

# GUHRING



- M42 HSCO (8% cobalt) for optimal performance at high temperatures
- 135° split point per NAS 907 P3 specifications for spot-on accuracy and minimized axial feed forces
- Suitable for general use in the aviation industry on machines or hand drills

## **AeroX** HSCO8-split point drill

GUHRING - YOUR WORLD-WIDE PARTNER

## AeroX HSCO8-split point drill



### 135° split point per NAS 907 P3

Improved 135° split point for accurate drilling without punching or centering:

- minimal feed forces
- reduced radial forces
- small hole tolerances

### Flutes

Specially formed flute for reliable chip formation and evacuation

### Optimized web

Heavily reduced tapered web for additional tool rigidity while maintaining minimal forces



### Surface finish

Bronze oxide surface finish with improved ground surface for rapid chip evacuation

### Tool material

M42 HSCO (8% cobalt) for improved tool life and high thermal resistance enables drilling in difficult-to-machine materials and at higher temperatures



- Standard range
- Ø 1.00 – 13.00 mm
- Stocked in Germany



## AeroX split point drills

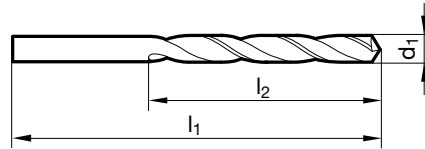


- P** ● Web thinning  $\geq \varnothing 1.000$  • split point per NAS 907 P3 • M42 HSCO (8% cobalt) for maximum tool life, high thermal resistance and hardness
- M** ●
- K** ●
- N** ● Unalloyed and high-alloyed steel materials • cast iron and non-ferrous materials • titanium • titanium-alloys
- S** ●
- H** ○

Tool material **M42**

Surface finish Bronze Oxide

Cutting direction (R)



AeroX drills are stocked in Germany

Series no. **1018**

d1	d1	l1	l2	EDP No.	d1	d1	l1	l2	EDP No.
mm	inch	mm	mm		mm	inch	mm	mm	
1.00		34.00	12.00	9010180010000	4.10		75.00	43.00	9010180041000
1.10		36.00	14.00	9010180011000	4.20		75.00	43.00	9010180042000
1.20		38.00	16.00	9010180012000	4.30		80.00	47.00	9010180043000
1.30		38.00	16.00	9010180013000	4.40		80.00	47.00	9010180044000
1.40		40.00	18.00	9010180014000	4.50		80.00	47.00	9010180045000
1.50		40.00	18.00	9010180015000	4.60		80.00	47.00	9010180046000
1.59	1/16	43.00	20.00	9010180015900	4.70		80.00	47.00	9010180047000
1.60		43.00	20.00	9010180016000	4.76	3/16	86.00	52.00	9010180047600
1.70		43.00	20.00	9010180017000	4.80		86.00	52.00	9010180048000
1.80		46.00	22.00	9010180018000	4.85		86.00	52.00	9010180048500
1.90		46.00	22.00	9010180019000	4.90		86.00	52.00	9010180049000
1.98	5/64	49.00	24.00	9010180019800	5.00		86.00	52.00	9010180050000
2.00		49.00	24.00	9010180020000	5.10		86.00	52.00	9010180051000
2.10		49.00	24.00	9010180021000	5.16	13/64	86.00	52.00	9010180051600
2.20		53.00	27.00	9010180022000	5.20		86.00	52.00	9010180052000
2.30		53.00	27.00	9010180023000	5.30		86.00	52.00	9010180053000
2.38	3/32	57.00	30.00	9010180023800	5.40		93.00	57.00	9010180054000
2.40		57.00	30.00	9010180024000	5.50		93.00	57.00	9010180055000
2.50		57.00	30.00	9010180025000	5.56	7/32	93.00	57.00	9010180055600
2.60		57.00	30.00	9010180026000	5.60		93.00	57.00	9010180056000
2.70		61.00	33.00	9010180027000	5.70		93.00	57.00	9010180057000
2.78	7/64	61.00	33.00	9010180027800	5.80		93.00	57.00	9010180058000
2.80		61.00	33.00	9010180028000	5.90		93.00	57.00	9010180059000
2.90		61.00	33.00	9010180029000	5.95	15/64	93.00	57.00	9010180059500
3.00		61.00	33.00	9010180030000	6.00		93.00	57.00	9010180060000
3.10		65.00	36.00	9010180031000	6.10		101.00	63.00	9010180061000
3.17	1/8	65.00	36.00	9010180031700	6.20		101.00	63.00	9010180062000
3.20		65.00	36.00	9010180032000	6.30		101.00	63.00	9010180063000
3.25		65.00	36.00	9010180032500	6.35	1/4	101.00	63.00	9010180063500
3.30		65.00	36.00	9010180033000	6.40		101.00	63.00	9010180064000
3.40		70.00	39.00	9010180034000	6.50		101.00	63.00	9010180065000
3.50		70.00	39.00	9010180035000	6.60		101.00	63.00	9010180066000
3.57	9/64	70.00	39.00	9010180035700	6.70		101.00	63.00	9010180067000
3.60		70.00	39.00	9010180036000	6.80		109.00	69.00	9010180068000
3.70		70.00	39.00	9010180037000	6.90		109.00	69.00	9010180069000
3.80		75.00	43.00	9010180038000	7.00		109.00	69.00	9010180070000
3.90		75.00	43.00	9010180039000	7.10		109.00	69.00	9010180071000
3.97	5/32	75.00	43.00	9010180039700	7.14	9/32	109.00	69.00	9010180071400
4.00		75.00	43.00	9010180040000	7.20		109.00	69.00	9010180072000



