Dexmet CORPORATION

Expanding Technology™

Dexmet Expanded Materials

Dexmet Corporation manufactures precision expanded metal foils and polymers with exacting mechanical and electrical properties to meet very tight conductivity, weight, heat and dimensional tolerances. Typical applications include but are not limited to, advanced batteries, fuel cells, hydrogen and oxygen generation, EMI/RFI shielding, lightning strike protection, automotive, wind power, filtration, separation and general industrial applications.

Tool Code	LWD (in)	SWD (in)		Hole Size (in)		Opening/SQIN		Open Area		Width (in)	Raw Thickness (in)	
		Min	Max	Min	Max	Min	Max	Min	Max		Min	Max
020	0.020	0.0111	0.0133	0.001	0.007	7500	9000	32%	75%	8	0.001	0.002
025	0.025	0.0125	0.0154	0.0012	0.008	5200	6400	32%	75%	8	0.001	0.003
031	0.031	0.0182	0.0244	0.0015	0.01	2650	3550	32%	82%	12	0.001	0.005
040	0.040	0.0222	0.0323	0.002	0.017	1750	2250	24%	85%	12	0.0015	0.06
050	0.050	0.0244	0.0357	0.003	0.022	1120	1640	21%	89%	24	0.0015	0.008
060	0.060	0.0303	0.0435	0.003	0.027	780	1150	20%	90%	24	0.0015	0.009
075	0.075	0.0303	0.0370	0.0033	0.03	720	880	15%	90%	38	0.0015	0.009
077	0.077	0.0333	0.0556	0.004	0.033	475	775	15%	90%	36	0.002	0.012
080	0.080	0.0370	0.0667	0.007	0.04	375	675	16%	90%	48	0.002	0.014
090	0.090	0.0455	0.0556	0.007	0.045	400	500	16%	90%	24	0.002	0.014
100	0.100	0.0400	0.0769	0.007	0.046	250	475	16%	90%	38	0.002	0.017
105	0.105	0.0500	0.0769	0.007	0.048	250	350	20%	90%	24	0.002	0.018
125	0.125	0.0500	0.1111	0.008	0.052	150	325	20%	90%	48	0.002	0.025
140	0.140	0.0588	0.1250	0.01	0.065	110	250	30%	90%	24	0.003	0.03
158	0.158	0.0769	0.1250	0.011	0.075	100	180	30%	90%	27	0.003	0.03
180	0.180	0.0714	0.1111	0.011	0.08	100	150	32%	90%	24	0.004	0.03
190	0.190	0.0667	0.1000	0.02	0.088	80	130	35%	90%	24	0.005	0.03
215	0.215	0.0833	0.1429	0.02	0.095	65	110	35%	90%	24	0.005	0.03
236	0.236	0.0909	0.1429	0.025	0.1	60	90	35%	90%	24	0.005	0.03
250	0.250	0.1000	0.1667	0.027	0.11	50	80	35%	90%	24	0.005	0.03
284	0.284	0.0909	0.1429	0.03	0.13	45	80	35%	90%	24	0.005	0.03
400	0.400	0.1250	0.3333	0.035	0.18	15	40	35%	90%	24	0.005	0.03
500	0.500	0.2000	0.400	0.05	0.225	10	20	35%	90%	36	0.005	0.03

The information and table data are provided courtesy of Dexmet Corporation, contact Dexmet directly at (203) 294-4440.
Dexmet Corporation • 22 Barnes Industrial Road South • Wallingford, CT 06492 • sales@dexmet.com • www.dexmet.com

