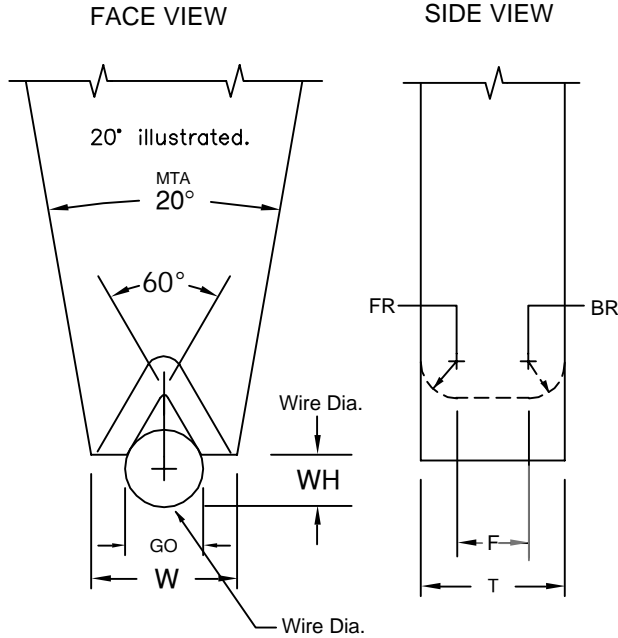


# SERIES GE

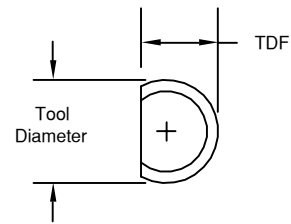
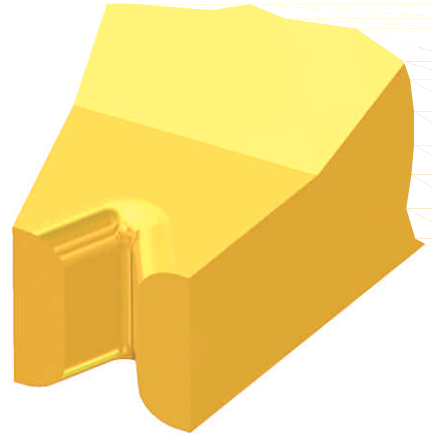
## LARGE WIRE, V GROOVE

FOR MANUAL, AUTOMATIC AND SEMI-AUTOMATIC BONDERS

20° OR 30° MAIN TAPER ANGLE (MTA)



MTA = MAIN TAPER ANGLE  
 SA = SIDE-VIEW ANGLE  
 BA = BACK ANGLE  
 GO = GROOVE OPENING

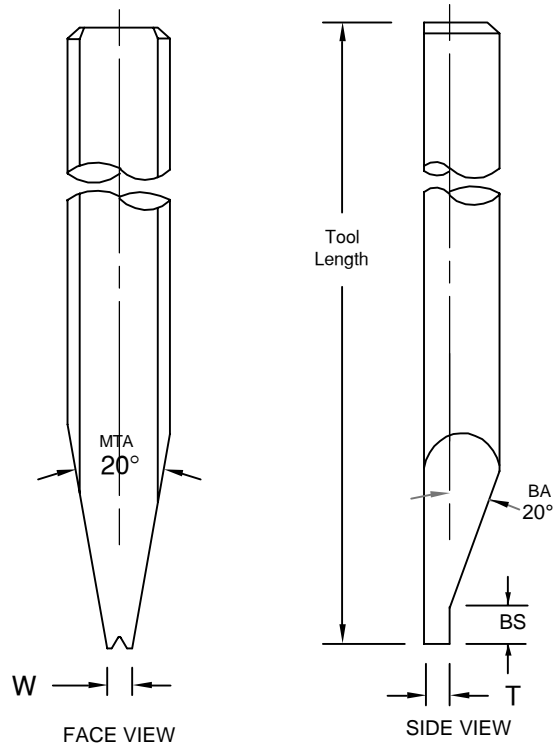


Standard				
	TD		TDF	
	in.	mm	in.	mm
1/8	.1249	3.17	.1100	2.79

1/8" diameter tools illustrated.

