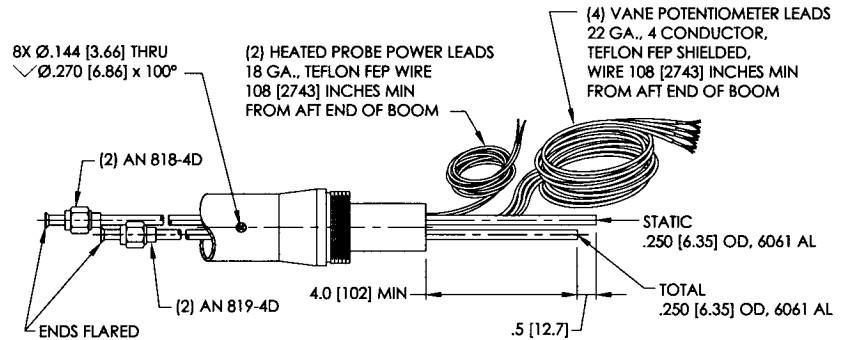
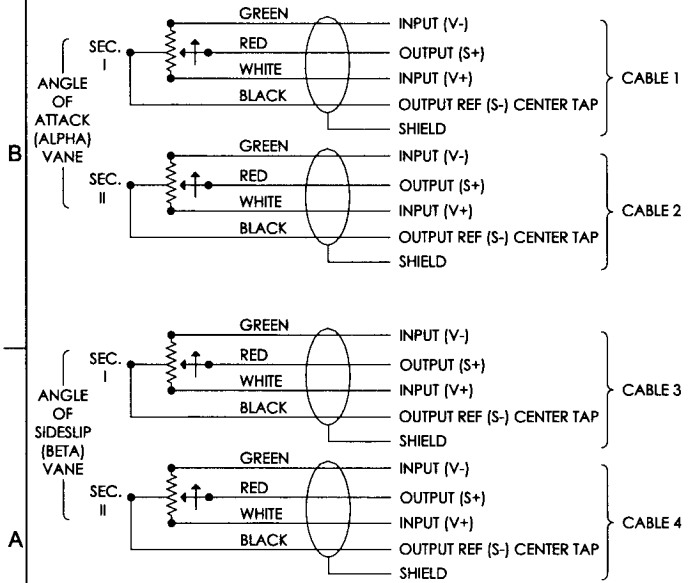
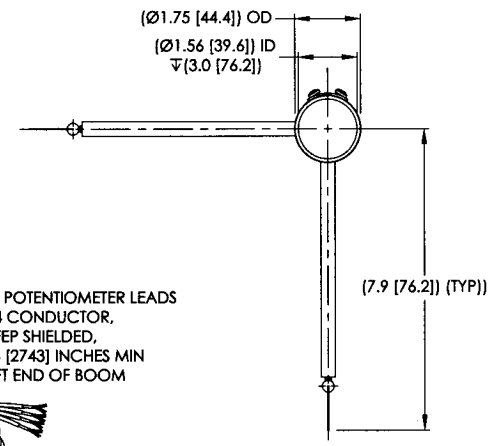
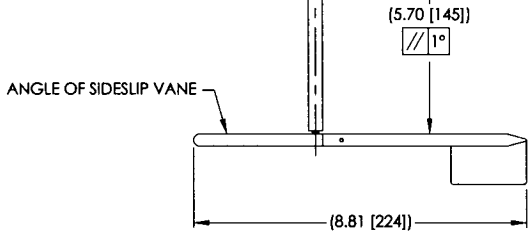
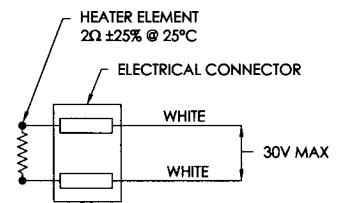
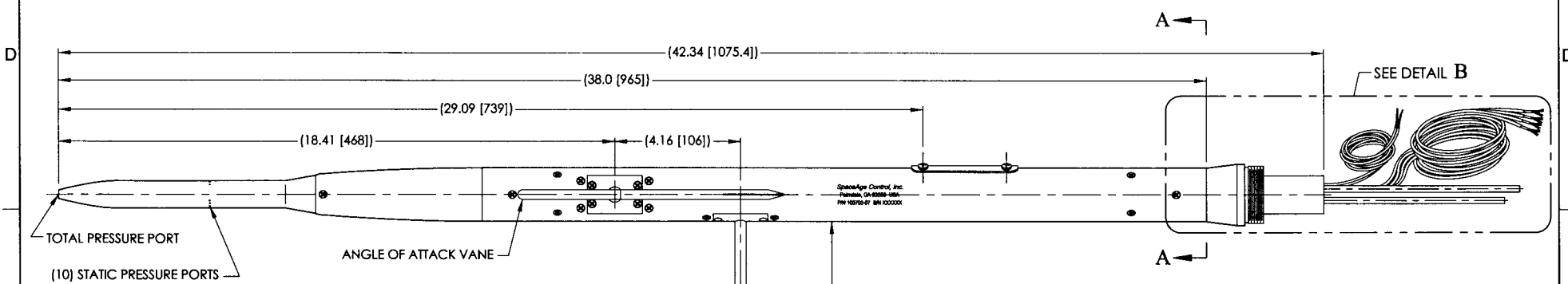


