

SERIES RCS & RCS-V

RIBBON WIRE

RIBBON BONDING WEDGES FOR
GOLD AND ALUMINUM WIRE

SAMPLE PART NUMBER: M-RCS-O-D-1/16-1-45-CG-.5x5-2-M-*

SYMBOL EXPLANATION: 1 2 3 4 5 6 7 8 9 10 11 12

1. **MATERIAL:**
 - M = Ceramic
 - C = Tungsten Carbide
 - T = Titanium
 - All other: See Material Selection Guide
2. **SERIES:** RCS
3. **WIRE FEED:** O = Standard Feed
V = Vertical Feed
4. **FRONT/BACK RADIUS:** See Radius Option Chart
*For special Radius sizes insert an X Please specify FR/BR
5. **SHANK DIA.:** Please Specify Diameter
6. **TOOL LENGTH:** Please Specify Length
7. **HOLE ANGLE:** for RCS (30°, 38°, 45°, 52°, 55°, 60°) for RCS-V (45°, 55°, 60°)
for RCS-V with A8D Opt.(45°, 52°)
- (11) See Tool Option
- (11) **FOOT FINISH:**
 - M = Matte finish (FR, BR, & Bond Flat)
 - P = Polish finish (FR, BR, & Bond Flat)
 - MP = Polish finish (FR, BR), and Matte finish (Bond Flat)
- (10) **Bond Length:** See Standard Chart
Example: BL of .0020 = 2
Note: We do not recommend bond lengths any larger than .005".
- (9) **RIBBON SIZE:** See Standard Chart
Example: .0005 x .005 = .5 x 5
Thickness x Width
- (8) **FOOT TYPE:**
 - F = Flat
 - CG = Cross Groove
 - DT = Diamond Tip
 - (Please specify Ribbon size)

For special sizes or dimensions insert an (X) in the appropriate position of the part number then specify what (X) equals. Example: M-RCS-O-X-1/16-3/4-45-CG-.5x5-2-M-A7 (X) FR=.0012, BR=.0007

RADIUS OPTION CHART	OPTION LETTER		A	B	C	D	E	F	G	H	I	J	K	L	M	N
	FRONT RADIUS	in.	.0005	.0005	.0010	.0010	.0010	.0015	.0015	.0015	.0015	.0020	.0020	.0020	.0020	.0020
		μ	13	13	25	25	25	38	38	38	38	51	51	51	51	51
	BACK RADIUS	in.	0	.0005	0	.0005	.0010	0	.0005	.0010	.0015	0	.0005	.0010	.0015	.0020
	μ	0	13	0	13	25	0	13	25	38	0	13	25	38	51	

For Vertical Feed: Tmax. for Dia. 1/16 = .0190 and for A8D: Tmax=.0243, Supplies only to Standard size Ø1/16, larger tool Ø are different.

Size Restrictions for Vertical Feed Tools		
STANDARD		
TD	Maximum Ribbon Width	Maximum "T" Dimension
1/16	.0150	.0190
3/32	.0300	.0210
A8D Option, RW up to .0070		
TD	Maximum Ribbon Width	Maximum "T" Dimension
1/16	.0070	.0243
A8D Option, RW .0080 and larger		
TD	Maximum Ribbon Width	Maximum "T" Dimension
1/16	.0120	.0190
Larger Tool Ø, Ribbon Width and "T" Dimensions available upon request		
RW = Ribbon Width		

