



Here's one way to ramp up your throughput.

You make money on the parts that come off your machine, so make sure you have the best tooling solutions in place to maximize your throughput. Our customer was experiencing lengthy cycle times while machining aerospace body assembly components from 6061 T6 aluminum. The finished holes required a 24 Ra, so the customer was first reaming the hole and then polishing it to achieve the necessary finish.



The reaming process took 2 minutes 48 seconds to complete, and the polishing added another 5 minutes, giving the customer a total cycle time of nearly 8 minutes. With our **Wohlhaupter 320 Boring Head**, the cycle time dropped to a quick 16 seconds (a 96% decrease) with a 10 Ra hole finish, eliminating the polishing process altogether.

Not only did the Wohlhaupter tool decrease cycle time and eliminate a process, but it also doubled the tool life from 500 parts to 1,000 parts per insert. Overall, the customer's cost per hole decreased by 87.85%.

With the previous process, the customer produced 500 parts annually. With the Wohlhaupter tooling solution, the customer could produce more parts in less time, increasing their overall production and throughput. Oh, and profit increased too. **Don't just make money—make MORE money by switching to the right tool.**

Product:	Wohlhaupter™ 320 boring head	Measure	Ream & Polish	320 Boring Head
Objectives:	(1) Decrease cycle time (2) Increase throughput	RPM	350	7,500
Industry:	Aerospace	Speed Rate	69 SFM (21.0312 M/min)	1,479 SFM (450.799 M/min)
Part:	Body assembly component	Feed Rate	0.004 IPR (0.102 mm/rev)	0.0008 IPR (0.02 mm/rev)
Material:	6061 T6 Aluminum	Penetration Rate	1.4 IPM (35.56 mm/min)	6 IPM (152.4 mm/min)
Hole Ø:	0.753" (19.126 mm)	Cycle Time	7 min 48 sec	16 sec
Hole Depth:	1.630" (41.502 mm)	Hole Finish	24 Ra	10 Ra
		Tool Life	500 holes	1,000 holes
The 320 Boring Head offered 87.85% cost per hole savings.				

- ▶ Boring head
320 series
Item No. 320001
- ▶ Boring insert
Item No. 297872PKDD30



The Wohlhaupter 320 boring head provided:

- ✓ Decreased cycle time
- ✓ Increased tool life
- ✓ Eliminated the secondary operation
- ✓ Reduced the cost per hole

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