

Fig. 1

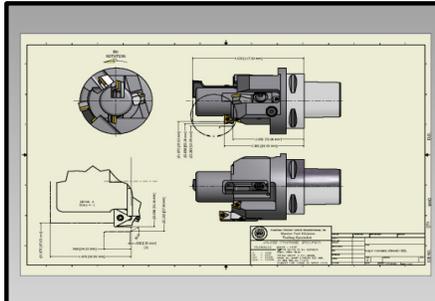


Fig. 2

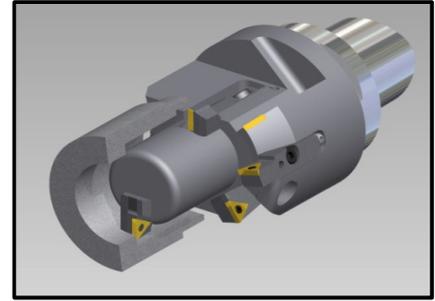


Fig. 3

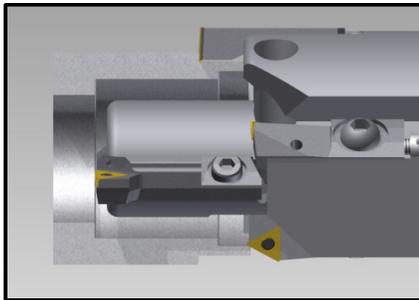


Fig. 4

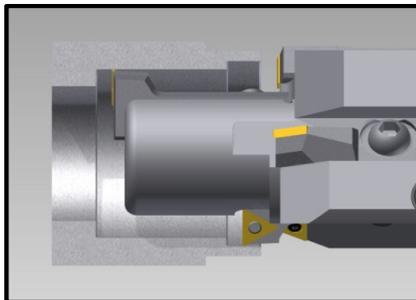


Fig. 5

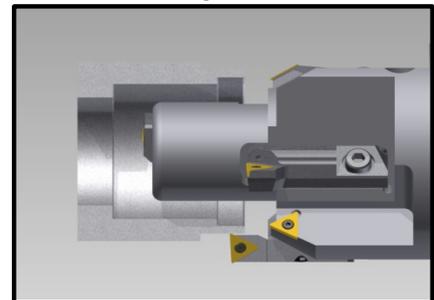


Fig. 6

We recently had a customer with an interesting request. He was machining a part on a horizontal machining center that required an O.D. turn, an I.D. finish bore, an I.D. counterbore, and a facing and chamfering operation (See Fig. 1). He was doing these operations with 4 separate tools and needed to radically reduce his cycle time to remain competitive.

He also stated that he was having tool life issues particularly with the finish bore and was unable to hole size and surface finish on a repeatable basis. He further explained that he was having major issues with holding the tolerance between the O.D. turn and the I.D. finish bore because of the tool change that he was making between the two different tools.

For more information call or e-mail Master Tool or your local distributor:

The Master Tool engineers designed a tool that had a combination of both fixed pockets and adjustable cartridges to machine all of the surfaces with one tool - dramatically reducing the cycle time (See Fig. 2). By combining the O.D. turn and the I.D. bore into one tool holding the tolerance between the two was no longer an issue (See Figs. 3, 4, 5 & 6). In addition, using standard Sumitomo inserts with their best steel turning grade doubled his tool life.

Not long after the tools were shipped the customer called Master Tool to tell us how well the tool was working. He also told us that because this tooling design made him more competitive he had just received a large order from his end user and was sending us more prints to quote. He stated that "He should have contacted us in the beginning".

To see a video of this tool go to the Master Tool website at mtctools.com and click on the "VIDEO" menu.