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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
	CAD MAINTAINED CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY		



APPROVED
MASTER
DRAWING
 PRODUCTION RELEASES
 NOT VALID WITHOUT THIS STAMP
 DATE 2-24-03

1			100700-07	STRAIGHT-NOSE AIR DATA BOOM, HEATED		
QTY REQD	CAGE CODE	SYM	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO.
PARTS LIST						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:			CONTRACT NO. PROJECT 117			
DECIMALS .001			APPROVALS			
ANGLES X.X ± 0.03			DATE 2-24-03			
X.XXX ± 0.01			DRAWN [Signature]			
X.XXXX ± 0.005			CHECKED [Signature]			
DO NOT SCALE DRAWING			ENGR [Signature]			
			DESIGN ACTIVITY			
NEXT ASSEMBLY USED ON APPLICATION			SCALE NTS			
			TITLE STRAIGHT-NOSE AIR DATA BOOM, HEATED			
			SIZE C			
			CAGE CODE 34851			
			DWG NO. 100700-07			
			REV.			
			SHEET 1 OF 3			

ELECTRICAL SCHEMATIC

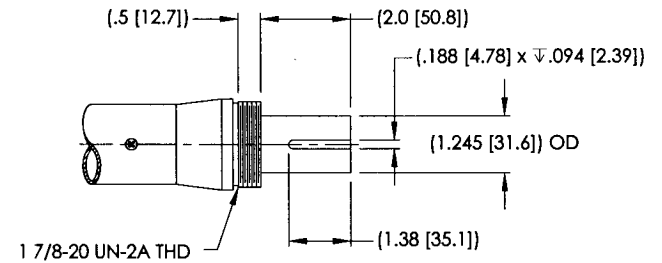
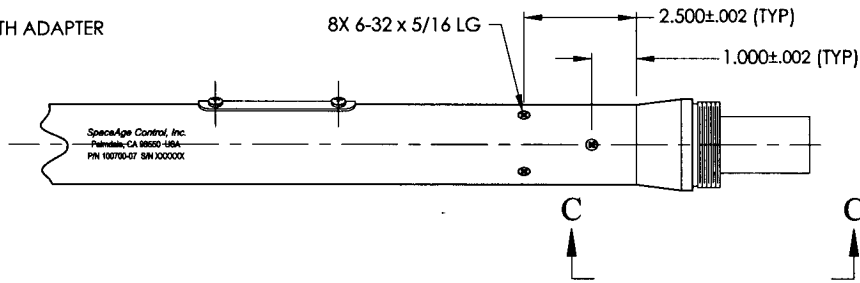
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

