

May 2012

Back²Basics

Solution

Based on Cx-3 ATC/FPT software

Month 2: K-12 School with New DOAS and ERU Application

Measurement Point	Criteria	On-Maximum Cooling		Remarks
		Design	Actual	
1A Primary air at VAV inlet	Flow Static pressure (SP) Velocity	1,000 cfm (+) 0.5 in. SP 800 fpm	1,010 cfm (+) 1.75 in. SP 810 fpm	A. OK per design. B. CFM and/or static pressure (SP) is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
1B Supply air at VAV outlet	Flow SP Velocity	1,000 cfm (+) 0.25 in. SP 650 fpm	1,010 cfm (+) 0.75 in. SP 660 fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
2A Primary air at VAVRH inlet	Flow SP Velocity	1,200 cfm (+) 0.5 in. SP 1,000 fpm	0 cfm (+) 0.65" in. SP 0 fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
2B Supply air at VAVRH outlet	Flow SP Velocity	1,200 cfm (+) 0.35 in. SP 700 fpm	0 cfm 0.0 in. SP 0 fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
3A Primary air at FPB inlet	Flow SP Velocity	1,400 cfm (+) 0.25 in. SP 600 fpm	600 cfm (+) 0.12 in. SP 260 fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
3B Supply air at FPB outlet	Flow SP Velocity	1,400 cfm (+) 0.75 in. SP 800 fpm	600 cfm (+) 0.15 in. SP 340 fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
4A Primary air at FPBRH inlet	Flow SP Velocity	1,600 cfm (+) 0.30 in. SP 450 fpm	1,840 cfm (+) 0.45 in. SP 520 fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
4B Supply air at FPBRH coil/outlet	Flow SP Velocity	1,600 cfm (+) 0.65 in. SP 750 fpm	1,840 cfm (+) 3.0 in. SP 865 fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
	Flow SP Velocity	cfm (+) (-) fpm	cfm (+) (-) FPM	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review
	Flow SP Velocity	cfm (+) (-) fpm	cfm (+) (-) fpm	A. OK per design B. CFM and/or SP is excessive. Installation needs further review C. CFM and/or SP is less. Installation needs further review