

Profiles of Success #2

Two fabrication shops. Two different punch tooling systems

FABRICATION COMPANY:

Laicor Fixtures

PUNCH TOOLING:

Mate Precision Tooling Ultra QCT thick turret tooling

Vince Scott, fabrication manager at Laicor Fixtures in Peterborough, ON, is always looking for ways to streamline processes, improve manufacturing efficiencies and reduce costs. So when he came across quick change punch tooling at a FABTECH show a few years ago, he was intrigued by the potential benefits of the technology for the two Finn Power (now known as Prima Power) turret punch press combination machines, the Shear Brilliance and the Shear Genius, that run in the fabrication shop.

Laicor is a long time user of Mate punch tooling so Scott turned to Peter Visser, Ontario sales engineer for Mate Precision Tooling, who helped the company set up Mate's quick change tooling system, known as Ultra QCT.

The Ultra QCT is thick turret tooling with an insert style punching system. It's designed with what Mate describes as a "tool-less punch retention mechanism" that makes it quick and easy to change a punch insert. The QCT tooling is available in A and B stations and works with all existing UltraTec, Ultra TX and Ultra fully guided guides and standard canisters. Only one punch drive is needed for rounds or shapes.

"You can't go wrong with this system," says Scott. "The worry is when people



The QCT tooling is available in A and B stations and works with all existing Mate UltraTec, Ultra TX and Ultra fully guided guides and standard cannisters.



Mate Precision Tooling's quick change punch tooling system, the Ultra QCT, is a thick turret tooling package with an insert style punching system and features a tool-less punch retention mechanism for quick and easy punch insert changes.

put inserts into the tool body they may not seat it correctly. With this system, there's no way the insert can come out. There are no screws to loosen and you don't need to use tools to change the punch insert."

While Scott likes the quick change tooling concept, it's not what sold him on the Ultra QCT system. It was the combination of cost savings and the fact that he could go with higher quality punch inserts made from M4PM steel.

“We were using regular punch steel before we switched to this insert. Because there is less material with this design—since you’re only buying the insert and not the whole punch—it is less expensive and we’re able to go with a better quality insert with longer tool life. For example just for a round punch, we’re saving \$12 but we’re going with a M4 tool steel. So for less money, we’re getting the insert out of better material. At first I thought it would be great just for big runs, but it’s also good for low volume runs because I’d still have to buy a whole punch for these jobs, so we’re saving money with this system even for work we may do once or twice.”

Laicor has been using the QCT punch tooling for about four months and Scott says to date there have been no problems with the tooling and expects tool life will be considerably longer than the life of previous tooling.

“We purchased four bodies with the punch inserts and we’re not likely to notice any problems yet because we haven’t been using them for long, but also because we mostly run a static turret. It means we don’t change our tools since we build our own products. We have about 78 tools in the Finn Power Shear Brilliance (SB) and 67 tools in the Shear Genius (SG). And since we don’t take the tools out frequently, it saves us an immense amount of time on setup.”

And when Laicor does need to resharpen punch tooling or inserts, it uses the new Mate Premia sharpening system, purchased a couple of years ago.

“This helps us out a lot,” says Scott. “Traditionally we had an older grinder, which requires a little bit of skill and safety could be an issue if operators didn’t understand how to use the old grinder. With this new machine it’s really simple. You place your die or punch in it, lower it on top of the punch, close the door and



Vince Scott holding the Mate punch tooling beside an earlier investment Laicor made two years ago on a Mate Premia sharpening system, which works for dies, punches and inserts.

the program does the rest. You just have to program how much you want to take off the die and it grinds it. So the operator can walk away to go do something else and come back later to pick up the resharpened tool. This works for the inserts too.”

Laicor is a family owned business formed in 1996 by Antero (Andy) Laitila, who quickly established a reputation for providing high quality custom stainless steel components for various customers in different industries. In 1999, Laicor entered the retail checkout and store fixtures industry and today fabricates a variety of point-of-sale products such

as scan/bag/pass checkout systems, multi-belt and non-belt counters and custom store fixtures for a diverse range of customers in Canada and in the US.

The fabrication shop produces products using aluminum, stainless steel, cold roll, galvalume and hot galvanized steel using sheets ranging in thickness up to 14 gauge (2.0 mm) on the SB machine and up to 11 gauge (2.31 mm) on the SG machine. SMT

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