

Layout Report

Project Name	Hala Bio Master Tychy
Project Location	Floor 1-FAAST LT 1 LB-200 1Ch 1Sens - Filter
Layout Name	Channel 1 - Filter
Device Type	FAAST LT LB-200 1Ch 1Sens
Designed By	
Date	11-Aug-2019

Summary

Fan Speed	Auto				
Flow Balance	0.8				
		Min		Max	
Transport Time		H4	16.98 sec	H3	38.03 sec
Effective Sensitivity	Level 1 Pre-alarm	-	-	-	-
	Level 1 Alarm	H6	0.34 %/m	H2	0.43 %/m
Flow Rate		H2	5.67 l/min	H6	7.06 l/min
Pressure		H3	38.23 Pa	H4	46.12 Pa

Note: Pre-alarm level should be less than or equal to Alarm level.

Design Constraints

Constraints : EN54	
Classification : Class C	
Maximum Hole Sensitivity	0.6 %/m
Maximum Transport Time	120 sec
Maximum Single Pipe Length	50 m
Maximum Aggregate Pipe Length	90 m
Maximum Holes	8
Minimum Hole Flow	2 l/min
Minimum Hole Pressure	8 Pa
Minimum Detector Flow	32 l/min
Minimum Flow Balance	0.7
Design With Filter	YES

Environment

Normal Ambient Temperature	24 'C
Altitude	261 m
Pressure	98330.214 Pa

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Pipe Segments			
Length	Quantity	Description	Diameter
0.1	1	P1	21 mm
0.2	3	P4,P9,P6	21 mm
7	1	P5	21 mm
4.08	2	P10,P13	21 mm
7.1	1	P7	21 mm
0.8	2	P3,P11	21 mm
0.5	1	P2	21 mm
8.18	1	P8	21 mm
18	2	P14,P12	21 mm

DRILL SCHEDULE

Pipe Segments	Hole	Size	Absolute Distance	Relative Distance	Capillary Diameter	Capillary Length
		mm	m	m	mm	m

Filter should be placed between a minimum distance of 0.10 m and a maximum distance of 0.70 m from the FFAST LT unit. No branches or holes should be present between the sensing unit and the filter. Minimum distance between the filter and a branch is 0.40 m. For more details of the position of the filter, please consider PipeIQ manual.

P12	H1	4	33.39	4.23	-	-
P12	H2	4	39.39	6	-	-
P12	H3	4.5	45.39	6	-	-
P12	EC1		47.16	1.77	-	-
P14	H4	4	32.59	4.23	-	-
P14	H5	4	38.59	6	-	-
P14	H6	4.5	44.59	6	-	-
P14	EC2		46.36	1.77	-	-

SAMPLING HOLE PERFORMANCE

Hole	Transport Time	Pressure	Flow Rate	Flow %
	sec	Pa	l/min	%
H1	17.78	45.03	5.98	15.95
H2	24.98	40.64	5.67	15.15
H3	38.03	38.23	6.97	18.59
EC1			0	
H4	16.98	46.12	6.04	16.14
H5	24.1	41.68	5.75	15.34
H6	37	39.23	7.06	18.84
EC2			0	

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Sampling Hole Effective Sensitivity

Hole	Day Pre Alarm	Day Alarm	Night Pre Alarm	Night Alarm
	Level 1	Level 1	-	-
	%/m	%/m	%/m	%/m
H1	-	0.41		
H2	-	0.43		
H3	-	0.35		
EC1	-	0		
H4	-	0.4		
H5	-	0.42		
H6	-	0.34		
EC2	-	0		

The device is EN54-20 approved at sensitivity level 1,2,3, meeting Class C.

