwrite Workzone Parameters
Laser Power (W) 100
Scan speed (mm/s): 600
Over-Supply Factor (%) 200
Use Dynamic Powder Supply
Oxygen Level (%) 0.3000
Shielding gas speed (m/s) 3.0
Minimum time between 0
Recoater speed (mm/s)
Return: 250
Coating 80
Pre-coating speed 160
Start at layer number 1
Process Camera Image Recording Active
Current layer 778/1033

Current build job: finger3
Started on: 2023-06-07 10:43
Estimated end of job: 2023-06-07 12:15
Recoating time: 3.5 seconds

Wed 6/7/2023 11:52 AM