

KROMHARD TWIST DRILL

Cutting tools of the finest quality



Holemaking Catalog 2025



Your trusted source for quality cutting tools

hand tools

fluids

thread repair

and much more...



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(330) 535 - 7129

www.kromhard.com

Welcome to Kromhard Twist Drill!



James H. Griffin

Kromhard Twist Drill Co. was founded in 1958 by James H. Griffin.

"Jim" earned a bachelors degree in industrial engineering and a master's degree in business administration as preparation for his future career in tool sales. He carried an attaché case displaying the drills that he was selling and went business to business to gain customers. Sixty-seven years later (as of 2025), Kromhard Twist Drill, LLC has grown into a national and international seller of cutting tools, supplying tools to machinists, construction workers, mechanics and hobbyists.

Kromhard has earned the trust of its customers by providing professional expertise, a friendly attitude, and an extensive product line of cutting tools.

When you contact Kromhard, you will be immediately connected to a knowledgeable salesperson. Our sales team has decades of experience in selling cutting tools and all have backgrounds in the machinist trade. We have tens of thousands of different cutting tools in all types, varieties and sizes.

As you examine this catalog, understand that this is a hole making catalog and contains all the tools we sell that are used to make holes. In addition to hole making tools, we also provide an extensive line of other cutting tools and have provided a list of those other items to better familiarize you with them. This catalog was produced from the hard work and dedication of our sales manager Jeremy Bizjak.

We look forward to providing solutions to your most challenging cutting tool needs.

Thomas Griffin

President

KROMHARD TWIST DRILL

Cutting tools of the finest quality

Product line card

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Akron, OH 44301

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Kromhard Twist Drill, LLC
1097 Sweitzer Ave
Akron, OH 44301

(330) 535-7129
kromhardsales@gmail.com
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List of other products that Kromhard carries

1-2-3 Blocks, 2-4-6 blocks	Gages -Radius, depth, telescoping, hole, bore, drill point, center	Reciprocating blades
Abrasive shop rolls, sanding sticks	Glasses, safety	Refractometers
Air - grinder, drill, blow gun, oil	Grinding wheels -aluminum oxide, silicon carbide	Retrieval tools , magnetic and mechanical
Bandsaw blades, portable	Hacksaw blades	Reverse counterboring tools, arbors and blades
Batteries	Hammers -dead blow, ball peen, claw, copper, rawhide, interchangeable tip, handles	Rust preventives
Boring bars , brazed/indexable/sets	Hex keys -L keys, T-handle, sockets, drivers, sets	Scales , rigid and flex
Brazed carbide tool bits	Hobbyist tools - General Tools brand	Screwdrivers , slotted, philips, torx, torx plus, pentalobe technicians, security
Broaches -and bushings	Hones, ball flex	Scribers
Brushes -acid, chip, pipe, scratch	HUOT indexes for drills, taps, ect..	Shim stock / feeler gage
Burrs, carbide	Impact -sockets, adapters, power bits	Single angle cutters, 45°, 60°
Bushings , toolholder CNC lathe	Indicators -1", 2" travel, test, contact points/sets	Slitting/screwslotting saws
Calipers, dial and electronic	Insert bits -slotted, phillips, torx, torx plus, hex, square, clutch, spanner, tri-wing, security	Snap ring pliers and sets
Carbide inserts -milling, turning, facing, parting, boring	Insert bit drivers , magnetic and non-magnetic	Snips
Centers , live / dead, CNC	Jeweler's saws	Sockets -standard, deep, impact, special, tap
Chamfer mills, carbide	Keystock -1 foot lengths, square, rectangular, metric	Socket extensions and adapters, morse taper
Channellock pliers, cutters,	Knives -utility knives, blades	Solid sockets (internal morse taper)
Charts, wall	Knurls	Squares
Chisels	Layout fluid and remover	Stamps , letters and figures
Chucks -drill, arbors, keys, removal wedges	Levels	T-Slot cutters
Clamps -C-clamp, Kant-Twist, sliding, bar, kits	Lubricants/penetrants -WD-40, Kroil, LPS and more	Tape measures
Clamping components -studs, flange nuts, t-nuts	Magnetic - bases, retrieval tools	Tap guides
Collet chucks	Magnets and magnetizers/demagnetizers	Tap handles -wrenches, extensions, drivers
Collets -R8, 5C, ER, PG/TG, DA, Proconier, rubber flex	Magnifying tools and optivisors	Taps -hand, machine, CNC HP, british, pipe, extended, acme, left hand, special
Combination squares and heads	Micrometers	Tap/die sets
Concave radius cutters	Micro 100 carbide tools	Thread chasers
Convex radius cutters	Milling cutters and arbors	Thread mills
Counterbores -interchangeable pilot capscrew, reverse	Mirrors, inspection	Thread pitch gages
Countersinks	Misting units and fluid	Thread repair -kits, wire and solid inserts, install tools
Cut-off blades -P style and beveled	Mounted points (stones)	Tool blanks, square
Cutting fluids -coolants, cutting oil, pastes, wax, misting fluid, coolant delivery (Loc-Line)	Nutsetters , standard and magnetic	Tool holders -CAT, NMTB, R8 Straight and taper shank
Deburr tools -Shaviv handles/blades	Paint markers	V-Blocks , pairs with clamps
Diamond sharpening stones, DMT	Parallell sets and parts	Verniers
Dies -Hex/round, pipe, pipe threading left hand, specials, stocks, holders	Picks / hooks	Vise grips
Dispensers, HUOT	Pin -gages and sets, pin vises	Vise stops
Dressers -diamond, wheel dressers	Pipe cutters and replacement wheels	Wing keys, flag keys, torx
Drill rod, 3 foot	Pliers , Irwin, Knipex, Channellock	Wires, thread measuring
Drill/mills	Plug gages, go/no-go	Woodruff key cutters
Drill sleeves, morse taper	Polish, Simichrome	Wrenches -combination, pipe, ratcheting, torque, striking, adjustable, internal pipe, spanner: pin, face and adjustable, internal pipe, Spanner: pin and face, adj. hook, adj. face spanner
Driver -morse taper and split sleeve-drill, tap, reamer, HD	Pry bars	
Double angle cutters, 60° and 90°	Punches -hand/automatic, center, transfer, transfer screw, hollow, arch, pin, roll pin	
Dovetail cutters, 45° and 60°	Ratchets	
Edge finders / wigglers	Reamers -chucking, adj.blade, expansion, taper pin, morse taper, ball joint, shell, king pin	
End mills -Square, ball, roughing, indexable, tapered, corner rounding		
Extractors -screw, bolt, multi-spline, tap		
Eye Bolts		
Files -file, file cards, file handles		

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Drill Blanks

High Speed Steel



- Bright finish
- Hardened and ground

TOLERANCE: +0 -.0003 SIZES OVER 1/2" +0 -.0005

List 100B

SIZE	OAL (in.)	SIZE	OAL (in.)	SIZE	OAL (in.)	SIZE	OAL (in.)	SIZE	OAL (in.)
1/64"	3/4"	41/64"	6"	16	3-3/8"	56	1-3/4"	Y	5-1/4"
1/32"	1-3/8"	21/32"	6"	17	3-3/8"	57	1-3/4"	Z	5-1/4"
3/64"	1-3/4"	43/64"	6"	18	3-1/4"	58	1-5/8"		
1/16"	1-7/8"	11/16"	6"	19	3-1/4"	59	1-5/8"	1.0mm	1-5/8"
5/64"	2"	45/64"	6"	20	3-1/4"	60	1-5/8"	1.5mm	1-7/8"
3/32"	2-1/4"	23/32"	6"	21	3-1/4"	61	1-5/8"	2.0mm	2-1/8"
7/64"	2-5/8"	47/64"	6"	22	3-1/8"	62	1-1/2"	2.5mm	2-3/8"
1/8"	2-3/4"	3/4"	6"	23	3-1/8"	63	1-1/2"	3.0mm	2-3/4"
9/64"	2-7/8"	49/64"	6"	24	3-1/8"	64	1-1/2"	3.5mm	2-7/8"
5/32"	3"	25/32"	6"	25	3"	65	1-1/2"	4.0mm	3-1/4"
11/64"	3-1/4"	51/64"	6"	26	3"	66	1-3/8"	4.5mm	3-3/8"
3/16"	3-1/2"	13/16"	6"	27	3"	67	1-3/8"	5.0mm	3-5/8"
13/64"	3-5/8"	53/64"	6"	28	2-7/8"	68	1-3/8"	5.50mm	3-7/8"
7/32"	3-3/4"	27/32"	6"	29	2-7/8"	69	1-3/8"	6.0mm	4"
15/64"	3-7/8"	55/64"	6"	30	2-3/4"	70	1-1/4"	6.5mm	4-1/8"
1/4"	4"	7/8"	6"	31	2-3/4"			7.0mm	4-1/8"
17/64"	4-1/8"	57/64"	6"	32	2-3/4"	A	3-7/8"	7.5mm	4-3/8"
9/32"	4-1/4"	29/32"	6"	33	2-5/8"	B	4"	8.0mm	4-1/2"
19/64"	4-3/8"	59/64"	6"	34	2-5/8"	C	4"	8.50mm	4-3/4"
5/16"	4-1/2"	15/16"	6"	35	2-5/8"	D	4"	9.0mm	4-7/8"
21/64"	4-5/8"	61/64"	6"	36	2-1/2"	E	4"	9.5mm	5"
11/32"	4-3/4"	31/32"	6"	37	2-1/2"	F	4-1/8"	10.0mm	5-1/8"
23/64"	4-7/8"	63/64"	6"	38	2-1/2"	G	4-1/8"	11.0mm	5-1/2"
3/8"	5"	1"	6"	39	2-3/8"	H	4-1/8"	11.50mm	5-1/2"
25/64"	5-1/8"			40	2-3/8"	I	4-1/8"	12.0mm	5-7/8"
13/32"	5-1/4"	1	3-7/8"	41	2-3/8"	J	4-1/8"	12.5mm	6"
27/64"	5-3/8"	2	3-7/8"	42	2-1/4"	K	4-1/4"	13.0mm	6"
7/16"	5-1/2"	3	3-3/4"	43	2-1/4"	L	4-1/4"	13.5mm	6"
29/64"	5-5/8"	4	3-3/4"	44	2-1/8"	M	4-3/8"	14.0mm	6"
15/32"	5-3/4"	5	3-3/4"	45	2-1/8"	N	4-3/8"		
31/64"	5-7/8"	6	3-3/4"	46	2-1/8"	O	4-1/2"		
1/2"	6"	7	3-5/8"	47	2"	P	4-5/8"		
33/64"	6"	8	3-5/8"	48	2"	Q	4-3/4"		
17/32"	6"	9	3-5/8"	49	2"	R	4-3/4"		
35/64"	6"	10	3-5/8"	50	2"	S	4-7/8"		
9/16"	6"	11	3-1/2"	51	2"	T	4-7/8"		
37/64"	6"	12	3-1/2"	52	1-7/8"	U	5"		
19/32"	6"	13	3-1/2"	53	1-7/8"	V	5"		
39/64"	6"	14	3-3/8"	54	1-7/8"	W	5-1/8"		
5/8"	6"	15	3-3/8"	55	1-7/8"	X	5-1/8"		

Jobber Length Drills

High Speed Steel - General Purpose



List 100J Oxide layer that holds cutting oil
Black oxide 118° providing abrasion resistance.



List 100BR Better chip ejection in low carbon,
Bright 118° non-ferrous metals.



List 100TN Added lubricity for extended
Titanium Nitride tool life. Split point aids self centering.
(TiN) 135° split point

NOTE : TiN pack qty 6pcs up to 9/32

3 pack to 1/2". Number sizes are packs of 6.

****Available in quality import**

*** Has 118° point**

SIZE	Flute Length	OAL	Availability:			Pack Qty.
			100J	100BR	100TN	
1/64"	3/16"	3/4"	Yes	Yes	*Yes	12
1/32"	1/2"	1-3/8"	Yes	Yes	*Yes	12
3/64"	3/4"	1-3/4"	Yes	Yes	*Yes	12
1/16"	7/8"	1-7/8"	Yes	Yes	Yes	12
5/64"	1"	2"	Yes	Yes	Yes	12
3/32"	1-1/4"	2-1/4"	Yes	Yes	Yes	12
7/64"	1-1/2"	2-5/8"	Yes	Yes	Yes	12
1/8"	1-5/8"	2-3/4"	Yes	Yes	Yes	12
9/64"	1-3/4"	2-7/8"	Yes	Yes	Yes	12
5/32"	2"	3-1/8"	Yes	Yes	Yes	12
11/64"	2-1/8"	3-1/4"	Yes	Yes	Yes	12
3/16"	2-5/16"	3-1/2"	Yes	Yes	Yes	12
13/64"	2-7/16"	3-5/8"	Yes	Yes	Yes	12
7/32"	2-1/2"	3-3/4"	Yes	Yes	Yes	12
15/64"	2-5/8"	3-7/8"	Yes	Yes	Yes	12
1/4"	2-3/4"	4"	Yes	Yes	Yes	12
17/64"	2-7/8"	4-1/8"	Yes	Yes	Yes	12
9/32"	2-15/16"	4-1/4"	Yes	Yes	Yes	6
19/64"	3-11/16"	4-3/8"	Yes	Yes	Yes	6
5/16"	3-3/16"	4-1/2"	Yes	Yes	Yes	6
21/64"	3-5/16"	4-5/8"	Yes	Yes	Yes	6
11/32"	3-7/16"	4-3/4"	Yes	Yes	Yes	6
23/64"	3-1/2"	4-7/8"	Yes	Yes	Yes	6
3/8"	3-5/8"	5"	Yes	Yes	Yes	6
25/64"	3-3/4"	5-1/8"	Yes	Yes	Yes	6
13/32"	3-7/8"	5-1/4"	Yes	Yes	Yes	6
27/64"	3-15/16"	5-3/8"	Yes	Yes	Yes	6
7/16"	4-1/16"	5-1/2"	Yes	Yes	Yes	6
29/64"	4-3/16"	5-5/8"	Yes	Yes	Yes	6
15/32"	4-5/16"	5-3/4"	Yes	Yes	Yes	6
31/64"	4-3/8"	5-7/8"	Yes	Yes	Yes	6
1/2"	4-1/2"	6"	Yes	Yes	Yes	6
33/64"	4-13/16"	6-5/8"	Yes	Yes	NO	1
17/32"	4-13/16"	6-5/8"	Yes	Yes	NO	1

SIZE	Flute Length	OAL	Availability:			Pack Qty.
			100J	100BR	100TN	
35/64"	4-13/16"	6-5/8"	Yes	Yes	NO	1
9/16"	4-13/16"	6-5/8"	Yes	Yes	NO	1
37/64"	4-13/16"	6-5/8"	Yes	Yes	NO	1
19/32"	5-3/16"	7-1/8"	Yes	Yes	NO	1
39/64"	5-3/16"	7-1/8"	Yes	Yes	NO	1
5/8"	5-3/16"	7-1/8"	Yes	Yes	NO	1
41/64"	5-3/16"	7-1/8"	Yes	Yes	NO	1
21/32"	5-3/16"	7-1/8"	Yes	Yes	NO	1
43/64"	5-5/8"	7-5/8"	Yes	Yes	NO	1
11/16"	5-5/8"	7-5/8"	Yes	Yes	NO	1
**45/64"	5-5/8"	7-5/8"	Yes	Yes	NO	1
23/32"	5-5/8"	7-5/8"	Yes	Yes	NO	1
47/64"	5-5/8"	7-5/8"	Yes	NO	NO	1
3/4"	5-5/8"	7-5/8"	Yes	Yes	NO	1

1	2-5/8"	3-7/8"	Yes	Yes	Yes	12
2	2-5/8"	3-7/8"	Yes	Yes	Yes	12
3	2-1/2"	3-3/4"	Yes	Yes	Yes	12
4	2-1/2"	3-3/4"	Yes	Yes	Yes	12
5	2-1/2"	3-3/4"	Yes	Yes	Yes	12
6	2-1/2"	3-3/4"	Yes	Yes	Yes	12
7	2-7/16"	3-5/8"	Yes	Yes	Yes	12
8	2-7/16"	3-5/8"	Yes	Yes	Yes	12
9	2-7/16"	3-5/8"	Yes	Yes	Yes	12
10	2-7/16"	3-5/8"	Yes	Yes	Yes	12
11	2-5/16"	3-1/2"	Yes	Yes	Yes	12
12	2-5/16"	3-1/2"	Yes	Yes	Yes	12
13	2-5/16"	3-1/2"	Yes	Yes	Yes	12
14	2-3/16"	3-3/8"	Yes	Yes	Yes	12
15	2-3/16"	3-3/8"	Yes	Yes	Yes	12
16	2-3/16"	3-3/8"	Yes	Yes	Yes	12
17	2-3/16"	3-3/8"	Yes	Yes	Yes	12
18	2-1/8"	3-1/4"	Yes	Yes	Yes	12
19	2-1/8"	3-1/4"	Yes	Yes	Yes	12

Jobber Length Drills

High Speed Steel - General Purpose (Continued)



List 100OJ Oxide layer that holds cutting oil
Black oxide 118° providing abrasion resistance.



List 100BR Better chip ejection in low carbon,
Bright 118° non-ferrous metals.



List 100TN Added lubricity for extended
Titanium Nitride tool life. Split point aids self centering.
(TiN) 135° split point



* TiN these sizes are 118° point

NOTE: TiN are packs of 6.

SIZE	Flute	OAL	Availability:			Qty.
	Length		100OJ	100BR	100TN	
20	2-1/8"	3-1/4"	Yes	Yes	Yes	12
21	2-1/8"	3-1/4"	Yes	Yes	Yes	12
22	2"	3-1/8"	Yes	Yes	Yes	12
23	2"	3-1/8"	Yes	Yes	Yes	12
24	2"	3-1/8"	Yes	Yes	Yes	12
25	1-7/8"	3"	Yes	Yes	Yes	12
26	1-7/8"	3"	Yes	Yes	Yes	12
27	1-7/8"	3"	Yes	Yes	Yes	12
28	1-3/4"	2-7/8"	Yes	Yes	Yes	12
29	1-3/4"	2-7/8"	Yes	Yes	Yes	12
30	1-5/8"	2-3/4"	Yes	Yes	Yes	12
31	1-5/8"	2-3/4"	Yes	Yes	Yes	12
32	1-5/8"	2-3/4"	Yes	Yes	Yes	12
33	1-1/2"	2-5/8"	Yes	Yes	Yes	12
34	1-1/2"	2-5/8"	Yes	Yes	Yes	12
35	1-1/2"	2-5/8"	Yes	Yes	Yes	12
36	1-7/16"	2-1/2"	Yes	Yes	Yes	12
37	1-7/16"	2-1/2"	Yes	Yes	Yes	12
38	1-7/16"	2-1/2"	Yes	Yes	Yes	12
39	1-3/8"	2-3/8"	Yes	Yes	Yes	12
40	1-3/8"	2-3/8"	Yes	Yes	Yes	12
41	1-3/8"	2-3/8"	Yes	Yes	Yes	12
42	1-1/4"	2-1/4"	Yes	Yes	Yes	12
43	1-1/4"	2-1/4"	Yes	Yes	Yes	12
44	1-1/8"	2-1/8"	Yes	Yes	Yes	12
45	1-1/8"	2-1/8"	Yes	Yes	Yes	12
46	1-1/8"	2-1/8"	Yes	Yes	Yes	12
47	1"	2"	Yes	Yes	Yes	12
48	1"	2"	Yes	Yes	Yes	12
49	1"	2"	Yes	Yes	Yes	12
50	1"	2"	Yes	Yes	Yes	12
51	1"	2"	Yes	Yes	Yes	12
52	7/8"	1-7/8"	Yes	Yes	Yes	12
*53	7/8"	1-7/8"	Yes	Yes	Yes	12
*54	7/8"	1-7/8"	Yes	Yes	Yes	12

SIZE	Flute	OAL	Availability:			Qty.
	Length		100OJ	100BR	100TN	
*55	7/8"	1-7/8"	Yes	Yes	Yes	12
*56	3/4"	1-3/4"	Yes	Yes	Yes	12
*57	3/4"	1-3/4"	Yes	Yes	Yes	12
*58	11/16"	1-5/8"	Yes	Yes	Yes	12
*59	11/16"	1-5/8"	Yes	Yes	Yes	12
*60	11/16"	1-5/8"	Yes	Yes	Yes	12
61	11/16"	1-5/8"	Yes	Yes	NO	12
62	5/8"	1-1/2"	Yes	Yes	NO	12
63	5/8"	1-1/2"	Yes	Yes	NO	12
64	5/8"	1-1/2"	Yes	Yes	NO	12
65	5/8"	1-1/2"	Yes	Yes	NO	12
66	1/2"	1-3/8"	Yes	Yes	NO	12
67	1/2"	1-3/8"	Yes	Yes	NO	12
68	1/2"	1-3/8"	Yes	Yes	NO	12
69	1/2"	1-3/8"	Yes	Yes	NO	12
70	3/8"	1-1/4"	Yes	Yes	NO	12
71	3/8"	1-1/4"	Yes	Yes	NO	12
72	5/16"	1-1/8"	Yes	Yes	NO	12
73	5/16"	1-1/8"	Yes	Yes	NO	12
74	1/4"	1"	Yes	Yes	NO	12
75	1/4"	1"	Yes	Yes	NO	12
76	3/16"	7/8"	Yes	Yes	NO	12
77	3/16"	7/8"	Yes	Yes	NO	12
78	3/16"	7/8"	Yes	Yes	NO	12
79	1/8"	3/4"	Yes	Yes	NO	12
80	1/8"	3/4"	Yes	Yes	NO	12
81	3/32"	3/4"	NO	Yes	NO	12
82	3/32"	3/4"	NO	Yes	NO	12
83	3/32"	3/4"	NO	Yes	NO	12
84	3/32"	3/4"	NO	Yes	NO	12
85	5/64"	3/4"	NO	Yes	NO	12
86	5/64"	3/4"	NO	Yes	NO	12
87	5/64"	3/4"	NO	Yes	NO	12
88	5/64"	3/4"	NO	Yes	NO	12

Jobber Length Drills

High Speed Steel - General Purpose (Continued)



List 100OJ Oxide layer that holds cutting oil
Black oxide 118° providing abrasion resistance.



List 100BR Better chip ejection in low carbon,
Bright 118° non-ferrous metals.



