



“Going to all costs” doesn’t always mean you have to spend more.

We can all agree scrapping parts is always a bad thing, but scrapping extremely expensive parts is even worse. Our customer was machining air-cooled heat exchangers that cost \$15,000 each. Needless to say, they were going to all costs to make sure the parts were right the first time.

But going to all costs doesn’t mean you can’t find other ways to decrease your costs.

The high penetration drill they were using worked well, but with a hefty price tag on the replaceable insert, they wanted to reduce their drilling costs. The customer decided to test the **4TEX Indexable Carbide Drill** with inserts that cost 81.54% less. Using the 4TEX “M” geometry inserts—designed to produce excellent chips in ductile materials and improve tool life in heat resistant materials—the customer was thrilled with the small chips and equal hole quality.

With the previous drill, the customer achieved 30 holes of tool life before needing to replace the insert. Utilizing the 4TEX four-sided insert design along with the “M” geometry’s heat resistant coating, they achieved 100 holes of tool life before replacing the inserts.

With insert cost savings of 94.5%, the switch to the 4TEX Drill was a no-brainer for the customer. **Just because a part is expensive doesn’t mean it also needs to cost more to machine.**

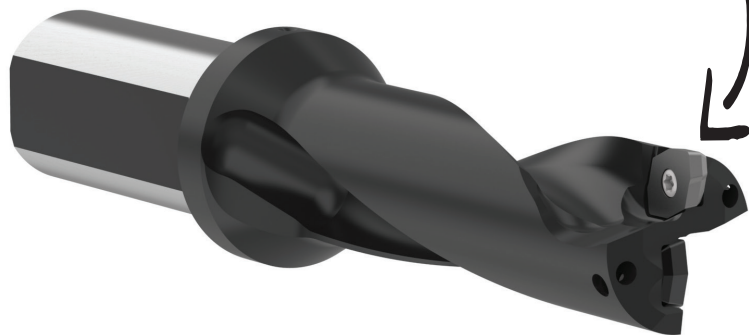


Product:	4TEX® Drill	Measure	Replaceable Insert Drill	4TEX® Drill
Objective:	Decrease tooling costs	RPM	396	991
Industry:	Heat exchangers/tube sheets	Speed Rate	100 SFM (30.48 M/min)	250 SFM (76.2 M/min)
Part:	Air cooled heat exchanger	Feed Rate	0.010 IPR (0.254 mm/rev)	0.003 IPR (0.0762 mm/rev)
Material:	Inconel 825 plate	Penetration Rate	3.96 IPM (100.584 mm/min)	2.97 IPM (100.584 mm/min)
Hole Ø:	0.964" (24.4856 mm)	Cycle Time	26 sec	35 sec
Hole Depth:	1.750" (44.45 mm)	Tool Life	30 holes	100 holes
4TEX offered 94.5% cost per hole savings over the competitor tooling.				

- ▶ 4TEX Drill holder
3xD length
Item No. D3072450M-100F

- ▶ 4TEX Drill inserts
M geometry
(stainless steel & high temp)
Item No. 4T-070305-M

94.5%
cost per hole savings



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

- ✓ Decreased tooling costs
- ✓ Increased tool life
- ✓ Worry-free machining