

Screw Machine Length Drills

List No. SM02H10 -- M2 Black & Bronze Finish



List No. SM35G10 -- HSS M35 Cobalt Golden Finish



List No. SM02B10 -- HSS M2 Black Oxide Finish



List No. SM42G10 -- HSS M42 Cobalt Golden Finish



Features

- * Precision ground to insure concentricity of tip & body
- * Smooth flutes & special surface treated for effective chip flow
- * Penetrates faster with less pressure
- * Premium quality high speed steel, special heat treatment to remain sharper edges, & reduce wear
- * Self-feeding point, unique flute design and industrial heavy duty web can drill faster, cool, longer!
- * Cobalt drills have extremely heat resistant
- * Special bronze-oxide, Tin-Coated, Black Oxide, and bright surface treatment
- * 3-Equal Flat on shank is for positive holding in 3-Jaw Chucks
- * All dimensional & element tolerances conform to one of ASME/ANSI B94.11M, NAS 907 - National Aerospace Standard USCTI - United States Cutting Tool Institute (formerly MCTI)



Design Features

* Shank Specification

Drill Size	Shk Dia	Shk Length
Up to 1" inclusive	Same as drill	
Over 1" to 1-1/16"	1"	2"
Over 1-1/16" to 1-1/4"	1"	2-1/4"
Over 1-1/4" to 1-1/2"	1-1/4"	2-1/2"
Over 1-1/2"	1-1/2"	2-1/2"

- * For sizes under 3/32", a chamfer or male point may be used on end of shank
- * Chamfer sizes 3/32" and larger at the end of shank
- * Fully ground drills are also available up to 1" as requests

Application

- * Screw Machine drills are popular in the automotive & construction industries. The short flute & overall length provide maximum rigidity. They are often used in screw machine set-up where spindle clearance is limited.
- * 118° allows easier penetration, & 135° Split Point is used with heavier feeds in harder materials
- * 135° Split Point is popular in hand held drilling to reduce breakage & eliminate skidding or walking
- * Cobalt drills display higher red hardness & are especially effective in drilling hard/abrasive materials

Drills available

Sizes: 3/64" to 2-1/2" with fully ground, HSS M2
 Standard Drills are Right Hand. Left hand & Parabolic flutes are available as custom request
 Drill Sets & Custom Package are available

Material: M2, M35, M42 cobalt HSS

How to Order

When order drills, please specify material, diameter, cut direction, surface finish, shank style, chisel point angle.

Fractional Sizes

Size	Dec. Equiv	Flute Length	Overall Length	List No
3/64"	0.0469	1/2"	1-3/8"	R/L003
1/16"	0.0625	5/8"	1-5/8"	R/L004
5/64"	0.0781	11/16"	1-11/16"	R/L005
3/32"	0.0938	3/4"	1-3/4"	R/L006
7/64"	0.1094	13/16"	1-13/16"	R/L007
1/8"	0.1250	7/8"	1-7/8"	R/L008

Size	Dec. Equiv	Flute Length	Overall Length	List No
53/64"	0.8281	3-1/2"	5-3/8"	R/L053
27/32"	0.8438	3-1/2"	5-3/8"	R/L054
55/64"	0.8594	3-1/2"	5-1/2"	R/L055
7/8"	0.8750	3-1/2"	5-1/2"	R/L056
57/64"	0.8906	3-5/8"	5-5/8"	R/L057
29/32"	0.9062	3-5/8"	5-5/8"	R/L058

