

AEROTECH ENGINEERING SPECIFICATION:**ES17306-0****REVISION: (-)**Customer Name: **NEBRASKA - LINCOLN UNIV.**Order Number: **158982**Eng. Appd: **JAB**Eng. Date: **08/20/11**Release Approved By: **JAB**Release Date: **08/11**Subject/Description: **A3200 / NPAQ / AGS10000-ES17306 GANTRY SYSTEM SPECIFICATION**Sheet **1 of 1**

NPAQ Model:	NPAQ-B-80B-80B/ULTRA /SPLITBUS 1-6 (NO SPLIT) /STANDCOOL /US-115VAC /STAND /BRAKE-4 /ESTOP2 /MXR-6 /M6					
Axis Designation:	* Axis-1 (Y)	* Axis-2 (YY)	Axis-3 (X)	Axis-4 (Z)	Axis-5 (U)	Axis-6 (A)
Motor Bus Voltage (VDC):	(+/- 80V DC)	(+/- 80V DC)	(+/- 80V DC)	(+/- 80V DC)	(+/- 80V DC)	(+/- 80V DC)
Amplifier/Driver:	DP32020E	DP32020E	DP32020E	DP32020E	DP32020E	BLANK
Gantry:	AGS10000-ES17306 (AGS10000-750-750-10X2-10-LT75AS-LT75AS-BP/ADRS-150)					None
Axis Description:	* Gantry bottom master spar	* Gantry bottom slave spar	Gantry bridge/cross axis	ATS150-100-ES17306 ATS150-100-M-20P-BMS-BRK23- NC-9DU	ADRS-150-ES16739 ADRS150-M-AS-NS, INTEGRAL CABLES	-
Lead / Gear Ratio:	Linear direct drive	Linear direct drive	Linear direct drive	2 mm ball screw	Direct drive, rotary	-
Nominal Limit to Limit Travel:	750 mm	750 mm	750 mm	100 mm	360 Degrees	-
Motor:	** BLM-325-A	** BLM-325-A	** BLM-264-A-AC-H-S-750	BMS60/ES17306-20 BMS60-A-D25-9D-E1000ASH -BK1-HF	S-130-39-A Slotless rotary motor	-
Motor Current (l pk / l pk cont.):	20.0 / 7.2	20.0 / 7.2	20.0 / 7.8	9.2 / 2.3	15.2 / 3.8	-
Encoder:	RGH22A Analog read head With 20 um tape scale	RGH22A Analog read head With 20 um tape scale	RGH22A Analog read head With 20 um tape scale	E1000ASH 1,000 line 1Vp-p Sine wave encoder	JENA 10,000 line 1Vp-p Sine wave encoder	-
EncoderMultiplicationFactor:	X2000	X2000	X2000	X1000	X1000	-
CountsPerRev:	6,096,000	6,096,000	6,096,000	1,000,000	10,000,000	-
Machine Resolution:	.000 01 mm	See axis-1 (Y)	.000 01 mm	.000 002 mm	.000 036 Deg	-
Program Resolution:	.000 01 mm	See axis-1 (Y)	.000 01 mm	.000 01 mm	.000 1 Deg	-
Customer Programming Units:	mm / sec	See axis-1 (Y)	mm / sec	mm / sec	Deg / sec	-
Max Speed (Encoder Counts/sec):	20,000,000	See axis-1 (Y)	20,000,000	25,000,000	2,500,000	-
Max Speed:	200 mm / sec	See axis-1 (Y)	200 mm / sec	50 mm / sec	90 Deg / sec	-
Max. Speed Limiting Factor:	Stated application max speed	See axis-1 (Y)	Stated application max speed	Stated application max speed	Stated application max speed	-
(+) Program Direction:	+ / cw	See axis-1 (Y)	- / ccw	- / ccw (stage moves down)	- / ccw	-
Home Direction:	- / ccw	See axis-1 (Y)	+ / cw	+ / cw (Stage moves up)	+ / cw	-
Home Location:	@ - / ccw end-of-travel	See axis-1 (Y)	@ + / cw end-of-travel	@ + / cw end-of-travel	@ Marker	-
Axis Test Loads:	-	-	-	-	2 kg [4.4 lb]	-
Axis calibration:	Yes	Yes	Yes	Yes	Yes	-
System Parameter File Name:	158982-A-1-1.pрма					
Axis Calibration File Name:	158982-A-1-1.cal					
System Programs:	158982-A-1-1-MPG.pgm (Support program for MPG)					

* All bottom spar axis commands are executed through axis-1 (Y). Axis-2 (YY) is hidden at the A3200 MMI display.

** At high duty cycles, axes Y, YY, & X linear motor's require clean, dry, 20 psi air supply for motor cooling.