List 100TN Added lubricity for extended
Titanium Nitride tool life. Split point aids self centering.
(TiN) 135° split point



* TiN these sizes are 118° point

NOTE: TiN are packs of 6 A through L
and packs of 3 M through Z

SIZE	Flute Length	OAL	Availability:			Pack Qty.
			100OJ	100BR	100TN	
A	2-5/8"	3-7/8"	Yes	Yes	Yes	12
B	2-3/4"	4"	Yes	Yes	Yes	12
C	2-3/4"	4"	Yes	Yes	Yes	12
D	2-3/4"	4"	Yes	Yes	Yes	12
E	2-3/4"	4"	Yes	Yes	Yes	12
F	2-7/8"	4-1/8"	Yes	Yes	Yes	12
G	2-7/8"	4-1/8"	Yes	Yes	Yes	12
H	2-7/8"	4-1/8"	Yes	Yes	Yes	12
I	2-7/8"	4-1/8"	Yes	Yes	Yes	12
J	2-7/8"	4-1/8"	Yes	Yes	Yes	12
K	2-15/16"	4-1/4"	Yes	Yes	Yes	12
L	2-15/16"	4-1/4"	Yes	Yes	Yes	12
M	3-1/16"	4-3/8"	Yes	Yes	Yes	6
N	3-1/16"	4-3/8"	Yes	Yes	Yes	6
O	3-3/16"	4-1/2"	Yes	Yes	Yes	6
P	3-5/16"	4-5/8"	Yes	Yes	Yes	6
Q	3-7/16"	4-3/4"	Yes	Yes	Yes	6
R	3-1/2"	4-3/4"	Yes	Yes	Yes	6
S	3-1/2"	4-7/8"	Yes	Yes	Yes	6
T	3-1/2"	4-7/8"	Yes	Yes	Yes	6
U	3-5/8"	5"	Yes	Yes	Yes	6
V	3-5/8"	5"	Yes	Yes	Yes	6
W	3-3/4"	5-1/8"	Yes	Yes	Yes	6
X	3-3/4"	5-1/8"	Yes	Yes	Yes	6
Y	3-7/8"	5-1/4"	Yes	Yes	Yes	6
Z	3-7/8"	5-1/4"	Yes	Yes	Yes	6

HD Jobber Drills 135° split point

Drill Points aids self-centering

LIST 100BS Medium hardness metals,

HSS Oxide finish

LIST 100HM Black/Gold Hi-Molybdenum

HSS Precision ground

LIST 100CO For tough materials, high temp.

Cobalt alloys & free machining stainless steel



SIZE	Flute	OAL	Availability:			Pack Qty.
	Length		100BS	100HM	100CO	
1/64"	3/16"	3/4"	NO	NO	Yes	12
1/32"	1/2"	1-3/8"	NO	NO	Yes	12
3/64"	3/4"	1-3/4"	NO	NO	Yes	12
1/16"	7/8"	1-7/8"	Yes	Yes	Yes	12
5/64"	1"	2"	Yes	Yes	Yes	12
3/32"	1-1/4"	2-1/4"	Yes	Yes	Yes	12
7/64"	1-1/2"	2-5/8"	Yes	Yes	Yes	12
1/8"	1-5/8"	2-3/4"	Yes	Yes	Yes	12
9/64"	1-3/4"	2-7/8"	Yes	Yes	Yes	12
5/32"	2"	3-1/8"	Yes	Yes	Yes	12
11/64"	2-1/8"	3-1/4"	Yes	Yes	Yes	12
3/16"	2-5/16"	3-1/2"	Yes	Yes	Yes	12
13/64"	2-7/16"	3-5/8"	Yes	Yes	Yes	12
7/32"	2-1/2"	3-3/4"	Yes	Yes	Yes	12
15/64"	2-5/8"	3-7/8"	Yes	Yes	Yes	12
1/4"	2-3/4"	4"	Yes	Yes	Yes	12
17/64"	2-7/8"	4-1/8"	Yes	Yes	Yes	12
9/32"	2-15/16"	4-1/4"	Yes	Yes	Yes	12
19/64"	3-11/16"	4-3/8"	Yes	Yes	Yes	6
5/16"	3-3/16"	4-1/2"	Yes	Yes	Yes	6
21/64"	3-5/16"	4-5/8"	Yes	Yes	Yes	6
11/32"	3-7/16"	4-3/4"	Yes	Yes	Yes	6
23/64"	3-1/2"	4-7/8"	Yes	Yes	Yes	6
3/8"	3-5/8"	5"	Yes	Yes	Yes	6
25/64"	3-3/4"	5-1/8"	Yes	Yes	Yes	6
13/32"	3-7/8"	5-1/4"	Yes	Yes	Yes	6
27/64"	3-15/16"	5-3/8"	Yes	Yes	Yes	6
7/16"	4-1/16"	5-1/2"	Yes	Yes	Yes	6
29/64"	4-3/16"	5-5/8"	Yes	Yes	Yes	6
15/32"	4-5/16"	5-3/4"	Yes	Yes	Yes	6
31/64"	4-3/8"	5-7/8"	Yes	Yes	Yes	6
1/2"	4-1/2"	6"	Yes	Yes	Yes	6
33/64"	4-13/16"	6-5/8"	NO	NO	Yes	1
17/32"	4-13/16"	6-5/8"	NO	NO	Yes	1
35/64"	4-13/16"	6-5/8"	NO	NO	Yes	1
9/16"	4-13/16"	6-5/8"	NO	NO	Yes	1
37/64"	4-13/16"	6-5/8"	NO	NO	Yes	1

SIZE	Flute	OAL	Availability:			Pack Qty.
	Length		100BS	100HM	100CO	
19/32"	5-3/16"	7-1/8"	NO	NO	Yes	1
39/64"	5-3/16"	7-1/8"	NO	NO	Yes	1
5/8"	5-3/16"	7-1/8"	NO	NO	Yes	1
41/64"	5-3/16"	7-1/8"	NO	NO	Yes	1
21/32"	5-3/16"	7-1/8"	NO	NO	Yes	1
43/64"	5-5/8"	7-5/8"	NO	NO	Yes	1
11/16"	5-5/8"	7-5/8"	NO	NO	Yes	1

1	2-5/8"	3-7/8"	Yes	Call	Yes	12
2	2-5/8"	3-7/8"	Yes	Call	Yes	12
3	2-1/2"	3-3/4"	Yes	Call	Yes	12
4	2-1/2"	3-3/4"	Yes	Call	Yes	12
5	2-1/2"	3-3/4"	Yes	Call	Yes	12
6	2-1/2"	3-3/4"	Yes	Call	Yes	12
7	2-7/16"	3-5/8"	Yes	Call	Yes	12
8	2-7/16"	3-5/8"	Yes	Call	Yes	12
9	2-7/16"	3-5/8"	Yes	Call	Yes	12
10	2-7/16"	3-5/8"	Yes	Call	Yes	12
11	2-5/16"	3-1/2"	Yes	Call	Yes	12
12	2-5/16"	3-1/2"	Yes	Call	Yes	12
13	2-5/16"	3-1/2"	Yes	Call	Yes	12
14	2-3/16"	3-3/8"	Yes	Call	Yes	12
15	2-3/16"	3-3/8"	Yes	Call	Yes	12
16	2-3/16"	3-3/8"	Yes	Call	Yes	12
17	2-3/16"	3-3/8"	Yes	Call	Yes	12
18	2-1/8"	3-1/4"	Yes	Call	Yes	12
19	2-1/8"	3-1/4"	Yes	Call	Yes	12
20	2-1/8"	3-1/4"	Yes	Call	Yes	12
21	2-1/8"	3-1/4"	Yes	Call	Yes	12
22	2"	3-1/8"	Yes	Call	Yes	12
23	2"	3-1/8"	Yes	Call	Yes	12
24	2"	3-1/8"	Yes	Call	Yes	12
25	1-7/8"	3"	Yes	Call	Yes	12
26	1-7/8"	3"	Yes	Call	Yes	12
27	1-7/8"	3"	Yes	Call	Yes	12
28	1-3/4"	2-7/8"	Yes	Call	Yes	12
29	1-3/4"	2-7/8"	Yes	Call	Yes	12

HD Jobber Drills 135° split point (Continued)

Drill Points aids self-centering



LIST 100BS Medium hardness metals,

HSS Oxide finish



LIST 100HM Black/Gold Hi-Molybdenum

HSS Precision ground



LIST 100CO For tough materials, high temp.

Cobalt alloys & free machining stainless steel



**May not be split point*

SIZE	Flute		Availability:			Pack Qty.
	Length	OAL	100BS	100HM	100CO	
30	1-5/8"	2-3/4"	Yes	Call	Yes	12
31	1-5/8"	2-3/4"	Yes	Call	Yes	12
32	1-5/8"	2-3/4"	Yes	Call	Yes	12
33	1-1/2"	1-1/2"	Yes	Call	Yes	12
34	1-1/2"	2-5/8"	Yes	Call	Yes	12
35	1-1/2"	2-5/8"	Yes	Call	Yes	12
36	1-7/16"	2-1/2"	Yes	Call	Yes	12
37	1-7/16"	2-1/2"	Yes	Call	Yes	12
38	1-7/16"	2-1/2"	Yes	Call	Yes	12
39	1-3/8"	2-3/8"	Yes	Call	Yes	12
40	1-3/8"	2-3/8"	Yes	Call	Yes	12
41	1-3/8"	2-3/8"	Yes	Call	Yes	12
42	1-1/4"	2-1/4"	Yes	Call	Yes	12
43	1-1/4"	2-1/4"	Yes	Call	Yes	12
44	1-1/8"	2-1/8"	Yes	Call	Yes	12
45	1-1/8"	2-1/8"	Yes	Call	Yes	12
46	1-1/8"	2-1/8"	Yes	Call	Yes	12
47	1"	2"	Yes	Call	Yes	12
48	1"	2"	Yes	Call	Yes	12
49	1"	2"	Yes	Call	Yes	12
50	1"	2"	Yes	Call	Yes	12
51	1"	2"	Yes	Call	Yes	12
52	7/8"	1-7/8"	Yes	Call	Yes	12
53	7/8"	1-7/8"	*Yes	Call	Yes	12
54	7/8"	1-7/8"	*Yes	Call	Yes	12
55	7/8"	1-7/8"	*Yes	Call	Yes	12
56	3/4"	1-3/4"	*Yes	Call	Yes	12
57	3/4"	1-3/4"	*Yes	Call	Yes	12
58	11/16"	1-5/8"	*Yes	Call	Yes	12
59	11/16"	1-5/8"	*Yes	Call	Yes	12
60	11/16"	1-5/8"	*Yes	Call	Yes	12

SIZE	Flute		Availability:			Pack Qty.
	Length	OAL	100BS	100HM	100CO	
61	11/16"	1-5/8"	NO	NO	*Yes	12
62	5/8"	1-1/2"	NO	NO	*Yes	12
63	5/8"	1-1/2"	NO	NO	*Yes	12
64	5/8"	1-1/2"	NO	NO	*Yes	12
65	5/8"	1-1/2"	NO	NO	*Yes	12
66	1/2"	1-3/8"	NO	NO	*Yes	12
67	1/2"	1-3/8"	NO	NO	*Yes	12
68	1/2"	1-3/8"	NO	NO	*Yes	12
69	1/2"	1-3/8"	NO	NO	*Yes	12
70	3/8"	1-1/4"	NO	NO	*Yes	12
71	3/8"	1-1/4"	NO	NO	*Yes	12
72	5/16"	1-1/8"	NO	NO	*Yes	12
73	5/16"	1-1/8"	NO	NO	*Yes	12
74	1/4"	1"	NO	NO	*Yes	12
75	1/4"	1"	NO	NO	*Yes	12
76	3/16"	7/8"	NO	NO	*Yes	12
77	3/16"	7/8"	NO	NO	*Yes	12
78	3/16"	7/8"	NO	NO	*Yes	12
79	1/8"	3/4"	NO	NO	*Yes	12
80	1/8"	3/4"	NO	NO	*Yes	12

HD Jobber Drills 135° split point

(Continued)



Drill Points aids self-centering

LIST 100BS Medium hardness metals,

HSS Oxide finish

LIST 100HM Black/Gold Hi-Molybdenum

HSS Precision ground

LIST 100CO For tough materials, high temp.

Cobalt alloys & free machining stainless steel



<u>SIZE</u>	<u>Flute</u>		<u>Availability:</u>			<u>Pack</u>
	<u>Length</u>	<u>OAL</u>	<u>100BS</u>	<u>100HM</u>	<u>100CO</u>	<u>Qty.</u>
A	2-5/8"	3-7/8"	Yes	Call	Yes	12
B	2-3/4"	4"	Yes	Call	Yes	12
C	2-3/4"	4"	Yes	Call	Yes	12
D	2-3/4"	4"	Yes	Call	Yes	12
E	2-3/4"	4"	Yes	Call	Yes	12
F	2-7/8"	4-1/8"	Yes	Call	Yes	12
G	2-7/8"	4-1/8"	Yes	Call	Yes	12
H	2-7/8"	4-1/8"	Yes	Call	Yes	12
I	2-7/8"	4-1/8"	Yes	Call	Yes	12
J	2-7/8"	4-1/8"	Yes	Call	Yes	12
K	2-15/16"	4-1/4"	Yes	Call	Yes	12
L	2-15/16"	4-1/4"	Yes	Call	Yes	12
M	3-1/16"	4-3/8"	Yes	Call	Yes	6
N	3-1/16"	4-3/8"	Yes	Call	Yes	6
O	3-3/16"	4-1/2"	Yes	Call	Yes	6
P	3-5/16"	4-5/8"	Yes	Call	Yes	6
Q	3-7/16"	4-3/4"	Yes	Call	Yes	6
R	3-1/2"	4-3/4"	Yes	Call	Yes	6
S	3-1/2"	4-7/8"	Yes	Call	Yes	6
T	3-1/2"	4-7/8"	Yes	Call	Yes	6
U	3-5/8"	5"	Yes	Call	Yes	6
V	3-5/8"	5"	Yes	Call	Yes	6
W	3-3/4"	5-1/8"	Yes	Call	Yes	6
X	3-3/4"	5-1/8"	Yes	Call	Yes	6
Y	3-7/8"	5-1/4"	Yes	Call	Yes	6
Z	3-7/8"	5-1/4"	Yes	Call	Yes	6

Metric Jobber Drills

LIST 1500J Oxided 118° general purpose

HSS For steel and cast iron

LIST 150BR Bright 118° better chip ejection

HSS in non-ferrous metals

LIST 150CO 135° split point For tough materials, high

Cobalt temp. alloys & free machining stainless steel



**May be pack of 10*

Flute			Availability:			Pack Qty.
SIZE	Length	OAL	1500J	150BR	150CO	
.15mm	3/64"	3/4"	Yes	Yes	NO	12
.16mm	3/64"	3/4"	NO	Yes	NO	12
.17mm	1/16"	3/4"	NO	Yes	NO	12
.18mm	1/16"	3/4"	NO	Yes	NO	12
.19mm	1/16"	3/4"	Yes	Yes	NO	12
.20mm	1/16"	3/4"	NO	Yes	NO	12
.21mm	3/32"	3/4"	NO	Yes	NO	12
.22mm	1/16"	3/4"	NO	Yes	NO	12
.23mm	3/32"	3/4"	Yes	Yes	NO	12
.24mm	3/32"	3/4"	NO	Yes	NO	12
.25mm	5/64"	3/4"	NO	Yes	NO	12
.26mm	5/64"	3/4"	NO	Yes	NO	12
.27mm	5/64"	3/4"	NO	Yes	NO	12
.28mm	5/64"	3/4"	NO	Yes	NO	12
.29mm	5/64"	3/4"	Yes	Yes	NO	12
.30mm	3/32"	3/4"	NO	Yes	NO	12
.32mm	3/32"	3/4"	Yes	Yes	NO	12
.34mm	5/32"	3/4"	NO	Yes	NO	12
.35mm	1/8"	3/4"	NO	Yes	NO	12
.36mm	5/32"	3/4"	NO	Yes	NO	12
.38mm	3/16"	3/4"	NO	Yes	NO	12
.40mm	3/16"	7/8"	NO	Yes	NO	12
.42mm	3/16"	7/8"	NO	Yes	NO	12
.44mm	3/16"	7/8"	NO	Yes	NO	12
.45mm	3/16"	7/8"	NO	Yes	NO	12
.46mm	3/16"	7/8"	NO	Yes	NO	12
.48mm	3/16"	7/8"	Yes	Yes	NO	12
.50mm	3/16"	7/8"	Yes	Yes	NO	12
.55mm	1/4"	1"	Yes	Yes	NO	12
.60mm	5/16"	1-1/8"	Yes	Yes	NO	12
.65mm	3/8"	1-1/4"	Yes	Yes	NO	12
.70mm	3/8"	1-1/4"	Yes	Yes	NO	12
.75mm	1/2"	1-3/8"	Yes	Yes	NO	*12

Flute			Availability:			Pack Qty.
SIZE	Length	OAL	1500J	150BR	150CO	
.80mm	1/2"	1-3/8"	Yes	Yes	NO	*12
.85mm	5/8"	1-1/2"	Yes	Yes	NO	*12
.90mm	5/8"	1-1/2"	Yes	Yes	NO	*12
.95mm	5/8"	1-1/2"	Yes	Yes	NO	*12
1.00mm	11/16"	1-5/8"	Yes	Yes	Yes	*12
1.10mm	3/4"	1-3/4"	Yes	Yes	NO	*12
1.20mm	7/8"	1-7/8"	Yes	Yes	NO	*12
1.25mm	7/8"	1-7/8"	Yes	Yes	Yes	*12
1.30mm	7/8"	1-7/8"	Yes	Yes	NO	*12
1.35mm	7/8"	1-7/8"	Yes	Yes	NO	*12
1.40mm	7/8"	1-7/8"	Yes	Yes	NO	*12
1.45mm	7/8"	1-7/8"	Yes	Yes	Yes	12
1.50mm	7/8"	1-7/8"	Yes	Yes	Yes	*12
1.55mm	7/8"	1-7/8"	Yes	Yes	NO	12
1.60mm	7/8"	1-7/8"	Yes	Yes	Yes	*12
1.65mm	1"	2"	Yes	Yes	NO	12
1.70mm	1"	2"	Yes	Yes	Yes	*12
1.75mm	1"	2"	Yes	Yes	Yes	*12
1.80mm	1"	2"	Yes	Yes	NO	*12
1.85mm	1"	2"	Yes	NO	NO	12
1.90mm	1"	2"	Yes	Yes	NO	*12
1.95mm	1"	2"	Yes	Yes	NO	12
2.00mm	1-1/8"	2-1/8"	Yes	Yes	Yes	*12
2.05mm	1-1/8"	2-1/8"	Yes	Yes	Yes	12
2.10mm	1-1/8"	2-1/8"	Yes	Yes	NO	12
2.15mm	1-1/8"	2-1/8"	Yes	Yes	NO	12
2.20mm	1-1/4"	2-1/4"	Yes	Yes	NO	12
2.25mm	1-1/4"	2-1/4"	Yes	Yes	NO	12
2.30mm	1-1/4"	2-1/4"	Yes	Yes	Yes	*12
2.35mm	1-1/4"	2-1/4"	Yes	Yes	NO	12
2.40mm	1-3/8"	2-3/8"	Yes	Yes	NO	12
2.45mm	1-3/8"	2-3/8"	Yes	Yes	NO	12
2.50mm	1-3/8"	2-3/8"	Yes	Yes	Yes	*12

Metric Jobber Drills (Continued)

LIST 1500J Oxided 118° general purpose

HSS For steel and cast iron

LIST 150BR Bright 118° better chip ejection

HSS in non-ferrous metals

LIST 150CO 135° split point For tough materials, high

Cobalt temp. alloys & free machining stainless steel



*May be pack of 10

**May be pack of 5

SIZE	Flute Length	OAL	Availability:			Pack Qty.
			1500J	150BR	150CO	
2.60mm	1-7/16"	2-1/2"	Yes	Yes	Yes	*12
2.70mm	1-7/16"	2-1/2"	Yes	Yes	NO	12
2.75mm	1-1/2"	2-5/8"	Yes	NO	NO	12
2.80mm	1-1/2"	2-5/8"	Yes	Yes	NO	12
2.90mm	1-5/8"	2-3/4"	Yes	Yes	Yes	*12
3.00mm	1-5/8"	2-3/4"	Yes	Yes	Yes	*12
3.10mm	1-5/8"	2-3/4"	Yes	Yes	NO	12
3.20mm	1-5/8"	2-3/4"	Yes	Yes	NO	12
3.25mm	1-5/8"	2-3/4"	Yes	Yes	NO	12
3.30mm	1-3/4"	2-7/8"	Yes	Yes	Yes	*12
3.40mm	1-3/4"	2-7/8"	Yes	Yes	NO	12
3.50mm	1-3/4"	2-7/8"	Yes	Yes	Yes	*12
3.60mm	1-7/8"	3"	Yes	Yes	NO	12
3.70mm	1-7/8"	3"	Yes	Yes	Yes	*12
3.75mm	1-7/8"	3"	Yes	Yes	Yes	12
3.80mm	1-7/8"	3"	Yes	Yes	NO	12
3.90mm	2"	3-1/8"	Yes	Yes	NO	12
4.00mm	2-1/8"	3-1/4"	Yes	Yes	Yes	*12
4.10mm	2-1/8"	3-1/4"	Yes	Yes	NO	12
4.20mm	2-1/8"	3-1/4"	Yes	Yes	Yes	*12
4.25mm	2-1/8"	3-1/4"	Yes	Yes	NO	12
4.30mm	2-1/8"	3-1/4"	Yes	Yes	NO	12
4.40mm	2-3/16"	3-3/8"	Yes	Yes	NO	12
4.50mm	2-3/16"	3-3/8"	Yes	Yes	Yes	*12
4.60mm	2-3/16"	3-3/8"	Yes	Yes	NO	12
4.70mm	2-5/16"	3-1/2"	Yes	Yes	NO	12
4.75mm	2-5/16"	3-1/2"	Yes	Yes	NO	12
4.80mm	2-5/16"	3-1/2"	Yes	Yes	NO	12
4.90mm	2-7/16"	3-5/8"	Yes	Yes	NO	12
5.00mm	2-7/16"	3-5/8"	Yes	Yes	Yes	*12
5.10mm	2-7/16"	3-5/8"	Yes	Yes	NO	12
5.20mm	2-1/2"	3-3/4"	Yes	Yes	NO	12
5.25mm	2-1/2"	3-3/4"	Yes	Yes	NO	12
5.30mm	2-1/2"	3-3/4"	Yes	Yes	NO	12
5.40mm	2-1/2"	3-3/4"	Yes	Yes	NO	12
5.50mm	2-1/2"	3-3/4"	Yes	Yes	Yes	*12

SIZE	Flute Length	OAL	Availability:			Pack Qty.
			1500J	150BR	150CO	
5.55mm	2-1/2"	3-3/4"	Yes	NO	NO	12
5.60mm	2-5/8"	3-7/8"	Yes	Yes	NO	12
5.70mm	2-5/8"	3-7/8"	Yes	Yes	NO	12
5.75mm	2-5/8"	3-7/8"	Yes	Yes	NO	12
5.80mm	2-5/8"	3-7/8"	Yes	Yes	NO	12
5.90mm	2-5/8"	3-7/8"	Yes	Yes	NO	12
6.00mm	2-3/4"	4"	Yes	Yes	Yes	*12
6.10mm	2-3/4"	4"	Yes	NO	NO	12
6.20mm	2-3/4"	4"	Yes	Yes	NO	12
6.25mm	2-3/4"	4"	Yes	Yes	NO	12
6.30mm	2-3/4"	4"	Yes	Yes	NO	12
6.40mm	2-7/8"	4"-1/8"	Yes	Yes	NO	12
6.50mm	2-7/8"	4"-1/8"	Yes	Yes	Yes	*12
6.60mm	2-7/8"	4"-1/8"	Yes	Yes	NO	12
6.70mm	2-7/8"	4"-1/8"	Yes	Yes	NO	12
6.75mm	2-7/8"	4"-1/8"	Yes	NO	Yes	12
6.80mm	2-7/8"	4"-1/8"	Yes	Yes	NO	12
6.90mm	2-7/8"	4"-1/8"	Yes	Yes	NO	12
7.00mm	2-7/8"	4"-1/8"	Yes	Yes	Yes	*12
7.10mm	2-15/16"	4-1/4"	Yes	Yes	NO	12
7.20mm	2-15/16"	4-1/4"	Yes	Yes	NO	12
7.25mm	2-15/16"	4-1/4"	Yes	Yes	NO	12
7.30mm	2-15/16"	4-1/4"	Yes	Yes	NO	12
7.40mm	3-1/16"	4-3/8"	Yes	Yes	NO	12
7.50mm	3-1/16"	4-3/8"	Yes	Yes	Yes	**6
7.60mm	3-1/16"	4-3/8"	Yes	Yes	NO	6
7.70mm	3-3/16"	4-1/2"	Yes	NO	NO	6
7.75mm	3-3/16"	4-1/2"	Yes	NO	NO	6
7.80mm	3-3/16"	4-1/2"	Yes	Yes	NO	6
7.90mm	3-3/16"	4-1/2"	Yes	Yes	NO	6
8.00mm	3-3/16"	4-1/2"	Yes	Yes	Yes	**6
8.10mm	3-5/16"	4-5/8"	Yes	Yes	NO	6
8.20mm	3-5/16"	4-5/8"	Yes	Yes	NO	6
8.25mm	3-5/16"	4-5/8"	Yes	Yes	NO	6
8.30mm	3-5/16"	4-5/8"	Yes	Yes	NO	6
8.40mm	3-7/16"	4-3/4"	Yes	Yes	NO	6

