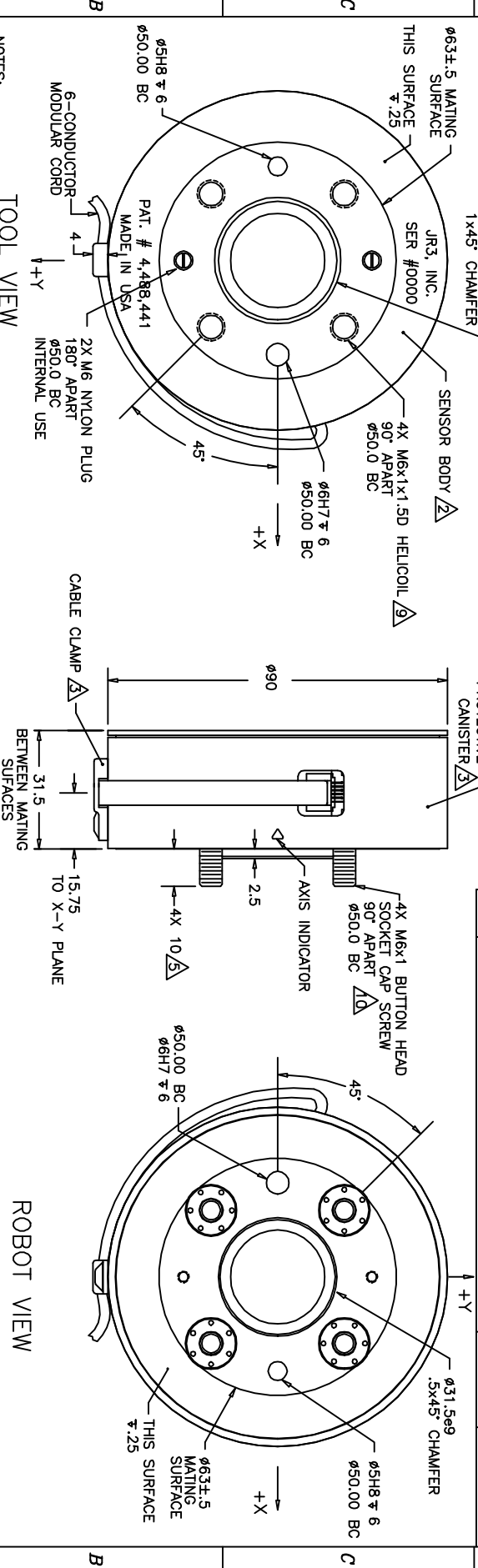


| REVOLUTIONS | | | |
|-------------|-----------------|----------|-----------|
| REV | DESCRIPTION | DATE | APPROVED |
| - | INITIAL RELEASE | 01/10/94 | G. SAKONA |
| A | SEE ECN E0138 | 01/31/94 | G. SAKONA |
| B | SEE ECN E0214 | 11/14/94 | G. SAKONA |
| C | SEE ECN E0398 | 08/13/96 | G. SAKONA |
| D | SEE ECN E0436 | 07/16/97 | G. SAKONA |
| E | SEE ECN E0534 | 04/26/99 | G. SAKONA |
| F | SEE ECN E0556 | | |



- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 - 2024-17851 ALUMINUM ALLOY, TYPE 2, CLASS 2 BLACK ANODIZED.
 - 6061-176 ALUMINUM ALLOY, TYPE 2, CLASS 2 BLUE ANODIZED.
 - AVAILABLE LOAD RATINGS INCLUDE: 15, 25, 50lb.
 FULL SCALE Fx, Fy = LOAD RATING * 2
 FULL SCALE Mx, My, Mz = LOAD RATING * NOMINAL DIAMETER (3.5in)
 AXES SHOWN ASSUME OPPOSITE SIDE HELD FIXED.
 - LENGTH OF CAPTIVE BOLT PROJECTION MAY BE ALTERED PER CUSTOMER REQUEST.
 - ROBOT VIEW IS RIGHT HAND RULE (JR3 STANDARD). THIS FORCES TOOL VIEW TO BE LEFT HAND RULE.
 - TORQUE MOUNTING BOLTS TO 10Nm (90inlb) IN 3 EQUAL STEPS, FOLLOWING AN A-C-B-D SEQUENCE.
 - MAXIMUM ALLOWABLE SCREW PENETRATION INTO SENSOR TOOL SIDE IS 10mm (.40in).
 - SCREWS ARE CAPTIVE, FREE TO ROTATE, AND ACCESSIBLE WITH HEX KEY THRU SENSOR TOOL SIDE.

TOOL VIEW

ROBOT VIEW

TITLE: INTERFACE, 90M31 SENSOR, 150 BOLT PATTERN

MAT'L: AS SHOWN

MODEL: 90M31A-150

DRAWN: GCS

SCALE: 1/1 AND NOTED

DWG SIZE: B

DWG NO: 3804

REV: F

JR3 INC. WOODLAND, CA 95776

SHEET 1 OF 1