▲ indicates design constraint was not met

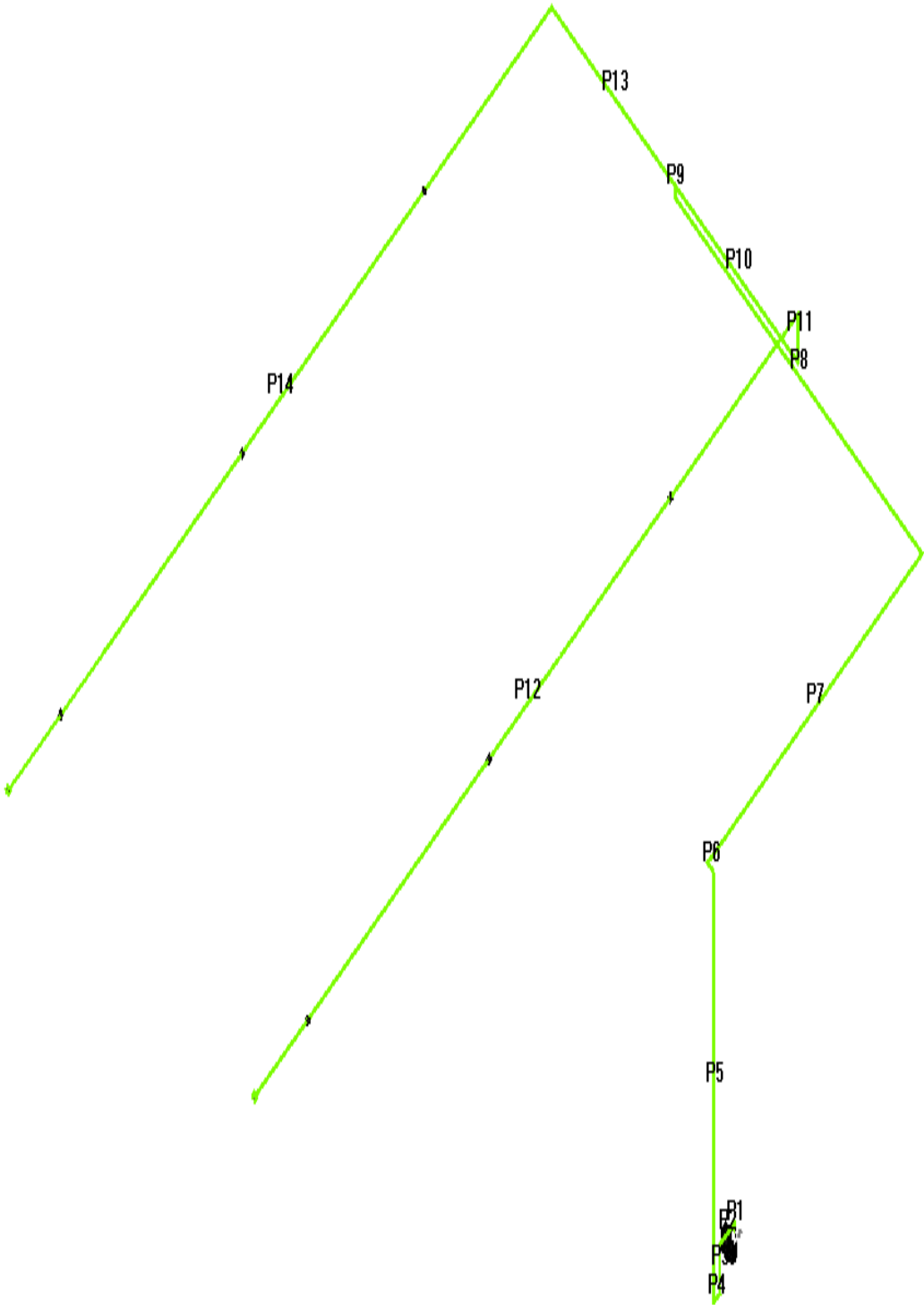
* Indicates end cap with non sensing hole

PipelQ provides pipe network designs conforming to EN54-20 and UL/ULC standards. Other national and local codes and regulations may vary. PipelQ pipe network designs may not conform to all national or local code requirements. Please ensure that the pipe network parameters adhere to relevant national and local codes and regulations. System Sensor disclaims all liability arising from PipelQ pipe network designs nonconformance with national or local code requirements.

