



## **Forming Solutions**

THICK TURRET TOOLING

## FIVE DECADES OF GLOBAL EXCELLENCE

Founded in 1962, Mate is a world-class manufacturer of superior sheet metal fabrication products and solutions. We manufacture tooling for every major CNC punch press. In North America, we also offer a complete line of press brake tooling and CO2 laser consumables. Mate products and services are available worldwide, fully supported by over than 80 dealers in every industrialized country.



Headquartered in Anoka, Minnesota, in a 300,000 sq. ft. (28,000m<sup>2</sup>) state-of-the-art facility.



### WE RESPECT YOU PERSONAL CONNECTIONS

Mate does business with people, not companies. Our connection to you is personal. Mate's team of manufacturing and sheet metal professionals knows what you go through. We know what it's like to compete for that next job, manage deadlines or even need a rescue. With Mate you have a partner that respects your knowledge and is dedicated to helping you succeed.



### WE SUPPORT YOU YOUR GO-TO SOURCE

In your plant. Or on the phone. From our Sales Engineers and Customer Service, to our machinists and shipping department, Mate is pulling for YOU. Mate's in-field sales engineers know from experience what happens on the shop floor. They speak your language, fully capable of helping you improve processes and solve problems. Inside Mate, Customer Service makes quoting and ordering tooling fast and easy, guiding it through our world class manufacturing systems to ensure you receive your order when you expect it.



### WE INSPIRE YOU THINK BOLD, WE'VE GOT YOU COVERED

Whether it's on-site at your facility or in our Solution Center, Mate can inspire innovation from looking at new ways to use existing products or by developing new or specialty solutions that meet your specific requirements. Mate's team will assist you with a fast solution, whether it's a hinge, a building façade or a completely new challenge. Plus you're BACKED by our no-risk 100% customer satisfaction guarantee.

## MATE'S MISSION AND PROMISE TO YOU:

To personally **respect**, **support** and **inspire** sheet metal professionals around the world with high-quality precision tooling and services.

[Dimensions in Inches (mm)]



Mate offers a comprehensive range of thick turret forming solutions designed to accommodate any forming application in your thick turret punch press. Use the chart below to help you decide the forming solution that's best for you.



<div> <div>MORE</div> <div>←</div> <div>→</div> <div>LESS</div> </div> <div> <div>★★★★</div> <div>★★★</div> <div>★★</div> <div>★</div> </div>	Ultraform®	Ultraform XT™	Ultraform FX™ <sup>1</sup>	Original Style
<b>Overall Value:</b> The combination of standard features, purchase price and operating costs.	★★★★	★★★	★★★	★★
<b>Cost Savings:</b> The ongoing cost savings of operating the system over an extended period of time.	★★★★	★★★	★★★	★
<b>Ease of Use and Set-Up:</b> Design features that make it faster to install, easier for the operator to set up and more convenient to maintain.	★★★★	★★★	★★★★	★★
<b>Interchangeability:</b> The ability to use the form with other Mate forming holders.	★★★★	★★★★	★★★★	★
<b>Durability/Longevity:</b> Hardened guides and ability to transfer machine lubrication.	★★★★	★★	★★	★★
<b>Purchase Price:</b> The <i>initial</i> purchase price of the system.	★★★★	★★★	★★	★
1. Machine requires precise stroke control without the use of a bottom stroke feature. Tool length adjustment is not possible. Contact your Mate representative for details.				

[Dimensions in Inches (mm)]

## HIGHEST VALUE

### MATE ULTRAFORM® TOOLING SYSTEM

Mate's ULTRAFORM® tooling system features adjustable length holders for 1-1/4" B, 2" C, 3-1/2" D and 4-1/2" E stations. Each ULTRAFORM holder can be used with a variety of special forming inserts. Mate ULTRAFORM holders include precise and convenient length adjustment mechanisms that allows fine adjustment of any forming tool to achieve high quality piece parts. The benefits of the ULTRAFORM tooling system include reduced tooling cost, increased flexibility and ease of length adjustment for accurate forms.



