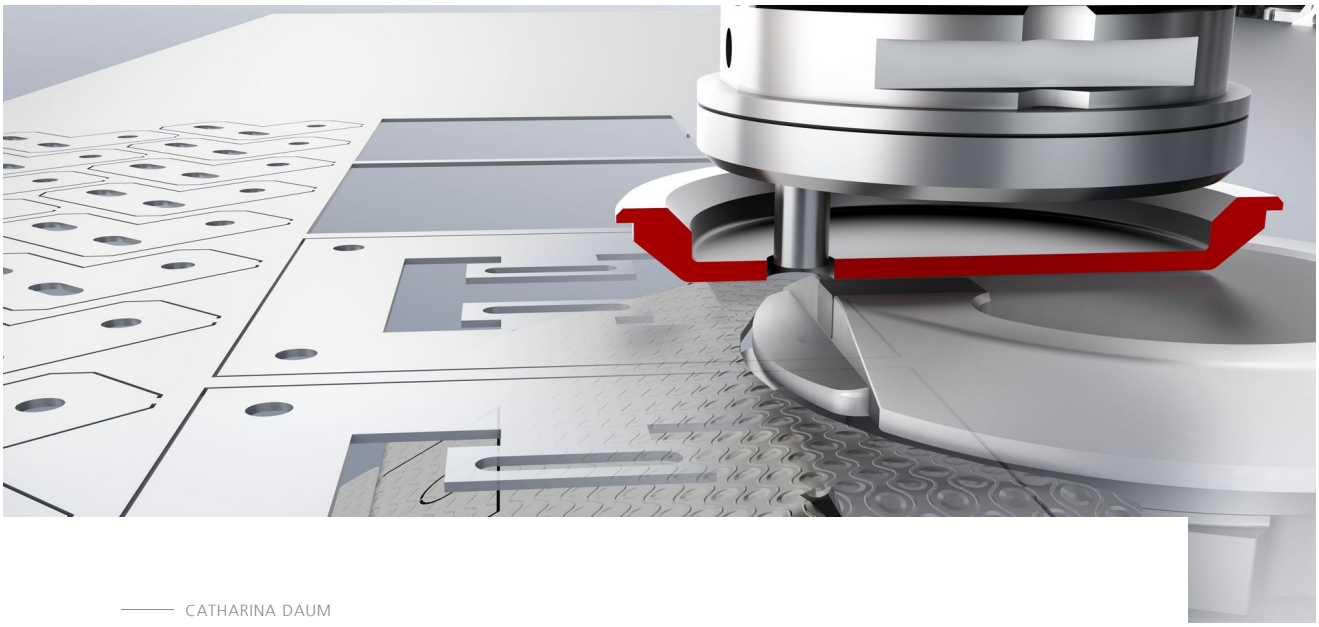


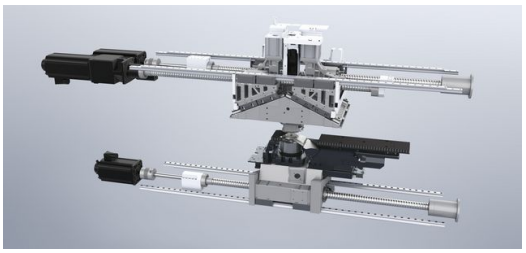
CATHARINA DAUM

A drive for the future

The patented Delta Drive opens up whole new possibilities in punch and laser processing. The right ejector tool sorts parts into good and waste parts.

Delta Drive – the new superweapon in TRUMPF's arsenal for punch and punch-and-laser processing. The patented drive was developed with an eye to achieving several goals, such as facilitating the construction of smaller machines and opening up new methods of material handling. But how? The secret of the Delta Drive is that it eliminates the need to move the sheet and work table in the Y axis – normally an integral requirement of sheet metal processing – making the punching head "fly" in that direction. This is made possible by an ingenious drive system, which is powered by two servomotors. When the servomotors move in the same direction, they allow the punching head to move back and forth in the Y axis. And when the ball screws rotate in opposite directions, this activates the punching stroke. This feature of the drive separates punch and die, allowing them to function independently of one another.

In this way, the Delta Drive opens up new and innovative methods. For example, it lets small laser-cut parts be reliably removed. Previously, most of them fell through the die into the scrap container and had to be removed by hand. Now the punch can operate in a slightly offset position.



Small parts are reliably removed // Subsequent sorting of good and waste parts is no longer needed // Fewer scratches on good parts // Sheet thicknesses up to 6 mm (Image: Electronic Publishing Stefan Berner GmbH)

This feature benefits the new ejector tool: it conveys the small parts via a part chute directly into as many as four sorting boxes. The waste parts continue to fall through the die. This eliminates the need for subsequent sorting of good and waste

parts, while causing fewer scratches on the former. The ejector tool for sorting can be set up in a large number of ways, since it must accommodate the removal of sheets up to 6 millimeters thick.



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