MATE®
PRECISION TECHNOLOGIES
RESPECT • SUPPORT • INSPIRE

QCT™ Quick Change Tooling System

ULTRA® QCT™, METRIC QCT™, MXC QCT™, AMX QCT™

QUICK CHANGE TOOLING

Mate Precision Tooling's QCT™ thick turret tooling takes insert-style punching systems to a whole new level! With its durable patent-pending design, tool-less punch retention mechanism and M4PM™ steel inserts, you'll be on your way to faster, more cost effective punching in no time.

EASY SET-UP & MAINTENANCE. NO TOOLS REQUIRED!

QCT™ is designed to minimize effort and maximize uptime. There are no tools to use, break or lose to change the punch insert. Simply flip the durable latch to remove and snap the new insert into place. It's really that easy!

Maintenance is a breeze. Use compressed air to clean away debris without damage.

LONGER LASTING, SUPERIOR INSERT PERFORMANCE

QCT™ punch inserts are made from Mate's proprietary M4PM™ steel, the longest lasting tool steel in the industry. At .770(19,56), the SBR is longer than our standard length punches, for more grind life. The punch is keyed at the perimeter providing better angularity control. Since the punch insert OD interfaces with the guide ID, punch guiding is superior, too.

ROBUST CONSTRUCTION

The punch driver is made from high speed steel and comes standard with Mate's proprietary next generation SuperMax™ coating for extended life*. To ensure durability, Mate's complete line of QCT™ Quick Change Tooling has undergone extensive product testing in customer locations.

FULLY COMPATIBLE

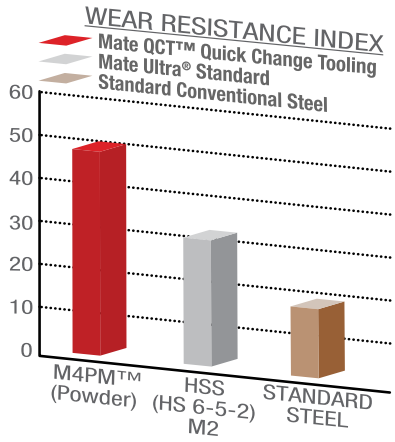
There's no need to purchase a special or captive system. Mate's QCT™ works with all existing Ultra TEC®, Ultra XT™ and Ultra TEC® Fully Guided guides and canisters. Metric QCT™ is fully compatible with Mate Original Style and other long stem systems. AMX QCT™ is fully compatible with AMADA® Air Blow Systems (ABS) assemblies and holders. MXC QCT™ is fully compatible with Wilson Series 90™ and HP™ tooling systems.

SIMPLE

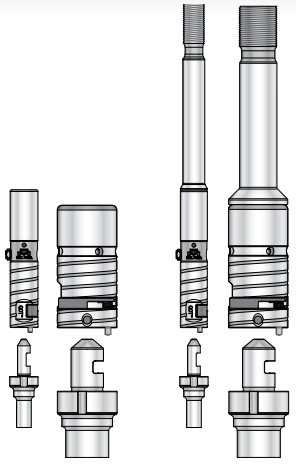
Mate's QCT™ Quick Change Tooling simplifies your tooling storage needs. Only one punch driver is required for rounds or shapes with Ultra® QCT™, Metric QCT™ and AMX QCT™ drivers. Punch inserts take up less space than standard punches and waste less material.

OVERVIEW

ULTRA® QCT™ SHOWN ABOVE



[Dimensions in Inches (mm)]

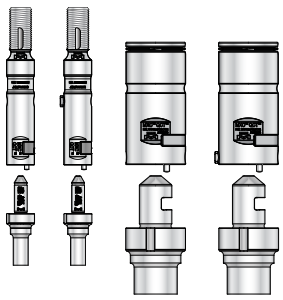


ULTRA® QCT™ METRIC QCT™

ULTRA® QCT™ THICK TURRET TOOLING SYSTEM

Mate's Ultra® QCT™ tooling is the flagship of our Quick Change Tooling (QCT™) product line. Available in both A and B station, Ultra QCT is fully compatible in all standard Ultra TEC® guides and canisters.