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

Standard Back Step supplied unless otherwise specified. See **Tool Options** for other options. (A4, A5)



# SERIES GE

LARGE WIRE  
V-GROOVE IN WIRE DIRECTION

ORDERING INFORMATION  
LARGE WIRE BONDING WEDGES  
FOR GOLD AND ALUMINUM WIRE

**SAMPLE PART NUMBER: M-GE-100-1-1/8-1.97-M-\***

**SYMBOL EXPLANATION:** 1 2 3 4 5 6

1. **MATERIAL:** \_\_\_\_\_  
 M = Ceramic  
 C = Tungsten Carbide  
 T = Titanium  
 All other: Material Selection Guide Tech Tips
2. **PART NUMBER : GE** \_\_\_\_\_  
 Wire Ø (100 in µ) and Revision Number (1)
3. **SHANK DIA.:** Please Specify Diameter \_\_\_\_\_  
 Select TD from chart on page
4. **TOOL LENGTH:**  
 Please Specify Length
5. **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)
6. **See Tool Options**

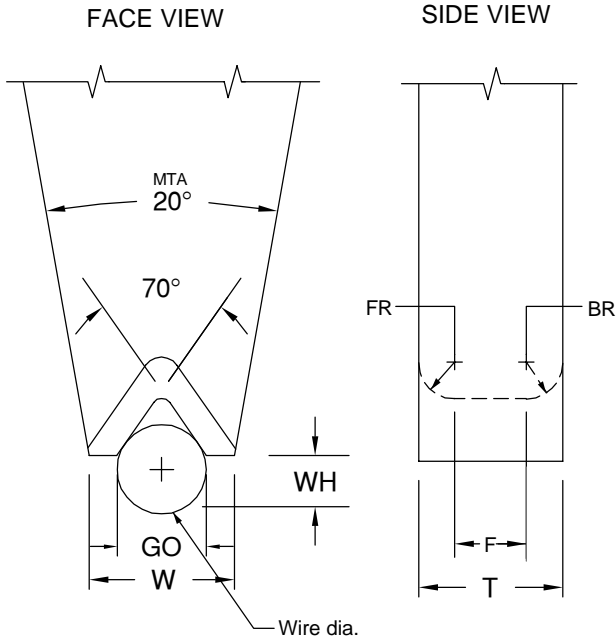
GE SERIES:		STANDARD CHART										FOR WIRE DIAMETERS .0040 THROUGH .0200			
PART NUMBER	MTA ANGLE W	FR		BR		GO		BS		T		W		WIRE DIAMETER	
Units	DEGREES	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ
Tolerance small Tools	(Ref)	±.0002	±5	±.0002	±5	±.0006	±15	±.0040	±102	±.0004	±10	±.0010	±25		
GE-100-1	30°	.0020	50	.0012	50	.0043	110	.0200	508	.0106	270	.0098	250	.0040	102
GE-125-1	30°	.0025	63	.0015	63	.0055	140	.0200	508	.0138	350	.0118	300	.0050	127
GE-150-1	30°	.0030	75	.0018	75	.0067	170	.0200	508	.0157	400	.0138	350	.0060	152
Tolerance large Tools	(Ref)	±.0004	±10	±.0004	±13	±.0006	±15	±.0040	±102	±.0004	±10	±.0010	±25		
GE-175-1	20°	.0035	88	.0035	88	.0077	195	.0200	508	.0181	460	.0157	400	.0070	178
GE-200-1	20°	.0039	100	.0039	100	.0087	220	.0200	508	.0205	520	.0177	450	.0080	203
GE-250-1	20°	.0049	125	.0049	125	.0110	280	.0390	991	.0268	680	.0217	550	.0100	254
GE-300-1	20°	.0059	150	.0059	150	.0130	330	.0390	991	.0307	780	.0256	650	.0120	305
GE-350-1	20°	.0069	175	.0069	175	.0154	390	.0390	991	.0331	840	.0295	750	.0140	356
GE-380-1	20°	.0075	190	.0075	190	.0165	420	.0590	1499	.0346	880	.0315	800	.0150	381
GE-400-1	20°	.0079	200	.0079	200	.0173	440	.0590	1499	.0354	900	.0335	850	.0160	406
GE-500-1	20°	.0098	250	.0098	250	.0217	550	.0590	1499	.0445	1130	.0413	1050	.0200	508