Metric Jobber Drills (Continued)



LIST 150OJ Oxided 118° general purpose

HSS for steel and cast iron



LIST 150BR Bright 118°, better chip ejection

HSS in non-ferrous metals



LIST 150CO 135° split point for tough materials, high

Cobalt temp. alloys & free machining stainless steel



*May be quality import

**May be pack of 5

SIZE	Flute Length	OAL	Availability:			Pack Qty.
			150OJ	150BR	150CO	
8.40mm	3-7/16"	4-3/4"	Yes	Yes	NO	6
8.50mm	3-7/16"	4-3/4"	Yes	Yes	Yes	**6
8.60mm	3-7/16"	4-3/4"	Yes	NO	NO	6
8.70mm	3-7/16"	4-3/4"	Yes	Yes	NO	6
8.75mm	3-1/2"	4-7/8"	Yes	NO	Yes	6
8.80mm	3-1/2"	4-7/8"	Yes	NO	NO	6
8.90mm	3-1/2"	4-7/8"	Yes	Yes	NO	6
9.00mm	3-1/2"	4-7/8"	Yes	Yes	Yes	**6
9.10mm	3-1/2"	4-7/8"	Yes	Yes	NO	6
9.20mm	3-5/8"	5"	Yes	Yes	NO	6
9.25mm	3-5/8"	5"	Yes	Yes	NO	6
9.30mm	3-5/8"	5"	Yes	Yes	NO	6
9.40mm	3-5/8"	5"	Yes	NO	NO	6
9.50mm	3-5/8"	5"	Yes	Yes	Yes	**6
9.60mm	3-3/4"	5-1/8"	Yes	Yes	NO	6
9.70mm	3-3/4"	5-1/8"	Yes	Yes	NO	6
9.75mm	3-3/4"	5-1/8"	Yes	Yes	NO	6
9.80mm	3-3/4"	5-1/8"	Yes	NO	NO	6
9.90mm	3-3/4"	5-1/8"	Yes	NO	NO	6
10.00mm	3-3/4"	5-1/8"	Yes	Yes	Yes	**6
10.10mm	3-3/4"	5-1/8"	Yes	NO	NO	6
10.20mm	3-7/8"	5-1/4"	Yes	Yes	NO	6
10.30mm	3-7/8"	5-1/4"	Yes	Yes	NO	6
10.40mm	3-7/8"	5-1/4"	Yes	Yes	NO	6
10.50mm	3-15/16"	5-3/8"	Yes	Yes	Yes	**6
10.60mm	3-15/16"	5-3/8"	Yes	NO	NO	6
10.70mm	3-15/16"	5-3/8"	Yes	Yes	NO	6
10.80mm	4-1/16"	5-1/2"	Yes	Yes	NO	6
10.90mm	4-1/16"	5-1/2"	Yes	NO	NO	6
11.00mm	4-1/16"	5-1/2"	Yes	Yes	Yes	**6
11.10mm	4-1/16"	5-1/2"	Yes	Yes	NO	6
11.20mm	4-3/16"	5-5/8"	Yes	NO	NO	6
11.25mm	4-3/16"	5-5/8"	Yes	Yes	NO	6
11.30mm	4-3/16"	5-5/8"	Yes	Yes	NO	6
11.40mm	4-3/16"	5-5/8"	Yes	NO	NO	6

SIZE	Flute Length	OAL	Availability:			Pack Qty.
			150OJ	150BR	150CO	
11.50mm	4-3/16"	5-5/8"	Yes	Yes	Yes	**6
11.60mm	4-3/16"	5-5/8"	Yes	NO	NO	6
11.70mm	4-3/16"	5-5/8"	Yes	Yes	NO	6
11.80mm	4-3/16"	5-5/8"	Yes	NO	NO	6
11.90mm	4-3/16"	5-5/8"	Yes	Yes	NO	6
12.00mm	4-3/8"	5-7/8"	Yes	Yes	Yes	**6
12.10mm	4-3/8"	5-7/8"	Yes	Yes	NO	6
12.20mm	4-3/8"	5-7/8"	Yes	Yes	NO	6
12.25mm	4-3/8"	5-7/8"	Yes	NO	NO	6
12.30mm	4-3/8"	5-7/8"	Yes	Yes	NO	6
12.40mm	4-3/8"	5-7/8"	Yes	NO	NO	6
12.50mm	4-1/2"	6"	Yes	Yes	Yes	**6
12.60mm	4-1/2"	6"	Yes	Yes	NO	6
12.75mm	4-1/2"	6"	Yes	Yes	NO	6
12.80mm	4-1/2"	6"	Yes	Yes	NO	6
12.90mm	4-1/2"	6"	Yes	Yes	NO	6
13.00mm	4-1/2"	6"	Yes	Yes	Yes	**6
13.50mm	4-13/16"	6-5/8"	Yes	NO	NO	1
13.80mm	4-13/16"	6-5/8"	Yes	NO	NO	1
14.00mm	4-13/16"	6-5/8"	Yes	NO	Yes	1
14.50mm	4-13/16"	6-5/8"	Yes	NO	NO	1
*14.75mm	4-1/2"	6-5/8"	Yes	NO	NO	1
15.00mm	5-3/16"	7-1/8"	Yes	NO	NO	1
15.25mm	5-3/16"	7-1/8"	Yes	NO	NO	1
15.50mm	5-3/16"	7-1/8"	Yes	NO	NO	1
16.00mm	5-3/16"	7-1/8"	Yes	NO	NO	1
16.50mm	5-3/16"	7-1/8"	Yes	Yes	NO	1
*16.75mm	4-3/4"	7-1/4"	Yes	NO	NO	1
17.00mm	5-5/8"	7-5/8"	Yes	Yes	NO	1
17.50mm	5-5/8"	7-5/8"	Yes	Yes	NO	1
18.00mm	5-5/8"	7-5/8"	Yes	Yes	NO	1
19.00mm	5-5/8"	7-5/8"	Yes	NO	NO	1
19.50mm	5-5/8"	7-5/8"	Yes	NO	NO	1
20.00mm	5-5/8"	7-5/8"	Yes	NO	NO	1

Parabolic TiN coated Jobber Drills



LIST 100PJ

High Speed Steel

For deep hole drilling at higher feed rates. Helps to eliminate frequent drill removal. TiN coating extends tool life in abrasive materials. Good for aluminum alloys and other low to medium tensile materials. 135° split point.

<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>	<u>Pack Qty.</u>	<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>	<u>Pack Qty.</u>
1/16"	7/8"	1-7/8"	6	19/64"	3-11/16"	4-3/8"	3
5/64"	1"	2"	6	5/16"	3-3/16"	4-1/2"	3
3/32"	1-1/4"	2-1/4"	6	21/64"	3-5/16"	4-5/8"	3
7/64"	1-1/2"	2-5/8"	6	11/32"	3-7/16"	4-3/4"	3
1/8"	1-5/8"	2-3/4"	6	23/64"	3-1/2"	4-7/8"	3
9/64"	1-3/4"	2-7/8"	6	3/8"	3-5/8"	5"	3
5/32"	2"	3-1/8"	6	25/64"	3-3/4"	5-1/8"	3
11/64"	2-1/8"	3-1/4"	6	13/32"	3-7/8"	5-1/4"	3
3/16"	2-5/16"	3-1/2"	6	27/64"	3-15/16"	5-3/8"	3
13/64"	2-7/16"	3-5/8"	6	7/16"	4-1/16"	5-1/2"	3
7/32"	2-1/2"	3-3/4"	6	29/64"	4-3/16"	5-5/8"	3
15/64"	2-5/8"	3-7/8"	6	15/32"	4-5/16"	5-3/4"	3
1/4"	2-3/4"	4"	6	31/64"	4-3/8"	5-7/8"	3
17/64"	2-7/8"	4-1/8"	6	1/2"	4-1/2"	6"	3
9/32"	2-15/16"	4-1/4"	6				

Fast Spiral Jobber Drills



LIST 100FS

High Speed Steel

Bright finish, 118° point. Good in non-ferrous materials such as aluminum, zinc die cast, copper, wood and some plastics.

Can perform well in mild steels where chip packing occurs.

<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>	<u>Pack Qty.</u>
1/64"	3/16"	3/4"	12
1/32"	1/2"	1-3/8"	12
3/64"	3/4"	1-3/4"	12
1/16"	7/8"	1-7/8"	12
5/64"	1"	2"	12
3/32"	1-1/4"	2-1/4"	12
7/64"	1-1/2"	2-5/8"	12
1/8"	1-5/8"	2-3/4"	12
9/64"	1-3/4"	2-7/8"	12
5/32"	2"	3-1/8"	12
11/64"	2-1/8"	3-1/4"	12
3/16"	2-5/16"	3-1/2"	12
13/64"	2-7/16"	3-5/8"	12
7/32"	2-1/2"	3-3/4"	12
15/64"	2-5/8"	3-7/8"	12
1/4"	2-3/4"	4"	12
17/64"	2-7/8"	4-1/8"	12
9/32"	2-15/16"	4-1/4"	6
19/64"	3-11/16"	4-3/8"	6
5/16"	3-3/16"	4-1/2"	6
21/64"	3-5/16"	4-5/8"	6
11/32"	3-7/16"	4-3/4"	6
23/64"	3-1/2"	4-7/8"	6
3/8"	3-5/8"	5"	6
25/64"	3-3/4"	5-1/8"	6
13/32"	3-7/8"	5-1/4"	6
27/64"	3-15/16"	5-3/8"	6
7/16"	4-1/16"	5-1/2"	6
29/64"	4-3/16"	5-5/8"	6
15/32"	4-5/16"	5-3/4"	6
31/64"	4-3/8"	5-7/8"	6
1/2"	4-1/2"	6"	6

<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>	<u>Pack Qty.</u>
A	2-5/8"	3-7/8"	12
B	2-3/4"	4"	12
C	2-3/4"	4"	12
D	2-3/4"	4"	12
E	2-3/4"	4"	12
F	2-7/8"	4-1/8"	12
G	2-7/8"	4-1/8"	12
H	2-7/8"	4-1/8"	12
I	2-7/8"	4-1/8"	6
J	2-7/8"	4-1/8"	6
K	2-15/16"	4-1/4"	6
L	2-15/16"	4-1/4"	6
M	3-1/16"	4-3/8"	6
N	3-1/16"	4-3/8"	6
O	3-3/16"	4-1/2"	6
P	3-5/16"	4-5/8"	6
Q	3-7/16"	4-3/4"	6
R	3-1/2"	4-3/4"	6
S	3-1/2"	4-7/8"	6
T	3-1/2"	4-7/8"	6
U	3-5/8"	5"	6
V	3-5/8"	5"	6
W	3-3/4"	5-1/8"	6
X	3-3/4"	5-1/8"	6
Y	3-7/8"	5-1/4"	6
Z	3-7/8"	5-1/4"	6

**LIST 100FS****High Speed Steel**

Bright finish, 118° point. Good in non-ferrous materials such as aluminum, zinc die cast, copper, wood and some plastics.

Can perform well in mild steels where chip packing occurs.

Standard pack quantity = 12

<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>	<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>
1	2-5/8"	3-7/8"	41	1-3/8"	2-3/8"
2	2-5/8"	3-7/8"	42	1-1/4"	2-1/4"
3	2-1/2"	3-3/4"	43	1-1/4"	2-1/4"
4	2-1/2"	3-3/4"	44	1-1/8"	2-1/8"
5	2-1/2"	3-3/4"	45	1-1/8"	2-1/8"
6	2-1/2"	3-3/4"	46	1-1/8"	2-1/8"
7	2-7/16"	3-5/8"	47	1"	2"
8	2-7/16"	3-5/8"	48	1"	2"
9	2-7/16"	3-5/8"	49	1"	2"
10	2-7/16"	3-5/8"	50	1"	2"
11	2-5/16"	3-1/2"	51	1"	2"
12	2-5/16"	3-1/2"	52	7/8"	1-7/8"
13	2-5/16"	3-1/2"	53	7/8"	1-7/8"
14	2-3/16"	3-3/8"	54	7/8"	1-7/8"
15	2-3/16"	3-3/8"	55	7/8"	1-7/8"
16	2-3/16"	3-3/8"	56	3/4"	1-3/4"
17	2-3/16"	3-3/8"	57	3/4"	1-3/4"
18	2-1/8"	3-1/4"	58	11/16"	1-5/8"
19	2-1/8"	3-1/4"	59	11/16"	1-5/8"
20	2-1/8"	3-1/4"	60	11/16"	1-5/8"
21	2-1/8"	3-1/4"	61	11/16"	1-5/8"
22	2"	3-1/8"	62	5/8"	1-1/2"
23	2"	3-1/8"	63	5/8"	1-1/2"
24	2"	3-1/8"	64	5/8"	1-1/2"
25	1-7/8"	3"	65	5/8"	1-1/2"
26	1-7/8"	3"	66	1/2"	1-3/8"
27	1-7/8"	3"	67	1/2"	1-3/8"
28	1-3/4"	2-7/8"	68	1/2"	1-3/8"
29	1-3/4"	2-7/8"	69	1/2"	1-3/8"
30	1-5/8"	2-3/4"	70	3/8"	1-1/4"
31	1-5/8"	2-3/4"	71	3/8"	1-1/4"
32	1-5/8"	2-3/4"	72	5/16"	1-1/8"
33	1-1/2"	2-5/8"	73	5/16"	1-1/8"
34	1-1/2"	2-5/8"	74	1/4"	1"
35	1-1/2"	2-5/8"	75	1/4"	1"
36	1-7/16"	2-1/2"	76	3/16"	7/8"
37	1-7/16"	2-1/2"	77	3/16"	7/8"
38	1-7/16"	2-1/2"	78	3/16"	7/8"
39	1-3/8"	2-3/8"	79	1/8"	3/4"
40	1-3/8"	2-3/8"	80	1/8"	3/4"

3/8" Reduced Shank Jobber Drills



LIST 100RS

High Speed Steel, black oxide 118° point
3/8" round shank

Flute length can vary per size. Please call if you need to verify dimensions.

Standard pack quantity = 1

<u>SIZE</u>	<u>SIZE</u>
25/64"	37/64"
13/32"	19/32"
27/64"	39/64"
7/16"	5/8"
29/64"	41/64"
15/32"	21/32"
31/64"	43/64"
1/2"	11/16"
33/64"	45/64"
17/32"	23/32"
35/64"	47/64"
9/16"	3/4"

Left Hand Jobber Drills



LIST 100LH

High speed steel, bright finish, 118° point.

Can be used as an extractor for broken bolt removal.

SIZE	Flute Length	Overall	Pack Qty.
1/64"	3/16"	3/4"	12
1/32"	1/2"	1-3/8"	12
3/64"	3/4"	1-3/4"	12
1/16"	7/8"	1-7/8"	12
5/64"	1"	2"	12
3/32"	1-1/4"	2-1/4"	12
7/64"	1-1/2"	2-5/8"	12
1/8"	1-5/8"	2-3/4"	12
9/64"	1-3/4"	2-7/8"	12
5/32"	2"	3-1/8"	12
11/64"	2-1/8"	3-1/4"	12
3/16"	2-5/16"	3-1/2"	12
13/64"	2-7/16"	3-5/8"	12
7/32"	2-1/2"	3-3/4"	12
15/64"	2-5/8"	3-7/8"	12
1/4"	2-3/4"	4"	12
17/64"	2-7/8"	4-1/8"	12
9/32"	2-15/16"	4-1/4"	6
19/64"	3-11/16"	4-3/8"	6
5/16"	3-3/16"	4-1/2"	6
21/64"	3-5/16"	4-5/8"	6
11/32"	3-7/16"	4-3/4"	6
23/64"	3-1/2"	4-7/8"	6
3/8"	3-5/8"	5"	6
25/64"	3-3/4"	5-1/8"	6
13/32"	3-7/8"	5-1/4"	6
27/64"	3-15/16"	5-3/8"	6
7/16"	4-1/16"	5-1/2"	6
29/64"	4-3/16"	5-5/8"	6
15/32"	4-5/16"	5-3/4"	6
31/64"	4-3/8"	5-7/8"	6
1/2"	4-1/2"	6"	6
A	2-5/8"	3-7/8"	12
B	2-3/4"	4"	12
C	2-3/4"	4"	12
D	2-3/4"	4"	12
E	2-3/4"	4"	12
F	2-7/8"	4-1/8"	12
G	2-7/8"	4-1/8"	12
H	2-7/8"	4-1/8"	12

SIZE	Flute Length	Overall	Pack Qty.
I	2-7/8"	4-1/8"	6
J	2-7/8"	4-1/8"	6
K	2-15/16"	4-1/4"	6
L	2-15/16"	4-1/4"	6
M	3-1/16"	4-3/8"	6
N	3-1/16"	4-3/8"	6
O	3-3/16"	4-1/2"	6
P	3-5/16"	4-5/8"	6
Q	3-7/16"	4-3/4"	6
R	3-7/16"	4-3/4"	6
S	3-1/2"	4-7/8"	6
T	3-1/2"	4-7/8"	6
U	3-5/8"	5"	6
V	3-5/8"	5"	6
W	3-3/4"	5-1/8"	6
X	3-3/4"	5-1/8"	6
Y	3-7/8"	5-1/4"	6
Z	3-7/8"	5-1/4"	6
1	2-5/8"	3-7/8"	12
2	2-5/8"	3-7/8"	12
3	2-1/2"	3-3/4"	12
4	2-1/2"	3-3/4"	12
5	2-1/2"	3-3/4"	12
6	2-1/2"	3-3/4"	12
7	2-7/16"	3-5/8"	12
8	2-7/16"	3-5/8"	12
9	2-7/16"	3-5/8"	12
10	2-7/16"	3-5/8"	12
11	2-5/16"	3-1/2"	12
12	2-5/16"	3-1/2"	12
13	2-5/16"	3-1/2"	12
14	2-3/16"	3-3/8"	12
15	2-3/16"	3-3/8"	12
16	2-3/16"	3-3/8"	12
17	2-3/16"	3-3/8"	12
18	2-1/8"	3-1/4"	12
19	2-1/8"	3-1/4"	12
20	2-1/8"	3-1/4"	12
21	2-1/8"	3-1/4"	12
22	2"	3-1/8"	12

SIZE	Flute Length	Overall	Pack Qty.
23	2"	3-1/8"	12
24	2"	3-1/8"	12
25	1-7/8"	3"	12
26	1-7/8"	3"	12
27	1-7/8"	3"	12
28	1-3/4"	2-7/8"	12
29	1-3/4"	2-7/8"	12
30	1-5/8"	2-3/4"	12
31	1-5/8"	2-3/4"	12
32	1-5/8"	2-3/4"	12
33	1-1/2"	2-5/8"	12
34	1-1/2"	2-5/8"	12
35	1-1/2"	2-5/8"	12
36	1-7/16"	2-1/2"	12
37	1-7/16"	2-1/2"	12
38	1-7/16"	2-1/2"	12
39	1-3/8"	2-3/8"	12
40	1-3/8"	2-3/8"	12
41	1-3/8"	2-3/8"	12
42	1-1/4"	2-1/4"	12
43	1-1/4"	2-1/4"	12
44	1-1/8"	2-1/8"	12
45	1-1/8"	2-1/8"	12
46	1-1/8"	2-1/8"	12
47	1"	2"	12
48	1"	2"	12
49	1"	2"	12
50	1"	2"	12
51	1"	2"	12
52	7/8"	1-7/8"	12
53	7/8"	1-7/8"	12
54	7/8"	1-7/8"	12
55	7/8"	1-7/8"	12
56	3/4"	1-3/4"	12
57	3/4"	1-3/4"	12
58	11/16"	1-5/8"	12
59	11/16"	1-5/8"	12
60	11/16"	1-5/8"	12

Carbide Tipped Jobber Drills



LIST 100CT

Carbide tip brazed to hardened tool steel body

Precision ground, for cast iron, non-ferrous and non-metals. Not usually recommended for steel.

Standard pack quantity = 1

Flute			Flute			Flute		
SIZE	Length	Overall	SIZE	Length	Overall	SIZE	Length	Overall
1/8"	1-5/8"	2-3/4"	A	2-5/8"	3-7/8"	1	2-5/8"	3-7/8"
9/64"	1-3/4"	2-7/8"	B	2-3/4"	4"	2	2-5/8"	3-7/8"
5/32"	2"	3-1/8"	C	2-3/4"	4"	3	2-1/2"	3-3/4"
11/64"	2-1/8"	3-1/4"	D	2-3/4"	4"	4	2-1/2"	3-3/4"
3/16"	2-5/16"	3-1/2"	E	2-3/4"	4"	5	2-1/2"	3-3/4"
13/64"	2-7/16"	3-5/8"	F	2-7/8"	4-1/8"	6	2-1/2"	3-3/4"
7/32"	2-1/2"	3-3/4"	G	2-7/8"	4-1/8"	7	2-7/16"	3-5/8"
15/64"	2-5/8"	3-7/8"	H	2-7/8"	4-1/8"	8	2-7/16"	3-5/8"
1/4"	2-3/4"	4"	I	2-7/8"	4-1/8"	9	2-7/16"	3-5/8"
17/64"	2-7/8"	4-1/8"	J	2-7/8"	4-1/8"	10	2-7/16"	3-5/8"
9/32"	2-15/16"	4-1/4"	K	2-15/16"	4-1/4"	11	2-5/16"	3-1/2"
19/64"	3-11/16"	4-3/8"	L	2-15/16"	4-1/4"	12	2-5/16"	3-1/2"
5/16"	3-3/16"	4-1/2"	M	3-1/16"	4-3/8"	13	2-5/16"	3-1/2"
21/64"	3-5/16"	4-5/8"	N	3-1/16"	4-3/8"	14	2-3/16"	3-3/8"
11/32"	3-7/16"	4-3/4"	O	3-3/16"	4-1/2"	15	2-3/16"	3-3/8"
23/64"	3-1/2"	4-7/8"	P	3-5/16"	4-5/8"	16	2-3/16"	3-3/8"
3/8"	3-5/8"	5"	Q	3-7/16"	4-3/4"	17	2-3/16"	3-3/8"
25/64"	3-3/4"	5-1/8"	R	3-7/16"	4-3/4"	18	2-1/8"	3-1/4"
13/32"	3-7/8"	5-1/4"	S	3-1/2"	4-7/8"	19	2-1/8"	3-1/4"
27/64"	3-15/16"	5-3/8"	T	3-1/2"	4-7/8"	20	2-1/8"	3-1/4"
7/16"	4-1/16"	5-1/2"	U	3-5/8"	5"	21	2-1/8"	3-1/4"
29/64"	4-3/16"	5-5/8"	V	3-5/8"	5"	22	2"	3-1/8"
15/32"	4-5/16"	5-3/4"	W	3-3/4"	5-1/8"	23	2"	3-1/8"
31/64"	4-3/8"	5-7/8"	X	3-3/4"	5-1/8"	24	2"	3-1/8"
1/2"	4-1/2"	6"	Y	3-7/8"	5-1/4"	25	1-7/8"	3"
33/64"	4-13/16"	6-5/8"	Z	3-7/8"	5-1/4"	26	1-7/8"	3"
17/32"	4-13/16"	6-5/8"				27	1-7/8"	3"
35/64"	4-13/16"	6-5/8"				28	1-3/4"	2-7/8"
9/16"	4-13/16"	6-5/8"				29	1-3/4"	2-7/8"
37/64"	4-13/16"	6-5/8"				30	1-5/8"	2-3/4"
19/32"	5-3/16"	7-1/8"				31	1-5/8"	2-3/4"
39/64"	5-3/16"	7-1/8"				32	1-5/8"	2-3/4"
5/8"	5-3/16"	7-1/8"						
41/64"	5-3/16"	7-1/8"						
21/32"	5-3/16"	7-1/8"						
43/64"	5-5/8"	7-5/8"						
11/16"	5-5/8"	7-5/8"						
3/4"	5-13/16"	8"						

Solid Carbide Jobber Drills



LIST 100CJ

Excellent hardness, wear & heat resistance. Capable of higher cutting speeds and increased tool life.
Ideal for cast iron and non-ferrous materials where high abrasion and temperatures occur.