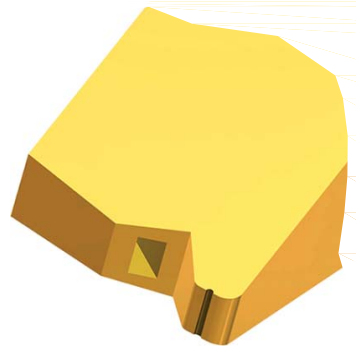
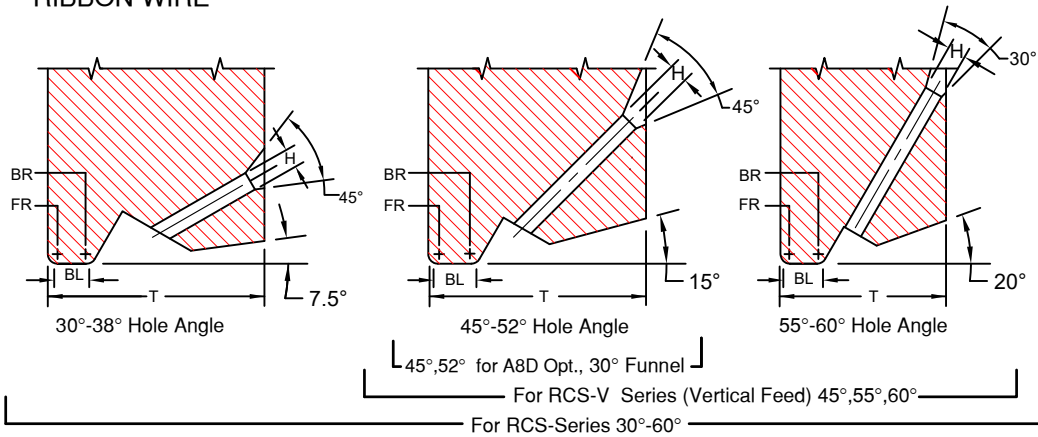
STANDARD CHART		RCS		FOR RIBBON THICKNESS: .00025" THROUGH .0020"											
				WIDTHS: .002" THROUGH .030"											
RIBBON WIDTH	RIBBON THICKNESS	BL		T(30°38°)		T(45° 52°)		T(55° 60°)		W					
		in.	μ	in.	μ	in.	μ	in.	μ	in.	μ	in.	μ		
.0020	51	.00025 through .00125	6.4	32	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0130	330	.0110	279	.0090	229	.0055	140	
					.015	38	.0130	330	.0110	279	.0090	229			
					.020	51	.0140	356	.0120	305	.0100	254			
.025	64	.0140	356	.0120	305	.0100	254								
.0030	76	.00025 through .00125	6.4	32	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0150	381	.0130	330	.0110	279	.0065	165	
					.015	38	.0150	381	.0140	356	.0110	279			
					.020	51	.0160	406	.0140	356	.0120	305			
.025	64	.0160	406	.0150	381	.0120	305								
.0040	102	.00025 through .00125	6.4	32	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0160	406	.0140	356	.0120	305	.0075	191	
					.015	38	.0160	406	.0140	356	.0120	305			
					.020	51	.0160	406	.0150	381	.0120	305			
.025	64	.0160	406	.0155	394	.0125	318								
.0050	127	.00025 through .0020	13	51	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0160	406	.0140	356	.0120	305	.0085	216	
					.015	38	.0160	406	.0150	381	.0120	305			
					.020	51	.0160	406	.0155	394	.0125	318			
.025	64	.0170	432	.0155	394	.0130	330								
.0070	178	.00025 through .0020	13	51	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0160	406	.0150	381	.0120	305	.0125	318	
					.015	38	.0160	406	.0155	394	.0125	318			
					.020	51	.0170	432	.0155	394	.0130	330			
.025	64	.0170	432	.0160	406	.0140	356								
.0100	254	.00025 through .0020	13	51	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0160	406	.0150	381	.0120	305	.0155	394	
					.015	38	.0160	406	.0155	394	.0125	318			
					.020	51	.0170	432	.0155	394	.0130	330			
.025	64	.0170	432	.0160	406	.0140	356								
.0120	305	.00025 through .0020	13	51	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0160	406	.0150	381	.0120	305	.0175	445	
					.015	38	.0160	406	.0155	394	.0125	318			
					.020	51	.0170	432	.0155	394	.0130	330			
.025	64	.0170	432	.0160	406	.0140	356								
.0150	381	.00025 through .0020	13	51	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0160	406	.0150	381	.0120	305	.0205	521	
					.015	38	.0160	406	.0155	394	.0125	318			
					.020	51	.0170	432	.0155	394	.0130	330			
.025	64	.0170	432	.0160	406	.0140	356								
.0200	508	.00025 through .0020	13	51	±.0002 ±5		±.0005 ±13		±.0005 ±13		±.0005 ±13		±.0002 ±5		
					.010	25	.0160	406	.0150	381	.0120	305	.0255	648	
					.015	38	.0160	406	.0155	394	.0125	318			
					.020	51	.0170	432	.0155	394	.0130	330			
.025	64	.0170	432	.0160	406	.0140	356								