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PIPE LAYOUT SCHEMATIC

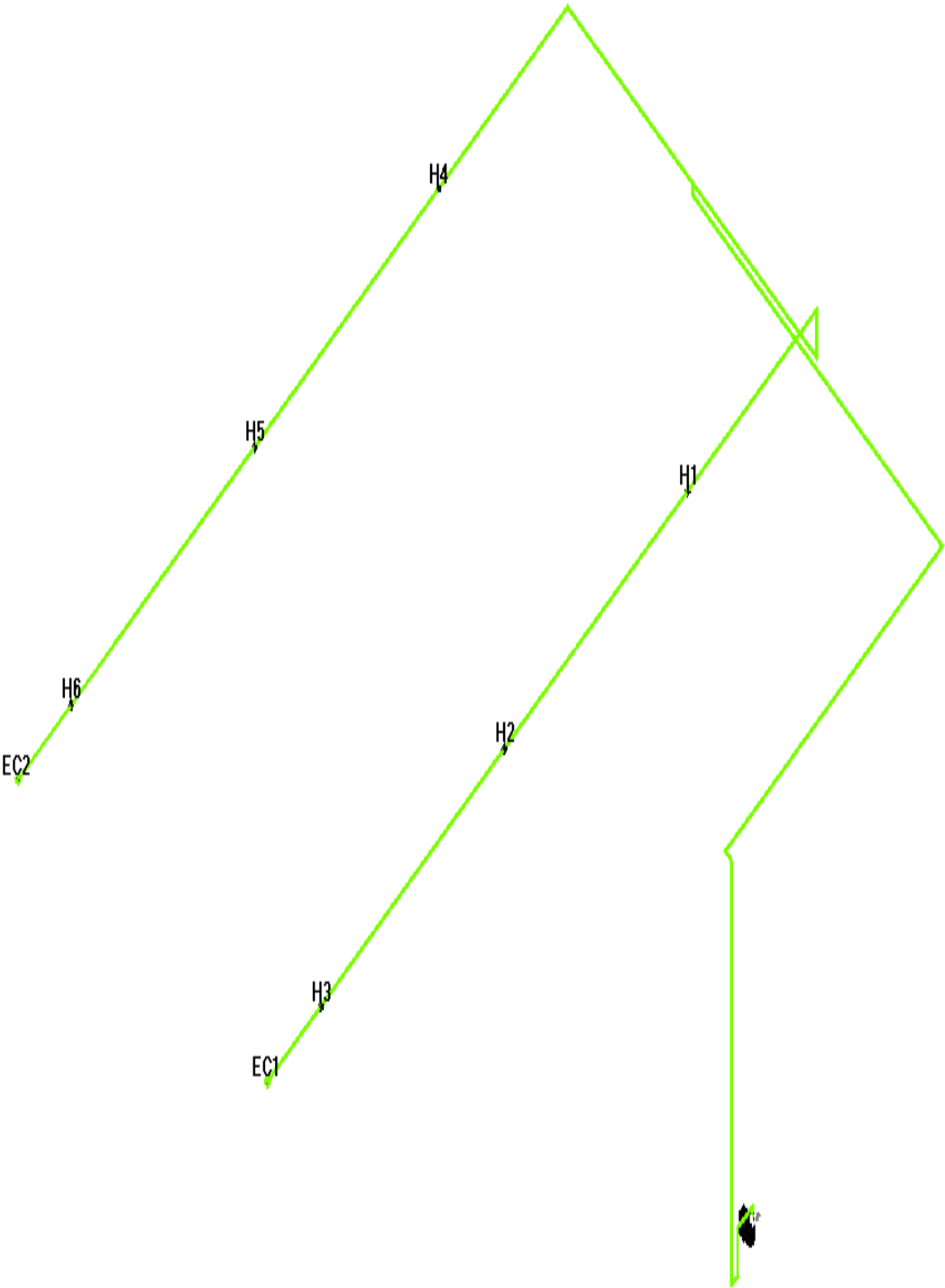
PIPES



Layout Report

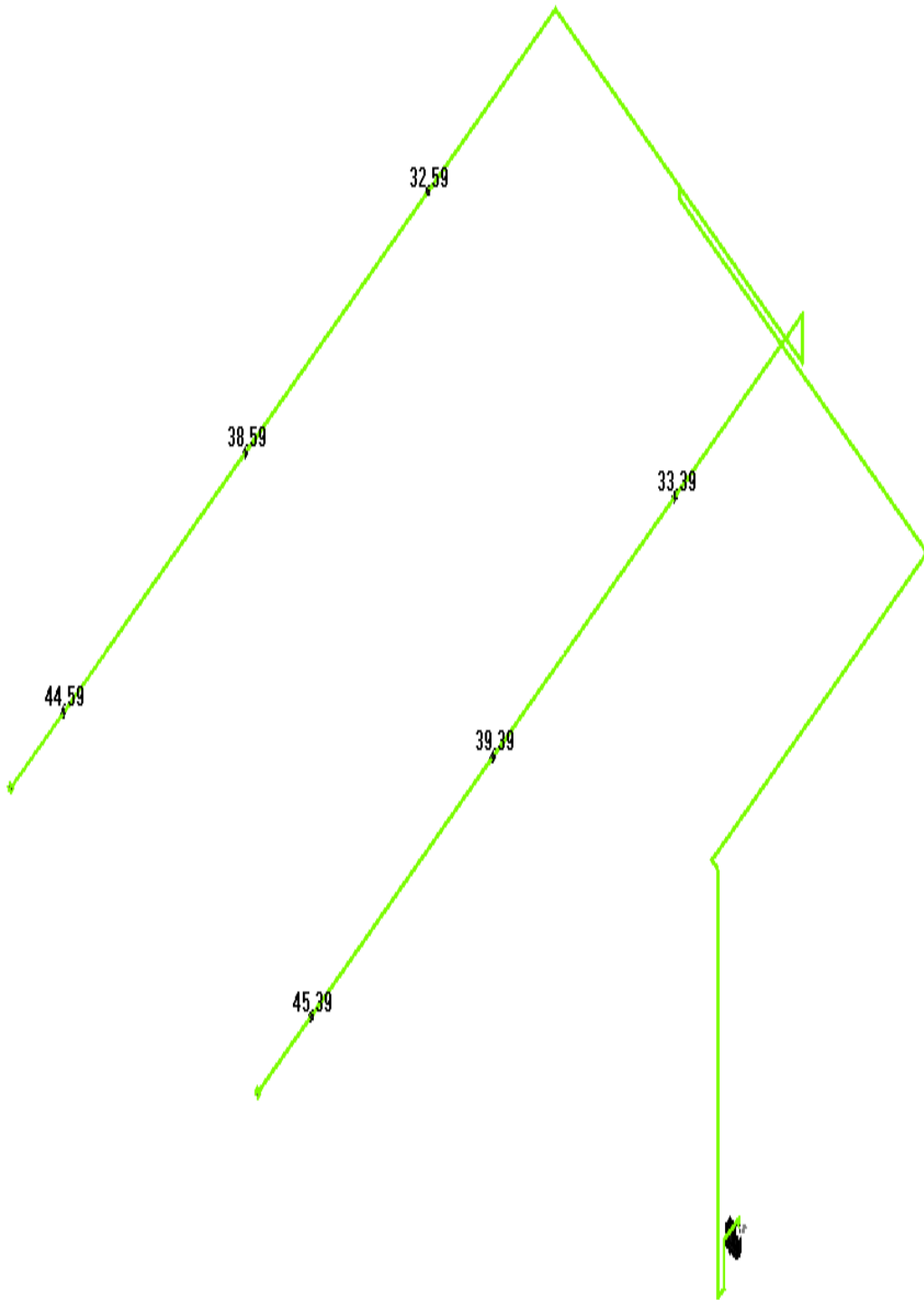
SAMPLING HOLE SCHEMATIC

HOLES



Layout Report

SAMPLING HOLE LOCATIONS	Units: m
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Layout Report

SAMPLING HOLE DIAMETER	Units: mm
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