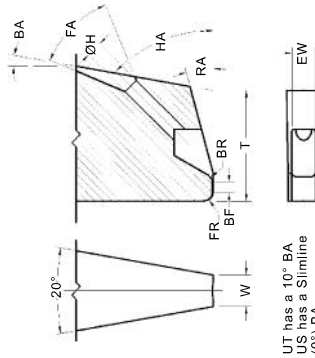




The US/UT design incorporates all the latest technical features in semiconductor wire bonding tool designs and is widely used by every bonder manufacturer in the world. The 60° heel with the more squared back or radius area normally will produce a short tail. This tool style is most commonly used where fine pitch bonding is not required.



US has a 10° BA
UT has a Spline
(0°) BA

STANDARD DIMENSIONS

Tool Styles Radius Set	Wire Feed Angle	Hole / Bond Flat	Hole H	Bond Flat BF	Foot Width W	Tip Thickness T 55°/60°	Usable Wire Diameter
Set		in / μm	in / μm	in / μm	in / μm	in / μm	in / μm
UT30A US30A 30°	2020	.0020 / 51	.0020 / 51	.0020 / 51	.0040 / 102	.0150 / 381	.0010 / 25 through .0013 / 33
	2025	.0025 / 64	.0025 / 64	.0025 / 64	.0040 / 102	.0150 / 381	
	2520	.0025 / 64	.0025 / 64	.0020 / 51	.0040 / 102	.0150 / 381	
	2525	.0025 / 64	.0025 / 64	.0025 / 64	.0040 / 102	.0150 / 381	
	3020	.0030 / 76	.0030 / 76	.0020 / 51	.0050 / 127	.0200 / 508	.0013 / 33 through .0015 / 38
	3025	.0030 / 76	.0030 / 76	.0025 / 64	.0050 / 127	.0200 / 508	
	3030	.0030 / 76	.0030 / 76	.0030 / 76	.0050 / 127	.0200 / 508	
	3035	.0030 / 76	.0030 / 76	.0035 / 89	.0050 / 127	.0200 / 508	
	3530	.0035 / 89	.0035 / 89	.0030 / 76	.0060 / 152	.0250 / 635	.0015 / 38 through .0022 / 55
	3535	.0035 / 89	.0035 / 89	.0035 / 89	.0060 / 152	.0250 / 635	
3540	.0035 / 89	.0035 / 89	.0040 / 102	.0060 / 152	.0250 / 635		
UT45A US45A 45°	4540	.0045 / 114	.0045 / 114	.0040 / 102	.0085 / 216	.0350 / 889	.0024 / 61 through .0030 / 76
	4545	.0045 / 114	.0045 / 114	.0045 / 114	.0085 / 216	.0350 / 889	
	4550	.0045 / 114	.0045 / 114	.0050 / 127	.0085 / 216	.0350 / 889	
	2020	.0020 / 51	.0020 / 51	.0020 / 51	.0040 / 102	.0140 / 356	.0010 / 25 through .0013 / 33
	2025	.0020 / 51	.0025 / 64	.0025 / 64	.0040 / 102	.0140 / 356	
UT30C US30C 30°	2920	.0025 / 64	.0020 / 51	.0020 / 51	.0040 / 102	.0140 / 356	
	2925	.0025 / 64	.0025 / 64	.0025 / 64	.0040 / 102	.0140 / 356	
	3020	.0030 / 76	.0030 / 76	.0020 / 51	.0050 / 127	.0180 / 457	.0013 / 33 through .0015 / 38
	3025	.0030 / 76	.0030 / 76	.0025 / 64	.0050 / 127	.0180 / 457	
	3030	.0030 / 76	.0030 / 76	.0030 / 76	.0050 / 127	.0180 / 457	
UT45C US45C 45°	3035	.0030 / 76	.0030 / 76	.0035 / 89	.0050 / 127	.0180 / 457	
	3530	.0035 / 89	.0030 / 76	.0030 / 76	.0060 / 152	.0200 / 508	.0015 / 38 through .0022 / 55
	3535	.0035 / 89	.0035 / 89	.0035 / 89	.0060 / 152	.0200 / 508	
	3540	.0035 / 89	.0040 / 102	.0040 / 102	.0060 / 152	.0200 / 508	
	4545	.0045 / 114	.0045 / 114	.0045 / 114	.0085 / 216	.0250 / 635	.0024 / 61 through .0030 / 76
4550	.0045 / 114	.0045 / 114	.0050 / 127	.0085 / 216	.0250 / 635		
2020	.0020 / 51	.0020 / 51	.0020 / 51	.0040 / 102	.0140 / 356	.0010 / 25 through .0013 / 33	
2025	.0020 / 51	.0025 / 64	.0025 / 64	.0040 / 102	.0140 / 356		
2030	.0020 / 51	.0030 / 76	.0030 / 76	.0040 / 102	.0140 / 356		