*Other sizes available upon request *All dimensions and tolerances are for reference only
"T" To be determined according to the size of FR and BR and Hole Bore Length

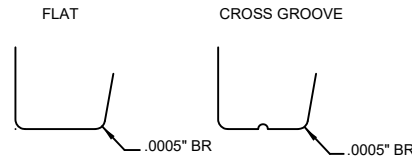
SERIES RCS & RCS-V

FOR MANUAL AND SEMI-AUTOMATIC BONDERS

RIBBON WIRE



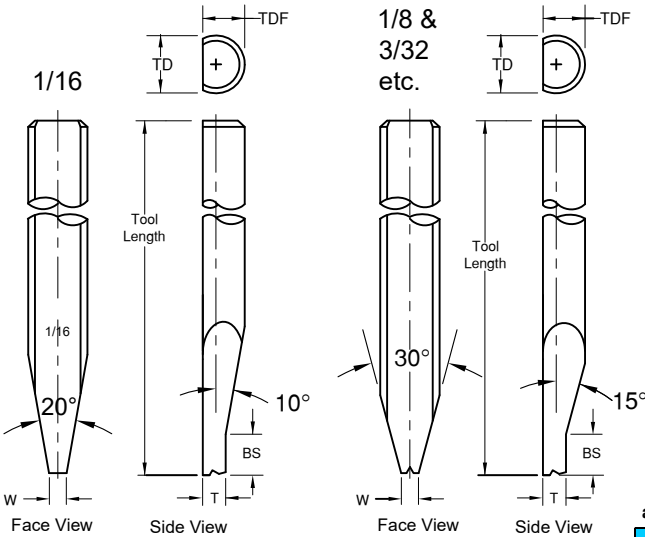
	TD		TDF		For Vertical Hole
	in.	mm	in.	mm	
1/16	.0624	1.59	.0460	1.17	
1/16	.0624	1.59	.0590	1.50	X
	.0784	1.99	.0630	1.60	
	.0784	1.99	.0720	1.83	X
3/32	.0937	2.38	.0880	2.24	X
	.1180	3.00	.0985	2.50	
1/8	.1249	3.17	.0937	2.38	
1/8	.1249	3.17	.1180	3.00	



We recommend a .0005" back radius and a cross groove or a flat bond foot when ordering tools for gold wire thermosonic bonding. For more gold wire application information see Tech Tip

RCS-SERIES RIBBON WIRE

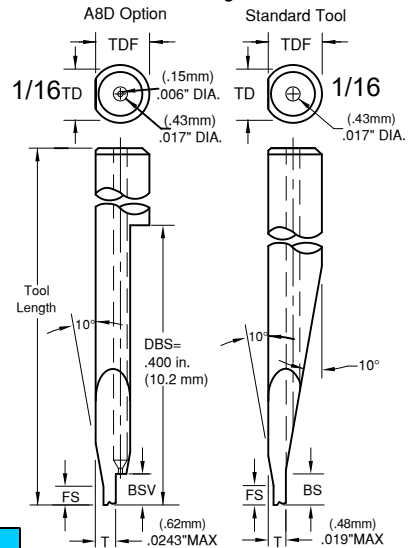
Ribbon Width: .0020" through .030"
Ribbon Thickness: .00025" through .0020"