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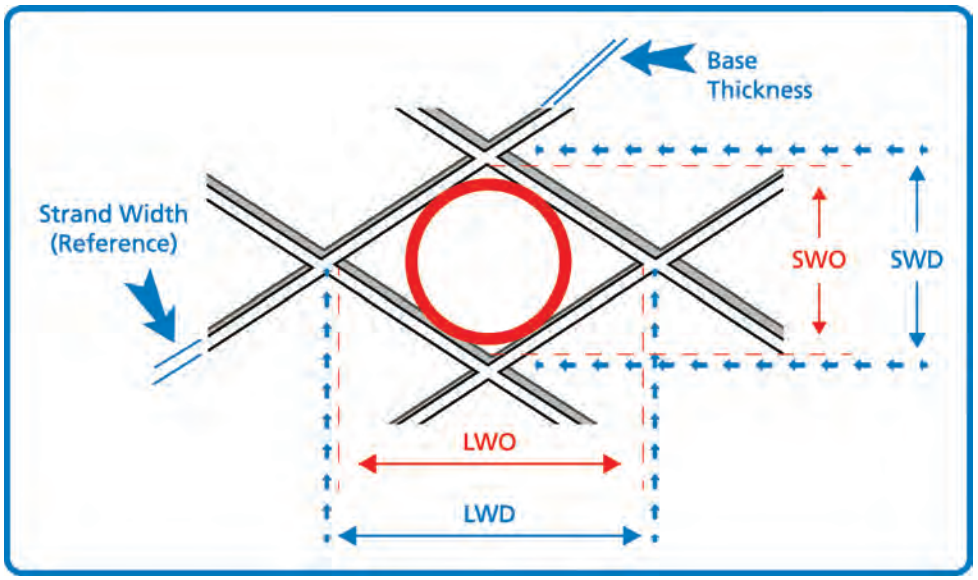
Expanded Material Terminology

LWD (Long Way of the Diamond):

Measured from the center of the joint to the center of the adjacent joint. This dimension is fixed, and is always parallel to the width of the coil and corresponds with the diamond dimension.

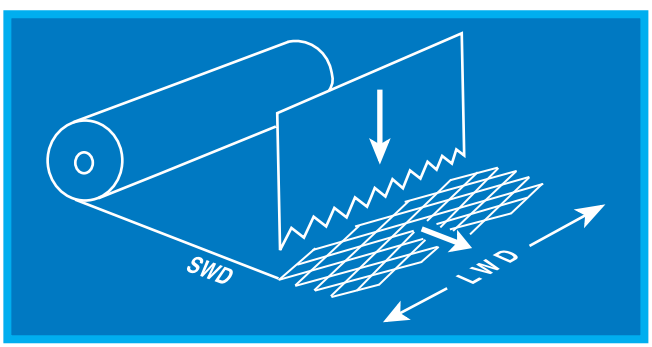
SWD (Short Way of the Diamond):

Is the length of the short axis way of the diamond, measured from the center of the joint to the center of the joint. For each fixed LWD dimension, there is a range of SWD dimensions available.



Strand Width (Reference):

The strand width is the amount of metal slit from the parent metal in forming the mesh. This is closely controlled and is directly related to the weight, overall thickness and open area as shown in the above illustration.



Expanded Material:

Is simultaneously slit and stretched by shaped tools which determine the form and number of openings. Strand dimensions (width and thickness), overall thickness of the piece and weight per square inch are controlled variables specified by the requirements needed for your application.

Common List of Ductile Raw Materials*	
Typical Metals	**Plastics / Films**
Aluminum, Copper, Nickel	PTFE, PEEK, PFA, FEP
Stainless Steel, Silver, Titanium	ECTFE, Polypropylene
Zirconium, Niobium, Kanthal	Polyethylene, CPET, Tefzel
Low Carbon Steel, Zinc, Brass	PVC, Polysulfones, Polyesters
Gold, Inconel, Phosphor Bronze	Custom Polymers
Custom Alloys	*Most common listed

Explanation of Product Code	
Example: 3 Ni 5-077	
First number represents original material thickness	3 = .003" (.076 mm)
Letters are chemical symbol for material	Ni = Nickel
Number immediately following letters represents strand width	5 = .005" (.127 mm)
Last number indicates the long way of the diamond	077 = .077" (1.96 mm)