



Potential Hazards: Hand injury from pinch points. Once the tension meter is engaged, make certain to reinstall the lock pin.

Recommended Control Measures: Wear gloves.

Important: Do not allow bystanders or workers to stand near the system when under tension or in circumstances where the cable may be impacted or cut.

Important: Proper cable tension is critical to system performance. A calibrated tension meter and accurate infrared thermometer must be used to obtain the proper tension.



ROPE TENSION TABLE		
ROPE TEMP.(°F)	TENSION (LBS)	TENSION (kN)
0	5700	25.4
5	5550	24.7
10	5400	24.0
15	5250	23.4
20	5100	22.7
25	4950	22.0
30	4800	21.4
35	4650	20.7
40	4500	20.0
45	4350	19.3
50	4200	18.7
55	4050	18.0
60	3900	17.3
65	3750	16.7
70	3600	16.0
75	3450	15.3
80	3300	14.7
85	3150	14.0
90	3000	13.3
95	2850	12.7
100	2700	12.0
105	2550	11.3
110	2400	10.7
115	2250	10.0
120	2100	9.3
125	1950	8.7
130	1800	8.0
135	1650	7.3
140	1500	6.7

Tensioning Meter



Infrared Thermometer



The Dillon Tension meter, purchased through Brifen USA, Inc. comes with an infrared thermometer

Stringing the Cable



During the construction phase, it has been found that by applying an initial tensile force of approximately 120% of that required per the Tension Chart or vibrating the ropes by rapping the line posts with a hammer or by use of a mechanical vibrator will aid in Final Tensioning. This accelerates the creep and redistribution of the tensile force by reducing the friction between the posts and the interwoven ropes.

It is not necessary to record tension during the construction phase of tensioning



NOTE: The Final (second) tensioning is recommended after approximately a two or three-week period.

After Construction Tensioning has been completed, approximately a two-to-three-week period, the rope tension will decrease as a result of the rope harmonizing. When measuring for the Final Tensioning the rope tension may be plus or minus of the tension table

Follow the steps outlined below using only the tension values from the chart (page 17). Once the tension meter readings at a given turnbuckle are set, then move to the next turnbuckle and complete checking the entire fence.

1. Ensure that the Turnbuckles have the minimum thread engagement of 1" or are visible in the inspection hole and that the slack has been taken out of the ropes.
2. Check that each rope is securely fastened to the end anchor frames.
3. Start at either end of the fence close to the vicinity of a turnbuckle. Turn on the Dillon Tension Meter (optional). Pull out the pin and open the lever arm and hang on the top A rope. Ensure that all 3 sheaves (rollers) are riding on the rope, then close the lever arm and re-insert the lock pin. The center sheaves will deflect the rope, displaying the current rope tension.
4. Aim the infrared thermometer at the D rope and read the temperature rounding up or down to the nearest 5-degree increment. Refer to the Brifen Rope Tension Table to determine the proper rope tension that coincides with the rope temperature.
5. Connect 3 pipe wrenches to one rope. One on the right-hand fitting, one on the left-hand fitting, and one at the turnbuckle.
6. Adjust the Turnbuckle until the targeted rope tension has been reached. Release the Dillon lever arm and move the tension meter to the next rope below. Repeat the above procedures for the remaining ropes.
7. Record the results being sure to log the date, time, rope temperature and rope tension settings on the Tension Log provided on the reverse side.



Tension Log

Customer: _____

Contract: _____

Fence #: _____

Length: _____

Direction: _____

DATE	ROPE TEMP*	TIME	kN/LBS	RIGGING SCREWS			
				A	B	C	D

*Using an infrared thermometer or similar.