

BIG KAISER

NEW!



SPHINX HIGH PRECISION CUTTING TOOLS
DRILL SELECTION CHART

										Workpiece Material							
Article	Description	Dia. Range (mm)	Dia. Inc. (mm)	Dia. Tol. (mm)	Cutting Length	Point Angle	Through Coolant	Coating									
									Steel	Stainless Steel	Cast Iron	Nonferrous Metals	Ti/Nickel Alloys	Hardened Steel	Plastic		
Micro Drills (ø≤3mm)																	
	16004	Pilot/Spotting 130°, HSS	.10-1.50	.05	+0.005/0	2-4xd	130°	—	—	✓	•	✓	•				
	56005	Pilot/Spotting 130°, HSS	.10-1.50	.05	+0.005/0	2-4xd	130°	—	—	✓	•	✓	✓	✓	✓	✓	
	56030	Spirec Pilot 2xd	.10-1.00	.01	+0.005/0	2xd	130°	—	—	✓	✓	✓	✓	✓	✓	✓	
	56033	Pilot ø3mm Shank 2xd	.03-2.99	.01	+0.005/0	2xd	130°	—	—	✓	✓	✓	✓	✓	✓	✓	
	55652	Tricut 5xd	.20-2.99	.01	0/- .006	≈5xd	140°	—	—	✓	•	✓	✓	•		•	
	50941	High Performance Phoenix 6xd	.50-2.40	.10	0/- .006	6xd	140°	—	TiAlN	✓	✓	✓	✓	✓	•		
	12604	Spirec 6xd, HSS	.05-3.175	.01	0/- .004	5-8xd	118°	—	—	✓	•	✓	•				
	50695	Spirec Pilot 6xd	.20-1.50	.01	+0.004/0	6-8xd	118°	—	—	✓	•	✓	✓				
	50699	Spirec 6xd	.05-2.00	.01	0/- .004	6-8xd	118°	—	—	✓	•	✓	✓				
	51200	ø3mm Shank 6xd	.03-3.00	.01	0/- .004	≈6xd	130°	—	—	✓	✓	✓	✓	✓		•	
	51201	ø3mm Shank 6xd	.20-3.00	.01	0/- .004	≈6xd	130°	—	TiAlN	✓	✓	✓	✓	✓	•	•	
	50621	ø3mm Shank 12xd	.15-3.00	.01	0/- .006	12xd	130°	—	—	✓	•	✓	✓	✓	•	•	
	50622	ø3mm Shank 12xd	.20-3.00	.01	0/- .006	12xd	130°	—	TiAlN	✓	•	✓	✓	✓	•	•	
	50720	Deep Hole 20xd	.20-1.50	.05	+0.009/+0.005	20xd	129°	—	AlCrN	✓	✓	✓	✓	•	•	•	
	50740	Deep Hole 40xd	.40-1.50	.05	+0.004/0	40xd	126°	—	AlCrN	✓	✓	✓	✓	•	•	•	
	50760	Deep Hole 60xd	.40-1.50	.05	0/- .004	60xd	126°	—	AlCrN	✓	✓	✓	✓	•	•	•	
	50780	Deep Hole 80xd	.40-1.50	.05	0/- .004	80xd	126°	—	AlCrN	✓	✓	✓	✓	•	•	•	
High Performance Drills																	
	56036	Pilot/Step 140°/90°	.30-6.00	.05	+0.008/+0.002	2xd	140°/90°	—	AlCrN	✓	✓	✓	✓	✓	•		
	50938	Phoenix 3xd	1.00-12.70	.10	h6	3xd	140°	>ø2.5mm	AlCrN	✓	✓	✓	•	•	•		
	50940	Phoenix 6xd	1.00-12.70	.05	h6	6xd	140°	Standard	TiAlN	✓	✓	✓	•	•	•		
	50942	Phoenix 12xd	1.00-12.70	.10	h6	12xd	140°	>ø2.5mm	AlCrN	✓	•	✓	•	•	•		
	52903	Phoenix TC2 3xd	1.00-10.00	.05	h6	3xd	140°	Standard	AlTiCrN+S	✓	✓	✓	✓	✓	•	•	
	52906	Phoenix TC2 6xd	1.00-10.00	.05	h6	6xd	140°	Standard	AlTiCrN+S	✓	✓	✓	✓	✓	•	•	
	52909	Phoenix TC2 9xd	1.00-10.00	.10	h6	9xd	140°	Standard	AlTiCrN+S	✓	✓	✓	✓	✓	•	•	
	52912	Phoenix TC2 12xd	1.00-10.00	.10	h6	12xd	137°	Standard	AlCrTiN	✓	✓	✓	✓	✓	•	•	
