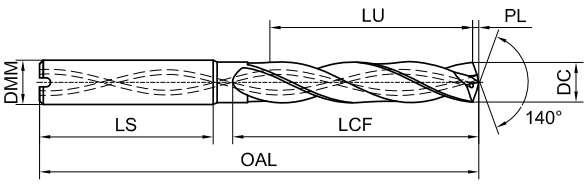
D966-A3C

SHANK DIN 6535HA 3D

3D Internal Coolant Twist Drill for Aluminum Alloy Machining



Order No.	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D966-A3C-0300	3.00	20	62	6	36	15.5	0.55	○
D966-A3C-0310	3.10	20	62	6	36	15.4	0.56	○
D966-A3C-0320	3.20	20	62	6	36	15.2	0.58	○
D966-A3C-0330	3.30	20	62	6	36	15.1	0.60	○
D966-A3C-0340	3.40	20	62	6	36	14.9	0.62	○
D966-A3C-0350	3.50	20	62	6	36	14.8	0.64	○
D966-A3C-0360	3.60	20	62	6	36	14.6	0.66	○
D966-A3C-0370	3.70	20	62	6	36	14.5	0.67	○
D966-A3C-0380	3.80	24	66	6	36	18.3	0.69	○
D966-A3C-0390	3.90	24	66	6	36	18.2	0.71	○
D966-A3C-0400	4.00	24	66	6	36	18.0	0.73	○
D966-A3C-0410	4.10	24	66	6	36	17.9	0.75	○
D966-A3C-0420	4.20	24	66	6	36	17.7	0.76	○
D966-A3C-0430	4.30	24	66	6	36	17.6	0.78	○
D966-A3C-0440	4.40	24	66	6	36	17.4	0.80	○
D966-A3C-0450	4.50	24	66	6	36	17.3	0.82	○
D966-A3C-0460	4.60	24	66	6	36	17.1	0.84	○
D966-A3C-0470	4.70	24	66	6	36	17.0	0.86	○
D966-A3C-0480	4.80	28	66	6	36	20.8	0.87	○
D966-A3C-0490	4.90	28	66	6	36	20.7	0.89	○
D966-A3C-0500	5.00	28	66	6	36	20.5	0.91	○
D966-A3C-0510	5.10	28	66	6	36	20.4	0.93	○
D966-A3C-0520	5.20	28	66	6	36	20.2	0.95	○
D966-A3C-0530	5.30	28	66	6	36	20.1	0.96	○
D966-A3C-0540	5.40	28	66	6	36	19.9	0.98	○
D966-A3C-0550	5.50	28	66	6	36	19.8	1.00	○
D966-A3C-0560	5.60	28	66	6	36	19.6	1.02	○

Order No.	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D966-A3C-0570	5.70	28	66	6	36	19.5	1.04	○
D966-A3C-0580	5.80	28	66	6	36	19.3	1.06	○
D966-A3C-0590	5.90	28	66	6	36	19.2	1.07	○
D966-A3C-0600	6.00	28	66	6	36	19.0	1.09	○
D966-A3C-0610	6.10	34	79	8	36	24.9	1.11	○
D966-A3C-0620	6.20	34	79	8	36	24.7	1.13	○
D966-A3C-0630	6.30	34	79	8	36	24.6	1.15	○
D966-A3C-0640	6.40	34	79	8	36	24.4	1.16	○
D966-A3C-0650	6.50	34	79	8	36	24.3	1.18	○
D966-A3C-0660	6.60	34	79	8	36	24.1	1.20	○
D966-A3C-0670	6.70	34	79	8	36	24.0	1.22	○
D966-A3C-0680	6.80	34	79	8	36	23.8	1.24	○
D966-A3C-0690	6.90	34	79	8	36	23.7	1.26	○
D966-A3C-0700	7.00	34	79	8	36	23.5	1.27	○
D966-A3C-0710	7.10	41	79	8	36	30.4	1.29	○
D966-A3C-0720	7.20	41	79	8	36	30.2	1.31	○
D966-A3C-0730	7.30	41	79	8	36	30.1	1.33	○
D966-A3C-0740	7.40	41	79	8	36	29.9	1.35	○
D966-A3C-0750	7.50	41	79	8	36	29.8	1.36	○
D966-A3C-0755	7.55	41	79	8	36	29.7	1.37	○
D966-A3C-0760	7.60	41	79	8	36	29.6	1.38	○
D966-A3C-0770	7.70	41	79	8	36	29.5	1.40	○
D966-A3C-0780	7.80	41	79	8	36	29.3	1.42	○
D966-A3C-0790	7.90	41	79	8	36	29.2	1.44	○
D966-A3C-0800	8.00	41	79	8	36	29.0	1.46	○
D966-A3C-0810	8.10	47	89	10	40	34.9	1.47	○
D966-A3C-0820	8.20	47	89	10	40	34.7	1.49	○

●Stock ○Available Upon Order

Notes: Non-standard customization is available for D3-D20 tools

Unit (mm)

