

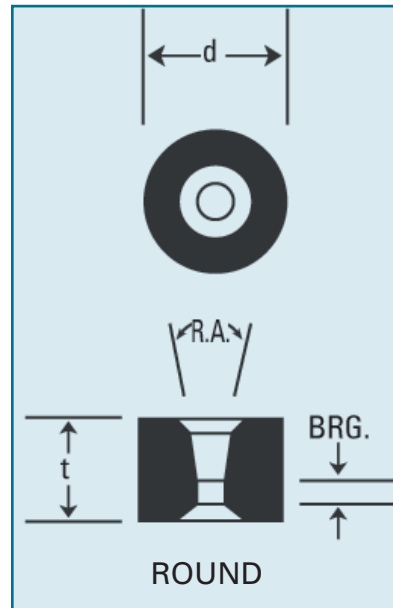
SUMIDIA®

# Poly-Di® Polycrystalline Diamond Dies

MILLIMETERS / SPECIFICATIONS

## CORE DIMENSIONS

MILLIMETERS								
ADDMA NO.	MFG. NO.	GRAIN SIZE CLASS			NIB FEATURE	THERMAL STABILITY IN AIR	CORE DIM.	
		U 0-2µ	F 3-10µ	M 11-29µ			d	t
D-6	WD705	F	M	C, E	1	700°C	2.5	1.0
D-6	WD805	F	M	C, E	2	1000°C	2.5	1.0
D-12	WD710	F	M	C, E	1	700°C	3.2	1.5
D-12	WD810	F	M	C, E	2	1000°C	3.5	1.5
D-12	WD910	F	S, M	C, E	3	700°C	1.5	1.5
D-15	WD715	F	M	C, E	1	700°C	5.2	2.5
D-15	WD815	F	M	C, E	2	1000°C	5.2	2.5
D-15	WD915	F	S, M	C, E	3	700°C	4.0	2.3
D-18	WD720	F	M	C, E	1	700°C	5.2	3.5
D-18	WD820	F	M	C, E	2	1000°C	5.2	3.5
D-18	WD920	F	S, M	C, E	3	700°C	4.0	2.9
D-21	WD925	-	S, M	C, E	3	700°C	7.0	4.0
D-24	WD930	-	S, M	C, E	3	700°C	7.0	5.3
D-27	WD940	-	M	C, E	3	700°C	9.0	7.5
D-27	WD945	-	M	C, E	3	700°C	13.0	9.0
D-30	WD950	-	M	C, E	3	700°C	13.0	12.0
D-33	WD960	-	-	C, E	3	650°C	16.0	16.0
D-36	WD970	-	-	E	3	650°C	19.0	19.0
D-36	WD975	-	-	E	3	650°C	25.0	20.0
D-36	WD980	-	-	E	3	650°C	30.0	22.0
D-36	WD990	-	-	E	3	650°C	40.0	25.0
D-36	WD995	-	-	E	3	650°C	45.0	27.0



### Nib Features:

1. WD700 Series diamond core is self-supported, metal-filled and thermally stable to 700°C.
2. WD800 Series is thermally stable to 1000°C, metal-absent and is self-supported.
3. WD900 Series diamond core is round, metal-filled, has a tungsten carbide support ring and is thermally stable to 650°C or 700°C.

Product designations should include manufacturer's number and grain size, i.e., WD705F, WD915C. Readily available die blanks are shown in bold print. Please check availability of other products.

