



Enough is enough when it comes to tool failure.

Nothing squanders an application's productivity like tool failure. Not only is your tooling ruined, but chances are your part is scrapped too. While using a lathe to machine faceplates from 1045 steel, our customer experienced tool failure after about 250 parts. It wasn't long before they were fed up and ready to find the right solution.

The customer tested the **4TEX Indexable Carbide Drill** using the "M" geometry inserts with AM485 coating, which is designed to resist heat, and a higher rake geometry that provides excellent chip formation in stainless steels. The 4TEX performed better than the customer had hoped. Where the previous tooling failed after 250 parts, the 4TEX completed 300 parts *with the first index*. The customer easily finished their current job before they even rotated the inserts.

Using the 4TEX not only provided substantial tool life improvements, but it also improved cycle time. The previous tooling completed the process in 26 seconds, but the 4TEX lowered that time to 8 seconds (a 69% decrease). The 4TEX was offset in the X-axis in order to drill the non-standard diameter in one shot. This allowed the customer to remove a boring pass and save additional time in the process.

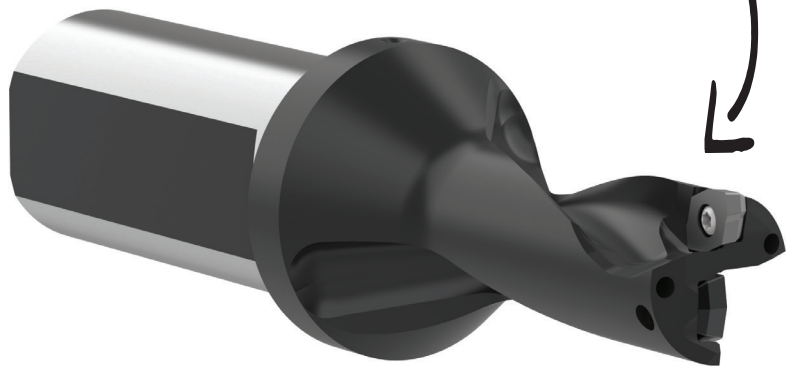
All the tool failure frustrations ceased to exist once the 4TEX occupied the spindle. Tool life and cycle time both improved, proving that all you need is the right tool for the job. **When enough is enough, it's time to find a better solution.**



		Measure	Competitor IC Drill	4TEX® Drill
Product:	4TEX® Drill	RPM	500	2000
Objectives:	(1) Increase tool life (2) Eliminate tool failures	Speed	94 SFM (28.651 M/min)	375 SFM (114.3 M/min)
Industry:	Military/Defense	Feed Rate	0.003 IPR (0.0762 mm/rev)	0.0025 IPR (0.0635 mm/rev)
Part:	Faceplate	Penetration Rate	1.5 IPM (38.1 mm/min)	5 IPM (127 mm/min)
Material:	1045 steel	Cycle Time	26 sec	8 sec
Hole Ø:	0.717" (18.212 mm)	Tool Failure?	Yes	No
Hole Depth:	0.650" (16.5 mm)			

- ▶ 4TEX Drill holder
2xD length
Item No. D2051800M-100F
- ▶ 4TEX Drill inserts
M geometry
(stainless steel & high temp)
Item No. 4T-05T203-M

69% cycle time decrease



The 4-sided indexable inserts with heat-resistant coating provided:

- ✓ Lathe offset to drill non-standard Ø
- ✓ Decreased cycle time
- ✓ Increased tool life
- ✓ Worry-free machining

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