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Fractional Sizes

Size	Dec. Equiv	Flute Length	Overall Length	List No	Size	Dec. Equiv	Flute Length	Overall Length	List No
9/64"	0.1406	15/16"	1-15/16"	R/L009	59/64"	0.9219	3-3/4"	5-3/4"	R/L059
5/32"	0.1562	1"	2-1/16"	R/L010	15/16"	0.9375	3-3/4"	5-3/4"	R/L060
11/64"	0.1719	1-1/16"	2-1/8"	R/L011	61/64"	0.9531	3-7/8"	5-7/8"	R/L061
3/16"	0.1875	1-1/8"	2-3/16"	R/L012	31/32"	0.9688	3-7/8"	5-7/8"	R/L062
13/64"	0.2031	1-3/16"	2-1/4"	R/L013	63/64"	0.9844	4"	6"	R/L063
7/32"	0.2188	1-1/4"	2-3/8"	R/L014	1"	1.0000	4"	6"	R/L100
15/64"	0.2344	1-5/16"	2-7/16"	R/L015	1-1/32"	1.0312	4"	6-1/4"	R/L102
1/4"	0.2500	1-3/8"	2-1/2"	R/L016	1-1/16"	1.0625	4"	6-1/4"	R/L104
17/64"	0.2656	1-7/16"	2-5/8"	R/L017	1-3/32"	1.0938	4"	6-3/8"	R/L106
9/32"	0.2812	1-1/2"	2-11/16"	R/L018	1-1/8"	1.1250	4"	6-3/8"	R/L108
19/64"	0.2969	1-9/16"	2-3/4"	R/L019	1-5/32"	1.1562	4-1/4"	6-5/8"	R/L110
5/16"	0.3125	1-5/8"	2-13/16"	R/L020	1-3/16"	1.1875	4-1/4"	6-5/8"	R/L112
21/64"	0.3281	1-11/16"	2-15/16"	R/L021	1-7/32"	1.2188	4-3/8"	6-3/4"	R/L114
11/32"	0.3438	1-11/16"	3"	R/L022	1-1/4"	1.2500	4-3/8"	6-3/4"	R/L116
23/64"	0.3594	1-3/4"	3-1/16"	R/L023	1-9/32"	1.2812	4-3/8"	7"	R/L118
3/8"	0.3750	1-13/16"	3-1/8"	R/L024	1-5/16"	1.3125	4-3/8"	7"	R/L120
25/64"	0.3906	1-7/8"	3-1/4"	R/L025	1-11/32"	1.3438	4-1/2"	7-1/8"	R/L122
13/32"	0.4062	1-15/16"	3-5/16"	R/L026	1-3/8"	1.3750	4-1/2"	7-1/8"	R/L124
27/64"	0.4219	2"	3-3/8"	R/L027	1-13/32"	1.4062	4-3/4"	7-3/8"	R/L126
7/16"	0.4375	2-1/16"	3-7/16"	R/L028	1-7/16"	1.4375	4-3/4"	7-3/8"	R/L128
29/64"	0.4531	2-1/8"	3-9/16"	R/L029	1-15/32"	1.4688	4-7/8"	7-1/2"	R/L130
15/32"	0.4688	2-1/8"	3-5/8"	R/L030	1-1/2"	1.5000	4-7/8"	7-1/2"	R/L132
31/64"	0.4844	2-3/16"	3-11/16"	R/L031	1-17/32"	1.5312	4-7/8"	7-3/4"	R/L134
1/2"	0.5000	2-1/4"	3-3/4"	R/L032	1-9/16"	1.5625	4-7/8"	7-3/4"	R/L136
33/64"	0.5156	2-3/8"	3-7/8"	R/L033	1-19/32"	1.5938	4-7/8"	7-3/4"	R/L138
17/32"	0.5312	2-3/8"	3-7/8"	R/L034	1-5/8"	1.6250	4-7/8"	7-3/4"	R/L140
35/64"	0.5469	2-1/2"	4"	R/L035	1-21/32"	1.6562	5-1/8"	8"	R/L142
9/16"	0.5625	2-1/2"	4"	R/L036	1-11/16"	1.6875	5-1/8"	8"	R/L144
37/64"	0.5781	2-5/8"	4-1/8"	R/L037	1-23/32"	1.7188	5-1/8"	8"	R/L146
19/32"	0.5938	2-5/8"	4-1/8"	R/L038	1-3/4"	1.7500	5-1/8"	8"	R/L148
39/64"	0.6094	2-3/4"	4-1/4"	R/L039	1-25/32"	1.7812	5-3/8"	8-1/4"	R/L150
5/8"	0.6250	2-3/4"	4-1/4"	R/L040	1-13/16"	1.8125	5-3/8"	8-1/4"	R/L152
41/64"	0.6406	2-7/8"	4-1/2"	R/L041	1-27/32"	1.8438	5-3/8"	8-1/4"	R/L154
21/32"	0.6562	2-7/8"	4-1/2"	R/L042	1-7/8"	1.8750	5-3/8"	8-1/4"	R/L156
43/64"	0.6719	2-7/8"	4-5/8"	R/L043	1-29/32"	1.9062	5-5/8"	8-1/2"	R/L158
11/16"	0.6875	2-7/8"	4-5/8"	R/L044	1-15/16"	1.9375	5-5/8"	8-1/2"	R/L160
45/64"	0.7031	3"	4-3/4"	R/L045	2"	2.0000	5-5/8"	8-1/2"	R/L200
23/32"	0.7188	3"	4-3/4"	R/L046	2-1/16"	2.0625	5-5/8"	8-1/2"	R/L204
47/64"	0.7344	3-1/8"	5"	R/L047	2-1/8"	2.1250	5-5/8"	8-1/2"	R/L208
3/4"	0.7500	3-1/8"	5"	R/L048	2-3/16"	2.1875	5-5/8"	8-1/2"	R/L212
49/64"	0.7656	3-1/4"	5-1/8"	R/L049	2-1/4"	2.2500	5-5/8"	8-1/2"	R/L216
25/32"	0.7812	3-1/4"	5-1/8"	R/L050	2-3/8"	2.3750	5-5/8"	8-1/2"	R/L224
51/64"	0.7969	3-3/8"	5-1/4"	R/L051	2-1/2"	2.5000	5-5/8"	8-1/2"	R/L232
13/16"	0.8125	3-3/8"	5-1/4"	R/L052					