## GREAT VALUE

### MATE ULTRAFORM XT™ TOOLING SYSTEM

Mate's ULTRAFORM XT™ tooling system features adjustable length holders for 1-1/4" B, 2" C, 3-1/2" D and 4-1/2" E stations. Designed to use Mate's ULTRAFORM® tooling, each ULTRAFORM XT holder can be used with a variety of special forming inserts. The benefits of the ULTRAFORM tooling system include reduced tooling cost, increased flexibility and ease of length adjustment for accurate forms.



### MATE ULTRAFORM FX™ TOOLING SYSTEM

Mate's ULTRAFORM FX™ tooling system features fixed length holders for 1-1/4" B, 2" C, 3-1/2" D and 4-1/2" E stations. Perfect for machines with precision stroke control. Designed to use Mate's ULTRAFORM® tooling, each ULTRAFORM holder can be used with a variety of special forming inserts. The benefits of the ULTRAFORM tooling system include reduced tooling cost, increased flexibility and ease of length adjustment for accurate forms.



## GOOD VALUE

### MATE ORIGINAL STYLE FORMING TOOLS

Mate's thick turret Original Style forming tools feature adjustable length holders for 1-1/4" B stations. Original Style forming tools are designed for specific applications and machines. Eight specific form types are available. Ideal for hydraulic punch presses with programmable penetration control.



Only available for 1-1/4" B-Station

[Dimensions in Inches (mm)]



ULTRAFORM®, Mate's top-of-the-line forming tool system, is packed with features that make your job easier and help reduce your tooling costs, too! Features such as push-button length adjustment that lets you set the length in the turret without tools. Hardened guides with multiple angle settings provide flexibility and lubrication grooves help extend turret bore life. Since length adjustment takes place below the lifter flange of the tool, the risk of overpenetration that may damage the turret is eliminated. Best of all, ULTRAFORM allows you unparalleled forming efficiency with its unique ULTRAFORM insert system.

With ULTRAFORM, you can have an unlimited number of forming tools and use the same holder, reducing your overall tooling spend. Want to use a different form? Simply swap out the forming insert. It's not only efficient; it's cost-effective. If you already have ULTRAFORM XT™ or ULTRAFORM FX™ holders, the inserts are completely interchangeable, further enhancing cost effectiveness. Ultraform can also take advantage of machine lubrication systems.

## ULTRAFORM®. THE INDUSTRY'S ULTIMATE FORMING TOOL SYSTEM.

### QUICK LENGTH ADJUSTMENT:

The push-button length adjustment mechanism allows the overall length of the assembly to be set in 0.002(0.05) increments without disassembly or removal from the machine.

### ADJUSTMENT BELOW THE SHOULDER:

Length adjustment is made below the shoulder of the assembly maintaining the gap between the ram and the tool at top of stroke to prevent the ram from hitting the tool.

### HARDENED GUIDES:

The hardened guides, combined with the lubrication grooves, reduce friction and extend turret bore life.

### MULTIPLE ANGLE SETTINGS:

All ULTRAFORM® holders can be set at 0, 90, 180 and 270 degrees as a standard for maximum flexibility.

### TOOL LUBRICATION:

ULTRAFORM® holders provide internal channels and external lubrication grooves to allow lubrication of forming tools. ULTRAFORM is compatible with all popular punch press machine tool lubrication systems.

### ONE HOLDER - MULTIPLE APPLICATIONS:

The ULTRAFORM® holder system is designed to allow an unlimited number of forming tools to be used with the same holder, which reduces tooling inventory costs.



