

Helpful tips from David Tubb regarding the 6XC

The 6XC -- what works for me.

I shoot the 6XC, not the 6XC II.

For 6XC reamer I use a .470" base diameter .278" chamber neck diameter .160" freebore (straight section) and 1 ½ degree lead. (Reamer print attached below)

The reason I use a .278 neck is it allows the bullet to be centered without the case neck influencing alignment and the carbon buildup in the neck won't start showing higher pressures (+50 rounds). I also don't want to neck turn anything. The neck runout on either the Norma or Peterson 6XC is typically .0015"

I like Dave Manson and Hugh Henriksen for 6XC reamers. Dave's phone number is 810-953-0732 david@mansonreamers.com Hugh's is 541-535-2309. Please make sure you double check with them on the reamer dimensions - stated at the top of this write up.

2.780" is approximately the OAL measurement for a new chamber with a bullet just touching the rifling (slight differences from rifling configuration can occur). I like to try shooting 115 DTACs with either a .010" to jump or .010" engagement into the rifling. Remember your pressure will quickly increase when seat your bullet into the rifling.

My tried and true load is 39.5 grains of H4350 using the coated DTAC 115s achieving velocity of 2950 fps in a 26" barrel. The useable range of the 6XC is 38-42 grains of H4350 so go up by a half grain each time you try a load and see what works for you. Using the TUBBGUN™ (which is designed to really higher pressure well) and a 32" Schneider barrel, maximum 115 DTAC loads can exceed 3200 fps with 42 grains of H4350. Another good powder is 42-44gr H4381sc. Using a 26" barrel or longer, velocities of 2950-3100fps can be achieved.

I am using one of the original TUBB® 6XC resizing dies from Superior Shooting Systems which continues to work with over 12 years of almost daily usage. Keep in mind I use top notch reamer makers and the SSS A7 tool steel 6XC die body which will small base your fired brass each time you resize it. Other resize die makers may not be adequately resizing the base diameter of the case; therefore, a sticky bolt lift due to inadequate base clearances may be a result.

The TUBB® 6XC resize die also uses interchangeable integral neck shoulder bushings which COMPLETELY resize the neck and set back the shoulder. ALL other 6XC resize dies, which incorporate neck diameter replaceable bushings, leave a portion at the bottom of the neck untouched/unresized.

When you don't size the base with enough reduction in diameter then there isn't enough clearance for the brass to expand/contract when fired. It is basically all but forced into the chamber and the base has inadequate room to expand (and contract)

when fired, hence the sticky opening feel of the bolt (base of the case drags against the chamber wall when the bolt is lifted).

The 6XC is a CIP case (European SAAMI) – It is a very popular case in Europe.

I use a thin layer of imperial sizing wax on the neck and body when resizing Norma or Peterson 6XC brass.

I also use Schneider barrel 1:7 twist 5P rifling. Twist rates as slow as 1:8 will adequately stabilize a 115 DTAC RBT (Rebated Boat Tail).

Primer suggestions for the 6XC using Norma or Peterson brass
LRP—S&B/ Federal 210
SRP — Rem 7 ½

6XC holds title to most all of the NRA Across the Course and Long-Range records. Other similar cartridges use several grains more powder to achieve the same velocities. A 6XC = 6X48mm.

6XC Peterson brass using a small rifle primer will be a very good alternative for those shooters looking for a cartridge emulating a 6x47mm or a 6mm Dasher.

Common questions: With the .160" freebore, can you still run the 105's & 108's and still hit the lands?

Answer: Yes - you can still seat the bullet into the lands. A 107gr bullet will be contained by approximately .230" of the remaining case neck in a new barrel.

Question: What is the difference between the TUBB® 6xc Redding die set and the Redding bushing full-length sizing set?

The TUBB® 6xc resizing die is set up for small basing and full length resizing in one die. Redding has a full-length resizing die and then a separate body die for small base sizing.

Question: Why am I getting donuts with Norma brass?

You are seating the bullet too far into the case neck.

I never seat the full diameter at the base of the bullet into or past the neck/ shoulder junction. Therefore, the constriction portion of a case (where donuts occur if not loaded properly) has no issue with bullet seating pressures. You can shoot a 115 DTAC in a short action magazine box that is 2.85" long with a 6XC cartridge length approaching 2.80" Over All Length. All bottle neck cartridges exhibit various degrees of constriction at the neck shoulder junction. Just remember: Don't seat your bullets so far in-Require your gunsmith to use a reamer with adequate straight section so you won't be forced into seating the bullet short of optimum seating length.

Please keep in mind that if you are using brass other than Peterson or Norma with the TUBB® 6XC dies that it may not work properly. The TUBB® 6XC dies were designed for use with the CIP 6XC, not the 6XC II. Peterson and Norma 6XC brass are designed to work in CIP 6XC chambers and therefore can be used with TUBB® 6XC dies.

Unfortunately, Alpha Munitions and I were unable to come to an agreement therefore I was not involved in their 6mm brass development.

If you fire a case in a 6XCII chamber and then resize using my TUBB A7 tool steel resize die you will likely be shaving brass off of the last ½" of the base of the case.

Please see below for Manson Reamer print I recommend.

Here is the Dave Manson print for a 115 gr bullet throating.

