

Air System Sizing Summary for DSSI

(In Alternative: Default Alternative)

Project: 26028.1 FWC Lake City Storage HAP

04/20/2026

Prepared by: FSM ENGINEERING

11:08 AM

Air System Information

Air System Name **DSSI**
Equipment Class **SPLT AHU**
Air System Type **SZCAV**

Number of zones **1**
Floor Area **725.9** sqft
Location **Gainesville Regional, FL, USA**

Sizing Calculation Information

Calculation Months **Jan to Dec**
Sizing Data **Calculated**

Zone CFM Sizing **Sum of space airflow rates**
Space CFM Sizing **Individual peak space loads**

Central Cooling Coil Sizing Data

Total coil load **1.1** Tons
Total coil load **13.7** MBH
Sensible coil load **12.7** MBH
Coil CFM at peak load **713** CFM
Sum of peak zone CFM **713** CFM
Sensible heat ratio **0.924**
CFM/Ton **623.0**
sqft/Ton **634.1**
BTU/(hr sqft) **18.9**
Water flow @ 10.0 F rise **N/A**

Peak coil load occurs at **August 16:00**
OA DB / WB **93.8 / 75.9** F
Entering DB / WB **76.1 / 65.6** F
Leaving DB / WB **60.0 / 59.5** F
Resulting RH **58** %
Design supply temp. **58.0** F
Zone T-stat Check **1 of 1** OK
Max zone temperature deviation **0.0** F

Central Heating Coil Sizing Data

Max coil load **20.0** MBH
Coil CFM at Design Heating **713** CFM
Max coil CFM **713** CFM
Water flow @ 20.0 F drop **N/A**

Load occurs at **Design Heating**
BTU/(hr sqft) **27.5**
Ent. DB / Lvg DB **67.5 / 93.5** F

Supply Fan Sizing Data

Design CFM **713** CFM
Design CFM/sqft **0.98** CFM/sqft

Fan motor BHP **0.39** BHP
Fan motor kW **0.31** kW
Fan total static **2.00** in wg

Outdoor Ventilation Air Data

Design airflow CFM **44** CFM
CFM/sqft **0.06** CFM/sqft

CFM/person **0.00** CFM/person

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Space CFM Sizing **Individual peak space loads**

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/sqft	Reheat Coil Capacity (MBH)	Reheat Coil Water gpm @ 20.0 F	Zone Htg Unit Coil Capacity (MBH)	Zone Htg Unit Water gpm @ 20.0 F	Mixing Box Fan Airflow (CFM)
Zone 1	713	713	0.98	0.0	-	0.0	-	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (sqft)
Zone 1	11.0	September 16:00	19.2	725.9

Space Loads and Airflows

Zone Name / Space Name	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (sqft)	Space CFM/sqft
Zone 1						
Bay 1	11.0	September 16:00	713	19.2	725.9	0.98

Ventilation Sizing Summary for DSSI
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1. Summary

Ventilation Sizing Method
Design Ventilation Airflow Rate 44 CFM

Sum of Space OA Airflows

2. Space Ventilation Analysis

Zone Name / Space Name	Floor Area (sqft)	Maximum Occupants	Maximum Supply Air (CFM)	Required Outdoor Air (CFM/person)	Required Outdoor Air (CFM/sqft)	Required Outdoor Air (CFM)	Required Outdoor Air (% of supply)	Required Outdoor Air (ACH)	Uncorrected Outdoor Air (CFM)	Direct Exhaust Air (CFM)
Zone 1										
Bay 1	725.9	0.0	713.3	5.00	0.06	0.0	0.0	0.00	43.6	0.0
Totals			713.3						43.6	