WD=WIREØ GO= GROOVE OPENING PLEASE SPECIFY WIRE SIZE AND WIRE MATERIAL WHEN ORDERING  
 \*Other sizes available upon request \*All dimensions and tolerances are for reference only

# SERIES GF

## LARGE WIRE, V GROOVE

FOR MANUAL, AUTOMATIC AND SEMI-AUTOMATIC BONDERS



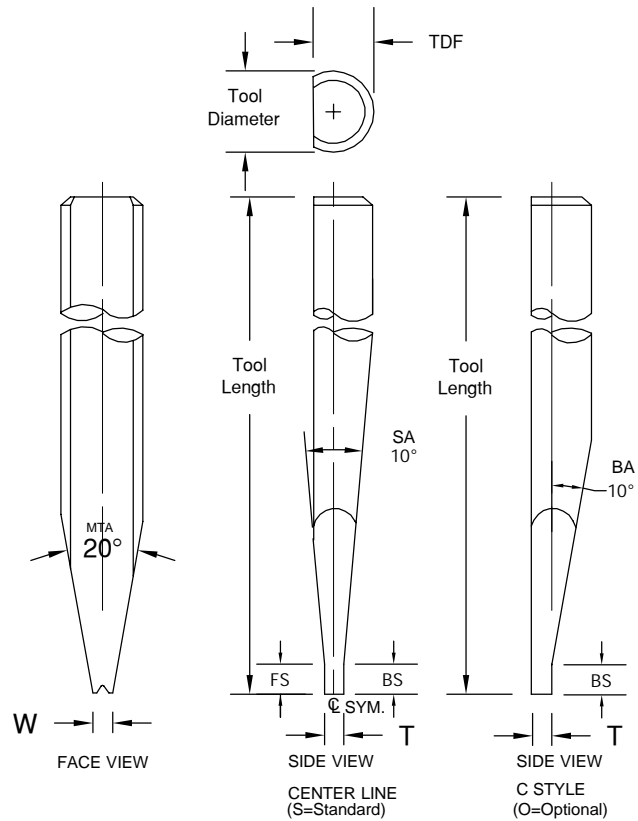
MTA = MAIN TAPER ANGLE  
 SA = SIDE-VIEW ANGLE  
 BA = BACK ANGLE  
 GO = GROOVE OPENING

Standard				
	TD		TDF	
	in.	mm	in.	mm
1/8	.1249	3.17	.1100	2.79

1/8" diameter tools illustrated.

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

Standard Front Step and Back Step supplied unless otherwise specified. See **Tool Options** for other options. (A4, A5)



# SERIES GF

LARGE WIRE

V-GROOVE IN WIRE DIRECTION

ORDERING INFORMATION  
LARGE WIRE BONDING WEDGES  
FOR GOLD AND ALUMINUM WIRE

**SAMPLE PART NUMBER: M-S-GF-100-1-1/8-1.97-M-\***

**SYMBOL EXPLANATION:** 1 2 3 4 5 6 7

1. **MATERIAL:**
  - M = Ceramic
  - C = Tungsten Carbide
  - T = Titanium
  - All other: Material Selection Guide Tech Tips
2. **S = Standard, Center line**  
**O = Optional, C Style**
3. **PART NUMBER :** GF  
Wire Ø (100 in µ) and Revision Number (1)
4. **SHANK DIA.:** Please Specify Diameter  
Select TD from chart on page
5. **TOOL LENGTH:**  
Please Specify Length
6. **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)
7. **See Tool Options**

