

Fig. 1

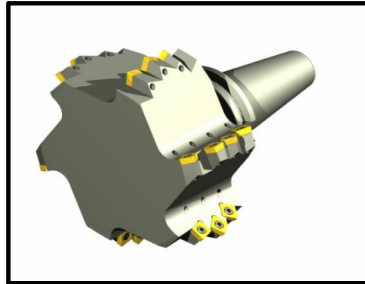


Fig. 2

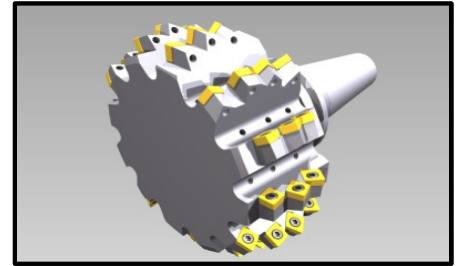


Fig. 3

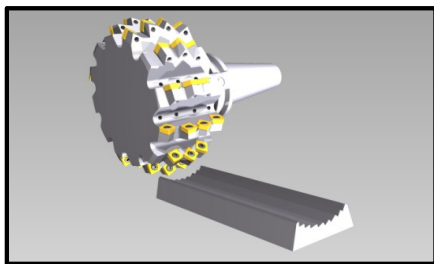


Fig. 4

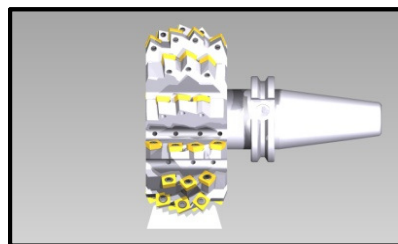


Fig. 5



Fig. 6

Don Bolton, the Sumitomo sales engineer in the Southwest Region asked the Master Tool Division to look at an existing operation that was using a solid form cutter to determine if an inserted cutter would work for one of his customers. The part required an number of serrations milled into a steel body (See Fig. 1).

When Rob Culotta, the Master Tool Division design engineer, looked at the project originally the maximum number of flutes we were able to get into this diameter was two (2) using a standard CCMT32.52 insert (See Fig. 2). The customer's original form cutter had more flutes and the customer was concerned about cycle time. We were able convince the customer that we would be able to run a higher surface speed and a higher feed rate by using a standard coated insert and still achieve the same cycle time as his from cutter that had more effective flutes.

The customer placed an order for two different sizes and approved the original design. Eventhough the customer purchased the cutters as we designed them Rob Culotta did not forget the customer's original request for more flutes. He continued to look at his design and by using 3D modeling and working with our manufacturing people he found a way to get four (4) effective flutes in the cutters (See FIG's 3, 4, 5 &6).

Before we started manufacturing the cutters we contacted the customer and discussed the new design. The customer was very appreciative because we were able to provide for his original request and we did not give up - eventhough we already had an order. The new design was manufactured and the cutters are working very well.

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