



ROCKY MOUNTAIN TWIST
THE AMERICAN DRILL COMPANY



HIGH PERFORMANCE
INDUSTRIAL
CUTTING TOOLS



"WE KNOW THE DRILL"



RMT Pride of American-Made

Rocky Mountain Twist (RMT) is the leading U.S. manufacturer of high-performance, precision industrial cutting tools. Founded in 2001, RMT headquarters and 300,000 square foot facility is located at the base of the Rocky Mountains in Ronan, Montana – a region known for great hunting, fly-fishing, four-season recreation, and now superior performance industrial cutting tools.

Dedicated to the community and it's employee's, RMT strives to keep the spirit of "American Made" alive and strong.



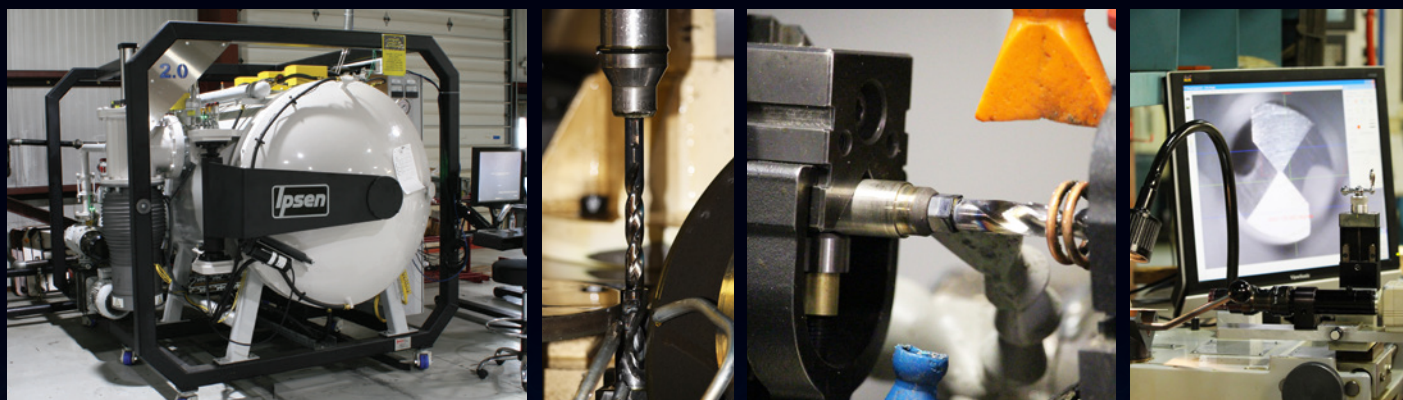
True quality. Trusted performance.

In today's ever-changing world of manufacturing you need more than just a supplier.

You need a partner that is committed to meeting your specifications. You need experienced engineers who understand the challenges you face. And, you need the capabilities to meet them head on. It means knowing the cutting tool industry and its rigorous demands.

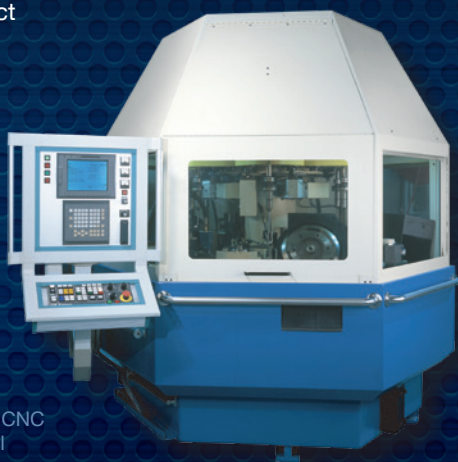
Depend on RMT for professional, consistent service. Rely on expert technical and product support. Experience a true partnership in manufacturing, and trusted cutting tool performance that will exceed your expectations.





Perfecting the Technology

Maintaining extreme tolerances and consistent quality doesn't happen by chance. Utilizing innovative, advanced manufacturing technology is a universal rule at RMT. Our proprietary state-of-the-art CNC drill grinding cells transform high-speed steel blanks into precision, high performance cutting tools. This revolutionary process ensures exact specifications and superior quality that surpasses National Aerospace Standards.



RMT Proprietary CNC
Drill Grinding Cell

RMT Peak Performance

RMT Peak Performance is our pledge to be more than just a supplier - providing unparalleled customer service and innovative, solution based technical support.

It's a principle that fostering collaborative customer partnerships, delivering exceptional product quality and value is truly beneficial for all.



PICTURE INDEX 3-5

CUSTOM & SPECIAL ORDERS 6

JOBBER LENGTH 7-33

118° Bright	7-9
118° Black Oxide	10-12
135° Bright	13-15
135° Black Oxide	16-19
135° Titanium	20-22
137° BlackGold™	23-25
135° Parabolic	26
135° Cobalt	27-29
127-XP Series	30
118° Bright (reduced shank)	31
135° Black Oxide (reduced shank)	32
Bright Brad Point (reduced/tri-flat)	33

MAINTENANCE LENGTH 34

137° BlackGold™	34
-----------------	----

SCREW MACHINE 35-46

135° Bright	35-37
135° Black Oxide	38-40
135° Cobalt	41-43
127-XP Series	44-46

AIRCRAFT EXTENSION 47-53

135° Bright 6"	47-48
135° Black Oxide 6"	49-50
135° Cobalt 6"	51-52
135° Black Oxide 12"	53

SILVER & DEMING 54-55

118° Black & Silver (1/2" round shank)	54
118° Cobalt (1/2" round shank)	55

THREADED SHANK 56-59

135° High Speed Steel	56-57
135° Cobalt	58-59

DRILL SETS 60-66

13 Piece (jobber length)	60
15 Piece (jobber length)	61
21 Piece (jobber length)	62
26 Piece (jobber length & screw machine)	63
29 Piece (jobber length & screw machine)	64
60 Piece (jobber length & screw machine)	65
115 Piece (jobber length & screw machine)	66

100° MICROSTOP COUNTERSINKS 67

HEX SHANK 68-71

Fast Change Connector	68
135° Bright (1/4" hex shank)	68
Nut Setters	69
Screw Guides	70
Power Groove Countersinks	70
Drill & Drivers 4-in-1 Tool	71

DIAMOND TILE DRILL BITS 72


TAPS 73-79

Hand Taps	73-74
Form Taps	75
Spiral Point Taps	76
Pipe Taps	77
Interrupted Thread Taps	77
Tap Application Matrix	78
Tap Use Chart	79




TECHNICAL INFORMATION 80-84

Drill Application Matrix	80
Drill Feeds and Speeds	81
Glossary of Technical Terms	82
Anatomy of a Drill Bit	83
Terms and Conditions	84

PHOTO INDEX / APPLICATION DETAILS

CUSTOM	Description	Page
	Rocky Mountain Twist is unsurpassed in assisting our customers with design and engineering support for their specific needs. Ranging from the Aerospace Industry to the small machine shop, we can manufacture to your exact specifications.	6

JOBBER LENGTH	Description	Material Application	Sizes	Page
	General purpose - 118° - BRIGHT Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Wood, Plastic	Fractional Wire Letter	7-9
	General purpose - 118° - BLACK OXIDE Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Cast Iron, Steel (low and medium carbon)	Fractional Wire Letter	10-12
	Heavy duty - 135° split point - BRIGHT Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Wood, Plastic, Steel (low and medium carbon), Steel Alloy	Fractional Wire Letter	13-15
	Heavy duty - 135° split point - BLACK OXIDE Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Cast Iron, Steel Alloy, Aluminum, Plastic	Fractional Wire, Letter, Metric	16-19
	Heavy duty - 135° split point - TITANIUM coated Hard surface with high lubricity Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Cast Iron, Steel (low and medium carbon), Steel Alloy, Stainless Steel, Strength Alloys, Plastic	Fractional Wire Letter	20-22
	Superior - 137° split point - BLACKGOLD™ Excellent in high speed machining applications Industrial-Grade NAS High Speed Steel (HSS)	Steel (low and medium carbon), Steel Alloy, Stainless Steel, Strength Alloys	Fractional Wire Letter	23-25
	Superior - 135° split point - PARABOLIC BLACKGOLD™ Superior performance in deep-hole drilling Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Brass, Plastic, Steel (low and medium carbon), Steel Alloy	Fractional Wire	26
	Premium - 135° split point - COBALT Hard surface with high lubricity Industrial-Grade NAS Cobalt Steel (HSCO)	Steel (low and medium carbon), Steel Alloy, Stainless Steel, Strength Alloys	Fractional Wire Letter	27-29
	127-XP Series - 127° split point - COBALT TiAlN COATED Improve penetration speed Reduce thrust load	Stainless Steel, Titanium	Fractional	30

JOBBER LENGTH (R.S)	Description	Material Application	Sizes	Page
	General purpose - 118° - BRIGHT Reduced Shank (3/8") Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Wood, Plastic	Fractional	31
	General purpose - 135° split point - BLACK OXIDE Reduced Shank (3/8") Industrial-Grade NAS High Speed Steel (HSS)	Cast Iron, Steel Alloy	Fractional	32
	Brad Point - X29 - BRIGHT Reduced Shank - Tri-Flat (3/8") Industrial-Grade NAS High Speed Steel (HSS)	Wood, Sheet Metal, Plastics (including acrylic)	Fractional	33












MAINTENANCE LENGTH	Description	Material Application	Sizes	Page
	General purpose - 137° - BLACKGOLD™ Length reduced for increased rigidity, strength, and breakage resistance Industrial-Grade NAS High Speed Steel (HSS)	Pre-Hard Materials, Sheet Metal Stack Up, Stainless Steel, Steel Alloy	Fractional	34





PHOTO INDEX / APPLICATION DETAILS

SCREW MACHINE	Description	Material Application	Sizes	Page
	Premium - 135° split point - BRIGHT Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Wood, Plastic	Fractional Wire Letter	35-37
	Heavy duty - 135° split point - BLACK OXIDE Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Cast Iron, Steel Alloy	Fractional Wire Letter	38-40
	Premium - 135° split point - COBALT Hard surface with high lubricity Industrial-Grade NAS Cobalt Steel (HSCO)	Steel (low and medium carbon), Steel Alloy, Stainless Steel, Strength Alloys	Fractional Wire Letter	41-43
	127-XP Series - 127° split point - COBALT TIALN COATED Improve penetration speed Reduce thrust load	Stainless Steel, Titanium	Fractional Wire Letter	44-46


AIRCRAFT EXTENSION	Description	Material Application	Sizes	Page
	6" Premium - 135° split point - BRIGHT Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Aluminum, Copper, Wood, Plastic	Fractional Wire	47-48
	6" Heavy duty - 135° split point - BLACK OXIDE Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Cast Iron, Steel Alloy	Fractional Wire	49-50
	6" Premium - 135° split point - COBALT Hard surface with high lubricity Industrial-Grade NAS Cobalt Steel (HSCO)	Steel (low and medium carbon), Steel Alloy, Stainless Steel, Strength Alloys	Fractional Wire	51-52
	12" Heavy duty - 135° split point - BLACK OXIDE Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Cast Iron, Steel Alloy	Fractional	53

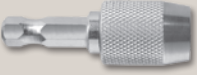





SILVER & DEMING	Description	Material Application	Sizes	Page
	General purpose - 118° split point - HSS BLACK & SILVER Surface treated for corrosion resistance and high increased lubricity Industrial-Grade AIS1 High Speed Steel (HSS)	Aluminum, Copper, Wood, Plastic, Mild Steel, Sheet Metal	Fractional	54
	General purpose - 118° split point - COBALT Superior red harness for high temperature applications Industrial-Grade AIS1 Cobalt Steel (HSCO)	Cast Iron, Steel Alloy, Aluminum	Fractional	55


THREADED SHANK	Description	Material Application	Sizes	Page
	Heavy duty - 135° split point - HSS Precision ground for faster, more efficient chip removal Industrial-Grade NAS High Speed Steel (HSS)	Cast Iron, Steel Alloy, Aluminum	Fractional Wire Letter	56-57
	Premium - 135° split point - COBALT Hard surface with high lubricity Industrial-Grade NAS Cobalt Steel (HSCO)	Steel (low and medium carbon), Steel Alloy, Stainless Steel, Strength Alloys	Fractional Wire Letter	58-59


DRILL SETS	Description	Available in	Sizes	Page
	13 Piece (Jobber Length)	Bright, Black Oxide, Titanium, BlackGold™, Cobalt	Fractional	60
	15 Piece (Jobber Length)	Bright, Black Oxide, Titanium, BlackGold™, Cobalt	Fractional	61
	21 Piece (Jobber Length)	Bright, Black Oxide, Titanium, BlackGold™, Cobalt	Fractional	62
	26 Piece (Jobber Length & Screw Machine)	Bright, Black Oxide, BlackGold™, Cobalt	Letter	63
	29 Piece (Jobber Length & Screw Machine)	Bright, Black Oxide, Titanium, BlackGold™, Cobalt	Fractional	64
	60 Piece (Jobber Length & Screw Machine)	Bright, Black Oxide, Titanium, Cobalt	Wire	65
	115 Piece (Jobber Length & Screw Machine)	Bright, Black Oxide, Cobalt	Combo	66

PHOTO INDEX / APPLICATION DETAILS

COUNTERSINK	Description	Material Application	Sizes	Page
	100° Microstop Countersink Piloted aircraft microstop countersink cutters.	Aluminum	Wire	67

HEX SHANK	Description	Sizes	Page
	The Fast Change Connector is at the heart of the Hex Shank System. It allows you to change Hex Shank accessories quickly without re-chucking your drill. Connectors will fit all 3/8" and 1/2" drive drills. (Not compatible with 1" insert bits)	1/4" Hex	68
	General purpose - 135° split point - BRIGHT - Hex shank Fast Change drill bits. Industrial-Grade NAS High Speed Steel (HSS) - for use on Aluminum/Copper, Wood, Plastic.	Fractional	68
	Nut Setter Quick change chuck fitment and premium impact S2 steel. 1/4" hex shank.	1/4", 5/16", 3/8", 7/16"	69
	Screw Guide holds and guides in correct position without wobbling or disengaging from the bit. Simply push the retractable guide sleeve over the bit and screw and drive it straight in!	Compact Standard	70
	Power Groove Countersinks allow you to countersink with an adjustable drill bit that features precision ground flutes that cut fast and stay sharp longer.	#6, #8, #10, #12	70
	Drill and Driver allows you to pre-drill, countersink or counter bore a screw hole, then drive a screw without re-chucking by using the quick disconnect feature.	#6, #8, #10, #12	71

DIAMOND TILE DRILL BITS	Description	Sizes	Page
	Diamond Tile Drill Bits provide high quality precision holes in ceramic, porcelain, granite, slate, marble, glass and most all hard surface materials.	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1", 1-3/8"	72

TAPS	Description	Sizes	Page
	Hand, Form, Spiral Point, Pipe and Interrupted Thread taps. Precision ground thread cuts fast. Industrial-Grade NAS High Speed Steel (HSS)	Variety of sizes please see section	73-77

SPECIALS

CUSTOM ORDERS

Rocky Mountain Twist is unsurpassed in assisting our customers with design and engineering support for their specific needs. Ranging from the Aerospace Industry to the small machine shop, we can manufacture to your exact specifications.

CONVENIENT ONLINE ORDERING

Custom drill bit orders have never been easier! Just follow these 3 easy steps:

- 1) Visit our website at:
www.rockymountaintwist.com
- 2) Click on Custom Drill Bits
- 3) Simply fill out the form and submit for immediate processing!



Piloted Threaded Shank Drill



Step Dowel Drill



4 Flute Core Drill



[Home](#) [Products](#) [About](#) [Technology](#) [Custom Drill Bits](#) [More](#)

[866-433-4RMT](#)

[DIRECTIONS](#)

CUSTOM DRILL BITS

TRUSTED CUSTOMER SERVICE AND ENGINEERING SUPPORT

Made in the USA quality you can trust and guarantee to be the sharpest tool at the right price. Designed, engineered and manufactured to your specific needs. Call RMT today.

SERIES JH800

BRIGHT 118° GENERAL PURPOSE



- Excellent general use drill bit
- Flutes are precision ground for faster, more efficient chip removal
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95000550	12
5/64	0.0781	1"	2"	95000551	12
3/32	0.0938	1-1/4"	2-1/4"	95000552	12
7/64	0.1094	1-1/2"	2-5/8"	95000553	12
1/8	0.1250	1-5/8"	2-3/4"	95000554	12
9/64	0.1406	1-3/4"	2-7/8"	95000555	12
5/32	0.1562	2"	3-1/8"	95000556	12
11/64	0.1719	2-1/8"	3-1/4"	95000557	12
3/16	0.1875	2-5/16"	3-1/2"	95000558	12
13/64	0.2031	2-7/16"	3-5/8"	95000559	12
7/32	0.2188	2-1/2"	3-3/4"	95000560	12
15/64	0.2344	2-5/8"	3-7/8"	95000561	12
1/4	0.2500	2-3/4"	4"	95000562	12
17/64	0.2656	2-7/8"	4-1/8"	95000563	12
9/32	0.2812	2-15/16"	4-1/4"	95000564	12
19/64	0.2969	3-1/16"	4-3/8"	95000565	12
5/16	0.3125	3-3/16"	4-1/2"	95000566	6
21/64	0.3281	3-5/16"	4-5/8"	95000567	6
11/32	0.3438	3-7/16"	4-3/4"	95000568	6
23/64	0.3594	3-1/2"	4-7/8"	95000569	6
3/8	0.3750	3-5/8"	5"	95000570	6
25/64	0.3906	3-3/4"	5-1/8"	95000571	6
13/32	0.4062	3-7/8"	5-1/4"	95000572	6
27/64	0.4219	3-15/16"	5-3/8"	95000573	6
7/16	0.4375	4-1/16"	5-1/2"	95000574	6
29/64	0.4531	4-3/16"	5-5/8"	95000575	6
15/32	0.4688	4-5/16"	5-3/4"	95000576	6
31/64	0.4844	4-3/8"	5-7/8"	95000577	6
1/2	0.5000	4-1/2"	6"	95000578	6

JOBBER LENGTH



SERIES JH800

BRIGHT 118° GENERAL PURPOSE



- Excellent general use drill bit
- Flutes are precision ground for faster, more efficient chip removal
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	3-7/8"	95001600	12
#2	0.2210	2-5/8"	3-7/8"	95001601	12
#3	0.2130	2-1/2"	3-3/4"	95001602	12
#4	0.2090	2-1/2"	3-3/4"	95001603	12
#5	0.2055	2-1/2"	3-3/4"	95001604	12
#6	0.2040	2-1/2"	3-3/4"	95001605	12
#7	0.2010	2-7/16"	3-5/8"	95001606	12
#8	0.1990	2-7/16"	3-5/8"	95001607	12
#9	0.1960	2-7/16"	3-5/8"	95001608	12
#10	0.1935	2-7/16"	3-5/8"	95001609	12
#11	0.1910	2-5/16"	3-1/2"	95001610	12
#12	0.1890	2-5/16"	3-1/2"	95001611	12
#13	0.1850	2-5/16"	3-1/2"	95001612	12
#14	0.1820	2-3/16"	3-3/8"	95001613	12
#15	0.1800	2-3/16"	3-3/8"	95001614	12
#16	0.1770	2-3/16"	3-3/8"	95001615	12
#17	0.1730	2-3/16"	3-3/8"	95001616	12
#18	0.1695	2-1/8"	3-1/4"	95001617	12
#19	0.1660	2-1/8"	3-1/4"	95001618	12
#20	0.1610	2-1/8"	3-1/4"	95001619	12
#21	0.1590	2-1/8"	3-1/4"	95001620	12
#22	0.1570	2"	3-1/8"	95001621	12
#23	0.1540	2"	3-1/8"	95001622	12
#24	0.1520	2"	3-1/8"	95001623	12
#25	0.1495	1-7/8"	3"	95001624	12
#26	0.1470	1-7/8"	3"	95001625	12
#27	0.1440	1-7/8"	3"	95001626	12
#28	0.1405	1-3/4"	2-7/8"	95001627	12
#29	0.1360	1-3/4"	2-7/8"	95001628	12
#30	0.1285	1-5/8"	2-3/4"	95001629	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	1-5/8"	2-3/4"	95001630	12
#32	0.1160	1-5/8"	2-3/4"	95001631	12
#33	0.1130	1-1/2"	2-5/8"	95001632	12
#34	0.1110	1-1/2"	2-5/8"	95001633	12
#35	0.1100	1-1/2"	2-5/8"	95001634	12
#36	0.1065	1-7/16"	2-1/2"	95001635	12
#37	0.1040	1-7/16"	2-1/2"	95001636	12
#38	0.1015	1-7/16"	2-1/2"	95001637	12
#39	0.0995	1-3/8"	2-3/8"	95001638	12
#40	0.0980	1-3/8"	2-3/8"	95001639	12
#41	0.0960	1-3/8"	2-3/8"	95001640	12
#42	0.0935	1-1/4"	2-1/4"	95001641	12
#43	0.0890	1-1/4"	2-1/4"	95001642	12
#44	0.0860	1-1/8"	2-1/8"	95001643	12
#45	0.0820	1-1/8"	2-1/8"	95001644	12
#46	0.0810	1-1/8"	2-1/8"	95001645	12
#47	0.0785	1"	2"	95001646	12
#48	0.0760	1"	2"	95001647	12
#49	0.0730	1"	2"	95001648	12
#50	0.0700	1"	2"	95001649	12
#51	0.0670	1"	2"	95001650	12
#52	0.0635	7/8"	1-7/8"	95001651	12
#53	0.0595	7/8"	1-7/8"	95001652	12
#54	0.0550	7/8"	1-7/8"	95001653	12
#55	0.0520	7/8"	1-7/8"	95001654	12
#56	0.0465	3/4"	1-3/4"	95001655	12
#57	0.0430	3/4"	1-3/4"	95001656	12
#58	0.0420	11/16"	1-5/8"	95001657	12
#59	0.0410	11/16"	1-5/8"	95001658	12
#60	0.0400	11/16"	1-5/8"	95001659	12

JOBBER LENGTH

SERIES JH800

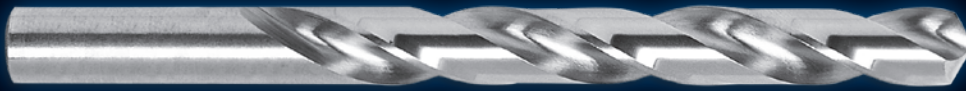
BRIGHT 118° GENERAL PURPOSE



- Excellent general use drill bit
- Flutes are precision ground for faster, more efficient chip removal
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	2-5/8"	3-7/8"	95001700	12
B	0.2380	2-3/4"	4"	95001701	12
C	0.2420	2-3/4"	4"	95001702	12
D	0.2460	2-3/4"	4"	95001703	12
E	0.2500	2-3/4"	4"	95001704	12
F	0.2570	2-7/8"	4-1/8"	95001705	12
G	0.2610	2-7/8"	4-1/8"	95001706	12
H	0.2660	2-7/8"	4-1/8"	95001707	12
I	0.2720	2-7/8"	4-1/8"	95001708	12
J	0.2770	2-7/8"	4-1/8"	95001709	12
K	0.2810	2-15/16"	4-1/4"	95001710	12
L	0.2900	2-15/16"	4-1/4"	95001711	12
M	0.2950	3-1/16"	4-3/8"	95001712	12
N	0.3020	3-1/16"	4-3/8"	95001713	12
O	0.3160	3-3/16"	4-1/2"	95001714	6
P	0.3230	3-5/16"	4-5/8"	95001715	6
Q	0.3320	3-7/16"	4-3/4"	95001716	6
R	0.3390	3-7/16"	4-3/4"	95001717	6
S	0.3480	3-1/2"	4-7/8"	95001718	6
T	0.3580	3-1/2"	4-7/8"	95001719	6
U	0.3680	3-5/8"	5"	95001720	6
V	0.3770	3-5/8"	5"	95001721	6
W	0.3860	3-3/4"	5-1/8"	95001722	6
X	0.3970	3-3/4"	5-1/8"	95001723	6
Y	0.4040	3-7/8"	5-1/4"	95001724	6
Z	0.4130	3-7/8"	5-1/4"	95001725	6

JOBBER LENGTH



SERIES JH801

BLACK OXIDE 118° GENERAL PURPOSE



- Industrial-Grade NAS High Speed Steel (HSS)
- Excellent general use drill bit
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals

MATERIAL APPLICATION

- Aluminum
- Copper
- Cast Iron
- Steel (low & medium carbon)



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95000500	12
5/64	0.0781	1"	2"	95000501	12
3/32	0.0938	1-1/4"	2-1/4"	95000502	12
7/64	0.1094	1-1/2"	2-5/8"	95000503	12
1/8	0.1250	1-5/8"	2-3/4"	95000504	12
9/64	0.1406	1-3/4"	2-7/8"	95000505	12
5/32	0.1562	2"	3-1/8"	95000506	12
11/64	0.1719	2-1/8"	3-1/4"	95000507	12
3/16	0.1875	2-5/16"	3-1/2"	95000508	12
13/64	0.2031	2-7/16"	3-5/8"	95000509	12
7/32	0.2188	2-1/2"	3-3/4"	95000510	12
15/64	0.2344	2-5/8"	3-7/8"	95000511	12
1/4	0.2500	2-3/4"	4"	95000512	12
17/64	0.2656	2-7/8"	4-1/8"	95000513	12
9/32	0.2812	2-15/16"	4-1/4"	95000514	12
19/64	0.2969	3-1/16"	4-3/8"	95000515	12
5/16	0.3125	3-3/16"	4-1/2"	95000516	6
21/64	0.3281	3-5/16"	4-5/8"	95000517	6
11/32	0.3438	3-7/16"	4-3/4"	95000518	6
23/64	0.3594	3-1/2"	4-7/8"	95000519	6
3/8	0.3750	3-5/8"	5"	95000520	6
25/64	0.3906	3-3/4"	5-1/8"	95000521	6
13/32	0.4062	3-7/8"	5-1/4"	95000522	6
27/64	0.4219	3-15/16"	5-3/8"	95000523	6
7/16	0.4375	4-1/16"	5-1/2"	95000524	6
29/64	0.4531	4-3/16"	5-5/8"	95000525	6
15/32	0.4688	4-5/16"	5-3/4"	95000526	6
31/64	0.4844	4-3/8"	5-7/8"	95000527	6
1/2	0.5000	4-1/2"	6"	95000528	6

JOBBER LENGTH

SERIES JH801

BLACK OXIDE 118° GENERAL PURPOSE



- Industrial-Grade NAS High Speed Steel (HSS)
- Excellent general use drill bit
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals

MATERIAL APPLICATION

- Aluminum
- Copper
- Cast Iron
- Steel (low & medium carbon)



