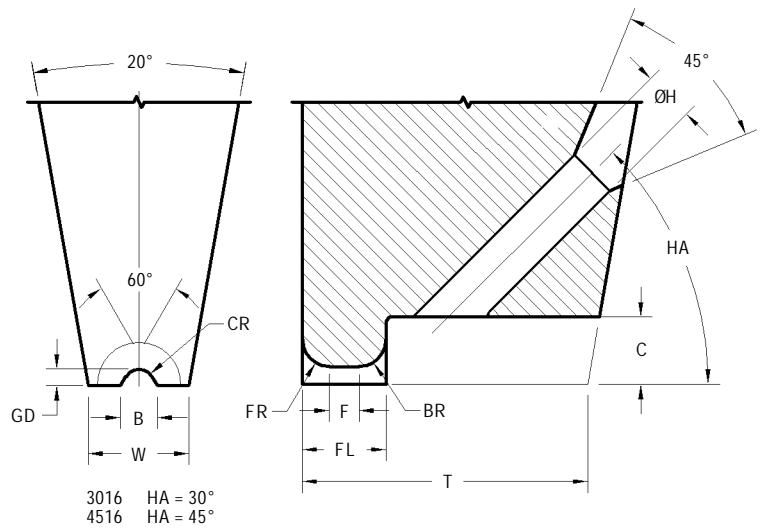
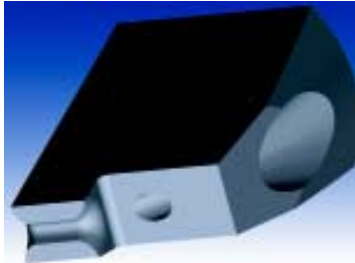