Standard: Ø 1/16, 45° to 52° Hole Angle : BS = .045" (1.14mm) .
Supplies only to Standard size Ø 1/16, larger tool Ø are different.
Standard: (BS) supplied unless otherwise specified. See Tool Options #A3

RCS-V SERIES VERTICAL FEED DEEP ACCESS

Ribbon Width: .0020" through .030"
Ribbon Thickness: .00025" through .0020"

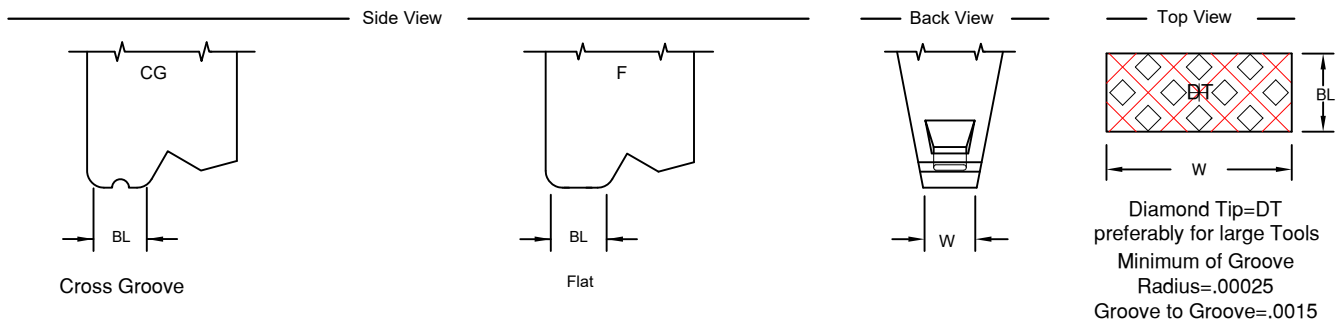


NOTE: We recommend our A8D option for enhanced wire control. Our standard vertical feed has slightly more clearance but less wire control. See in **Tool Options** for illustration. To order just add A8D in space 11. Not suitable for F&K and Hesse Mechatronics machine

A8D Option
available for ribbon widths up to .005

Hole Angle	BSV	
	in.	mm
45°	.035	.89
52°	.050	1.27

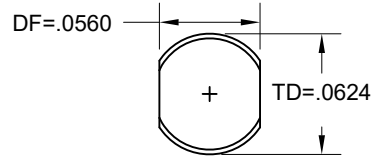
Standard: Ø 1/16 45° to 52° Hole Angle :
FS = .015" (.38mm) BS = .045" (1.14mm)
Standard: (FS&BS) supplied unless otherwise specified. See Tool Option #A3
No FS if T=MAX