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	3-7/8"	95005601	12
#2	0.2210	2-5/8"	3-7/8"	95005602	12
#3	0.2130	2-1/2"	3-3/4"	95005603	12
#4	0.2090	2-1/2"	3-3/4"	95005604	12
#5	0.2055	2-1/2"	3-3/4"	95005605	12
#6	0.2040	2-1/2"	3-3/4"	95005606	12
#7	0.2010	2-7/16"	3-5/8"	95005607	12
#8	0.1990	2-7/16"	3-5/8"	95005608	12
#9	0.1960	2-7/16"	3-5/8"	95005609	12
#10	0.1935	2-7/16"	3-5/8"	95005610	12
#11	0.1910	2-5/16"	3-1/2"	95005611	12
#12	0.1890	2-5/16"	3-1/2"	95005612	12
#13	0.1850	2-5/16"	3-1/2"	95005613	12
#14	0.1820	2-3/16"	3-3/8"	95005614	12
#15	0.1800	2-3/16"	3-3/8"	95005615	12
#16	0.1770	2-3/16"	3-3/8"	95005616	12
#17	0.1730	2-3/16"	3-3/8"	95005617	12
#18	0.1695	2-1/8"	3-1/4"	95005618	12
#19	0.1660	2-1/8"	3-1/4"	95005619	12
#20	0.1610	2-1/8"	3-1/4"	95005620	12
#21	0.1590	2-1/8"	3-1/4"	95005621	12
#22	0.1570	2"	3-1/8"	95005622	12
#23	0.1540	2"	3-1/8"	95005623	12
#24	0.1520	2"	3-1/8"	95005624	12
#25	0.1495	1-7/8"	3"	95005625	12
#26	0.1470	1-7/8"	3"	95005626	12
#27	0.1440	1-7/8"	3"	95005627	12
#28	0.1405	1-3/4"	2-7/8"	95005628	12
#29	0.1360	1-3/4"	2-7/8"	95005629	12
#30	0.1285	1-5/8"	2-3/4"	95005630	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	1-5/8"	2-3/4"	95005631	12
#32	0.1160	1-5/8"	2-3/4"	95005632	12
#33	0.1130	1-1/2"	2-5/8"	95005633	12
#34	0.1110	1-1/2"	2-5/8"	95005634	12
#35	0.1100	1-1/2"	2-5/8"	95005635	12
#36	0.1065	1-7/16"	2-1/2"	95005636	12
#37	0.1040	1-7/16"	2-1/2"	95005637	12
#38	0.1015	1-7/16"	2-1/2"	95005638	12
#39	0.0995	1-3/8"	2-3/8"	95005639	12
#40	0.0980	1-3/8"	2-3/8"	95005640	12
#41	0.0960	1-3/8"	2-3/8"	95005641	12
#42	0.0935	1-1/4"	2-1/4"	95005642	12
#43	0.0890	1-1/4"	2-1/4"	95005643	12
#44	0.0860	1-1/8"	2-1/8"	95005644	12
#45	0.0820	1-1/8"	2-1/8"	95005645	12
#46	0.0810	1-1/8"	2-1/8"	95005646	12
#47	0.0785	1"	2"	95005647	12
#48	0.0760	1"	2"	95005648	12
#49	0.0730	1"	2"	95005649	12
#50	0.0700	1"	2"	95005650	12
#51	0.0670	1"	2"	95005651	12
#52	0.0635	7/8"	1-7/8"	95005652	12
#53	0.0595	7/8"	1-7/8"	95005653	12
#54	0.0550	7/8"	1-7/8"	95005654	12
#55	0.0520	7/8"	1-7/8"	95005655	12
#56	0.0465	3/4"	1-3/4"	95005656	12
#57	0.0430	3/4"	1-3/4"	95005657	12
#58	0.0420	11/16"	1-5/8"	95005658	12
#59	0.0410	11/16"	1-5/8"	95005659	12
#60	0.0400	11/16"	1-5/8"	95005660	12

JOBBER LENGTH



SERIES JH801

BLACK OXIDE 118° GENERAL PURPOSE



- Industrial-Grade NAS High Speed Steel (HSS)
- Excellent general use drill bit
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals

MATERIAL APPLICATION

- Aluminum
- Copper
- Cast Iron
- Steel (low & medium carbon)



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	2-5/8"	3-7/8"	95005700	12
B	0.2380	2-3/4"	4"	95005701	12
C	0.2420	2-3/4"	4"	95005702	12
D	0.2460	2-3/4"	4"	95005703	12
E	0.2500	2-3/4"	4"	95005704	12
F	0.2570	2-7/8"	4-1/8"	95005705	12
G	0.2610	2-7/8"	4-1/8"	95005706	12
H	0.2660	2-7/8"	4-1/8"	95005707	12
I	0.2720	2-7/8"	4-1/8"	95005708	12
J	0.2770	2-7/8"	4-1/8"	95005709	12
K	0.2810	2-15/16"	4-1/4"	95005710	12
L	0.2900	2-15/16"	4-1/4"	95005711	12
M	0.2950	3-1/16"	4-3/8"	95005712	12
N	0.3020	3-1/16"	4-3/8"	95005713	12
O	0.3160	3-3/16"	4-1/2"	95005714	6
P	0.3230	3-5/16"	4-5/8"	95005715	6
Q	0.3320	3-7/16"	4-3/4"	95005716	6
R	0.3390	3-7/16"	4-3/4"	95005717	6
S	0.3480	3-1/2"	4-7/8"	95005718	6
T	0.3580	3-1/2"	4-7/8"	95005719	6
U	0.3680	3-5/8"	5"	95005720	6
V	0.3770	3-5/8"	5"	95005721	6
W	0.3860	3-3/4"	5-1/8"	95005722	6
X	0.3970	3-3/4"	5-1/8"	95005723	6
Y	0.4040	3-7/8"	5-1/4"	95005724	6
Z	0.4130	3-7/8"	5-1/4"	95005725	6

JOBBER LENGTH

SERIES JH500

BRIGHT 135° HEAVY DUTY



- Excellent general use drill bit
- Split point tip penetrates surface on contact and prevents drill bit "walking"

- Flutes are precision CNC ground for faster, more efficient chip evacuation
- Industrial-grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic
- Steel (low & medium carbon)
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95003300	12
5/64	0.0781	1"	2"	95003301	12
3/32	0.0938	1-1/4"	2-1/4"	95003302	12
7/64	0.1094	1-1/2"	2-5/8"	95003303	12
1/8	0.1250	1-5/8"	2-3/4"	95003304	12
9/64	0.1406	1-3/4"	2-7/8"	95003305	12
5/32	0.1562	2"	3-1/8"	95003306	12
11/64	0.1719	2-1/8"	3-1/4"	95003307	12
3/16	0.1875	2-5/16"	3-1/2"	95003308	12
13/64	0.2031	2-7/16"	3-5/8"	95003309	12
7/32	0.2188	2-1/2"	3-3/4"	95003310	12
15/64	0.2344	2-5/8"	3-7/8"	95003311	12
1/4	0.2500	2-3/4"	4"	95003312	12
17/64	0.2656	2-7/8"	4-1/8"	95003313	12
9/32	0.2812	2-15/16"	4-1/4"	95003314	12
19/64	0.2969	3-1-16"	4-3/8"	95003315	12
5/16	0.3125	3-3/16"	4-1/2"	95003316	6
21/64	0.3281	3-5/16"	4-5/8"	95003317	6
11/32	0.3438	3-7/16"	4-3/4"	95003318	6
23/64	0.3591	3-1/2"	4-7/8"	95003319	6
3/8	0.3750	3-5/8"	5"	95003320	6
25/64	0.3906	3-3/4"	5-1/8"	95003321	6
13/32	0.4062	3-7/8"	5-1/4"	95003322	6
27/64	0.4219	3-15/16"	5-3/8"	95003323	6
7/16	0.4375	4-1/16"	5-1/2"	95003324	6
29/64	0.4531	4-3/16"	5-5/8"	95003325	6
15/32	0.4688	4-5/16"	5-3/4"	95003326	6
31/64	0.4844	4-3/8"	5-7/8"	95003327	6
1/2	0.5000	4-1/2"	6"	95003328	6

Drill bits from 7/64" to 1/2" are Split Point

JOBBER LENGTH



SERIES JH500

BRIGHT 135° HEAVY DUTY



- Excellent general use drill bit
- Split point tip penetrates surface on contact and prevents drill bit "walking"

- Flutes are precision CNC ground for faster, more efficient chip evacuation
- Industrial-grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic
- Steel (low & medium carbon)
- Steel Alloy



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	3-7/8"	95003400	12
#2	0.2210	2-5/8"	3-7/8"	95003401	12
#3	0.2130	2-1/2"	3-3/4"	95003402	12
#4	0.2090	2-1/2"	3-3/4"	95003403	12
#5	0.2055	2-1/2"	3-3/4"	95003404	12
#6	0.2040	2-1/2"	3-3/4"	95003405	12
#7	0.2010	2-7/16"	3-5/8"	95003406	12
#8	0.1990	2-7/16"	3-5/8"	95003407	12
#9	0.1960	2-7/16"	3-5/8"	95003408	12
#10	0.1935	2-7/16"	3-5/8"	95003409	12
#11	0.1910	2-5/16"	3-1/2"	95003410	12
#12	0.1890	2-5/16"	3-1/2"	95003411	12
#13	0.1850	2-5/16"	3-1/2"	95003412	12
#14	0.1820	2-3/16"	3-3/8"	95003413	12
#15	0.1800	2-3/16"	3-3/8"	95003414	12
#16	0.1770	2-3/16"	3-3/8"	95003415	12
#17	0.1730	2-3/16"	3-3/8"	95003416	12
#18	0.1695	2-1/8"	3-1/4"	95003417	12
#19	0.1660	2-1/8"	3-1/4"	95003418	12
#20	0.1610	2-1/8"	3-1/4"	95003419	12
#21	0.1590	2-1/8"	3-1/4"	95003420	12
#22	0.1570	2"	3-1/8"	95003421	12
#23	0.1540	2"	3-1/8"	95003422	12
#24	0.1520	2"	3-1/8"	95003423	12
#25	0.1495	1-7/8"	3"	95003424	12
#26	0.1470	1-7/8"	3"	95003425	12
#27	0.1440	1-7/8"	3"	95003426	12
#28	0.1405	1-3/4"	2-7/8"	95003427	12
#29	0.1360	1-3/4"	2-7/8"	95003428	12
#30	0.1285	1-5/8"	2-3/4"	95003429	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	1-5/8"	2-3/4"	95003430	12
#32	0.1160	1-5/8"	2-3/4"	95003431	12
#33	0.1130	1-1/2"	2-5/8"	95003432	12
#34	0.1110	1-1/2"	2-5/8"	95003433	12
#35	0.1100	1-1/2"	2-5/8"	95003434	12
#36	0.1065	1-7/16"	2-1/2"	95003435	12
#37	0.1040	1-7/16"	2-1/2"	95003436	12
#38	0.1015	1-7/16"	2-1/2"	95003437	12
#39	0.0995	1-3/8"	2-3/8"	95003438	12
#40	0.0980	1-3/8"	2-3/8"	95003439	12
#41	0.0960	1-3/8"	2-3/8"	95003440	12
#42	0.0935	1-1/4"	2-1/4"	95003441	12
#43	0.0890	1-1/4"	2-1/4"	95003442	12
#44	0.0860	1-1/8"	2-1/8"	95003443	12
#45	0.0820	1-1/8"	2-1/8"	95003444	12
#46	0.0810	1-1/8"	2-1/8"	95003445	12
#47	0.0785	1"	2"	95003446	12
#48	0.0760	1"	2"	95003447	12
#49	0.0730	1"	2"	95003448	12
#50	0.0700	1"	2"	95003449	12
#51	0.0670	1"	2"	95003450	12
#52	0.0635	7/8"	1-7/8"	95003451	12
#53	0.0595	7/8"	1-7/8"	95003452	12
#54	0.0550	7/8"	1-7/8"	95003453	12
#55	0.0520	7/8"	1-7/8"	95003454	12
#56	0.0465	3/4"	1-3/4"	95003455	12
#57	0.0430	3/4"	1-3/4"	95003456	12
#58	0.0420	11/16"	1-5/8"	95003457	12
#59	0.0410	11/16"	1-5/8"	95003458	12
#60	0.0400	11/16"	1-5/8"	95003459	12

Drill bits from #1 to #52 are Split Point

SERIES JH500

BRIGHT 135° HEAVY DUTY



- Excellent general use drill bit
- Split point tip penetrates surface on contact and prevents drill bit "walking"

- Flutes are precision CNC ground for faster, more efficient chip evacuation
- Industrial-grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Aluminum
- Copper
- Plastic
- Steel (low & medium carbon)
- Steel Alloy
- Wood



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	2-5/8"	3-7/8"	95003500	12
B	0.2380	2-3/4"	4"	95003501	12
C	0.2420	2-3/4"	4"	95003502	12
D	0.2460	2-3/4"	4"	95003503	12
E	0.2500	2-3/4"	4"	95003504	12
F	0.2570	2-7/8"	4-1/8"	95003505	12
G	0.2610	2-7/8"	4-1/8"	95003506	12
H	0.2660	2-7/8"	4-1/8"	95003507	12
I	0.2720	2-7/8"	4-1/8"	95003508	12
J	0.2770	2-7/8"	4-1/8"	95003509	12
K	0.2810	2-15/16"	4-1/4"	95003510	12
L	0.2900	2-15/16"	4-1/4"	95003511	12
M	0.2950	3-1/16"	4-3/8"	95003512	12
N	0.3020	3-1/16"	4-3/8"	95003513	12
O	0.3160	3-3/16"	4-3/8"	95003514	6
P	0.3230	3-5/16"	4-5/8"	95003515	6
Q	0.3320	3-7/16"	4-3/4"	95003516	6
R	0.3390	3-7/16"	4-3/4"	95003517	6
S	0.3480	3-1/2"	4-7/8"	95003518	6
T	0.3580	3-1/2"	4-7/8"	95003519	6
U	0.3680	3-5/8"	5"	95003520	6
V	0.3770	3-5/8"	5"	95003521	6
W	0.3860	3-3/4"	5-1/8"	95003522	6
X	0.3970	3-3/4"	5-1/8"	95003523	6
Y	0.4040	3-7/8"	5-1/4"	95003524	6
Z	0.4130	3-7/8"	5-1/4"	95003525	6

JOBBER LENGTH



SERIES JH501

BLACK OXIDE 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Cast Iron
- Plastic
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95000600	12
5/64	0.0781	1"	2"	95000601	12
3/32	0.0938	1-1/4"	2-1/4"	95000602	12
7/64	0.1094	1-1/2"	2-5/8"	95000603	12
1/8	0.1250	1-5/8"	2-3/4"	95000604	12
9/64	0.1406	1-3/4"	2-7/8"	95000605	12
5/32	0.1562	2"	3-1/8"	95000606	12
11/64	0.1719	2-1/8"	3-1/4"	95000607	12
3/16	0.1875	2-5/16"	3-1/2"	95000608	12
13/64	0.2031	2-7/16"	3-5/8"	95000609	12
7/32	0.2188	2-1/2"	3-3/4"	95000610	12
15/64	0.2344	2-5/8"	3-7/8"	95000611	12
1/4	0.2500	2-3/4"	4"	95000612	12
17/64	0.2656	2-7/8"	4-1/8"	95000613	12
9/32	0.2812	2-15/16"	4-1/4"	95000614	12
19/64	0.2969	3-1/16"	4-3/8"	95000615	12
5/16	0.3125	3-3/16"	4-1/2"	95000616	6
21/64	0.3281	3-5/16"	4-5/8"	95000617	6
11/32	0.3438	3-7/16"	4-3/4"	95000618	6
23/64	0.3594	3-1/2"	4-7/8"	95000619	6
3/8	0.3750	3-5/8"	5"	95000620	6
25/64	0.3906	3-3/4"	5-1/8"	95000621	6
13/32	0.4062	3-7/8"	5-1/4"	95000622	6
27/64	0.4219	3-15/16"	5-3/8"	95000623	6
7/16	0.4375	4-1/16"	5-1/2"	95000624	6
29/64	0.4531	4-3/16"	5-5/8"	95000625	6
15/32	0.4688	4-5/16"	5-3/4"	95000626	6
31/64	0.4844	4-3/8"	5-7/8"	95000627	6
1/2	0.5000	4-1/2"	6"	95000628	6

Drill bits from 7/64" to 1/2" are Split Point

JOBBER LENGTH

SERIES JH501

BLACK OXIDE 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Cast Iron
- Plastic
- Steel Alloy



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	3-7/8"	95002600	12
#2	0.2210	2-5/8"	3-7/8"	95002601	12
#3	0.2130	2-1/2"	3-3/4"	95002602	12
#4	0.2090	2-1/2"	3-3/4"	95002603	12
#5	0.2055	2-1/2"	3-3/4"	95002604	12
#6	0.2040	2-1/2"	3-3/4"	95002605	12
#7	0.2010	2-7/16"	3-5/8"	95002606	12
#8	0.1990	2-7/16"	3-5/8"	95002607	12
#9	0.1960	2-7/16"	3-5/8"	95002608	12
#10	0.1935	2-7/16"	3-5/8"	95002609	12
#11	0.1910	2-5/16"	3-1/2"	95002610	12
#12	0.1890	2-5/16"	3-1/2"	95002611	12
#13	0.1850	2-5/16"	3-1/2"	95002612	12
#14	0.1820	2-3/16"	3-3/8"	95002613	12
#15	0.1800	2-3/16"	3-3/8"	95002614	12
#16	0.1770	2-3/16"	3-3/8"	95002615	12
#17	0.1730	2-3/16"	3-3/8"	95002616	12
#18	0.1695	2-1/8"	3-1/4"	95002617	12
#19	0.1660	2-1/8"	3-1/4"	95002618	12
#20	0.1610	2-1/8"	3-1/4"	95002619	12
#21	0.1590	2-1/8"	3-1/4"	95002620	12
#22	0.1570	2"	3-1/8"	95002621	12
#23	0.1540	2"	3-1/8"	95002622	12
#24	0.1520	2"	3-1/8"	95002623	12
#25	0.1495	1-7/8"	3"	95002624	12
#26	0.1470	1-7/8"	3"	95002625	12
#27	0.1440	1-7/8"	3"	95002626	12
#28	0.1405	1-3/4"	2-7/8"	95002627	12
#29	0.1360	1-3/4"	2-7/8"	95002628	12
#30	0.1285	1-5/8"	2-3/4"	95002629	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	1-5/8"	2-3/4"	95002630	12
#32	0.1160	1-5/8"	2-3/4"	95002631	12
#33	0.1130	1-1/2"	2-5/8"	95002632	12
#34	0.1110	1-1/2"	2-5/8"	95002633	12
#35	0.1100	1-1/2"	2-5/8"	95002634	12
#36	0.1065	1-7/16"	2-1/2"	95002635	12
#37	0.1040	1-7/16"	2-1/2"	95002636	12
#38	0.1015	1-7/16"	2-1/2"	95002637	12
#39	0.0995	1-3/8"	2-3/8"	95002638	12
#40	0.0980	1-3/8"	2-3/8"	95002639	12
#41	0.0960	1-3/8"	2-3/8"	95002640	12
#42	0.0935	1-1/4"	2-1/4"	95002641	12
#43	0.0890	1-1/4"	2-1/4"	95002642	12
#44	0.0860	1-1/8"	2-1/8"	95002643	12
#45	0.0820	1-1/8"	2-1/8"	95002644	12
#46	0.0810	1-1/8"	2-1/8"	95002645	12
#47	0.0785	1"	2"	95002646	12
#48	0.0760	1"	2"	95002647	12
#49	0.0730	1"	2"	95002648	12
#50	0.0700	1"	2"	95002649	12
#51	0.0670	1"	2"	95002650	12
#52	0.0635	7/8"	1-7/8"	95002651	12
#53	0.0595	7/8"	1-7/8"	95002652	12
#54	0.0550	7/8"	1-7/8"	95002653	12
#55	0.0520	7/8"	1-7/8"	95002654	12
#56	0.0465	3/4"	1-3/4"	95002655	12
#57	0.0430	3/4"	1-3/4"	95002656	12
#58	0.0420	11/16"	1-5/8"	95002657	12
#59	0.0410	11/16"	1-5/8"	95002658	12
#60	0.0400	11/16"	1-5/8"	95002659	12

Drill bits from #1 to #52 are Split Point

JOBBER LENGTH



SERIES JH501

BLACK OXIDE 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Cast Iron
- Plastic
- Steel Alloy



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	2-5/8"	3-7/8"	95002700	12
B	0.2380	2-3/4"	4"	95002701	12
C	0.2420	2-3/4"	4"	95002702	12
D	0.2460	2-3/4"	4"	95002703	12
E	0.2500	2-3/4"	4"	95002704	12
F	0.2570	2-7/8"	4-1/8"	95002705	12
G	0.2610	2-7/8"	4-1/8"	95002706	12
H	0.2660	2-7/8"	4-1/8"	95002707	12
I	0.2720	2-7/8"	4-1/8"	95002708	12
J	0.2770	2-7/8"	4-1/8"	95002709	12
K	0.2810	2-15/16"	4-1/4"	95002710	12
L	0.2900	2-15/16"	4-1/4"	95002711	12
M	0.2950	3-1/16"	4-3/8"	95002712	12
N	0.3020	3-1/16"	4-3/8"	95002713	12
O	0.3160	3-3/16"	4-1/2"	95002714	6
P	0.3230	3-5/16"	4-5/8"	95002715	6
Q	0.3320	3-7/16"	4-3/4"	95002716	6
R	0.3390	3-7/16"	4-3/4"	95002717	6
S	0.3480	3-1/2"	4-7/8"	95002718	6
T	0.3580	3-1/2"	4-7/8"	95002719	6
U	0.3680	3-5/8"	5"	95002720	6
V	0.3770	3-5/8"	5"	95002721	6
W	0.3860	3-3/4"	5-1/8"	95002722	6
X	0.3970	3-3/4"	5-1/8"	95002723	6
Y	0.4040	3-7/8"	5-1/4"	95002724	6
Z	0.4130	3-7/8"	5-1/4"	95002725	6

JOBBER LENGTH

SERIES JH501

BLACK OXIDE 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Cast Iron
- Plastic
- Steel Alloy



METRIC SIZES

METRIC SIZES MM	DECIMAL EQUIVALENT	FLUTE LENGTH INCHES	FLUTE LENGTH METRIC	OVERALL LENGTH INCHES	OVERALL LENGTH METRIC	PART NUMBER	SHIP QUANTITY
1.50	0.0591	7/8"	22	1-7/8"	48	95002329	12
2.00	0.0787	1"	25	2"	51	95002339	12
2.50	0.0984	1-3/8"	35	2-3/8"	60	95002349	12
3.00	0.1181	1-5/8"	41	2-3/4"	70	95002355	12
3.50	0.1378	1-3/4"	44	2-7/8"	73	95002361	12
4.00	0.1575	2-1/8"	54	3-1/4"	83	95002367	12
4.50	0.1772	2-3/16"	56	3-3/8"	86	95002373	12
5.00	0.1969	2-7/16"	62	3-5/8"	92	95002379	12
5.50	0.2165	2-1/2"	64	3-3/4"	95	95002385	12
6.00	0.2362	2-3/4"	70	4"	102	95002391	12
6.50	0.2559	2-7/8"	73	4-1/8"	105	95002397	12
7.00	0.2756	2-7/8"	73	4-1/8"	105	95002403	12
7.50	0.2953	3-1/16"	78	4-3/8"	111	95002409	12
8.00	0.3150	3-3/16"	81	4-1/2"	114	95002416	6
8.50	0.3346	3-7/16"	87	4-1/2"	121	95002422	6
9.00	0.3543	3-1/2"	89	4-7/8"	124	95002428	6
9.50	0.3740	3-5/8"	92	5"	127	95002434	6
10.00	0.3937	3-3/4"	95	5-1/8"	130	95002440	6
10.50	0.4134	3-7/8"	98	5-1/4"	133	95002442	6
11.00	0.4331	4-1/16"	103	5-1/2"	140	95002444	6
11.50	0.4528	4-3/16"	106	5-5/8"	143	95002446	6
12.00	0.4724	4-3/8"	111	5-7/8"	149	95002448	6
12.50	0.4921	4-1/2"	114	6"	152	95002450	6
13.00	0.5118	4-1/2"	114	6"	152	95002451	6

Drill bits from 2.5mm to 13.0mm are Split Point

JOBBER LENGTH



SERIES JH513

TITANIUM 135° HEAVY DUTY



- Superior performance in high speed machining applications
- Precision Flute for faster, more efficient chip removal
- Hard surface with high lubricity extends tool life

- Industrial-Grade NAS High Speed Steel (HSS)
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Copper
- Cast Iron
- Plastic
- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95000750	12
5/64	0.0781	1"	2"	95000751	12
3/32	0.0938	1-1/4"	2-1/4"	95000752	12
7/64	0.1094	1-1/2"	2-5/8"	95000753	12
1/8	0.1250	1-5/8"	2-3/4"	95000754	12
9/64	0.1406	1-3/4"	2-7/8"	95000755	12
5/32	0.1562	2"	3-1/8"	95000756	12
11/64	0.1719	2-1/8"	3-1/4"	95000757	12
3/16	0.1875	2-5/16"	3-1/2"	95000758	12
13/64	0.2031	2-7/16"	3-5/8"	95000759	12
7/32	0.2188	2-1/2"	3-3/4"	95000760	12
15/64	0.2344	2-5/8"	3-7/8"	95000761	12
1/4	0.2500	2-3/4"	4"	95000762	12
17/64	0.2656	2-7/8"	4-1/8"	95000763	12
9/32	0.2812	2-15/16"	4-1/4"	95000764	12
19/64	0.2969	3-1/16"	4-3/8"	95000765	12
5/16	0.3125	3-3/16"	4-1/2"	95000766	6
21/64	0.3281	3-5/16"	4-5/8"	95000767	6
11/32	0.3438	3-7/16"	4-3/4"	95000768	6
23/64	0.3594	3-1/2"	4-7/8"	95000769	6
3/8	0.3750	3-5/8"	5"	95000770	6
25/64	0.3906	3-3/4"	5-1/8"	95000771	6
13/32	0.40620	3-7/8"	5-1/4"	95000772	6
27/64	0.4219	3-15/16"	5-3/8"	95000773	6
7/16	0.4375	4-1/16"	5-1/2"	95000774	6
29/64	0.4531	4-3/16"	5-5/8"	95000775	6
15/32	0.4688	4-5/16"	5-3/4"	95000776	6
31/64	0.4844	4-3/8"	5-7/8"	95000777	6
1/2	0.5000	4-1/2"	6"	95000778	6

Drill bits from 7/64" to 1/2" are Split Point

JOBBER LENGTH

SERIES JH513

TITANIUM 135° HEAVY DUTY



- Superior performance in high speed machining applications
- Precision Flute for faster, more efficient chip removal
- Hard surface with high lubricity extends tool life

- Industrial-Grade NAS High Speed Steel (HSS)
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Copper
- Cast Iron
- Plastic
- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	3-7/8"	95003100	12
#2	0.2210	2-5/8"	3-7/8"	95003101	12
#3	0.2130	2-1/2"	3-3/4"	95003102	12
#4	0.2090	2-1/2"	3-3/4"	95003103	12
#5	0.2055	2-1/2"	3-3/4"	95003104	12
#6	0.2040	2-1/2"	3-3/4"	95003105	12
#7	0.2010	2-7/16"	3-5/8"	95003106	12
#8	0.1990	2-7/16"	3-5/8"	95003107	12
#9	0.1960	2-7/16"	3-5/8"	95003108	12
#10	0.1935	2-7/16"	3-5/8"	95003109	12
#11	0.1910	2-5/16"	3-1/2"	95003110	12
#12	0.1890	2-5/16"	3-1/2"	95003111	12
#13	0.1850	2-5/16"	3-1/2"	95003112	12
#14	0.1820	2-3/16"	3-3/8"	95003113	12
#15	0.1800	2-3/16"	3-3/8"	95003114	12
#16	0.1770	2-3/16"	3-3/8"	95003115	12
#17	0.1730	2-3/16"	3-3/8"	95003116	12
#18	0.1695	2-1/8"	3-1/4"	95003117	12
#19	0.1660	2-1/8"	3-1/4"	95003118	12
#20	0.1610	2-1/8"	3-1/4"	95003119	12
#21	0.1590	2-1/8"	3-1/4"	95003120	12
#22	0.1570	2"	3-1/8"	95003121	12
#23	0.1540	2"	3-1/8"	95003122	12
#24	0.1520	2"	3-1/8"	95003123	12
#25	0.1495	1-7/8"	3"	95003124	12
#26	0.1470	1-7/8"	3"	95003125	12
#27	0.1440	1-7/8"	3"	95003126	12
#28	0.1405	1-3/4"	2-7/8"	95003127	12
#29	0.1360	1-3/4"	2-7/8"	95003128	12
#30	0.1285	1-5/8"	2-3/4"	95003129	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	1-5/8"	2-3/4"	95003130	12
#32	0.1160	1-5/8"	2-3/4"	95003131	12
#33	0.1130	1-1/2"	2-5/8"	95003132	12
#34	0.1110	1-1/2"	2-5/8"	95003133	12
#35	0.1100	1-1/2"	2-5/8"	95003134	12
#36	0.1065	1-7/16"	2-1/2"	95003135	12
#37	0.1040	1-7/16"	2-1/2"	95003136	12
#38	0.1015	1-7/16"	2-1/2"	95003137	12
#39	0.0995	1-3/8"	2-3/8"	95003138	12
#40	0.0980	1-3/8"	2-3/8"	95003139	12
#41	0.0960	1-3/8"	2-3/8"	95003140	12
#42	0.0935	1-1/4"	2-1/4"	95003141	12
#43	0.0890	1-1/4"	2-1/4"	95003142	12
#44	0.0860	1-1/8"	2-1/8"	95003143	12
#45	0.0820	1-1/8"	2-1/8"	95003144	12
#46	0.0810	1-1/8"	2-1/8"	95003145	12
#47	0.0785	1"	2"	95003146	12
#48	0.0760	1"	2"	95003147	12
#49	0.0730	1"	2"	95003148	12
#50	0.0700	1"	2"	95003149	12
#51	0.0670	1"	2"	95003150	12
#52	0.0635	7/8"	1-7/8"	95003151	12
#53	0.0595	7/8"	1-7/8"	95003152	12
#54	0.0550	7/8"	1-7/8"	95003153	12
#55	0.0520	7/8"	1-7/8"	95003154	12
#56	0.0465	3/4"	1-3/4"	95003155	12
#57	0.0430	3/4"	1-3/4"	95003156	12
#58	0.0420	11/16"	1-5/8"	95003157	12
#59	0.0410	11/16"	1-5/8"	95003158	12
#60	0.0400	11/16"	1-5/8"	95003159	12