Pack quantity = 1

Flute			Flute			Flute			Flute		
SIZE	Length	OAL	SIZE	Length	OAL	SIZE	Length	OAL	SIZE	Length	OAL
1/32"	5/16"	1-1/4"	A	2"	3-1/4"	11	1-5/8"	2-3/4"	48	7/8"	1-3/4"
3/64"	3/4"	1-1/2"	B	2"	3-1/4"	12	1-5/8"	2-3/4"	49	7/8"	1-3/4"
1/16"	3/4"	1-1/2"	C	2"	3-1/4"	13	1-5/8"	2-3/4"	50	7/8"	1-3/4"
5/64"	7/8"	1-3/4"	D	2"	3-1/4"	14	1-5/8"	2-3/4"	51	3/4"	1-1/2"
3/32"	1"	2"	E	2"	3-1/4"	15	1-5/8"	2-3/4"	52	3/4"	1-1/2"
7/64"	1-1/4"	2-1/4"	F	2"	3-1/4"	16	1-5/8"	2-3/4"	53	3/4"	1-1/2"
1/8"	1-1/4"	2-1/4"	G	2-1/8"	3-1/2"	17	1-5/8"	2-3/4"	54	3/4"	1-1/2"
9/64"	1-3/8"	2-1/2"	H	2-1/8"	3-1/2"	18	1-5/8"	2-3/4"	55	3/4"	1-1/2"
5/32"	1-3/8"	2-1/2"	I	2-1/8"	3-1/2"	19	1-5/8"	2-3/4"	56	3/4"	1-1/2"
11/64"	1-5/8"	2-3/4"	J	2-1/8"	3-1/2"	20	1-3/8"	2-1/2"	57	3/4"	1-1/2"
3/16"	1-5/8"	2-3/4"	K	2-1/8"	3-1/2"	21	1-3/8"	2-1/2"	58	3/4"	1-1/2"
13/64"	1-3/4"	3"	L	2-1/8"	3-1/2"	22	1-3/8"	2-1/2"	59	3/4"	1-1/2"
7/32"	1-3/4"	3"	M	2-3/8"	3-3/4"	23	1-3/8"	2-1/2"	60	3/4"	1-1/2"
15/64"	2"	3-1/4"	N	2-3/8"	3-3/4"	24	1-3/8"	2-1/2"	61	5/8"	1-3/8"
1/4"	2"	3-1/4"	O	2-3/8"	3-3/4"	25	1-3/8"	2-1/2"	62	5/8"	1-3/8"
17/64"	2-1/8"	3-1/2"	P	2-3/8"	3-3/4"	26	1-3/8"	2-1/2"	63	5/8"	1-3/8"
9/32"	2-1/8"	3-1/2"	Q	2-1/2"	4"	27	1-3/8"	2-1/2"	64	5/8"	1-3/8"
19/64"	2-3/8"	3-3/4"	R	2-1/2"	4"	28	1-3/8"	2-1/2"	65	5/8"	1-3/8"
5/16"	2-3/8"	3-3/4"	S	2-1/2"	4"	29	1-3/8"	2-1/2"	66	5/16"	1-1/4"
21/64"	2-1/2"	4"	T	2-3/4"	4-1/2"	30	1-1/4"	2-1/4"	67	5/16"	1-1/4"
11/32"	2-1/2"	4"	U	2-3/4"	4-1/2"	31	1-1/4"	2-1/4"	68	5/16"	1-1/4"
23/64"	2-3/4"	4-1/4"	V	2-3/4"	4-1/2"	32	1-1/4"	2-1/4"	69	5/16"	1-1/4"
3/8"	2-3/4"	4-1/4"	W	2-7/8"	4-1/2"	33	1-1/4"	2-1/4"	70	5/16"	1-1/4"
25/64"	2-7/8"	4-1/2"	X	2-7/8"	4-1/2"	34	1-1/4"	2-1/4"	71	5/16"	1-1/4"
13/32"	2-7/8"	4-1/2"	Y	2-7/8"	4-1/2"	35	1-1/4"	2-1/4"	72	5/16"	1-1/4"
27/64"	2-7/8"	4-1/2"	Z	2-7/8"	4-1/2"	36	1-1/4"	2-1/4"	73	1/4"	1-1/4"
7/16"	2-7/8"	4-1/2"				37	1-1/4"	2-1/4"	74	1/4"	1-1/4"
29/64"	3"	4-3/4"	1	1-3/4"	3"	38	1-1/4"	2-1/4"	75	1/4"	1-1/4"
15/32"	3"	4-3/4"	2	1-3/4"	3"	39	1-1/4"	2-1/4"	76	1/4"	1-1/4"
31/64"	3"	4-3/4"	3	1-3/4"	3"	40	1"	2"	77	3/16"	1-1/4"
1/2"	3"	4-3/4"	4	1-3/4"	3"	41	1"	2"	78	3/16"	1-1/4"
9/16"	3-1/4"	5"	5	1-3/4"	3"	42	1"	2"	79	3/16"	1-1/4"
5/8"	4-1/4"	6"	6	1-3/4"	3"	43	1"	2"	80	3/16"	1-1/4"
			7	1-3/4"	3"	44	1"	2"			
			8	1-3/4"	3"	45	7/8"	1-3/4"			
			9	1-3/4"	3"	46	7/8"	1-3/4"			
			10	1-5/8"	2-3/4"	47	7/8"	1-3/4"			

Metric Solid Carbide Jobber Drills



LIST 150CJ

Excellent hardness, wear & heat resistance-capable of higher cutting speeds and increased tool life.

Ideal for cast iron and non-ferrous materials where high abrasion and temperatures occur.

Pack quantity = 1

<u>SIZE</u>	<u>Flute Length</u>	<u>OAL</u>
1.5 mm	19mm	38mm
2 mm	22mm	44mm
2.5 mm	25mm	51mm
3 mm	32mm	58mm
3.5 mm	35mm	64mm
4 mm	35mm	64mm
4.5 mm	41mm	70mm
5 mm	44mm	76mm
5.5mm	44mm	76mm
6 mm	51mm	83mm
7 mm	54mm	90mm
8 mm	60mm	95mm
8.5 mm	64mm	102mm
9 mm	64mm	102mm
10 mm	73mm	114mm
11 mm	73mm	114mm
11.5 mm	73mm	114mm
12 mm	76mm	121mm

Screw Machine Drills

Bright finish high speed steel



LIST 200BR

Bright, 118° point. Better chip ejection in non-ferrous materials

**Some drills over 3/4" may have oxide finish
Sizes over 1/2" are package quantity of 1*

SIZE	Flute Length	Overall	Pack Qty.
3/64"	1/2"	1-3/8"	12
1/16"	5/8"	1-5/8"	12
5/64"	11/16"	1-11/16"	12
3/32"	3/4"	1-3/4"	12
7/64"	13/16"	1-13/16"	12
1/8"	7/8"	1-7/8"	12
9/64"	15/16"	1-15/16"	12
5/32"	1"	2-1/16"	12
11/64"	1-1/16"	2-1/8"	12
3/16"	1-1/8"	2-3/16"	12
13/64"	1-3/16"	2-1/4"	12
7/32"	1-1/4"	2-3/8"	12
15/64"	1-5/16"	2-7/16"	12
1/4"	1-3/8"	2-1/2"	12
17/64"	1-7/16"	2-5/8"	12
9/32"	1-1/2"	2-11/16"	6
19/64"	1-9/16"	2-3/4"	6
5/16"	1-5/8"	2-13/16"	6
21/64"	1-11/16"	2-15/16"	6
11/32"	1-11/16"	3"	6
23/64"	1-3/4"	3-1/16"	6
3/8"	1-13/16"	3-1/8"	6
25/64"	1-7/8"	3-1/4"	6
13/32"	1-15/16"	3-5/16"	6
27/64"	2"	3-3/8"	6
7/16"	2-1/16"	3-7/16"	6
29/64"	2-1/8"	3-9/16"	6
15/32"	2-1/8"	3-5/8"	6
31/64"	2-3/16"	3-11/16"	6
1/2"	2-1/4"	3-3/4"	6
33/64"	2-3/8"	3-7/8"	1
17/32"	2-3/8"	3-7/8"	1
35/64"	2-1/2"	4"	1
9/16"	2-1/2"	4"	1
37/64"	2-5/8"	4-1/8"	1
19/32"	2-5/8"	4-1/8"	1
39/64"	2-3/4"	4-1/4"	1
5/8"	2-3/4"	4-1/4"	1
41/64"	2-7/8"	4-1/2"	1
21/32"	2-7/8"	4-1/2"	1
43/64"	2-7/8"	4-5/8"	1

SIZE	Flute Length	Overall
11/16"	2-7/8"	4-5/8"
45/64"	3"	4-3/4"
23/32"	3"	4-3/4"
47/64"	3-1/8"	5"
3/4"	3-1/8"	5"
49/64"	3-1/4"	5-1/8"
25/32"	3-1/4"	5-1/8"
51/64"	3-3/8"	5-1/4"
13/16"	3-3/8"	5-1/4"
53/64"	3-1/2"	5-3/8"
27/32"	3-1/2"	5-3/8"
55/64"	3-1/2"	5-1/2"
7/8"	3-1/2"	5-1/2"
57/64"	3-5/8"	5-5/8"
29/32"	3-5/8"	5-5/8"
59/64"	3-3/4"	5-3/4"
15/16"	3-3/4"	5-3/4"
61/64"	3-7/8"	5-7/8"
31/32"	3-7/8"	5-7/8"
63/64"	4"	6"
1"	4"	6"
1-1/16"	4"	6-1/4"
1-1/8"	4"	6-3/8"
1-3/16"	4-1/4"	6-5/8"
1-1/4"	4-3/8"	6-3/4"
1-5/16"	4-3/8"	7"
1-3/8"	4-1/2"	7-1/8"
1-7/16"	4-3/4"	7-3/8"
1-1/2"	4-7/8"	7-1/2"
1-9/16"	4-7/8"	7-3/4"
1-5/8"	4-7/8"	7-3/4"
1-11/16"	5-1/8"	8"
1-3/4"	5-1/8"	8"

SIZE	Flute Length	Overall	Pack Qty.
1	1-5/16"	2-7/16"	12
2	1-5/16"	2-7/16"	12
3	1-1/4"	2-3/8"	12
4	1-1/4"	2-3/8"	12
5	1-1/4"	2-3/8"	12
6	1-1/4"	2-3/8"	12
7	1-3/16"	2-1/4"	12
8	1-3/16"	2-1/4"	12
9	1-3/16"	2-1/4"	12
10	1-3/16"	2-1/4"	12
11	1-3/16"	2-1/4"	12
12	1-3/16"	2-1/4"	12
13	1-1/8"	2-3/16"	12
14	1-1/8"	2-3/16"	12
15	1-1/8"	2-3/16"	12
16	1-1/8"	2-3/16"	12
17	1-1/8"	2-3/16"	12
18	1-1/16"	2-1/8"	12
19	1-1/16"	2-1/8"	12
20	1-1/16"	2-1/8"	12
21	1-1/16"	2-1/8"	12
22	1-1/16"	2-1/8"	12
23	1"	2-1/16"	12
24	1"	2-1/16"	12
25	1"	2-1/16"	12
26	1"	2-1/16"	12
27	1"	2-1/16"	12
28	15/16"	1-15/16"	12
29	15/16"	1-15/16"	12
30	15/16"	1-15/16"	12
31	7/8"	1-7/8"	12
32	7/8"	1-7/8"	12
33	7/8"	1-7/8"	12
34	7/8"	1-7/8"	12
35	7/8"	1-7/8"	12
36	13/16"	1-13/16"	12
37	13/16"	1-13/16"	12
38	13/16"	1-13/16"	12
39	13/16"	1-13/16"	12
40	13/16"	1-13/16"	12

Screw Machine Drills

Bright finish high speed steel

(Continued)



LIST 200BR

Bright, 118° point. Better chip ejection in non-ferrous materials

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>
41	13/16"	1-13/16"	12
42	3/4"	1-3/4"	12
43	3/4"	1-3/4"	12
44	3/4"	1-3/4"	12
45	3/4"	1-3/4"	12
46	3/4"	1-3/4"	12
47	3/4"	1-3/4"	12
48	11/16"	1-11/16"	12
49	11/16"	1-11/16"	12
50	11/16"	1-11/16"	12
51	11/16"	1-11/16"	12
52	11/16"	1-11/16"	12
53	5/8"	1-5/8"	12
54	5/8"	1-5/8"	12
55	5/8"	1-5/8"	12
56	1/2"	1-3/8"	12
57	1/2"	1-3/8"	12
58	1/2"	1-3/8"	12
59	1/2"	1-3/8"	12
60	1/2"	1-1/4"	12

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>
A	1-5/16"	2-7/16"	12
B	1-3/8"	2-1/2"	12
C	1-3/8"	2-1/2"	12
D	1-3/8"	2-1/2"	12
E	1-3/8"	2-1/2"	12
F	1-7/16"	2-5/8"	12
G	1-7/16"	2-5/8"	12
H	1-1/2"	2-11/16"	12
I	1-1/2"	2-11/16"	12
J	1-1/2"	2-11/16"	12
K	1-1/2"	2-11/16"	12
L	1-9/16"	2-3/4"	12
M	1-9/16"	2-3/4"	6
N	1-5/8"	2-13/16"	6
O	1-11/16"	2-13/16"	6
P	1-11/16"	2-13/16"	6
Q	1-11/16"	2-15/16"	6
R	1-11/16"	2-15/16"	6
S	1-3/4"	3-1/16"	6
T	1-3/4"	3-1/16"	6
U	1-13/16"	3-1/8"	6
V	1-7/8"	3-1/4"	6
W	1-7/8"	3-1/4"	6
X	1-15/16"	3-5/16"	6
Y	1-15/16"	3-5/16"	6
Z	2"	3-3/8"	6

Screw Machine Drills

Black oxide 135° split point



LIST 2000S

Oxide 135° split point for better centering,
ideal for mild steels and sheet metal

**May be hi-molybdenum black/gold*

SIZE	Flute Length	Overall	Pack Qty.
1/16"	5/8"	1-5/8"	12
5/64"	11/16"	1-11/16"	12
3/32"	3/4"	1-3/4"	12
7/64"	13/16"	1-13/16"	12
1/8"	7/8"	1-7/8"	12
9/64"	15/16"	1-15/16"	12
5/32"	1"	2-1/16"	12
11/64"	1-1/16"	2-1/8"	12
3/16"	1-1/8"	2-3/16"	12
13/64"	1-3/16"	2-1/4"	12
7/32"	1-1/4"	2-3/8"	12
15/64"	1-5/16"	2-7/16"	12
1/4"	1-3/8"	2-1/2"	12
17/64"	1-7/16"	2-5/8"	12
9/32"	1-1/2"	2-11/16"	6
19/64"	1-9/16"	2-3/4"	6
5/16"	1-5/8"	2-13/16"	6
21/64"	1-11/16"	2-15/16"	6
11/32"	1-11/16"	3"	6
23/64"	1-3/4"	3-1/16"	6
3/8"	1-13/16"	3-1/8"	6
25/64"	1-7/8"	3-1/4"	6
13/32"	1-15/16"	3-5/16"	6
27/64"	2"	3-3/8"	6
7/16"	2-1/16"	3-7/16"	6
29/64"	2-1/8"	3-9/16"	6
15/32"	2-1/8"	3-5/8"	6
31/64"	2-3/16"	3-11/16"	6
1/2"	2-1/4"	3-3/4"	6
*33/64"	2-3/8"	3-7/8"	1
*17/32"	2-3/8"	3-7/8"	1
*35/64"	2-1/2"	4"	1
*9/16"	2-1/2"	4"	1
*37/64"	2-5/8"	4-1/8"	1
*19/32"	2-5/8"	4-1/8"	1
*39/64"	2-3/4"	4-1/4"	1
*5/8"	2-3/4"	4-1/4"	1
*41/64"	2-7/8"	4-1/2"	1
*21/32"	2-7/8"	4-1/2"	1
*43/64"	2-7/8"	4-5/8"	1

SIZE	Flute Length	Overall	Pack Qty.
*11/16"	2-7/8"	4-5/8"	1
*45/64"	3"	4-3/4"	1
*23/32"	3"	4-3/4"	1
*47/64"	3-1/8"	5"	1
*3/4"	3-1/8"	5"	1
1	1-5/16"	2-7/16"	12
2	1-5/16"	2-7/16"	12
3	1-1/4"	2-3/8"	12
4	1-1/4"	2-3/8"	12
5	1-1/4"	2-3/8"	12
6	1-1/4"	2-3/8"	12
7	1-3/16"	2-1/4"	12
8	1-3/16"	2-1/4"	12
9	1-3/16"	2-1/4"	12
10	1-3/16"	2-1/4"	12
11	1-3/16"	2-1/4"	12
12	1-3/16"	2-1/4"	12
13	1-1/8"	2-3/16"	12
14	1-1/8"	2-3/16"	12
15	1-1/8"	2-3/16"	12
16	1-1/8"	2-3/16"	12
17	1-1/8"	2-3/16"	12
18	1-1/16"	2-1/8"	12
19	1-1/16"	2-1/8"	12
20	1-1/16"	2-1/8"	12
21	1-1/16"	2-1/8"	12
22	1-1/16"	2-1/8"	12
23	1"	2-1/16"	12
24	1"	2-1/16"	12
25	1"	2-1/16"	12
26	1"	2-1/16"	12
27	1"	2-1/16"	12
28	15/16"	1-15/16"	12
29	15/16"	1-15/16"	12
30	15/16"	1-15/16"	12
31	7/8"	1-7/8"	12
32	7/8"	1-7/8"	12
33	7/8"	1-7/8"	12
34	7/8"	1-7/8"	12

Screw Machine Drills

(Continued)

Black oxide 135° split point



LIST 2000S

Oxide 135° split point for better centering, ideal for mild steels & sheet metal.

SIZE	Flute Length	Overall	Pack Qty.
35	7/8"	1-7/8"	12
36	13/16"	1-13/16"	12
37	13/16"	1-13/16"	12
38	13/16"	1-13/16"	12
39	13/16"	1-13/16"	12
40	13/16"	1-13/16"	12
41	13/16"	1-13/16"	12
42	3/4"	1-3/4"	12
43	3/4"	1-3/4"	12
44	3/4"	1-3/4"	12
45	3/4"	1-3/4"	12
46	3/4"	1-3/4"	12
47	3/4"	1-3/4"	12
48	11/16"	1-11/16"	12
49	11/16"	1-11/16"	12
50	11/16"	1-11/16"	12
51	11/16"	1-11/16"	12
52	11/16"	1-11/16"	12
A	1-5/16"	2-7/16"	12
B	1-3/8"	2-1/2"	12
C	1-3/8"	2-1/2"	12
D	1-3/8"	2-1/2"	12
E	1-3/8"	2-1/2"	12
F	1-7/16"	2-5/8"	12
G	1-7/16"	2-5/8"	12
H	1-1/2"	2-11/16"	12
I	1-1/2"	2-11/16"	12
J	1-1/2"	2-11/16"	12
K	1-1/2"	2-11/16"	12
L	1-9/16"	2-3/4"	12
M	1-9/16"	2-3/4"	6
N	1-5/8"	2-13/16"	6
O	1-11/16"	2-13/16"	6
P	1-11/16"	2-13/16"	6
Q	1-11/16"	2-15/16"	6
R	1-11/16"	2-15/16"	6
S	1-3/4"	3-1/16"	6
T	1-3/4"	3-1/16"	6
U	1-13/16"	3-1/8"	6
V	1-7/8"	3-1/4"	6
W	1-7/8"	3-1/4"	6
X	1-15/16"	3-5/16"	6

SIZE	Flute Length	Overall	Pack Qty.
Y	1-15/16"	3-5/16"	6
Z	2"	3-3/8"	6
1.00mm	1/2"	1-3/8"	12
1.25mm	1/2"	1-3/8"	12
1.45mm	5/8"	1-5/8"	12
1.50mm	5/8"	1-5/8"	12
1.60mm	11/16"	1-11/16"	12
1.70mm	11/16"	1-11/16"	12
1.75mm	11/16"	1-11/16"	12
2.00mm	3/4"	1-3/4"	12
2.05mm	3/4"	1-3/4"	12
2.30mm	1/2"	1-5/8"	12
2.50mm	13/16"	1-13/16"	12
2.90mm	7/8"	1-7/8"	12
3.00mm	7/8"	1-7/8"	12
3.20mm	7/8"	1-7/8"	12
3.30mm	15/16"	1-15/16"	12
3.50mm	15/16"	1-15/16"	12
3.70mm	1"	2-1/16"	12
4.00mm	1"	2-1/16"	12
4.20mm	1-1/16"	2-1/8"	12
4.40mm	1-1/8"	2-3/16"	12
4.50mm	1-1/8"	2-3/16"	12
5.00mm	1-3/16"	2-1/4"	12
5.50mm	1-1/4"	2-3/8"	12
6.00mm	1-5/16"	2-7/16"	12
6.50mm	1-7/16"	2-5/8"	12
7.00mm	1-7/16"	2-5/8"	12
7.30mm	1-1/2"	2-11/16"	12
7.50mm	1-9/16"	2-3/4"	12
8.00mm	1-11/16"	2-15/16"	6
8.50mm	1-11/16"	3"	6
9.00mm	1-3/4"	3-1/16"	6
9.50mm	1-13/16"	3-1/8"	6
10.00mm	1-7/8"	3-1/4"	6
10.50mm	2"	3-3/8"	6
11.00mm	1-3/4"	3-3/4"	6
11.50mm	2-1/8"	3-9/16"	6
12.00mm	2"	4"	6
12.50mm	2-1/4"	3-3/4"	6
13.00mm	2"	4"	6

Cobalt Screw Machine Drills

135° Split point



LIST 200CO

Self centering, minimal deflection, good in stainless steels and tough alloys.

