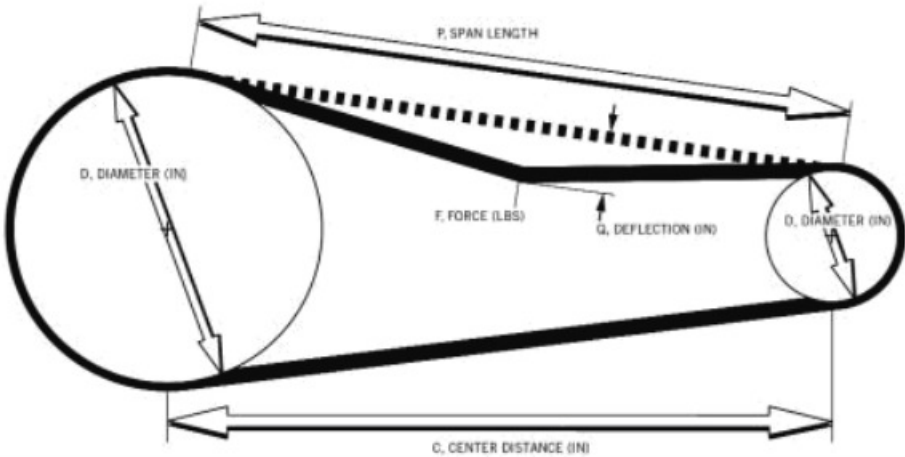


$$\begin{aligned} 1/64 * 15 &= 15/64 \text{ with } 32 \text{ oz} \\ &= 4/64 \qquad \qquad 8 \text{ oz} \end{aligned}$$

$$\begin{aligned} 1/64 * 28 &= 28/64 \text{ with } 32 \text{ oz} \\ &= 7/64 \qquad \qquad 8 \text{ oz} \end{aligned}$$

F = Deflection Force
q = Deflection, 1/64" per inch of span length
c = Center Distance
D = Large Pulley Pitch Diameter
d = Small Pulley Pitch Diameter
P = Span Length



$$t = \sqrt{CD^2 - \left(\frac{PD - pd}{2}\right)^2} \tag{10-3}$$

where: *t* = Span length (in.)
 CD = Drive center distance (in.)
 PD = Large pitch diameter (in.)
 pd = Small pitch diameter (in.)

$$\text{Deflection force, Min.} = \frac{T_{st} + \left(\frac{t}{L}\right) Y}{16} \quad (\text{lbf})$$

$$\text{Deflection force, Max.} = \frac{1.1 T_{st} + \left(\frac{t}{L}\right) Y}{16} \quad (\text{lbf})$$

where: *T_{st}* = Static tension (lbf)
 t = Span length (in.)
 L = Belt pitch length (in.)
 Y = Constant, from **Table 9**

Table 9 Belt Tensioning Force

Belt	Belt Width	<i>m</i>	<i>γ</i>	Minimum <i>T_{st}</i> (lbf) Per Span
2 mm GT3	4 mm	0.026	1.37	1.3
	6 mm	0.039	2.05	2.0
	9 mm	0.058	3.08	3.0
	12 mm	0.077	4.10	4.0
3 mm GT3	6 mm	0.077	3.22	2.2
	9 mm	0.120	4.83	3.3
	12 mm	0.150	6.45	4.4
	15 mm	0.190	8.06	5.5
	9 mm	0.170	14.9	2.1

8" span equates to 8/64" deflection target - measure force in pounds...

Belt Top Width	Suggested Tension [Lbs.] Ranges	Installation Tension [Lbs.] Used Belts	Installation Tension [Lbs.] New Belts	Belt Top Width	Suggested Tension [Lbs.] Ranges	Installation Tension [Lbs.] Used Belts	Installation Tension [Lbs.] New Belts
1/4"	45-65	60.0	80.0	13/16"	175-240	190.0	255.0
5/16"	60-85	75.0	100.0	7/8"	190-255	205.0	270.0
3/8"	85-115	100.0	130.0	1"	215-295	230.0	310.0
1/2"	105-145	120.0	160.0	1-1/16"	225-310	240.0	325.0
5/8"	135-185	150.0	200.0	1-1/8"	245-330	260.0	345.0
11/16"	155-200	170.0	215.0	1-5/16"	285-385	300.0	400.0
3/4"	160-220	175.0	235.0				