Drill bits from #1 to #52 are Split Point

JOBBER LENGTH



SERIES JH513

TITANIUM 135° HEAVY DUTY



- Superior performance in high speed machining applications
- Precision Flute for faster, more efficient chip removal
- Hard surface with high lubricity extends tool life
- Industrial-Grade NAS High Speed Steel (HSS)
- Split Point penetrates on contact and prevents "walking" of the bit



MATERIAL APPLICATION

- Aluminum
- Copper
- Cast Iron
- Plastic
- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys

LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	2-5/8"	3-7/8"	95003200	12
B	0.2380	2-3/4"	4"	95003201	12
C	0.2420	2-3/4"	4"	95003202	12
D	0.2460	2-3/4"	4"	95003203	12
E	0.2500	2-3/4"	4"	95003204	12
F	0.2570	2-7/8"	4-1/8"	95003205	12
G	0.2610	2-7/8"	4-1/8"	95003206	12
H	0.2660	2-7/8"	4-1/8"	95003207	12
I	0.2720	2-7/8"	4-1/8"	95003208	12
J	0.2770	2-7/8"	4-1/8"	95003209	12
K	0.2810	2-15/16"	4-1/4"	95003210	12
L	0.2900	2-15/16"	4-1/4"	95003211	12
M	0.2950	3-1/16"	4-3/8"	95003212	12
N	0.3020	3-1/16"	4-3/8"	95003213	12
O	0.3160	3-3/16"	4-1/2"	95003214	6
P	0.3230	3-5/16"	4-5/8"	95003215	6
Q	0.3320	3-7/16"	4-3/4"	95003216	6
R	0.3390	3-7/16"	4-3/4"	95003217	6
S	0.3480	3-1/2"	4-7/8"	95003218	6
T	0.3580	3-1/2"	4-7/8"	95003219	6
U	0.3680	3-5/8"	5"	95003220	6
V	0.3770	3-5/8"	5"	95003221	6
W	0.3860	3-3/4"	5-1/8"	95003222	6
X	0.3970	3-3/4"	5-1/8"	95003223	6
Y	0.4040	3-7/8"	5-1/4"	95003224	6
Z	0.4130	3-7/8"	5-1/4"	95003225	6

JOBBER LENGTH

SERIES JH522

BLACKGOLD™ 137° HEAVY DUTY



**TRI-FLAT
SHANK**

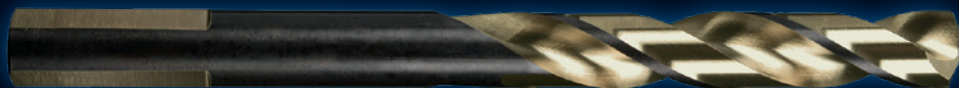


- Aggressive web taper prevents breakage for more holes per drill bit
- Split point tip penetrates surface on contact and prevents drill bit "walking"
- Shorter, stronger cutting lip for easier drilling and longer life

- Heavy taper with narrow tip for quick starts without sacrificing the structure
- Engineered for less torque and lightens operator load
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	.0625	3/4"	1-7/8"	95006000	12
5/64	.0781	7/8"	2"	95006001	12
3/32	.0938	1"	2-1/4"	95006002	12
7/64	.1094	1-1/4"	2-5/8"	95006003	12
1/8	.1250	1-1/4"	2-3/4"	95006004	12
9/64	.1406	1-3/8"	2-7/8"	95006005	12
5/32	.1562	1-5/8"	3-1/8"	95006006	12
11/64	.1719	1-5/8"	3-1/4"	95006007	12
3/16	.1875	1-3/4"	3-1/2"	95006008	12
13/64	.2031	1-7/8"	3-5/8"	95006009	12
7/32	.2188	2"	3-3/4"	95006010	12
15/64	.2344	2"	3-7/8"	95006011	12
1/4	.2500	2-1/8"	4"	95006012	12
17/64	.2656	2-1/4"	4-1/8"	95006013	12
9/32	.2812	2-1/4"	4-1/4"	95006014	12
19/64	.2969	2-3/8"	4-3/8"	95006015	12
5/16	.3125	2-1/2"	4-1/2"	95006016	6
21/64	.3281	2-1/2"	4-5/8"	95006017	6
11/32	.3438	2-5/8"	4-3/4"	95006018	6
23/64	.3594	2-3/4"	4-7/8"	95006019	6
3/8	.3750	2-3/4"	5"	95006020	6
25/64	.3906	2-7/8"	5-1/8"	95006021	6
13/32	.4062	3"	5-1/4"	95006022	6
27/64	.4219	3"	5-3/8"	95006023	6
7/16	.4375	3-1/8"	5-1/2"	95006024	6
29/64	.4531	3-1/4"	5-5/8"	95006025	6
15/32	.4688	3-1/4"	5-3/4"	95006026	6
31/64	.4844	3-3/8"	5-7/8"	95006027	6
1/2	.5000	3-1/2"	6"	95006028	6

Drill bits from 7/64" to 1/2" are Split Point
Tri-flat shank on drill bits 3/16" thru 1/2"

JOBBER LENGTH



SERIES JH522

BLACKGOLD™ 137° HEAVY DUTY



**TRI-FLAT
SHANK**



- Aggressive web taper prevents breakage for more holes per drill bit
- Split point tip penetrates surface on contact and prevents drill bit "walking"
- Shorter, stronger cutting lip for easier drilling and longer life

- Heavy taper with narrow tip for quick starts without sacrificing the structure
- Engineered for less torque and lightens operator load
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2"	3-7/8"	95006100	12
#2	0.2210	2"	3-7/8"	95006101	12
#3	0.2130	1-7/8"	3-3/4"	95006102	12
#4	0.2090	1-7/8"	3-3/4"	95006103	12
#5	0.2055	1-7/8"	3-3/4"	95006104	12
#6	0.2040	1-7/8"	3-3/4"	95006105	12
#7	0.2010	1-7/8"	3-5/8"	95006106	12
#8	0.1990	1-7/8"	3-5/8"	95006107	12
#9	0.1960	1-7/8"	3-5/8"	95006108	12
#10	0.1935	1-7/8"	3-5/8"	95006109	12
#11	0.1910	1-7/8"	3-1/2"	95006110	12
#12	0.1890	1-3/4"	3-1/2"	95006111	12
#13	0.1850	1-3/4"	3-1/2"	95006112	12
#14	0.1820	1-3/4"	3-3/8"	95006113	12
#15	0.1800	1-3/4"	3-3/8"	95006114	12
#16	0.1770	1-3/4"	3-3/8"	95006115	12
#17	0.1730	1-5/8"	3-3/8"	95006116	12
#18	0.1695	1-5/8"	3-1/4"	95006117	12
#19	0.1660	1-5/8"	3-1/4"	95006118	12
#20	0.1610	1-5/8"	3-1/4"	95006119	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#21	0.1590	1-5/8"	3-1/4"	95006120	12
#22	0.1570	1-5/8"	3-1/8"	95006121	12
#23	0.1540	1-1/2"	3-1/8"	95006122	12
#24	0.1520	1-1/2"	3-1/8"	95006123	12
#25	0.1495	1-1/2"	3"	95006124	12
#26	0.1470	1-1/2"	3"	95006125	12
#27	0.1440	1-3/8"	3"	95006126	12
#28	0.1405	1-3/8"	2-7/8"	95006127	12
#29	0.1360	1-3/8"	2-7/8"	95006128	12
#30	0.1285	1-1/4"	2-3/4"	95006129	12
#31	0.1200	1-1/4"	2-3/4"	95006130	12
#32	0.1160	1-1/4"	2-3/4"	95006131	12
#33	0.1130	1-1/4"	2-5/8"	95006132	12
#34	0.1110	1-1/4"	2-5/8"	95006133	12
#35	0.1100	1-1/4"	2-5/8"	95006134	12
#36	0.1065	1-1/8"	2-1/2"	95006135	12
#37	0.1040	1-1/8"	2-1/2"	95006136	12
#38	0.1015	1-1/8"	2-1/2"	95006137	12
#39	0.0995	1-1/8"	2-3/8"	95006138	12
#40	0.0980	1"	2-3/8"	95006139	12

Tri-flat shank on drill bits #1 thru #13

JOBBER LENGTH

SERIES JH522

BLACKGOLD™ 137° HEAVY DUTY



**TRI-FLAT
SHANK**



- Aggressive web taper prevents breakage for more holes per drill bit
- Split point tip penetrates surface on contact and prevents drill bit "walking"
- Shorter, stronger cutting lip for easier drilling and longer life

- Heavy taper with narrow tip for quick starts without sacrificing the structure
- Engineered for less torque and lightens operator load
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	2"	3-7/8"	95006200	12
B	0.2380	2"	4"	95006201	12
C	0.2420	2"	4"	95006202	12
D	0.2460	2"	4"	95006203	12
E	0.2500	2"	4"	95006204	12
F	0.2570	2-1/4"	4-1/8"	95006205	12
G	0.2610	2-1/4"	4-1/8"	95006206	12
H	0.2660	2-1/4"	4-1/8"	95006207	12
I	0.2720	2-1/4"	4-1/8"	95006208	12
J	0.2770	2-1/4"	4-1/8"	95006209	12
K	0.2810	2-1/4"	4-1/4"	95006210	12
L	0.2900	2-1/4"	4-1/4"	95006211	12
M	0.2950	2-3/8"	4-3/8"	95006212	12
N	0.3020	2-3/8"	4-3/8"	95006213	12
O	0.3160	2-3/8"	4-3/8"	95006214	6
P	0.3230	2-3/8"	4-5/8"	95006215	6
Q	0.3320	2-3/8"	4-3/4"	95006216	6
R	0.3390	2-3/8"	4-3/4"	95006217	6
S	0.3480	2-1/2"	4-7/8"	95006218	6
T	0.3580	2-1/2"	4-7/8"	95006219	6
U	0.3680	2-1/2"	5"	95006220	6
V	0.3770	2-1/2"	5"	95006221	6
W	0.3860	2-5/8"	5-1/8"	95006222	6
X	0.3970	2-5/8"	5-1/8"	95006223	6
Y	0.4040	3"	5-1/4"	95006224	6
Z	0.4130	3"	5-1/4"	95006225	6

JOBBER LENGTH



SERIES JH522-P

BLACKGOLD™ 135° HEAVY DUTY



PARABOLIC

PERFORMANCE CUTTING TOOLS

- Heavy-duty web improves strength and structural stability
- Flatter web taper for more consistent chip evacuation

- 32° High helix enhances lift and reduces chip turbulence
- Parabolic, wide flutes for superior performance in deep-hole drilling
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Aluminum
- Copper
- Brass
- Plastic
- Steel (low & medium carbon)
- Steel Alloy



FRACTIONAL & WIRE SIZES

FRACT. SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95004800	12
5/64	0.0781	1"	2"	95004801	12
3/32	0.0938	1-1/4"	2-1/4"	95004802	12
7/64	0.1094	1-1/2"	2-5/8"	95004803	12
1/8	0.1250	1-5/8"	2-3/4"	95004804	12
9/64	0.1406	1-3/4"	2-7/8"	95004805	12
5/32	0.1562	2"	3-1/8"	95004806	12
11/64	0.1719	2-1/8"	3-1/4"	95004807	12
3/16	0.1875	2-5/16"	3-1/2"	95004808	12
13/64	0.2031	2-7/16"	3-5/8"	95004809	12
7/32	0.2188	2-1/2"	3-3/4"	95004810	12
15/64	0.2344	2-5/8"	3-7/8"	95004811	12
1/4	0.2500	2-3/4"	4"	95004812	12
17/64	0.2656	2-7/8"	4-1/8"	95004813	12
9/32	0.2812	2-15/16"	4-1/4"	95004814	12
19/64	0.2969	3-1/16"	4-3/8"	95004815	12
5/16	0.3125	3-3/16"	4-1/2"	95004816	6
21/64	0.3281	3-5/16"	4-5/8"	95004817	6
11/32	0.3438	3-7/16"	4-3/4"	95004818	6

FRACT. SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
23/64	0.3594	3-1/2"	4-7/8"	95004819	6
3/8	0.3750	3-5/8"	5"	95004820	6
25/64	0.3906	3-3/4"	5-1/8"	95004821	6
13/32	0.4062	3-7/8"	5-1/4"	95004822	6
27/64	0.4219	3-15/16"	5-3/8"	95004823	6
7/16	0.4375	4-1/16"	5-1/2"	95004824	6
29/64	0.4531	4-3/16"	5-5/8"	95004825	6
15/32	0.4688	4-5/16"	5-3/4"	95004826	6
31/64	0.4844	4-3/8"	5-7/8"	95004827	6
1/2	0.5000	4-1/2"	6"	95004828	6

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#10	0.1935	1-7/8"	3-5/8"	95004910	12
#20	0.1610	1-5/8"	3-1/4"	95004920	12
#21	0.1590	1-5/8"	3-1/4"	95004921	12
#30	0.1285	1-1/4"	2-3/4"	95004930	12
#40	0.0980	1"	2-3/8"	95004940	12

Drill bits from 7/64" to 1/2" are Split Point

JOBBER LENGTH

SERIES JC514

COBALT 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95004200	12
5/64	0.0781	1"	2"	95004201	12
3/32	0.0938	1-1/4"	2-1/4"	95004203	12
7/64	0.1094	1-1/2"	2-5/8"	95004204	12
1/8	0.1250	1-5/8"	2-3/4"	95004205	12
9/64	0.1406	1-3/4"	2-7/8"	95004206	12
5/32	0.1562	2"	3-1/8"	95004207	12
11/64	0.1719	2-1/8"	3-1/4"	95004208	12
3/16	0.1875	2-5/16"	3-1/2"	95004209	12
13/64	0.2031	2-7/16"	3-5/8"	95004210	12
7/32	0.2188	2-1/2"	3-3/4"	95004211	12
15/64	0.2344	2-5/8"	3-7/8"	95004212	12
1/4	0.2500	2-3/4"	4"	95004213	12
17/64	0.2656	2-7/8"	4-1/8"	95004214	12
9/32	0.2812	2-15/16"	4-1/4"	95004215	12
19/64	0.2969	3-1/16"	4-3/8"	95004216	12
5/16	0.3125	3-3/16"	4-1/2"	95004217	6
21/64	0.3281	3-5/16"	4-5/8"	95004218	6
11/32	0.3438	3-7/16"	4-3/4"	95004219	6
23/64	0.3594	3-1/2"	4-7/8"	95004220	6
3/8	0.3750	3-5/8"	5"	95004221	6
25/64	0.3906	3-3/4"	5-1/8"	95004222	6
13/32	0.4062	3-7/8"	5-1/4"	95004223	6
27/64	0.4219	3-15/16"	5-3/8"	95004224	6
7/16	0.4375	4-1/16"	5-1/2"	95004225	6
29/64	0.4531	4-3/16"	5-5/8"	95004226	6
15/32	0.4688	4-5/16"	5-3/4"	95004227	6
31/64	0.4844	4-3/8"	5-7/8"	95004228	6
1/2	0.5000	4-1/2"	6"	95004229	6

JOBBER LENGTH



SERIES JC514

COBALT 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	3-7/8"	95004600	12
#2	0.2210	2-5/8"	3-7/8"	95004601	12
#3	0.2130	2-1/2"	3-3/4"	95004602	12
#4	0.2090	2-1/2"	3-3/4"	95004603	12
#5	0.2055	2-1/2"	3-3/4"	95004604	12
#6	0.2040	2-1/2"	3-3/4"	95004605	12
#7	0.2010	2-7/16"	3-5/8"	95004606	12
#8	0.1990	2-7/16"	3-5/8"	95004607	12
#9	0.1960	2-7/16"	3-5/8"	95004608	12
#10	0.1935	2-7/16"	3-5/8"	95004609	12
#11	0.1910	2-5/16"	3-1/2"	95004610	12
#12	0.1890	2-5/16"	3-1/2"	95004611	12
#13	0.1850	2-5/16"	3-1/2"	95004612	12
#14	0.1820	2-3/16"	3-3/8"	95004613	12
#15	0.1800	2-3/16"	3-3/8"	95004614	12
#16	0.1770	2-3/16"	3-3/8"	95004615	12
#17	0.1730	2-3/16"	3-3/8"	95004616	12
#18	0.1695	2-1/8"	3-1/4"	95004617	12
#19	0.1660	2-1/8"	3-1/4"	95004618	12
#20	0.1610	2-1/8"	3-1/4"	95004619	12
#21	0.1590	2-1/8"	3-1/4"	95004620	12
#22	0.1570	2"	3-1/8"	95004621	12
#23	0.1540	2"	3-1/8"	95004622	12
#24	0.1520	2"	3-1/8"	95004623	12
#25	0.1495	1-7/8"	3"	95004624	12
#26	0.1470	1-7/8"	3"	95004625	12
#27	0.1440	1-7/8"	3"	95004626	12
#28	0.1405	1-3/4"	2-7/8"	95004627	12
#29	0.1360	1-3/4"	2-7/8"	95004628	12
#30	0.1285	1-5/8"	2-3/4"	95004629	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	1-5/8"	2-3/4"	95004630	12
#32	0.1160	1-5/8"	2-3/4"	95004631	12
#33	0.1130	1-1/2"	2-5/8"	95004632	12
#34	0.1110	1-1/2"	2-5/8"	95004633	12
#35	0.1100	1-1/2"	2-5/8"	95004634	12
#36	0.1065	1-7/16"	2-1/2"	95004635	12
#37	0.1040	1-7/16"	2-1/2"	95004636	12
#38	0.1015	1-7/16"	2-1/2"	95004637	12
#39	0.0995	1-3/8"	2-3/8"	95004638	12
#40	0.0980	1-3/8"	2-3/8"	95004639	12
#41	0.0960	1-3/8"	2-3/8"	95004640	12
#42	0.0935	1-1/4"	2-1/4"	95004641	12
#43	0.0890	1-1/4"	2-1/4"	95004642	12
#44	0.0860	1-1/8"	2-1/8"	95004643	12
#45	0.0820	1-1/8"	2-1/8"	95004644	12
#46	0.0810	1-1/8"	2-1/8"	95004645	12
#47	0.0785	1"	2"	95004646	12
#48	0.0760	1"	2"	95004647	12
#49	0.0730	1"	2"	95004648	12
#50	0.0700	1"	2"	95004649	12
#51	0.0670	1"	2"	95004650	12
#52	0.0635	7/8"	1-7/8"	95004651	12
#53	0.0595	7/8"	1-7/8"	95004652	12
#54	0.0550	7/8"	1-7/8"	95004653	12
#55	0.0520	7/8"	1-7/8"	95004654	12
#56	0.0465	3/4"	1-3/4"	95004655	12
#57	0.0430	3/4"	1-3/4"	95004656	12
#58	0.0420	11/16"	1-5/8"	95004657	12
#59	0.0410	11/16"	1-5/8"	95004658	12
#60	0.0400	11/16"	1-5/8"	95004659	12

Drill bits from #1 to #52 are Split Point

JOBBER LENGTH

SERIES JC514

COBALT 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low & medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	2-5/8"	3-7/8"	95006400	12
B	0.2380	2-3/4"	4"	95006401	12
C	0.2420	2-3/4"	4"	95006402	12
D	0.2460	2-3/4"	4"	95006403	12
E	0.2500	2-3/4"	4"	95006404	12
F	0.2570	2-7/8"	4-1/8"	95006405	12
G	0.2610	2-7/8"	4-1/8"	95006406	12
H	0.2660	2-7/8"	4-1/8"	95006407	12
I	0.2720	2-7/8"	4-1/8"	95006408	12
J	0.2770	2-7/8"	4-1/8"	95006409	12
K	0.2810	2-15/16"	4-1/4"	95006410	12
L	0.2900	2-15/16"	4-1/4"	95006411	12
M	0.2950	3-1/16"	4-3/8"	95006412	12
N	0.3020	3-1/16"	4-3/8"	95006413	12
O	0.3160	3-3/16"	4-1/2"	95006414	6
P	0.3230	3-5/16"	4-5/8"	95006415	6
Q	0.3320	3-7/16"	4-3/4"	95006416	6
R	0.3390	3-7/16"	4-3/4"	95006417	6
S	0.3480	3-1/2"	4-7/8"	95006418	6
T	0.3580	3-1/2"	4-7/8"	95006419	6
U	0.3680	3-5/8"	5"	95006420	6
V	0.3770	3-5/8"	5"	95006421	6
W	0.3860	3-3/4"	5-1/8"	95006422	6
X	0.3970	3-3/4"	5-1/8"	95006423	6
Y	0.4040	3-7/8"	5-1/4"	95006424	6
Z	0.4130	3-7/8"	5-1/4"	95006425	6

JOBBER LENGTH



Series 127-XP

COBALT 127° HEAVY DUTY



- Exclusively engineered with specific design and cutting characteristics
- Improve penetration speed
- TIALN Coated

- Reduce thrust load
- Increase productivity
- Deliver premium performance and results

MATERIAL APPLICATION

- Stainless Steel
- Titanium



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	1-7/8"	95006800	12
5/64	0.0781	1"	2"	65006801	12
3/32	0.0938	1-1/4"	2-1/4"	95006802	12
7/64	0.1094	1-1/2"	2-5/8"	95006803	12
1/8	0.1250	1-5/8"	2-3/4"	95006804	12
9/64	0.1406	1-3/4"	2-7/8"	95006805	12
5/32	0.1562	2"	3-1/8"	95006806	12
11/64	0.1719	2-1/8"	3-1/4"	95006807	12
3/16	0.1875	2-5/16"	3-1/2"	95006808	12
13/64	0.2031	2-7/16"	3-5/8"	95006809	12
7/32	0.2188	2-1/2"	3-3/4"	95006810	12
15/64	0.2344	2-5/8"	3-7/8"	95006811	12
1/4	0.2500	2-3/4"	4"	95006812	12
17/64	0.2656	2-7/8"	4-1/8"	95006813	12
9/32	0.2812	2-15/16"	4-1/4"	95006814	12
19/64	0.2969	3-1/16"	4-3/8"	95006815	12
5/16	0.3125	3-3/16"	4-1/2"	95006816	6
21/64	0.3281	3-5/16"	4-5/8"	95006817	6
11/32	0.3438	3-7/16"	4-3/4"	95006818	6
23/64	0.3594	3-1/2"	4-7/8"	95006819	6
3/8	0.3750	3-5/8"	5"	95006820	6
25/64	0.3906	3-3/4"	5-1/8"	95006821	6
13/32	0.4062	3-7/8"	5-1/4"	95006822	6
27/64	0.4219	3-15/16"	5-3/8"	95006823	6
7/16	0.4375	4-1/16"	5-1/2"	95006824	6
29/64	0.4531	4-3/16"	5-5/8"	95006825	6
15/32	0.4688	4-5/16"	5-3/4"	95006826	6
31/64	0.4844	4-3/8"	5-7/8"	95006827	6
1/2	0.5000	4-1/2"	6"	95006828	6

SERIES JH800-R

BRIGHT 118° GENERAL PURPOSE



**REDUCED
SHANK**



- Reduced shank for use with any chuck 3/8" diameter or larger
- Industrial-Grade NAS High Speed Steel (HSS)
- Excellent general use drill bit
- Flutes are precision ground for faster, more efficient chip removal

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
25/64	0.3906	3-3/4"	5-1/8"	95000580	6
13/32	0.4062	3-7/8"	5-1/4"	95000581	6
27/64	0.4219	3-15/16"	5-3/8"	95000582	6
7/16	0.4375	4-1/16"	5-1/2"	95000583	6
29/64	0.4531	4-3/16"	5-5/8"	95000584	6
15/32	0.4688	4-5/16"	5-3/4"	95000585	6
31/64	0.4844	4-3/8"	5-7/8"	95000586	6
1/2	0.5000	4-1/2"	6"	95000587	6

JOBBER LENGTH



SERIES JH501-R

BLACK OXIDE 135° HEAVY DUTY



**REDUCED
SHANK**

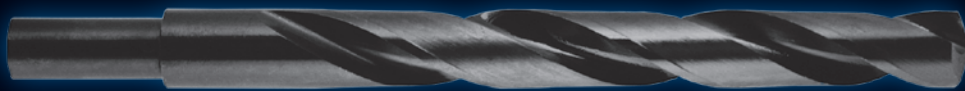


- Reduced shank for use with any chuck 3/8" diameter or larger
- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity

- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Cast Iron
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
25/64	.3906	3-3/4"	5-1/8"	95000630	6
13/32	.4062	3-7/8"	5-1/4"	95000631	6
27/64	.4219	3-15/16"	5-3/8"	95000632	6
7/16	.4375	4-1/16"	5-1/2"	95000633	6
29/64	.4531	4-3/16"	5-5/8"	95000634	6
15/32	.4688	4-5/16"	5-3/4"	95000635	6
31/64	.4844	4-3/8"	5-7/8"	95000636	6
1/2	.5000	4-1/2"	6"	95000637	6

JOBBER LENGTH

X29

BRIGHT BRAD POINT



**TRI-FLAT
REDUCED SHANK**



- Excellent for drilling in wood and a broad range of plastics – including acrylic
- Dihedral point geometry engineered to drill extremely fast and clean, U.S. Patent #D585,919
- Unrivaled hole accuracy and quality from entry to exit

- Task specific flutes designed for optimal chip evacuation
- Generates minimal heat and material burn
- Industrial-Grade High Speed Steel (HSS)

MATERIAL APPLICATION

- Plastics (including acrylic)
- Sheet Metal
- Wood



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/8"	0.1250	1-5/8"	2-3/4"	95006504	12
3/16"	0.1875	2-5/16"	3-1/2"	95006508	12
1/4"	0.2500	2-3/4"	4"	95006512	12
5/16"	0.3125	3-3/16"	4-1/2"	95006516	6
3/8"	0.3750	3-5/8"	5"	95006520	6
7/16"	0.4375	4-1/16"	5-1/2"	95006524	6
1/2"	0.5000	4-1/2"	6"	95006528	6

Tri-flat shank on drill bits 3/16" thru 1/2"

JOBBER LENGTH



JH522-M

BLACKGOLD™ 137° MAINTENANCE



**TRI-FLAT
SHANK**



- Stronger structure reduces breakage and tri-lobular hole effect due to flute torsion
- Increased material for improved heat absorption and dissipation at the cutting edges
- Improved support for better on size hole characteristics

- Tri-Flat shank provides secure drill chuck grip that eliminates bit spin out
- Penetrates material surface on contact preventing drill bit "skating"
- Industrial-Grade NAS High Speed Steel (HSS)