### Available for:

- 1-1/4" B-station
- 2" C-station
- 3-1/2" D-station
- 4-1/2" E-station

[Dimensions in Inches (mm)]

ULTRAFORM XT™ is Mate's answer for those situations where you desire flexibility but adjust tool length infrequently. Grooved guides enhance lubrication and feature multiple angle settings for maximum flexibility. Incorporating Mate's unique ULTRAFORM® insert system, ULTRAFORM XT lets you change forms efficiently, quickly and economically. You can have an unlimited number of forming tools with the same holder, reducing your overall tooling cost. Since length adjustment takes place below the lifter flange of the tool, the risk of overpenetration that may damage the turret is eliminated. What's more, if you already have ULTRAFORM or ULTRAFORM FX holders, the inserts are completely interchangeable, further enhancing your economies of scale. ULTRAFORM XT™. Ultimate flexibility. Ultimate efficiency.

#### LENGTH ADJUSTMENT:

Adjust the overall length of the assembly by simply loosening screws and turning the punch head to the desired length.

#### ADJUSTMENT BELOW THE SHOULDER:

Length adjustment is made below the shoulder of the assembly maintaining the gap between the ram and the tool at top of stroke to prevent the ram from hitting the tool.

#### MULTIPLE ANGLE SETTINGS:

All ULTRAFORM® holders can be set at 0, 90, 180 and 270 degrees as a standard for maximum flexibility.

#### TOOL LUBRICATION:

ULTRAFORM XT™ holders provide external grease grooves to allow lubrication of forming tools.

#### ONE HOLDER - MULTIPLE APPLICATIONS:

The ULTRAFORM® holder system allows an unlimited number of forming tools to be used with the same holder, which reduces tooling inventory costs and increases efficiency.

#### Available for:

1-1/4" B-station  
2" C-station  
3-1/2" D-station  
4-1/2" E-station



**Fixed Length** - Between the shoulder and the punch head. Eliminates risk of over penetration that may damage the turret.

**Adjustable Length** - Between the shoulder and the tip of the forming tool for precise form height adjustment.

NOTE: Machine lubrication system compatibility available as an option.

[Dimensions in Inches (mm)]

You want forming flexibility, but your machine has precision stroke control. Mate's solution: ULTRAFORM FX™, a fixed length forming tool that still provides you with the efficiency you desire. The grooved guides enhance lubrication and feature multiple angle settings for maximum flexibility. ULTRAFORM FX uses Mate's ULTRAFORM® insert system so you can have an unlimited number of forming tools with the same holder, reducing your overall tooling cost. Need a different form? Change it efficiently, quickly and economically. Already have ULTRAFORM or ULTRAFORM XT™ holders? The inserts are completely interchangeable. ULTRAFORM FX™. Fixed length. Flexible. Economical.

## MULTIPLE ANGLE SETTINGS:

All ULTRAFORM® holders can be set at 0, 90, 180 and 270 degrees as a standard for maximum flexibility.

## TOOL LUBRICATION:

ULTRAFORM® holders provide external grease grooves to allow lubrication of forming tools. ULTRAFORM is compatible with all popular punch press machine tool lubrication systems.

## ONE HOLDER - MULTIPLE APPLICATIONS:

The ULTRAFORM® holder system is designed to allow an unlimited number of forming tools to be used with the same holder, which reduces tooling inventory costs.

## Available for:

- 1-1/4" B-station
- 2" C-station
- 3-1/2" D-station
- 4-1/2" E-station

NOTE: Machine lubrication system compatibility available as an option.



**Fixed Length** - ULTRAFORM FX holders are designed for machines with precision stroke control eliminating the need for length adjustment. Contact your Mate representative.

