

NAS-Type Aircraft Extension Styles 906, 912

Features/Benefits:

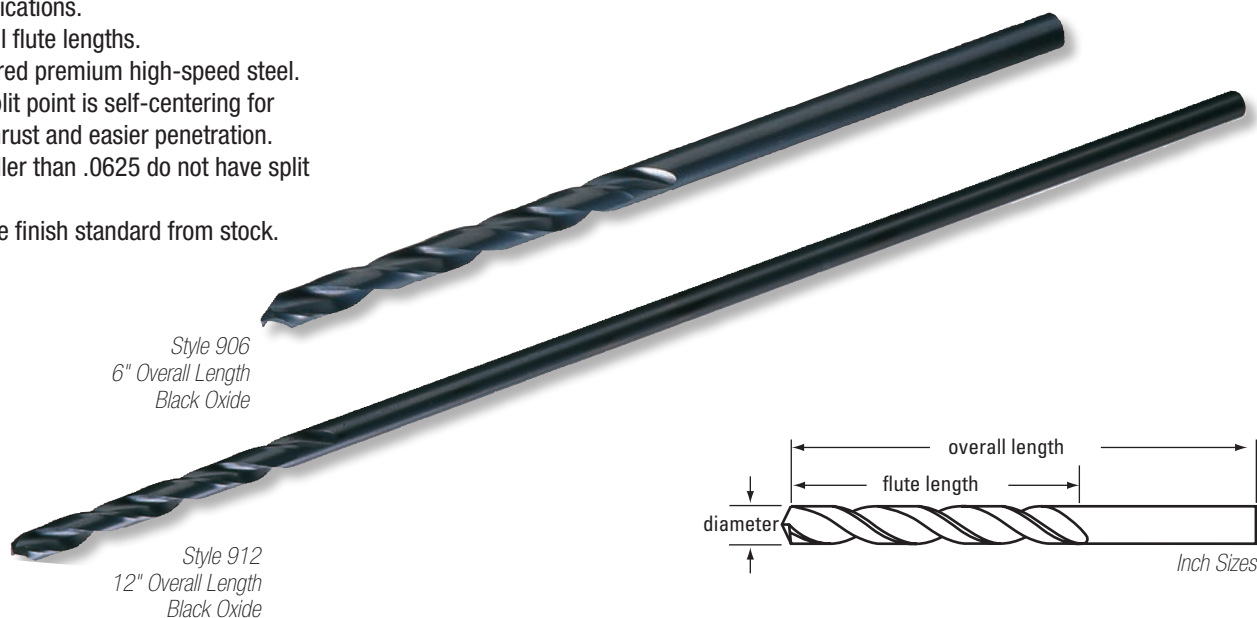
- Manufactured to NAS 907 Type B geometry aerospace specifications.
- 6" and 12" extended shanks for long-reach applications.
- Jobber drill flute lengths.
- Manufactured premium high-speed steel.
- 135° P3 split point is self-centering for reduced thrust and easier penetration. Sizes smaller than .0625 do not have split points.
- Black oxide finish standard from stock.

Application Information:

- carbon steel
- alloy steel
- cast iron

Surface Treatment Information:

- Black oxide finish provides increased wear resistance and added lubricity in ferrous materials.



