

Material:  
 Tungsten Carbide

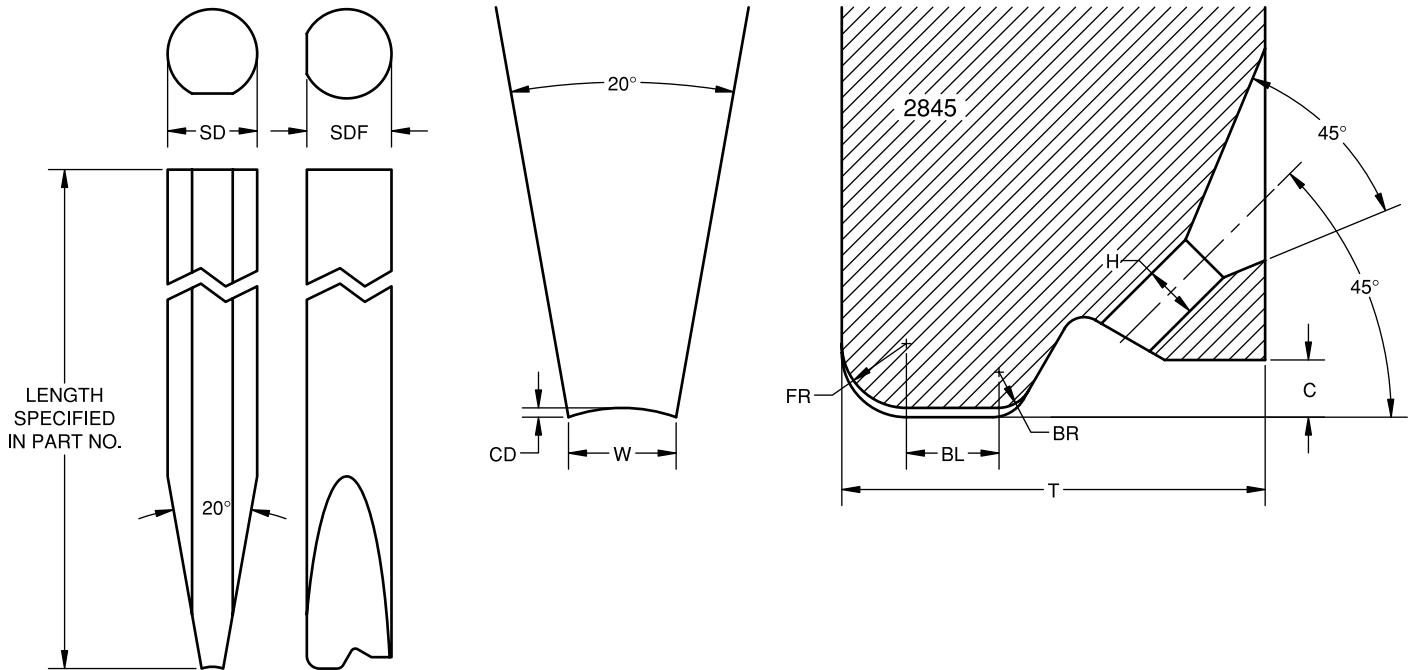
SHANK TABLE		
SHANK	SHANK DIAMETER (SD) in./mm +.0001/.003 -.0002/.005	SHANK DIAMETER FLAT (SDF) in./mm ±.0005/.013
1/16A	0.0624/1.585	0.0590/1.500
2mm	0.0786/2.000	0.0630/1.600
3/32	0.0936/2.377	0.0880/2.235
3mm	0.1179/2.995	0.0900/2.290
1/8	0.1249/3.172	0.1180/3.000

Specify: Series/Wire Feed Angle - Wire Diameter - Shank(See Table) - Length

Example:  
 2830-5-1/16A-L  
 2830-12-1/8-1.0

2830 SERIES PART NUMBER	H in./μm ±.0005/13	BL in./μm ±.0005/13	W in./μm ±.0005/13	C in./μm ±.0005/13	FR in./μm ±.0005/13	BR in./μm ±.0005/13	T in./mm ±.001/.025	MINIMUM SHANK DIAMETER	CD in./μm ±.0005/13	SUGGESTED WIRE DIAMETER in./μm
<b>2830-3</b>	.0045/114	.0070/178	.0100/254	.0050/127	.0060/152	.0040/102	.059/1.50	1/16A	.0008/20	.003/76
<b>2830-4</b>	.0060/152	.0100/254	.0120/305	.0070/178	.0080/203	.0050/127	.059/1.50		.0010/25	.004/102
<b>2830-5</b>	.0075/191	.0120/305	.0150/381	.0080/203	.0090/229	.0050/127	.059/1.50		.0013/33	.005/127
<b>2830-6</b>	.0090/229	.0120/305	.0180/457	.0090/229	.0090/229	.0060/152	.059/1.50		.0016/41	.006/152
<b>2830-7</b>	.0105/267	.0120/305	.0210/533	.0090/229	.0090/229	.0060/152	.059/1.50		.0018/46	.007/178
<b>2830-8</b>	.0120/305	.0120/305	.0240/610	.0050/127	.0090/229	.0060/152	.059/1.50		.0020/51	.008/203
<b>2830-10</b>	.0140/356	.0150/381	.0300/762	.0100/254	.0100/254	.0060/152	.077/1.96	3/32	.0025/64	.010/254
<b>2830-12</b>	.0160/406	.0180/457	.0360/914	.0100/254	.0110/279	.0070/178	.110/2.80	1/8	.0030/76	.012/305
<b>2830-15</b>	.0200/508	.0200/508	.0450/1143	.0100/254	.0120/305	.0080/203	.110/2.80		.0038/97	.015/381
<b>2830-20</b>	.0250/635	.0250/635	.0600/1524	.0100/254	.0120/305	.0080/203	.118/3.00		.0050/127	.020/508