CAD MAINTAINED CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

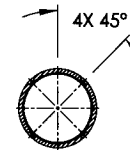
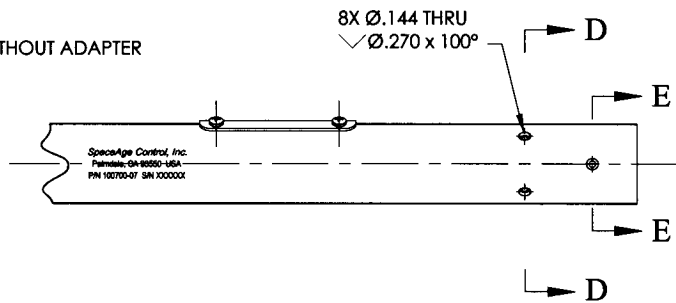
MOUNTING INTERFACE - STANDARD

BOOM WITH ADAPTER

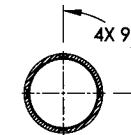


VIEW C-C

BOOM WITHOUT ADAPTER

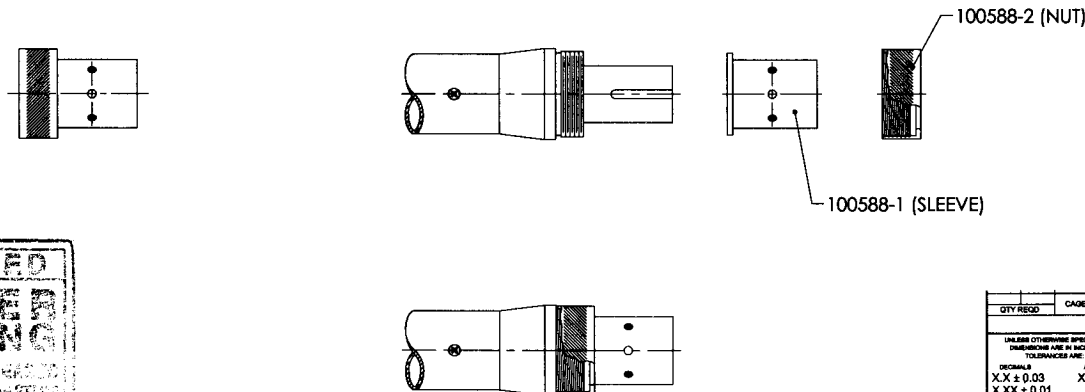


SECTION D-D
(TYP)



SECTION E-E
(TYP)

MOUNTING INTERFACE - OPTIONAL



APPROVED
MASTER
DRAWING
PRODUCTION RELEASE
NOT VALID WITHOUT THIS STAMP
DATE: 2-21-03

QTY REQD	CAGE CODE	SYM	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:				PARTS LIST		
DECIMALS X.X ± 0.03	ANGLES X° ± 30°	CONTRACT NO. PROJECT 117		SpaceAge Control, Inc.		
X.XXX ± 0.01		APPROVALS	DATE	TITLE STRAIGHT-NOSE AIR DATA BOOM, HEATED		
X.XXX ± 0.005		DRAWN: <i>[Signature]</i>	2-21-03			
DO NOT SCALE DRAWING		CHECKED: <i>[Signature]</i>	2/21/03			
		ENGR: <i>[Signature]</i>	2/24/03	SIZE C	CAGE CODE 34851	DWG NO. 100700-07
		DESIGN ACTIVITY		SCALE NTS		REV
NEXT ASSY	USED ON	APPLICATION				SHEET 2 OF 3

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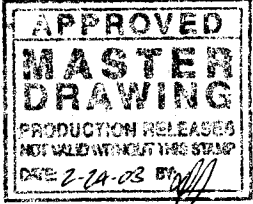
REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
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CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