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>
3/64"	1/2"	1-3/8"	12
1/16"	5/8"	1-5/8"	12
5/64"	11/16"	1-11/16"	12
3/32"	3/4"	1-3/4"	12
7/64"	13/16"	1-13/16"	12
1/8"	7/8"	1-7/8"	12
9/64"	15/16"	1-15/16"	12
5/32"	1"	2-1/16"	12
11/64"	1-1/16"	2-1/8"	12
3/16"	1-1/8"	2-3/16"	12
13/64"	1-3/16"	2-1/4"	12
7/32"	1-1/4"	2-3/8"	12
15/64"	1-5/16"	2-7/16"	12
1/4"	1-3/8"	2-1/2"	12
17/64"	1-7/16"	2-5/8"	12
9/32"	1-1/2"	2-11/16"	6
19/64"	1-9/16"	2-3/4"	6
5/16"	1-5/8"	2-13/16"	6
21/64"	1-11/16"	2-15/16"	6
11/32"	1-11/16"	3"	6
23/64"	1-3/4"	3-1/16"	6
3/8"	1-13/16"	3-1/8"	6
25/64"	1-7/8"	3-1/4"	6
13/32"	1-15/16"	3-5/16"	6
27/64"	2"	3-3/8"	6
7/16"	2-1/16"	3-7/16"	6
29/64"	2-1/8"	3-9/16"	6
15/32"	2-1/8"	3-5/8"	6
31/64"	2-3/16"	3-11/16"	6
1/2"	2-1/4"	3-3/4"	6
33/64"	2-3/8"	3-7/8"	1
17/32"	2-3/8"	3-7/8"	1
35/64"	2-1/2"	4"	1
9/16"	2-1/2"	4"	1
37/64"	2-5/8"	4-1/8"	1
19/32"	2-5/8"	4-1/8"	1
39/64"	2-3/4"	4-1/4"	1
5/8"	2-3/4"	4-1/4"	1
41/64"	2-7/8"	4-1/2"	1
21/32"	2-7/8"	4-1/2"	1
43/64"	2-7/8"	4-5/8"	1

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>
11/16"	2-7/8"	4-5/8"	1
45/64"	3"	4-3/4"	1
23/32"	3"	4-3/4"	1
47/64"	3-1/8"	5"	1
3/4"	3-1/8"	5"	1
1	1-5/16"	2-7/16"	12
2	1-5/16"	2-7/16"	12
3	1-1/4"	2-3/8"	12
4	1-1/4"	2-3/8"	12
5	1-1/4"	2-3/8"	12
6	1-1/4"	2-3/8"	12
7	1-3/16"	2-1/4"	12
8	1-3/16"	2-1/4"	12
9	1-3/16"	2-1/4"	12
10	1-3/16"	2-1/4"	12
11	1-3/16"	2-1/4"	12
12	1-3/16"	2-1/4"	12
13	1-1/8"	2-3/16"	12
14	1-1/8"	2-3/16"	12
15	1-1/8"	2-3/16"	12
16	1-1/8"	2-3/16"	12
17	1-1/8"	2-3/16"	12
18	1-1/16"	2-1/8"	12
19	1-1/16"	2-1/8"	12
20	1-1/16"	2-1/8"	12
21	1-1/16"	2-1/8"	12
22	1-1/16"	2-1/8"	12
23	1"	2-1/16"	12
24	1"	2-1/16"	12
25	1"	2-1/16"	12
26	1"	2-1/16"	12
27	1"	2-1/16"	12
28	15/16"	1-15/16"	12
29	15/16"	1-15/16"	12
30	15/16"	1-15/16"	12
31	7/8"	1-7/8"	12
32	7/8"	1-7/8"	12
33	7/8"	1-7/8"	12
34	7/8"	1-7/8"	12
35	7/8"	1-7/8"	12

Cobalt Screw Machine Drills

(Continued)

135° Split point



LIST 200CO

Self centering, minimal deflection, good in stainless steels and tough alloys.

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>
36	13/16"	1-13/16"	12
37	13/16"	1-13/16"	12
38	13/16"	1-13/16"	12
39	13/16"	1-13/16"	12
40	13/16"	1-13/16"	12
41	13/16"	1-13/16"	12
42	3/4"	1-3/4"	12
43	3/4"	1-3/4"	12
44	3/4"	1-3/4"	12
45	3/4"	1-3/4"	12
46	3/4"	1-3/4"	12
47	3/4"	1-3/4"	12
48	11/16"	1-11/16"	12
49	11/16"	1-11/16"	12
50	11/16"	1-11/16"	12
51	11/16"	1-11/16"	12
52	11/16"	1-11/16"	12
53	5/8"	1-5/8"	12
54	5/8"	1-5/8"	12
55	5/8"	1-5/8"	12
56	1/2"	1-3/8"	12
57	1/2"	1-3/8"	12
58	1/2"	1-3/8"	12
59	1/2"	1-3/8"	12
60	1/2"	1-1/4"	12
A	1-5/16"	2-7/16"	12
B	1-3/8"	2-1/2"	12
C	1-3/8"	2-1/2"	12
D	1-3/8"	2-1/2"	12
E	1-3/8"	2-1/2"	12
F	1-7/16"	2-5/8"	12
G	1-7/16"	2-5/8"	12
H	1-1/2"	2-11/16"	12
I	1-1/2"	2-11/16"	12
J	1-1/2"	2-11/16"	12
K	1-1/2"	2-11/16"	12
L	1-9/16"	2-3/4"	12
M	1-9/16"	2-3/4"	6
N	1-5/8"	2-13/16"	6
O	1-11/16"	2-13/16"	6

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>
P	1-11/16"	2-13/16"	6
Q	1-11/16"	2-15/16"	6
R	1-11/16"	2-15/16"	6
S	1-3/4"	3-1/16"	6
T	1-3/4"	3-1/16"	6
U	1-13/16"	3-1/8"	6
V	1-7/8"	3-1/4"	6
W	1-7/8"	3-1/4"	6
X	1-15/16"	3-5/16"	6
Y	1-15/16"	3-5/16"	6
Z	2"	3-3/8"	6
1.00mm	1/2"	1-3/8"	12
1.50mm	1/2"	1-3/8"	12
2.00mm	15/32"	1-1/2"	12
2.50mm	1/2"	1-9/16"	12
3.00mm	5/8"	1-13/16"	12
3.50mm	25/32"	2-1/16"	12
4.00mm	7/8"	2-5/32"	12
4.50mm	15/16"	2-9/32"	12
5.00mm	1-1/32"	2-7/16"	12
5.50mm	1-3/32"	2-19/32"	12
6.00mm	1-3/32"	2-19/32"	12
6.50mm	1-7/32"	2-3/4"	12
6.80mm	1-11/32"	2-29/32"	12
7.00mm	1-11/32"	2-29/32"	12
7.50mm	1-11/32"	2-29/32"	6
8.00mm	1-15/32"	3-1/8"	6
8.50mm	1-15/32"	3-1/8"	6
9.00mm	1-9/16"	3-5/16"	6
10.00mm	1-11/16"	3-1/2"	6
10.50mm	1-7/8"	3-1/2"	6
11.00mm	1-3/4"	3-3/4"	6
11.50mm	1-7/8"	3-3/4"	6
12.00mm	1-7/8"	4"	6
12.50mm	2-1/64"	4-1/64"	6
14.00mm	2-1/2"	4"	6

Carbide Tipped Screw Machine Drills



LIST 200CT

118° point, precision ground, good for cast iron and non-ferrous. Not usually recommended for steel.

Sold in quantities of 1

<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>	<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>
1/8"	7/8"	1-7/8"	31/64"	2-3/16"	3-11/16"
9/64"	15/16"	1-15/16"	1/2"	2-1/4"	3-3/4"
5/32"	1"	2-1/16"	33/64"	2-3/8"	3-7/8"
11/64"	1-1/16"	2-1/8"	17/32"	2-3/8"	3-7/8"
3/16"	1-1/8"	2-3/16"	35/64"	2-1/2"	4"
13/64"	1-3/16"	2-1/4"	9/16"	2-1/2"	4"
7/32"	1-1/4"	2-3/8"	37/64"	2-5/8"	4-1/8"
15/64"	1-5/16"	2-7/16"	19/32"	2-5/8"	4-1/8"
1/4"	1-3/8"	2-1/2"	39/64"	2-3/4"	4-1/4"
17/64"	1-7/16"	2-5/8"	5/8"	2-3/4"	4-1/4"
9/32"	1-1/2"	2-11/16"	41/64"	2-7/8"	4-1/2"
19/64"	1-9/16"	2-3/4"	21/32"	2-7/8"	4-1/2"
5/16"	1-5/8"	2-13/16"	43/64"	2-7/8"	4-5/8"
21/64"	1-11/16"	2-15/16"	11/16"	2-7/8"	4-5/8"
11/32"	1-11/16"	3"	23/32"	3"	4-3/4"
23/64"	1-3/4"	3-1/16"	3/4"	3-1/8"	5"
3/8"	1-13/16"	3-1/8"	25/32"	3-1/4"	5-1/8"
25/64"	1-7/8"	3-1/4"	13/16"	3-3/8"	5-1/4"
13/32"	1-15/16"	3-5/16"	27/32"	3-1/2"	5-3/8"
27/64"	2"	3-3/8"	7/8"	3-1/2"	5-1/2"
7/16"	2-1/16"	3-7/16"	29/32"	3-5/8"	5-5/8"
29/64"	2-1/8"	3-9/16"	15/16"	3-3/4"	5-3/4"
15/32"	2-1/8"	3-5/8"	31/32"	3-7/8"	5-7/8"
			1"	4"	6"

3/8" Shank HD Screw Machine Drill

High Speed Steel 135° Split Point



LIST 200RS

Black oxide finish, good for tight spaces,
good in mild steels.

Sold in quantities of 1

<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>
25/64"	1-7/8"	3-1/4"
13/32"	1-15/16"	3-5/16"
27/64"	2"	3-3/8"
7/16"	2-1/16"	3-7/16"
29/64"	2-1/8"	3-9/16"
15/32"	2-1/8"	3-5/8"
31/64"	2-3/16"	3-11/16"
1/2"	2-1/4"	3-3/4"
33/64"	2-3/8"	3-7/8"
17/32"	2-3/8"	3-7/8"
35/64"	2-1/2"	4"
9/16"	2-1/2"	4"
37/64"	2-5/8"	4-1/8"
19/32"	2-5/8"	4-1/8"
39/64"	2-3/4"	4-1/4"
5/8"	2-3/4"	4-1/4"
41/64"	2-7/8"	4-1/2"
21/32"	2-7/8"	4-1/2"
43/64"	2-7/8"	4-5/8"
11/16"	2-7/8"	4-5/8"

<u>SIZE</u>	<u>Flute length</u>	<u>Overall</u>
45/64"	3"	4-3/4"
23/32"	3"	4-3/4"
47/64"	3-1/8"	5"
3/4"	3-1/8"	5"
49/64"	3-1/4"	5-1/8"
25/32"	3-1/4"	5-1/8"
51/64"	3-3/8"	5-1/4"
13/16"	3-3/8"	5-1/4"
53/64"	3-1/2"	5-3/8"
27/32"	3-1/2"	5-3/8"
55/64"	3-1/2"	5-1/2"
7/8"	3-1/2"	5-1/2"
57/64"	3-5/8"	5-5/8"
29/32"	3-5/8"	5-5/8"
59/64"	3-3/4"	5-3/4"
15/16"	3-3/4"	5-3/4"
61/64"	3-7/8"	5-7/8"
31/32"	3-7/8"	5-7/8"
63/64"	4"	6"
1"	4"	6"

Left Hand Screw Machine Drills

High Speed Steel, Bright Finish



LIST 200LH

118° point, can aid in removing broken fasteners, short length minimizes deflection.

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>	<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>Pack Qty.</u>
1/32"	1/8"	1"	12	33/64"	2-3/8"	3-7/8"	1
3/64"	1/2"	1-3/8"	12	17/32"	2-3/8"	3-7/8"	1
1/16"	5/8"	1-5/8"	12	35/64"	2-1/2"	4"	1
5/64"	11/16"	1-11/16"	12	9/16"	2-1/2"	4"	1
3/32"	3/4"	1-3/4"	12	37/64"	2-5/8"	4-1/8"	1
7/64"	13/16"	1-13/16"	12	19/32"	2-5/8"	4-1/8"	1
1/8"	7/8"	1-7/8"	12	39/64"	2-3/4"	4-1/4"	1
9/64"	15/16"	1-15/16"	12	5/8"	2-3/4"	4-1/4"	1
5/32"	1"	2-1/16"	12	41/64"	2-7/8"	4-1/2"	1
11/64"	1-1/16"	2-1/8"	12	21/32"	2-7/8"	4-1/2"	1
3/16"	1-1/8"	2-3/16"	12	43/64"	2-7/8"	4-5/8"	1
13/64"	1-3/16"	2-1/4"	12	11/16"	2-7/8"	4-5/8"	1
7/32"	1-1/4"	2-3/8"	12	45/64"	3"	4-3/4"	1
15/64"	1-5/16"	2-7/16"	12	23/32"	3"	4-3/4"	1
1/4"	1-3/8"	2-1/2"	12	47/64"	3-1/8"	5"	1
17/64"	1-7/16"	2-5/8"	12	3/4"	3-1/8"	5"	1
9/32"	1-1/2"	2-11/16"	6	49/64"	3-1/4"	5-1/8"	1
19/64"	1-9/16"	2-3/4"	6	25/32"	3-1/4"	5-1/8"	1
5/16"	1-5/8"	2-13/16"	6	51/64"	3-3/8"	5-1/4"	1
21/64"	1-11/16"	2-15/16"	6	13/16"	3-3/8"	5-1/4"	1
11/32"	1-11/16"	3"	6	53/64"	3-1/2"	5-3/8"	1
23/64"	1-3/4"	3-1/16"	6	27/32"	3-1/2"	5-3/8"	1
3/8"	1-13/16"	3-1/8"	6	55/64"	3-1/2"	5-1/2"	1
25/64"	1-7/8"	3-1/4"	6	7/8"	3-1/2"	5-1/2"	1
13/32"	1-15/16"	3-5/16"	6	57/64"	3-5/8"	5-5/8"	1
27/64"	2"	3-3/8"	6	29/32"	3-5/8"	5-5/8"	1
7/16"	2-1/16"	3-7/16"	6	59/64"	3-3/4"	5-3/4"	1
29/64"	2-1/8"	3-9/16"	6	15/16"	3-3/4"	5-3/4"	1
15/32"	2-1/8"	3-5/8"	6	61/64"	3-7/8"	5-7/8"	1
31/64"	2-3/16"	3-11/16"	6	31/32"	3-7/8"	5-7/8"	1
1/2"	2-1/4"	3-3/4"	6	63/64"	4"	6"	1
				1"	4"	6"	1

Mechanics Length Drills



LIST 300UB

Hi-Molybdenum tool steel, 135° split point for accurate self-centering, precision ground, 3 flats on shank sizes 3/16" and larger. Black/gold finish

Proudly Manufactured in the USA
with globally source material

LIST 300UB				LIST 300UB			
SIZE	Flute Length	Overall	Pack Qty.	SIZE	Flute Length	Overall	Pack Qty.
*1/16	7/8"	1-7/8"	12	9/32"	2-1/4"	3-3/4"	12
*5/64"	1"	2"	12	19/64"	2-3/8"	3-7/8"	6
* 3/32"	1-1/4"	2-1/4"	12	5/16"	2-1/2"	4"	6
* 7/64"	1-5/16"	2-3/8"	12	21/64"	2-9/16"	4-1/16"	6
* 1/8"	1-7/16"	2-1/2"	12	11/32"	2-5/8"	4-1/8"	6
* 9/64"	1-9/16"	2-5/8"	12	23/64"	2-11/16"	4-3/16"	6
* 5/32"	1-11/16"	2-3/4"	12	3/8"	2-11/16"	4-1/4"	6
* 11/64"	1-13/16"	2-7/8"	12	25/64"	2-3/4"	4-5/16"	6
3/16"	1-7/8"	3"	12	13/32"	2-13/16"	4-3/8"	6
13/64"	1-15/16"	3-1/8"	12	27/64"	2-7/8"	4-7/16"	6
7/32"	2"	3-1/4"	12	7/16"	2-15/16"	4-1/2"	6
15/64"	2-1/16"	3-3/8"	12	29/64"	3"	4-5/8"	6
1/4"	2-1/8"	3-1/2"	12	15/32"	3-1/8"	4-3/4"	6
17/64"	2-1/8"	3-5/8"	12	31/64"	3-1/4"	4-7/8"	6
*Round shank				1/2"	3-3/8"	5"	6

LIST 300LH

Left Hand Cobalt

For tough metal drilling into hardened bolts, aids in extraction or creates hole for extractor.



Standard pack qty.=6



LIST 300LH			LIST 300LH		
SIZE	Flute Length	Overall	SIZE	Flute Length	Overall
5/64"	1"	2"	9/32"	2"	3-9/16"
7/64"	1"	2-3/16"	19/64"	2-1/16"	3-5/8"
1/8"	1-1/16"	2-1/4"	5/16"	2-1/8"	3-3/4"
5/32"	1-1/4"	2-9/16"	11/32"	2-1/4"	3-15/16"
3/16"	1-1/2"	2-7/8"	3/8"	2-3/8"	4-1/8"
7/32"	1-5/8"	3-1/8"	13/32"	2-1/2"	4-3/8"
1/4"	1-3/4"	3-5/16"	7/16"	2-5/8"	4-9/16"
			15/32"	2-3/4"	4-3/4"

Carbide Tipped Hard Steel Die Drills



LIST 280CT

118° point, straight flute. For steels 50Rc to 65 Rc.

HD hardened tool steel body. Flood with coolant

Pack qty. = 1

& eject frequently to clear chips.

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
3/16"	1-1/2"	3-1/2"
13/64"	1-1/2"	3-1/2"
7/32"	1-3/4"	3-3/4"
15/64"	1-3/4"	3-3/4"
1/4"	2"	4"
17/64"	2"	4"
9/32"	2-1/4"	4-1/4"
19/64"	2-1/4"	4-1/4"
5/16"	2-1/2"	4-1/2"
21/64"	2-1/2"	4-1/2"
11/32"	2-3/4"	4-3/4"
23/64"	2-3/4"	4-3/4"
3/8"	3"	5"
25/64"	3"	5"
13/32"	3"	5-1/4"
27/64"	3"	5-1/4"

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
7/16"	3"	5-1/2"
29/64"	3"	5-1/2"
15/32"	3-1/4"	5-3/4"
31/64"	3-1/4"	5-3/4"
1/2"	3-1/2"	6"
17/32"	3-1/2"	6"
9/16"	3-1/2"	6"
19/32"	4"	7"
5/8"	4"	7"
21/32"	4-1/2"	7-1/2"
11/16"	4-1/2"	7-1/2"
23/32"	4-3/4"	8"
3/4"	4-3/4"	8"
13/16"	4-3/4"	8"
7/8"	4-3/4"	8"
15/16"	4-3/4"	8"
1"	4-3/4"	8"

Carbide Straight Flute Hard Steel Drills



LIST 280SC

Solid carbide 140° point, for materials
40 Rc and higher.

Package Qty. = 1

SIZE	Flute Length	Overall
1/32"	1/2"	1-1/2"
3/64"	1/2"	1-1/2"
1/16"	5/8"	1-5/8"
5/64"	11/16"	1-11/16"
3/32"	3/4"	1-3/4"
7/64"	13/16"	1-13/16"
1/8"	7/8"	1-7/8"
9/64"	15/16"	1-15/16"
5/32"	1"	2-1/16"
11/64"	1-1/16"	2-1/8"
3/16"	1-1/8"	2-3/16"
13/64"	1-3/16"	2-1/4"
7/32"	1-1/4"	2-3/8"
15/64"	1-5/16"	2-7/16"
1/4"	1-3/8"	2-1/2"
17/64"	1-7/16"	2-5/8"
9/32"	1-1/2"	2-11/16"
19/64"	1-9/16"	2-3/4"
5/16"	1-5/8"	2-13/16"
21/64"	1-11/16"	2-15/16"
11/32"	1-11/16"	3"
23/64"	1-3/4"	3-1/16"
3/8"	1-13/16"	3-1/8"
25/64"	1-7/8"	3-1/4"
13/32"	1-15/16"	3-5/16"
27/64"	2"	3-3/8"
7/16"	2-1/16"	3-7/16"
29/64"	2"	3-5/8"
15/32"	2-1/8"	3-5/8"
31/64"	2-1/8"	3-3/4"
1/2"	2-1/4"	3-3/4"
A	1-5/16"	2-7/16"
B	1-3/8"	2-1/2"
C	1-3/8"	2-1/2"
D	1-3/8"	2-1/2"
E	(SEE 1/4")	
F	1-7/16"	2-5/8"
G	1-7/16"	2-5/8"
H	1-1/2"	2-11/16"
I	1-1/2"	2-11/16"

SIZE	Flute Length	Overall
J	1-1/2"	2-11/16"
K	1-1/2"	2-11/16"
L	1-9/16"	2-3/4"
M	1-9/16"	2-3/4"
N	1-5/8"	2-13/16"
O	1-11/16"	2-15/16"
P	1-11/16"	2-15/16"
Q	1-11/16"	3"
R	1-11/16"	3"
S	1-3/4"	3-1/16"
T	1-3/4"	3-1/16"
U	1-13/16"	3-1/8"
V	1-7/8"	3-1/4"
W	1-7/8"	3-1/4"
X	1-15/16"	3-5/16"
Y	1-15/16"	3-5/16"
Z	2"	3-3/8"
1	1-5/16"	2-7/16"
2	1-5/16"	2-7/16"
3	1-1/4"	2-3/8"
4	1-1/4"	2-3/8"
5	1-1/4"	2-3/8"
6	1-1/4"	2-3/8"
7	1-3/16"	2-1/4"
8	1-3/16"	2-1/4"
9	1-3/16"	2-1/4"
10	1-3/16"	2-1/4"
11	1-3/16"	2-1/4"
12	1-3/16"	2-1/4"
13	1-1/8"	2-3/16"
14	1-1/8"	2-3/16"
15	1-1/8"	2-3/16"
16	1-1/8"	2-3/16"
17	1-1/8"	2-3/16"
18	1-1/16"	2-1/8"
19	1-1/16"	2-1/8"
20	1-1/16"	2-1/8"
21	1-1/16"	2-1/8"
22	1-1/16"	2-1/8"
23	1"	2-1/16"

SIZE	Flute Length	Overall
24	1"	2-1/16"
25	1"	2-1/16"
26	1"	2-1/16"
27	1"	2-1/16"
28	15/16"	1-15/16"
29	15/16"	1-15/16"
30	15/16"	1-15/16"
31	7/8"	1-7/8"
32	7/8"	1-7/8"
33	7/8"	1-7/8"
34	7/8"	1-7/8"
35	7/8"	1-7/8"
36	13/16"	1-13/16"
37	13/16"	1-13/16"
38	13/16"	1-13/16"
39	13/16"	1-13/16"
40	13/16"	1-13/16"
41	13/16"	1-13/16"
42	3/4"	1-3/4"
43	3/4"	1-3/4"
44	3/4"	1-3/4"
45	3/4"	1-3/4"
46	3/4"	1-3/4"
47	3/4"	1-3/4"
48	11/16"	1-11/16"
49	11/16"	1-11/16"
50	11/16"	1-11/16"
51	11/16"	1-11/16"
52	11/16"	1-11/16"
53	1/2"	1-1/2"
54	1/2"	1-1/2"
55	1/2"	1-1/2"
56	1/2"	1-1/2"
57	1/2"	1-1/2"
58	1/2"	1-1/2"
59	1/2"	1-1/2"
60	1/2"	1-1/2"

Silver & Deming Drills 1/2" round shank

6" overall with 3" flute length



LIST 180HS

High Speed Steel 118° point, general purpose.