INCH SIZES

Drill Diameter				Flute Length		Style 906 6" OAL Black Oxide	Style 912 12" OAL Black Oxide
Fraction	Wire/Let	Decimal	mm	Inch	mm		
	60	.0400	1.02	.6875	17.46	11090	11184
	59	.0410	1.04	.6875	17.46	11089	11183
	58	.0420	1.07	.6875	17.46	11088	11182
	57	.0430	1.09	.7500	19.05	11087	11181
	56	.0465	1.18	.7500	19.05	11086	11180
3/64		.0469	1.19	.7500	19.05	11000	11095
	55	.0520	1.32	.8750	22.23	11085	11179
	54	.0550	1.40	.8750	22.23	11084	11178
	53	.0595	1.51	.8750	22.23	11083	11177
1/16		.0625	1.59	.8750	22.23	11001	11096
	52	.0635	1.61	.8750	22.23	11082	11176
	51	.0670	1.70	1.0000	25.40	11081	11175
	50	.0700	1.78	1.0000	25.40	11080	11174
	49	.0730	1.85	1.0000	25.40	11079	11173
	48	.0760	1.93	1.0000	25.40	11078	11172
5/64		.0781	1.98	1.0000	25.40	11002	11097
	47	.0785	1.99	1.0000	25.40	11077	11171
	46	.0810	2.06	1.1250	28.58	11076	11170
	45	.0820	2.08	1.1250	28.58	11075	11169
	44	.0860	2.18	1.1250	28.58	11074	11168
	43	.0890	2.26	1.2500	31.75	11073	11167
	42	.0935	2.37	1.2500	31.75	11072	11166
3/32		.0938	2.38	1.2500	31.75	11003	11098
	41	.0960	2.44	1.3750	34.93	11071	11165

Sizes smaller than .0625 do not have split points.

continued on next page

NAS-Type Aircraft Extension (continued) Styles 906, 912

INCH SIZES

Drill Diameter		Flute Length				Style 906	Style 912
Fraction	Wire/Let	Decimal	mm	Inch	mm	6" OAL Black Oxide	12" OAL Black Oxide
	40	.0980	2.49	1.3750	34.93	11070	11164
	39	.0995	2.53	1.3750	34.93	11069	11163
	38	.1015	2.58	1.4375	36.51	11068	11162
	37	.1040	2.64	1.4375	36.51	11067	11161
	36	.1065	2.71	1.4375	36.51	11066	11160
7/64		.1094	2.78	1.5000	38.10	11004	11099
	35	.1100	2.79	1.5000	38.10	11065	11159
	34	.1110	2.82	1.5000	38.10	11064	11158
	33	.1130	2.87	1.5000	38.10	11063	11157
	32	.1160	2.95	1.6250	41.28	11062	11156
	31	.1200	3.05	1.6250	41.28	11061	11155
1/8		.1250	3.18	1.6250	41.28	11005	11100
	30	.1285	3.26	1.6250	41.28	11060	11154
	29	.1360	3.45	1.7500	44.45	11059	11153
	28	.1405	3.57	1.7500	44.45	11058	11152
9/64		.1406	3.57	1.7500	44.45	11006	11101
	27	.1440	3.66	1.8750	47.63	11057	11151
	26	.1470	3.73	1.8750	47.63	11056	11150
	25	.1495	3.80	1.8750	47.63	11055	11149
	24	.1520	3.86	2.0000	50.80	11054	11148
	23	.1540	3.91	2.0000	50.80	11053	11147
5/32		.1562	3.97	2.0000	50.80	11007	11102
	22	.1570	3.99	2.0000	50.80	11052	11146
	21	.1590	4.04	2.1250	53.98	11051	11145
	20	.1610	4.09	2.1250	53.98	11050	11144
	19	.1660	4.22	2.1250	53.98	11049	11143
	18	.1695	4.31	2.1250	53.98	11048	11142
11/64		.1719	4.37	2.1250	53.98	11008	11103
	17	.1730	4.39	2.1875	55.56	11047	11141
	16	.1770	4.50	2.1875	55.56	11046	11140
	15	.1800	4.57	2.1875	55.56	11045	11139
	14	.1820	4.62	2.1875	55.56	11044	11138
	13	.1850	4.70	2.3125	58.74	11043	11137
3/16		.1875	4.76	2.3125	58.74	11009	11104
	12	.1890	4.80	2.3125	58.74	11042	11136
	11	.1910	4.85	2.3125	58.74	11041	11135
	10	.1935	4.91	2.4375	61.91	11040	11134
	9	.1960	4.98	2.4375	61.91	11039	11133
	8	.1990	5.05	2.4375	61.91	11038	11132
	7	.2010	5.11	2.4375	61.91	11037	11131
13/64		.2031	5.16	2.4375	61.91	11010	11105
	6	.2040	5.18	2.5000	63.50	11036	11130
	5	.2055	5.22	2.5000	63.50	11035	11129
	4	.2090	5.31	2.5000	63.50	11034	11128
	3	.2130	5.41	2.5000	63.50	11033	11127
7/32		.2188	5.56	2.5000	63.50	11011	11106
	2	.2210	5.61	2.6250	66.68	11032	11126
	1	.2280	5.79	2.6250	66.68	11031	11125
15/64		.2344	5.95	2.6250	66.68	11012	11107
1/4	E	.2500	6.35	2.7500	69.85	11013	11108
	F	.2570	6.53	2.8750	73.03	11255	11225