FULLY COMPATIBLE WITH:
Mate Ultra TEC guides and canisters
Mate Ultra XT guides and canisters
Mate Ultra Fully Guided guides and canisters



MXC QCT™

METRIC QCT™ THICK TURRET TOOLING SYSTEM

Mate's Metric QCT™ A and B Station punch drivers include all the benefits of our Ultra® tooling family with expanded compatibility to metric canisters that accept long stem punches also known as Mate Original Style and Amada Style.

FULLY COMPATIBLE WITH:
Mate's Ultra® family of guides and standard canisters
Mate's Original Style guides and Rapidset™ canisters
Mate's Original Style guides and spring packs
Amada NCT, NEX and Z-Tooling systems
Wilson thick turret metric punch systems

MXC QCT™ THICK TURRET TOOLING SYSTEM FOR WILSON HP/SERIES 90

Mate's MXC tooling system is replacement thick turret tooling for Wilson HP™ and Series 90™ tooling systems. These high-precision products increase tool performance and flexibility, offer extended tool life and are interchangeable with other systems. Features of the MXC system include:

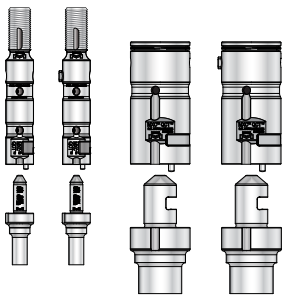
100% COMPATIBLE WITH:
HP™
HP™ WLS®

COMPATIBILITY WITH:
UltraTEC®
Ultra XT™

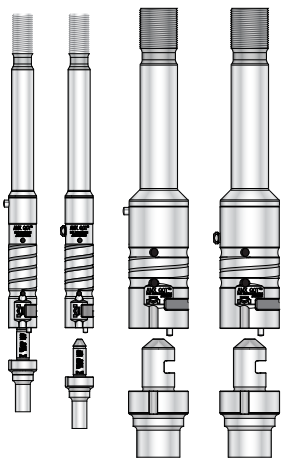
B Station Driver:
Uses standard QCT punch inserts (PAQB)

A Station Driver:
Wilson's HP/Series 90 A station product design uses a slightly narrower diameter than all other thick turret systems. As a result, the standard QCT A station punch insert cannot be used with the MXC QCT driver. This means that the MXC QCT A station driver requires a unique QCT punch insert (PXQA). To aid customers in identifying these inserts, we etch MXC QCT on the side of the insert.

The drivers are available in both Standard and (for HP WLS® style) ABS style.



MXC QCT™ ABS



AMX QCT™

AMX QCT™ THICK TURRET TOOLING SYSTEM FOR AMADA® ABS

Mate's AMX QCT™ tooling is a replacement tooling system for AMADA® Air Blow Systems (ABS) assemblies and holders. AMX QCT tooling provides all of the advantages of the QCT system for air blow system environments. It delivers the flexibility of using the AMX QCT system with Mate's AMX guides, spring packs and Rapidset canisters, as well as Amada NCT, NEX and Z-Tooling air blow systems.

FULLY COMPATIBLE WITH:
Mate's Ultra® family of guides and standard canisters
Mate's Original Style guides and Rapidset™ canisters
Mate's Original Style guides and spring packs
Amada NCT, NEX and Z-Tooling systems
Wilson thick turret metric punch systems

[Dimensions in Inches (mm)]

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orders@mate.com

ULTRA® QCT™ ORDER GUIDE

PART NUMBER	DESCRIPTION
MATE02401	ULTRA QCT B Station Punch Driver
MATE02404	ULTRA QCT A Station Punch Driver
PUNCH INSERTS	
PAQB0A	ULTRA QCT B Station Round Punch Insert
PAQB_A	ULTRA QCT B Station Shaped Punch Insert
PAQA0A	ULTRA QCT A Station Round Punch Insert
PAQA_A	ULTRA QCT A Station Shaped Punch Insert

METRIC QCT™ ORDER GUIDE

PART NUMBER	DESCRIPTION
MATE02519	Metric QCT A Station Punch Driver for Shapes and Keyed Rounds
MATE02520	Metric QCT A Station Punch Driver for Keyless Rounds
MATE02521	Metric QCT B Station Punch Driver for Shapes and Keyed Rounds
MATE02522	Metric QCT B Station Punch Driver for Keyless Rounds
PUNCH INSERTS	
PAQB0A	QCT B Station Round Punch Insert
PAQB_A	QCT B Station Shaped Punch Insert
PAQA0A	QCT A Station Round Punch Insert
PAQA_A	QCT A Station Shaped Punch Insert

