

## XY Tables ,Your Motor-Driven Tables

Precise work requires the right equipment and when it comes to gantry and xy tables there are a lot to choose from.

The X, Y standard laser table range from a 15"x 15" to 51" x 100" in size. Many companies who produce these tables offer a wide range in configuration so that the customer gets the right table for the application. Depending on what you will be using the table for, you need to consider size, dependability as well as affordability. Depending on the type of construction needed the simplest form of 2 linear degrees of freedom of a positioning system where the base of the top axis is screwed to the carriage of the lower axis is the best.

The standard X, Y table is usually designed and built from heavy duty steels including stainless and are meant to last for many years with nominal maintenance. The X, Y table is no small expense so purchasing a long lasting one is important. Most table working tops are built for toughness in design for rigidity and stressed relieved for minimal environmental effect. Most companies attempt to create the precision ground for most tables to be better than .001".

Precision rails and bearing blocks are used to give the customer accurate and repeatable operation. Most basic tables are fairly accurate however higher accuracy tables can be ordered from most companies. Vibration control within the tables make for minimal vibration, since when working on a delicate project vibration can be a concern, most companies offer this, however there may be a cost difference in the tables that offer a higher vibration control. The other important thing to consider is the job you will need the equipment for; there may be no need for vibration concerns. The best thing to do in order to determine which table is right for your company is to speak with your vendor.

There are also different gantry designs to address specific applications. According to most companies standard models use ball screw drives for the gantries and high speed raster scan models use a precision belt drive. Clients can order various options for the bases for any of the models of the gantry tables. There are many amenities that can be included with metal cabinet doors and casters being two of the most popular. Gantry configuration is important because a gantry driven by linear motors and designed for high natural frequency can provide a company with the right equipment that combines high precision, high speed and low settling time thus making the best use saving time and money.

### About the Author

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