	52916	Phoenix TC2 16xd	1.00-10.00	.10	h6	16xd	137°	Standard	AlCrTiN	✓	✓	✓	✓	✓	•	•	
	52920	Phoenix TC2 20xd	3.00-10.00	1.00	h6	20xd	137°	Standard	AlCrTiN	✓	✓	•	✓	✓	•	•	
	52930	Phoenix TC2 30xd	3.00-10.00	1.00	h6	30xd	137°	Standard	AlCrTiN	✓	✓	•	✓	✓	•	•	
	52150	Quadro 15 Plus 6xd	4.00-20.00	.50	h6	6xd	140°	Standard	TiAlN	✓		✓	•		•	•	
	52100	Quadro Plus 6xd	3.00-20.00	.50	h6	6xd	140°	Standard	—			✓	✓		•	•	
	52200	Quadro Plus 12xd	3.00-20.00	.50	h6	12xd	140°	Standard	—			✓	✓		•	•	
Twist Drills																	
	50810	Spotting 90°	2.00-20.00	1.00	h6	—	90°	—	—	✓	✓	✓	✓	•		✓	
	50812	Spotting 123°	2.00-20.00	1.00	h6	—	123°	—	—	✓	✓	✓	✓	•		✓	
	50814	Spotting 142°	2.00-20.00	1.00	h6	—	142°	—	—	✓	✓	✓	✓	•		✓	
	50818	Spotting/Chamfering 142°/90°	1.60-12.00	—	—	—	142°/90°	—	—	✓	✓	✓	✓	•		✓	
	50950	Fastcut Pilot 3xd	3.00-20.00	.10	m7	3xd	140°	—	TiAlN	✓	•	✓	•	•	•		
	50830	Posicut 5xd	.30-20.00	.10	h6	≈5xd	118°	—	—	✓	✓	✓	✓	•		✓	
	50838	Spirec 10xd	.30-6.00	.05	h6	≈10xd	118°	—	—	✓	✓	✓	✓	•		✓	
	50820	Spicut 10xd	.70-14.00	.10	h6	≈10xd	130°	—	—	✓		✓	•				
Drill Reamers																	
	50840	Asycut 5xd	2.00-14.00	.10	h6	≈5xd	118°	—	—	•	•	•	✓				
	55654	Tricut 5xd	1.00-14.00	.10	h6	≈5xd	140°	—	—	✓	•	✓	•	•			
	55338	Tricut 10xd	1.00-14.00	.10	h6	≈10xd	140°	—	—	✓	•	✓	•	•			
Micro End Mills																	
	42000	End Mill ø3mm Shank 3xd	.10-3.00	.10	0/- .03	3xd	—	—	—	✓	•	✓	✓	•		•	
	73000	Chamfering Mill 90°	.50-8.00	.50	—	—	90°	—	—	✓	•	✓	✓	•			
	70030	Engraving Mill 30°, Flat Tip	.02-.15	.01	—	—	30°	—	—	✓	✓	✓	✓	✓		✓	
	70040	Engraving Mill 40°, Flat Tip	.02-.15	.01	—	—	40°	—	—	✓	✓	✓	✓	✓		✓	
	70050	Engraving Mill 50°, Flat Tip	.02-.15	.01	—	—	50°	—	—	✓	✓	✓	✓	✓		✓	
	70060	Engraving Mill 60°, Flat Tip	.02-.15	.01	—	—	60°	—	—	✓	✓	✓	✓	✓		✓	
	70090	Engraving Mill 90°, Flat Tip	.02-.15	.01	—	—	90°	—	—	✓	✓	✓	✓	✓		✓	
	70130	Engraving Mill 30°, Radius Tip	.04-.10	.01	—	—	30°	—	—	✓	✓	✓	✓	✓		✓	
	70140	Engraving Mill 40°, Radius Tip	.04-.10	.01	—	—	40°	—	—	✓	✓	✓	✓	✓		✓	
	70150	Engraving Mill 50°, Radius Tip	.04-.10	.01	—	—	50°	—	—	✓	✓	✓	✓	✓		✓	
	70160	Engraving Mill 60°, Radius Tip	.04-.10	.01	—	—	60°	—	—	✓	✓	✓	✓	✓		✓	
	70190	Engraving Mill 90°, Radius Tip	.04-.10	.01	—	—	90°	—	—	✓	✓	✓	✓	✓		✓	

• All diameters manufactured in metric (mm) increments

 Carbide
 High Speed Steel (HSS)
✓ Excellent
• Suitable
 Not Recommended

BIG KAISER Precision Tooling Inc.

A Member of the BIG DAISHOWA Group

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