Dimensions in inches unless otherwise specified



Material:  
 Tungsten Carbide

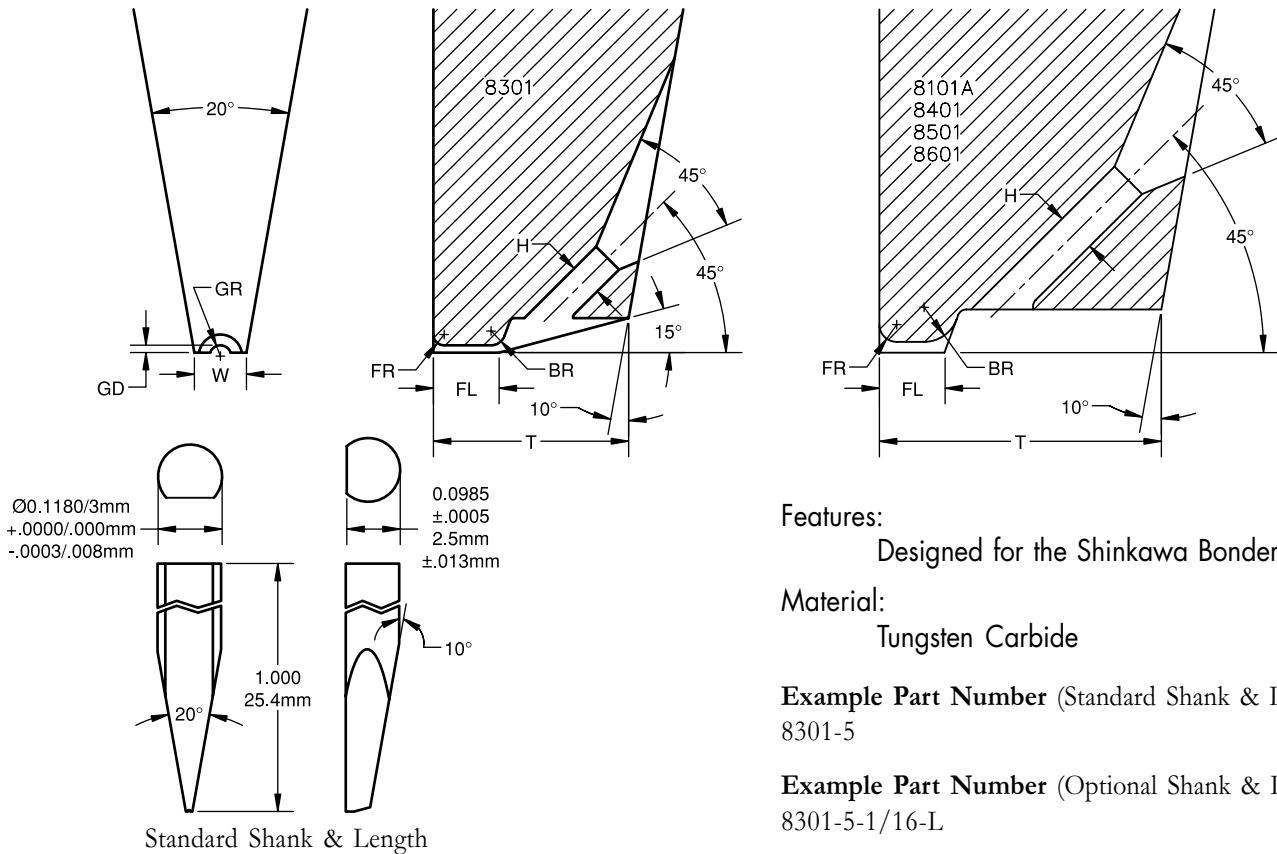
SHANK TABLE		
SHANK	SHANK DIAMETER (SD) in./mm +.0001/.003 -.0002/.005	SHANK DIAMETER FLAT (SDF) in./mm ±.0005/.013
1/16	0.0624/1.585	0.0460/1.168
1/16A	0.0624/1.585	0.0590/1.500
2mm	0.0786/2.000	0.0630/1.600
3/32	0.0936/2.377	0.0880/2.235
3mm	0.1179/2.995	0.0900/2.290
1/8	0.1249/3.172	0.1180/3.000

