

EVOLUTION ARROWS COMPOUND TARGET SPINE AND POINT WEIGHT SELECTION CHART *

THIS CHART CAN BE REFERENCED DIRECTLY FOR THE FOLLOWING SET-UP:
MODERN COMPOUND BOW + 70 to 75% LET-OFF + MECHANICAL RELEASE + PEEP SIGHT and D-LOOP on string.

On this chart: The number/s on left side of each field represents ARROW SPINE. ARROW SPINE NUMBERS indicate arrow shaft STIFFNESS. A LOWER SPINE NUMBER = STIFFER ARROW and a HIGHER SPINE NUMBER = WEAKER ARROW. When two spine numbers are listed in a field, the number in BOLD is the most popular choice.

The numbers to the right represent the recommended point weight range for each combination of Arrow Length / Draw Weight / Arrow Spine.

REMEMBER: Point weight changes the dynamic spine of the arrow. A heavy point causes the shaft to act weaker and a light point causes the shaft to act stiffer.

With this in mind it is OK to try a slightly lighter point than that recommended in each field, as long as the finished arrow has the desired FOC (Front-Of-Centre), and the arrow weight to draw weight ratio is no less than 5 Grains-Per-Pound (5GPP Rule).

THE USE OF A HEAVIER POINT THAN THE MAXIMUM STATED IN EACH FIELD IS NOT RECOMMENDED unless advised to do so under the Guidelines for Set-Up Variations below this chart.

On this chart: ARROW LENGTH is 1 inch less LESS than the AMO DRAW LENGTH of the bow.

AMO DRAW LENGTH OF ANY BOW is measured with the bow at full draw, from the nock throat on the bowstring to a point level with belly of the bow grip PLUS 1.75 inches. This often puts the end of the arrow carbon about 1/4 inch forward of the bow riser.

Most people shoot a SHORTER ARROW than the full AMO DRAW LENGTH of the bow, as modern arrow rests mount 'archer-side' of the bow riser. For practical purposes, this chart sets the ARROW LENGTH 1 inch SHORTER than the bow AMO DRAW LENGTH.

ARROW LENGTH is measured from the throat of the nock to the end of the carbon. ARROW LENGTH does not include any extra length of the point, insert or half-out. DO NOT USE AN OVER-DRAW WITH EVOLUTION ARROWS.

POINT WEIGHT IS THE TOTAL GRAIN WEIGHT OF ALL COMPONENTS FIXED TO THE FRONT OF THE ARROW. If you use screw in points with an Insert or Outsert system, in this chart the POINT WEIGHT refers to the sum of the POINT AND THE INSERT OR OUTSERT.

For example: If a field point weighs 80 grains and the arrow insert weighs 20 grains - the POINT WEIGHT is 100 grains.

If your ARROW LENGTH is BETWEEN TWO COLUMNS ON THE CHART - USE THE LONGER ARROW LENGTH COLUMN TO MAKE YOUR SPINE / POINT WEIGHT SELECTION.
 For example: If your ARROW LENGTH is 27.5 inches then use the 28 inch column to determine your required arrow spine and fine tune from there. This will ensure you are not starting with a weak arrow.