d1	d1	l1	l2	EDP No.	d1	d1	l1	l2	EDP No.
mm	inch	mm	mm		mm	inch	mm	mm	
7.30		109.00	69.00	9010180073000	9.52	3/8	133.00	87.00	9010180095200
7.40		109.00	69.00	9010180074000	9.60		133.00	87.00	9010180096000
7.50		109.00	69.00	9010180075000	9.70		133.00	87.00	9010180097000
7.54	19/64	117.00	75.00	9010180075400	9.80		133.00	87.00	9010180098000
7.60		117.00	75.00	9010180076000	9.90		133.00	87.00	9010180099000
7.70		117.00	75.00	9010180077000	9.92	25/64	133.00	87.00	9010180099200
7.80		117.00	75.00	9010180078000	10.00		133.00	87.00	9010180100000
7.90		117.00	75.00	9010180079000	10.10		133.00	87.00	9010180101000
7.94	5/16	117.00	75.00	9010180079400	10.20		133.00	87.00	9010180102000
8.00		117.00	75.00	9010180080000	10.30		133.00	87.00	9010180103000
8.10		117.00	75.00	9010180081000	10.32	13/32	133.00	87.00	9010180103200
8.20		117.00	75.00	9010180082000	10.50		133.00	87.00	9010180105000
8.30		117.00	75.00	9010180083000	10.72	27/64	142.00	94.00	9010180107200
8.33	21/64	117.00	75.00	9010180083300	10.80		142.00	94.00	9010180108000
8.40		117.00	75.00	9010180084000	11.00		142.00	94.00	9010180110000
8.50		117.00	75.00	9010180085000	11.11	7/16	142.00	94.00	9010180111100
8.60		125.00	81.00	9010180086000	11.50		142.00	94.00	9010180115000
8.70		125.00	81.00	9010180087000	11.51	29/64	142.00	94.00	9010180115100
8.73	11/32	125.00	81.00	9010180087300	11.91	15/32	151.00	101.00	9010180119100
8.80		125.00	81.00	9010180088000	12.00		151.00	101.00	9010180120000
8.90		125.00	81.00	9010180089000	12.20		151.00	101.00	9010180122000
9.00		125.00	81.00	9010180090000	12.30	31/64	151.00	101.00	9010180123000
9.10		125.00	81.00	9010180091000	12.50		151.00	101.00	9010180125000
9.13	23/64	125.00	81.00	9010180091300	12.70	1/2	151.00	101.00	9010180127000
9.20		125.00	81.00	9010180092000	12.80		151.00	101.00	9010180128000
9.30		125.00	81.00	9010180093000	13.00		151.00	101.00	9010180130000
9.50		125.00	81.00	9010180095000					