Specify: Series/Wire Feed Angle - Wire Diameter - Shank(See Table) - Length

Example:  
 2845-5-1/16A-L  
 2845-12-1/8-1.0

2845 SERIES PART NUMBER	H in./μm ±.0005/13	BL in./μm ±.0005/13	W in./μm ±.0005/13	C in./μm ±.0005/13	FR in./μm ±.0005/13	BR in./μm ±.0005/13	T in./mm ±.001/.025	MINIMUM SHANK DIAMETER	CD in./μm ±.0005/13	SUGGESTED WIRE DIAMETER in./μm
2845-3	.0045/114	.0070/178	.0100/254	.0050/127	.0060/152	.0040/102	.045/1.14	1/16	.0008/20	.003/76
2845-4	.0060/152	.0100/254	.0120/305	.0070/178	.0080/203	.0050/127	.059/1.50	1/16A	.0010/25	.004/102
2845-5	.0075/191	.0120/305	.0150/381	.0080/203	.0090/229	.0050/127	.059/1.50		.0013/33	.005/127
2845-6	.0090/229	.0120/305	.0180/457	.0090/229	.0090/229	.0060/152	.059/1.50		.0016/41	.006/152
2845-7	.0105/267	.0120/305	.0210/533	.0090/229	.0090/229	.0060/152	.059/1.50		.0018/46	.007/178
2845-8	.0120/305	.0120/305	.0240/610	.0050/127	.0090/229	.0060/152	.059/1.50		.0020/51	.008/203
2845-10	.0140/356	.0150/381	.0300/762	.0100/254	.0100/254	.0060/152	.088/2.23	3/32	.0025/64	.010/254
2845-12	.0160/406	.0180/457	.0360/914	.0100/254	.0110/279	.0070/178	.088/2.23		.0030/76	.012/305
2845-15	.0200/508	.0200/508	.0450/1143	.0100/254	.0120/305	.0080/203	.088/2.23		.0038/97	.015/381
2845-20	.0250/635	.0250/635	.0600/1524	.0100/254	.0120/305	.0080/203	.118/3.00	1/8	.0050/127	.020/508

Dimensions in inches unless otherwise specified



Features:  
 Designed for the Shinkawa Bonder

Material:  
 Tungsten Carbide

Example Part Number (Standard Shank & Length):  
 8301-5

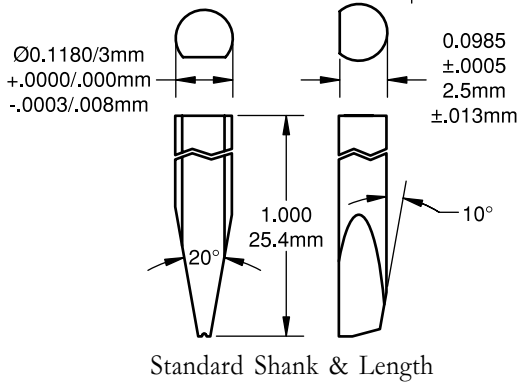
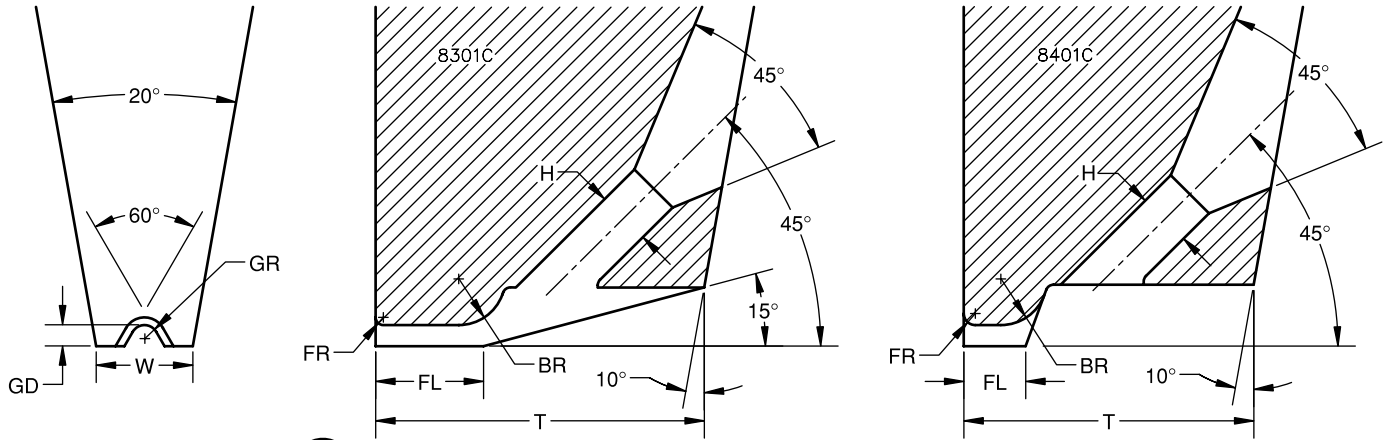
Example Part Number (Optional Shank & Length):  
 8301-5-1/16-L

