

ARNO[®]

WERKZEUGE

ARNO USA

SUCCESS STORY

3D Hybrid Tools are a
“GAME CHANGER” for Chip Control

Alpha Grainger, Franklin, MA



ARNO 3D Hybrid Technology Solves Challenging Chip Control Problems



Component: Barrel blank; high volume production job



Material: 4340 Heat Treat
Incumbent: CCMT 09T304 (CCMT 32.51)
Parameters: 650 SFM at .006" / Rev
.115" DOC x 3.5" LOC
Machine: INDEX C200
Through Coolant @ 1,000 PSI



Incumbent: SECO
DCLCR2020X09JETI (Jet Stream)

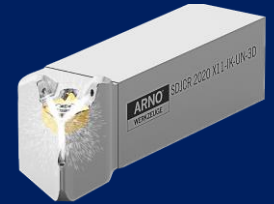


Results:

- Poor chip control
- Machine had to be run in single cycle mode
- Chips had to be cleared after every part
- Stringers causing poor surface finish
- 50% scrap rate
- Machine running at greatly reduced capacity



Solution: ARNO
SCLCR 2020 X09-IK-UN-3D (3D Hybrid)



- Immediately introduced chip control
- Machine could be run in production mode
- Scrap rate due to stringers went to 0%
- Machine returned to full capacity

Challenge: Chip control causing production delays and high scrap rates.

Customer states:

“The coolant coming through the Arno holder was dramatically better. The port underneath the insert is placed perfectly to get underneath a chip and break it before it can become a problem. This was a game changer. We were able to put the machine back into full production and regain our full productivity.”

Eric Green

- Additive manufacturing allows for precise placement of coolant and ports
- Precision coolant delivery makes all the difference.
- Superior chip control and higher productivity.
- Reduced scrap
- ARNO UN style tools are delivered “ready to run” in UN tool posts.
- Competitors holder needs time consuming modification.
- Standard tool holders are shipped pre-ported with 1/4” NPT threads



Customer states:

“We then switched to the Arno SCLCR 2020 X09-IK-UN-3D holder. This was our first time trying one of these holders. The first thing we noticed was that we were able to put the Arno holder into the tool post without the need for any modifications. Usually we have to have the overall length of a holder cut down, and then if it is coolant fed, plug the ports and make a new one where we want it.”

Eric Green