MATERIAL APPLICATION

- Pre-Hard Materials
- Sheet Metal Stack Up
- Stainless Steel
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16"	0.0625	21/32"	1-7/8"	95008700	12
5/64"	0.0781	3/4"	2"	95008701	12
3/32"	0.0938	15/16"	2-1/4"	95008702	12
7/64"	0.1094	1-1/8"	2-3/8"	95008703	12
1/8"	0.1250	1-7/32"	2-1/2"	95008704	12
9/64"	0.1406	1-5/16"	2-5/8"	95008705	12
5/32"	0.1562	1-1/2"	2-3/4"	95008706	12
11/64"	0.1719	1-19/32"	2-7/8"	95008707	12
3/16"	0.1875	1-47/64"	3	95008708	12
13/64"	0.2031	1-53/64"	3-1/8"	95008709	12
7/32"	0.2188	1-7/8"	3-1/4"	95008710	12
15/64"	0.2344	1-31/32"	3-3/8"	95008711	12
1/4"	0.2500	2-1/16"	3-1/2"	95008712	12
17/64"	0.2656	2-5/32"	3-5/8"	95008713	12
9/32"	0.2812	2-13/64"	3-3/4"	95008714	12
19/64"	0.2969	2-19/64"	3-7/8"	95008715	12
5/16"	0.3125	2-25/64"	4	95008716	12
21/64"	0.3281	2-31/64"	4-1/16"	95008717	6
11/32"	0.3438	2-37/64"	4-1/8"	95008718	6
23/64"	0.3594	2-5/8"	4-3/16"	95008719	6
3/8"	0.3750	2-23/32"	4-1/4"	95008720	6
25/64"	0.3906	2-13/16"	4-5/16"	95008721	6
13/32"	0.4062	2-29/32"	4-3/8"	95008722	6
27/64"	0.4219	2-61/64"	4-7/16"	95008723	6
7/16"	0.4375	3-3/64"	4-1/2"	95008724	6
29/64"	0.4531	3-9/64"	4-5/8"	95008725	6
15/32"	0.4688	3-15/64"	4-3/4"	95008726	6
31/64"	0.4844	3-9/32"	4-7/8"	95008727	6
1/2"	0.5000	3-3/8"	5"	95008728	6

Tri-flat shank on drill bits 3/16" thru 1/2"

SERIES SH500

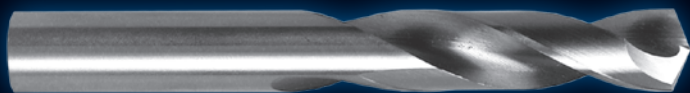
BRIGHT 135° HEAVY DUTY



- Excellent general use drill bit
- Flutes are precision ground for faster, more efficient chip removal
- Industrial-Grade NAS High Speed Steel (HSS)
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	5/8"	1-5/8"	95002900	12
5/64	0.0781	11/16"	1-11/16"	95002901	12
3/32	0.0938	3/4"	1-3/4"	95002902	12
7/64	0.1094	13/16"	1-13/16"	95002903	12
1/8	0.1250	7/8"	1-7/8"	95002904	12
9/64	0.1406	15/16"	1-15/16"	95002905	12
5/32	0.1562	1"	2-1/16"	95002906	12
11/64	0.1719	1-1/16"	2-1/8"	95002907	12
3/16	0.1875	1-1/8"	2-3/16"	95002908	12
13/64	0.2031	1-3/16"	2-1/4"	95002909	12
7/32	0.2188	1-1/4"	2-3/8"	95002910	12
15/64	0.2334	1-5/16"	2-7/16"	95002911	12
1/4	0.2500	1-3/8"	2-1/2"	95002912	12
17/64	0.2656	1-7/16"	2-5/8"	95002913	12
9/32	0.2812	1-1/2"	2-11/16"	95002914	12
19/64	0.2969	1-9/16"	2-3/4"	95002915	12
5/16	0.3125	1-5/8"	2-13/16"	95002916	6
21/64	0.3281	1-11/16"	2-15/16"	95002917	6
11/32	0.3438	1-11/16"	3"	95002918	6
23/64	0.3594	1-3/4"	3-1/16"	95002919	6
3/8	0.3750	1-13/16"	3-1/8"	95002920	6
25/64	0.3906	1-7/8"	3-1/4"	95002921	6
13/32	0.4062	1-15/16"	3-5/16"	95002922	6
27/64	0.4219	2"	3-3/8"	95002923	6
7/16	0.4375	2-1/16"	3-7/16"	95002924	6
29/64	0.4531	2-1/8"	3-9/16"	95002925	6
15/32	0.4688	2-1/8"	3-5/8"	95002926	6
31/64	0.4844	2-3/16"	3-11/16"	95002927	6
1/2	0.5000	2-1/4"	3-3/4"	95002928	6

Drill bits from 7/64" to 1/2" are Split Point



SERIES SH500

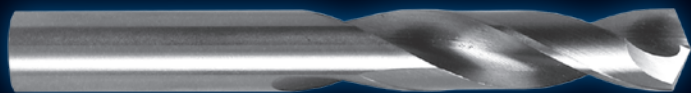
BRIGHT 135° HEAVY DUTY



- Excellent general use drill bit
- Flutes are precision ground for faster, more efficient chip removal
- Industrial-Grade NAS High Speed Steel (HSS)
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	1-5/16"	2-7/16"	95002801	12
#2	0.2210	1-5/16"	2-7/16"	95002802	12
#3	0.2130	1-1/4"	2-3/8"	95002803	12
#4	0.2090	1-1/4"	2-3/8"	95002804	12
#5	0.2055	1-1/4"	2-3/8"	95002805	12
#6	0.2040	1-1/4"	2-3/8"	95002806	12
#7	0.2010	1-3/16"	2-1/4"	95002807	12
#8	0.1990	1-3/16"	2-1/4"	95002808	12
#9	0.1960	1-3/16"	2-1/4"	95002809	12
#10	0.1935	1-3/16"	2-1/4"	95002810	12
#11	0.1910	1-3/16"	2-1/4"	95002811	12
#12	0.1890	1-3/16"	2-1/4"	95002812	12
#13	0.1850	1-1/8"	2-3/16"	95002813	12
#14	0.1820	1-1/8"	2-3/16"	95002814	12
#15	0.1800	1-1/8"	2-3/16"	95002815	12
#16	0.1770	1-1/8"	2-3/16"	95002816	12
#17	0.1730	1-1/8"	2-3/16"	95002817	12
#18	0.1695	1-1/16"	2-1/8"	95002818	12
#19	0.1660	1-1/16"	2-1/8"	95002819	12
#20	0.1610	1-1/16"	2-1/8"	95002820	12
#21	0.1590	1-1/16"	2-1/8"	95002821	12
#22	0.1570	1-1/16"	2-1/8"	95002822	12
#23	0.1540	1"	2-1/16"	95002823	12
#24	0.1520	1"	2-1/16"	95002824	12
#25	0.1495	1"	2-1/16"	95002825	12
#26	0.1470	1"	2-1/16"	95002826	12
#27	0.1440	1"	2-1/16"	95002827	12
#28	0.1405	15/16"	1-15/16"	95002828	12
#29	0.1360	15/16"	1-15/16"	95002829	12
#30	0.1285	15/16"	1-15/16"	95002830	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	7/8"	1-7/8"	95002831	12
#32	0.1160	7/8"	1-7/8"	95002832	12
#33	0.1130	7/8"	1-7/8"	95002833	12
#34	0.1110	7/8"	1-7/8"	95002834	12
#35	0.1100	7/8"	1-7/8"	95002835	12
#36	0.1065	13/16"	1-13/16"	95002836	12
#37	0.1040	13/16"	1-13/16"	95002837	12
#38	0.1015	13/16"	1-13/16"	95002838	12
#39	0.0995	13/16"	1-13/16"	95002839	12
#40	0.0980	13/16"	1-13/16"	95002840	12
#41	0.0960	13/16"	1-13/16"	95002841	12
#42	0.0935	3/4"	1-3/4"	95002842	12
#43	0.0890	3/4"	1-3/4"	95002843	12
#44	0.0860	3/4"	1-3/4"	95002844	12
#45	0.0820	3/4"	1-3/4"	95002845	12
#46	0.0810	3/4"	1-3/4"	95002846	12
#47	0.0785	11/16"	1-11/16"	95002847	12
#48	0.0760	11/16"	1-11/16"	95002848	12
#49	0.0730	11/16"	1-11/16"	95002849	12
#50	0.0700	11/16"	1-11/16"	95002850	12
#51	0.0670	11/16"	1-11/16"	95002851	12
#52	0.0635	11/16"	1-11/16"	95002852	12
#53	0.0595	5/8"	1-5/8"	95002853	12
#54	0.0550	5/8"	1-5/8"	95002854	12
#55	0.0520	5/8"	1-5/8"	95002855	12
#56	0.0465	1/2"	1-3/8"	95002856	12
#57	0.0430	1/2"	1-3/8"	95002857	12
#58	0.0420	1/2"	1-3/8"	95002858	12
#59	0.0410	1/2"	1-3/8"	95002859	12
#60	0.0400	1/2"	1-3/8"	95002860	12

Drill bits from #1 to #52 are Split Point

SERIES SH500

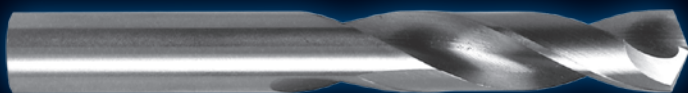
BRIGHT 135° HEAVY DUTY



- Excellent general use drill bit
- Flutes are precision ground for faster, more efficient chip removal
- Industrial-Grade NAS High Speed Steel (HSS)
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	1-5/16"	2-7/16"	95003000	12
B	0.2380	1-3/8"	2-1/2"	95003001	12
C	0.2420	1-3/8"	2-1/2"	95003002	12
D	0.2460	1-3/8"	2-1/2"	95003003	12
E	0.2500	1-3/8"	2-1/2"	95003004	12
F	0.2570	1-7/16"	2-5/8"	95003005	12
G	0.2610	1-7/16"	2-5/8"	95003006	12
H	0.2660	1-1/2"	2-11/16"	95003007	12
I	0.2720	1-1/2"	2-11/16"	95003008	12
J	0.2770	1-1/2"	2-11/16"	95003009	12
K	0.2810	1-1/2"	2-11/16"	95003010	12
L	0.2900	1-9/16"	2-3/4"	95003011	12
M	0.2950	1-9/16"	2-3/4"	95003012	12
N	0.3020	1-5/8"	2-13/16"	95003013	12
O	0.3160	1-11/16"	2-15/16"	95003014	6
P	0.3230	1-11/16"	2-15/16"	95003015	6
Q	0.3320	1-11/16"	3"	95003016	6
R	0.3390	1-11/16"	3"	95003017	6
S	0.3480	1-3/4"	3-1/16"	95003018	6
T	0.3580	1-3/4"	3-1/16"	95003019	6
U	0.3680	1-13/16"	3-1/8"	95003020	6
V	0.3770	1-7/8"	3-1/4"	95003021	6
W	0.3860	1-7/8"	3-1/4"	95003022	6
X	0.3970	1-15/16"	3-5/16"	95003023	6
Y	0.4040	1-15/16"	3-5/16"	95003024	6
Z	0.4130	2"	3-3/8"	95003025	6



SERIES SH501

BLACK OXIDE 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Cast Iron
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	5/8"	1-5/8"	95001860	12
5/64	0.0781	11/16"	1-11/16"	95001861	12
3/32	0.0938	3/4"	1-3/4"	95001862	12
7/64	0.1094	13/16"	1-13/16"	95001863	12
1/8	0.1250	7/8"	1-7/8"	95001864	12
9/64	0.1406	15/16"	1-15/16"	95001865	12
5/32	0.1562	1"	2-1/16"	95001866	12
11/64	0.1719	1-1/16"	2-1/8"	95001867	12
3/16	0.1875	1-1/8"	2-3/16"	95001868	12
13/64	0.2031	1-3/16"	2-1/4"	95001869	12
7/32	0.2188	1-1/4"	2-3/8"	95001870	12
15/64	0.2334	1-5/16"	2-7/16"	95001871	12
1/4	0.2500	1-3/8"	2-1/2"	95001872	12
17/64	0.2656	1-7/16"	2-5/8"	95001873	12
9/32	0.2812	1-1/2"	2-11/16"	95001874	12
19/64	0.2969	1-9/16"	2-3/4"	95001875	12
5/16	0.3125	1-5/8"	2-13/16"	95001876	6
21/64	0.3281	1-11/16"	2-15/16"	95001877	6
11/32	0.3438	1-11/16"	3"	95001878	6
23/64	0.3594	1-3/4"	3-1/16"	95001879	6
3/8	0.3750	1-13/16"	3-1/8"	95001880	6
25/64	0.3906	1-7/8"	3-1/4"	95001881	6
13/32	0.4062	1-15/16"	3-5/16"	95001882	6
27/64	0.4219	2"	3-3/8"	95001883	6
7/16	0.4375	2-1/16"	3-7/16"	95001884	6
29/64	0.4531	2-1/8"	3-9/16"	95001885	6
15/32	0.4688	2-1/8"	3-5/8"	95001886	6
31/64	0.4844	2-3/16"	3-11/16"	95001887	6
1/2	0.5000	2-1/4"	3-3/4"	95001888	6

Drill bits from 7/64" to 1/2" are Split Point

SERIES SH501

BLACK OXIDE 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Cast Iron
- Steel Alloy



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	1-5/16"	2-7/16"	95001800	12
#2	0.2210	1-5/16"	2-7/16"	95001801	12
#3	0.2130	1-1/4"	2-3/8"	95001802	12
#4	0.2090	1-1/4"	2-3/8"	95001803	12
#5	0.2055	1-1/4"	2-3/8"	95001804	12
#6	0.2040	1-1/4"	2-3/8"	95001805	12
#7	0.2010	1-3/16"	2-1/4"	95001806	12
#8	0.1990	1-3/16"	2-1/4"	95001807	12
#9	0.1960	1-3/16"	2-1/4"	95001808	12
#10	0.1935	1-3/16"	2-1/4"	95001809	12
#11	0.1910	1-3/16"	2-1/4"	95001810	12
#12	0.1890	1-3/16"	2-1/4"	95001811	12
#13	0.1850	1-1/8"	2-3/16"	95001812	12
#14	0.1820	1-1/8"	2-3/16"	95001813	12
#15	0.1800	1-1/8"	2-3/16"	95001814	12
#16	0.1770	1-1/8"	2-3/16"	95001815	12
#17	0.1730	1-1/8"	2-3/16"	95001816	12
#18	0.1695	1-1/16"	2-1/8"	95001817	12
#19	0.1660	1-1/16"	2-1/8"	95001818	12
#20	0.1610	1-1/16"	2-1/8"	95001819	12
#21	0.1590	1-1/16"	2-1/8"	95001820	12
#22	0.1570	1-1/16"	2-1/8"	95001821	12
#23	0.1540	1"	2-1/16"	95001822	12
#24	0.1520	1"	2-1/16"	95001823	12
#25	0.1495	1"	2-1/16"	95001824	12
#26	0.1470	1"	2-1/16"	95001825	12
#27	0.1440	1"	2-1/16"	95001826	12
#28	0.1405	15/16"	1-15/16"	95001827	12
#29	0.1360	15/16"	1-15/16"	95001828	12
#30	0.1285	15/16"	1-15/16"	95001829	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	7/8"	1-7/8"	95001830	12
#32	0.1160	7/8"	1-7/8"	95001831	12
#33	0.1130	7/8"	1-7/8"	95001832	12
#34	0.1110	7/8"	1-7/8"	95001833	12
#35	0.1100	7/8"	1-7/8"	95001834	12
#36	0.1065	13/16"	1-13/16"	95001835	12
#37	0.1040	13/16"	1-13/16"	95001836	12
#38	0.1015	13/16"	1-13/16"	95001837	12
#39	0.0995	13/16"	1-13/16"	95001838	12
#40	0.0980	13/16"	1-13/16"	95001839	12
#41	0.0960	13/16"	1-13/16"	95001840	12
#42	0.0935	3/4"	1-3/4"	95001841	12
#43	0.0890	3/4"	1-3/4"	95001842	12
#44	0.0860	3/4"	1-3/4"	95001843	12
#45	0.0820	3/4"	1-3/4"	95001844	12
#46	0.0810	3/4"	1-3/4"	95001845	12
#47	0.0785	11/16"	1-11/16"	95001846	12
#48	0.0760	11/16"	1-11/16"	95001847	12
#49	0.0730	11/16"	1-11/16"	95001848	12
#50	0.0700	11/16"	1-11/16"	95001849	12
#51	0.0670	11/16"	1-11/16"	95001850	12
#52	0.0635	11/16"	1-11/16"	95001851	12
#53	0.0595	5/8"	1-5/8"	95001852	12
#54	0.0550	5/8"	1-5/8"	95001853	12
#55	0.0520	5/8"	1-5/8"	95001854	12
#56	0.0465	1/2"	1-3/8"	95001855	12
#57	0.0430	1/2"	1-3/8"	95001856	12
#58	0.0420	1/2"	1-3/8"	95001857	12
#59	0.0410	1/2"	1-3/8"	95001858	12
#60	0.0400	1/2"	1-3/8"	95001859	12

Drill bits from #1 to #52 are Split Point



SERIES SH501

BLACK OXIDE 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS)
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Cast Iron
- Steel Alloy



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	1-5/16"	2-7/16"	95006450	12
B	0.2380	1-3/8"	2-1/2"	95006451	12
C	0.2420	1-3/8"	2-1/2"	95006452	12
D	0.2460	1-3/8"	2-1/2"	95006453	12
E	0.2500	1-3/8"	2-1/2"	95006454	12
F	0.2570	1-7/16"	2-5/8"	95006455	12
G	0.2610	1-7/16"	2-5/8"	95006456	12
H	0.2660	1-1/2"	2-11/16"	95006457	12
I	0.2720	1-1/2"	2-11/16"	95006458	12
J	0.2770	1-1/2"	2-11/16"	95006459	12
K	0.2810	1-1/2"	2-11/16"	95006460	12
L	0.2900	1-9/16"	2-3/4"	95006461	12
M	0.2950	1-9/16"	2-3/4"	95006462	12
N	0.3020	1-5/8"	2-13/16"	95006463	12
O	0.3160	1-11/16"	2-15/16"	95006464	6
P	0.3230	1-11/16"	2-15/16"	95006465	6
Q	0.3320	1-11/16"	3"	95006466	6
R	0.3390	1-11/16"	3"	95006467	6
S	0.3480	1-3/4"	3-1/16"	95006468	6
T	0.3580	1-3/4"	3-1/16"	95006469	6
U	0.3680	1-13/16"	3-1/8"	95006470	6
V	0.3770	1-7/8"	3-1/4"	95006471	6
W	0.3860	1-7/8"	3-1/4"	95006472	6
X	0.3970	1-15/16"	3-5/16"	95006473	6
Y	0.4040	1-15/16"	3-5/16"	95006474	6
Z	0.4130	2"	3-3/8"	95006475	6

SERIES SC514

COBALT 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low and medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	5/8"	1-5/8"	95001746	12
5/64	0.0781	11/16"	1-11/16"	95001747	12
3/32	0.0938	3/4"	1-3/4"	95001748	12
7/64	0.1094	13/16"	1-13/16"	95001749	12
1/8	0.1250	7/8"	1-7/8"	95001750	12
9/64	0.1406	15/16"	1-15/16"	95001763	12
5/32	0.1562	1"	2-1/16"	95001751	12
11/64	0.1719	1-1/16"	2-1/8"	95001764	12
3/16	0.1875	1-1/8"	2-3/16"	95001752	12
13/64	0.2031	1-3/16"	2-1/4"	95001765	12
7/32	0.2188	1-1/4"	2-3/8"	95001753	12
15/64	0.2334	1-5/16"	2-7/16"	95001766	12
1/4	0.2500	1-3/8"	2-1/2"	95001754	12
17/64	0.2656	1-7/16"	2-5/8"	95001767	12
9/32	0.2812	1-1/2"	2-11/16"	95001755	12
19/64	0.2969	1-9/16"	2-3/4"	95001768	12
5/16	0.3125	1-5/8"	2-13/16"	95001756	6
21/64	0.3281	1-11/16"	2-15/16"	95001769	6
11/32	0.3438	1-11/16"	3"	95001757	6
23/64	0.3594	1-3/4"	3-1/16"	95001770	6
3/8	0.3750	1-13/16"	3-1/8"	95001758	6
25/64	0.3906	1-7/8"	3-1/4"	95001771	6
13/32	0.4062	1-15/16"	3-5/16"	95001759	6
27/64	0.4219	2"	3-3/8"	95001772	6
7/16	0.4375	2-1/16"	3-7/16"	95001760	6
29/64	0.4531	2-1/8"	3-9/16"	95001773	6
15/32	0.4688	2-1/8"	3-5/8"	95001761	6
31/64	0.4844	2-3/16"	3-11/16"	95001774	6
1/2	0.5000	2-1/4"	3-3/4"	95001762	6



SERIES SC514

COBALT 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low and medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	1-5/16"	2-7/16"	95006300	12
#2	0.2210	1-5/16"	2-7/16"	95006301	12
#3	0.2130	1-1/4"	2-3/8"	95006302	12
#4	0.2090	1-1/4"	2-3/8"	95006303	12
#5	0.2055	1-1/4"	2-3/8"	95006304	12
#6	0.2040	1-1/4"	2-3/8"	95006305	12
#7	0.2010	1-3/16"	2-1/4"	95006306	12
#8	0.1990	1-3/16"	2-1/4"	95006307	12
#9	0.1960	1-3/16"	2-1/4"	95006308	12
#10	0.1935	1-3/16"	2-1/4"	95006309	12
#11	0.1910	1-3/16"	2-1/4"	95006310	12
#12	0.1890	1-3/16"	2-1/4"	95006311	12
#13	0.1850	1-1/8"	2-3/16"	95006312	12
#14	0.1820	1-1/8"	2-3/16"	95006313	12
#15	0.1800	1-1/8"	2-3/16"	95006314	12
#16	0.1770	1-1/8"	2-3/16"	95006315	12
#17	0.1730	1-1/8"	2-3/16"	95006316	12
#18	0.1695	1-1/16"	2-1/8"	95006317	12
#19	0.1660	1-1/16"	2-1/8"	95006318	12
#20	0.1610	1-1/16"	2-1/8"	95006319	12
#21	0.1590	1-1/16"	2-1/8"	95006320	12
#22	0.1570	1-1/16"	2-1/8"	95006321	12
#23	0.1540	1"	2-1/16"	95006322	12
#24	0.1520	1"	2-1/16"	95006323	12
#25	0.1495	1"	2-1/16"	95006324	12
#26	0.1470	1"	2-1/16"	95006325	12
#27	0.1440	1"	2-1/16"	95006326	12
#28	0.1405	15/16"	1-15/16"	95006327	12
#29	0.1360	15/16"	1-15/16"	95006328	12
#30	0.1285	15/16"	1-15/16"	95006329	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	7/8"	1-7/8"	95006330	12
#32	0.1160	7/8"	1-7/8"	95006331	12
#33	0.1130	7/8"	1-7/8"	95006332	12
#34	0.1110	7/8"	1-7/8"	95006333	12
#35	0.1100	7/8"	1-7/8"	95006334	12
#36	0.1065	13/16"	1-13/16"	95006335	12
#37	0.1040	13/16"	1-13/16"	95006336	12
#38	0.1015	13/16"	1-13/16"	95006337	12
#39	0.0995	13/16"	1-13/16"	95006338	12
#40	0.0980	13/16"	1-13/16"	95006339	12
#41	0.0960	13/16"	1-13/16"	95006340	12
#42	0.0935	3/4"	1-3/4"	95006341	12
#43	0.0890	3/4"	1-3/4"	95006342	12
#44	0.0860	3/4"	1-3/4"	95006343	12
#45	0.0820	3/4"	1-3/4"	95006344	12
#46	0.0810	3/4"	1-3/4"	95006345	12
#47	0.0785	11/16"	1-11/16"	95006346	12
#48	0.0760	11/16"	1-11/16"	95006347	12
#49	0.0730	11/16"	1-11/16"	95006348	12
#50	0.0700	11/16"	1-11/16"	95006349	12
#51	0.0670	11/16"	1-11/16"	95006376	12
#52	0.0635	11/16"	1-11/16"	95006377	12
#53	0.0595	5/8"	1-5/8"	95006378	12
#54	0.0550	5/8"	1-5/8"	95006379	12
#55	0.0520	5/8"	1-5/8"	95006380	12
#56	0.0465	1/2"	1-3/8"	95006381	12
#57	0.0430	1/2"	1-3/8"	95006382	12
#58	0.0420	1/2"	1-3/8"	95006383	12
#59	0.0410	1/2"	1-3/8"	95006384	12
#60	0.0400	1/2"	1-3/8"	95006385	12

Drill bits from #1 to #52 are Split Point

SERIES SC514

COBALT 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low and medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	1-5/16"	2-7/16"	95006350	12
B	0.2380	1-3/8"	2-1/2"	95006351	12
C	0.2420	1-3/8"	2-1/2"	95006352	12
D	0.2460	1-3/8"	2-1/2"	95006353	12
E	0.2500	1-3/8"	2-1/2"	95006354	12
F	0.2570	1-7/16"	2-5/8"	95006355	12
G	0.2610	1-7/16"	2-5/8"	95006356	12
H	0.2660	1-1/2"	2-11/16"	95006357	12
I	0.2720	1-1/2"	2-11/16"	95006358	12
J	0.2770	1-1/2"	2-11/16"	95006359	12
K	0.2810	1-1/2"	2-11/16"	95006360	12
L	0.2900	1-9/16"	2-3/4"	95006361	12
M	0.2950	1-9/16"	2-3/4"	95006362	12
N	0.3020	1-5/8"	2-13/16"	95006363	12
O	0.3160	1-11/16"	2-15/16"	95006364	6
P	0.3230	1-11/16"	2-15/16"	95006365	6
Q	0.3320	1-11/16"	3"	95006366	6
R	0.3390	1-11/16"	3"	95006367	6
S	0.3480	1-3/4"	3-1/16"	95006368	6
T	0.3580	1-3/4"	3-1/16"	95006369	6
U	0.3680	1-13/16"	3-1/8"	95006370	6
V	0.3770	1-7/8"	3-1/4"	95006371	6
W	0.3860	1-7/8"	3-1/4"	95006372	6
X	0.3970	1-15/16"	3-5/16"	95006373	6
Y	0.4040	1-15/16"	3-5/16"	95006374	6
Z	0.4130	2"	3-3/8"	95006375	6



Series 127-XP

COBALT 127° HEAVY DUTY



- Exclusively engineered with specific design and cutting characteristics
- Improve penetration speed
- TIALN coated

- Reduce thrust load
- Increase productivity
- Deliver premium performance and results

MATERIAL APPLICATION

- Stainless Steel
- Titanium



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	5/8"	1-5/8"	95007000	12
5/64	0.0781	11/16"	1-11/16"	95007001	12
3/32	0.0938	3/4"	1-3/4"	95007002	12
7/64	0.1094	13/16"	1-13/16"	95007003	12
1/8	0.1250	7/8"	1-7/8"	95007004	12
9/64	0.1406	15/16"	1-15/16"	95007005	12
5/32	0.1562	1"	2-1/16"	95007006	12
11/64	0.1719	1-1/16"	2-1/8"	95007007	12
3/16	0.1875	1-1/8"	2-3/16"	95007008	12
13/64	0.2031	1-3/16"	2-1/4"	95007009	12
7/32	0.2188	1-1/4"	2-3/8"	95007010	12
15/64	0.2334	1-5/16"	2-7/16"	95007011	12
1/4	0.2500	1-3/8"	2-1/2"	95007012	12
17/64	0.2656	1-7/16"	2-5/8"	95007013	12
9/32	0.2812	1-1/2"	2-11/16"	95007014	12
19/64	0.2969	1-9/16"	2-3/4"	95007015	12
5/16	0.3125	1-5/8"	2-13/16"	95007016	6
21/64	0.3281	1-11/16"	2-15/16"	95007017	6
11/32	0.3438	1-11/16"	3"	95007018	6
23/64	0.3594	1-3/4"	3-1/16"	95007019	6
3/8	0.3750	1-13/16"	3-1/8"	95007020	6
25/64	0.3906	1-7/8"	3-1/4"	95007021	6
13/32	0.4062	1-15/16"	3-5/16"	95007022	6
27/64	0.4219	2"	3-3/8"	95007023	6
7/16	0.4375	2-1/16"	3-7/16"	95007024	6
29/64	0.4531	2-1/8"	3-9/16"	95007025	6
15/32	0.4688	2-1/8"	3-5/8"	95007026	6
31/64	0.4844	2-3/16"	3-11/16"	95007027	6
1/2	0.5000	2-1/4"	3-3/4"	95007028	6

