

FOUR-WAY RADIUS TOOLS SPEED PROCESSES, MAXIMIZE SHEET RANGE

THE PROBLEM:

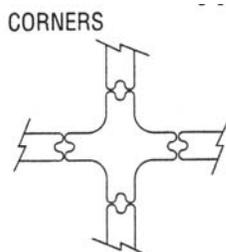
Parts with rounded edges are frequently used in sheet metal fabrication. Not only do they provide a more finished appearance, rounded edges also eliminate sharp, pointed corners that could cause injury during removal or damage internal components or wiring. Many times, fabricators use special tools that also require the use of an index station. Certain operations may require these, but there is an often overlooked tool that can improve process time, reduce costs and reduce machine wear: the four-way radius tool.

THE MATE SOLUTION:

A four-way radius tool allows fabricators to get corner radii in parts with just one hit vs. nibbling or using a special tool. Since it can hit all four corners simultaneously, a four-way radius tool does not require an index station. The four-way radius tool can fit in a single station or a multi-tool. By designing it to match the width of a slitting tool, fabricators can also combine a four-way radius tool with parting operations further streamline manufacturing processes.

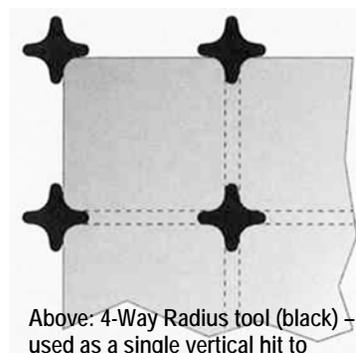
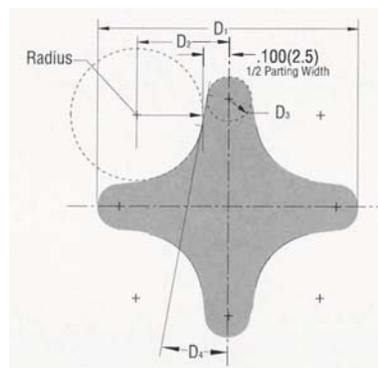
In a continuous parting application, the four-way radius tool uses one vertical hit between the parts to get the nest closer to the maximum range. The four-way radius tool can also help maximize sheet range and reduce machine wear. For example, if you have a sheet of 100

parts, you can punch the corners with 108 hits with the one tool vs. 400 hits with a special tool in an index station.



Above: 4-Way Radius tool (center) with micro-joint ends, paired with slitting tool, to create "shake-and-break" application.

with a Mate EasySnap™ tool for easy parts removal from the skeleton.



Above: 4-Way Radius tool (black) - used as a single vertical hit to maximize sheet range.

"Shake-and-break" is a popular name for an easy method of separating multiple parts from a sheet of material. The method is based on small, interconnecting tabs between the parts created by programming spacing of the shearing or slitting punch. These tabs keep the sheet and parts intact while being punched, yet are easy to separate off the machine. Any parts that don't fall loose by shaking the sheet are quickly twisted out by hand. By designing the four-way radius with micro-joint ends and combining it with a slitting punch with micro-joint ends, you can get a shake-and-break with rounded corners solutions. Better yet, pair these

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SOLUTION BULLETIN



AVAILABLE TOOLING STYLES:

- Ultra TEC[®] Thick Turret tooling
- Original Style, AMX[™] and MXC[™] Thick Turret tooling
- Murata Wiedemann Marathon[®], Marathon Plus[™], 114 Style and 112 Style tooling
- Trumpf-Style tooling
- Strippit Style Thin Turret tooling
- Salvagnini tooling

MATERIAL AND OTHER RESTRICTIONS:

- May not be used to make inside corners
- Contact your Mate Applications Specialist

OTHER MATE PRODUCTS TO CONSIDER:

- Mate EasySnap[™] tool for easy parts removal
- Mate slitting tools