

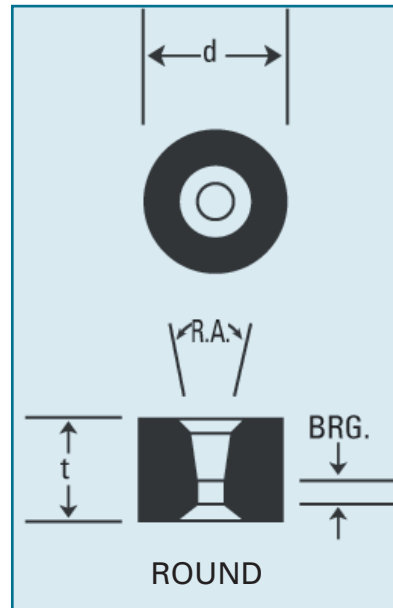
SUMIDIA®

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% 16					30% 20					50% 24				
		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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