Standard Shank & Length

PART NUMBER	FL in./ $\mu$ m $\pm$ .0010/25	FR in./ $\mu$ m $\pm$ .0005/13	BR in./ $\mu$ m $\pm$ .0005/13	H in./ $\mu$ m $\pm$ .0005/13	W in./ $\mu$ m $\pm$ .0010/25	GR in./ $\mu$ m $\pm$ .0002/5	GD in./ $\mu$ m $\pm$ .0002/5	T in./ $\mu$ m $\pm$ .0020/51	WIRE DIAMETER in./ $\mu$ m
8301-1	.0080/203	.0020/51	.0027/69	.0060/152	.0100/254	.0020/51	.0013/33	.0360/914	.0040/102
8301-4	.0120/305	.0020/51	.0027/69	.0060/152	.0100/254	.0020/51	.0013/33	.0400/1016	
8301-2	.0100/254	.0025/64	.0033/84	.0075/190	.0120/305	.0025/64	.0017/43	.0400/1016	.0050/127
8301-5	.0150/381	.0025/64	.0033/84	.0075/190	.0120/305	.0025/64	.0017/43	.0450/1143	
8501-1	.0150/381	.0040/102	.0080/203	.0090/229	.0200/508	.0030/76	.0025/64	.0650/1651	
8601-1	.0175/445	.0040/102	.0080/203	.0090/229	.0200/508	.0030/76	.0025/64	.0650/1651	.0060/152
8301-3	.0120/305	.0030/76	.0040/102	.0090/229	.0150/381	.0030/76	.0020/51	.0440/1118	
8301-6	.0180/457	.0030/76	.0040/102	.0090/229	.0150/381	.0030/76	.0020/51	.0500/1270	
8101A-3	.0140/356	.0040/102	.0100/254	.0110/279	.0240/610	.0040/102	.0030/76	.0650/1651	.0080/203
8401-3	.0176/447	.0040/102	.0100/254	.0110/279	.0240/610	.0040/102	.0030/76	.0690/1753	
8501-3	.0263/600	.0040/102	.0100/254	.0145/368	.0240/610	.0040/102	.0030/76	.0820/2083	
8101A-4	.0180/457	.0050/127	.0120/305	.0140/356	.0300/762	.0050/127	.0040/102	.0710/1803	.0100/254
8401-4	.0220/560	.0050/127	.0120/305	.0140/356	.0300/762	.0050/127	.0040/102	.0750/1905	
8501-4	.0300/762	.0050/127	.0120/305	.0180/457	.0300/762	.0050/127	.0040/102	.0900/2286	
8101A-5	.0210/533	.0060/152	.0140/356	.0170/432	.0300/762	.0060/152	.0050/127	.0790/2006	.0120/305
8401-5	.0264/671	.0060/152	.0140/356	.0170/432	.0300/762	.0060/152	.0050/127	.0840/2134	
*8501-5	.0360/914	.0060/152	.0140/356	.0216/549	.0300/762	.0060/152	.0050/127	.1100/2794	
8101A-6	.0250/635	.0070/178	.0160/406	.0190/483	.0300/762	.0070/178	.0060/152	.0820/2082	.0138/351
8401-6	.0300/762	.0070/178	.0160/406	.0190/483	.0300/762	.0070/178	.0060/152	.0870/2210	
*8501-6	.0414/1052	.0070/178	.0160/406	.0290/737	.0300/762	.0070/178	.0060/152	.1100/2794	
8101A-7	.0280/711	.0080/203	.0170/432	.0235/597	.0350/889	.0080/203	.0065/165	.0880/2235	.0157/399
8401-7	.0346/879	.0080/203	.0170/432	.0235/597	.0350/889	.0080/203	.0065/165	.0950/2413	
8401-7A	.0460/1168	.0080/203	.0170/432	.0235/597	.0350/889	.0080/203	.0065/165	.0950/2413	
*8801-7	.0470/1194	.0080/203	.0170/432	.0280/711	.0500/1270	.0080/203	.0065/165	.1500/3810	.0200/508
*8101A-8	.0360/914	.0100/254	.0180/457	.0300/762	.0350/889	.0100/254	.0087/220	.1100/2794	
*8401-8	.0440/1118	.0100/254	.0180/457	.0300/762	.0350/889	.0100/254	.0087/220	.1060/2692	
*8801-8	.0500/1270	.0100/254	.0180/457	.0360/914	.0500/1270	.0100/254	.0087/220	.1500/3810	