## MAXIMUM RECOMMENDED HOLE SIZE RANGE\*\*

MILLIMETERS		BEARING PERCENTAGE (BRG.) REDUCTION ANGLE (R.A.)																			
		8					10%					30%					50%				
		8	12	16	20	24	8	12	16	20	24	8	12	16	20	24	8	12	16	20	24
D-6	WD705	0.45	0.65	0.84	1.02	1.19	0.39	0.54	0.67	0.78	0.87	0.35	0.46	0.55	0.63	0.69	0.35	0.46	0.55	0.63	0.69
D-6	WD805	0.45	0.65	0.84	1.02	1.19	0.39	0.54	0.67	0.78	0.87	0.35	0.46	0.55	0.63	0.69	0.35	0.46	0.55	0.63	0.69
D-12	WD710	0.73	1.06	1.37	1.67	1.95	0.64	0.89	1.09	1.27	1.43	0.57	0.76	0.91	1.03	1.13	0.57	0.76	0.91	1.03	1.13
D-12	WD810	0.73	1.06	1.37	1.67	1.95	0.64	0.89	1.09	1.27	1.43	0.57	0.76	0.91	1.03	1.13	0.57	0.76	0.91	1.03	1.13
D-12	WD910	0.71	0.89	0.89	0.89	0.89	0.62	0.86	0.89	0.89	0.89	0.56	0.74	0.88	0.89	0.89	0.56	0.74	0.88	0.89	0.89
D-15	WD715	1.32	1.92	2.48	3.01	3.52	1.16	1.60	1.97	2.29	2.58	1.04	1.37	1.64	1.85	2.03	1.04	1.37	1.64	1.85	2.03
D-15	WD815	1.32	1.92	2.48	3.01	3.52	1.16	1.60	1.97	2.29	2.58	1.04	1.37	1.64	1.85	2.03	1.04	1.37	1.64	1.85	2.03
D-15	WD915	1.19	1.73	2.24	2.72	3.00	1.05	1.44	1.78	2.07	2.33	0.94	1.24	1.48	1.67	1.84	0.94	1.24	1.48	1.67	1.84
D-18	WD720	1.83	2.65	3.43	3.87	3.87	1.61	2.21	2.73	3.18	3.57	1.43	1.90	2.27	2.56	2.81	1.43	1.90	2.27	2.56	2.81
D-18	WD820	1.83	2.65	3.43	3.87	3.87	1.61	2.21	2.73	3.18	3.57	1.43	1.90	2.27	2.56	2.81	1.43	1.90	2.27	2.56	2.81
D-18	WD920	1.50	2.18	2.81	2.93	2.93	1.32	1.81	2.24	2.60	2.92	1.17	1.56	1.86	2.10	2.31	1.17	1.56	1.86	2.10	2.31
D-21	WD925	2.06	2.99	3.86	4.69	5.33	1.81	2.49	3.07	3.57	4.01	1.61	2.14	2.55	2.89	3.17	1.61	2.14	2.55	2.89	3.17
D-24	WD930	2.71	3.94	5.10	5.19	5.19	2.39	3.29	4.06	4.72	5.19	2.13	2.82	3.37	3.81	4.18	2.13	2.82	3.37	3.81	4.18
D-27	WD940	3.83	5.57	6.63	6.63	6.63	3.37	4.64	5.73	6.63	6.63	3.01	3.98	4.75	5.38	5.90	3.01	3.98	4.75	5.38	5.90
D-27	WD945	4.69	6.82	8.82	9.80	9.80	4.13	5.69	7.01	8.16	9.17	3.68	4.88	5.82	6.59	7.23	3.68	4.88	5.82	6.59	7.23
D-30	WD950	6.22	9.03	9.47	9.47	9.47	5.47	7.53	9.29	9.47	9.47	4.88	6.46	7.71	8.73	9.47	4.88	6.46	7.71	8.73	9.47
D-33	WD960	8.51	11.86	11.86	11.86	11.86	7.48	10.31	11.86	11.86	11.86	6.68	8.84	10.55	11.86	11.86	6.68	8.84	10.55	11.86	11.86
D-36	WD970	10.47	14.38	14.38	14.38	14.38	9.21	12.69	14.38	14.38	14.38	8.22	10.88	12.99	14.38	14.38	8.22	10.88	12.99	14.38	14.38
D-36	WD975	11.08	16.09	19.42	19.42	19.42	9.74	13.42	16.55	19.26	19.42	8.69	11.51	13.74	15.55	17.06	8.69	11.51	13.74	15.55	17.06
D-36	WD980	12.28	17.84	23.09	23.62	23.62	10.80	14.88	18.35	21.36	23.62	9.64	12.76	15.23	17.24	18.92	9.64	12.76	15.23	17.24	18.92
D-36	WD990	14.39	20.91	27.06	32.03	32.03	12.66	17.44	21.51	25.03	28.11	11.30	14.95	17.85	20.21	22.17	11.30	14.95	17.85	20.21	22.17
D-36	WD995	15.60	22.67	29.32	35.62	36.23	13.72	18.90	23.31	27.13	30.46	12.24	16.21	19.35	21.90	24.03	12.24	16.21	19.35	21.90	24.03

\*\*The above chart designates the maximum recommended hole size for the various polycrystalline cores assuming a given reduction angle, bearing length and 20.7% area of reduction.



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