AeroX drills are stocked in Germany

Material group	Hardness		SFM	Feed Rate - IPR									
	HRC	BHN		1/64 in. .5 mm	1/16 in. 1.59 mm	1/8 in. 3.17 mm	1/4 in. 6.35 mm	3/8 in. 9.52 mm	1/2 in. 12.70 mm	5/8 in. 15.87 mm	3/4 in. 19.05 mm	1 in. 25.4 mm	
Common structural steels	-	≤ 150	115	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
	≤ 32	≤ 301	100	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
Free-cutting steels	≤ 25	≤ 255	130	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
	≤ 32	≤ 301	130	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
Unalloyed heat-treatable steels	≤ 20	≤ 220	130	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
	≤ 25	≤ 255	130	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
	≤ 32	≤ 301	115	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079			
Alloyed heat-treatable steels	≤ 32	≤ 301	65	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079			
	≤ 43	≤ 402	50	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
Unalloyed case hardened steels	≤ 25	≤ 255	120	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
Alloyed case hardened steels	≤ 32	≤ 301	65	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
	≤ 43	≤ 402	50	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
Nitriding steels	≤ 32	≤ 301	50	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079			
	≤ 43	≤ 402	40	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
Tool steels	≤ 25	≤ 255	50	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
	≤ 43	≤ 402	40	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
High speed steels	≤ 43	≤ 402	50	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
Spring steels	≤ 38	≤ 354	25	0.0002	0.0003	0.0016	0.0025	0.0039	0.0039	0.0049			
Stainless steels	≤ 28	≤ 273	60	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
	≤ 36	≤ 337	45	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
	≤ 46	≤ 435	50	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
Hardened steels	≤ 48	≤ 460	15	0.0002	0.0002	0.0013	0.0020	0.0031	0.0031	0.0039			
	≤ 66	-	-	-	-	-	-	-	-	-			
Special alloys	≤ 54	≤ 549	25	0.0002	0.0002	0.0013	0.0020	0.0031	0.0031	0.0039			
Cast iron	≤ 23	≤ 242	115	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
	≤ 38	≤ 354	100	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
Spheroidal graphite iron and malleable cast iron	≤ 23	≤ 242	100	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
	≤ 38	≤ 354	90	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
Chilled cast iron	≤ 38	≤ 354	35	0.0003	0.0005	0.0020	0.0031	0.0049	0.0049	0.0063			
Ti and Ti-alloys	≤ 25	≤ 255	35	0.0002	0.0003	0.0016	0.0025	0.0039	0.0039	0.0049			
	≤ 43	≤ 402	20	0.0002	0.0003	0.0016	0.0025	0.0039	0.0039	0.0049			
Aluminum and Al-alloys	-	≤ 120	295	0.0006	0.0008	0.0049	0.0079	0.0124	0.0124	0.0157			
Al wrought alloys	-	≤ 200	295	0.0006	0.0008	0.0049	0.0079	0.0124	0.0124	0.0157			
Al cast alloys	≤ 10% Si	≤ 180	260	0.0006	0.0008	0.0049	0.0079	0.0124	0.0124	0.0157			
	≤ 24% Si	≤ 180	230	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
Magnesium alloys	-	≤ 120	230	0.0005	0.0007	0.0039	0.0063	0.0098	0.0098	0.0124			
Copper	low-alloyed	≤ 150	230	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
	short-chipping	≤ 180	195	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
Brass	long-chipping	≤ 180	130	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
Bronze	short-chipping	≤ 180	115	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079			
	long-chipping	≤ 25	≤ 255	110	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079		
Bronze	long-chipping	≤ 25	≤ 255	65	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079		
	long-chipping	≤ 32	≤ 301	50	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079		
Duroplastics	-	-	65	0.0003	0.0006	0.0025	0.0039	0.0063	0.0063	0.0079			
Thermoplastics	-	-	100	0.0004	0.0006	0.0031	0.0049	0.0079	0.0079	0.0098			
New cast materials GGV	≤ 20	≤ 220											
New cast materials ADI	≤ 32	≤ 301											
Kevlar	-	-											
Glass, carbon concentrated plastics	-	-											

Item #400001292