Series 127-XP

COBALT 127° HEAVY DUTY



- Exclusively engineered with specific design and cutting characteristics
- Improve penetration speed
- TiAlN coated

- Reduce thrust load
- Increase productivity
- Deliver premium performance and results

MATERIAL APPLICATION

- Stainless Steel
- Titanium



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	1-5/16"	2-7/16"	95007100	12
#2	0.2210	1-5/16"	2-7/16"	95007101	12
#3	0.2130	1-1/4"	2-3/8"	95007102	12
#4	0.2090	1-1/4"	2-3/8"	95007103	12
#5	0.2055	1-1/4"	2-3/8"	95007104	12
#6	0.2040	1-1/4"	2-3/8"	95007105	12
#7	0.2010	1-3/16"	2-1/4"	95007106	12
#8	0.1990	1-3/16"	2-1/4"	95007107	12
#9	0.1960	1-3/16"	2-1/4"	95007108	12
#10	0.1935	1-3/16"	2-1/4"	95007109	12
#11	0.1910	1-3/16"	2-1/4"	95007110	12
#12	0.1890	1-3/16"	2-1/4"	95007111	12
#13	0.1850	1-1/8"	2-3/16"	95007112	12
#14	0.1820	1-1/8"	2-3/16"	95007113	12
#15	0.1800	1-1/8"	2-3/16"	95007114	12
#16	0.1770	1-1/8"	2-3/16"	95007115	12
#17	0.1730	1-1/8"	2-3/16"	95007116	12
#18	0.1695	1-1/16"	2-1/8"	95007117	12
#19	0.1660	1-1/16"	2-1/8"	95007118	12
#20	0.1610	1-1/16"	2-1/8"	95007119	12
#21	0.1590	1-1/16"	2-1/8"	95007120	12
#22	0.1570	1-1/16"	2-1/8"	95007121	12
#23	0.1540	1"	2-1/16"	95007122	12
#24	0.1520	1"	2-1/16"	95007123	12
#25	0.1495	1"	2-1/16"	95007124	12
#26	0.1470	1"	2-1/16"	95007125	12
#27	0.1440	1"	2-1/16"	95007126	12
#28	0.1405	15/16"	1-15/16"	95007127	12
#29	0.1360	15/16"	1-15/16"	95007128	12
#30	0.1285	15/16"	1-15/16"	95007129	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#31	0.1200	7/8"	1-7/8"	95007130	12
#32	0.1160	7/8"	1-7/8"	95007131	12
#33	0.1130	7/8"	1-7/8"	95007132	12
#34	0.1110	7/8"	1-7/8"	95007133	12
#35	0.1100	7/8"	1-7/8"	95007134	12
#36	0.1065	13/16"	1-13/16"	95007135	12
#37	0.1040	13/16"	1-13/16"	95007136	12
#38	0.1015	13/16"	1-13/16"	95007137	12
#39	0.0995	13/16"	1-13/16"	95007138	12
#40	0.0980	13/16"	1-13/16"	95007139	12
#41	0.0960	13/16"	1-13/16"	95007140	12
#42	0.0935	3/4"	1-3/4"	95007141	12
#43	0.0890	3/4"	1-3/4"	95007142	12
#44	0.0860	3/4"	1-3/4"	95007143	12
#45	0.0820	3/4"	1-3/4"	95007144	12
#46	0.0810	3/4"	1-3/4"	95007145	12
#47	0.0785	11/16"	1-11/16"	95007146	12
#48	0.0760	11/16"	1-11/16"	95007147	12
#49	0.0730	11/16"	1-11/16"	95007148	12
#50	0.0700	11/16"	1-11/16"	95007149	12
#51	0.0670	11/16"	1-11/16"	95007150	12
#52	0.0635	11/16"	1-11/16"	95007151	12



Series 127-XP

COBALT 127° HEAVY DUTY



- Exclusively engineered with specific design and cutting characteristics
- Improve penetration speed
- TIALN coated

- Reduce thrust load
- Increase productivity
- Deliver premium performance and results

MATERIAL APPLICATION

- Stainless Steel
- Titanium



LETTER SIZES

LETTER SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
A	0.2340	1-5/16"	2-7/16"	95007050	12
B	0.2380	1-3/8"	2-1/2"	95007051	12
C	0.2420	1-3/8"	2-1/2"	95007052	12
D	0.2460	1-3/8"	2-1/2"	95007053	12
E	0.2500	1-3/8"	2-1/2"	95007054	12
F	0.2570	1-7/16"	2-5/8"	95007055	12
G	0.2610	1-7/16"	2-5/8"	95007056	12
H	0.2660	1-1/2"	2-11/16"	95007057	12
I	0.2720	1-1/2"	2-11/16"	95007058	12
J	0.2770	1-1/2"	2-11/16"	95007059	12
K	0.2810	1-1/2"	2-11/16"	95007060	12
L	0.2900	1-9/16"	2-3/4"	95007061	12
M	0.2950	1-9/16"	2-3/4"	95007062	12
N	0.3020	1-5/8"	2-13/16"	95007063	12
O	0.3160	1-11/16"	2-15/16"	95007064	6
P	0.3230	1-11/16"	2-15/16"	95007065	6
Q	0.3320	1-11/16"	3"	95007066	6
R	0.3390	1-11/16"	3"	95007067	6
S	0.3480	1-3/4"	3-1/16"	95007068	6
T	0.3580	1-3/4"	3-1/16"	95007069	6
U	0.3680	1-13/16"	3-1/8"	95007070	6
V	0.3770	1-7/8"	3-1/4"	95007071	6
W	0.3860	1-7/8"	3-1/4"	95007072	6
X	0.3970	1-15/16"	3-5/16"	95007073	6
Y	0.4040	1-15/16"	3-5/16"	95007074	6
Z	0.4130	2"	3-3/8"	95007075	6

SERIES 6H500

BRIGHT 6" 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS) constructed for superior strength and run-out characteristics
- Mid length extension for deep holes in confined working conditions

- Split Point penetrates on contact and prevents "walking" of the bit
- NAS 907 Compliant
- One piece construction

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/8	0.1250	1-5/8"	6"	95002100	12
9/64	0.1406	1-3/4"	6"	95002101	12
5/32	0.1562	2"	6"	95002102	12
11/64	0.1719	2-1/8"	6"	95002103	12
3/16	0.1875	2-5/16"	6"	95002104	12
13/64	0.2031	2-7/16"	6"	95002105	12
7/32	0.2188	2-1/2"	6"	95002106	12
15/64	0.2344	2-5/8"	6"	95002107	12
1/4	0.2500	2-3/4"	6"	95002108	12
17/64	0.2656	2-7/8"	6"	95002109	12
9/32	0.2812	2-15/16"	6"	95002110	12
19/64	0.2969	3-1/16"	6"	95002111	12
5/16	0.3125	3-3/16"	6"	95002112	6
21/64	0.3281	3-5/16"	6"	95002113	6
11/32	0.3438	3-7/16"	6"	95002114	6
23/64	0.3594	3-1/2"	6"	95002115	6
3/8	0.3750	3-5/8"	6"	95002116	6
25/64	0.3906	3-3/4"	6"	95002117	6
13/32	0.4062	3-7/8"	6"	95002118	6
27/64	0.4219	3-15/16"	6"	95002119	6
7/16	0.4375	4-1/16"	6"	95002120	6
29/64	0.4531	4-3/16"	6"	95002121	6
15/32	0.4688	4-5/16"	6"	95002122	6
31/64	0.4844	4-3/8"	6"	95002123	6
1/2	0.5000	4-1/2"	6"	95002124	6

AIRCRAFT EXTENSION



SERIES 6H500

BRIGHT 6" 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS) constructed for superior strength and run-out characteristics
- Mid length extension for deep holes in confined working conditions
- Split Point penetrates on contact and prevents "walking" of the bit

- NAS 907 Compliant
- One piece construction

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	6"	95002151	12
#2	0.2210	2-5/8"	6"	95002152	12
#3	0.2130	2-1/2"	6"	95002153	12
#4	0.2090	2-1/2"	6"	95002154	12
#5	0.2055	2-1/2"	6"	95002155	12
#6	0.2040	2-1/2"	6"	95002156	12
#7	0.2010	2-7/16"	6"	95002157	12
#8	0.1990	2-7/16"	6"	95002158	12
#9	0.1960	2-7/16"	6"	95002159	12
#10	0.1935	2-7/16"	6"	95002160	12
#11	0.1910	2-5/16"	6"	95002161	12
#12	0.1890	2-5/16"	6"	95002162	12
#13	0.1850	2-5/16"	6"	95002163	12
#14	0.1820	2-3/16"	6"	95002164	12
#15	0.1800	2-3/16"	6"	95002165	12
#16	0.1770	2-3/16"	6"	95002166	12
#17	0.1730	2-3/16"	6"	95002167	12
#18	0.1695	2-1/8"	6"	95002168	12
#19	0.1660	2-1/8"	6"	95002169	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#20	0.1610	2-1/8"	6"	95002170	12
#21	0.1590	2-1/8"	6"	95002171	12
#22	0.1570	2"	6"	95002172	12
#23	0.1540	2"	6"	95002173	12
#24	0.1520	2"	6"	95002174	12
#25	0.1495	1-7/8"	6"	95002175	12
#26	0.1470	1-7/8"	6"	95002176	12
#27	0.1440	1-7/8"	6"	95002177	12
#28	0.1405	1-3/4"	6"	95002178	12
#29	0.1360	1-3/4"	6"	95002179	12
#30	0.1285	1-5/8"	6"	95002180	12
#31	0.1200	1-5/8"	6"	95002181	12
#32	0.1160	1-5/8"	6"	95002182	12
#33	0.1130	1-1/2"	6"	95002183	12
#34	0.1110	1-1/2"	6"	95002184	12
#35	0.1100	1-1/2"	6"	95002185	12
#36	0.1065	1-7/16"	6"	95002186	12
#37	0.1040	1-7/16"	6"	95002187	12
#40	0.0980	1-3/8"	6"	95002190	12

SERIES 6H501

BLACK OXIDE 6" 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS) constructed for superior strength and run-out characteristics
- Surface treated for corrosion resistance and increased lubricity
- Mid length extension for deep holes in confined working conditions

- Split Point penetrates on contact and prevents "walking" of the bit
- NAS 907 Compliant
- One piece construction

MATERIAL APPLICATION

- Cast Iron
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/8	0.1250	1-5/8"	6"	95001904	12
9/64	0.1406	1-3/4"	6"	95001905	12
5/32	0.1562	2"	6"	95001906	12
11/64	0.1719	2-1/8"	6"	95001907	12
3/16	0.1875	2-5/16"	6"	95001908	12
13/64	0.2031	2-7/16"	6"	95001909	12
7/32	0.2188	2-1/2"	6"	95001910	12
15/64	0.2344	2-5/8"	6"	95001911	12
1/4	0.2500	2-3/4"	6"	95001912	12
17/64	0.2656	2-7/8"	6"	95001913	12
9/32	0.2812	2-15/16"	6"	95001914	12
19/64	0.2969	3-1/16"	6"	95001915	12
5/16	0.3125	3-3/16"	6"	95001916	6
21/64	0.3281	3-5/16"	6"	95001917	6
11/32	0.3438	3-7/16"	6"	95001918	6
23/64	0.3594	3-1/2"	6"	95001919	6
3/8	0.3750	3-5/8"	6"	95001920	6
25/64	0.3906	3-3/4"	6"	95001921	6
13/32	0.4062	3-7/8"	6"	95001922	6
27/64	0.4219	3-15/16"	6"	95001923	6
7/16	0.4375	4-1/16"	6"	95001924	6
29/64	0.4531	4-3/16"	6"	95001925	6
15/32	0.4688	4-5/16"	6"	95001926	6
31/64	0.4844	4-3/8"	6"	95001927	6
1/2	0.5000	4-1/2"	6"	95001928	6

AIRCRAFT EXTENSION



SERIES 6H501

BLACK OXIDE 6" 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS) constructed for superior strength and run-out characteristics
- Surface treated for corrosion resistance and increased lubricity
- Mid length extension for deep holes in confined working conditions

- Split Point penetrates on contact and prevents "walking" of the bit
- NAS 907 Compliant
- One piece construction

MATERIAL APPLICATION

- Cast Iron
- Steel Alloy



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	6"	95005800	12
#2	0.2210	2-5/8"	6"	95005801	12
#3	0.2130	2-1/2"	6"	95005802	12
#4	0.2090	2-1/2"	6"	95005803	12
#5	0.2055	2-1/2"	6"	95005804	12
#6	0.2040	2-1/2"	6"	95005805	12
#7	0.2010	2-7/16"	6"	95005806	12
#8	0.1990	2-7/16"	6"	95005807	12
#9	0.1960	2-7/16"	6"	95005808	12
#10	0.1935	2-7/16"	6"	95005809	12
#11	0.1910	2-5/16"	6"	95005810	12
#12	0.1890	2-5/16"	6"	95005811	12
#13	0.1850	2-5/16"	6"	95005812	12
#14	0.1820	2-3/16"	6"	95005813	12
#15	0.1800	2-3/16"	6"	95005814	12
#16	0.1770	2-3/16"	6"	95005815	12
#17	0.1730	2-3/16"	6"	95005816	12
#18	0.1695	2-1/8"	6"	95005817	12
#19	0.1660	2-1/8"	6"	95005818	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#20	0.1610	2-1/8"	6"	95005819	12
#21	0.1590	2-1/8"	6"	95005820	12
#22	0.1570	2"	6"	95005821	12
#23	0.1540	2"	6"	95005822	12
#24	0.1520	2"	6"	95005823	12
#25	0.1495	1-7/8"	6"	95005824	12
#26	0.1470	1-7/8"	6"	95005825	12
#27	0.1440	1-7/8"	6"	95005826	12
#28	0.1405	1-3/4"	6"	95005827	12
#29	0.1360	1-3/4"	6"	95005828	12
#30	0.1285	1-5/8"	6"	95005829	12
#31	0.1200	1-5/8"	6"	95005830	12
#32	0.1160	1-5/8"	6"	95005831	12
#33	0.1130	1-1/2"	6"	95005832	12
#34	0.1110	1-1/2"	6"	95005833	12
#35	0.1100	1-1/2"	6"	95005834	12
#36	0.1065	1-7/16"	6"	95005835	12
#37	0.1040	1-7/16"	6"	95005836	12
#40	0.0980	1-3/8"	6"	95005837	12

AIRCRAFT EXTENSION

SERIES 6C514

COBALT 6" 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low and medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	6"	95005896	12
5/64	0.0781	1"	6"	95005897	12
3/32	0.0938	1-1/4"	6"	95005898	12
7/64	0.1094	1-1/2"	6"	95005899	12
1/8	0.1250	1-5/8"	6"	95005900	12
9/64	0.1406	1-3/4"	6"	95005901	12
5/32	0.1562	2"	6"	95005902	12
11/64	0.1719	2-1/8"	6"	95005903	12
3/16	0.1875	2-5/16"	6"	95005904	12
13/64	0.2031	2-7/16"	6"	95005905	12
7/32	0.2188	2-1/2"	6"	95005906	12
15/64	0.2344	2-5/8"	6"	95005907	12
1/4	0.2500	2-3/4"	6"	95005908	12
5/16	0.3125	3-3/16"	6"	95005912	6

AIRCRAFT EXTENSION



SERIES 6C514

COBALT 6" 135° HEAVY DUTY



- Produced from industrial-grade NAS Cobalt steel
- Superior red hardness for high temperature applications
- Less end load pressure required
- Split Point penetrates on contact and prevents "walking" of the bit

MATERIAL APPLICATION

- Steel (low and medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



WIRE SIZES

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#1	0.2280	2-5/8"	6"	95005950	12
#2	0.2210	2-5/8"	6"	95005951	12
#3	0.2130	2-1/2"	6"	95005952	12
#4	0.2090	2-1/2"	6"	95005953	12
#5	0.2055	2-1/2"	6"	95005954	12
#6	0.2040	2-1/2"	6"	95005955	12
#7	0.2010	2-7/16"	6"	95005956	12
#8	0.1990	2-7/16"	6"	95005957	12
#9	0.1960	2-7/16"	6"	95005958	12
#10	0.1935	2-7/16"	6"	95005959	12
#11	0.1910	2-5/16"	6"	95005960	12
#12	0.1890	2-5/16"	6"	95005961	12
#13	0.1850	2-5/16"	6"	95005962	12
#14	0.1820	2-3/16"	6"	95005963	12
#15	0.1800	2-3/16"	6"	95005964	12
#16	0.1770	2-3/16"	6"	95005965	12
#17	0.1730	2-3/16"	6"	95005966	12
#18	0.1695	2-1/8"	6"	95005967	12
#19	0.1660	2-1/8"	6"	95005968	12

WIRE SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#20	0.1610	2-1/8"	6"	95005969	12
#21	0.1590	2-1/8"	6"	95005970	12
#22	0.1570	2"	6"	95005971	12
#23	0.1540	2"	6"	95005972	12
#24	0.1520	2"	6"	95005973	12
#25	0.1495	1-7/8"	6"	95005974	12
#26	0.1470	1-7/8"	6"	95005975	12
#27	0.1440	1-7/8"	6"	95005976	12
#28	0.1405	1-3/4"	6"	95005977	12
#29	0.1360	1-3/4"	6"	95005978	12
#30	0.1285	1-5/8"	6"	95005979	12
#31	0.1200	1-5/8"	6"	95005980	12
#32	0.1160	1-5/8"	6"	95005981	12
#33	0.1130	1-1/2"	6"	95005982	12
#34	0.1110	1-1/2"	6"	95005983	12
#35	0.1100	1-1/2"	6"	95005984	12
#36	0.1065	1-7/16"	6"	95005985	12
#37	0.1040	1-7/16"	6"	95005986	12
#40	0.0980	1-3/8"	6"	95005987	12

SERIES 12H501

BLACK OXIDE 12" 135° HEAVY DUTY



- Industrial-Grade NAS High Speed Steel (HSS) constructed for superior strength and run-out characteristics
- Surface treated for corrosion resistance and increased lubricity
- Mid length extension for deep holes in confined working conditions

- Split Point penetrates on contact and prevents "walking" of the bit
- NAS 907 Compliant
- One piece construction

MATERIAL APPLICATION

- Cast Iron
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/8	0.1250	1-5/8"	12"	95001951	12
5/32	0.1562	2"	12"	95001952	12
3/16	0.1875	2-5/16"	12"	95001953	12
7/32	0.2188	2-1/2"	12"	95001954	12
1/4	0.2500	2-3/4"	12"	95001955	12
9/32	0.2812	2-15/16"	12"	95001956	12
5/16	0.3125	3-3/16"	12"	95001957	6
11/32	0.3438	3-7/16"	12"	95001958	6
3/8	0.3750	3-5/8"	12"	95001959	6
13/32	0.4062	3-7/8"	12"	95001960	6
7/16	0.4375	4-1/16"	12"	95001961	6
15/32	0.4688	4-5/16"	12"	95001962	6
1/2	0.5000	4-1/2"	12"	95001963	6

AIRCRAFT EXTENSION



BLACK & SILVER

118° GENERAL PURPOSE



- 1/2" Round Shank
- 3" Flute / 6" Overall Length
- Industrial-Grade AISI High Speed Steel

- Excellent general use drill bit
- Surface treated for corrosion resistance and increased lubricity
- Oil treated finish ideal for drilling in various types of metals

MATERIAL APPLICATION

- Aluminum
- Copper
- Wood
- Plastic
- Mild Steel
- Sheet Metal



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	PART NUMBER	SHIP QUANTITY
33/64	0.5156	95004750	1
17/32	0.5312	95005750	1
35/64	0.5468	95004751	1
9/16	0.5625	95005751	1
37/64	0.5781	95004752	1
19/32	0.5937	95005752	1
39/64	0.6093	95004753	1
5/8	0.6250	95005753	1
41/64	0.6406	95004754	1
21/32	0.6562	95005754	1
43/64	0.6718	95004755	1
11/16	0.6875	95005755	1
45/64	0.7031	95004756	1
23/32	0.7187	95005756	1
47/64	0.7343	95004757	1
3/4	0.7500	95005757	1

FRACTIONAL SIZES	DECIMAL EQUIVALENT	PART NUMBER	SHIP QUANTITY
49/64	0.7656	95004758	1
25/32	0.7812	95005758	1
51/64	0.7968	95004759	1
13/16	0.8125	95005759	1
53/64	0.8281	95004760	1
27/32	0.8437	95005760	1
55/64	0.8593	95004761	1
7/8	0.8750	95005761	1
57/64	0.8906	95004762	1
29/32	0.9062	95005762	1
59/64	0.9218	95004763	1
15/16	0.9375	95005763	1
61/64	0.9531	95004764	1
31/32	0.9687	95005764	1
63/64	0.9843	95004765	1
1	1.0000	95005765	1

COBALT

118° GENERAL PURPOSE



- 1/2" Round Shank
- 3" Flute / 6" Overall Length
- Produced from industrial-grade AISI Cobalt steel (HSC0)

- Superior red hardness for high temperature applications
- Less end load pressure required

MATERIAL APPLICATION

- Aluminum
- Cast Iron
- Steel Alloy



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	PART NUMBER	SHIP QUANTITY
33/64	0.5156	95004766	1
17/32	0.5312	95005766	1
35/64	0.5468	95004767	1
9/16	0.5625	95005767	1
37/64	0.5781	95004768	1
19/32	0.5937	95005768	1
39/64	0.6093	95004769	1
5/8	0.6250	95005769	1
41/64	0.6406	95004770	1
21/32	0.6562	95005770	1
43/64	0.6718	95004771	1
11/16	0.6875	95005771	1
45/64	0.7031	95004772	1
23/32	0.7187	95005772	1
47/64	0.7343	95004773	1
3/4	0.7500	95005773	1

FRACTIONAL SIZES	DECIMAL EQUIVALENT	PART NUMBER	SHIP QUANTITY
49/64	0.7656	95004774	1
25/32	0.7812	95005774	1
51/64	0.7968	95004775	1
13/16	0.8125	95005775	1
53/64	0.8281	95004776	1
27/32	0.8437	95005776	1
55/64	0.8593	95004777	1
7/8	0.8750	95005777	1
57/64	0.8906	95004778	1
29/32	0.9062	95005778	1
59/64	0.9218	95004779	1
15/16	0.9375	95005779	1
61/64	0.9531	95004780	1
31/32	0.9687	95005780	1
63/64	0.9843	95004781	1
1"	1.0000	95005781	1



HIGH SPEED STEEL

135° THREADED SHANK



- Industrial-Grade NAS High Speed Steel (HSS) constructed for superior strength and run-out characteristics
- Surface treated for corrosion resistance and increased lubricity

- Split Point penetrates on contact and prevents "walking" of the bit
- Built to NAS 965

MATERIAL APPLICATION

- Aluminum
- Cast Iron
- Steel Alloy



FRACTIONAL • WIRE • LETTER SIZES

DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
3/32	0.0937	2-1/8"	953HS3/32LS	50
3/32	0.0937	1"	953HS3/32SS	50
3/32	0.0937	1/2"	953HS3/32ST	50
3/32	0.0937	13/32"	953HS3/32VS	50
1/8	0.1250	2-1/8"	953HS1/8LS	50
1/8	0.1250	1"	953HS1/8SS	50
1/8	0.1250	1/2"	953HS1/8ST	50
1/8	0.1250	13/32"	953HS1/8VS	50
5/32	0.1562	2-1/8"	953HS5/32LS	50
5/32	0.1562	1-1/4"	953HS5/32SS	50
5/32	0.1562	9/16"	953HS5/32ST	50
5/32	0.1562	13/32"	953HS5/32VS	50
3/16	0.1875	2-1/8"	953HS3/16LS	50
3/16	0.1875	1-1/4"	953HS3/16SS	50
3/16	0.1875	9/16"	953HS3/16ST	50
3/16	0.1875	13/32"	953HS3/16VS	50
7/32	0.2187	2-1/8"	953HS7/32LS	50
7/32	0.2187	1-1/4"	953HS7/32SS	50
7/32	0.2187	9/16"	953HS7/32ST	50
1/4	0.2500	2-1/8"	953HS1/4LS	50
1/4	0.2500	1-1/4"	953HS1/4SS	50
1/4	0.2500	9/16"	953HS1/4ST	50
1/4	0.2500	13/32"	953HS1/4VS	50
5/16	0.3125	2-1/8"	953HS5/16LS	50
5/16	0.3125	1-1/4"	953HS5/16SS	50
5/16	0.3125	5/8"	953HS5/16ST	50
3/8	0.3750	2-1/8"	953HS3/8LS	50

DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
3/8	0.3750	1-1/4"	953HS3/8SS	50
3/8	0.3750	5/8"	953HS3/8ST	50
#40	0.0980	2-1/8"	953HS40LS	50
#40	0.0980	1"	953HS40SS	50
#40	0.0980	1/2"	953HS40ST	50
#40	0.0980	13/32"	953HS40VS	50
#35	0.1100	2-1/8"	953HS35LS	50
#35	0.1100	1"	953HS35SS	50
#35	0.1100	1/2"	953HS35ST	50
#30	0.1285	2-1/8"	953HS30LS	50
#30	0.1285	1-1/4"	953HS30SS	50
#30	0.1285	9/16"	953HS30ST	50
#30	0.1285	13/32"	953HS30VS	50
#27	0.1440	2-1/8"	953HS27LS	50
#27	0.1440	1-1/4"	953HS27SS	50
#27	0.1440	9/16"	953HS27ST	50
#27	0.1440	13/32"	953HS27VS	50
#21	0.1590	2-1/8"	953HS21LS	50
#21	0.1590	1-1/4"	953HS21SS	50
#21	0.1590	9/16"	953HS21ST	50
#21	0.1590	13/32"	953HS21VS	50
#20	0.1610	2-1/8"	953HS20LS	50
#20	0.1610	1-1/4"	953HS20SS	50
#20	0.1610	9/16"	953HS20ST	50
#20	0.1610	13/32"	953HS20VS	50
#19	0.1660	2-1/8"	953HS19LS	50
#19	0.1660	1-1/4"	953HS19SS	50

Call for additional sizes in stock

THREADED SHANK

HIGH SPEED STEEL

CONTINUED



DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#19	0.1660	9/16"	953HS19ST	50
#19	0.1660	13/32"	953HS19VS	50
#16	0.1770	2-1/8"	953HS16LS	50
#16	0.1770	1-1/4"	953HS16SS	50
#16	0.1770	9/16"	953HS16ST	50
#16	0.1770	13/32"	953HS16VS	50
#13	0.1850	2-1/8"	953HS13LS	50
#13	0.1850	1-1/4"	953HS13SS	50
#13	0.1850	9/16"	953HS13ST	50
#13	0.1850	13/32"	953HS13VS	50
#11	0.1910	2-1/8"	953HS11LS	50
#11	0.1910	1-1/4"	953HS11SS	50
#11	0.1910	9/16"	953HS11ST	50
#11	0.1910	13/32"	953HS11VS	50
#10	0.1935	2-1/8"	953HS10LS	50
#10	0.1935	1-1/4"	953HS10SS	50
#10	0.1935	9/16"	953HS10ST	50
#10	0.1935	13/32"	953HS10VS	50
#8	0.1990	2-1/8"	953HS8LS	50
#8	0.1990	1-1/4"	953HS8SS	50
#8	0.1990	5/8"	953HS8ST	50
#8	0.1990	13/32"	953HS8VS	50
#7	0.2010	2-1/8"	953HS7LS	50
#7	0.2010	1-1/4"	953HS7SS	50
#7	0.2010	5/8"	953HS7ST	50
#7	0.2010	13/32"	953HS7VS	50
#5	0.2055	2-1/8"	953HS5LS	50

DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#5	0.2055	1-1/4"	953HS5SS	50
#5	0.2055	5/8"	953HS5ST	50
#5	0.2055	13/32"	953HS5VS	50
#2	0.2210	2-1/8"	953HS2LS	50
#2	0.2210	1-1/4"	953HS2SS	50
#2	0.2210	5/8"	953HS2ST	50
#2	0.2210	13/32"	953HS2VS	50
A	0.2340	2-1/8"	953HSALS	50
A	0.2340	1-1/4"	953HSASS	50
A	0.2340	9/16"	953HSAST	50
B	0.2380	2-1/8"	953HSBLS	50
B	0.2380	1-1/4"	953HSBSS	50
B	0.2380	9/16"	953HSBST	50
C	0.2420	2-1/8"	953HSCLS	50
C	0.2420	1-1/4"	953HSCSS	50
C	0.2420	9/16"	953HSCST	50
D	0.2460	2-1/8"	953HSDL	50
D	0.2460	1-1/4"	953HSDSS	50
D	0.2460	9/16"	953HSDST	50
D	0.2460	13/32"	953HSDVS	50
F	0.2570	2-1/8"	953HSFLS	50
F	0.2570	1-1/4"	953HSFSS	50
F	0.2570	9/16"	953HSFST	50
F	0.2570	13/32"	953HSFVS	50
G	0.2610	2-1/8"	953HSGLS	50
G	0.2610	1-1/4"	953HSGSS	50
G	0.2610	9/16"	953HSGST	50

Call for additional sizes in stock

THREADED SHANK





- Produced from Industrial-Grade NAS Cobalt Steel
- Superior red hardness for high temperature applications
- Less end load pressure required

- Split Point penetrates on contact and prevents "walking" of the bit
- Built to NAS 965

MATERIAL APPLICATION

- Steel (low and medium carbon)
- Steel Alloy
- Stainless Steel
- Strength Alloys



FRACTIONAL • WIRE • LETTER SIZES

DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
3/32	0.0937	2-1/8"	953C03/32LS	50
3/32	0.0937	1"	953C03/32SS	50
3/32	0.0937	1/2"	953C03/32ST	50
3/32	0.0937	13/32"	953C03/32VS	50
1/8	0.1250	2-1/8"	953C01/8LS	50
1/8	0.1250	1"	953C01/8SS	50
1/8	0.1250	1/2"	953C01/8ST	50
1/8	0.1250	13/32"	953C01/8VS	50
5/32	0.1562	2-1/8"	953C05/32LS	50
5/32	0.1562	1-1/4"	953C05/32SS	50
5/32	0.1562	9/16"	953C05/32ST	50
5/32	0.1562	13/32"	953C05/32VS	50
3/16	0.1875	2-1/8"	953C03/16LS	50
3/16	0.1875	1-1/4"	953C03/16SS	50
3/16	0.1875	9/16"	953C03/16ST	50
3/16	0.1875	13/32"	953C03/16VS	50
7/32	0.2187	2-1/8"	953C07/32LS	50
7/32	0.2187	1-1/4"	953C07/32SS	50
7/32	0.2187	9/16"	953C07/32ST	50
1/4	0.2500	2-1/8"	953C01/4LS	50
1/4	0.2500	1-1/4"	953C01/4SS	50
1/4	0.2500	9/16"	953C01/4ST	50
1/4	0.2500	13/32"	953C01/4VS	50
5/16	0.3125	2-1/8"	953C05/16LS	50
5/16	0.3125	1-1/4"	953C05/16SS	50
5/16	0.3125	5/8"	953C05/16ST	50
3/8"	0.3750	2-1/8"	953C03/8LS	50

DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
3/8	0.3750	1-1/4"	953C03/8SS	50
3/8	0.3750	5/8"	953C03/8ST	50
#40	0.0980	2-1/8"	953C040LS	50
#40	0.0980	1"	953C040SS	50
#40	0.0980	1/2"	953C040ST	50
#40	0.0980	13/32"	953C040VS	50
#35	0.1100	2-1/8"	953C035LS	50
#35	0.1100	1"	953C035SS	50
#35	0.1100	1/2"	953C035ST	50
#30	0.1285	2-1/8"	953C030LS	50
#30	0.1285	1-1/4"	953C030SS	50
#30	0.1285	9/16"	953C030ST	50
#30	0.1285	13/32"	953C030VS	50
#27	0.1440	2-1/8"	953C027LS	50
#27	0.1440	1-1/4"	953C027SS	50
#27	0.1440	9/16"	953C027ST	50
#27	0.1440	13/32"	953C027VS	50
#21	0.1590	2-1/8"	953C021LS	50
#21	0.1590	1-1/4"	953C021SS	50
#21	0.1590	9/16"	953C021ST	50
#21	0.1590	13/32"	953C021VS	50
#20	0.1610	2-1/8"	953C020LS	50
#20	0.1610	1-1/4"	953C020SS	50
#20	0.1610	9/16"	953C020ST	50
#20	0.1610	13/32"	953C020VS	50
#19	0.1660	2-1/8"	953C019LS	50
#19	0.1660	1-1/4"	953C019SS	50

Call for additional sizes in stock



DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#19	0.1660	9/16"	953C019ST	50
#19	0.1660	13/32"	953C019VS	50
#16	0.1770	2-1/8"	953C016LS	50
#16	0.1770	1-1/4"	953C016SS	50
#16	0.1770	9/16"	953C016ST	50
#16	0.1770	13/32"	953C016VS	50
#13	0.1850	2-1/8"	953C013LS	50
#13	0.1850	1-1/4"	953C013SS	50
#13	0.1850	9/16"	953C013ST	50
#13	0.1850	13/32"	953C013VS	50
#11	0.1910	2-1/8"	953C011LS	50
#11	0.1910	1-1/4"	953C011SS	50
#11	0.1910	9/16"	953C011ST	50
#11	0.1910	13/32"	953C011VS	50
#10	0.1935	2-1/8"	953C010LS	50
#10	0.1935	1-1/4"	953C010SS	50
#10	0.1935	9/16"	953C010ST	50
#10	0.1935	13/32"	953C010VS	50
#8	0.1990	2-1/8"	953C08LS	50
#8	0.1990	1-1/4"	953C08SS	50
#8	0.1990	5/8"	953C08ST	50
#8	0.1990	13/32"	953C08VS	50
#7	0.2010	2-1/8"	953C07LS	50
#7	0.2010	1-1/4"	953C07SS	50
#7	0.2010	5/8"	953C07ST	50
#7	0.2010	13/32"	953C07VS	50
#5	0.2055	2-1/8"	953C05LS	50

DRILL SIZES	DECIMAL EQUIVALENT	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
#5	0.2055	1-1/4"	953C05SS	50
#5	0.2055	5/8"	953C05ST	50
#5	0.2055	13/32"	953C05VS	50
#2	0.2210	2-1/8"	953C02LS	50
#2	0.2210	1-1/4"	953C02SS	50
#2	0.2210	5/8"	953C02ST	50
#2	0.2210	13/32"	953C02VS	50
A	0.2340	2-1/8"	953C0ALS	50
A	0.2340	1-1/4"	953C0ASS	50
A	0.2340	9/16"	953C0AST	50
B	0.2380	2-1/8"	953C0BLS	50
B	0.2380	1-1/4"	953C0BSS	50
B	0.2380	9/16"	953C0BST	50
C	0.2420	2-1/8"	953C0CLS	50
C	0.2420	1-1/4"	953C0CSS	50
C	0.2420	9/16"	953C0CST	50
D	0.2460	2-1/8"	953C0DLS	50
D	0.2460	1-1/4"	953C0DSS	50
D	0.2460	9/16"	953C0DST	50
D	0.2460	13/32"	953C0DVS	50
F	0.2570	2-1/8"	953C0FLS	50
F	0.2570	1-1/4"	953C0FSS	50
F	0.2570	9/16"	953C0FST	50
F	0.2570	13/32"	953C0FVS	50
G	0.2610	2-1/8"	953C0GLS	50
G	0.2610	1-1/4"	953C0GSS	50
G	0.2610	9/16"	953C0GST	50

Call for additional sizes in stock

THREADED SHANK



13 PIECE SETS

JOBBER LENGTH

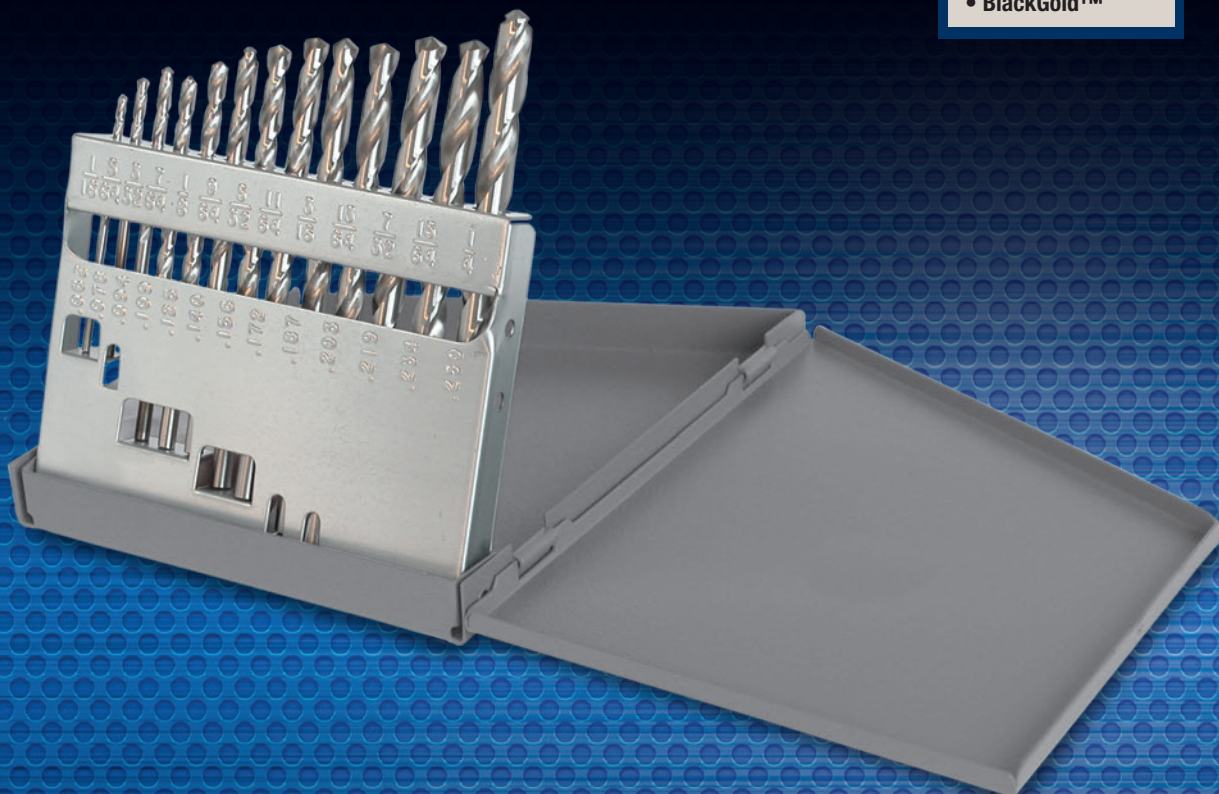


- Rugged metal carrying case
- Tip-out storage indexes
- Numbered indexes help keep bits organized

Material Application-details on page 3

AVAILABLE IN

- Bright
- Black Oxide
- Titanium
- Cobalt
- BlackGold™



FRACTIONAL SIZE SETS

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
13	1/16" to 1/4"	Bright	118° Point	5-1/4"H x 4-1/16"W x 1/2"D	95090800
13	1/16" to 1/4"	Black Oxide	118° Point	5-1/4"H x 4-1/16"W x 1/2"D	95090801
13	1/16" to 1/4"	Black Oxide	135° Split Point *	5-1/4"H x 4-1/16"W x 1/2"D	95090802
13	1/16" to 1/4"	Titanium	135° Split Point *	5-1/4"H x 4-1/16"W x 1/2"D	95090803
13	1/16" to 1/4"	Cobalt	135° Split Point	5-1/4"H x 4-1/16"W x 1/2"D	95090870
13	1/16" to 1/4"	BlackGold™	137° Split Point *	5-1/4"H x 4-1/16"W x 1/2"D	95090804

*Drill bits from 7/64" to 1/4" are Split Point

15 PIECE SETS

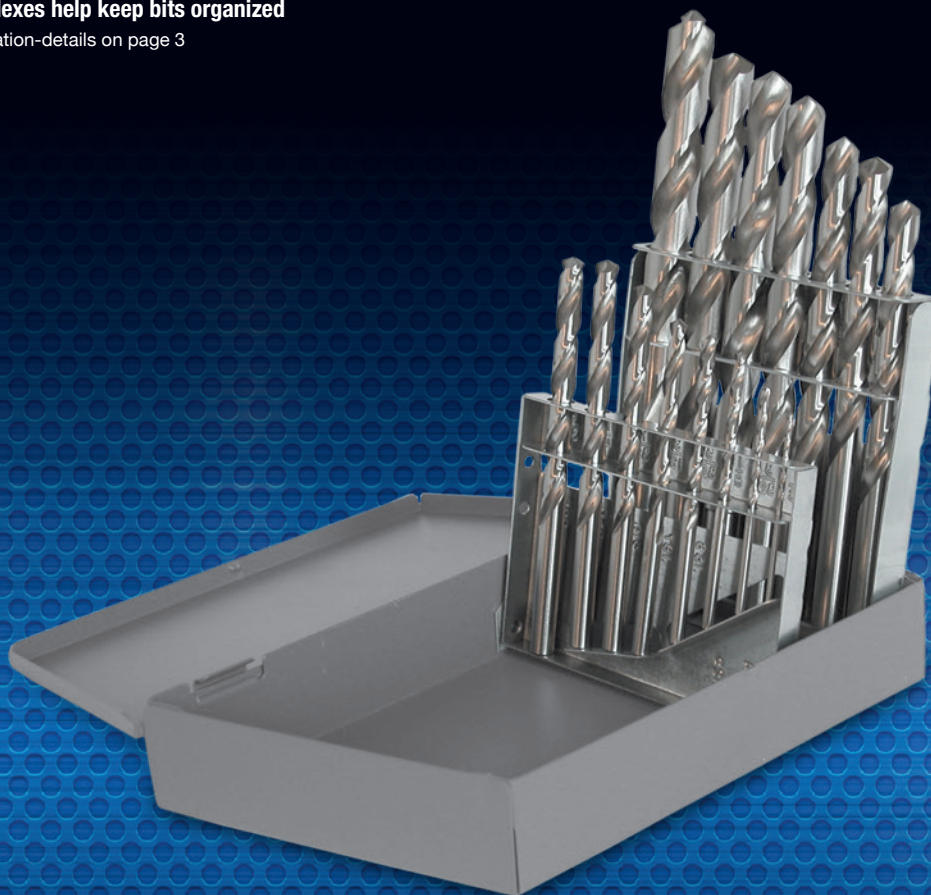
JOBBER LENGTH



- Rugged metal carrying case
 - Tip-out storage indexes
 - Numbered indexes help keep bits organized
- Material Application-details on page 3

AVAILABLE IN

- Bright
- Black Oxide
- Titanium
- Cobalt
- BlackGold™



FRACTIONAL SIZE SETS

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
15	1/16" to 1/2"	Bright	118° Point	7-1/16"H x 4-1/8"W x 1-1/4"D	95090810
15	1/16" to 1/2"	Black Oxide	118° Point	7-1/16"H x 4-1/8"W x 1-1/4"D	95090811
15	1/16" to 1/2"	Black Oxide	135° Split Point *	7-1/16"H x 4-1/8"W x 1-1/4"D	95090812
15	1/16" to 1/2"	Titanium	135° Split Point *	7-1/16"H x 4-1/8"W x 1-1/4"D	95090813
15	1/16" to 1/2"	Cobalt	135° Split Point	7-1/16"H x 4-1/8"W x 1-1/4"D	95090871
15	1/16" to 1/2"	BlackGold™	137° Split Point *	7-1/16"H x 4-1/8"W x 1-1/4"D	95090814

*Drill bits from 7/64" to 1/2" are Split Point



21 PIECE SETS

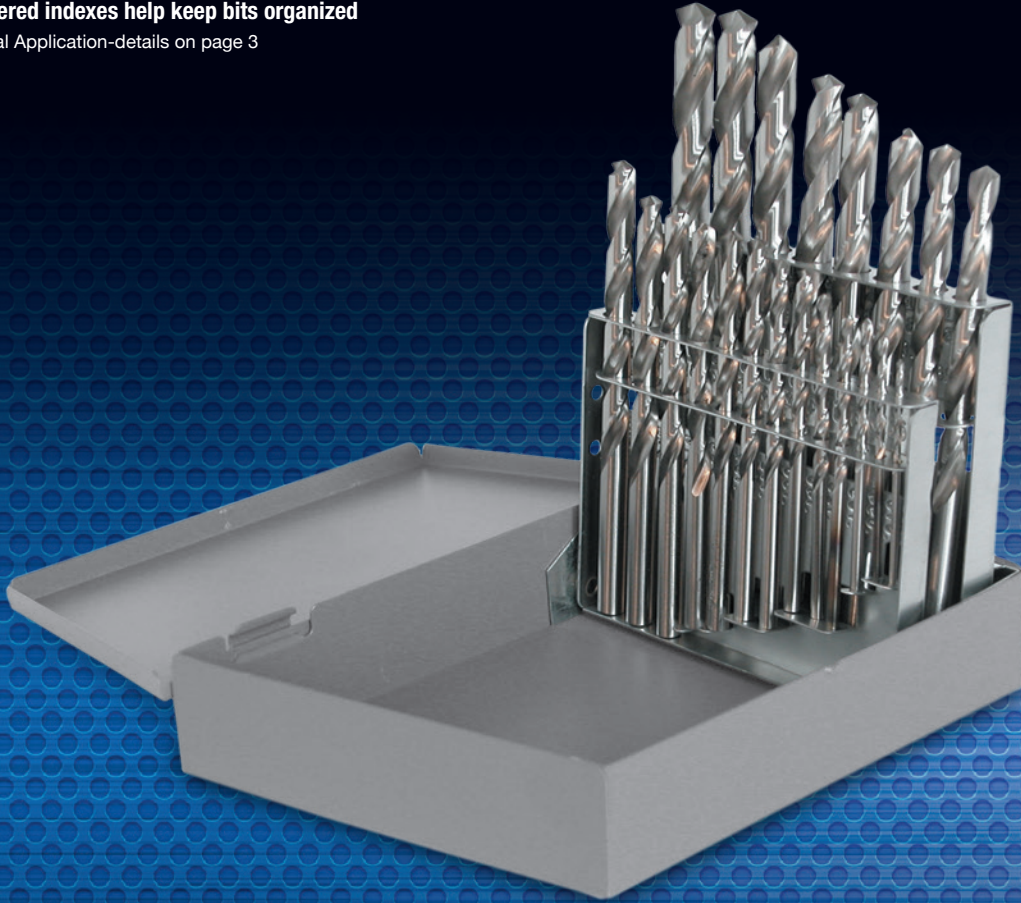
JOBBER LENGTH



- Rugged metal carrying case
 - Tip-out storage indexes
 - Numbered indexes help keep bits organized
- Material Application-details on page 3

AVAILABLE IN

- Bright
- Black Oxide
- Titanium
- Cobalt
- BlackGold™



FRACTIONAL SIZE SETS

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
21	1/16" to 3/8"	Bright	118° Point	6"H x 4-1/8"W x 1-1/8"D	95090820
21	1/16" to 3/8"	Black Oxide	118° Point	6"H x 4-1/8"W x 1-1/8"D	95090821
21	1/16" to 3/8"	Black Oxide	135° Split Point *	6"H x 4-1/8"W x 1-1/8"D	95090822
21	1/16" to 3/8"	Titanium	135° Split Point *	6"H x 4-1/8"W x 1-1/8"D	95090823
21	1/16" to 3/8"	Cobalt	135° Split Point	6"H x 4-1/8"W x 1-1/8"D	95090872
21	1/16" to 3/8"	BlackGold™	137° Split Point *	6"H x 4-1/8"W x 1-1/8"D	95090824

*Drill bits from 7/64" to 3/8" are Split Point

26 PIECE SETS

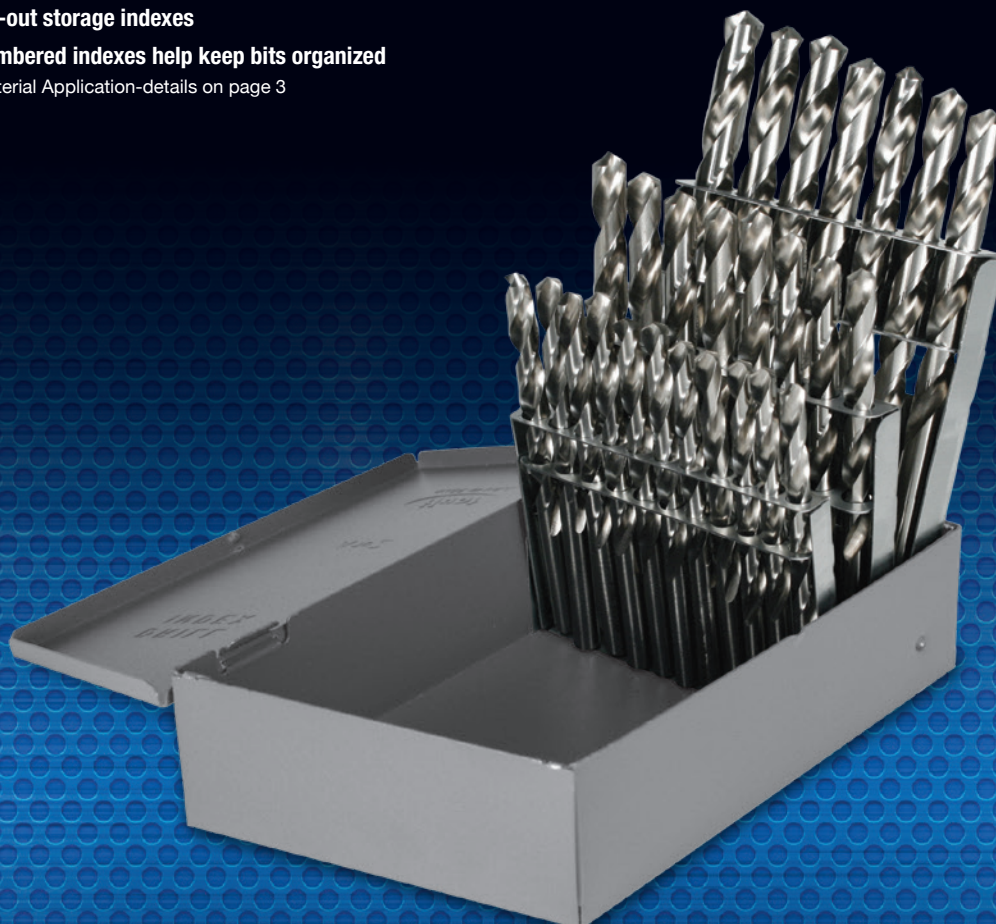
JOBBER LENGTH & SCREW MACHINE



- Rugged metal carrying case
 - Tip-out storage indexes
 - Numbered indexes help keep bits organized
- Material Application-details on page 3

AVAILABLE IN

- Bright
- Black Oxide
- BlackGold™
- Cobalt



(jobber length pictured)

LETTER SIZE SETS

JOBBER LENGTH

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
26	Letter A-Z	Bright	118° Point	7-1/2"H x 4-3/8"W x 2-3/16"D	95090830
26	Letter A-Z	Black Oxide	135° Split Point	7-1/2"H x 4-3/8"W x 2-3/16"D	95090831
26	Letter A-Z	BlackGold™	137° Split Point	7-1/2"H x 4-3/8"W x 2-3/16"D	95090832
26	Letter A-Z	Cobalt	135° Split Point	7-1/2"H x 4-3/8"W x 2-3/16"D	95090873

SCREW MACHINE

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
26	Letter A-Z	Black Oxide	135° Split Point	7-1/2"H x 4-3/8"W x 2-3/16"D	95090881
26	Letter A-Z	Cobalt	135° Split Point	7-1/2"H x 4-3/8"W x 2-3/16"D	95090879



29 PIECE SETS

JOBBER LENGTH & SCREW MACHINE

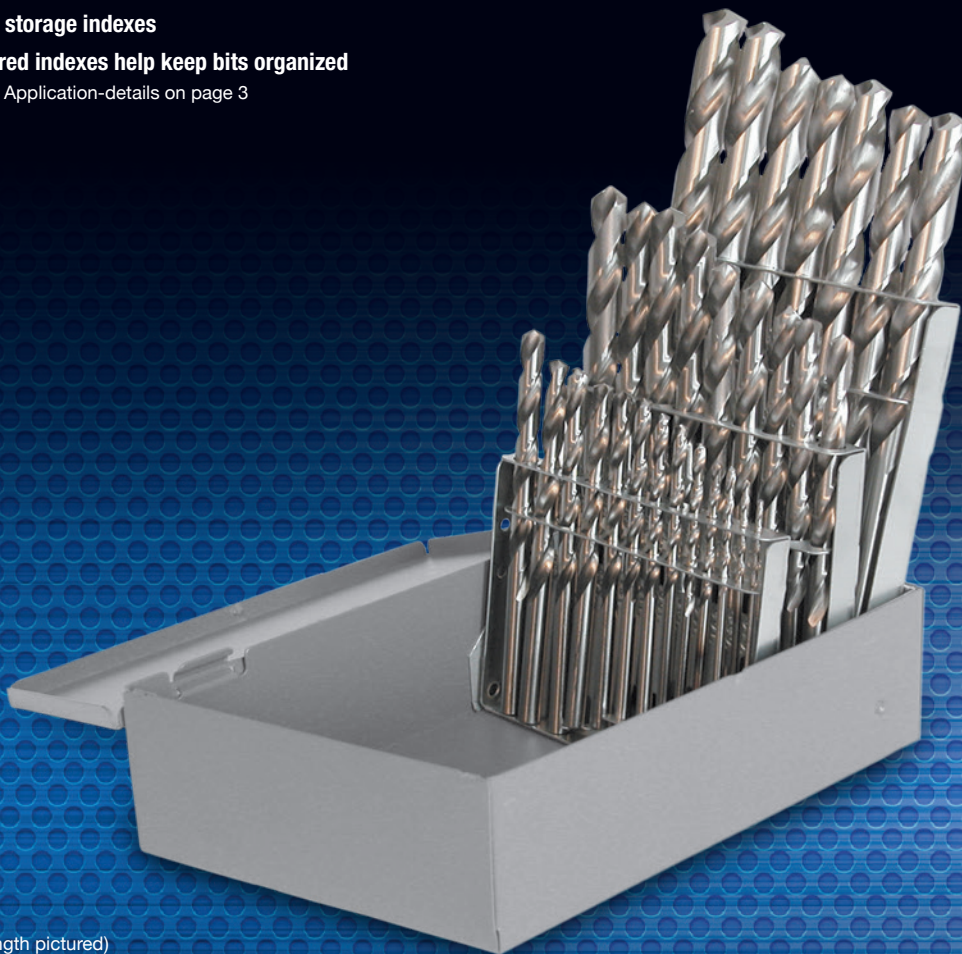


- Rugged metal carrying case
- Tip-out storage indexes
- Numbered indexes help keep bits organized

Material Application-details on page 3

AVAILABLE IN

- Bright
- Black Oxide
- Titanium
- Cobalt
- BlackGold™



(jobber length pictured)

FRACTIONAL SIZE SETS

JOBBER LENGTH

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
29	1/16" to 1/2"	Bright	118° Point	7-1/16"H x 4-1/8"W x 1-13/16"D	95090840
29	1/16" to 1/2"	Black Oxide	118° Point	7-1/16"H x 4-1/8"W x 1-13/16"D	95090841
29	1/16" to 1/2"	Black Oxide	135° Split Point *	7-1/16"H x 4-1/8"W x 1-13/16"D	95090842
29	1/16" to 1/2"	Titanium	135° Split Point *	7-1/16"H x 4-1/8"W x 1-13/16"D	95090843
29	1/16" to 1/2"	Cobalt	135° Split Point	7-1/16"H x 4-1/8"W x 1-13/16"D	95090844
29	1/16" to 1/2"	BlackGold™	137° Split Point *	7-1/16"H x 4-1/8"W x 1-13/16"D	95090845