\*SDF = 0.110/2.79mm

Dimensions in inches unless otherwise specified



Features:  
 Designed for the Shinkawa Bonder

Material:  
 Tungsten Carbide

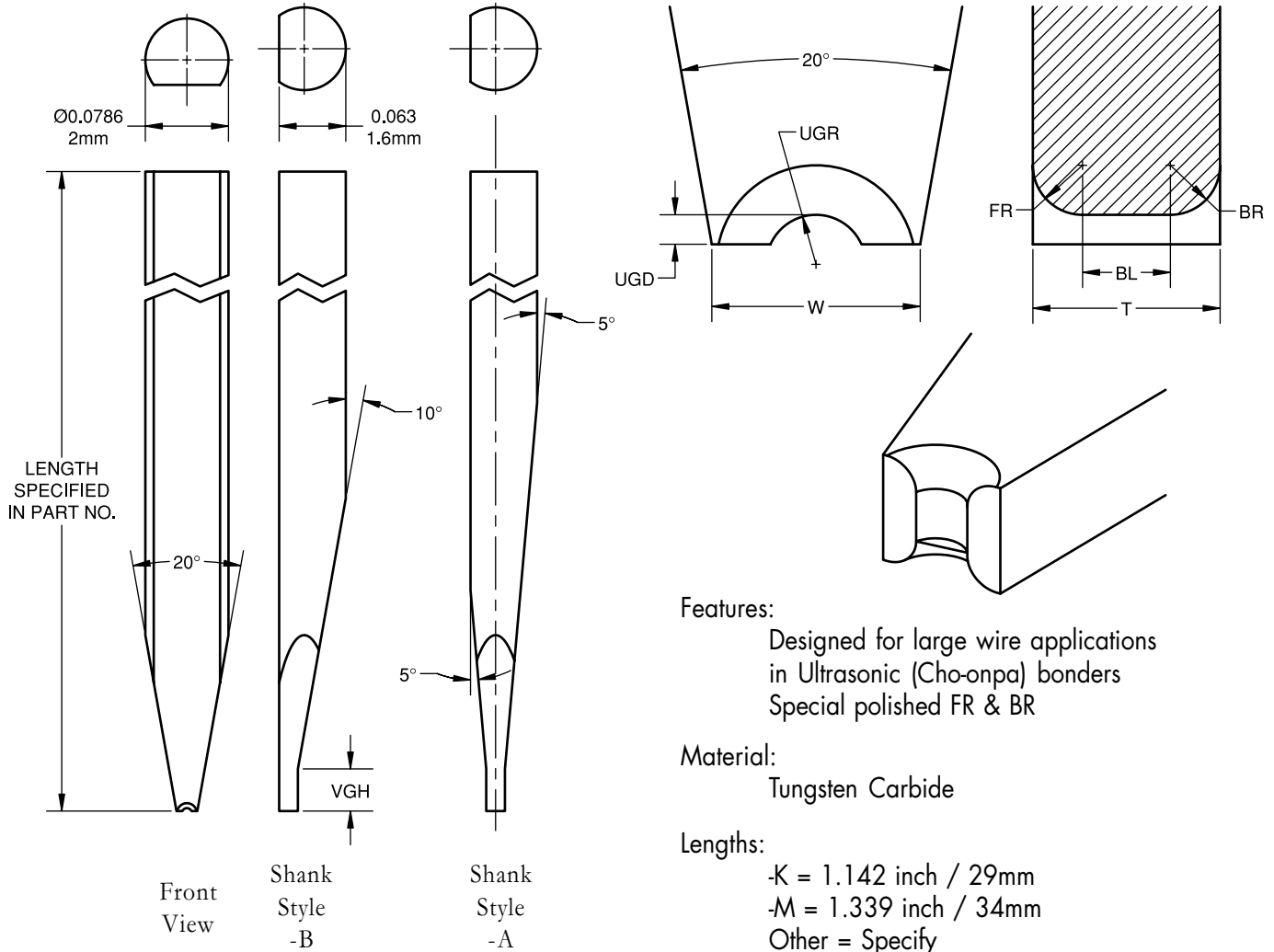
Example Part Number (Standard Shank & Length):  
 8301C-5

Example Part Number (Optional Shank & Length):  
 8301C-5-1/16-L

PART NUMBER	BL in./µm ±.0010/25	FL in./µm ±.0010/25	FR in./µm ±.0005/13	BR in./µm ±.0005/13	H in./µm ±.0005/13	W in./µm ±.0010/25	GR in./µm ±.0002/5	GD in./µm ±.0002/5	T in./µm ±.0020/51	WIRE DIAMETER in./µm
8301C-19	.0040/102	.0080/203	.0020/51	.0048/122	.0060/152	.0150/381	.0014/36	.0022/56	.0290/737	.0040/102
8301C-10	.0060/152	.0100/254	.0020/51	.0048/122	.0060/152	.0150/381	.0014/36	.0022/56	.0310/787	
8301C-1	.0088/224	.0130/330	.0020/51	.0048/122	.0060/152	.0150/381	.0014/36	.0022/56	.0340/864	.0050/127
8301C-20	.0050/127	.0090/229	.0020/51	.0060/152	.0075/190	.0150/381	.0018/46	.0028/71	.0380/965	
8301C-11	.0075/190	.0120/305	.0020/51	.0060/152	.0075/190	.0150/381	.0018/46	.0028/71	.0400/1020	.0060/152
8301C-2	.0110/279	.0150/381	.0020/51	.0060/152	.0075/190	.0150/381	.0018/46	.0028/71	.0430/1090	
8301C-21	.0060/152	.0110/279	.0030/76	.0072/183	.0090/229	.0150/381	.0021/53	.0033/84	.0460/1168	.0060/152
8301C-12	.0090/229	.0140/356	.0030/76	.0072/183	.0090/229	.0150/381	.0021/53	.0033/84	.0490/1245	
8301C-3	.0132/335	.0180/457	.0030/76	.0072/183	.0090/229	.0150/381	.0021/53	.0033/84	.0530/1346	.0080/203
8301C-22	.0080/203	.0140/356	.0030/76	.0096/244	.0110/279	.0250/635	.0028/71	.0044/112	.0570/1448	
8301C-13	.0120/305	.0180/457	.0030/76	.0096/244	.0110/279	.0250/635	.0028/71	.0044/112	.0610/1550	.0080/203
8301C-4	.0176/447	.0230/584	.0030/76	.0096/244	.0110/279	.0250/635	.0028/71	.0044/112	.0670/1701	
8301C-23	.0100/254	.0160/406	.0030/76	.0120/305	.0140/356	.0250/635	.0035/89	.0055/140	.0730/1854	.0100/254
8301C-14	.0150/381	.0210/533	.0030/76	.0120/305	.0140/356	.0250/635	.0035/89	.0055/140	.0780/1981	
8301C-5	.0220/559	.0280/711	.0030/76	.0120/305	.0140/356	.0250/635	.0035/89	.0055/140	.0850/2159	.0100/254
8401C-4	.0100/254	.0160/406	.0030/76	.0120/305	.0140/356	.0300/762	.0035/89	.0055/140	.0750/1905	
8401C-14	.0150/381	.0210/533	.0030/76	.0120/305	.0140/356	.0300/762	.0035/89	.0055/140	.0880/2235	.0120/305
8401C-5	.0120/305	.0180/457	.0030/76	.0140/356	.0170/432	.0300/762	.0042/107	.0066/168	.0840/2134	
8401C-15	.0180/457	.0240/610	.0030/76	.0140/356	.0170/432	.0300/762	.0042/107	.0066/168	.0950/2413	.0140/360
8401C-6	.0140/356	.0200/508	.0030/76	.0160/406	.0190/483	.0300/762	.0049/125	.0077/196	.0870/2210	
*8401C-16	.0210/533	.0270/686	.0030/76	.0160/406	.0190/483	.0300/762	.0049/125	.0077/196	.1100/2794	.0160/406
8401C-7	.0160/406	.0230/584	.0040/102	.0170/432	.0240/610	.0350/889	.0056/142	.0088/224	.0950/2413	
*8401C-17	.0240/610	.0310/787	.0040/102	.0170/432	.0240/610	.0350/889	.0056/142	.0088/224	.1100/2794	.0200/508
*8401C-8	.0200/508	.0270/686	.0040/102	.0180/457	.0300/762	.0350/889	.0070/178	.0110/279	.1100/2794	
*8401C-18	.0300/762	.0370/940	.0040/102	.0180/457	.0300/762	.0350/889	.0070/178	.0110/279	.1100/2794	

