Dave Manson Precision Reamers

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The BEST **in the Business**

INSTRUCTIONS FOR USE OF SCREW-IN CHOKE TAPS

Congratulations! You've purchased the best quality taps we're capable of producing. Made from premium high speed steel, they are carefully hardened and drawn and then ground to exacting tolerances. A coating of Titanium Nitride (TiN) is then applied to resist wear and reduce cutting effort. We take pride in our products and warranty them against defects in material and workmanship. Please contact us if you have ANY questions about our products—our address appears below.

Once a shotgun barrel has been reamed with the proper reamer, it is recommended that tapping be done by hand. Reaming is properly done under power because of the higher feed pressure needed to make the tool cut; taps, once started, pull themselves into the work. When tapping, don no reverse the tap to "break chips"—this will only cause accelerated wear. Turn the tap continuously until it reaches the desired depth. Only then reverse it to remove it from the barrel.

Before starting to tap the barrel, make sure it is the corrected tap. This may seem obvious, but if you have tooling for both standard and thinwall screw-in choke systems, the taps are only .20" different in diameter and can be confused. Too small a tap won't ruin a job, but using too large a tap will. Our taps are marked with the size of the tap and the name of the system for which they are intended. For example as tap intended for use with 12 Gauge TruChoke tubes will be marked..".795"-44 2-start For TruChoke. Questions??? Please call.

Select a pilot bushing that fits the reamed barrel as closely as possible without binding and secure it to the tap with the snap ring. Clean all reaming chips from the barrel and remove any burr left at the front of the reamed section where the choke tube will seat. This burr, if not removed, will score the pilot bushing, but, more importantly will prevent the use of a bushing that truly fits the bore and gives the best possible alignment.

The tap must now be marked so it is not run in too far and distorts the should against which the choke tube seats. This can be done in the following manner: lay the tap next to a choke tube which will be installed after machining is complete. Note the length of the tube which will lie in the barrel. With headless tubes, this is the entire length of the tube; with headed tubes, it is the overall length of the tube, minus the head thickness. The tap should be run in approximately .050" shorter than the section of the tube that will lie in the barrel.

Measure this length back from the leading edge of the tap and mark the tap at this point (a rubber band around the tap works well). Double-check your mark against the choke tube and adjust if necessary. You will be running the tap in to this point. Any further and you risk distorting the shoulder against which the tube seats—a situation which can cause the tube to be blown out of the barrel.

Place the barrel muzzle up in a padded bench vise. Lightly oil the bushing and the tap with a good quality cutting oil (Brownells' Do-Drill works well) and insert the pilot into the barrel. The bushing should slide smoothly past the reamed section and into the bore, with the lead of the tap resting on the area to be tapped. Using a double-ended tap wrench, apply slight downward pressure while turning in a clockwise direction. Once the threads have started to cut, the tap will feed itself and no more downward pressure is required. Continue turning the tap until the mark you made is lined up with the end of the barrel—you've cut far enough. Back the tap out, being careful to avoid cocking it when you reach the beginning of the threads. The fine threads used for screw-in choke are easily distorted so exercise extra care in this area.

Clean the tapped barrel and blow out any chips that may remain in the choke area. Because of the stringy steel used in barrels, very small chips sometimes cling to the threads and can prevent choke tubes from screwing in all the way. These can often be removed by brushing the threads with a brass brush of the appropriate gauge, run in a drill motor. Clean thoroughly after this operation, too.

Lightly oil a choke tube and check for fit. Headed tubes will normally seat on their skirt with a slight gap between the underside of the head and the end of the barrel; headless tubes normally seat flush, or slightly below the muzzle. Using a hook scribe or bent wire, make sure the entrance to the choke tube is larger than the bore so it isn't caught by the shot column and blown out of the barrel. Remove any burrs or sharp edges, touch up the end of the barrel with Oxpho-blue and your job is complete.

One final note: Please call us if you have any questions. It's better to take a little more time than risk an accident and a ruined reputation.