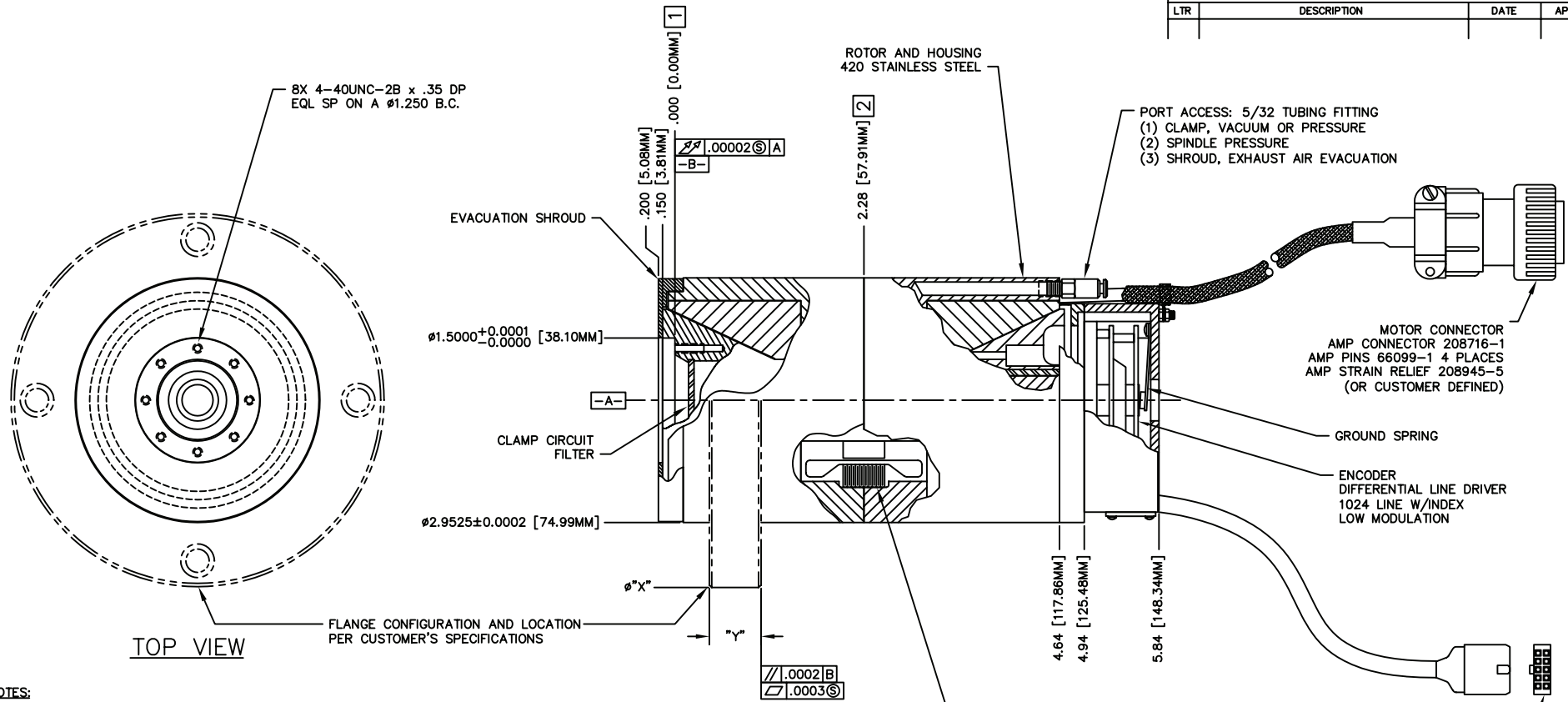


REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



- NOTES:**
- 1 DESIGNATION OF RADIAL STIFFNESS (SINGLE PLANE).
 - 2 DESIGNATION OF RADIAL STIFFNESS (DUAL PLANE).
 - 3. SEAGULL SOLUTIONS STANDARD CLAMP INTERFACE SHOWN. SPINDLES CAN BE CONFIGURED WITH OTHER INTERFACE GEOMETRY TO MEET CUSTOMER'S SPECIFICATIONS.

MOTOR SPECIFICATIONS, NON-COGGING 3 PHASE BRUSHLESS D.C., 8 POLE			SPINDLE SPECIFICATIONS @ 80 PSI		PNEUMATIC REQUIREMENTS		
TORQUE CONSTANT	2.80	OZ-IN/AMP	MAXIMUM CONTINUOUS SPEED (ENCODER LIMITED)	30,000 RPM		BEARING AIR SUPPLY PRESSURE	80±5 PSI
VOLTAGE CONSTANT	2.00	V/KRPM	AXIAL ROTATIONAL ERROR (REPEATABLE)	< 2 μ in		AIR SUPPLY HUMIDITY	NON CONDENSING AT 35° F (1.7° C)
MOTOR CONSTANT	1.80	OZ-IN/√W	AXIAL ROTATION ERROR (NON-REPEATABLE)	< 1 μ in		AIR SUPPLY FILTRATION	.5 MICRON-OIL FREE
ELECTRICAL TIME CONSTANT	0.15	MSEC	RADIAL ROTATIONAL ERROR (REPEATABLE)	< 2 μ in		BEARING FLOW CONSUMPTION	△C4 15 SCFH MAX
PEAK TORQUE	95.0	OZ-IN	RADIAL ROTATION ERROR (NON-REPEATABLE)	< 0.5 μ in		AMBIENT/MOUNTING PLATE TEMP RANGE:	32°-80°F
PEAK CURRENT	35	AMPS	MAXIMUM AXIAL LOAD / WORKING	90 lbs / 60 lbs		AMBIENT AIR HUMIDITY:	90% OR LESS
TERMINAL RESISTANCE	0.97	OHMS	MAXIMUM RADIAL LOAD (DUAL PLANE) / WORKING	84 lbs / 60 lbs			
TERMINAL INDUCTANCE	0.145	MH	MAXIMUM RADIAL LOAD (SINGLE PLANE) / WORKING	42 lbs / 30 lbs			
PERFORMANCE @ 20° C			AXIAL STIFFNESS	80,000 lbs/in			
APPLIED VOLTAGE	65.0	VOLTS	RADIAL STIFFNESS (DUAL PLANE) 2	800,000 lbs/in			
CONTINUOUS OUTPUT POWER	260	WATTS	RADIAL STIFFNESS (SINGLE PLANE) 1	400,000 lbs/in			
TORQUE	7.0	OZ-IN	ANGULAR STIFFNESS	3,200,000 RADIANT			
SPEED	35,750	RPM	WORKING AIR GAP	.00023±.00004			
CURRENT/PHASE	4	AMPS	POLAR INERTIA (SPINDLE ONLY)	.028 oz-in-sec ²			
EFFICIENCY	70.0	%	TOTAL WEIGHT	< 7 lbs (WITHOUT FLANGE)			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES:		SIGNATURE AND DATE	
ANGLES: ±	FRACTIONS: ±	DESIGN SGC	10/30/01
3 PLC DEC: ±	2 PLC DEC: ±	DRAWING CHK	
NEXT ASSEMBLY/USED ON:		DESIGN CHK	
MATERIAL:		PROJECT MGR	
		APPROVED	
		FINISH	

Seagull Solutions

HI-CAPACITY BICONIC AIR BEARING SPINDLE

TITLE: **HI-CAPACITY BICONIC AIR BEARING SPINDLE**

SIZE: **C** DRAWING NO. **07100** REV **A**

SCALE: 1/1 SHEET: 1 OF 1 COMPUTER FILE NAME: 07100C1E.DWG