

PLASMA AIR INTERNATIONAL | Support: plasmaair@plasma-air.com | 404-299-9200 | Version: PLASMA AIR 1.2 ASHRAE 62.1-2010

Happy Faces - YOUNG TODDLERS

ASHRAE 62.1
Space Contaminant Calculations Using Appendix D Equations

USER INPUT FIELDS

Green colored fields need user input. Yellow colored fields are constants provided by Plasma Air. Pink fields are auto-calculated based on user selection. Gray values are auto-calculated but also editable.

ASHRAE Equation: Equation 5: Filter return air and outside air. Constant: Minimum Supply Air. Constant: Volume Outside Air.

Space Type: Daycare
 Ez: 0.6 - Cooling supply of wash air 15°F above space temp and cooling return

Area (Sq.Ft.): 774 | Number of People: 12
 Supply Air (CFM): 784 | Exclusion Rate / Person (gpm): 120

Calculation of Space Contaminants Using Ventilation Rate Procedure (VRRP) DA

Variable	Description	Value	Units
N	Contaminant Generation Rate	0.120	µg/m³
Ez	Zone Air Distribution Effectiveness	0.6	
Voz	Outdoor Air Flow Rate	0.3848	L/min
Ef	Filter Efficiency	0	
Co	Contaminant Concentration, OA	1.2	µg/m³
R	Recirculation Flow Variable (-Vr/Vo+Vr)	0.82	
W	Return Air Flow Rate	18,318.27	L/min
Cbz	Contaminant Concentration, zone	1.419	µg/m³

Is the Cbz for the IAQP equal or less than Cbz for the VRRP? **Yes**

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Happy Faces - PRESCHOOLERS I

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Happy Faces - PRESCHOOLERS II

ASHRAE 62.1
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Space Type: Daycare
 Ez: 0.6 - Cooling supply of wash air 15°F above space temp and cooling return

Area (Sq.Ft.): 416 | Number of People: 12
 Supply Air (CFM): 713 | Exclusion Rate / Person (gpm): 120

Calculation of Space Contaminants Using Ventilation Rate Procedure (VRRP) DA

Variable	Description	Value	Units
N	Contaminant Generation Rate	0.120	µg/m³
Ez	Zone Air Distribution Effectiveness	0.6	
Voz	Outdoor Air Flow Rate	0.1331	L/min
Ef	Filter Efficiency	0	
Co	Contaminant Concentration, OA	1.2	µg/m³
R	Recirculation Flow Variable (-Vr/Vo+Vr)	0.82	
W	Return Air Flow Rate	18,657.20	L/min
Cbz	Contaminant Concentration, zone	1.892	µg/m³

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Happy Faces - OLDER TODDLERS II

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Happy Faces - INFANTS

ASHRAE 62.1
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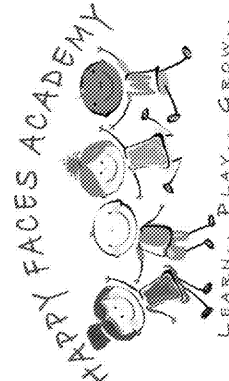
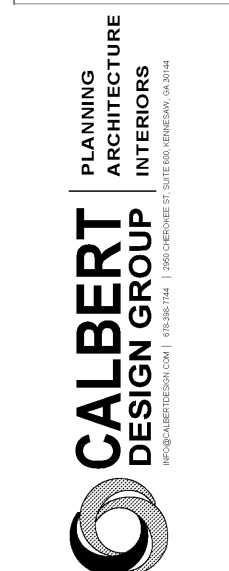
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JOB NUMBER: 19221
 CHECKED BY: Checker



PROJECT LOCATION:
 2865 WEBB ROAD
 MILTON, GA 30004

REVISIONS		
NO	DATE	DESCRIPTION

THOMPSON EHLE CO.
 50 TECHNOLOGY PKWY
 PEACHTREE CORNERS, GA 30092
 Tel: 404-266-1400
 TEC #22021

IAQ PROCEDURE CALCULATIONS - MECHANICAL

M0.2

DATE 11/17/20