		RECOMMENDED ARROW SPINE AND POINT WEIGHT RANGE									
ARROW LENGTH BOW DRAW LENGTH (AMO) LESS 1 inch		23 inch	24 inch	25 inch	26 inch	27 inch	28 inch	29 inch	30 inch	31 inch	32 inch
BOW DRAW LENGTH (AMO)		24 inch	25 inch	26 inch	27 inch	28 inch	29 inch	30 inch	31 inch	32 inch	33 inch
DRAW WEIGHT	ATA BOW SPEED RATING										
25 LB	310 FPS	N/R	N/R	N/R	1000 120-115	900 110-100	900 70 105-95	700 105-90	600 120-105	600 80-70	N/R
30 LB	310 FPS	N/R	N/R	1000 120-115	900 110-100	900 70 105-95	700 105-95	600 120-105	600 80-65	500 110-90	450 110-90
35 LB	310 FPS	N/R	1000 110-100	1000 80-70	900 65 105-95	700 110-90	600 120-110	600 80-70	500 120-95	500 75-70 120-100	400 140-115
40 LB	310 FPS	1000 120-110	900 110-100	800 105-95	700 110-95	600 130-110	600 85-75	500 125-100	500 80-70 130-110	400 150-130	400 105-80
	330 FPS	1000 105-95 900 140-130	900 95-85	800 90-75	700 90-75	600 110-90	500 145-125	450 150-130	450 100 165-140	400 120-90	350 150-120
45 LB	310 FPS	900 110-100	800 105-95	700 115-100	700 70-60 135-115	600 90-70	500 130-100	500 80-70 140-120	400 150-130	400 115-85	350 150-110
	330 FPS	800 135-125	800 90-80	700 90-80 600 160-145	600 110-95	500 150-130	500 105-85	450 110-100 400 180-150	400 125-100	350 160-125	350 115-90
50 LB	310 FPS	800 110-95	700 115-100	600 135-120	600 90-80	500 135-110	500 95-70 140-120	450 100-90 400 170-140	400 125-90	350 165-125	350 110-85
	330 FPS	700 140-130	700 95-80	600 115-95	500 150-130	500 105-85	450 120-100 400 180-150	400 130-100	400 85-75	350 125-95	300 210-180
55 LB	310 FPS	700 110	600 140-120	600 90-80 500 180-165	500 135-115	500 90-75 450 150-130	450 100-90 400 170-140	400 120-90	350 160-120	350 105-95 300 210-175	300 170-125
	330 FPS	600 170-155	600 120-110	500 160-140	500 110-90	500 70 450 140-120	400 140-115	400 95-75	350 130-95	300 180-140	300 150-110
60 LB	310 FPS	600 145-130	500 190-175	500 140-120	500 100-80 450 150-140	450 110-80 400 180-160	400 130-100	350 170-135	350 120-95 300 230-185	300 180-135	300 130-110
	330 FPS	600 125-105	500 175-150	500 120-100	450 130-100 400 205-170	400 150-120	400 105-80	350 135-95	350 95-70 300 190-150	300 150-110	300 100
65 LB	310 FPS	500 205-185	500 150-135	450 150-140	450 120-100 400 190-165	400 135-110	350 180-145	350 125-100	300 215-155	300 140-110	250 230-190
	330 FPS	500 180-155	500 125-115	450 130-120 400 210-190	400 160-125	400 105-90	350 145-110	350 100-80 300 210-170	300 160-115	300 110-100	250 205-150
70 LB	310 FPS	500 160-150	160-150 160-150 260-230 260-230	400 200-175	400 145-125	400 100-90 350 190-160	350 140-105	300 205-170	300 150-110	300 105-100 250 280-210	250 200-150
	330 FPS	N/R	450 150-130	400 170-145	350 210-180	350 160-125	350 105-90	300 175-130	300 115-100	250 210-175	250 165-115

One or more point weights in this field may produce a RAPTOR arrow that weighs less than 5 grains per pound (GPP) of bow draw weight.

The lightest point weights in this field will result in a FOC value of LESS THAN 10% with some arrow models.

GUIDELINES FOR SET-UP VARIATIONS - follow the instructions below to help determine correct arrow spine. YOU MAY NEED TO CONSIDER MORE THAN ONE OF THE VARIATIONS LISTED BELOW.

If using a bow with an ATA SPEED RATING LESS than 310 FPS

IN THE 310 FPS row that matches your draw weight, move across the chart to find the resulting field in your ARROW LENGTH column and make no more than ONE of the following adjustments:

1/ INCREASE THE POINT WEIGHT slightly in your resulting Spine and Point Weight Range field. Add no more than 10% to the initial Point Weight Range.

OR

2/ INCREASE ARROW LENGTH slightly. Add no more than 1 inch to the initial ARROW LENGTH.

OR

3/ INCREASE the ACTUAL DRAW WEIGHT of your bow SLIGHTLY. Add no more than 5% to the initial Draw Weight.

If using a bow with an ATA SPEED RATING MORE than 330 FPS

IN THE 330 FPS row that matches your draw weight, move across the chart to find the resulting field in your ARROW LENGTH column and make one or more of the following adjustments:

1/ DECREASE THE POINT WEIGHT slightly in your resulting Spine and Point Weight Range field. Remember to observe the 5GPP (5 Grains-Per-Pound) Rule. That is the minimum safe arrow weight to draw weight ratio.

OR

2/ DECREASE ARROW LENGTH slightly. If decreasing arrow length - make sure there is no less than 1 inch of arrow sitting forward of the arrow rest. Also observe the 5GPP (5 Grains-Per-Pound) Rule.

OR

3/ DECREASE the ACTUAL DRAW WEIGHT of your bow SLIGHTLY. Decrease about 5% from the initial Draw Weight.

If shooting a Compound Bow with FINGER RELEASE

Add 5 pounds to your draw weight on the chart.

For example: If your bow is set on 45 lb, use the 50 lb row to determine your arrow spine. The correct spine for you may vary according to your finger release technique.

If shooting a Compound Bow with 80 to 85% Let-Off

1/ Use this chart as normal and then ADD 10 grains to the recommended Point Weight Range.

For example: If the resulting Spine / Point Range Field indicates point weights of 120 to 100 grains - increase the weights in the range to 130 and 110 grains respectively.

OR

2/ Use this chart as normal and then INCREASE the ARROW LENGTH by 1/2 an inch.



NEVER SHOOT AN ARROW THAT IS TOO WEAK IN SPINE! Doing so will INCREASE THE RISK of arrow or equipment FAILURE and POSSIBLE INJURY to yourself or by-standers.

* Evolution Arrows may alter the arrow spine selection recommendations in this chart without notice. Please refer to this chart regularly to be sure your arrow specifications are up to date.