

Certificate of Compliance



Covaris Part Number: 340173 RevA

TPA Part Number: TPA-0340A-00 Rev A

Serial Number: SN000069

This is to certify that the product identified by the above part number and serial number has been manufactured, processed and inspected in accordance with requirements of the purchase order.

TPA-0340A-00 Quality System Validation Data

- Test Completed by Technician: SE on Apr 09 2020 at 01:07 PM; Fixture Revision: Rev A

| | | PASS/FAIL Criteria | Actual | PASS/FAIL |
|------------------------------|-----------------------|-----------------------|------------------|-----------|
| Sensor/Interlock Function: | | All Function | <u>PASS</u> | PASS |
| Motor Function: | | All Function | <u>PASS</u> | PASS |
| Minimum Speed Test: | | XC>100; YZ>25mm/sec | <u>PASS</u> | PASS |
| Travel (sensor-to-sensor) | X-Axis: | PASS>=119 | <u>121.74 mm</u> | PASS |
| | Y-Axis: | PASS>=11 | <u>12.55 mm</u> | PASS |
| | Z-Axis: | PASS>=52 | <u>52.90 mm</u> | PASS |
| | C-Axis: | PASS>=168 | <u>169.37 mm</u> | PASS |
| X-Axis Precision | Accuracy: | .125mm (full travel) | <u>0.100 mm</u> | PASS |
| | Bi-dir Repeatability: | .125mm (full travel) | <u>0.030 mm</u> | PASS |
| Z-Axis Precision | Accuracy: | .075mm (lower 10mm) | <u>0.005 mm</u> | PASS |
| | Bi-dir Repeatability: | .075mm (lower 10mm) | <u>0.005 mm</u> | PASS |
| X-Axis Center Position: | | >=59mm to each sensor | <u>61.071 mm</u> | PASS |
| Y-Axis Center Position: | | >=5mm to each sensor | <u>5.936 mm</u> | PASS |
| Z-Axis Lower Limit Position: | | 52<=Z<=53 | <u>52.626 mm</u> | PASS |

TPA-0340A-00 Plate Holder Alignment Validation Data

| | | | |
|--|---------------|-----------------|------|
| Static Yaw Alignment: | <=0.087mm TIR | <u>0.020 mm</u> | PASS |
| Static Roll Alignment: | <=0.087mm TIR | <u>0.020 mm</u> | PASS |
| Static Pitch Alignment: | <=0.087mm TIR | <u>0.010 mm</u> | PASS |
| Dynamic Roll as Y-axis Travels: | <=0.087mm TIR | <u>0.010 mm</u> | PASS |
| Dynamic Pitch as X-axis Travels: | <=0.087mm TIR | <u>0.020 mm</u> | PASS |
| Z Straightness of Travel (lower 10mm): | <=0.125mm TIR | <u>0.000 mm</u> | PASS |

9/30/2021

Barry Bruhns, General Manager

Date