



**IMPROVE OPERATIONS &
INCREASE TOOL LIFE
WITH MAXIMA™**

GALLED PUNCHES

- Heat, tight die clearance and lack of lubrication cause galling



- Galled punches cause:
 - Broken or chipped points
 - Stripping problems
 - Poor hole quality
 - Accelerated tool wear

WHAT IS MAXIMA™?

- Mate's Maxima™ coating
 - Multilayer Zirconium Titanium Nitride coating
 - Hard, wear resistant, lubricious
 - Apply to M2, M4PM™ or Durasteel
 - Acts as barrier between punch and sheet metal
 - Reduces friction during the stripping cycle
 - Particularly good for adhesive wear tooling applications
 - In real life tests, Maxima increased tool life by 2 to 10 times!





WHERE CAN YOU USE MAXIMA™?

- Recommended applications:
 - 3000 and 5000 series aluminum
 - Galvanized steel
 - Stainless steel
 - Vinyl coated materials
 - Prepainted materials under 16 gauge
 - Punching sharp cornered angles with 90 degree or smaller angle





MAXIMA™ COATING

Shape	Minimum Punch Size suitable for Maxima Coating
Round	Minimum Diameter = 0.098 (2,50)
Rectangle	<ul style="list-style-type: none">• If length is > 0.250 (6,35), minimum width is 0.060 (1,50)• If length is < 0.250 (6,35), minimum width is 0.098 (2,50)
Oval	<ul style="list-style-type: none">• If length is > 0.250 (6,35), minimum width is 0.060 (1,50)• If length is < 0.250 (6,35), minimum width is 0.098 (2,50)
Square	Minimum Width = 0.098 (2,50)
Other	Consult your Mate Dealer