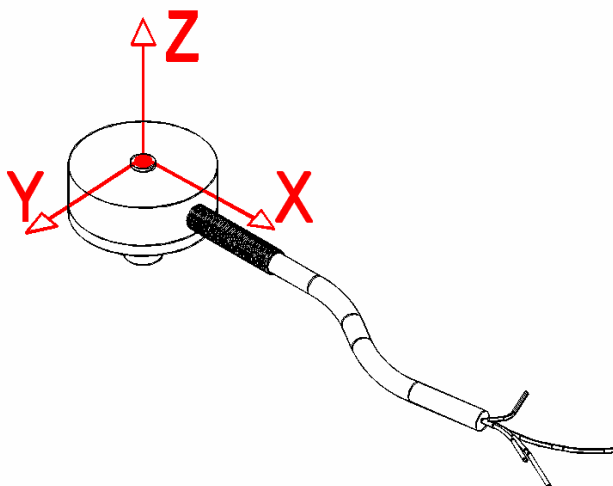


Deflection & Natural Frequency



Material	Capacity (lb)	Deflection (in.)	Natural Frequency (Hz)	β
(S.S.*)	10	0.0009	9,100	0.0013
	25	0.0010	11,600	0.0018
	50	0.0009	15,400	0.0024
	100	0.0009	19,200	0.0031
	250	0.0008	25,100	0.0047
	500	0.0009	30,200	0.0063
	1,000	0.0013	32,600	0.0073

*FN results are based on calculation of deflection & weight scene on Sensor arm.

Natural Frequency & Frequency Response Equation's:

$$\text{Natural Frequency (FN)} = 3.13 \sqrt{\frac{1}{\frac{\beta}{\text{Capacity}} \cdot \text{Deflection}}} \text{ (Hz)}$$

$$\text{Frequency Response with load (FR)} = 3.13 \sqrt{\frac{1}{\frac{\beta + \text{AppliedLoad}}{\text{Capacity}} \cdot \text{Deflection}}} \text{ (Hz)}$$

*Where β values are obtained by Futek Engineers

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