SCREW MACHINE

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
29	1/16" to 1/2"	Black Oxide	135° Split Point *	7-1/16"H x 4-1/8"W x 1-13/16"D	95090875
29	1/16" to 1/2"	Cobalt	135° Split Point	7-1/16"H x 4-1/8"W x 1-13/16"D	95090877

*Drill bits from 7/64" to 1/2" are Split Point

60 PIECE SETS

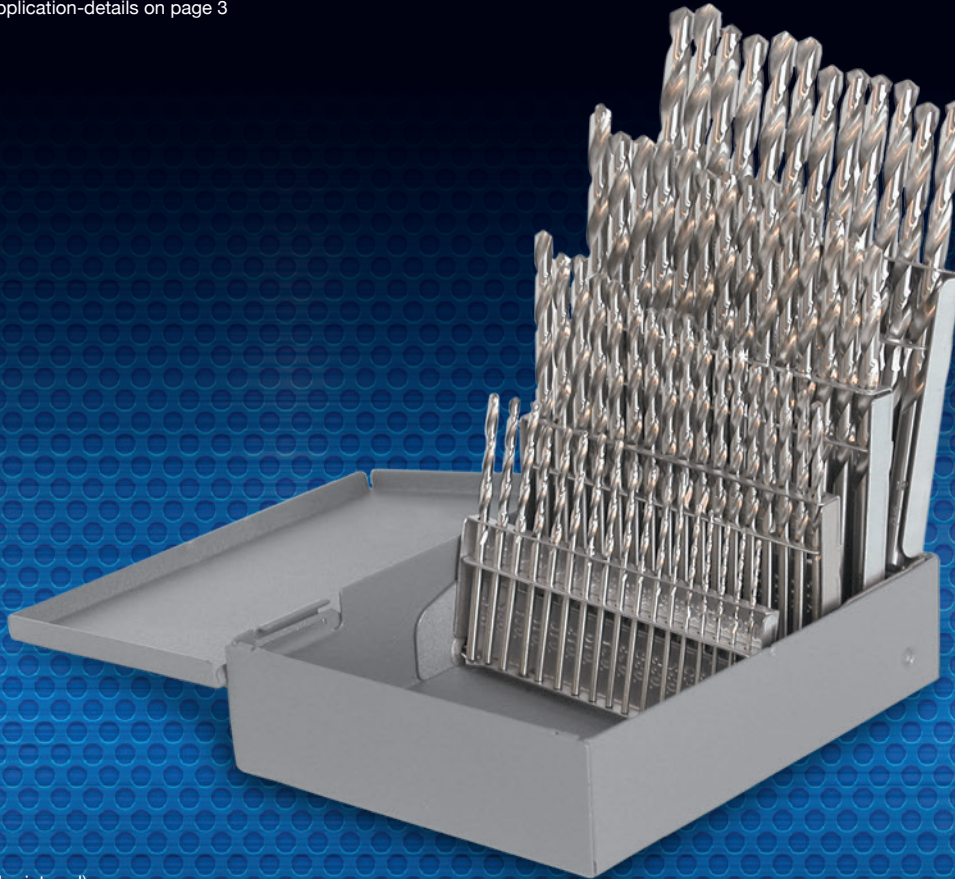
JOBBER LENGTH & SCREW MACHINE



- Rugged metal carrying case
 - Tip-out storage indexes
 - Numbered indexes help keep bits organized
- Material Application-details on page 3

AVAILABLE IN

- Bright
- Black Oxide
- Titanium
- Cobalt



(jobber length pictured)

WIRE SIZE SETS

JOBBER LENGTH

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
60	Wire #1-#60	Bright	118° Point	4-9/16"H x 3-7/16"W x 1-1/8"D	95090850
60	Wire #1-#60	Black Oxide	135° Split Point *	4-9/16"H x 3-7/16"W x 1-1/8"D	95090851
60	Wire #1-#60	Titanium	135° Split Point *	4-9/16"H x 3-7/16"W x 1-1/8"D	95090852
60	Wire #1-#60	Cobalt	135° Split Point *	4-9/16"H x 3-7/16"W x 1-1/8"D	95090854

SCREW MACHINE

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
60	Wire #1-#60	Black Oxide	135° Split Point *	4-9/16"H x 3-7/16"W x 1-1/8"D	95090876
60	Wire #1-#60	Cobalt	135° Split Point *	4-9/16"H x 3-7/16"W x 1-1/8"D	95090878

*Drill bits from #1 to #52 are Split Point



115 PIECE SETS

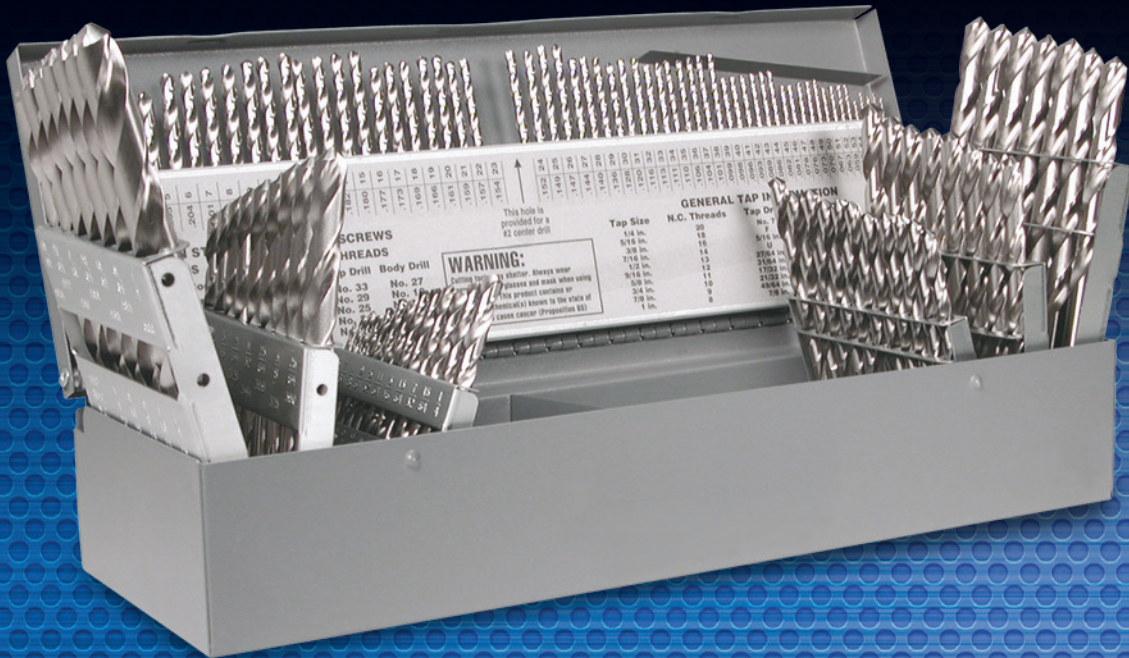
JOBBER LENGTH & SCREW MACHINE



- Rugged metal carrying case
 - Tip-out storage indexes
 - Numbered indexes help keep bits organized
- Material Application-details on page 3

AVAILABLE IN

- Bright
- Black Oxide
- Cobalt



(jobber length pictured)

COMBINATION SETS

JOBBER LENGTH

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
115	1/16" to 1/2" & A-Z & #1-#60	Bright	118° Point	2-1/4"H x 4-5/8"W x 13-1/4"L	95090860
115	1/16" to 1/2" & A-Z & #1-#60	Black Oxide	135° Split Point **	2-1/4"H x 4-5/8"W x 13-1/4"L	95090861
115	1/16" to 1/2" & A-Z & #1-#60	Bright	135° Split Point **	2-1/4"H x 4-5/8"W x 13-1/4"L	95090862
115	1/16" to 1/2" & A-Z & #1-#60	Cobalt	135° Split Point *	2-1/4"H x 4-5/8"W x 13-1/4"L	95090874

SCREW MACHINE

PIECE COUNT	SIZE RANGE	DRILL BIT FINISH	POINT GEOMETRY	CASE DIMENSIONS	PART NUMBER
115	1/16" to 1/2" & A-Z & #1-#60	Black Oxide	135° Split Point **	2-1/4"H x 4-5/8"W x 13-1/4"L	95090882
115	1/16" to 1/2" & A-Z & #1-#60	Cobalt	135° Split Point *	2-1/4"H x 4-5/8"W x 13-1/4"L	95090880

*Drill bits from 7/64" to 1/2" are Split Point •Drill bits from #1 to #52 are Split Point

100° MICROSTOP COUNTERSINK

TRI-CAM

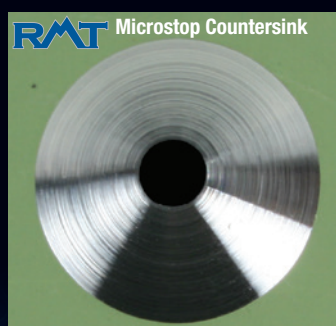


- Precision CNC diamond machining insures exact specifications and consistency
- Finely tuned cutting edges delivers smoother countersink finish

- High-flow flutes for excellent material evacuation
- Oversized cross hole allows easy countersink removal

MATERIAL APPLICATION

- Aluminum



Smooth, consistent finish for true fastener interface.



Chatter generates a rough finish for inferior fastener fitment.

HIGH SPEED STEEL MICROSTOP COUNTERSINK

COUNTERSINK DIAMETER	DRILL BIT/PILOT HOLE SIZE	PART NUMBER	SHIP QUANTITY
1/2"	#40	954HS5-40	1
1/2"	#21	954HS5-21	1
1/2"	#10	954HS5-10	1
1/2"	#30	954HS5-30	1

COBALT MICROSTOP COUNTERSINK

COUNTERSINK DIAMETER	DRILL BIT/PILOT HOLE SIZE	PART NUMBER	SHIP QUANTITY
1/2"	#40	954C05-40	1
1/2"	#21	954C05-21	1
1/2"	#10	954C05-10	1
1/2"	#30	954C05-30	1



CONNECTOR

FAST CHANGE



HEX
SHANK

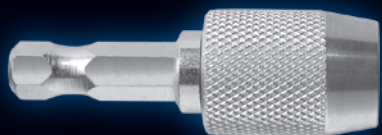


- Knurled design for maximum grip
- Compact size for tight working spaces

- Positive locking mechanism for optimum bit retention

COMPATIBILITY

- 3/8" and 1/2" drive drills



Fast Change Connector allows for fast accessory changes and locks in tool securely

CONNECTOR SIZE	DECIMAL EQUIVALENT	DIAMETER	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/4"	0.2500	3/4"	2-1/4"	95000232	2

BRIGHT

135° HEAVY DUTY



HEX
SHANK

- Hex shank increases torque and stops bit from slipping in chuck
- Industrial grade NAS High Speed Steel (HSS)
- Flutes are precision ground for faster, more efficient chip removal

- Excellent TIR
- Cordless impact compatible

MATERIAL APPLICATION

- Aluminum
- Copper
- Plastic
- Wood



FRACTIONAL SIZES

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
1/16	0.0625	7/8"	2-1/2"	95000400	12
5/64	0.0781	1"	2-5/8"	95000402	12
3/32	0.0938	1-1/4"	2-3/4"	95000404	12
7/64	0.1094	1-1/2"	3-1/4"	95000406	12
1/8	0.1250	1-5/8"	3-3/8"	95000408	12
9/64	0.1406	1-3/4"	3-1/2"	95000409	12
5/32	0.1562	2"	3-3/4"	95000410	12

FRACTIONAL SIZES	DECIMAL EQUIVALENT	FLUTE LENGTH	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
11/64	0.1719	2-1/8"	3-7/8"	95000411	12
3/16	0.1875	2-5/16"	4"	95000412	12
13/64	0.2031	2-7/16"	4-1/4"	95000413	12
7/32	0.2188	2-1/2"	4-3/8"	95000414	12
15/64	0.2344	2-5/8"	4-1/2"	95000415	12
1/4	0.2500	2-3/4"	4-5/8"	95000416	12
17/64	0.2656	2-7/8"	4-7/8"	95000417	12

Drill bits from 7/64" to 17/64" are Split Point

- Manufactured utilizing premium shock resistant S2 steel to reduce stress fractures and accessory failure
- Proprietary, task specific heat treatment to control hardness for superior strength

- Engineered and machined to prevent slipping and stripping
- Industry-leading torque and impact rating



Test Results

Brand	Size (inches)	Mfg. Origin	Hardness	Torque Rating (lbs.)	Failure Point
RMT	5/16	USA	53.6 (S2)	864	Shank Failure
RMT	5/16	USA	53.4 (S2)	860	Shank Failure
RMT	5/16	USA	54.1 (S2)	894	Shank Failure
Competitor #1	5/16	China	54.2 (CRV)	484	Rounded Broach
Competitor #1	5/16	China	55.6 (CRV)	426	Rounded Broach
Competitor #1	5/16	China	48.1 (CRV)	320	Rounded Broach
Competitor #2	5/16	USA	45.5 (CRV)	618	Shank Failure
Competitor #2	5/16	USA	46.7 (CRV)	632	Shank Failure
Competitor #2	5/16	USA	48.2 (CRV)	613	Shank Failure
Competitor #3	5/16	China	55.8 (CRV)	506	Shattered Broach
Competitor #3	5/16	China	59.5 (CRV)	511	Shattered Broach
Competitor #3	5/16	China	58.4 (CRV)	502	Shattered Broach

SIZES	OVERALL SIZE	PART NUMBER	SHIPPING QUANTITY
1/4	1-7/8"	95000161	5
5/16	1-7/8"	95000162	5
3/8	1-7/8"	95000163	5
7/16	1-7/8"	95000164	5

SCREW GUIDE

COMPACT & STANDARD



HEX
SHANK



- High strength neodymium magnet
- Tough, durable construction
- Holds and guides screw in correct position without wobbling or disengaging from the bit

- For use with standard and impact drill/drivers and compatible with quick change connectors
- Reduces material surface damage



TOOL SIZE	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
Compact *	3-1/16"	95000020	2
Standard *	4-5/16"	95000010	2

*1-inch P2 bit not included

COUNTERSINK

POWER GROOVE



HEX
SHANK

- Drill, Countersink, or Counterbore
- Heat treated for longer life
- Countersink with adjustable drill bit that features precision ground flutes that cut fast and stay sharp longer

MATERIAL APPLICATION

- Plastic
- Wood



TOOL SIZE	COUNTERSINK DIAMETER	DRILL BIT/PILOT HOLE SIZE	PART NUMBER	SHIP QUANTITY
#6	5/16"	3/32"	95000270	2
#8	5/16"	7/64"	95000271	2
#10	3/8"	1/8"	95000272	2
#12	7/16"	1/8"	95000273	2

DRILL & DRIVER

4-IN-1



HEX
SHANK



- Drill, Countersink, or Counterbore then flip to drive screw
- Heat treated for longer life
- Countersink with adjustable drill bit that features precision ground flutes that cut fast and stay sharp longer

- On-board hex key allows you to quickly change countersinks, drill bits, and driver bits

MATERIAL APPLICATION

- Plastic
- Wood



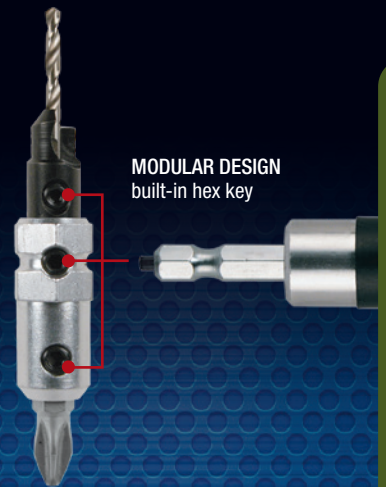
DRILL



FLIP



DRIVE



MODULAR DESIGN
built-in hex key

HEX SHANK

TOOL SIZE	COUNTERSINK DIAMETER	DRILL BIT/PILOT HOLE SIZE	PART NUMBER	SHIP QUANTITY
#6	5/16"	3/32"	95000090	2
#8	5/16"	7/64"	95000092	2
#10	3/8"	1/8"	95000094	2
#12	7/16"	1/8"	95000096	2



DIAMOND TILE DRILL BIT

HEAVY DUTY SINTERED DIAMOND EDGE



**TRI-FLAT
SHANK**



- 10x Faster than standard glass and tile drill bits
- Heat treated high-alloy steel for longer life
- Segmented cutting edge for irrigation and material evacuation

- Durable, self-sharpening diamond cutting edge
- Heavy-duty single piece construction
- Black oxide finish prevents corrosion and increases performance

MATERIAL APPLICATION

- Ceramic
- Glass
- Granite
- Marble
- Porcelain
- Slate



TOOL SIZE	OVERALL LENGTH	PART NUMBER	SHIP QUANTITY
3/16"	2.165"	95001100	2
1/4"	2.165"	95001101	2
5/16"	2.165"	95001102	2
3/8"	2.165"	95001103	2
1/2"	2.165"	95001104	2
5/8"	2.165"	95001105	2
3/4"	2.165"	95001106	2
1"	2.165"	95001107	2
1-3/8"	2.165"	95001108	2

Comparative Testing



Material: 1/2" granite slab
Hole Size: 5/8"
Power Tool: 18v power drill

- 1) Drill Style: Standard/Spade
Drill Time: 2 minutes 30 seconds
Hole: Incomplete
- 2) Drill Style: Diamond Drill Bit
Drill Time: 45 seconds
Hole: Complete

Revolutionary Innovation



Core ejection slot
for easy plug removal

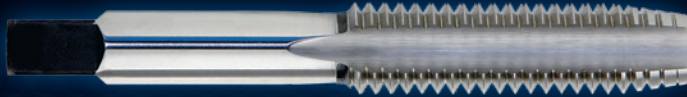
UP TO 40 plus holes per bit

HAND TAPS

HIGH SPEED STEEL

- Ideal for general use in a variety of materials and applications
- Ground Thread

Tap application chart available on page 78



WIRE • FRACTIONAL SIZES

SIZES	H-LIMIT	# FLUTES	TAPER PART NUMBER	PLUG PART NUMBER	BOTTOM PART NUMBER	SETS PART NUMBER
0-80	H1	2	95100000	95101000	95102000	95103000
1-64	H1	2	-	95101001	95102001	95103001
1-72	H1	2	95100002	95101002	95102002	95103002
2-56	H2	3	95100003	95101003	95102003	95103003
2-64	H2	3	95100004	-	95102004	95103004
3-48	H2	3	95100005	95101005	95102005	95103005
3-56	H2	3	95100006	95101006	95102006	95103006
4-40	H2	3	95100007	95101007	-	95103007
4-48	H2	3	95100008	95101008	95102008	95103008
5-40	H2	3	95100009	95101009	95102009	95103009
5-44	H2	3	95100010	95101010	95102010	95103010
6-32	H3	3	95100011	95101011	95102011	95103011
6-40	H2	3	95100012	95101012	95102012	95103012
8-32	H3	4	95100013	95101013	95102013	95103013
8-36	H2	4	95100014	95101014	95102014	95103014
10-24	H3	4	95100015	95101015	95102015	95103015
10-32	H3	4	95100016	95101016	-	95103016
12-24	H3	4	95100017	95101017	95102017	95103017
12-28	H3	4	95100018	95101018	95102018	95103018
1/4-20	H3	4	95100019	95101019	95102019	95103019
1/4-28	H3	4	95100020	95101020	95102020	95103020
5/16-18	H3	4	95100021	95101021	95102021	95103021
5/16-24	H3	4	95100022	95101022	95102022	95103022
3/8-16	H3	4	95100023	95101023	95102023	95103023
3/8-24	H3	4	95100024	95101024	95102024	95103024
7/16-14	H3	4	95100025	95101025	95102025	95103025
7/16-20	H3	4	95100026	95101026	95102026	95103026
1/2-13	H3	4	95100027	95101027	95102027	95103027
1/2-20	H3	4	95100028	95101028	95102028	95103028
9/16-12	H3	4	95100029	95101029	95102029	95103029
9/16-18	H3	4	95100030	95101030	95102030	95103030
5/8-11	H3	4	95100031	95101031	95102031	95103031
5/8-18	H3	4	95100032	-	95102032	95103032



HAND TAPS

CONTINUED

SIZES	H-LIMIT	# FLUTES	TAPER PART NUMBER	PLUG PART NUMBER	BOTTOM PART NUMBER	SETS PART NUMBER
3/4-10	H3	4	95100033	95101033	95102033	95103033
3/4-16	H3	4	95100034	95101034	95102034	95103034
7/8-9	H4	4	95100035	95101035	95102035	95103035
7/8-14	H4	4	95100036	95101036	95102036	95103036
1-8	H4	4	95100037	95101037	95102037	95103037
1-12	H4	4	95100038	95101038	95102038	95103038
1 1/8-7	H4	4	95100039	95101039	95102039	95103039
1 1/8-12	H4	4	95100040	95101040	95102040	95103040
1 1/4-7	H4	4	95100041	95101041	-	95103041
1 1/4-12	H4	6	95100042	95101042	95102042	95103042
1 3/8-6	H4	4	95100043	95101043	95102043	95103043
1 3/8-12	H4	6	95100044	95101044	95102044	95103044
1 1/2-6	H4	4	95100045	95101045	95102045	95103045
1 1/2-12	H4	6	95100046	95101046	95102046	95103046

METRIC SIZES

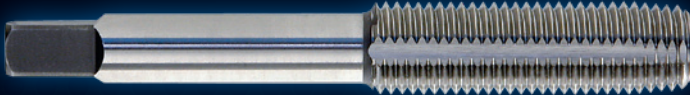
SIZES	H-LIMIT	# FLUTES	TAPER PART NUMBER	PLUG PART NUMBER	BOTTOM PART NUMBER	SETS PART NUMBER
M2 - 0.4	D3	3	95100048	95101048	95102048	-
M3 - 0.5	D3	3	95100050	95101050	95102050	95103050
M4 - 0.7	D4	4	95100052	95101052	95102052	95103052
M5 - 0.8	D4	4	95100054	95101054	95102054	95103054
M6 - 1	D5	4	95100055	95101055	95102055	95103055
M7 - 1	D5	4	95100056	95101056	95102056	95103056
M8 - 1.25	D5	4	95100058	95101058	95102058	95103058
M10 - 1.25	D5	4	95100059	95101059	95102059	95103059
M10 - 1.5	D6	4	95100060	95101060	95102060	95103060
M12 - 1.75	D6	4	95100062	95101062	95102062	95103062
M14 - 1.5	D6	4	95100063	95101063	95102063	-
M14 - 2	D7	4	95100064	95101064	95102064	-
M16 - 1.5	D6	4	95100065	95101065	95102065	-
M16 - 2	D7	4	95100066	95101066	95102066	-
M18 - 1.5	D6	4	95100067	95101067	95102067	-
M18 - 2.5	D7	4	95100068	95101068	95102068	95103068
M20 - 2.5	D7	4	95100070	95101070	-	-
M24 - 3	D8	4	95100074	95101074	95102074	-

FORM TAPS

HIGH SPEED STEEL

- Ideal for general use in a variety of materials and applications
- Ground Thread
- TIN Coated

Tap application chart available on page 78



WIRE • FRACTIONAL • METRIC SIZES

SIZES	H-LIMIT	PLUG PART NUMBER	BOTTOM PART NUMBER
0-80	H2	-	95132000
1-64	H2	-	95132001
1-72	H2	-	95132002
2-56	H2	-	95132003
2-64	H2	-	95132004
3-48	H3	-	95132005
3-56	H3	-	95132006
4-40	H3	95131007	95132007
4-48	H3	-	95132008
5-40	H3	95131009	95132009
5-44	H3	-	95132010
6-32	H3	95131011	95132011
6-40	H3	95131012	95132012
8-32	H3	95131013	95132013
8-36	H3	95131014	95132014
10-24	H4	95131015	95132015
10-32	H4	95131016	95132016
12-24	H4	95131017	95132017

SIZES	H-LIMIT	PLUG PART NUMBER	BOTTOM PART NUMBER
12-28	H4	95131018	95132018
1/4-20	H4	95131019	95132019
1/4-28	H4	95131020	95132020
5/16-18	H5	95131021	95132021
5/16-24	H5	95131022	95132022
3/8-16	H5	95131023	95132023
3/8-24	H5	95131024	95132024
7/16-14	H5	95131025	95132025
7/16-20	H5	95131026	95132026
1/2-13	H5	95131027	95132027
1/2-20	H5	95131028	95132028
M3 - 0.5	D5	-	95132050
M4 - 0.7	D6	95131052	95132052
M5 - 0.8	D7	95131054	95132054
M6 - 1	D8	95131055	95132055
M8 - 1.25	D9	95131058	95132058
M10 - 1.5	D10	95131060	95132060
M12 - 1.75	D11	95131062	95132062



SPIRAL POINT TAPS

HIGH SPEED STEEL

- Ideal for general use in a variety of materials and applications
- Ground Thread

Tap application chart available on page 78



WIRE • FRACTIONAL • METRIC SIZES

SIZES	H-LIMIT	# FLUTES	PART NUMBER
0-80 NC	H1	2	95111000
1-64 NC	H1	2	95111001
1-72 NF	H1	2	95111002
2-56 NC	H2	2	95111003
2-64 NF	H2	2	95111004
3-48 NC	H2	2	95111005
3-56 NF	H2	2	95111006
4-40 NC	H2	2	95111007
4-48 NF	H2	2	95111008
5-40 NC	H2	2	95111009
5-44 NF	H2	2	95111010
6-32 NC	H3	2	95111011
6-40 NF	H2	2	95111012
8-32 NC	H3	2	95111013
8-36 NF	H2	2	95111014
10-24 NC	H3	2	95111015
10-32 NF	H3	2	95111016
12-24 NC	H3	2	95111017
12-28 NF	H3	2	95111018
1/4-20 NC	H3	2	95111019
1/4-28 NF	H3	2	95111020
5/16-18 NC	H3	2	95111021
5/16-24 NF	H3	2	95111022

SIZES	H-LIMIT	# FLUTES	PART NUMBER
3/8-16 NC	H3	3	95111023
3/8-24 NF	H3	3	95111024
7/16-14 NC	H3	3	95111025
7/16-20 NF	H3	3	95111026
1/2-13 NC	H3	3	95111027
1/2-20 NF	H3	3	95111028
5/8-11	H3	3	95111031
3/4-10	H3	3	95111033
M2 - 0.4	D3	2	95111048
M2.5 - 0.45	D3	2	95111049
M3 - 0.5	D3	2	95111050
M3.5 - 0.6	D4	2	95111051
M4 - 0.7	D4	2	95111052
M5 - 0.8	D4	2	95111054
M6 - 1	D5	2	95111055
M7 - 1	D5	2	95111056
M8 - 1.25	D5	2	95111058
M10 - 1.5	D6	3	95111060
M12 - 1.75	D6	3	95111062
M14 - 2	D7	3	95111064
M16 - 2	D7	3	95111066
M18 - 2.5	D7	3	95111068
-	-	-	-

PIPE TAPS

HIGH SPEED STEEL

- Ideal for general use in a variety of materials and applications

- Ground Thread

Tap application chart available on page 78



FRACTIONAL SIZES

SIZES	# FLUTES	PART NUMBER
1/16 - 27 NPT	4	95144004
1/16 - 27 NPTF	4	95145004
1/8 - 27 NPT	4	95144008
1/8 - 27 NPTF	4	95145008
1/4 - 18 NPT	4	95144016
1/4 - 18 NPTF	4	95145016
3/8 - 18 NPT	4	95144024
3/8 - 18 NPTF	4	95145024
1/2 - 14 NPT	4	95144032
1/2 - 14 NPTF	4	95145032

SIZES	# FLUTES	PART NUMBER
3/4 - 14 NPT	5	95144048
3/4 - 14 NPTF	5	95145048
1 - 11 1/2 NPT	5	95144064
1 - 11 1/2 NPTF	5	95145064
1 1/4 - 11 1/2 NPT	5	95144080
1 1/4 - 11 1/2 NPTF	5	95145080
1 1/2 - 11 1/2 NPT	7	95144096
1 1/2 - 11 1/2 NPTF	7	95145096
2 - 11 1/2 NPT	7	95144128
-	-	-

INTERRUPTED THREAD TAPS

HIGH SPEED STEEL

- Ideal for general use in a variety of materials and applications

- Ground Thread

Tap application chart available on page 78



FRACTIONAL SIZES

SIZES	# FLUTES	PART NUMBER
1/8 - 27 NPT	5	95154008
1/8 - 27 NPTF	5	95155008
1/4 - 18 NPT	5	95154016
1/4 - 18 NPTF	5	95155016
3/8 - 18 NPT	5	95154024
3/8 - 18 NPTF	5	95155024
1/2 - 14 NPT	5	95154032
1/2 - 14 NPTF	5	95155032
-	-	-

SIZES	# FLUTES	PART NUMBER
3/4 - 14 NPT	5	95154048
3/4 - 14 NPTF	5	95155048
1 - 11 1/2 NPT	5	95154064
1 - 11 1/2 NPTF	5	95155064
1 1/4 - 11 1/2 NPT	5	95154080
1 1/4 - 11 1/2 NPTF	5	95155080
1 1/2 - 11 1/2 NPTF	7	95155096
2 - 11 1/2 NPTF	7	95155128



TAP APPLICATION MATRIX

Aluminum or Steel-Low Carbon (C<0.30%)

HOLE TYPE	OPERATION	HAND TAPS			FORM TAPS		SPIRAL	SPIRAL FLUTE TAPS			DRILL TAP COUNTERSINKS	PIPE TAPS	INT THREAD TAPS
		TAPER	PLUG	BOTTOMING	PLUG	BOTTOMING	PLUG	PLUG	BOTTOMING				
THRU	HAND	Best	Good	Ok	Ok	Ok	Good	Ok	Not Recommended		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Good	Good	Ok	Good	Not Recommended	Best	Good	Not Recommended		Best	Not Recommended	Not Recommended
BLIND w/ CL	HAND	Good	Best	Ok	Not Recommended	Not Recommended	Good	Good	Not Recommended		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Ok	Good	Multi-Step Operation	Good	Ok	Best	Good	Not Recommended		Ok	Not Recommended	Not Recommended
BLIND	HAND	Not Recommended	Good	Multi-Step Operation	Ok	Multi-Step Operation	Ok	Ok	Multi-Step Operation		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Not Recommended	Ok	Multi-Step Operation	Ok	Multi-Step Operation	Ok	Ok	Multi-Step Operation		Good	Not Recommended	Not Recommended
DEEP HOLE	HAND	Good	Good	Ok	Ok	Not Recommended	Good	Good	Ok		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Good	Good	Ok	Good	Multi-Step Operation	Best	Best	Multi-Step Operation		Not Recommended	Not Recommended	Not Recommended
PIPE	HAND	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended		Not Recommended	Best	Ok
	MACHINE	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended		Not Recommended	Ok	Best

■ Best
 ■ Good
 ■ Ok
 ■ Not Recommended
 ▲ Multi-Step Operation

Note: Aluminum tap operations will usually improve with high wear, low friction coatings, i.e. TiN, TiCN. Steel tap operations will usually improve with oxide finishes.