## SYSTEM OVERVIEW



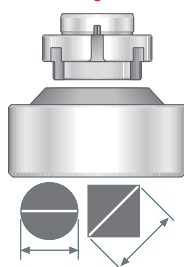
**ULTRAFORM FX™**  
1-1/4" B Station  
Forming Unit  
Guide Assembly  
**MATE01798**



**ULTRAFORM®**  
1-1/4" B Station  
Forming Unit  
Guide Assembly  
**AFKB2**



**ULTRAFORM XT™**  
1-1/4" B Station  
Forming Unit  
Guide Assembly  
**MATE01755**



Upper Insert Assembly  
Priced upon application  
Consult your MATE representative

Lower Insert Assembly  
Priced upon application  
Consult your MATE representative



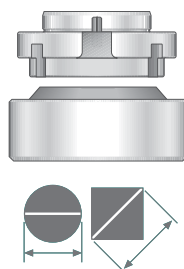
**ULTRAFORM FX™**  
2" C Station  
Forming Unit  
Guide Assembly  
**MATE01800**



**ULTRAFORM®**  
2" C Station  
Forming Unit  
Guide Assembly  
**AFKB2**



**ULTRAFORM XT™**  
2" C Station  
Forming Unit  
Guide Assembly  
**MATE01821**

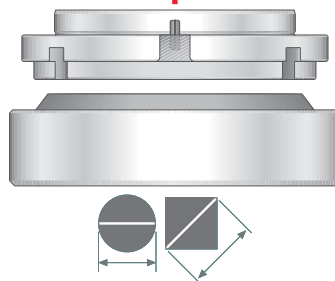
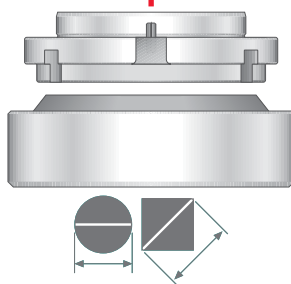


Upper Insert Assembly  
Priced upon application  
Consult your MATE representative

Lower Insert Assembly  
Priced upon application  
Consult your MATE representative

[Dimensions in Inches (mm)]





[Dimensions in Inches (mm)]

Mate Original Style thick turret 1-1/4" B-Station forming tools offer economy, simplicity and convenience. With fewer features, less adjustability and no form insert interchangeability, Original Style thick turret forming tools are more economical. Engineered for specific material type, material thickness and machine type provides application-specific convenience. Combining integrated tool body construction with the hexagon shaped punch head makes it simple to use. Eight specific form types are available. Original Style thick turret 1-1/4" B-Station forming tools are ideal for hydraulic punch presses with programmable penetration control.

**APPLICATION SPECIFIC TOOL:**

- Specific material type
- Specific material thickness
- Specific machine

Switching between machines may cause damage to the tool or machine.

**LENGTH ADJUSTMENT:**

Adjustment is above the shoulder and allows variable tool height.

