



## SIRIUS APOLLO

### 150 static spine tests

The static test is on the Sirius Apollo 150 spine. The test follows the test requirements based on the A.T.A. technical guidelines. Adjustments are made to the numbers based on the mechanical indicator probe pressure being 20.1g. A.T.A. technical guidelines are no more than 5g of mechanical indicator probe pressure.

When testing the static spine of an arrow, you look at the difference around the shaft. A.T.A. technical guideline requires four readings every 90 degrees. I look for no more than a .003 difference between a high and low reading when testing. You can see that the Sirius Apollo arrows are well within that range, with arrow 3 having the greatest amount. (.002). The run out for these arrows is +/- .0015. (T.I.R. = .003) All three arrows were well within this range.

The arrow's weight tolerance is +/- 1gr. The spread of these three arrows tested is .6gr.

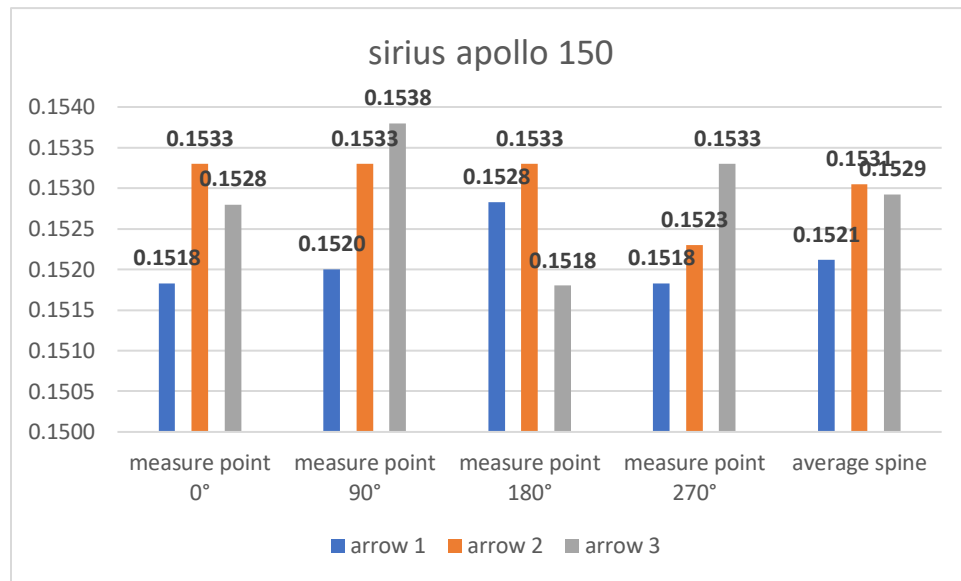
The static spine between the two greatest differences is .001. (Arrow 1 and Arrow 2)

The static test for the 150 spine Sirius apollo shows to be very well built and within all spec ranges.

SIRIUS APOLLO 150								
	0°	90°	180°	270°	Average Spine	Difference	T.I.R.	Weight gr.
Arrow 1	0.1518	0.1520	0.1528	0.1518	0.1521	0.001	0.002	480.1
Arrow 2	0.1533	0.1533	0.1533	0.1523	0.1531	0.001	0	479.8
Arrow 3	0.1528	0.1538	0.1518	0.1533	0.1529	0.002	0	479.5

ANOVA: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Arrow 1	4	0.60848	0.15212	2.28E-07		
Arrow 2	4	0.6122	0.15305	2.5E-07		
Arrow 3	4	0.6117	0.152925	7.29E-07		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.04E-06	2	1.02E-06	2.532086	0.134146	4.256495
Within Groups	3.62E-06	9	4.02E-07			
Total	5.66E-06	11				

ANOVA: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
0°	3	0.457927	0.152642	5.61E-07		
90°	3	0.4591	0.153033	8.63E-07		
180°	3	0.457926	0.152642	5.88E-07		
270°	3	0.457427	0.152476	5.66E-07		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	5.04E-07	3	1.68E-07	0.260858	0.851704	4.066181
Within Groups	5.16E-06	8	6.44E-07			
Total	5.66E-06	11				



## References

1. ASTM F2031-05
2. A.T.A. technical guidelines