STYLE		FEED ANGLE	
US	0° Back Angle	30°, 38°, 45°	
UT	10° Back Angle		

RADIUS SET	Wire Material	Wire Diameter	Hole Size	FR	BR
A	Aluminum	.0010 / 25 - .0013 / 33	.0020 / 51 - .0025 / 64	±.0001 / 3	±.0001 / 3
A	Aluminum	.0013 / 33 - .0015 / 38	.0030 / 76	.0010 / 25	.0015 / 38
A	Aluminum	.0015 / 38 - .0022 / 56	.0035 / 89	.0020 / 51	.0020 / 51
A	Aluminum	.0024 / 61 - .0030 / 76	.0045 / 114	.0025 / 64	.0025 / 64
C	Aluminum/Gold	.0008 / 20 - .0013 / 33	.0020 / 51	.0010 / 25	.0006 / 15

MATERIAL	HOLE / BOND FLAT	TOOL LENGTH (TL)
C	Will rely on specific application requirements (wire diameter used, bond pad size) – see dimension Table * For Oval Hole options please specify HH (Hole Height) & HW (Hole Width)	S = .437 / 11.1 mm ¾ = .750 / 19.05 mm L = .828 / 21.0 mm 1.00 = 1.00 / 25.4 mm Longer lengths are available consult Bonder manufacturer for specifications.
M	Microloy (Osmium-Carbide Alloy) for Gold & Aluminum Wire	
TI	Titanium Carbide Composite for Gold Wire	
W	Tungsten Carbide Ultra Fine Grain for Aluminum Wire	

FOOT OPTIONS	
C	Concave foot design with polished FR and BR with fine matte finish on BF (matte most commonly used with Aluminum wire) for best results specify when the BF is greater than .0015"/38μm.
CM	Concave foot design with FR, BR and BF matte (for Aluminum and Gold wire)
CGM	Cross Groove with FR and BR matte (for Gold Wire) with a Flat BF. Most commonly used on manual and semi automatic bonders where pad size restrictions is not an issue.
CCM	Cross Groove with FR and BR matte (for Gold Wire) with a Concave used on automatic bonders where wire control is critical and pad size is limited

F	Flat (Optional)
FM	The FR and BR are polished. A fine matte finish within the area of the BF. The FR, BR and BF are matte. Special foot options are available. Consult the factory for recommended dimensions for special foot options.

HOW TO ORDER	
SPECIFY	Style/Radius Set – Material – Hole/Bond Flat – Tool Length – Foot Option (For modifications to standard tools, use part number and specify modified dimensions) or contact our technical support staff for assistance with your requirements. For Special Shank Style refer to page 61.
EXAMPLE	UT30A - W - 2520 - S - CM US38C - TI - 2020 - ¾ - CGM UT45A - W - 3030 - L - C US45A - C - 2025 - L - CGM 180 - DEG - REV (For DIAS Wire Bonder or K&S 8060)