\*SDF = 0.110/2.79mm

Dimensions in inches unless otherwise specified



**Features:**  
 Designed for large wire applications  
 in Ultrasonic (Cho-onpa) bonders  
 Special polished FR & BR

**Material:**  
 Tungsten Carbide

**Lengths:**  
 -K = 1.142 inch / 29mm  
 -M = 1.339 inch / 34mm  
 Other = Specify

**Specify:**

Series (no-hole design) - U-Groove - Wire Size( $\mu$ m) - Designation - Shank Style - Tool Length

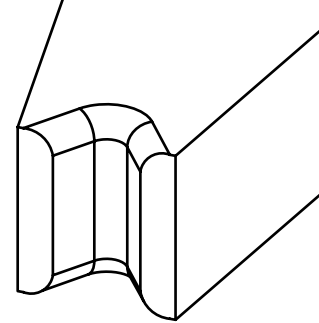
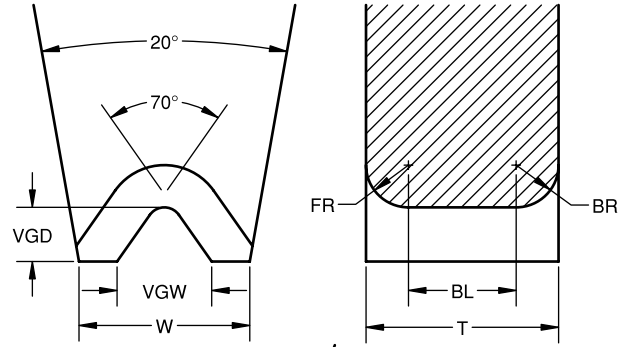
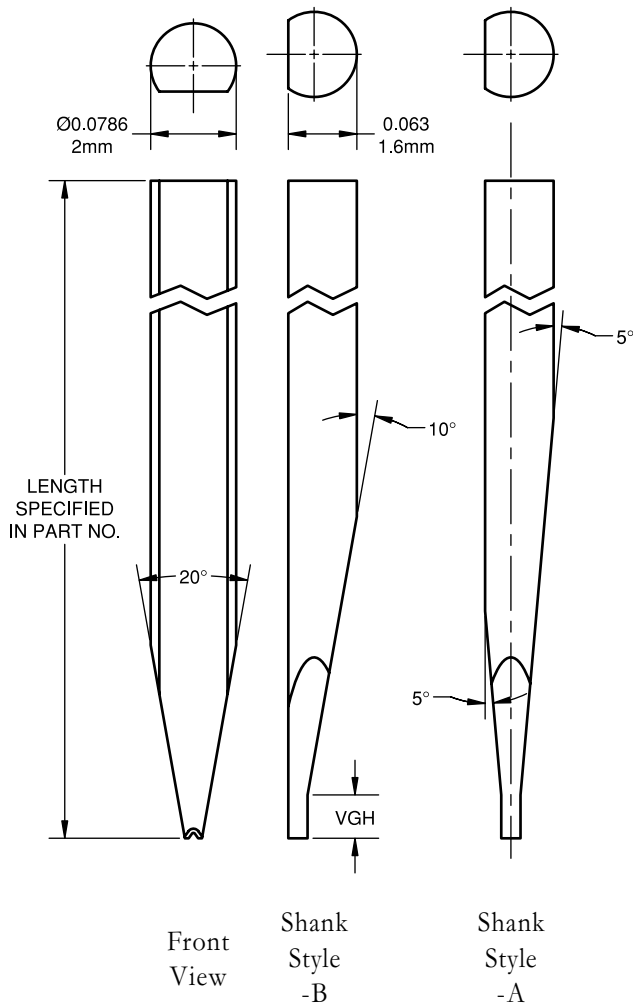
**Example:**