MXC QCT™ ORDER GUIDE

PART NUMBER	DESCRIPTION
MATE02546	MXC QCT A Station Punch Driver for Shapes and Keyed Rounds
MATE02545	MXC QCT A Station Punch Driver for Keyless Rounds
MATE02544	MXC QCT ABS Style A Station Punch Driver for Shapes and Keyed Rounds
MATE02543	MXC QCT ABS Style A Station Punch Driver for Keyless Rounds
MATE02525	MXC QCT B Station Punch Driver for Shapes and Keyed Rounds
MATE02524	MXC QCT B Station Punch Driver for Keyless Rounds
MATE02526	MXC QCT ABS Style B Station Punch Driver for Shapes and Keyed Rounds
MATE02568	MXC QCT ABS Style B Station Punch Driver for Keyless Rounds
QCT MXC A STATION INSERTS*	
PXQA0A	QCT MXC A Station Round Punch Insert
PXQA_A	QCT MXC A Station Shaped Punch Insert
QCT B STATION INSERTS	
PAQB0A	QCT B Station Round Punch Insert
PAQB_A	QCT B Station Shaped Punch Insert

AMX QCT™ ORDER GUIDE

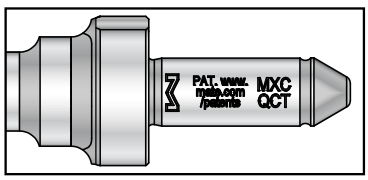
PART NUMBER	DESCRIPTION
MATE02551	AMX QCT A Station Punch Driver for Shapes and Keyed Rounds
MATE02553	AMX QCT A Station Punch Driver for Keyless Rounds
MATE02552	AMX QCT B Station Punch Driver for Shapes and Keyed Rounds
MATE02554	AMX QCT B Station Punch Driver for Keyless Rounds
PUNCH INSERTS	
PAQB0A	QCT B Station Round Punch Insert
PAQB_A	QCT B Station Shaped Punch Insert
PAQA0A	QCT A Station Round Punch Insert
PAQA_A	QCT A Station Shaped Punch Insert

[Dimensions in Inches (mm)]

AVAILABLE OPTIONS

GENERAL
Radius Corners
Non-Standard Straight before Radius (SBR) Dimension
Special Angle Settings
Optional Shear
SMALL DIAMETER ROUND TOOLS
Diameter 0.020(0,51) to 0.061(1,55)
Diameter 0.062(1,56) to 0.092(2,34)
NARROW WIDTH SHAPE TOOLS
Widths under 0.079(2,00)
SUPERMAX™ COATING
½" A Station
1-¼" B Station
MAXIMA™ COATING
½" A Station
1-¼" B Station

ULTRA TEC® STRIPPERS	
S6KA0A	Ultra TEC Stripper Plate, A Station, Round
S6KA_A	Ultra TEC Stripper Plate, A Station, Shape
S6KB0A	Ultra TEC Stripper Plate, B Station, Round
S6KB_A	Ultra TEC Stripper Plate, B Station, Shape
ORIGINAL STYLE STRIPPER GUIDES	
S6AA0A	Thick Turret A Station Stripper Guide for Shapes and Rounds
S6AA_A	Thick Turret A Station Stripper Guide for Shapes and Rounds
S6AB0A	Thick Turret B Station Stripper Guide for Rounds
S6AB_A	Thick Turret B Station Stripper Guide for Shapes
SLUG FREE® DIES	
D0AA00	Slug Free Die, A Station, Round
D0AA_0	Slug Free Die, A Station, Shape
D0AB00	Slug Free Die, B Station, Round
D0AB_0	Slug Free Die, B Station, Shape



***MXC QCT™ A STATION ETCH**

AVAILABLE SHAPES

STANDARD	SPECIAL
Round Rectangle Oval Square Single D Double D Hexagon Octagon	Arc Oval Arc U-Shape Band aid Break-Away Cable Opening Cable Opening with Tabs Bi-Diameter Tri-Diameter Quad-Diameter Diamond Ellipse Football Keyways Keyholes Parallelogram Pentagon Quad D 2-Way Radius 4-Way Radius 9-Way Radius Rect/Oval Double Rectangle Rectangle with Chamfered Corners Rectangle with Rounded Corners Rectangle with Tabs Rectangle with Notch Teardrop Trapezoid Triangle

