Another popular question we receive: Why are Beta Ratios so important?

A Beta Ratio is the efficiency rating of the filter element itself. The higher the Beta Ratio, the higher the efficiency and the better the filter will perform. The purpose of a filter cart and filter is to remove contamination, so the higher the Beta Ratio, the better the filter and filter cart will perform and the cleaner the oils will be.

All of Y2K's Absolute rated elements have a Beta Value of 200 and higher.

From the graph below, you can see how our competitors Beta 75 elements compare to Y2K's Beta 200 and Beta 1000 elements.

Beta Value	Efficiency	#Upstream	#Downstream
2	50.0000%	100,000	50,000
4	75.0000%	100,000	25,000
10	90.0000%	100,000	10,000
20	95.0000%	100,000	5,000
40	97.5000%	100,000	2,500
60	98.3333%	100,000	1,667
75	98.6667%	100,000	1,333
100	99.0000%	100,000	1,000
125	99.2000%	100,000	800
200	99.5000%	100,000	500
300	99.6667%	100,000	333
500	99.8000%	100,000	200
1000	99.9000%	100,000	200

(In order to be "Absolute" rated, an element must have a minimum of Beta 75 Value)

The graph above illustrates a comparison of filters with various Beta Values, all with 100,000 upstream particles. The # of downstream particle varies greatly by the efficiency of the filter elements. The higher the Beta Value, the better the element and the more contamination it will capture.

This is why all Y2K Absolute elements have a minimum of Beta 200 and why we have Beta 1000 elements available for critical applications.

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