STANDARD CHART GF LARGE WIRE: FOR WIRE DIAMETERS .0040" THROUGH .0200"																			
PART NUMBER	F		FR		BR		GO		WH		FS & BS		T		W		WIRE DIAMETER		
	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	
Tolerance small Tools		(Ref)		±.0003	±8	±.0003	±8	±.0003	±8	±0.002	±5	±0.020	±51	±0.002	±5	±0.004	±10		
GF-100-1	.0074	188	.0012	30	.0012	30	.0039	99	.0027	69	.0394	1001	.0098	249	.0078	198	.0040	102	
GF-125-1	.0088	224	.0015	38	.0015	38	.0054	137	.0032	81	.0394	1001	.0118	300	.0098	249	.0050	127	
GF-150-1	.0102	259	.0018	46	.0018	46	.0066	168	.0035	89	.0394	1001	.0138	351	.0118	300	.0060	152	
GF-150-2	.0112	284	.0018	46	.0018	46	.0066	168	.0035	89	.0394	1001	.0148	376	.0120	305	.0060	152	
GF-150-3	.0125	318	.0018	46	.0018	46	.0066	168	.0035	89	.0394	1001	.0161	409	.0120	305	.0060	152	
Tolerance large Tools		(Ref)		±.0005	±13	±.0005	±13	±.0005	±13	±0.004	±10	±0.020	±51	±0.002	±5	±0.006	±15		
GF-175-1	.0116	295	.0021	53	.0021	53	.0076	193	.0042	107	.0394	1001	.0158	401	.0136	345	.0070	178	
GF-200-1A	.0129	328	.0024	61	.0024	61	.0087	221	.0048	122	.0394	1001	.0177	450	.0158	401	.0080	203	
GF-200-1B	.0066	168	.0028	71	.0024	61	.0087	221	.0048	122	.0394	1001	.0118	300	.0157	399	.0080	203	
GF-200-1C	.0046	117	.0028	71	.0024	61	.0087	221	.0048	122	.0394	1001	.0098	249	.0157	399	.0080	203	
GF-200-1D	.0086	218	.0028	71	.0024	61	.0087	221	.0048	122	.0394	1001	.0138	351	.0157	399	.0080	203	
GF-250-1	.0157	399	.0030	76	.0030	76	.0108	274	.0059	150	.0590	1499	.0217	551	.0196	498	.0100	254	
GF-300-1	.0184	467	.0036	91	.0036	91	.0130	330	.0072	183	.0590	1499	.0256	650	.0236	599	.0120	305	
GF-350-1	.0215	546	.0042	107	.0042	107	.0152	386	.0084	213	.0590	1499	.0299	759	.0276	701	.0140	356	
GF-350-2	.0238	605	.0042	107	.0042	107	.0152	386	.0084	213	.0590	1499	.0322	818	.0276	701	.0140	356	
GF-380-1	.0233	592	.0045	114	.0045	114	.0165	419	.0088	224	.0590	1499	.0323	820	.0300	762	.0150	381	
GF-400-1	.0247	627	.0048	122	.0048	122	.0174	442	.0095	241	.0590	1499	.0343	871	.0316	803	.0160	406	
GF-450-1	.0282	716	.0054	137	.0054	137	.0195	495	.0108	274	.0590	1499	.0390	991	.0354	899	.0180	457	
GF-500-1	.0313	795	.0060	152	.0060	152	.0217	551	.0118	300	.0590	1499	.0433	1100	.0394	1001	.0200	508	