LARGE WIRE INLINE GROOVE NOTCH TOOLS

3016 / 4516 STYLE



STANDARD DIMENSIONS

Tool Styles	Useable Wire Diameter WD in / μm	4516 / 3016 Hole Dia H in / μm $\pm .0002/5$	Foot Length FL in / μm $\pm .0005/13$	Front Radius FR in / μm $\pm .0005/13$	Back Radius BR in / μm $\pm .0005/13$	Flat F in / μm (Ref)	4516 / 3016 Foot Width W in / μm $\pm .0002/5$	4516 / 3016 Clearance C in / μm (Ref)	4516 Series Tip Length T in / μm $\pm .0010/25$	3016 Series Tip Length T in / μm $\pm .0010/25$
3S	.0030 / 75	.0045 / 114	.0085 / 216	.0024 / 61	.0036 / 91	.0025 / 64	.0090 / 229	.0080 / 203	.0270 / 686	.0300 / 762
3R	.0030 / 75	.0045 / 114	.0095 / 241	.0024 / 61	.0036 / 91	.0035 / 89	.0090 / 229	.0080 / 203	.0280 / 711	.0310 / 787
3XL	.0030 / 75	.0045 / 114	.0120 / 305	.0024 / 61	.0036 / 91	.0060 / 152	.0090 / 229	.0080 / 203	.0300 / 762	.0330 / 838
4S	.0040 / 100	.0060 / 152	.0110 / 279	.0032 / 81	.0048 / 122	.0030 / 76	.0120 / 305	.0100 / 254	.0350 / 889	.0390 / 991
4R	.0040 / 100	.0060 / 152	.0130 / 330	.0032 / 81	.0048 / 122	.0050 / 127	.0120 / 305	.0100 / 254	.0370 / 940	.0410 / 1041
4XL	.0040 / 100	.0060 / 152	.0160 / 406	.0032 / 81	.0048 / 122	.0080 / 203	.0120 / 305	.0100 / 254	.0400 / 1016	.0440 / 1118
5S	.0050 / 125	.0075 / 191	.0140 / 356	.0040 / 102	.0060 / 152	.0040 / 102	.0150 / 381	.0115 / 292	.0440 / 1118	.0490 / 1245
5R	.0050 / 125	.0075 / 191	.0160 / 406	.0040 / 102	.0060 / 152	.0600 / 152	.0150 / 381	.0115 / 292	.0460 / 1168	.0510 / 1295
5XL	.0050 / 125	.0075 / 191	.0200 / 508	.0040 / 102	.0060 / 152	.0100 / 254	.0150 / 381	.0115 / 292	.0500 / 1270	.0550 / 1397
6S	.0060 / 150	.0090 / 229	.0170 / 432	.0048 / 122	.0072 / 183	.0050 / 127	.0180 / 457	.0135 / 343	.0530 / 1346	.0590 / 1499
6R	.0060 / 150	.0090 / 229	.0190 / 483	.0048 / 122	.0072 / 183	.0070 / 178	.0180 / 457	.0135 / 343	.0550 / 1397	.0610 / 1549
6XL	.0060 / 150	.0090 / 229	.0240 / 610	.0048 / 122	.0072 / 183	.0120 / 305	.0180 / 457	.0135 / 343	.0600 / 1524	.0660 / 1676
8S	.0080 / 200	.0120 / 305	.0225 / 572	.0064 / 163	.0096 / 244	.0065 / 165	.0240 / 610	.0170 / 432	.0710 / 1803	.0790 / 2007
8R	.0080 / 200	.0120 / 305	.0255 / 648	.0064 / 163	.0096 / 244	.0095 / 241	.0240 / 610	.0170 / 432	.0740 / 1880	.0820 / 2083
8XL	.0080 / 200	.0120 / 305	.0320 / 813	.0064 / 163	.0096 / 244	.0160 / 406	.0240 / 610	.0170 / 432	.0800 / 2032	.0880 / 2235
		$\pm .0005/13$	$\pm .0005/13$	$\pm .0010/25$	$\pm .0010/25$	(Ref)	$\pm .0010/25$	(Ref)	$\pm .0010/25$	
10S	.0100 / 250	.0150 / 381	.0280 / 711	.0080 / 203	.0120 / 305	.0080 / 203	.0300 / 762	.0200 / 508	.0880 / 2235	
10L	.0100 / 250	.0150 / 381	.0350 / 889	.0080 / 203	.0120 / 305	.0150 / 381	.0300 / 762	.0200 / 508	.0950 / 2413	
10XL	.0100 / 250	.0150 / 381	.0400 / 1016	.0080 / 203	.0120 / 305	.0200 / 508	.0300 / 762	.0200 / 508	.1000 / 2540	
12S	.0120 / 300	.0180 / 457	.0335 / 851	.0095 / 241	.0145 / 368	.0095 / 241	.0360 / 914	.0240 / 610	.1060 / 2692	
12R	.0120 / 300	.0180 / 457	.0385 / 978	.0095 / 241	.0145 / 368	.0143 / 363	.0360 / 914	.0240 / 610	.1100 / 2794	
14S	.0140 / 350	.0210 / 533	.0390 / 991	.0110 / 279	.0170 / 432	.0110 / 279	.0420 / 1067	.0280 / 711	.1100 / 2794	Not available
14R	.0140 / 350	.0210 / 533	.0367 / 932	.0085 / 216	.0170 / 432	.0200 / 508	.0420 / 1067	.0200 / 508	.1100 / 2794	Not available
15S	.0150 / 380	.0225 / 572	.0330 / 838	.0090 / 229	.0090 / 229	.0150 / 381	.0450 / 1143	.0210 / 533	.1100 / 2794	
15R	.0150 / 380	.0225 / 572	.0390 / 991	.0090 / 229	.0090 / 229	.0210 / 533	.0450 / 1143	.0210 / 533	.1100 / 2794	
16S	.0160 / 400	.0240 / 610	.0352 / 894	.0095 / 241	.0095 / 241	.0165 / 419	.0480 / 1219	.0220 / 559	.1100 / 2794	
20XS	.0200 / 500	.0240 / 610	.0310 / 787	.0095 / 241	.0095 / 241	.0110 / 279	.0600 / 1524	.0260 / 660	.1100 / 2794	

INLINE GROOVE NOTCH TOOLS - GENERAL GUIDELINES ON HOW TO ORDER

STYLE		FEED ANGLE
3016 4516	Inline and 60° "V" Groove	30° 45° 60° wire feed available with slimline

WIRE SIZE	MATERIAL
Specify Wire Size	W: Tungsten Carbide Ultra Fine Grain for Aluminum Wire

Tool Dia	TD in / mm ±.0001"/3µm	TDF in / mm ±.0005"/13µm	Specified Length	TL in / mm ±.005"/130µm
1/16	.0624 / 1.585	.0570 / 1.448 *	3/4	.750 / 19.05
1/8	.1249 / 3.172	.0937 / 2.378 ***	L	.828 / 21.0
2mm	.0785 / 1.995 @	.0630 / 1.600 *	1.00	1.000 / 25.4
3mm	.1180 / 2.997	.0985 / 2.502 **	30mm	1.181 / 30.0

NOTE	
*	limited size availability.
**	.110" / 2.79mm TDF supplied if required by foot geometry.
***	.1180" / 3.00mm TDF supplied if required by foot geometry.
@	Tolerance +0 / - .0002" / 5µm

FOOT OPTIONS	
G	The FR and BR are polished and a fine matte finish is within the area of the groove. (Standard)
GM	The FR, BR and groove have a matte finish GD = 40% to 60% of wire diameter

HOW TO ORDER	
SPECIFY	Style - Wire / Foot Size - Material - Tool Diameter - 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 Shank Style refer to page 62.
EXAMPLE	4516 - 5R - W - 3mm - L - GM 4516 - 8XL - W - 1/8 - L - G 3016 - 12R - W - 1/8 - 1.00 - GM