Workpiece Material

P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<32HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						◎	◎	○	○				

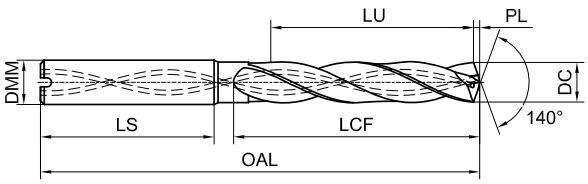
◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P133

D966-A3C

SHANK DIN 6535HA 3D

3D Internal Coolant Twist Drill for Aluminum Alloy Machining



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Order No.	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D966-A3C-0830	8.30	47	89	10	40	34.6	1.51	○
D966-A3C-0840	8.40	47	89	10	40	34.4	1.53	○
D966-A3C-0850	8.50	47	89	10	40	34.3	1.55	○
D966-A3C-0860	8.60	47	89	10	40	34.1	1.57	○
D966-A3C-0870	8.70	47	89	10	40	34.0	1.58	○
D966-A3C-0880	8.80	47	89	10	40	33.8	1.60	○
D966-A3C-0890	8.90	47	89	10	40	33.7	1.62	○
D966-A3C-0900	9.00	47	89	10	40	33.5	1.64	○
D966-A3C-0910	9.10	47	89	10	40	33.4	1.66	○
D966-A3C-0920	9.20	47	89	10	40	33.2	1.67	○
D966-A3C-0930	9.30	47	89	10	40	33.1	1.69	○
D966-A3C-0940	9.40	47	89	10	40	32.9	1.71	○
D966-A3C-0950	9.50	47	89	10	40	32.8	1.73	○
D966-A3C-0960	9.60	47	89	10	40	32.6	1.75	○
D966-A3C-0970	9.70	47	89	10	40	32.5	1.77	○
D966-A3C-0980	9.80	47	89	10	40	32.3	1.78	○
D966-A3C-0990	9.90	47	89	10	40	32.2	1.80	○
D966-A3C-1000	10.00	47	89	10	40	32.0	1.82	○
D966-A3C-1010	10.10	55	102	12	45	39.9	1.84	○
D966-A3C-1020	10.20	55	102	12	45	39.7	1.86	○
D966-A3C-1025	10.25	55	102	12	45	39.6	1.87	○
D966-A3C-1030	10.30	55	102	12	45	39.6	1.87	○
D966-A3C-1035	10.35	55	102	12	45	39.5	1.88	○
D966-A3C-1040	10.40	55	102	12	45	39.4	1.89	○
D966-A3C-1050	10.50	55	102	12	45	39.3	1.91	○
D966-A3C-1060	10.60	55	102	12	45	39.1	1.93	○
D966-A3C-1070	10.70	55	102	12	45	39.0	1.95	○

Order No.	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D966-A3C-1080	10.80	55	102	12	45	38.8	1.97	○
D966-A3C-1090	10.90	55	102	12	45	38.7	1.98	○
D966-A3C-1100	11.00	55	102	12	45	38.5	2.00	○
D966-A3C-1110	11.10	55	102	12	45	38.4	2.02	○
D966-A3C-1120	11.20	55	102	12	45	38.2	2.04	○
D966-A3C-1130	11.30	55	102	12	45	38.1	2.06	○
D966-A3C-1140	11.40	55	102	12	45	37.9	2.07	○
D966-A3C-1150	11.50	55	102	12	45	37.8	2.09	○
D966-A3C-1160	11.60	55	102	12	45	37.6	2.11	○
D966-A3C-1170	11.70	55	102	12	45	37.5	2.13	○
D966-A3C-1180	11.80	55	102	12	45	37.3	2.15	○
D966-A3C-1190	11.90	55	102	12	45	37.2	2.17	○
D966-A3C-1200	12.00	55	102	12	45	37.0	2.18	○
D966-A3C-1210	12.10	60	107	14	45	41.9	2.20	○
D966-A3C-1220	12.20	60	107	14	45	41.7	2.22	○
D966-A3C-1230	12.30	60	107	14	45	41.6	2.24	○
D966-A3C-1250	12.50	60	107	14	45	41.3	2.27	○
D966-A3C-1260	12.60	60	107	14	45	41.1	2.29	○
D966-A3C-1270	12.70	60	107	14	45	41.0	2.31	○
D966-A3C-1280	12.80	60	107	14	45	40.8	2.33	○
D966-A3C-1300	13.00	60	107	14	45	40.5	2.37	○
D966-A3C-1340	13.40	60	107	14	45	39.9	2.44	○
D966-A3C-1350	13.50	60	107	14	45	39.8	2.46	○
D966-A3C-1360	13.60	60	107	14	45	39.6	2.47	○
D966-A3C-1370	13.70	60	107	14	45	39.5	2.49	○
D966-A3C-1380	13.80	60	107	14	45	39.3	2.51	○
D966-A3C-1400	14.00	60	107	14	45	39.0	2.55	○

●Stock ○Available Upon Order

Notes: Non-standard customization is available for D3-D20 tools

Unit (mm)

