THE CLUB SCOUT DUAL CYLINDER PNEUMATIC CLAMP

General

The pneumatic clamp can be used for all shaft clamping situations. It will handle raw shafts, gripped clubs, the short CRC clamping length and is especially well suited for zone profiling.

The pneumatic clamp will provide a known precision clamping force based on the pressure setting of you air compressor. The total piston area of the two cylinders is 3.53 square inches. The force on the shaft is the product of your pressure setting and the area of the cylinders. At 100 psi (pounds per square inch) for instance 353 pounds of force will be applied to the shaft.

Assembly and Operation.

The clamp may be shipped unassembled. The upper portions containing the two cylinders has to be attached to the base using the four mounting screws and spacers. The tubing from the cylinders must be connected to the three was toggle valve. The assembly is pretty obvious from the picture on the right. The “Y” adapter that connects the tubes to the toggle valve has a nut that can be tighten to attach it to the valve. It will swivel. Simply hold the top end while tightening with a small wrench. An air hose is connected from you compressor to the barb fitting on the three way toggle valve. You may wish to attach a quick disconnect fitting to the end of the hose.

The base must be firmly bolted to your work bench. The clamp is designed to operate in the vertical twanging mode. For most applications a 50 to 80 psi pressure setting will work fine. For zone profiling you’ll need about 80 to 100 psi for best results. There is a movable stop and the end of the clamp. It can be moved out of the way when matching shafts that have not yet been butt trimmed. It must also be out of the way when zone profiling. When measuring gripped clubs, about 1/4” of the butt end should extend out beyond the rear of the clamp. When using the short clamping lengths for the FM precision CRC fitting you’ll need to place a small piece of .6” graphite butt stock material under the read end of the clamp to stop the upper V block from cocking and giving bad readings.

When the toggle clamp is flipped the upper V block will come down with considerable force. **Be sure to keep your fingers out of the way!** It is best to just move the toggle switch slowly which will bleed air into the cylinders and cause the upper V block to descend slowly onto the shaft.

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