Wire Gauge Sizes

Size	Dec. Equiv	Flute Length	Overall Length	List No	Size	Dec. Equiv	Flute Length	Overall Length	List No
1	0.2280	1-5/16"	2-7/16"	RN01	31	0.1200	7/8"	1-7/8"	RN31
2	0.2210	1-5/16"	2-7/16"	RN02	32	0.1160	7/8"	1-7/8"	RN32

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Size	Dec. Equiv	Flute Length	Overall Length	List No
3	0.2130	1-1/4"	2-3/8"	RN03
4	0.2090	1-1/4"	2-3/8"	RN04
5	0.2055	1-1/4"	2-3/8"	RN05
6	0.2040	1-1/4"	2-3/8"	RN06
7	0.2010	1-3/16"	2-1/4"	RN07
8	0.1990	1-3/16"	2-1/4"	RN08
9	0.1960	1-3/16"	2-1/4"	RN09
10	0.1935	1-3/16"	2-1/4"	RN10
11	0.1910	1-3/16"	2-1/4"	RN11
12	0.1890	1-3/16"	2-1/4"	RN12
13	0.1850	1-1/8"	2-3/16"	RN13
14	0.1820	1-1/8"	2-3/16"	RN14
15	0.1800	1-1/8"	2-3/16"	RN15
16	0.1770	1-1/8"	2-3/16"	RN16
17	0.1730	1-1/8"	2-3/16"	RN17
18	0.1695	1-1/16"	2-1/8"	RN18
19	0.1660	1-1/16"	2-1/8"	RN19
20	0.1610	1-1/16"	2-1/8"	RN20
21	0.1590	1-1/16"	2-1/8"	RN21
22	0.1570	1-1/16"	2-1/8"	RN22
23	0.1540	1"	2-1/16"	RN23
24	0.1520	1"	2-1/16"	RN24
25	0.1495	1"	2-1/16"	RN25
26	0.1470	1"	2-1/16"	RN26
27	0.1440	1"	2-1/16"	RN27
28	0.1405	15/16"	1-15/16"	RN28
29	0.1360	15/16"	1-15/16"	RN29
30	0.1285	15/16"	1-15/16"	RN30