Steel-Medium Carbon (0.30%<C<0.06%) Under HRC 35

HOLE TYPE	OPERATION	HAND TAPS			FORM TAPS		SPIRAL	SPIRAL FLUTE TAPS			DRILL TAP COUNTERSINKS	PIPE TAPS	INT THREAD TAPS
		TAPER	PLUG	BOTTOMING	PLUG	BOTTOMING	PLUG	PLUG	BOTTOMING				
THRU	HAND	Good	Good	Ok	Ok	Ok	Best	Ok	Not Recommended		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Good	Ok	Ok	Ok	Not Recommended	Best	Good	Not Recommended		Good	Not Recommended	Not Recommended
BLIND w/ CL	HAND	Best	Good	Ok	Not Recommended	Not Recommended	Good	Good	Not Recommended		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Good	Good	Ok	Good	Ok	Best	Good	Not Recommended		Ok	Not Recommended	Not Recommended
BLIND	HAND	Not Recommended	Not Recommended	Multi-Step Operation	Ok	Multi-Step Operation	Good	Ok	Multi-Step Operation		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Not Recommended	Ok	Ok	Ok	Multi-Step Operation	Good	Ok	Multi-Step Operation		Ok	Not Recommended	Not Recommended
DEEP HOLE	HAND	Good	Good	Ok	Ok	Not Recommended	Good	Best	Multi-Step Operation		Not Recommended	Not Recommended	Not Recommended
	MACHINE	Good	Ok	Ok	Good	Multi-Step Operation	Best	Best	Multi-Step Operation		Not Recommended	Not Recommended	Not Recommended
PIPE	HAND	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended		Not Recommended	Good	Ok
	MACHINE	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended		Not Recommended	Ok	Good

■ Best
 ■ Good
 ■ Ok
 ■ Not Recommended
 ▲ Multi-Step Operation

DRILL AND TAP USE CHART

STANDARD TAP & DRILL Approx. 75% Thread

0-80	3/64
1-64	53
1-72	53
2-56	50
2-64	50
3-48	47
3-56	46
4-40	43
4-48	42
5-40	39
5-44	38
6-32	36
6-40	33
8-32	29
8-36	29
10-24	25
10-32	21
12-24	17
12-28	15
14-20	7
1/4-28	3
5/16-18	F
5/16-24	I
3/8-16	5/16
3/8-24	Q
7/16-14	U
7/16-20	W
1/2-12	27/64
1/2-13	27/64
1/2-20	29/64
9/16-12	31/64
9/16-18	33/64
5/8-11	17/32
5/8-18	37/64
3/4-10	21/32
3/4-16	11/16
7/8-9	49/64
7/8-14	13/16
1-8	7/8
1-12	59/64
1-14	15/16

METRIC TAP & DRILL APPROX. 70-75% Thread

M1.6 x .35	1.25mm
M2.0 x .40	1.6mm
M2.5 x .45	2.05mm
M3.0 x .50	2.5mm
M3.5 x .60	2.9mm
M4.0 x .70	3.3mm
M4.5 x .75	3.75mm
M5.0 x .80	4.2mm
M6.0 x 1.0	5mm
M7.0 x 1.0	6mm
M8.0 x 1.0	6.75mm
M10 x 1.50	8.5mm
M12 x 1.75	Y
M14 x 2.0	12mm
M16 x 2.0	14mm
M18 x 2.5	15.5mm
M20 x 2.5	17.5mm

METRIC ROLL FORM TAP & DRILL APPROX. 65% Thread

M1.6 x .35	1.45mm
M2.0 x .40	1.85mm
M2.5 x .45	2.30mm
M3.0 x .50	35
M3.5 x .60	30
M4.0 x .70	3.7mm
M5.0 x .80	14
M6.0 x 1.0	5.5mm
M8.0 x 1.25	7.4mm
M10 x 1.75	9.3mm
M12 x 1.75	7/16
M14 x 2.0	13mm
M16 x 2.0	15mm
M20 x 2.5	18.75mm

ROLLFORM TAP & DRILL For 65% Thread

0-80	54
1-64	1.65mm
1-72	1.7mm
2-56	5/64
2-64	2mm
3-48	43
3-56	2.3mm
4-40	39
4-48	2.6mm
5-40	33
5-44	2.9mm
6-32	1/8
6-40	3.2mm
8-32	25
8-36	24
10-24	11/64
10-32	16
12-24	5mm
12-28	8
1/4-20	1
1/4-28	A
5/16-18	7.3mm
5/16-24	M
3/8-16	S
3/8-24	T
7/16-14	13/32
7/16-20	10.5mm
1/2-13	15/32
1/2-20	31/64
9/16-12	17/32
9/16-18	13.5mm
5/8-11	15mm
5/8-18	19/32
3/4-10	45/64
3/4-16	23/32
7/8-9	.823
7/8-14	27/32
1-8	15/16
1-12	.963

HELICOIL TAP & DRILL (For Aluminum)

SIZES	DRILL	TAP	DRILL	TAP	DRILL
2 - 56	3/32	8 - 32	17	5/16 - 24	21/64
3 - 48	36	8 - 36	17	3/8 - 16	X
3 - 56	37	10 - 24	13/64	3/8 - 24	25/64
4 - 40	31	10 - 32	7	7/16 - 14	29/64
4 - 48	3mm	12 - 24	1	7/16 - 20	29/64
5 - 40	3.4mm	1/4 - 20	H	1/2 - 13	33/64
6 - 32	26	1/4 - 28	G	1/2 - 20	33/64
6 - 40	26	5/16 - 18	Q	-	-

TAPER PIPE TAP & DRILL NPS

1/16 - 27	D
1/8 - 27	R
1/4 - 18	7/16
3/8 - 18	37/64
1/2 - 14	45/64
3/4 - 14	59/64
1 - 11 1/2	1 5/32
1 1/4 - 11 1/2	1 1/2
1 1/2 - 11 1/2	1 47/64
2 - 11 1/2	2 7/32

STRAIGHT PIPE TAP & DRILL NPS

1/16 - 27	1/4
1/8 - 27	11/32
1/4 - 18	7/16
3/8 - 18	37/64
1/2 - 14	23/32
3/4 - 14	59/64
1 - 11 1/2	1 5/32
1 1/4 - 11 1/2	1 1/2
1 1/2 - 11 1/2	1 3/4
2 - 11 1/2	2 7/32

END VIEW OF A HAND TAP



2 Flute

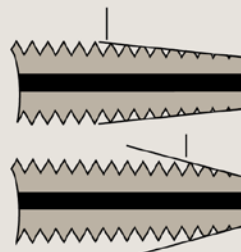


3 Flute



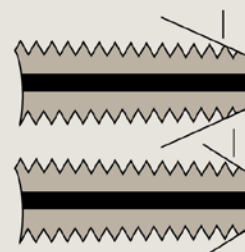
4 Flute

HAND TAP CHAMFERS



7-10
Threads
Taper

3-5
Threads
Plug



2 2 1/2
Threads
Semi
bottoming

1-2
Threads
Bottoming



DRILL APPLICATION MATRIX

RECOMMENDATIONS

DRILL APPLICATION MATRIX

WWW.ROCKYMOUNTAINTWIST.COM

Material	SFM Recommended	118° General Purpose	X-29 Brad Point	135° Split Point	137° BLACKGOLD™	135° Parabolic	135° Cobalt	127°-XP Cobalt
Wood	200							
Plastic	50							
Brass	120							
Aluminum	250							
Mild Steel	100							
Moderate Steel	80							
Tool Steel	40							
Stainless Steel	30							
Titanium	40							

Best Good Ok Not Recommended Thin (.06-in max)



SFM-RPM ESTIMATOR



SFM	#40	1/8"/#30	#20	3/16"	#10	1/4"	3/8"	1/2"
250	9749	7435	5934	5096	4938	3822	2548	1911
200	7799	5948	4747	4076	3950	3057	2038	1529
150	5849	4461	3561	3057	2963	2293	1529	1146
100	3900	2974	2374	2038	1975	1529	1019	764
80	3120	2379	1899	1631	1580	1223	815	611
60	2340	1784	1424	1223	1185	917	611	459
40	1560	1190	949	815	790	611	408	306
30	1170	892	712	611	593	459	306	229
20	780	595	475	408	395	306	204	153

RPM 34837 Innovation Drive • Ronan, MT 59864 USA • (866) 433-4RMT



DRILL FEEDS AND SPEEDS

RECOMMENDATIONS

MATERIALS	Recommended drill speeds in surface ft./min. for High Speed Steel Twist Drill Bits							
	15-20	20-40	40-60	60-80	80-120	120-200	200-300	300-400
Aluminum								
Aluminum Alloys								
Bronze (High-Tensile)								
Die Casting (Zinc Base)								
Cast Iron (Soft)								
Cast Iron (Medium Hard)								
Cast Iron (Hard Chilled)								
Cast Iron (Malleable)								
Hastelloy								
Inconel								
Magnesium								
Magnesium Alloy								
Monel								
High Nickel Steel								
Mild Steel (.2-.3 Carbon)								
Steel (.4-.5 Carbon)								
Tool Steel								
Forgings								
Steel Alloy (300-400 Brinell)								
35-40 Rockwell C								
40-45 Rockwell C								
45-50 Rockwell C								
50-55 Rockwell C								
Stainless Steel Free Machining								
Stainless Work Hardening								
TI-75A								
RS-120								
TI-150A								
RC-130B								
MST6A1-4 VA								
MST3A1-5 CR								

Different drilling conditions make it impossible to develop a rigid rule for feeds and speeds. The following tables contain guidelines that can be utilized when drilling standard materials. Also, the following "rules of thumb" can be used to determine proper feeds and speeds for drilling ferrous materials. (Note: varying conditions can easily require adjustments)

DRILL SIZE	INCHES PER REVOLUTION	DRILL SIZE	INCHES PER REVOLUTION
.0-.62	.0015	.453-500	.013
.078-.125	.003	.514-.625	.016
.140-.187	.004	.640-.750	.019
.203-.250	.007	.765-.875	.022
.265-.313	.009	.890-1.000	.024
.328-.375	.011	1.015-1.250	.026
.390-.437	.012	1.265-1.500	.027

RECOMMENDED FEEDS: INCHES/REVOLUTION
FOR GROUND TWIST DRILL BITS

DRILLING FORMULAS	
SURFACE FEET/MIN.	Multiply RPM times drill diameter (IN) times 0.26
R.P.M.	Surface feet per minute divided by (0.26 multiplied by drill diameter)
Feed Rate In./Min	Multiply RPM times inches per revolution
These charts are intended as a guideline. Material and application can affect drill feeds and speeds.	



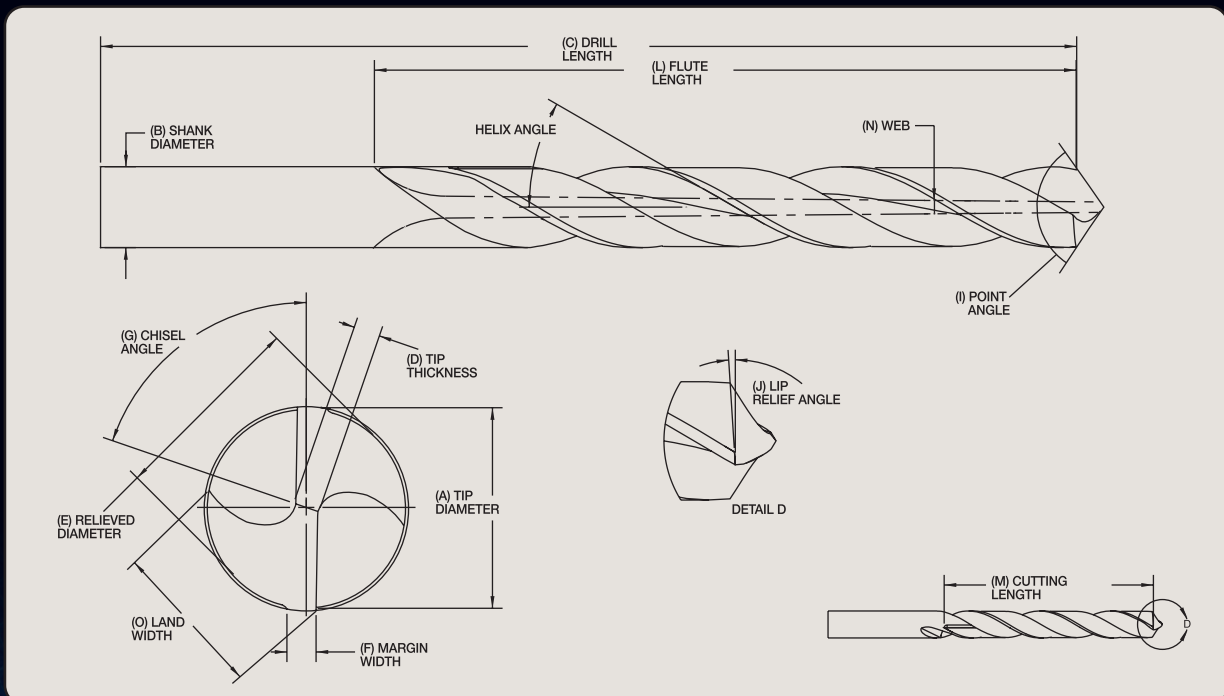
GLOSSARY

TECHNICAL TERMS

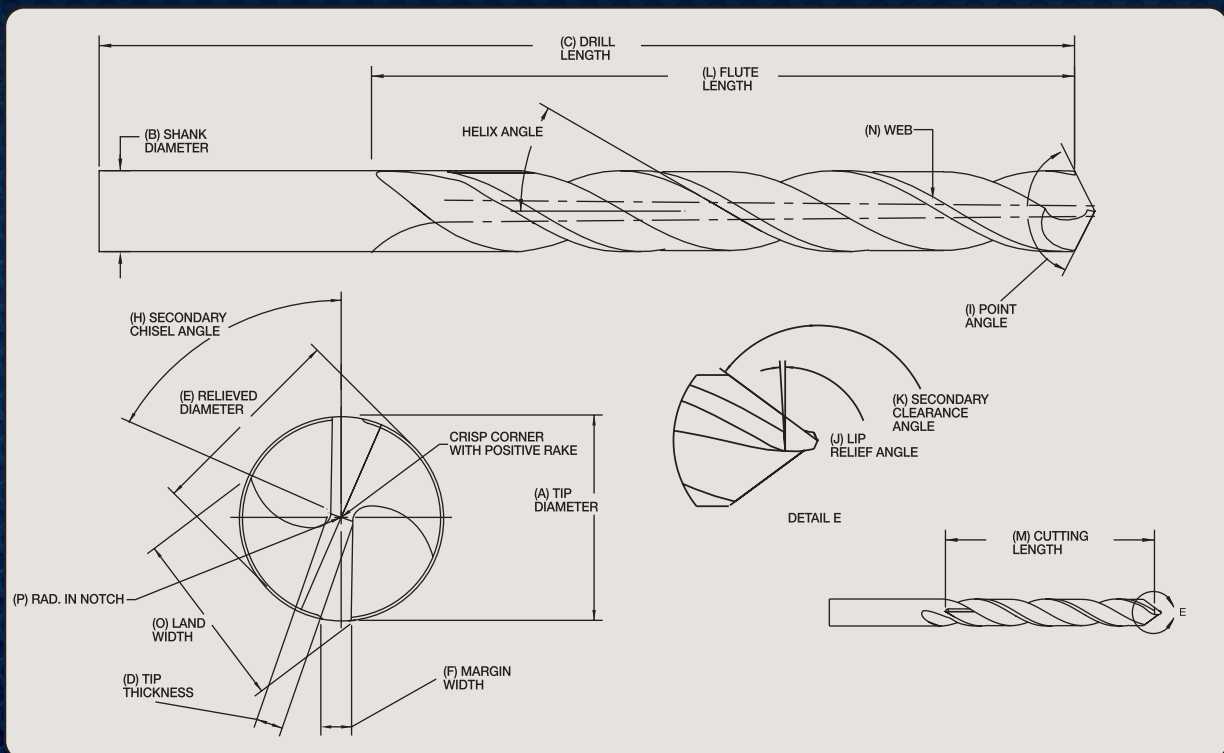
- (A) **TIP DIAMETER**
Drill bit diameter at tip.
- (B) **SHANK DIAMETER**
Drill bit diameter at shank end. Also includes 3/8" reduction diameter.
- (C) **DRILL LENGTH**
The length of drill bit from shank end surface to the leading edge of the primary chisel. (measured at the outer diameter)
- (D) **TIP THICKNESS**
Thickness of the web at the point. (unless another specific location is indicated)
- (E) **RELIEVED DIAMETER**
Diameter of the drill bit body that has been cut away to minimize friction from the hole.
- (F) **MARGIN WIDTH**
The portion of the land width that is unaffected by the relieved diameter grind. Located adjacent to the leading edge.
- (G) **CHISEL ANGLE**
Included angle between the chisel edge and the leading edge of the cutting lip, as viewed from the front end of the drill.
- (H) **SECONDARY CHISEL ANGLE**
Included angle formed by the intersection of the cutting edge and the face of the notch with the relief surface of the point, resulting in partial removal of the primary chisel edge. (applies to split point geometry only)
- (I) **POINT ANGLE**
The angle included between the cutting lips projected on a plain parallel to the cutting axis and parallel to the cutting lips. In form this angle resembles a cone, but it departs from a true cone to furnish clearance behind the cutting lips.
- (J) **LIP RELIEF ANGLE**
The clearance angle of the cutting lips. Measured by projection onto a plain tangent to the periphery at the outer corner of the lip. The lip relief angle is usually measured across the margins of a twist drill.
- (K) **SECONDARY CLEARANCE ANGLE**
The included angle generated from the clearance operation for the secondary cutting edge.
- (L) **FLUTE LENGTH**
Length of helical flute measured from outer edge of cutting lip to back leadout edge of the flute.
- (M) **CUTTING LENGTH**
Length of relieved diameter measured from outer edge of cutting lip to back lead out edge of the relieved diameter grind.
- (N) **WEB**
The central portion of the body that joins the lands. Extreme end of the web forms the chisel edge on a two flute drill bit.
- (O) **LAND WIDTH**
Peripheral portion of the body between adjacent flutes.
- (P) **RADIUS IN NOTCH**
Radius at the intersection of the secondary chisel, and the split depth line.

ANATOMY OF A DRILL BIT

118° POINT



135° POINT



TERMS AND CONDITIONS

Minimum Order Quantity

Rocky Mountain Twist has a minimum order amount of \$100.00.

Pricing

Orders will be billed at current pricing. If you have pricing questions, please contact the RMT customer services department. Quotations are valid 30 days from the date of quote unless otherwise noted. Typographical or similar errors are subject to correction. Terms are 1% 10, net 30.

Delivery

Orders are shipped via regular ground service unless otherwise indicated. Due to size, weight or delivery requirements it may be necessary to split your order into more than one carton or ship your order via freight carrier. Rocky Mountain Twist will pay the shipping costs on orders of \$500 or more (net price) using our preferred carrier (destination within the continental U.S.). All orders are F.O.B. Rocky Mountain Twist, Ronan, Montana 59864.

Return of Merchandise

Returns are accepted for credit within 30 days of receipt of order and only when accompanied by a Returned Merchandise Agreement Number (RMA#). RMA numbers can be obtained by contacting our customer service department. All returned merchandise must be in original packaging and quantities. Custom Orders, Discontinued Items and Special Tooling cannot be returned. All returns are subject to a 15% restocking fee. All return costs to be prepaid. Freight collect returns will not be accepted. Rocky Mountain Twist reserves the right to refuse return of any item that is found unsuitable for resale due to use, mishandling, or other acts following receipt of the tools by the customer.

Warranty and Limitations of Liability

Rocky Mountain Twist has attempted to provide current and accurate information herein; however, Seller makes no representations regarding the accuracy or completeness of the information and assumes no liability for any loss, damage or injury of any kind which may result from or arise out of the use of or reliance on the information by any person. Rocky Mountain Twist warrants its products shall be free from defects in material and workmanship under normal use and service when correctly installed and maintained. Normal wear and tear is not covered. This warranty shall terminate thirty (30) days after delivery of the products to the Buyer and shall not apply to products that have been subjected to misuse, abuse, neglect or improper storage, handling or maintenance.

Large Quantity Discounts and Blanket Orders

Rocky Mountain Twist can arrange customized discounts to suit the specific needs of your business. For large quantities and ongoing purchases, customized pricing and terms can be established. Please call (866) 433-4RMT.

NAS (National Aerospace Standard) Special Orders

Manufactured to NAS specification call outs: Type A, B, C, D, E, J and Extensions.

*These orders will be manufactured under standard lead times or agreed upon lead times.
Call in reference to ordering any NAS type drills.*

Foreign Customers

Our export department is set up to ship anywhere in the world, except those areas prohibited by the U.S. State Department. Payments shall be made in US Dollars via Wire Transfer, International Money Order or by credit card. Our 24 hour Fax service is provided for fast and accurate communications.

CONTACTS & NOTES

TECHNICAL



DRILL CHART DECIMAL EQUIVALENTS

DRILL SIZE	DEC.	DRILL SIZE	DEC.	DRILL SIZE	DEC.	DRILL SIZE	DEC.
0.1mm	.0039	41	.0960	15/64	.2344	33/64	.5156
0.2mm	.0079	40	.0980	6mm	.2362	17/32	.5313
0.3mm	.0118	2.5mm	.0984	B	.2380	13.5mm	.5315
80	.0135	39	.0995	C	.2420	35/64	.5469
79	.0145	38	.1015	D	.2460	14mm	.5512
1/64	.0156	37	.1040	1/4 & E	.2500	9/16	.5625
0.4mm	.0157	36	.1065	6.5mm	.2559	14.5mm	.5709
78	.0160	7/64	.1094	F	.2570	37/64	.5781
77	.0180	35	.1100	G	.2610	15mm	.5906
0.5mm	.0197	34	.1110	17/64	.2656	19/32	.5938
76	.0200	33	.1130	H	.2660	39/64	.6094
75	.0210	32	.1160	I	.2720	15.5mm	.6102
74	.0225	3mm	.1181	7mm	.2756	5/8	.6250
0.6mm	.0236	31	.1200	J	.2770	16mm	.6299
73	.0240	1/8	.1250	K	.2810	41/64	.6406
72	.0250	30	.1285	9/32	.2812	16.5mm	.6496
71	.0260	29	.1360	L	.2900	21/32	.6562
0.7mm	.0276	3.5mm	.1378	M	.2950	17mm	.6693
70	.0280	28	.1405	7.5mm	.2953	43/64	.6719
69	.0292	9/64	.1406	19/64	.2969	11/16	.6875
68	.0310	27	.1440	N	.3020	17.5mm	.6890
1/32	.0312	26	.1470	5/16	.3125	45/64	.7031
0.8mm	.0315	25	.1495	8mm	.3150	18mm	.7087
67	.0320	24	.1520	O	.3160	23/32	.7188
66	.0330	23	.1540	P	.3230	18.5mm	.7283
65	.0350	5/32	.1562	21/64	.3281	47/64	.7344
0.9mm	.0354	22	.1570	Q	.3320	19mm	.7480
64	.0360	4mm	.1575	8.5mm	.3346	3/4	.7500
63	.0370	21	.1590	R	.3390	49/64	.7656
62	.0380	20	.1610	11/32	.3438	19.5mm	.7677
61	.0390	19	.1660	S	.3480	25/32	.7812
1mm	.0394	18	.1695	9mm	.3543	20mm	.7874
60	.0400	11/64	.1719	T	.3580	51/64	.7969
59	.0410	17	.1730	23/64	.3594	20.5mm	.8071
58	.0420	16	.1770	U	.3680	13/16	.8125
57	.0430	4.5mm	.1772	9.5mm	.3740	21mm	.8268
56	.0465	15	.1800	3/8	.3750	53/64	.8281
3/64	.0469	14	.1820	V	.3770	27/32	.8438
55	.0520	13	.1850	W	.3860	21.5mm	.8465
54	.0550	3/16	.1875	25/64	.3906	55/64	.8594
1.5mm	.0591	12	.1890	10mm	.3937	22mm	.8661
53	.0595	11	.1910	X	.3970	7/8	.8750
1/16	.0625	10	.1935	Y	.4040	22.5mm	.8858
52	.0635	9	.1960	13/32	.4062	57/64	.8906
51	.0670	5mm	.1969	Z	.4130	23mm	.9055
50	.0700	8	.1990	10.5mm	.4134	29/32	.9062
49	.0730	7	.2010	27/64	.4219	59/64	.9219
48	.0760	13/64	.2031	11mm	.4331	23.5mm	.9252
5/64	.0781	6	.2040	7/16	.4375	15/16	.9375
47	.0785	5	.2055	11.5mm	.4528	24mm	.9449
2mm	.0787	4	.2090	29/64	.4531	61/64	.9531
46	.0810	3	.2130	15/32	.4688	24.5mm	.9646
45	.0820	5.5mm	.2165	12mm	.4724	31/32	.9688
44	.0860	7/32	.2188	31/64	.4844	25mm	.9843
43	.0890	2	.2210	12.5	.4921	63/64	.9844
42	.0935	1	.2280	1/2	.5000	1	1.000
3/32	.0938	A	.2340	13mm	.5118		

60010102-004