Black/bright finish.

LIST 180CO

Cobalt for tough materials, 135° split point

Bronze oxide finish.



Standard pack = 1

*135° notched point

SIZE	Availability	
	180HS	180CO
33/64"	Yes	Yes
17/32"	Yes	Yes
35/64"	Yes	Yes
9/16"	Yes	Yes
37/64"	Yes	Yes
19/32"	Yes	Yes
39/64"	Yes	Yes
5/8"	Yes	Yes
41/64"	Yes	Yes
21/32"	Yes	Yes
43/64"	Yes	Yes
11/16"	Yes	Yes
45/64"	Yes	Yes
23/32"	Yes	Yes
47/64"	Yes	Yes
3/4"	Yes	Yes
49/64"	Yes	Yes
25/32"	Yes	Yes
51/64"	Yes	Yes
13/16"	Yes	Yes
53/64"	Yes	Yes
27/32"	Yes	Yes
55/64"	Yes	Yes
7/8"	Yes	Yes
57/64"	Yes	Yes
29/32"	Yes	Yes
59/64"	Yes	Yes
15/16"	Yes	Yes
61/64"	Yes	Yes
31/32"	Yes	Yes
63/64"	Yes	Yes
1"	Yes	Yes

SIZE	Availability	
	180HS	180CO
1-1/64"	Yes	NO
1-1/32"	Yes	Yes
1-3/64"	Yes	NO
1-1/16"	Yes	Yes
1-5/64"	Yes	NO
1-3/32"	Yes	Yes
1-7/64"	Yes	NO
1-1/8"	Yes	Yes
1-9/64"	Yes	NO
1-5/32"	Yes	Yes
1-11/64"	Yes	NO
1-3/16"	Yes	Yes
1-13/64"	Yes	NO
1-7/32"	Yes	Yes
1-15/64"	Yes	NO
1-1/4"	Yes	Yes
1-17/64"	Yes	NO
1-9/32"	Yes	NO
1-19/64"	Yes	NO
1-5/16"	Yes	Yes
1-21/64"	Yes	NO
1-11/32"	Yes	NO
1-23/64"	Yes	NO
1-3/8"	Yes	Yes
1-25/64"	Yes	NO
1-13/32"	Yes	NO
1-27/64"	Yes	NO
1-7/16"	Yes	Yes
1-29/64"	Yes	NO
1-15/32"	Yes	NO
1-31/64"	Yes	NO
1-1/2"	Yes	Yes

Metric Silver & Deming Drills 1/2" shank

High Speed Steel 118° point

LIST 190HS

HSS General purpose

- Sizes 19.5mm to 25mm are 118° split point
- 14mm to 25mm are Hi-Molybdenum black/gold with flatted shank.

** Black oxide 118° standard point, round shank



Available Sizes:

**13.0mm

**13.5mm

14.0mm

14.5mm

15.0mm

15.5mm

16.0mm

16.5mm

17.0mm

17.5mm

18.0mm

18.5mm

19.0mm

19.5mm

20.0mm

20.5mm

21.0mm

21.5mm

22.0mm

22.5mm

23.0mm

23.5mm

24.0mm

24.5mm

25.0mm

- 3" flute and 6" overall length

- *Standard pack = 1*

- 25.5mm and up may be quality import, bright/black with round shank.

* Available while supplies last



Available Sizes:

25.5mm

26.0mm

26.5mm

27.0mm

27.5mm

28.0mm

28.5mm

29.0mm

29.5mm

30.0mm

*30.5mm

31.0mm

*31.5mm

32.0mm

32.5mm

33.0mm

*33.5mm

34.0mm

*34.5mm

35.0mm

*35.5mm

36.0mm

36.5mm

*37.0mm

*37.5mm

38.0mm

Silver & Deming Drills 3/4" shank

High Speed Steel 118° point



LIST 195HS

- General purpose, round shank.
- 3" flute, 6" overall length.
- Black/Bright finish typically.

* may be black/gold Hi-Molybdenum 5-1/2" long
135° split point.

** may be quality import

All Available Sizes

*13/16"	1-7/64"	*1-1/2"
53/64"	*1-1/8"	1-17/32"
27/32"	1-9/64"	1-9/16"
55/64"	1-5/32"	1-19/32"
*7/8	1-11/64"	1-5/8"
57/64"	1-3/16"	1-21/32"
29/32"	1-13/64"	1-11-16"
59/64"	1-7/32"	1-23/32"
*15/16"	1-15/64"	** 1-47/64
61/64"	*1-1/4"	1-3/4"
31/32"	1-17/64"	1-25/32"
63/64"	1-9/32"	1-13/16"
* 1"	1-19/64"	1-27/32"
1-1/64"	1-5/16"	1-7/8"
1-1/32"	1-11/32"	1-29/32"
1-3/64"	*1-3/8"	1-15/16"
1-1/16"	1-13/32"	1-31/32"
1-5/64"	1-7/16"	1-63/64"
1-3/32"	1-15/32"	2"



Taper Length Drills

Have same flute length as taper shank drills- when extra depth is required.



LIST 125BR

High speed steel bright finish 118° point,
good in non-ferrous metals.



LIST 125OX

High speed steel oxide finish 118° point,
good in mild steels/cast iron.



LIST 125CO

Cobalt 135° split point, for tougher metals.



SIZE	Flute Length	Overall	125BR	125OX	125CO
1/64"	5/16"	1-1/2"	Yes	Yes	NO
1/64"	3/8"	1-3/4"	Yes	NO	NO
1/32"	3/4"	2"	Yes	Yes	Yes
1/32"	1-1/2"	2-7/8"	Yes	NO	NO
3/64"	1-1/8"	2-1/4"	Yes	Yes	Yes
1/16"	1-3/4"	3"	Yes	Yes	Yes
5/64"	2"	3-3/4"	Yes	Yes	Yes
3/32"	2-1/4"	4-1/4"	Yes	Yes	Yes
7/64"	2-1/2"	4-5/8"	Yes	Yes	Yes
1/8"	2-3/4"	5-1/8"	Yes	Yes	Yes
9/64"	3"	5-3/8"	Yes	Yes	Yes
5/32"	3"	5-3/8"	Yes	Yes	Yes
11/64"	3-3/8"	5-3/4"	Yes	Yes	Yes
3/16"	3-3/8"	5-3/4"	Yes	Yes	Yes
13/64"	3-5/8"	6"	Yes	Yes	Yes
7/32"	3-5/8"	6"	Yes	Yes	Yes
15/64"	3-3/4"	6-1/8"	Yes	Yes	Yes
1/4"	3-3/4"	6-1/8"	Yes	Yes	Yes
17/64"	3-7/8"	6-1/4"	Yes	Yes	Yes
9/32"	3-7/8"	6-1/4"	Yes	Yes	Yes
19/64"	4"	6-3/8"	Yes	Yes	Yes
5/16"	4"	6-3/8"	Yes	Yes	Yes
21/64"	4-1/8"	6-1/2"	Yes	Yes	Yes
11/32"	4-1/8"	6-1/2"	Yes	Yes	Yes
23/64"	4-1/4"	6-3/4"	Yes	Yes	Yes
3/8"	4-1/4"	6-3/4"	Yes	Yes	Yes
25/64"	4-3/8"	7"	Yes	Yes	Yes
13/32"	4-3/8"	7"	Yes	Yes	Yes
27/64"	4-5/8"	7-1/4"	Yes	Yes	Yes
7/16"	4-5/8"	7-1/4"	Yes	Yes	Yes
29/64"	4-3/4"	7-1/2"	Yes	Yes	Yes
15/32"	4-3/4"	7-1/2"	Yes	Yes	Yes
31/64"	4-3/4"	7-3/4"	Yes	Yes	Yes
1/2"	4-3/4"	7-3/4"	Yes	Yes	Yes
33/64"	4-3/4"	8"	Yes	Yes	Yes

SIZE	Flute Length	Overall	125BR	125OX	125CO
17/32"	4-3/4"	8"	Yes	Yes	Yes
35/64"	4-7/8"	8-1/4"	Yes	Yes	Yes
9/16"	4-7/8"	8-1/4"	Yes	Yes	Yes
37/64"	4-7/8"	8-3/4"	Yes	Yes	Yes
19/32"	4-7/8"	8-3/4"	Yes	Yes	Yes
39/64"	4-7/8"	8-3/4"	Yes	Yes	Yes
5/8"	4-7/8"	8-3/4"	Yes	Yes	Yes
41/64"	5-1/8"	9"	Yes	Yes	Yes
21/32"	5-1/8"	9"	Yes	Yes	Yes
43/64"	5-3/8"	9-1/4"	Yes	Yes	Yes
11/16"	5-3/8"	9-1/4"	Yes	Yes	Yes
45/64"	5-5/8"	9-1/2"	Yes	Yes	Yes
23/32"	5-5/8"	9-1/2"	Yes	Yes	Yes
47/64"	5-7/8"	9-3/4"	Yes	Yes	Yes
3/4"	5-7/8"	9-3/4"	Yes	Yes	Yes
49/64"	6"	9-7/8"	Yes	Yes	Yes
25/32"	6"	9-7/8"	Yes	Yes	Yes
51/64"	6-1/8"	10"	Yes	Yes	Yes
13/16"	6-1/8"	10"	Yes	Yes	Yes
53/64"	6-1/8"	10"	Yes	Yes	Yes
27/32"	6-1/8"	10"	Yes	Yes	Yes
55/64"	6-1/8"	10"	Yes	Yes	Yes
7/8"	6-1/8"	10"	Yes	Yes	Yes
57/64"	6-1/8"	10"	Yes	Yes	Yes
29/32"	6-1/8"	10"	Yes	Yes	Yes
59/64"	6-1/8"	10-3/4"	Yes	Yes	Yes
15/16"	6-1/8"	10-3/4"	Yes	Yes	Yes
61/64"	6-3/8"	11"	Yes	Yes	Yes
31/32"	6-3/8"	11"	Yes	Yes	Yes
63/64"	6-3/8"	11"	Yes	Yes	Yes
1"	6-3/8"	11"	Yes	Yes	Yes

Taper Length Drills (continued)

Have same flute length as taper shank drills- when extra depth is required.



LIST 125BR

High speed steel bright finish 118° point,
good in non-ferrous metals.



LIST 125OX

High speed steel oxide finish 118° point,
good in mild steels/cast iron.



LIST 125CO

Cobalt 135° split point, for tougher metals.



<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>125BR</u>	<u>125OX</u>	<u>125CO</u>
A	3-3/4"	6-1/8"	Yes	Yes	NO
B	3-3/4"	6-1/8"	Yes	Yes	NO
C	3-3/4"	6-1/8"	Yes	Yes	NO
D	3-3/4"	6-1/8"	Yes	Yes	NO
E	3-3/4"	6-1/8"	See 1/4"		NO
F	3-7/8"	6-1/4"	Yes	Yes	NO
G	3-7/8"	6-1/4"	Yes	Yes	NO
H	3-7/8"	6-1/4"	Yes	Yes	NO
I	3-7/8"	6-1/4"	Yes	Yes	NO
J	3-7/8"	6-1/4"	Yes	Yes	NO
K	3-7/8"	6-1/4"	Yes	Yes	NO
L	4"	6-3/8"	Yes	Yes	NO
M	4"	6-3/8"	Yes	Yes	NO
N	4"	6-3/8"	Yes	Yes	NO
O	4-1/8"	6-1/2"	Yes	Yes	NO
P	4-1/8"	6-1/2"	Yes	Yes	NO
Q	4-1/8"	6-1/2"	Yes	Yes	NO
R	4-1/8"	6-1/2"	Yes	Yes	NO
S	4-1/4"	6-3/4"	Yes	Yes	NO
T	4-1/4"	6-3/4"	Yes	Yes	NO
U	4-1/4"	6-3/4"	Yes	Yes	NO
V	4-3/8"	7"	Yes	Yes	NO
W	4-3/8"	7"	Yes	Yes	NO
X	4-3/8"	7"	Yes	Yes	NO
Y	4-3/8"	7"	Yes	Yes	NO
Z	4-5/8"	7-1/4"	Yes	Yes	NO

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>125BR</u>	<u>125OX</u>	<u>125CO</u>
1	3-3/4"	6-1/8"	Yes	Yes	Yes
2	3-3/4"	6-1/8"	Yes	Yes	Yes
3	3-5/8"	6"	Yes	Yes	Yes
4	3-5/8"	6"	Yes	Yes	Yes
5	3-5/8"	6"	Yes	Yes	Yes
6	3-5/8"	6"	Yes	Yes	Yes
7	3-5/8"	6"	Yes	Yes	Yes
8	3-5/8"	6"	Yes	Yes	Yes
9	3-5/8"	6"	Yes	Yes	Yes
10	3-5/8"	6"	Yes	Yes	Yes
11	3-5/8"	6"	Yes	Yes	Yes
12	3-5/8"	6"	Yes	Yes	Yes
13	3-3/8"	5-3/4"	Yes	Yes	Yes
14	3-3/8"	5-3/4"	Yes	Yes	Yes
15	3-3/8"	5-3/4"	Yes	Yes	Yes
16	3-3/8"	5-3/4"	Yes	Yes	Yes
17	3-3/8"	5-3/4"	Yes	Yes	Yes
18	3-3/8"	5-3/4"	Yes	Yes	Yes
19	3-3/8"	5-3/4"	Yes	Yes	Yes
20	3-3/8"	5-3/4"	Yes	Yes	Yes
21	3-3/8"	5-3/4"	Yes	Yes	Yes
22	3-3/8"	5-3/4"	Yes	Yes	Yes
23	3"	5-3/8"	Yes	Yes	Yes
24	3"	5-3/8"	Yes	Yes	Yes
25	3"	5-3/8"	Yes	Yes	Yes
26	3"	5-3/8"	Yes	Yes	Yes
27	3"	5-3/8"	Yes	Yes	Yes
28	3"	5-3/8"	Yes	Yes	Yes
29	3"	5-3/8"	Yes	Yes	Yes
30	3"	5-3/8"	Yes	Yes	Yes
31	2-3/4"	5-1/8"	Yes	Yes	Yes
32	2-3/4"	5-1/8"	Yes	Yes	Yes
33	2-3/4"	5-1/8"	Yes	Yes	Yes
34	2-3/4"	5-1/8"	Yes	Yes	Yes

Taper Length Drills (continued)

Have same flute length as taper shank drills- when extra depth is required.



LIST 125BR

High speed steel bright finish 118° point,
good in non-ferrous metals.



LIST 125OX

High speed steel oxide finish 118° point,
good in mild steels/cast iron.



LIST 125CO

Cobalt 135° split point, for tougher metals.



<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>125BR</u>	<u>125OX</u>	<u>125CO</u>
35	2-3/4"	5-1/8"	Yes	Yes	Yes
36	2-1/2"	4-5/8"	Yes	Yes	Yes
37	2-1/2"	4-5/8"	Yes	Yes	Yes
38	2-1/2"	4-5/8"	Yes	Yes	Yes
39	2-1/2"	4-5/8"	Yes	Yes	Yes
40	2-1/2"	4-5/8"	Yes	Yes	Yes
41	2-1/2"	4-5/8"	Yes	Yes	Yes
42	2-1/4"	4-1/4"	Yes	Yes	Yes
43	2-1/4"	4-1/4"	Yes	Yes	Yes
44	2-1/4"	4-1/4"	Yes	Yes	Yes
45	2-1/4"	4-1/4"	Yes	Yes	Yes
46	2-1/4"	4-1/4"	Yes	Yes	Yes
47	2-1/4"	4-1/4"	Yes	Yes	Yes
48	2"	3-3/4"	Yes	Yes	Yes
49	2"	3-3/4"	Yes	Yes	Yes
50	2"	3-3/4"	Yes	Yes	Yes
51	2"	3-3/4"	Yes	Yes	Yes
52	2"	3-3/4"	Yes	Yes	Yes
53	1-3/4"	3"	Yes	Yes	Yes
54	1-3/4"	3"	Yes	Yes	Yes
55	1-3/4"	3"	Yes	Yes	Yes
56	1-1/8"	2-1/4"	Yes	Yes	Yes
57	1-1/8"	2-1/4"	Yes	Yes	Yes

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>	<u>125BR</u>	<u>125OX</u>	<u>125CO</u>
58	1-1/8"	2-1/4"	Yes	Yes	Yes
59	1-1/8"	2-1/4"	Yes	Yes	Yes
60	1-1/8"	2-1/4"	Yes	Yes	Yes
61	1-1/8"	2-1/4"	Yes	NO	NO
62	3/4"	2"	Yes	NO	NO
63	3/4"	2"	Yes	NO	NO
64	3/4"	2"	Yes	NO	NO
65	3/4"	2"	Yes	NO	NO
66	3/4"	2"	Yes	NO	NO
67	3/4"	2"	Yes	NO	NO
68	3/4"	2"	Yes	NO	NO
69	3/4"	2"	Yes	NO	NO
70	3/4"	2"	Yes	NO	NO
71	3/4"	2"	Yes	NO	NO
72	5/16"	1-1/2"	Yes	NO	NO
73	5/16"	1-1/2"	Yes	NO	NO
74	5/16"	1-1/2"	Yes	NO	NO
75	5/16"	1-1/2"	Yes	NO	NO
76	5/16"	1-1/2"	Yes	NO	NO
77	5/16"	1-1/2"	Yes	NO	NO
78	5/16"	1-1/2"	Yes	NO	NO
79	5/16"	1-1/2"	Yes	NO	NO
80	5/16"	1-1/2"	Yes	NO	NO

Metric Taper Length Drills

Have same flute length as taper shank drills- when extra depth is required.



LIST 130HS

High speed steel 118° point, general purpose. Oxide finish.

Some may be bright finish.

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
1 mm	1-1/8"	2-1/4"
1.5 mm	1-3/4"	3"
2 mm	2-1/4"	4-1/4"
2.5 mm	2-1/2"	4-5/8"
3 mm	2-3/4"	5-1/8"
3.5 mm	3"	5-3/8"
4.0 mm	3-3/8"	5-3/4"
4.5 mm	3-3/8"	5-3/4"
5.0 mm	3-5/8"	6"
5.5 mm	3-5/8"	6"
6 mm	3-3/4"	6-1/8"
6.5 mm	3-7/8"	6-1/4"
7 mm	3-7/8"	6-1/4"
7.5 mm	4"	6-3/8"
8 mm	4-1/8"	6-1/2"
8.5 mm	4-1/8"	6-1/2"
9.0 mm	4-1/4"	6-3/4"
9.5 mm	4-1/4"	6-3/4"
10 mm	4-3/8"	7"
10.5 mm	4-5/8"	7-1/4"
11 mm	4-5/8"	7-1/4"
12 mm	4-3/4"	7-3/4"
12.5 mm	4-3/4"	7-3/4"

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
13 mm	4-3/4"	8"
13.5 mm	4-3/4"	8"
14 mm	4-7/8"	8-1/4"
14.5mm	4-7/8"	8-3/4"
15mm	4-7/8"	8-3/4"
15.5mm	4-7/8"	8-3/4"
16mm	5-1/8"	9"
16.5mm	5-1/8"	9"
17mm	5-3/8"	9-1/4"
18mm	5-5/8"	9-1/2"
18.5mm	5-7/8"	9-3/4"
19mm	5-7/8"	9-3/4"
20mm	6-1/8"	10"
20.5mm	6-1/8"	10"
21mm	6-1/8"	10"
21.5mm	6-1/8"	10"
22mm	6-1/8"	10"
22.5mm	6-1/8"	10"
23.5mm	6-1/8"	10-3/4"
24mm	6-3/8"	11"
24.5mm	6-3/8"	11"
26 mm	6-1/2"	11-1/8"

Carbide Tipped Taper Length Drills

Have the same flute length as a taper shank drill- when extra depth is required



LIST 140CT

Hardened tool steel body, precision ground, 118° point, tapered shank, intended for cast and non-ferrous metals. *Not usually recommended for steel.*

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
1/8"	2-3/4"	5-1/8"
9/64"	3"	5-3/8"
5/32"	3"	5-3/8"
11/64"	3-3/8"	5-3/4"
3/16"	3-3/8"	5-3/4"
13/64"	3-5/8"	6"
7/32"	3-5/8"	6"
15/64"	3-3/4"	6-1/8"
1/4"	3-3/4"	6-1/8"
17/64"	3-7/8"	6-1/4"
9/32"	3-7/8"	6-1/4"
19/64"	4"	6-3/8"
5/16"	4"	6-3/8"
21/64"	4-1/8"	6-1/2"
11/32"	4-1/8"	6-1/2"
23/64"	4-1/4"	6-3/4"
3/8"	4-1/4"	6-3/4"
25/64"	4-3/8"	7"
13/32"	4-3/8"	7"
27/64"	4-5/8"	7-1/4"

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
7/16"	4-5/8"	7-1/4"
29/64"	4-3/4"	7-1/2"
15/32"	4-3/4"	7-1/2"
31/64"	4-3/4"	7-3/4"
1/2"	4-3/4"	7-3/4"
33/64"	4-3/4"	8"
17/32"	4-3/4"	8"
35/64"	4-7/8"	8-1/4"
9/16"	4-7/8"	8-1/4"
37/64"	4-7/8"	8-3/4"
19/32"	4-7/8"	8-3/4"
39/64"	4-7/8"	8-3/4"
5/8"	4-7/8"	8-3/4"
41/64"	5-1/8"	9"
21/32"	5-1/8"	9"
43/64"	5-3/8"	9-1/4"
11/16"	5-3/8"	9-1/4"
45/64"	5-5/8"	9-1/2"
23/32"	5-5/8"	9-1/2"
47/64"	5-7/8"	9-3/4"
3/4"	5-7/8"	9-3/4"

Aircraft Extension Drills 6"

High speed steel



LIST 106HS

Black oxide, 135° split point, 6" overall
with short flute length- when extra reach
is needed.

* *Not Split point*

SIZE Flute Length

1/16"	7/8"
5/64"	1"
3/32"	1-1/4"
7/64"	1-1/2"
1/8"	1-5/8"
9/64"	1-3/4"
5/32"	2"
11/64"	2-1/8"
3/16"	2-5/16"
13/64"	2-7/16"
7/32"	2-1/2"
15/64"	2-5/8"
1/4"	2-3/4"
17/64"	2-7/8"
9/32"	2-15/16"
19/64"	3-1/16"
5/16"	3-3/16"
21/64"	3-5/16"
11/32"	3-7/16"
23/64"	3-1/2"
3/8"	3-5/8"
25/64"	3-3/4"
13/32"	3-7/8"
27/64"	3-15/16"
7/16"	4-1/16"
29/64"	4-3/16"
15/32"	4-5/16"
31/64"	4-3/8"
1/2"	4-1/2"

SIZE Flute Length

1	2-5/8"
2	2-5/8"
3	2-1/2"
7	2-7/16"
8	2-7/16"
9	2-7/16"
10	2-7/16"
11	2-5/16"
17	2-3/16"
19	2-1/8"
20	2-1/8"
21	2-1/8"
25	1-7/8"
29	1-3/4"
30	1-5/8"
33	1-1/2"
36	1-7/16"
40	1-3/8"
42	1-1/4"
43	1-1/4"
46	1-1/8"
47	1"
48	1"
50	1"
*53	7/8"
*54	7/8"
*55	7/8"
*60	11/16"

SIZE Flute Length

F	2-7/8"
I	2-7/8"
Q	3-7/16"
U	3-5/8"
W	3-3/4"



Aircraft Extension Drills 12"

High speed steel



LIST 112HS

Black oxide, 135° split point, 12" overall with short flute length- when extra reach is needed.