NOTES

1. VANE POTENTIOMETER SPECIFICATIONS (MEASURE ANGLE OF ATTACK (AOA (ALPHA)) AND ANGLE OF SIDESLIP (AOS (BETA)))
 - 1.1. TYPE: DUAL CONDUCTIVE PLASTIC
 - 1.2. RESISTANCE: 5K OHMS
 - 1.3. RESISTANCE TOLERANCE: ±10%
 - 1.4. LINEARITY: ±.5%
 - 1.5. RESOLUTION: INFINITE SIGNAL OUTPUT
 - 1.6. ELECTRICAL TRAVEL: ±170° (±5°) FROM CENTER TAP
 - 1.7. POWER RATING (70° C): 1.0 WATT
 - 1.8. MECHANICAL TRAVEL: 360° CONTINUOUS
 - 1.9. MECHANICAL LIFE: 20+ MILLION SHAFT REVOLUTIONS
 - 1.10. OPERATING TEMPERATURE RANGE: -55° TO +125° C
 - 1.11. OTHER SPECIFICATIONS: PER MIL-R-39023
2. HEATED PROBE SPECIFICATIONS (MEASURES TOTAL AND STATIC PRESSURE)
 - 2.1. INPUT POWER: 28 VDC
 - 2.2. 145 WATTS, SELF-REGULATING
 - 2.3. WIND TUNNEL CALIBRATED UP TO MACH .95
 - 2.4. SPECIFICATIONS: PER MIL-T-5420B, SAE AS 393
3. MAINTENANCE REQUIREMENTS
 - 3.1. PROTECTIVE ACCESSORIES SUCH AS TOTAL HEAD PROBE COVER AND VANE COVER SHOULD BE INSTALLED WHENEVER THE AIR DATA BOOM IS NOT IN USE. THESE ACCESSORIES WILL PROTECT THE PRODUCT FROM DAMAGE AS WELL AS KEEP IT CLEAN.
 - 3.2. PRESSURE OR LEAK TESTING OF THE PRESSURE SYSTEM SHOULD BE CONDUCTED ANNUALLY.
 - 3.3. BEFORE EACH FLIGHT, CHECK THE NOSE TIP FOR DAMAGE THAT MAY CAUSE MEASUREMENT ERRORS.
 - 3.4. BEFORE EACH FLIGHT, CHECK VANES FOR DAMAGE SUCH AS SCRAPED FIN EDGES, BENT FINS OR VANES, AND NOISY VANE BUSHINGS.
 - 3.5. BEFORE EACH FLIGHT, VERIFY ALL SCREWS ARE TIGHT AND THAT THE AIRCRAFT MOUNTING POINT IS SECURE.
 - 3.6. VERIFY CALIBRATION OF VANE ASSEMBLIES ANNUALLY.
4. MASS (NOMINAL)
 - 4.1. 100700-07 WITHOUT BOOM ADAPTER OR ELECTRICAL WIRING 4.2 lbs. (1.91 kg) NOMINAL
 - BOOM ADAPTER 0.60 lbs. (0.27 kg) NOMINAL
 - ELECTRICAL WIRING 1.07 lbs. (0.49 kg) NOMINAL



QTY REQD	CAGE CODE	SYM	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO.
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PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
 DECIMALS ANGLES
 X.X ± 0.03 X° ± 30'
 X.XX ± 0.01
 X.XXX ± 0.005
 DO NOT SCALE DRAWING

NEXT ASSY	USED ON
APPLICATION	

CONTRACT NO. PROJECT 117	
APPROVALS	DATE
DRAWN <i>Simpson</i>	2-24-03
CHECKED <i>M. Davidson</i>	2-24-03
ENGR <i>Simpson</i>	2-24-03
DESIGN ACTIVITY	

SpaceAge Control, Inc.

TITLE
STRAIGHT-NOSE AIR DATA BOOM, HEATED

SIZE A	CAGE CODE 34851	DWG NO. 100700-07	REV.
SCALE N/A	SHEET 3 OF 3		