Jointer

Background

The jointer is a standard piece of equipment in schools and the woodworking industry, and is designed for jointing and planing. It generally has a working width of between 300 and 600 mm. The infeed table is height adjustable to determine the depth of cut. The jointer planes convex, warped or otherwise misshapen timber to create one or two perfectly flat surfaces at a specific angle to each other, usually 90°. This is known as flattening or jointing. The timber is then moved to the thickness planer for further processing.

Most jointers have cast iron frames and tables to increase the weight of the machine and decrease vibration.

The jointer must not be used for workpieces shorter than 400 mm. With workpieces shorter than that you are more likely to injure yourself. To create a number of identical pieces, it makes sense to work on double or triple lengths, etc.

Stop and think!
Because it is so versatile and it is operated manually, the jointer is one of the woodworking machines must likely to cause accidents. By working safely you can significantly reduce the risk of accidents.

Machine structure
The jointer is designed to create a flat surface on uneven stock and to create an edge between 90° and 45°.

Rotating cutter head with knives
The jointer has a rotating cutter head with two or four knives made of HSS or hard metal. Knives are available in HSS or hard metal. The knives must be replaced or sharpened as soon as they no longer produce satisfactory results. The planed finish must be perfectly smooth and straight. The service life of the knives depends on the material. Hard metal knives stay sharper for much longer but are more expensive.

A guard must be fitted over the cutter head to prevent access during operation.

Infeed and outfeed tables
The machine has an infeed table and an outfeed table. The infeed table is height adjustable and determines how much of the stock is removed. There is a scale indicating the depth of cut on each pass.

The outfeed table supports the jointed workpiece and must be set so it is level with the cutting circle of the cutter head.

Stop and think!
It is easier to feed the workpiece if you apply lubricant to the tables.

Fence

The jointer has a fence that can be adjusted from side to side so you can use the full width of the cutter head. The bevel can be adjusted between 90° and 45°.

When the fence is tilted, the workpiece must always be fixed so it cannot slip outwards. Note that working against the fence is more difficult and also more dangerous than planing the flat side.

Stop and think!
With narrow pieces of wood, pull down the low fence to make space for your fingers.

Roller stands
You must place roller stands in front of and behind the jointer to keep long workpieces at the same level as the infeed and outfeed tables. Roller stands also improve safety because they prevent the stock tipping off the machine.

Learn more:
Checklist for jointers (Prevent)