Pyxis Project - Program Constellation

Pitot Test

REV. 1





AER IPT

Skyward Experimental Rocketry Politecnico di Milano

Author: Aerodynamics Team **Editors**: Lorenzo Cucchi

Restricted use policy

This report is developed during the activities done within Skyward Experimental Rocketry association. Its use is allowed only for Skyward Experimental Rocketry related purposes. If you're a Skyward member, please don't send or release publicly this file without previous acceptance from Direction Board. For public access and publication please contact



Test Overview

This report has the aim to describe and analyze the test and calibration of the pitot.

Contents

1. Set-t		
1.1	List of material	2
1.2	List of tests for the component	2
1.3	Test conditions	2
2. Proc		3
2.1	Description of the test and its setup	3
3. Resu		4
3.1	Expected Results	4
3.2	Data Analysis	4
4. Con	clusions	5



1. Set-up

1.1 List of material

- Pitot 1
- •
- Pitot 2
- Pitot plastic tubings
- Pyxis ogive
- Lynx recovery section
- 3D printe plastic coupling
- Stack V2 (Electronics)
- Cord

1.2 List of tests for the component

Write here each test you do for the components, with codes and names of the people responsible for the campaign.

Test List							
TEST CODE	Test day	Time	Team responsi-	Link video			
			ble for the test				
AER-PIT-001	07-06-2022	All day	AER	altro			
AER-PIT-002	07-06-2022	All day	AER	altro			
AER-PIT-003	07-06-2022	All day	AER	altro			

1.3 Test conditions

The test were executed in the afternoon in a hot day, the tests have been done in a short period of time so the atmospheric conditions are almost the same. The wind tunnel has recorded all the atmospheric data with an high precision, this remove every possible problem given by the atmospheric conditions. In the next table are reported the mean values of every atmospheric for the tests.

Temperature	Humidity	Other relevant external factors
273K	100%	Electrostatic insulation

Here the conditions are valued as nominal or not fit for the test considering the test itself and the flight conditions. Everything must be explained



2. Procedure

2.1 Description of the test and its setup

Description of the test. Variation for each code have to be explained and everything needs to be written.



3. Results

3.1 Expected Results

Here expected and simulation results must be put.

3.2 Data Analysis

Here an analysis on the data obtained must be done.



4. Conclusions

Here you draw your conclusions.