Size	Dec. Equiv	Flute Length	Overall Length	List No
33	0.1130	7/8"	1-7/8"	RN33
34	0.1110	7/8"	1-7/8"	RN34
35	0.1100	7/8"	1-7/8"	RN35
36	0.1065	13/16"	1-13/16"	RN36
37	0.1040	13/16"	1-13/16"	RN37
38	0.1015	13/16"	1-13/16"	RN38
39	0.0995	13/16"	1-13/16"	RN39
40	0.0980	13/16"	1-13/16"	RN40
41	0.0960	13/16"	1-13/16"	RN41
42	0.0935	3/4"	1-3/4"	RN42
43	0.0890	3/4"	1-3/4"	RN43
44	0.0860	3/4"	1-3/4"	RN44
45	0.0820	3/4"	1-3/4"	RN45
46	0.0810	3/4"	1-3/4"	RN46
47	0.0785	11/16"	1-11/16"	RN47
48	0.0760	11/16"	1-11/16"	RN48
49	0.0730	11/16"	1-11/16"	RN49
50	0.0700	11/16"	1-11/16"	RN50
51	0.0670	11/16"	1-11/16"	RN51
52	0.0635	11/16"	1-11/16"	RN52
53	0.0595	5/8"	1-5/8"	RN53
54	0.0550	5/8"	1-5/8"	RN54
55	0.0520	5/8"	1-5/8"	RN55
56	0.0465	1/2"	1-3/8"	RN56
57	0.0430	1/2"	1-3/8"	RN57
58	0.0420	1/2"	1-3/8"	RN58
59	0.0410	1/2"	1-3/8"	RN59
60	0.0400	1/2"	1-3/8"	RN60

Letter Sizes

Size	Dec. Equiv	Flute Length	Overall Length	List No
A	0.2340	1-5/16"	2-7/16"	RL0A
B	0.2380	1-3/8"	2-1/2"	RL0B
C	0.2420	1-3/8"	2-1/2"	RL0C
D	0.2460	1-3/8"	2-1/2"	RL0D
E	0.2500	1-3/8"	2-1/2"	RL0E
F	0.2570	1-7/16"	2-5/8"	RL0F
G	0.2610	1-7/16"	2-5/8"	RL0G
H	0.2660	1-1/2"	2-11/16"	RL0H
I	0.2720	1-1/2"	2-11/16"	RL0I
J	0.2770	1-1/2"	2-11/16"	RL0J
K	0.2810	1-1/2"	2-11/16"	RL0K
L	0.2900	1-9/16"	2-3/4"	RL0L
M	0.2950	1-9/16"	2-3/4"	RL0M

Size	Dec. Equiv	Flute Length	Overall Length	List No
N	0.3020	1-5/8"	2-13/16"	RL0N
O	0.3160	1-11/16"	2-15/16"	RL0O
P	0.3230	1-11/16"	2-15/16"	RL0P
Q	0.3320	1-11/16"	3"	RL0Q
R	0.3390	1-11/16"	3"	RL0R
S	0.3480	1-3/4"	3-1/16"	RL0S
T	0.3580	1-3/4"	3-1/16"	RL0T
U	0.3680	1-13/16"	3-1/8"	RL0U
V	0.3770	1-7/8"	3-1/4"	RL0V
W	0.3860	1-7/8"	3-1/4"	RL0W
X	0.3970	1-15/16"	3-5/16"	RL0X
Y	0.4040	1-15/16"	3-5/16"	RL0Y
Z	0.4130	2"	3-3/8"	RL0Z