TONNAGE LIMITATIONS	
A STATION	5 U.S. TONS / 4.54 METRIC TONS
B STATION	14 U.S. TONS / 12.70 METRIC TONS

[Dimensions in Inches (mm)]

SUPERMAX™, MAXIMA™ AND NITRIDE COATINGS AND TREATMENTS

WHAT IS MATE'S SUPERMAX™ COATING? Mate SuperMax™ is a **proprietary** next generation coating applied using the latest nano-layer technology. Specifically formulated for punch press tooling, SuperMax's harder, denser film provides a lubricious coating greatly increasing wear resistance and lowering friction coefficients about 20%. Lower friction means less heat build-up, less galling and longer tool life. SuperMax is particularly good for adhesive wear tooling applications. The lubricity is also beneficial when punching sharp cornered shapes with a 90 degree or smaller angle.

In customer testing, SuperMax outperforms currently available premium coatings by 2 to 8 times, depending on the application. SuperMax can be applied to M4PM™, M2, and Durasteel™ punches.

WHAT IS MAXIMA™ COATING?
Maxima is a multilayer Zirconium Titanium Nitride coating that is hard, wear resistant, and lubricious. It acts as a barrier between the punch and the sheet metal being punched and, because of its exceptional lubricity, greatly improves stripping. Maxima is an extremely hard, wear resistant, slippery material which reduces the friction that occurs during the stripping portion of the punching cycle, it is particularly good for adhesive wear tooling applications. Less friction means less heat build up, less galling and longer tool life. The lubricity is also beneficial when punching sharp cornered shapes with a 90 degree or smaller angle.

In real life applications, Maxima has increased tool life by a factor of 2 to 10 times, keeping tools in production longer with increased up time. Maxima can be applied to M-2, M4PM™, and Durasteel™.

WHAT IS NITRIDE TREATMENT?
Nitride is an optional heat treatment for abrasive and adhesive wear environments when punching thin materials. It is a surface treatment which becomes an integral component of the structure of the material itself, therefore extending tool life.

Punches with Nitride Treatment are recommended for punching abrasive materials such as fiberglass or materials that cause galling such as stainless steel, galvanized steel, and aluminum. It is also recommended for high speed punching (see below for nibbling limitations). Nitride can be applied to M-2 and M4PM™ tool steel.

APPLICATION RECOMMENDATIONS:

COATING OR TREATMENT	3000 & 5000 Series Aluminum	Galvanized Steel	Stainless Steel	Stainless Steel Under 14 gauge	Cold Rolled Steel	Vinyl Coated Materials	Pre-painted Materials Under 16 gauge	Fiberglass
SuperMax™	X	X	X	X	X	X	X	X
Maxima™	X	X	X	X		X	X	
Nitride	X			X	X		X	X