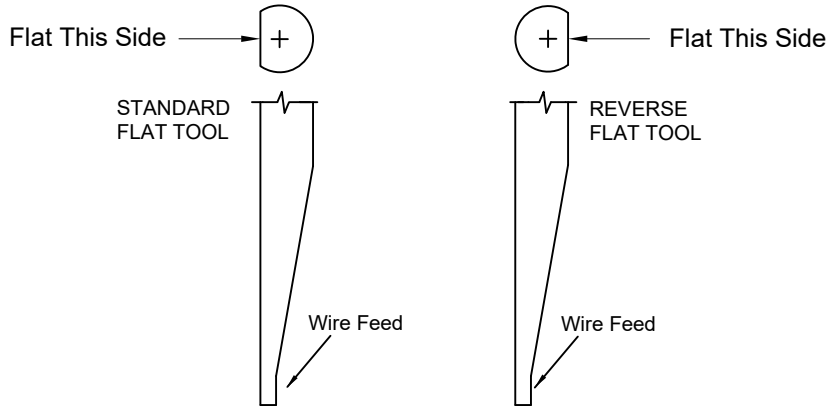
OPTIONS



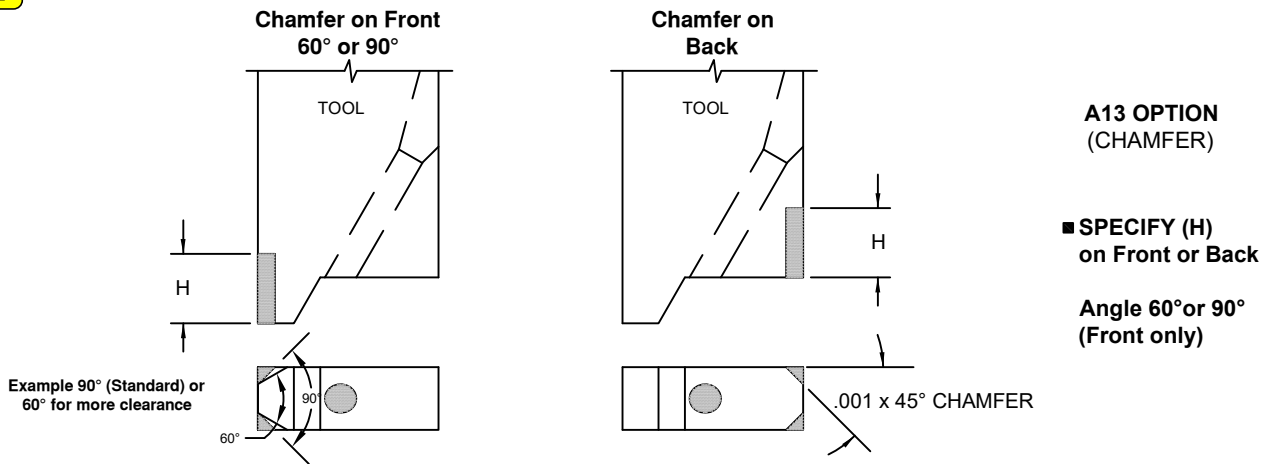
Below are shown various problem situations that can occur during bonding operations and their solutions. When choosing an option, please note the corresponding option number (A1, A2, etc.) when completing the part number from the Ordering Information sections. **These option numbers should appear as the last item in the part number.**



**A10 OPTION
(DOUBLE FLAT)**

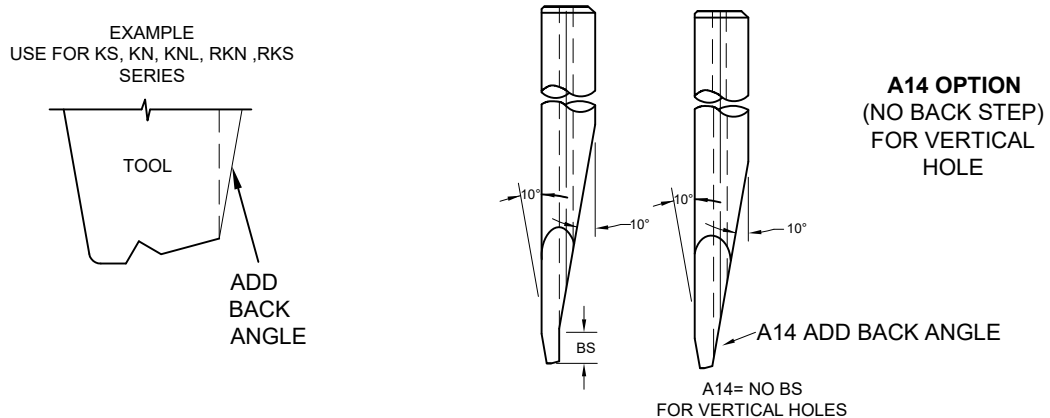


**A12 OPTION
(REVERSE FLAT)**



**A13 OPTION
(CHAMFER)**

NO BACK STEP FOR TOOLS WITH VERTICAL HOLE



**A14 OPTION
(NO BACK STEP)
FOR VERTICAL
HOLE**

Example: MRCSVC-3/32-700-60-CG-1.5X15-3-M-A4
with a A4 Option. FS=.310

ST= Slot Thickness
SW=Slot Width
Ribbon Size = 1.5X15 = .0015X.015