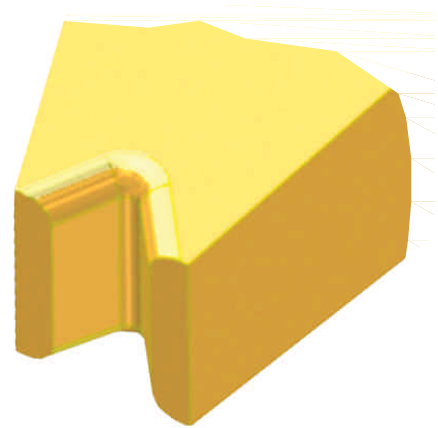
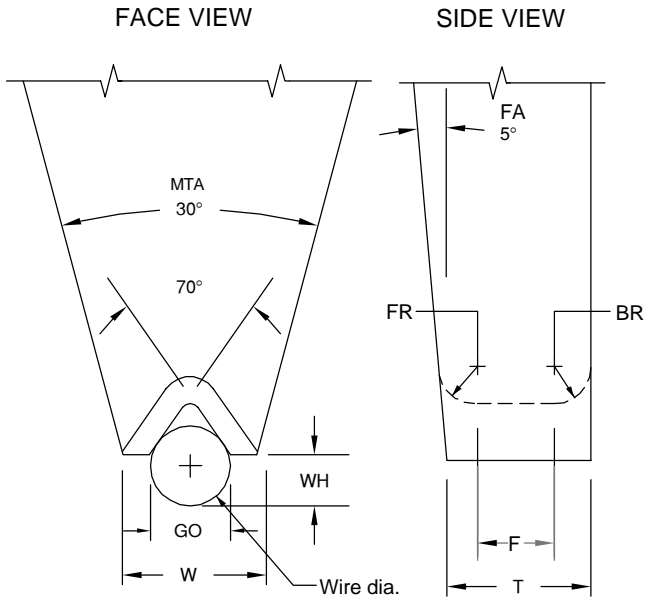
WD=WIREØ GO= GROOVE OPENING PLEASE SPECIFY WIRE SIZE AND WIRE MATERIAL WHEN ORDERING

\*Other sizes available upon request \*All dimensions and tolerances are for reference only

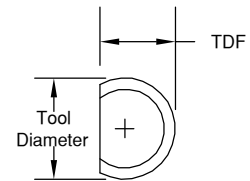
# SERIES GFK

LARGE WIRE, V GROOVE  
FOR F&K DELVOTEC

FOR MANUAL BONDERS AND SEMI-AUTOMATIC  
BONDERS-MODEL 5450 AUTOMATIC BONDERS-MODEL 6600

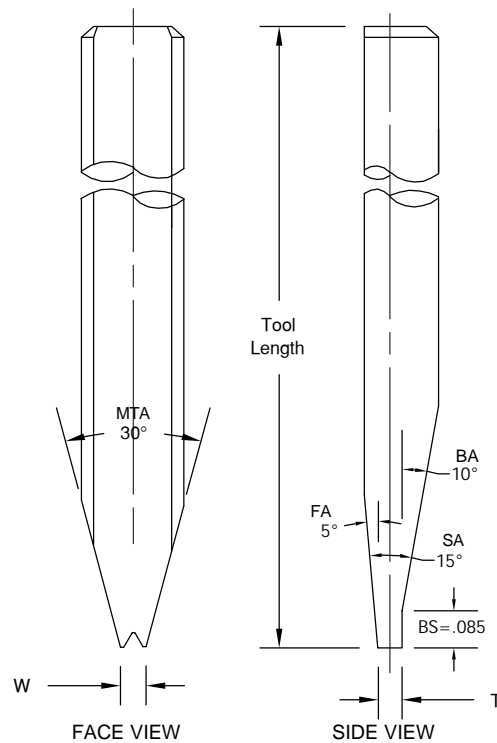


MTA = MAIN TAPER ANGLE  
SA = SIDE-VIEW ANGLE  
BA = BACK ANGLE  
FA = FRONT ANGLE  
GO = GROOVE OPENING



	TD		TDF	
	in.	mm	in.	mm
1/8	.1249	3.17	.1100	2.79

Standard Back Step supplied unless otherwise specified. See **Tool Options** for other options. (A4, A5)



# SERIES GFK

## LARGE WIRE

### V-GROOVE IN WIRE DIRECTION

ORDERING INFORMATION  
LARGE WIRE BONDING WEDGES  
FOR GOLD AND ALUMINUM WIRE

**SAMPLE PART NUMBER: M-GFK-100-1-1/8-1.97-M-\***

**SYMBOL EXPLANATION:** 1 2 3 4 5 6

1. **MATERIAL:**
- M = Ceramic
  - C = Tungsten Carbide
  - T = Titanium
  - All other: Material Selection Guide Tech Tips