continued on next page

NAS-Type Aircraft Extension (continued) Styles 906, 912

INCH SIZES

Drill Diameter		Flute Length				Style 906	Style 912
Fraction	Wire/Let	Decimal	mm	Inch	mm	6" OAL Black Oxide	12" OAL Black Oxide
17/64		.2656	6.75	2.8750	73.03	11014	11109
	I	.2720	6.91	2.8750	73.03	—	11228
9/32		.2812	7.14	2.9375	74.61	11016	11110
19/64		.2969	7.54	3.0625	77.79	11017	11111
5/16		.3125	7.94	3.1875	80.96	11018	11112
	O	.3160	8.03	3.1875	80.96	—	11234
21/64		.3281	8.33	3.3125	84.14	11019	11113
11/32		.3438	8.73	3.4375	87.31	11020	11114
23/64		.3594	9.13	3.5000	88.90	11021	11115
3/8		.3750	9.53	3.6250	92.08	11022	11116
	V	.3770	9.58	3.6250	92.08	11271	11241
25/64		.3906	9.92	3.7500	95.25	11023	11117
	Y	.4040	10.26	3.8750	98.43	—	11243
13/32		.4062	10.32	3.8750	98.43	11024	11118
27/64		.4219	10.72	3.9375	100.01	11025	11119
7/16		.4375	11.11	4.0625	103.19	11026	11120
29/64		.4531	11.51	4.1875	106.36	11027	11121
15/32		.4688	11.91	4.3125	109.54	11028	11122
31/64		.4844	12.30	4.3750	111.13	11029	11123
1/2		.5000	12.70	4.5000	114.30	11030	11124

TECH TIP

Drill Specifications

More different specifications are showing up in manufacturing prints in the USA. To help clarify abbreviations see the explanations below.

•ASME/USCTI

USA tool standards. American Society of Mechanical Engineering / United States Cutting Tool Institute, all standards are specified in the imperial measurement (inches).

•DIN

German standard. Deutsches Institut Fur Normung / German Institute for Standard, all measurements are to the metric system.

•JIS

Japanese standard. Japanese Industrial Standard, all measurements are to the metric system

•ISO

Global standard. International Standardization Organization, all measurements are to the metric system.

Other countries have their own standards that would relate to specific products such as aircraft and automotive. In the USA other standards, including NAS (National Aero Space) and SAE (Society of Automotive Engineers), are related to those types of industries.

Here are some examples of differences in metric jobber drills versus inch jobber drills.

1) A metric drill OAL is measured from back of shank to point tip; an inch drill is measured from back of shank to point shoulder.

2) OAL and flute length of a standard DIN 338 jobber drill can be shorter than an inch jobber drill. The flute length in particular should be noted when using an inch drill bushing. The shorter flutes could end inside the bushing, preventing chip evacuation.

3) Metric drill OD tolerances are measured in lower case letters such as h8; inch sizes would be +. 0 to a minus tolerance.

4) Metric tangs are sized differently and will not fit into an inch collet.