8236-UG-200-1-A-K

DASH NUMBER	T in./ $\mu$ m	F in./ $\mu$ m	FR & BR in./ $\mu$ m	UGR in./ $\mu$ m	UGD in./ $\mu$ m	W in./ $\mu$ m	VGH in./ $\mu$ m
-100-1	.0098/250	.0051/130	.0024/60	.0024/60	.0014/36	.0098/250	.0400/1016
-125-1	.0118/300	.0059/150	.0030/76	.0030/76	.0017/43	.0118/300	.0400/1016
-125-2	.0128/325	.0068/173	.0030/76	.0030/76	.0017/43	.0118/300	.0400/1016
-125-3	.0138/350	.0078/198	.0030/76	.0030/76	.0017/43	.0118/300	.0400/1016
-125-4	.0148/375	.0088/224	.0030/76	.0030/76	.0017/43	.0118/300	.0400/1016
-150-1	.0138/350	.0068/173	.0035/88	.0035/88	.0021/53	.0138/350	.0400/1016
-175-1	.0157/400	.0075/190	.0041/104	.0041/104	.0024/60	.0157/400	.0400/1016
-200-1	.0177/450	.0083/210	.0047/120	.0047/120	.0028/71	.0197/500	.0400/1016
-250-1	.0217/550	.0098/250	.0059/150	.0059/150	.0035/88	.0217/550	.0600/1524
-300-1	.0256/650	.0114/290	.0071/180	.0071/180	.0047/120	.0236/600	.0600/1524
-350-1	.0299/760	.0134/340	.0083/210	.0083/210	.0055/140	.0276/700	.0600/1524
-400-1	.0339/860	.0150/380	.0094/240	.0094/240	.0063/160	.0315/800	.0600/1524
-450-1	.0390/990	.0177/450	.0106/270	.0106/270	.0071/180	.0354/900	.0600/1524
-500-1	.0433/1100	.0197/500	.0118/300	.0118/300	.0079/200	.0394/1000	.0600/1524

*Dimensions in inches unless otherwise specified*





**Features:**

Designed for large wire applications  
 in Ultrasonic (Cho-onpa) bonders  
 Special polished FR & BR

**Material:**

Tungsten Carbide

**Lengths:**

-K = 1.142 inch / 29mm  
 -M = 1.339 inch / 34mm  
 Other = Specify

**Specify:**

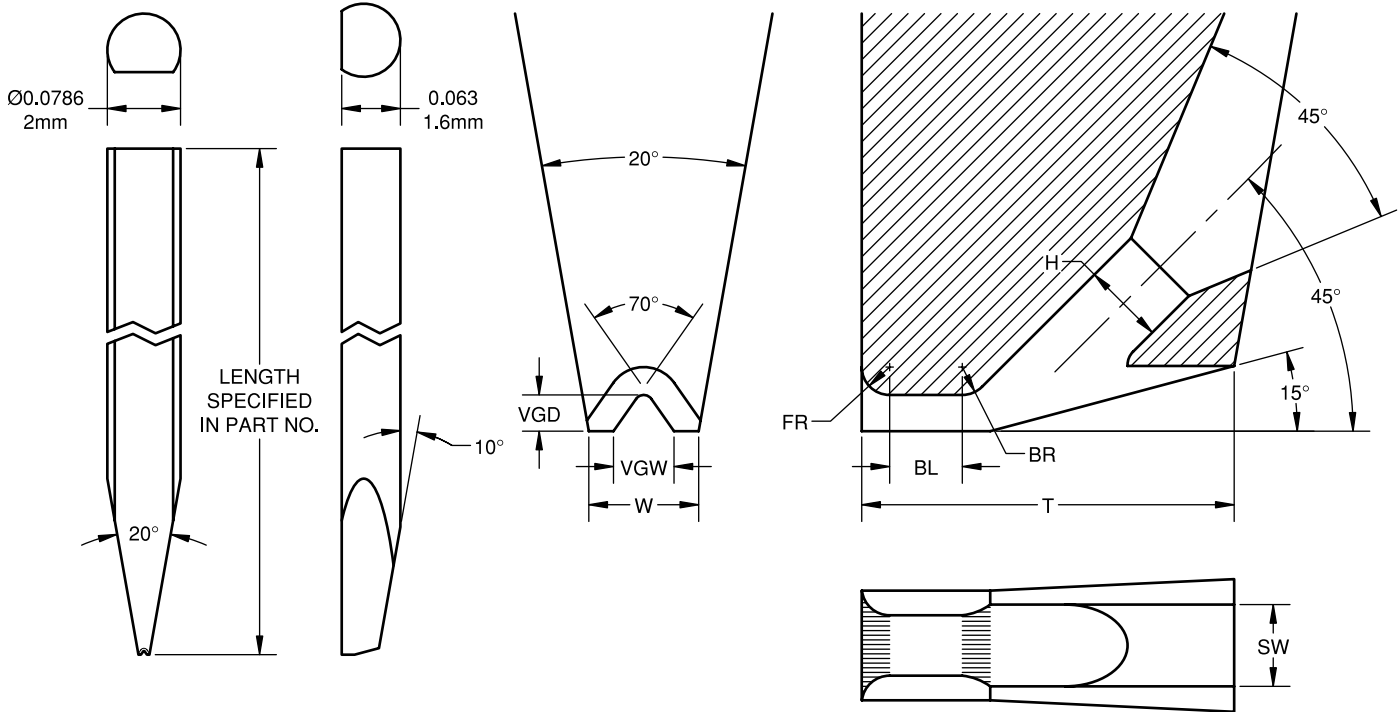
Series (no-hole design) - V-Groove - Wire Size( $\mu\text{m}$ ) - FR/BR Ratio (% of wire dia.) - Shank Style - Tool Length