Workpiece Material												
P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<32HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						◎	◎	○	○				

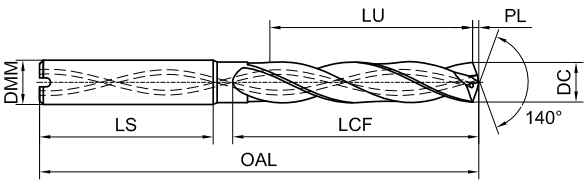
◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P133

D966-A3C

SHANK DIN 6535HA 3D

3D Internal Coolant Twist Drill for Aluminum Alloy Machining



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Order No.	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D966-A3C-1420	14.20	65	115	16	48	43.7	2.58	○
D966-A3C-1430	14.30	65	115	16	48	43.6	2.60	○
D966-A3C-1450	14.50	65	115	16	48	43.3	2.64	○
D966-A3C-1460	14.60	65	115	16	48	43.1	2.66	○
D966-A3C-1470	14.70	65	115	16	48	43.0	2.68	○
D966-A3C-1480	14.80	65	115	16	48	42.8	2.69	○
D966-A3C-1500	15.00	65	115	16	48	42.5	2.73	○
D966-A3C-1520	15.20	65	115	16	48	42.2	2.77	○
D966-A3C-1530	15.30	65	115	16	48	42.1	2.78	○
D966-A3C-1550	15.50	65	115	16	48	41.8	2.82	○
D966-A3C-1570	15.70	65	115	16	48	41.5	2.86	○
D966-A3C-1580	15.80	65	115	16	48	41.3	2.88	○
D966-A3C-1600	16.00	65	115	16	48	41.0	2.91	○
D966-A3C-1650	16.50	73	123	18	48	48.3	3.00	○

Order No.	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D966-A3C-1680	16.80	73	123	18	48	47.8	3.06	○
D966-A3C-1700	17.00	73	123	18	48	47.5	3.09	○
D966-A3C-1750	17.50	73	123	18	48	46.8	3.18	○
D966-A3C-1770	17.70	73	123	18	48	46.5	3.22	○
D966-A3C-1780	17.80	73	123	18	48	46.3	3.24	○
D966-A3C-1800	18.00	73	123	18	48	46.0	3.28	○
D966-A3C-1850	18.50	79	131	20	50	51.3	3.37	○
D966-A3C-1880	18.80	79	131	20	50	50.8	3.42	○
D966-A3C-1900	19.00	79	131	20	50	50.5	3.46	○
D966-A3C-1950	19.50	79	131	20	50	49.8	3.55	○
D966-A3C-1960	19.60	79	131	20	50	49.6	3.57	○
D966-A3C-1980	19.80	79	131	20	50	49.3	3.60	○
D966-A3C-2000	20.00	79	131	20	50	49.0	3.64	○

Unit (mm)

●Stock ○Available Upon Order

Notes: Non-standard customization is available for D3-D20 tools

Range of Sizes	DC(m7)	DMM(h6)
⩾2—3	+0.002/+0.012	0.000/-0.006
>3—6	+0.004/+0.016	0.000/-0.008
>6—10	+0.006/+0.021	0.000/-0.009
>10—18	+0.007/+0.025	0.000/-0.011
>18—20	+0.008/+0.029	0.000/-0.013

Workpiece Material													
P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<32HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						◎	◎	○	○				

◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P133

Recommended Cutting Data

D966 Aluminum Alloy Machining Twist Drill

Workpiece Material		Cutting Speed Vc (m/min)		Feed Fn (mm/rev)				
				Φ3	Φ4	Φ6	Φ8	Φ10
N	Forged Aluminum Alloy (Si<12%)	250-150-80	315-230-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38
	Cast Aluminum Alloy (Si<12%)	230-150-80	315-230-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38
	Cast Aluminum Alloy (Si>12%)	230-150-80	270-180-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38
	Copper, Copper Alloy (＜200HB)	160-120-70	180-135-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38

Workpiece Material		Cutting Speed Vc (m/min)		Feed Fn (mm/rev)				
				Φ12	Φ14	Φ16	Φ18	Φ20
N	Forged Aluminum Alloy (Si<12%)	250-150-80	315-230-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48
	Cast Aluminum Alloy (Si<12%)	230-150-80	315-230-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48
	Cast Aluminum Alloy (Si>12%)	230-150-80	270-180-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48
	Copper, Copper Alloy (＜200HB)	160-120-70	180-135-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48

[Notes]

1. Please use a machine with relatively high rigidity. It is recommended to adopt hydraulic tool holders, thermal expansion tool holders and powerful handles with spring collets.
2. When installing the tool, it is necessary to ensure that the radial bounce of the drill bit tip is less than 0.02mm.
3. This standard cutting condition table is suitable for water-soluble cutting fluids
4. For the tool edge diameter specifications not listed in the table, please refer to the closest edge diameter specifications in the table to select the cutting data. Meanwhile, during the machining process, please adjust the cutting data appropriately according to the actual machining situation.