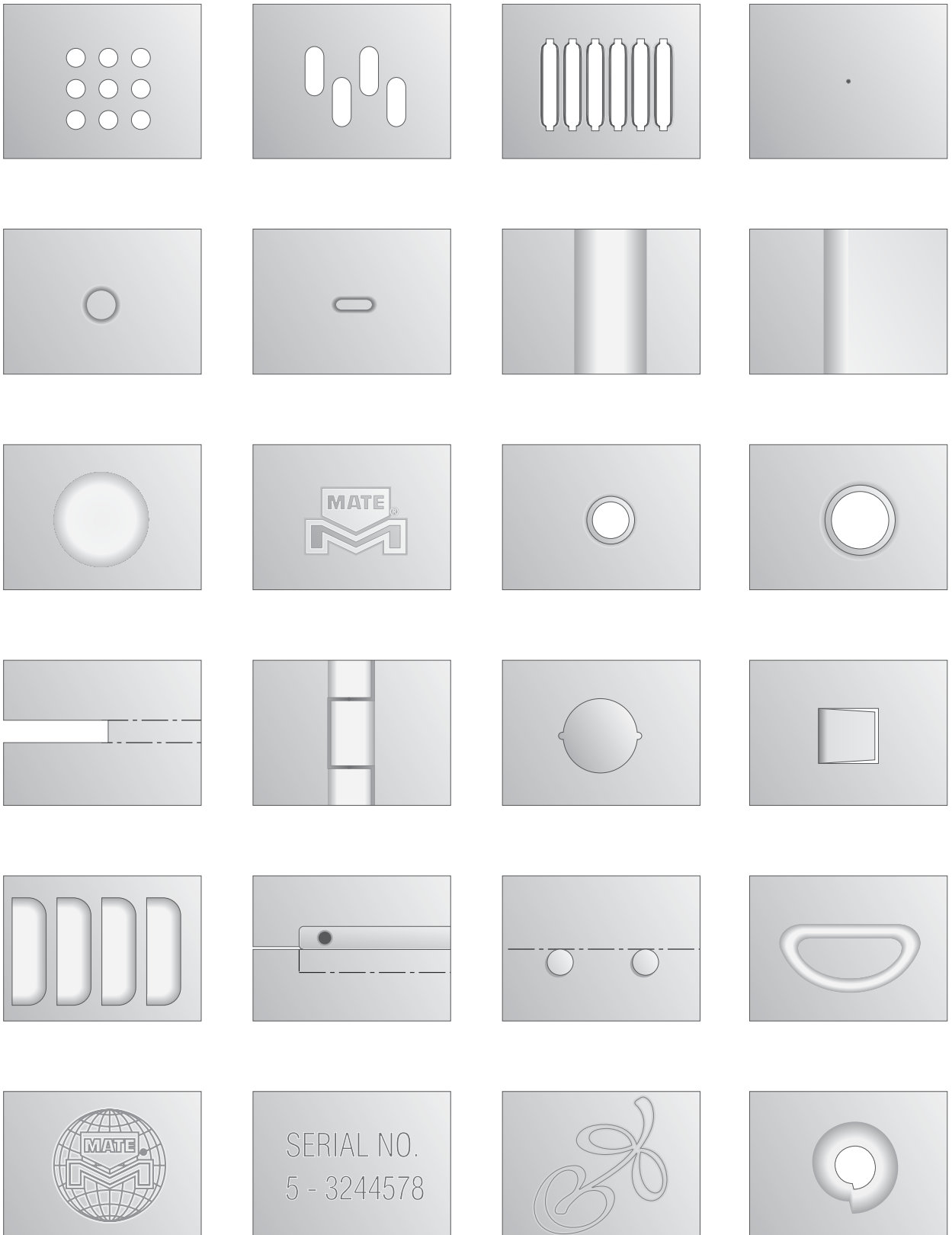
**HOLDER DEDICATED TO SPECIFIC FORM:**

Eight standard form types available.



	<b>Dedicated Countersink Down</b> Complete Assembly with blank die Replacement Countersink Tip	<b>XAABD0B399</b> <b>XAABD0B316</b>
	<b>Dedicated Countersink Up</b> Complete Assembly non-spring loaded lower	<b>XAABD0B199</b>
	<b>Round Emboss with Dome Top</b> Complete Assembly with spring loaded lower	<b>XAABD0E099</b>
	<b>Round Emboss with Flat Top</b> Complete Assembly with spring loaded lower	<b>XAABD0E199</b>
	<b>Round Embossed Countersink Up</b> Complete Assembly with spring loaded lower	<b>XAABD0E999</b>
	<b>Round Extrude Up</b> Complete Assembly with spring loaded lower Replacement Lower Insert	<b>XAABD0D199</b> <b>XAABD0D104</b>
	<b>Single Round Knockout Up</b> Complete Assembly with spring loaded lower	<b>XAABD0K199</b>
	<b>Shear Button Up</b> Complete Assembly with spring loaded lower Replacement Lower Insert	<b>XAABD0S199</b> <b>XAABD0S104</b>

[Dimensions in Inches (mm)]



[Dimensions in Inches (mm)]



## **MATE PRECISION TOOLING** GLOBAL COVERAGE

### **WORLDWIDE HEADQUARTERS:**

1295 Lund Boulevard, Anoka, Minnesota 55303 USA  
Tel +1.763.421.0230 [mate.com](http://mate.com)

[orders@mate.com](mailto:orders@mate.com)