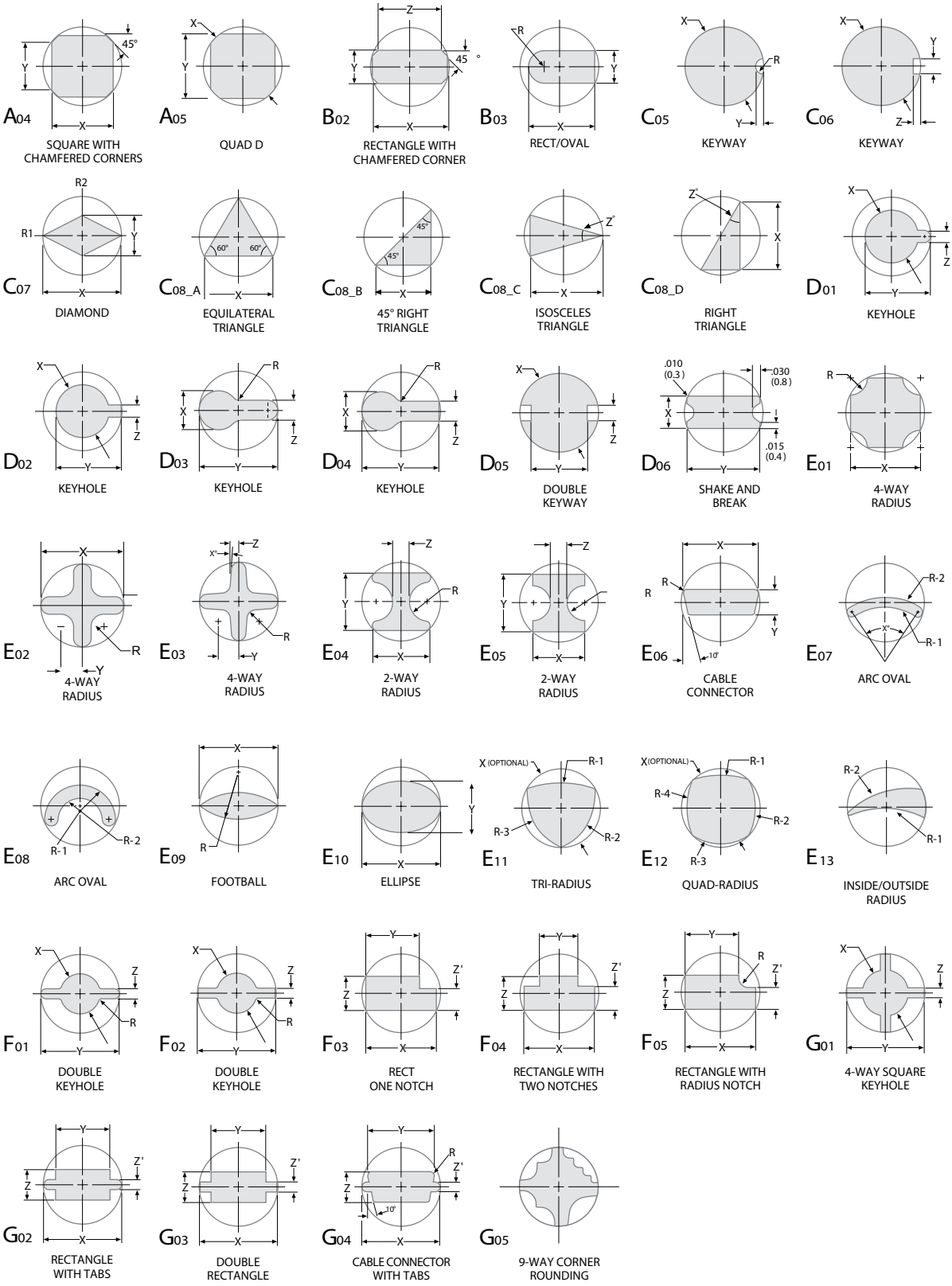
SHAPE	MINIMUM PUNCH SIZE FOR **SUPERMAX™ COATING**	MINIMUM PUNCH SIZE FOR **MAXIMA™ COATING**	MINIMUM PUNCH SIZE FOR **NITRIDE TREATMENT**	MINIMUM PUNCH SIZE FOR **NITRIDE WHEN NIBBLING**
Round	Minimum diameter = 0.098(2.50)	Minimum diameter = 0.098(2.50)	Minimum diameter = 0.158(4.01)	Minimum diameter = 0.500(12.70)
Rectangle	If length is > 0.250(6.35) The minimum width is 0.060(1.50) If length is < 0.250(6.35) The minimum width is 0.098(2.50)	If length is >0.250(6.35) The minimum width is 0.060(1.50) If length is <0.250(6.35) The minimum width is 0.098(2.50)	Minimum width = 0.158(4.01)	Minimum width = 0.500(12.70)
Oval	If length is > 0.250(6.35) The minimum width is 0.060(1.50) If length is < 0.250(6.35) The minimum width is 0.098(2.50)	If length is >0.250(6.35) The minimum width is 0.060(1.50) If length is <0.250(6.35) The minimum width is 0.098(2.50)	Minimum width = 0.158(4.01)	Minimum width = 0.500(12.70)
Square	Minimum width = 0.098(2.50)	Minimum width = 0.098(2.50)	Minimum width = 0.158(4.01)	Minimum width = 0.500(12.70)
Others	Consult a Mate application specialist			

* Mate's SuperMax tooling can be identified by its subtle matte finish and a protective green tip when shipped.

** If you require a smaller minimum punch size, contact a Mate Application Specialist

[Dimensions in Inches (mm)]

SPECIAL SHAPES FOR THICK TURRET TOOLING



[Dimensions in Inches (mm)]

MATE PRECISION TECHNOLOGIES GLOBAL COVERAGE

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Prices subject to change without notice