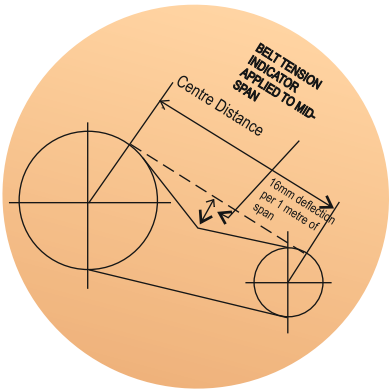
Belt Tensioning Method Using Fenner Belt Tension Indicator

1. Calculate the deflection distance in mm on a basis of 16 mm per metre of span.
   Centre Distance (m) x 16 = Deflection (mm)

2. Set the lower marker ring at the deflection distance required in mm on the lower scale.



3. Set the upper marker ring against the bottom edge of the top tube.

4. Place the belt tension indicator on top of the belt at the centre of the span. Apply a force at right angles to the belt deflecting it to the point where the lower marker ring is level with the top of the adjacent belt*

5. Read off the force value indicated by the top edge of the upper marker ring.

6. Compare this force to the kgf value shown in Table-1

** For single belt drives a straight edge should be placed across the two pulleys to act as a datum for measuring the amount of deflection.*

If the measured force falls within the values given, the drive should be satisfactory. A measured force below the lower value indicates under-tensioning. A new drive should be tensioned to the higher value to allow for the normal drop in tension during the running-in period. After the drive has been running for 30 minutes, the tension should be checked and readjusted to the higher value, if necessary.

The high performance and efficiency of Fenner Precision Built belts require correct tension. We recommend using the Fenner Belt Tension Indicator.

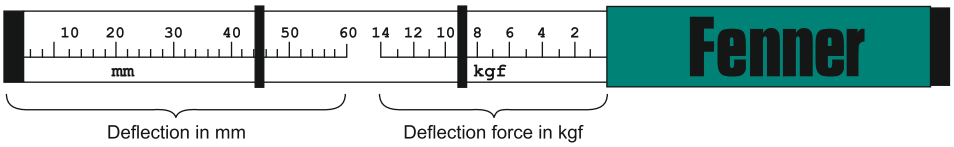


Table 2: Tensioning Forces

Belt Section	Force Required to deflect belt 16 mm per metre of span		
	Small Pulley Diameter (mm)	Newton (N)	Kilogram force (kgf)
SPZ	67 to 95	10 to 15	1.0 to 1.5
	100 to 140	15 to 20	1.5 to 2.0
SPA	100 to 132	20 to 27	2.0 to 2.7
	140 to 200	27 to 35	2.8 to 3.6
SPB	160 to 224	35 to 50	3.6 to 5.1
	236 to 315	50 to 65	5.1 to 6.6
SPC	224 to 355	60 to 90	6.1 to 9.2
	375 to 560	90 to 120	9.2 to 12.2
8V	335 & above	150 to 200	15.3 to 20.4
A	80 to 140	10 to 15	1.0 to 1.5
B	125 to 200	20 to 30	2.0 to 3.1
C	200 to 400	40 to 60	4.1 to 6.1
D	355 to 600	70 to 105	7.1 to 10.7
E	500 & above	120 to 180	12.2 to 18.3

Table 3: Installation Take-up Allowance Table

Belt Pitch Length (mm)	Installation Allowances					Take-up (mm)
	SPZ	A & SPA	B & SPB	C & SPC	D & 8V	
410 to 530	20	25	30	50	65	5
530 to 840						10
850 to 1160						15
1170 to 1500						20
1510 to 1830						25
1840 to 2170						30
2180 to 2830						40
2840 to 3500						50
3520 to 4160						60
4170 to 5140						70
5220 to 6150						85
6180 to 7500						105
7600 to 8500						125
8880 to 10170						145
10600 to 12500						175

Table 4: Recommended Minimum Pulley Pitch Diameters (mm)

A	B	C	D	E	SPZ	SPA	SPB	SPC	8V
80	125	200	315	450	67	95	160	224	335