2. **PART NUMBER :** GFK  
Wire Ø (100 in µ) and Revision Number (1)

3. **SHANK DIA.:** Please Specify Diameter

4. **TOOL LENGTH:** Please Specify Length

6. See Tool Options

5. **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)

GFK SERIES: STANDARD CHART FOR WIRE DIAMETERS .0040 THROUGH .0200																		
PART NUMBER	F		FR		BR		GD		WH		BS		T		W		WIRE DIAMETER	
	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ	in.	µ
Tolerance small Tools	(Ref)		±.0003	±8	±.0003	±8	±.0005 -.0002	±13 -5	±.0002	± 5	±.0020	± 51	±.0002	± 5	±.0004	± 10		
GFK-400-1	.0077	196	.0012	30	.0012	30	.0027	69	.0023	58	.0850	2159	.0098	249	.0080	203	.0040	102
GFK-425-1	.0092	234	.0015	38	.0015	38	.0034	86	.0029	74	.0850	2159	.0118	300	.0100	254	.0050	127
GFK-450-1	.0107	272	.0018	46	.0018	46	.0040	102	.0035	89	.0850	2159	.0138	351	.0120	305	.0060	152
GFK-450-2	.0117	297	.0018	46	.0018	46	.0040	102	.0035	89	.0850	2159	.0148	376	.0120	305	.0060	152
GFK-450-3	.0130	330	.0018	46	.0018	46	.0040	102	.0035	89	.0850	2159	.0161	409	.0120	305	.0060	152
Tolerance large Tools	(Ref)		±.0005	±13	±.0005	±13	±.0010 -.0002	±25 -5	±.0004	± 10	±.0020	± 51	±.0002	± 5	±.0006	± 15		
GFK-475-1	.0122	310	.0021	53	.0021	53	.0048	122	.0040	102	.0850	2159	.0158	401	.0140	356	.0070	178
GFK-200-1A	.0136	345	.0024	61	.0024	61	.0054	137	.0046	117	.0850	2159	.0177	450	.0160	406	.0080	203
GFK-200-1B	.0077	196	.0024	61	.0024	61	.0054	137	.0046	117	.0850	2159	.0118	300	.0160	406	.0080	203
GFK-200-1C	.0057	145	.0024	61	.0024	61	.0054	137	.0046	117	.0850	2159	.0098	249	.0160	406	.0080	203
GFK-200-1D	.0097	246	.0024	61	.0024	61	.0054	137	.0046	117	.0850	2159	.0138	351	.0160	406	.0080	203
GFK-250-1	.0166	422	.0030	76	.0030	76	.0075	191	.0050	127	.0850	2159	.0217	551	.0200	508	.0100	254
GFK-300-1	.0195	495	.0036	91	.0036	91	.0090	229	.0060	152	.0850	2159	.0256	650	.0240	610	.0120	305
GFK-350-1	.0228	579	.0042	107	.0042	107	.0105	267	.0070	178	.0850	2159	.0299	759	.0280	711	.0140	356
GFK-350-2	.0252	640	.0042	107	.0042	107	.0105	267	.0070	178	.0850	2159	.0322	818	.0280	711	.0140	356
GFK-380-1	.0247	627	.0045	114	.0045	114	.0113	287	.0075	191	.0850	2159	.0323	820	.0300	762	.0150	381
GFK-400-1	.0262	665	.0048	122	.0048	122	.0120	305	.0080	203	.0850	2159	.0343	871	.0320	813	.0160	406
GFK-450-1	.0298	757	.0054	137	.0054	137	.0135	343	.0090	229	.0850	2159	.0390	991	.0360	914	.0180	457
GFK-500-1	.0331	841	.0060	152	.0060	152	.0150	381	.0100	254	.0850	2159	.0433	1100	.0400	1016	.0200	508

WD=WIRE Ø GO= GROOVE OPENING PLEASE SPECIFY WIRE SIZE AND WIRE MATERIAL WHEN ORDERING  
\*Other sizes available upon request \*All dimensions and tolerances are for reference only