** Not split point*



<u>SIZE</u>	<u>Flute Length</u>
-------------	---------------------

1/16"	7/8"
5/64"	1"
3/32"	1-1/4"
7/64"	1-1/2"
1/8"	1-5/8"
9/64"	1-3/4"
5/32"	2"
11/64"	2-1/8"
3/16"	2-5/16"
13/64"	2-7/16"
7/32"	2-1/2"
15/64"	2-5/8"
1/4"	2-3/4"
17/64"	2-7/8"
9/32"	2-15/16"
19/64"	3-1/16"
5/16"	3-3/16"
21/64"	3-5/16"
11/32"	3-7/16"
23/64"	3-1/2"
3/8"	3-5/8"
25/64"	3-3/4"
13/32"	3-7/8"
27/64"	3-15/16"
7/16"	4-1/16"
29/64"	4-3/16"
15/32"	4-5/16"
31/64"	4-3/8"
1/2"	4-1/2"

<u>SIZE</u>	<u>Flute Length</u>
-------------	---------------------

1	2-5/8"
3	2-1/2"
4	2-1/2"
5	2-1/2"
7	2-7/16"
9	2-7/16"
10	2-7/16"
11	2-5/16"
15	2-3/16"
16	2-3/16"
17	2-3/16"
19	2-1/8"
20	2-1/8"
21	2-1/8"
24	2"
25	1-7/8"
26	1-7/8"
27	1-7/8"
29	1-3/4"
30	1-5/8"
31	1-5/8"
33	1-1/2"
34	1-1/2"
36	1-7/16"
37	1-7/16"
39	1-3/8"
40	1-3/8"
41	1-3/8"
42	1-1/4"
43	1-1/4"
44	1-1/8"
46	1-1/8"
47	1"

<u>SIZE</u>	<u>Flute Length</u>
-------------	---------------------

49	1"
50	1"
51	1"
*53	7/8"
*54	7/8"
*55	7/8"
*57	3/4"
*58	11/16"
*59	11/16"
*60	11/16"
B	2-3/4"
F	2-7/8"
G	2-7/8"
I	2-7/8"
J	2-7/8"
L	2-15/16"
M	3-1/16"
N	3-1/16"
O	3-3/16"
P	3-5/16"
Q	3-7/16"
R	3-7/16"
S	3-1/2"
T	3-1/2"
U	3-5/8"
V	3-5/8"
W	3-3/4"
X	3-3/4"
Y	3-7/8"
Z	3-7/8"

Extended Length Drills

Straight shank, high speed steel

May be available in oxide or bright finish. Please specify



LIST 206HS

6" overall, 4" flute, 118° point



LIST 208HS

8" overall, 5-1/2" flute, 118° point



LIST 210HS

10" overall, 7-1/2" flute, 118° point



SIZE	206HS	208HS	210HS
1/16"	Yes	Yes	NO
5/64"	Yes	NO	NO
3/32"	Yes	Yes	NO
7/64"	Yes	Yes	NO
1/8"	Yes	Yes	Yes
9/64"	Yes	Yes	Yes
5/32"	Yes	Yes	Yes
11/64"	Yes	Yes	Yes
3/16"	Yes	Yes	Yes
13/64"	NO	Yes	Yes
7/32"	NO	Yes	Yes
15/64"	NO	Yes	Yes
1/4"	NO	Yes	Yes
17/64"	NO	Yes	Yes
9/32"	NO	Yes	Yes

SIZE	206HS	208HS	210HS
19/64"	NO	Yes	Yes
5/16"	NO	Yes	Yes
21/64"	NO	Yes	Yes
11/32"	NO	Yes	Yes
23/64"	NO	Yes	Yes
3/8"	NO	Yes	Yes
25/64"	NO	Yes	Yes
13/32"	NO	Yes	Yes
27/64"	NO	Yes	Yes
7/16"	NO	Yes	Yes
29/64"	NO	Yes	Yes
15/32"	NO	NO	Yes
31/64"	NO	NO	Yes
1/2"	NO	Yes	Yes

Extended Length Drills 12" overall

Straight shank, high speed steel 9" flute



LIST 212OX Oxide finish 118° point



LIST 212BR Bright finish 118° point



**May be Brazil or France import*

SIZE	212OX	212BR
3/32"	NO	Yes
7/64"	Yes	NO
1/8"	Yes	Yes
9/64"	Yes	Yes
5/32"	Yes	Yes
11/64"	Yes	Yes
3/16"	Yes	Yes
13/64"	Yes	Yes
7/32"	Yes	Yes
15/64"	Yes	Yes
1/4"	Yes	Yes
17/64"	Yes	Yes
9/32"	Yes	Yes
19/64"	Yes	Yes
5/16"	Yes	Yes
21/64"	Yes	Yes
11/32"	Yes	Yes
23/64"	Yes	Yes
3/8"	Yes	Yes
25/64"	Yes	Yes

SIZE	212OX	212BR
13/32"	Yes	Yes
27/64"	Yes	Yes
7/16"	Yes	Yes
29/64"	Yes	Yes
15/32"	Yes	Yes
31/64"	Yes	Yes
1/2"	Yes	Yes
33/64"	Yes	*Yes
17/32"	Yes	Yes
35/64"	Yes	*Yes
9/16"	Yes	Yes
37/64"	Yes	*Yes
19/32"	Yes	Yes
39/64"	Yes	*Yes
5/8"	Yes	Yes
41/64"	Yes	NO
21/32"	Yes	*Yes
43/64"	Yes	NO
11/16"	Yes	Yes

SIZE	212OX	212BR
45/64"	Yes	NO
23/32"	Yes	*Yes
47/64"	Yes	NO
3/4"	Yes	Yes
49/64"	Yes	NO
25/32"	Yes	NO
51/64"	Yes	NO
13/16"	Yes	NO
53/64"	Yes	NO
27/32"	Yes	NO
55/64"	Yes	NO
7/8"	Yes	NO
57/64"	Yes	NO
29/32"	Yes	NO
59/64"	Yes	NO
15/16"	Yes	NO
61/64"	Yes	NO
31/32"	Yes	NO
63/64"	Yes	NO
1"	Yes	NO

LIST 212RS

12" overall, 9" flute, 118° point,
1/2" reduced shank with 3 flats.



Available Sizes

9/16"
5/8"
3/4"
7/8"
1"



Extended Length Drills 15" 18" 24"

Straight shank, high speed steel 118° point

Typically oxide finish, may come in bright finish.



LIST 215HS

15" overall, 11" flute



LIST 218HS

18" overall, 12" flute



LIST 224HS

24" overall, 18" flute



SIZE	215HS	218HS	224HS
1/8"	NO	Yes	NO
5/32"	NO	Yes	NO
3/16"	Yes	Yes	NO
13/64"	NO	Yes	NO
7/32"	NO	Yes	NO
15/64"	Yes	Yes	NO
1/4"	Yes	Yes	Yes
17/64"	NO	Yes	NO
9/32"	Yes	Yes	NO
19/64"	NO	Yes	NO
5/16"	Yes	Yes	Yes
21/64"	NO	Yes	NO
11/32"	Yes	Yes	NO
23/64"	NO	Yes	NO
3/8"	Yes	Yes	Yes
25/64"	NO	Yes	NO
13/32"	Yes	Yes	NO
27/64"	NO	Yes	NO
7/16"	Yes	Yes	Yes

SIZE	215HS	218HS	224HS
29/64"	Yes	Yes	NO
15/32"	Yes	Yes	NO
31/64"	NO	Yes	NO
1/2"	Yes	Yes	Yes
33/64"	NO	Yes	NO
17/32"	Yes	Yes	NO
35/64"	NO	Yes	NO
9/16"	Yes	Yes	Yes
37/64"	NO	Yes	NO
19/32"	Yes	Yes	NO
39/64"	NO	Yes	NO
5/8"	Yes	Yes	Yes
41/64"	NO	Yes	NO
21/32"	Yes	Yes	NO
43/64"	NO	Yes	NO
11/16"	Yes	Yes	Yes
45/64"	NO	Yes	NO
23/32"	Yes	Yes	NO
47/64"	NO	Yes	NO
3/4"	Yes	Yes	Yes

SIZE	215HS	218HS	224HS
49/64"	NO	Yes	NO
25/32"	Yes	Yes	NO
51/64"	NO	Yes	NO
13/16"	Yes	Yes	NO
53/64"	NO	Yes	NO
27/32"	NO	Yes	NO
55/64"	NO	Yes	NO
7/8"	Yes	Yes	NO
57/64"	NO	Yes	NO
29/32"	NO	Yes	NO
59/64"	NO	Yes	NO
15/16"	Yes	Yes	NO
61/64"	NO	Yes	NO
31/32"	NO	Yes	NO
63/64"	NO	Yes	NO
1"	Yes	Yes	NO
1-1/8"	NO	Yes	NO
1-3/16"	NO	Yes	NO
1-1/4"	NO	Yes	NO

Taper Shank Drills, standard length

High speed steel



LIST 175OX

Black oxide, 118° point



LIST 175BR

Black/bright finish, 118° point



**Indicates non-standard size shank*

SIZE	Morse Taper	Flute Length	Overall	175OX	175BR
1/8"	1MT	1-7/8"	5-1/8"	Yes	Yes
9/64"	1MT	2-1/8"	5-3/8"	Yes	Yes
5/32"	1MT	2-1/8"	5-3/8"	Yes	Yes
11/64"	1MT	2-1/2"	5-3/4"	Yes	Yes
3/16"	1MT	2-1/2"	5-3/4"	Yes	Yes
13/64"	1MT	2-3/4"	6"	Yes	Yes
7/32"	1MT	2-3/4"	6"	Yes	Yes
15/64"	1MT	2-7/8"	6-1/8"	Yes	Yes
1/4"	1MT	2-7/8"	6-1/8"	Yes	Yes
17/64"	1MT	3"	6-1/4"	Yes	Yes
9/32"	1MT	3"	6-1/4"	Yes	Yes
19/64"	1MT	3-1/8"	6-3/8"	Yes	Yes
5/16"	1MT	3-1/8"	6-3/8"	Yes	Yes
21/64"	1MT	3-1/4"	6-1/2"	Yes	Yes
11/32"	1MT	3-1/4"	6-1/2"	Yes	Yes
23/64"	1MT	3-1/2"	6-3/4"	Yes	Yes
3/8"	1MT	3-1/2"	6-3/4"	Yes	Yes
* 3/8"	2MT	3-1/2"	7-3/8"	Yes	NO
25/64"	1MT	3-5/8"	7"	Yes	Yes
13/32"	1MT	3-5/8"	7"	Yes	Yes
* 13/32"	2MT	3-5/8"	7-1/2"	Yes	NO
27/64"	1MT	3-7/8"	7-1/4"	Yes	Yes
* 27/64"	2MT	3-7/8"	7-3/4"	Yes	NO
7/16"	1MT	3-7/8"	7-1/4"	Yes	Yes
* 7/16"	2MT	3-7/8"	7-3/4"	Yes	NO
29/64"	1MT	4-1/8"	7-1/2"	Yes	Yes
* 29/64"	2MT	4-1/8"	8"	Yes	NO
15/32"	1MT	4-1/8"	7-1/2"	Yes	Yes
31/64"	2MT	4-3/8"	8-1/4"	Yes	Yes
1/2"	2MT	4-3/8"	8-1/4"	Yes	Yes
33/64"	2MT	4-5/8"	8-1/2"	Yes	Yes
17/32"	2MT	4-5/8"	8-1/2"	Yes	Yes
35/64"	2MT	4-7/8"	8-3/4"	Yes	Yes
9/16"	2MT	4-7/8"	8-3/4"	Yes	Yes
37/64"	2MT	4-7/8"	8-3/4"	Yes	Yes
19/32"	2MT	4-7/8"	8-3/4"	Yes	Yes
39/64"	2MT	4-7/8"	8-3/4"	Yes	Yes

SIZE	Morse Taper	Flute Length	Overall	175OX	175BR
5/8"	2MT	4-7/8"	8-3/4"	Yes	Yes
41/64"	2MT	5-1/8"	9"	Yes	Yes
*41/64"	3MT	5-1/8"	9-3/4"	Yes	NO
21/32"	2MT	5-1/8"	9"	Yes	Yes
* 21/32"	3MT	5-1/8"	9-3/4"	Yes	NO
43/64"	2MT	5-3/8"	9-1/4"	Yes	Yes
11/16"	2MT	5-3/8"	9-1/4"	Yes	Yes
* 11/16"	3MT	5-3/8"	10"	Yes	NO
45/64"	2MT	5-5/8"	9-1/2"	Yes	Yes
* 45/64"	3MT	5-5/8"	10-1/4"	Yes	NO
23/32"	2MT	5-5/8"	9-1/2"	Yes	Yes
* 23/32"	3MT	5-5/8"	10-1/4"	Yes	NO
47/64"	2MT	5-7/8"	9-3/4"	Yes	Yes
* 47/64"	3MT	5-7/8"	10-1/2"	Yes	NO
3/4"	2MT	5-7/8"	9-3/4"	Yes	Yes
* 3/4"	3MT	5-7/8"	10-1/2"	Yes	NO
49/64"	2MT	6"	9-7/8"	Yes	Yes
* 49/64"	3MT	6"	10-5/8"	Yes	NO
25/32"	2MT	6"	9-7/8"	Yes	Yes
51/64"	3MT	6-1/8"	10-3/4"	Yes	Yes
* 13/16"	2MT	6-1/8"	10"	Yes	NO
13/16"	3MT	6-1/8"	10-3/4"	Yes	Yes
53/64"	3MT	6-1/8"	10-3/4"	Yes	Yes
27/32"	3MT	6-1/8"	10-3/4"	Yes	Yes
55/64"	3MT	6-1/8"	10-3/4"	Yes	Yes
* 7/8"	2MT	6-1/8"	10"	Yes	NO
7/8"	3MT	6-1/8"	10-3/4"	Yes	Yes
57/64"	3MT	6-1/8"	10-3/4"	Yes	Yes
* 29/32"	2MT	6-1/8"	10"	Yes	NO
29/32"	3MT	6-1/8"	10-3/4"	Yes	Yes
59/64"	3MT	6-1/8"	10-3/4"	Yes	Yes
15/16"	3MT	6-1/8"	10-3/4"	Yes	Yes
61/64"	3MT	6-3/4"	11"	Yes	Yes
31/32"	3MT	6-3/8"	11"	Yes	Yes
63/64"	3MT	6-3/8"	11"	Yes	Yes
*1"	2MT	6-1/4"	10-1/8"	Yes	NO
1"	3MT	6-3/8"	11"	Yes	Yes
*1"	4MT	6-3/8"	12"	Yes	NO

Taper Shank Drills, standard length (continued)

High speed steel



LIST 175OX

Black oxide, 118° point



LIST 175BR

Black/bright finish, 118° point



**Indicates non-standard size shank*

SIZE	Morse Taper	Flute Length	Overall	175OX	175BR
1-1/64"	3MT	6-1/2"	11-1/8"	Yes	Yes
1-1/32"	3MT	6-1/2"	11-1/8"	Yes	Yes
1-3/64"	3MT	6-5/8"	11-1/4"	Yes	Yes
* 1-3/64"	4MT	6-1/2"	12-1/8"	Yes	NO
1-1/16"	3MT	6-5/8"	11-1/4"	Yes	Yes
* 1-1/16"	4MT	6-5/8"	12-1/4"	Yes	NO
1-5/64"	4MT	6-7/8"	12-1/2"	Yes	Yes
* 1-3/32"	3MT	6-7/8"	11-1/2"	Yes	NO
1-3/32"	4MT	6-7/8"	12-1/2"	Yes	Yes
* 1-7/64"	3MT	7-1/8"	11-3/4"	Yes	NO
1-7/64"	4MT	7-1/8"	12-3/4"	Yes	Yes
* 1-1/8"	3MT	7-1/8"	11-3/4"	Yes	NO
1-1/8"	4MT	7-1/8"	12-3/4"	Yes	Yes
1-9/64"	4MT	7-1/4"	12-7/8"	Yes	Yes
* 1-5/32"	3MT	7-1/4"	11-7/8"	Yes	NO
1-5/32"	4MT	7-1/4"	12-7/8"	Yes	Yes
* 1-11/64"	3MT	7-3/8"	12"	Yes	NO
1-11/64"	4MT	7-3/8"	13"	Yes	Yes
* 1-3/16"	3MT	7-3/8"	12"	Yes	NO
1-3/16"	4MT	7-3/8"	12"	Yes	Yes
* 1-13/64"	3MT	7-1/2"	12-1/8"	Yes	NO
1-13/64"	4MT	7-1/2"	13-1/8"	Yes	Yes
* 1-7/32"	3MT	7-1/2"	12-1/8"	Yes	NO
1-7/32"	4MT	7-1/2"	13-1/8"	Yes	Yes
1-15/64"	4MT	7-7/8"	13-1/2"	Yes	Yes
* 1-1/4"	3MT	7-7/8"	12-1/2"	Yes	NO
1-1/4"	4MT	7-7/8"	13-1/2"	Yes	Yes
1-17/64"	4MT	8-1/2"	14-1/8"	Yes	Yes
* 1-9/32"	3MT	8-1/2"	13-1/8"	Yes	NO
1-9/32"	4MT	8-1/2"	14-1/8"	Yes	Yes
1-19/64"	4MT	8-5/8"	14-1/4"	Yes	Yes
* 1-5/16"	3MT	8-5/8"	13-1/4"	Yes	NO
1-5/16"	4MT	8-5/8"	14-1/4"	Yes	Yes
1-21/64"	4MT	8-3/4"	14-3/8"	Yes	Yes
* 1-11/32"	3MT	8-3/4"	13-3/8"	Yes	NO
1-11/32"	4MT	8-3/4"	14-3/8"	Yes	Yes
1-23/64"	4MT	8-7/8"	14-1/2"	Yes	Yes

SIZE	Morse Taper	Flute Length	Overall	175OX	175BR
* 1-3/8"	3MT	8-7/8"	13-1/2"	Yes	NO
1-3/8"	4MT	8-7/8"	14-1/2"	Yes	Yes
* 1-25/64"	3MT	9"	13-5/8"	Yes	NO
1-25/64"	4MT	9"	14-5/8"	Yes	Yes
* 1-13/32"	3MT	9"	13-5/8"	Yes	NO
1-13/32"	4MT	9"	14-5/8"	Yes	Yes
1-27/64"	4MT	9-1/8"	14-3/4"	Yes	Yes
* 1-7/16"	3MT	9-1/8"	13-3/4"	Yes	NO
1-7/16"	4MT	9-1/8"	14-3/4"	Yes	Yes
1-29/64"	4MT	9-1/4"	14-7/8"	Yes	Yes
* 1-15/32"	3MT	9-1/4"	13-7/8"	Yes	NO
1-15/32"	4MT	9-1/4"	14-7/8"	Yes	Yes
1-31/64"	4MT	9-3/8"	15"	Yes	Yes
* 1-1/2"	3MT	9-3/8"	14"	Yes	NO
1-1/2"	4MT	9-3/8"	15"	Yes	Yes
* 1-33/64"	4MT	9-3/8"	15"	Yes	NO
1-33/64"	5MT	9-3/8"	16-3/8"	Yes	NO
* 1-17/32"	4MT	9-3/8"	15"	Yes	NO
1-17/32"	5MT	9-3/8"	16-3/8"	Yes	Yes
* 1-35/64"	4MT	9-5/8"	15-1/4"	Yes	NO
1-35/64"	5MT	9-5/8"	16-5/8"	Yes	NO
* 1-9/16"	4MT	9-5/8"	15-1/4"	Yes	NO
1-9/16"	5MT	9-5/8"	16-5/8"	Yes	Yes
* 1-37/64"	4MT	9-7/8"	15-1/2"	Yes	NO
1-37/64"	5MT	9-7/8"	16-7/8"	Yes	NO
* 1-19/32"	4MT	9-7/8"	15-1/2"	Yes	NO
1-19/32"	5MT	9-7/8"	16-7/8"	Yes	Yes
* 1-39/64"	4MT	10"	15-5/8"	Yes	NO
1-39/64"	5MT	10"	17"	Yes	NO
* 1-5/8"	4MT	10"	15-5/8"	Yes	NO
1-5/8"	5MT	10"	17"	Yes	Yes
* 1-41/64"	4MT	10-1/8"	15-3/4"	Yes	NO
1-41/64"	5MT	10-1/8"	17-1/8"	Yes	NO
* 1-21/32"	4MT	10-1/8"	15-3/4"	Yes	NO
1-21/32"	5MT	10-1/8"	17-1/8"	Yes	Yes
* 1-43/64"	4MT	10-1/8"	15-3/4"	Yes	NO
1-43/64"	5MT	10-1/8"	17-1/8"	Yes	NO

Taper Shank Drills, standard length (continued)

High speed steel



LIST 175OX

Black oxide, 118° point



LIST 175BR

Black/bright finish, 118° point



**Indicates non-standard size shank*

SIZE	Morse Taper	Flute Length	Overall	175OX	175BR
* 1-11/16"	4MT	10-1/8"	15-3/4"	Yes	NO
1-11/16"	5MT	10-1/8"	17-1/8"	Yes	Yes
* 1-45/64"	4MT	10-1/8"	15-3/4"	Yes	NO
1-45/64"	5MT	10-1/8"	17-1/8"	Yes	NO
* 1-23/32"	4MT	10-1/8"	15-3/4"	Yes	NO
1-23/32"	5MT	10-1/8"	17-1/8"	Yes	Yes
* 1-47/64"	4MT	10-3/8"	16-1/4"	Yes	NO
1-47/64"	5MT	10-1/8"	17-1/8"	Yes	NO
* 1-3/4"	4MT	10-3/8"	16-1/4"	Yes	NO
1-3/4"	5MT	10-1/8"	17-1/8"	Yes	Yes
* 1-49/64"	4MT	10-3/8"	16-1/4"	Yes	NO
1-49/64"	5MT	10-1/8"	17-1/8"	Yes	NO
* 1-25/32"	4MT	10-3/8"	16-1/4"	Yes	NO
1-25/32"	5MT	10-1/8"	17-1/8"	Yes	Yes
* 1-51/64"	4MT	10-3/8"	16-1/4"	Yes	NO
1-51/64"	5MT	10-1/8"	17-1/8"	Yes	NO
* 1-13/16"	4MT	10-3/8"	16-1/4"	Yes	NO
1-13/16"	5MT	10-1/8"	17-1/8"	Yes	Yes
* 1-53/64"	4MT	10-3/8"	16-1/4"	Yes	NO
1-53/64"	5MT	10-1/8"	17-1/8"	Yes	NO
* 1-27/32"	4MT	10-3/8"	16-1/4"	Yes	NO
1-27/32"	5MT	10-1/8"	17-1/8"	Yes	Yes
* 1-55/64"	4MT	10-1/2"	16-1/2"	Yes	NO
1-55/64"	5MT	10-3/8"	17-3/8"	Yes	NO
* 1-7/8"	4MT	10-1/2"	16-1/2"	Yes	NO
1-7/8"	5MT	10-3/8"	17-3/8"	Yes	Yes
* 1-57/64"	4MT	10-1/2"	16-1/2"	Yes	NO
1-57/64"	5MT	10-3/8"	17-3/8"	Yes	NO
* 1-29/32"	4MT	10-1/2"	16-1/2"	Yes	NO
1-29/32"	5MT	10-3/8"	17-3/8"	Yes	Yes
* 1-59/64"	4MT	10-5/8"	16-5/8"	Yes	NO
1-59/64"	5MT	10-3/8"	17-3/8"	Yes	NO
* 1-15/16"	4MT	10-5/8"	16-5/8"	Yes	NO
1-15/16"	5MT	10-3/8"	17-3/8"	Yes	Yes

