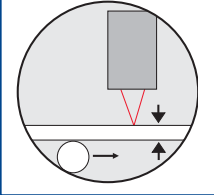


Tube & Pipe



The new LaserSpeed gauge manufactured by Beta LaserMike has a dimension of 26.25 X 20.67 centimeters and weights only 1.4 Kilograms.

LaserSpeed gauges are ideally suited for all pipe and tube application. The gauge can be used in conjunction with wall thickness gauge on seamless tubes to obtain a complete tube profile for total quality control. The wall thickness gauge measures the tube's wall thickness along the length of the tube and the LaserSpeed gauge provides the position of the wall thickness measurement. Combining the two will provide a complete profile of the seamless tube.



LaserSpeed gauges can also be used on reduction mills to provide the speed measurements between each mill stand. This allows better control of the mill and better reduction control.

In addition LaserSpeed gauge can be used to control the shear on a welded tube mill eliminating the slippage and mechanical problems associated with tachometer and roller measurement devices.

Table 1 shows measurement results using a Laserspeed gauge to control the shear on a seamless tube line. The first column in table 1 show the tube length measured by hand. The second column shows the length measured by the LaserSpeed gauge. Column A shows the difference between the hand measurement and the LaserSpeed measurement. Column B shows the percentage difference between the hand measurement and the LaserSpeed measurement. As seen in the table the LaserSpeed gauge did an excellent job of controlling the cutter to obtain accurate tube lengths. The benefits to using a LaserSpeed gauge are.

1. The gauge never has to be recalibrated once the gauge is setup properly
2. The cut length will be correct from the first tube to the last tube because there no slippage errors
3. There are no moving parts to wear out.
4. There are no error due to mechanical slippage

Table 1

Hand Measured Length	Laser Measured Length
115.4922	115.4894
113.6295	113.6164
114.787	114.7658
115.2791	115.2708
115.6015	115.593
115.0416	115.0334
114.4515	114.4286
114.821	114.8035
115.1302	115.1144
115.8786	115.8549
114.7456	114.7338
114.3308	114.3212
115.9465	115.9359
114.706	114.6867
115.0133	114.9957
114.7493	114.7376
114.3478	114.3343
115.9522	115.9265
114.7852	114.7621
114.7154	114.698
115.1302	115.105
115.1339	115.1031
114.7418	114.73
115.3998	115.512
114.6947	114.5341
114.7267	114.7074
115.9767	115.9717
114.7324	114.7187
115.1603	115.1182

Table 1- Controlling Shear with LaserSpeed Gauge