**Example:**

8236-VE-200-30-A-K

DASH NUMBER	T in./ $\mu\text{m}$	F in./ $\mu\text{m}$	FR & BR in./ $\mu\text{m}$	VGW in./ $\mu\text{m}$	W in./ $\mu\text{m}$	VGH in./ $\mu\text{m}$
-100-30	.0098/250	.0074/188	.0012/30	.0043/110	.0079/200	.0400/1016
-100-50	.0098/250	.0058/147	.0020/51	.0043/110	.0079/200	.0400/1016
-125-30	.0118/300	.0088/224	.0015/38	.0054/138	.0098/250	.0400/1016
-125-50	.0118/300	.0068/173	.0025/64	.0054/138	.0098/250	.0400/1016
-150-30	.0138/350	.0102/260	.0018/45	.0065/165	.0118/300	.0400/1016
-150-50	.0138/350	.0078/198	.0030/76	.0065/165	.0118/300	.0400/1016
-200-30	.0177/450	.0129/330	.0024/60	.0087/220	.0157/400	.0400/1016
-200-50	.0177/450	.0099/252	.0039/100	.0087/220	.0157/400	.0400/1016
-250-50	.0217/550	.0119/302	.0049/125	.0108/275	.0197/500	.0600/1524
-300-50	.0256/650	.0138/350	.0059/150	.0130/330	.0236/600	.0600/1524
-350-50	.0299/760	.0161/410	.0069/175	.0152/385	.0276/700	.0600/1524
-380-50	.0323/820	.0173/440	.0075/191	.0165/418	.0299/760	.0600/1524
-400-50	.0343/870	.0185/470	.0079/200	.0173/440	.0315/800	.0600/1524
-450-50	.0390/990	.0212/540	.0089/225	.0195/495	.0354/900	.0600/1524
-500-50	.0433/1100	.0237/600	.0098/250	.0217/550	.0394/1000	.0600/1524

*Dimensions in inches unless otherwise specified*



**Features:**

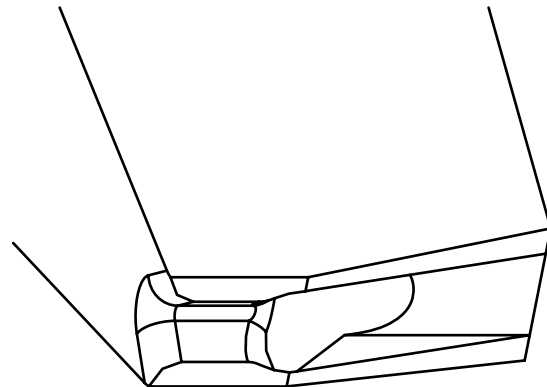
- Designed for large wire applications in Ultrasonic (Cho-onpa) bonders
- Special polished FR & BR
- Special heavy hole polish

**Material:**

Tungsten Carbide

**Lengths:**

- K = 1.142 inch / 29mm
- M = 1.339 inch / 34mm
- Other = Specify



**Specify:**

Series (45° wire feed angle) - V-Groove - Wire Size(μm)/Designation - FR/BR Ratio (% of wire dia.) - Tool Length

**Example:**

8245-VE-150N-50-K

DASH NUMBER	T in./μm	FL in./μm	BL in./μm	FR & BR in./μm	H in./μm	W in./μm	VGW in./μm
-100N-50	.0290/737	.0098/250	.0058/150	.0020/51	.0059/150	.0079/200	.0043/109
-125N-50	.0360/914	.0118/300	.0068/174	.0025/64	.0074/188	.0098/250	.0054/137
-150N-50	.0400/1016	.0138/350	.0078/198	.0030/76	.0088/224	.0118/300	.0065/165
-200N-50	.0540/1372	.0157/400	.0079/200	.0039/100	.0118/300	.0157/400	.0087/221
-250N-50	.0630/1600	.0197/500	.0099/252	.0049/125	.0148/375	.0197/500	.0108/274
-300N-50	.0630/1600	.0236/600	.0118/300	.0059/150	.0177/450	.0236/600	.0130/330

*Dimensions in inches unless otherwise specified*