SIZE	Morse Taper	Flute Length	Overall	175OX	175BR
* 1-61/64"	4MT	10-5/8"	16-5/8"	Yes	NO
1-61/64"	5MT	10-3/8"	17-3/8"	Yes	NO
* 1-31/32"	4MT	10-5/8"	16-5/8"	Yes	NO
1-31/32"	5MT	10-3/8"	17-3/8"	Yes	Yes
1-63/64"	4MT	10-3/8"	17-3/8"	Yes	NO
* 2"	4MT	10-5/8"	16-5/8"	Yes	NO
2"	5MT	10-3/8"	17-3/8"	Yes	Yes
2-1/64"	5MT	10-3/8"	17-3/8"	Yes	NO
2-1/32"	5MT	10-3/8"	17-3/8"	Yes	Yes
2-3/64"	5MT	10-1/4"	17-3/8"	Yes	NO
* 2-1/16"	4MT	10-1/4"	16-1/4"	Yes	NO
2-1/16"	5MT	10-1/4"	17-3/8"	Yes	Yes
* 2-5/64"	4MT	10-1/4"	16-1/4"	Yes	NO
* 2-3/32"	4MT	10-1/4"	16-1/4"	Yes	NO
2-3/32"	5MT	10-1/4"	17-3/8"	Yes	NO
* 2-1/8"	4MT	10-1/4"	16-1/4"	Yes	NO
2-1/8"	5MT	10-1/4"	17-3/8"	Yes	Yes
* 2-5/32"	4MT	10-1/4"	16-1/4"	Yes	NO
2-5/32"	5MT	10-1/4"	17-3/8"	Yes	Yes
* 2-3/16"	4MT	10-1/4"	16-1/4"	Yes	NO
2-3/16"	5MT	10-1/4"	17-3/8"	Yes	Yes
* 2-7/32"	4MT	10-1/8"	16-1/8"	Yes	NO
2-7/32"	5MT	10-1/8"	17-3/8"	Yes	Yes
* 2-1/4"	4MT	10-1/8"	16-1/8"	Yes	NO
2-1/4"	5MT	10-1/8"	17-3/8"	Yes	Yes
* 2-5/16"	4MT	10-1/8"	16-1/8"	Yes	NO
2-5/16"	5MT	10-1/8"	17-3/8"	Yes	Yes
* 2-3/8"	4MT	10-1/8"	16-1/8"	Yes	NO
2-3/8"	5MT	10-1/8"	17-3/8"	Yes	Yes
* 2-7/16"	4MT	11-1/4"	17-1/4"	Yes	NO
2-7/16"	5MT	11-1/4"	18-3/4"	Yes	Yes
* 2-1/2"	4MT	11-1/4"	17-1/4"	Yes	NO
2-1/2"	5MT	11-1/4"	18-3/4"	Yes	Yes

Extended Length Taper Shank drills

High speed steel, 118° point

Oxide finish



LIST 312TS 12" overall

LIST 315TS 15" overall

** Smaller than standard shank*

SIZE	312TS		315TS	
	Shank	Flute	Shank	Flute
1/4"	1MT	9"	1MT	12"
17/64"	1MT	9"	1MT	12"
9/32"	1MT	9"	1MT	12"
19/64"	1MT	9"	1MT	12"
5/16"	1MT	9"	1MT	12"
21/64"	1MT	9"	1MT	12"
11/32"	1MT	9"	1MT	12"
23/64"	1MT	9"	1MT	12"
3/8"	1MT	9"	1MT	12"
25/64"	1MT	9"	1MT	12"
13/32"	1MT	9"	1MT	12"
27/64"	1MT	9"	1MT	12"
7/16"	1MT	9"	1MT	12"
29/64"	1MT	9"	1MT	12"
15/32"	1MT	9"	1MT	12"
31/64"	2MT	8"	2MT	11"
1/2"	2MT	8"	2MT	11"
33/64"	2MT	8"	2MT	11"
17/32"	2MT	8"	2MT	11"
35/64"	2MT	8"	2MT	11"
9/16"	2MT	8"	2MT	11"
37/64"	2MT	8"	2MT	11"
19/32"	2MT	8"	2MT	11"
39/64"	2MT	8"	2MT	11"
5/8"	2MT	8"	2MT	11"
41/64"	2MT	8"	2MT	11"
21/32"	2MT	8"	2MT	11"
43/64"	2MT	8"	2MT	11"
11/16"	2MT	8"	2MT	11"

SIZE	312TS		315TS	
	Shank	Flute	Shank	Flute
45/64"	2MT	8"	3MT	11"
23/32"	2MT	8"	3MT	11"
47/64"	2MT	8"	3MT	11"
3/4"	2MT	8"	3MT	11"
49/64"	2MT	8"	3MT	11"
25/32"	2MT	8"	3MT	11"
51/64"	3MT	7"	3MT	11"
13/16"	3MT	7"	3MT	11"
53/64"	3MT	7"	3MT	11"
27/32"	3MT	7"	3MT	11"
55/64"	3MT	7"	3MT	11"
7/8"	3MT	7"	3MT	11"
57/64"	3MT	7"	3MT	11"
29/32"	3MT	7"	3MT	11"
59/64"	3MT	7"	3MT	11"
15/16"	3MT	7"	3MT	11"
61/64"	NO	NO	3MT	11"
31/32"	3MT	7"	3MT	11"
63/64"	NO	NO	3MT	11"
1"	3MT	7"	3MT	11"
1-1/32"	NO	NO	3MT	11"
1-1/16"	NO	NO	3MT	11"
1-3/32"	NO	NO	4MT	9"
1-1/8"	NO	NO	4MT	9"
1-5/32"	NO	NO	4MT	9"
*1-3/16"	NO	NO	3MT	11"
1-3/16"	NO	NO	4MT	9"
1-7/32"	NO	NO	4MT	9"
1-1/4"	NO	NO	4MT	9"

Extended Length Taper Shank Drills 18" & 24"

Oxide, 118° point



LIST 318TS 18" overall

LIST 324TS 24" overall

SIZE	318TS		324TS	
	Shank	Flute	Shank	Flute
1/4"	1MT	15"		
17/64"	1MT	15"		
9/32"	1MT	15"		
19/64"	1MT	15"		
5/16"	1MT	15"		
21/64"	1MT	15"		
11/32"	1MT	15"		
23/64"	1MT	15"		
3/8"	1MT	15"		
25/64"	1MT	15"		
13/32"	1MT	15"		
27/64"	1MT	15"		
7/16"	1MT	15"	1MT	21"
29/64"	1MT	15"		
15/32"	1MT	15"		
31/64"	2MT	14"		
1/2"	2MT	14"	2MT	20"
33/64"	2MT	14"		
17/32"	2MT	14"		
35/64"	2MT	14"		
9/16"	2MT	14"	2MT	20"
37/64"	2MT	14"		
19/32"	2MT	14"		
39/64"	2MT	14"		
5/8"	2MT	14"	2MT	20"
41/64"	2MT	14"		
21/32"	2MT	14"		
43/64"	2MT	14"		
11/16"	2MT	14"	2MT	20"
45/64"	2MT	14"		
23/32"	2MT	14"		
47/64"	2MT	14"		
3/4"	2MT	14"	2MT	20"
49/64"	2MT	14"		
25/32"	2MT	14"		

SIZE	318TS		324TS	
	Shank	Flute	Shank	Flute
51/64"	3MT	13"		
13/16"	3MT	13"	3MT	19"
53/64"	3MT	13"		
27/32"	3MT	13"		
55/64"	3MT	13"		
7/8"	3MT	13"	3MT	19"
57/64"	3MT	13"		
29/32"	3MT	13"		
59/64"	3MT	13"		
15/16"	3MT	13"	3MT	19"
61/64"	3MT	13"		
31/32"	3MT	13"		
63/64"	3MT	13"		
1"	3MT	13"	3MT	19"
1-1/64"	3MT	13"		
1-1/32"	3MT	13"		
1-1/16"	3MT	13"		
1-5/64"	4MT	12"		
1-3/32"	4MT	12"		
1-7/64"	4MT	12"		
1-1/8"	4MT	12"		
1-9/64"	4MT	12"		
1-5/32"	4MT	12"		
1-11/64"	4MT	12"		
1-3/16"	4MT	12"		
1-13/64"	4MT	12"		
1-7/32"	4MT	12"		
1-1/4"	4MT	12"		
1-9/32"	4MT	12"		
1-5/16"	4MT	12"		
1-11/32"	4MT	12"		
1-3/8"	4MT	12"		
1-7/16"	4MT	12"		
1-15/32"	4MT	12"		
1-1/2"	4MT	12"		
1-9/16"	5MT	10"		

Metric Taper Shank Drills



LIST 175MM

Black oxide, 118° point, standard length

<u>SIZE</u>	<u>Morse Taper</u>	<u>Flute Length</u>	<u>Overall</u>
8.0mm	1MT	3-1/4"	6-1/2"
8.5mm	1MT	3-1/4"	6-1/2"
9.0mm	1MT	3-1/2"	6-3/4"
9.5mm	1MT	3-1/2"	6-3/4"
10.0mm	1MT	3-5/8"	7"
10.5mm	1MT	3-7/8"	7-1/4"
11.0mm	1MT	3-7/8"	7-1/4"
11.5mm	1MT	4-1/8"	7-1/2"
11.8mm	1MT	4-1/8"	7-1/2"
12.0mm	2MT	4-3/8"	8-1/4"
12.5mm	2MT	4-3/8"	8-1/4"
13.0mm	2MT	4-5/8"	8-1/2"
13.5mm	2MT	4-5/8"	8-1/2"
14.0mm	2MT	4-7/8"	8-3/4"
14.5mm	2MT	4-7/8"	8-3/4"
14.75mm	2MT	4-7/8"	8-3/4"
15.0mm	2MT	4-7/8"	8-3/4"
15.25mm	2MT	4-7/8"	8-3/4"
15.5mm	2MT	4-7/8"	8-3/4"
16.0mm	2MT	5-1/8"	9"
16.5mm	2MT	5-1/8"	9"

<u>SIZE</u>	<u>Morse Taper</u>	<u>Flute Length</u>	<u>Overall</u>
17.0mm	2MT	5-3/8"	9-1/4"
17.5mm	2MT	5-5/8"	9-1/2"
18.0mm	2MT	5-5/8"	9-1/2"
18.5mm	2MT	5-5/8"	9-1/2"
19.0mm	2MT	5-7/8"	9-3/4"
20.0mm	3MT	6-1/8"	10-3/4"
20.5mm	3MT	6-1/8"	10-3/4"
21mm	3MT	6-1/8"	10-3/4"
22mm	3MT	6-1/8"	10-3/4"
22.5mm	3MT	6-1/8"	10-3/4"
23.5mm	3MT	6-1/8"	10-3/4"
24mm	3MT	6-3/8"	11"
26mm	3MT	6-1/2"	11-1/8"
28mm	4MT	7-1/8"	12-3/4"
29.5mm	4MT	7-3/8"	13"
30mm	4MT	7-3/8"	13"
31.5mm	4MT	7-7/8"	13-1/2"
32mm	4MT	8-1/2"	14-1/8"
34mm	4MT	8-3/4"	14-3/8"
35.5mm	4MT	9"	14-5/8"
36mm	4MT	9-1/8"	14-3/4"

Cobalt Taper Shank Drills

135° notched point



LIST 175CO

Cobalt drills have greater toughness and abrasive resistance than high speed steel. Good for materials such as stainless steels, titanium and inconel.

<u>SIZE</u>	<u>Morse Taper</u>	<u>Flute Length</u>	<u>Overall</u>
1/4"	1MT	2-7/8"	6-1/8"
17/64"	1MT	3"	6-1/4"
9/32"	1MT	3"	6-1/4"
19/64"	1MT	3-1/8"	6-3/8"
5/16"	1MT	3-1/8"	6-3/8"
21/64"	1MT	3-1/4"	6-1/2"
11/32"	1MT	3-1/4"	6-1/2"
23/64"	2MT	3-1/2"	7-3/8"
3/8"	2MT	3-1/2"	7-3/8"
25/64"	2MT	3-5/8"	7-1/2"
13/32"	2MT	3-5/8"	7-1/2"
27/64"	2MT	3-7/8"	7-3/4"
7/16"	2MT	3-7/8"	7-3/4"
29/64"	2MT	4-1/8"	8"
15/32"	2MT	4-1/8"	8"
31/64"	2MT	4-3/8"	8-1/4"
1/2"	2MT	4-3/8"	8-1/4"
33/64"	2MT	4-5/8"	8-1/2"
17/32"	2MT	4-5/8"	8-1/2"
35/64"	2MT	4-7/8"	8-3/4"
9/16"	2MT	4-7/8"	8-3/4"
37/64"	2MT	4-7/8"	8-3/4"
19/32"	2MT	4-7/8"	8-3/4"
39/64"	2MT	4-7/8"	8-3/4"
5/8"	2MT	4-7/8"	9"
41/64"	3MT	5-1/8"	9-3/4"
21/32"	3MT	5-1/8"	9-3/4"
43/64"	3MT	5-3/8"	10"
11/16"	3MT	5-3/8"	10"

<u>SIZE</u>	<u>Morse Taper</u>	<u>Flute Length</u>	<u>Overall</u>
45/64"	3MT	5-5/8"	10-1/4"
23/32"	3MT	5-5/8"	10-1/4"
47/64"	3MT	5-7/8"	10-1/2"
3/4"	3MT	5-7/8"	10-1/2"
49/64"	3MT	6"	10-5/8"
25/32"	3MT	6"	10-5/8"
51/64"	3MT	6-1/8"	10-3/4"
13/16"	3MT	6-1/8"	10-3/4"
53/64"	3MT	6-1/8"	10-3/4"
27/32"	3MT	6-1/8"	10-3/4"
55/64"	3MT	6-1/8"	10-3/4"
7/8"	3MT	6-1/8"	10-3/4"
57/64"	3MT	6-1/8"	10-3/4"
29/32"	3MT	6-1/8"	10-3/4"
59/64"	3MT	6-1/8"	10-3/4"
15/16"	3MT	6-1/8"	10-3/4"
61/64"	3MT	6-3/8"	11"
31/32"	3MT	6-3/8"	11"
63/64"	3MT	6-3/8"	11"
1"	3MT	6-3/8"	11"
1-1/64"	4MT	6-1/2"	12-1/8"
1-1/32"	4MT	6-1/2"	12-1/8"
1-3/64"	4MT	6-5/8"	12-1/4"
1-1/16"	4MT	6-5/8"	12-1/4"
1-3/32"	4MT	6-7/8"	12-1/2"
1-1/8"	4MT	7-1/8"	12-3/4"
1-5/32"	4MT	7-1/4"	12-7/8"
1-3/16"	4MT	7-3/8"	13"
1-7/32"	4MT	7-1/2"	13-1/8"
1-1/4"	4MT	7-7/8"	13-1/2"

Combined Drill & Countersinks

Standard length, all are double ended

- Plain type-used for centering work ends, where the workpiece is to be revolved on machine centers.
- 60° is standard angle

Often known as "center drills"

LIST 101CD

Standard HSS E=60°

LIST 10182

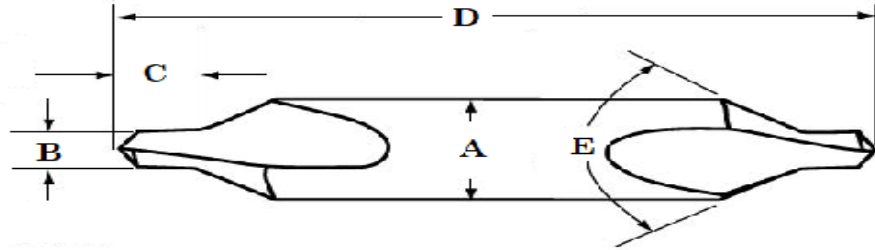
HSS E= 82°

LIST 10190

HSS E=90°

LIST 10160

Cobalt E= 60° for tougher materials



KEO®



High Speed Steel					A	B	C	D
					Body Dia.	Point Dia.	Point Length	Overall
SIZE	101CD	10182	10190	10160				
#5-0	Yes	NO	NO	NO	1/8"	0.0100	0.0100	1-1/4"
#4-0	Yes	NO	NO	NO	1/8"	0.0150	0.0150	1-1/4"
#3-0	Yes	NO	NO	NO	1/8"	0.0200	0.0200	1-1/4"
#2-0	Yes	NO	NO	NO	1/8"	0.0250	0.0250	1-1/4"
0	Yes	NO	NO	Yes	1/8"	1/32"	1/32"	1-1/4"
#1	Yes	Yes	Yes	Yes	1/8"	3/64"	3/64"	1-1/4"
#2	Yes	Yes	Yes	Yes	3/16"	5/64"	5/64"	1-7/8"
#3	Yes	Yes	Yes	Yes	1/4"	7/64"	7/64"	2"
#4	Yes	Yes	Yes	Yes	5/16"	1/8"	1/8"	2-1/8"
#4-1/2	Yes	Yes	Yes	Yes	3/8"	9/64"	9/64"	2-1/2"
#5	Yes	Yes	Yes	Yes	7/16"	3/16"	3/16"	2-3/4"
#6	Yes	Yes	Yes	Yes	1/2"	7/32"	7/32"	3"
#7	Yes	Yes	Yes	Yes	5/8"	1/4"	1/4"	3-1/4"
#8	Yes	NO	Yes	NO	3/4"	5/16"	5/16"	3-1/2"
#9	Yes	NO	NO	NO	7/8"	11/32"	11/32"	3-5/8"
#10	Yes	NO	NO	NO	1"	3/8"	3/8"	3-3/4"

LIST 101CDI

Import HSS E= 60°



	A	B	C	D
	Body Dia.	Point Dia.	Point Length	Overall
#1	1/8"	3/64"	3/64"	1-1/4"
#2	3/16"	5/64"	5/64"	1-7/8"
#3	1/4"	7/64"	7/64"	2"
#4	5/16"	1/8"	1/8"	2-1/8"
#5	7/16"	3/16"	3/16"	2-3/4"
#6	1/2"	7/32"	7/32"	3"
#7	5/8"	1/4"	1/4"	3-1/4"
#8	3/4"	5/16"	5/16"	3-1/2"

Carbide Combined Drill & Countersinks

Solid Carbide for hard materials



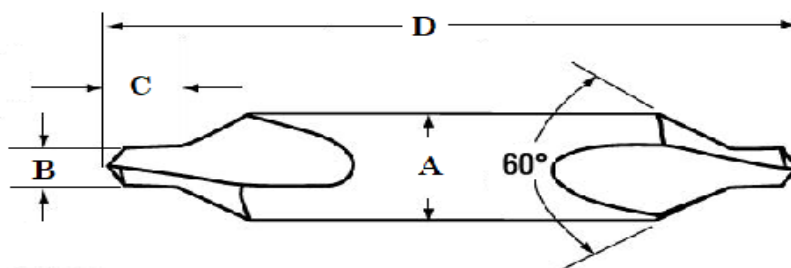
Often known as "center drills"



LIST 101SC

Plain type 60° angle

	A	B	C	D
	Body Dia.	Point Dia.	Point Length	Overall
SIZE				
#00	1/8"	0.025	0.025	1-1/2"
#0	1/8"	0.031	1/32"	1-1/2"
#1	1/8"	3/64"	3/64"	1-1/2"
#2	3/16"	5/64"	5/64"	2"
#3	1/4"	7/64"	7/64"	2"
#4	5/16"	1/8"	1/8"	2-1/2"
#5	7/16"	3/16"	3/16"	2-3/4"
#6	1/2"	7/32"	7/32"	3"
#7	5/8"	1/4"	1/4"	3-1/2"
#8	3/4"	5/16"	5/16"	4"



Extended Length Combined Drill & Countersinks

Often known as "center drills"

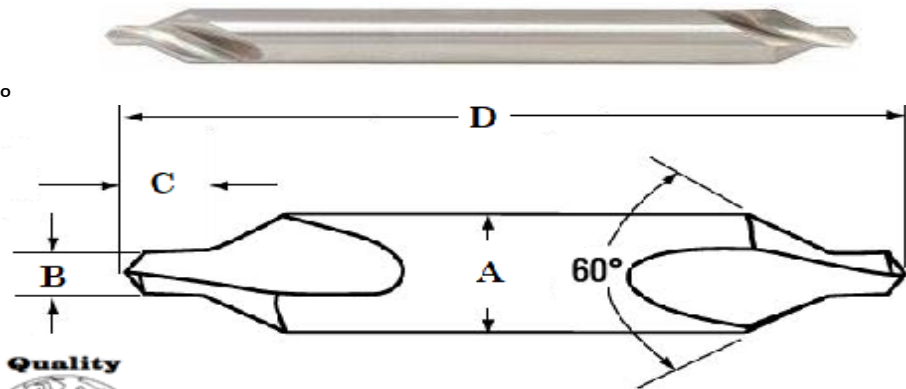
LIST 102LC

Long series High speed steel 60°

LIST 102LCI

Long series import

HSS 60°



			A	B	C	D
	KEO	Import	Body	Point	Point	Overall
SIZE	102LC	102LCI	Dia.	Dia.	Length	
#1x3"	Yes	Yes	1/8"	3/64"	3/64"	3"
#1x4"	Yes	Yes	1/8"	3/64"	3/64"	4"
#1x5"	Yes	Yes	1/8"	3/64"	3/64"	5"
#1x6"	Yes	Yes	1/8"	3/64"	3/64"	6"
#1x8"	Yes	NO	1/8"	3/64"	3/64"	8"
#2x3"	Yes	NO	3/16"	5/64"	5/64"	3"
#2x4"	Yes	Yes	3/16"	5/64"	5/64"	4"
#2x5"	Yes	Yes	3/16"	5/64"	5/64"	5"
#2x6"	Yes	Yes	3/16"	5/64"	5/64"	6"
#2x8"	Yes	NO	3/16"	5/64"	5/64"	8"
#3x3"	Yes	NO	1/4"	7/64"	7/64"	3"
#3x4"	Yes	Yes	1/4"	7/64"	7/64"	4"
#3x5"	Yes	Yes	1/4"	7/64"	7/64"	5"
#3x6"	Yes	Yes	1/4"	7/64"	7/64"	6"
#3x8"	Yes	NO	1/4"	7/64"	7/64"	8"
#4x3"	Yes	NO	5/16"	1/8"	1/8"	3"
#4x4"	Yes	Yes	5/16"	1/8"	1/8"	4"
#4x5"	Yes	Yes	5/16"	1/8"	1/8"	5"
#4x6"	Yes	Yes	5/16"	1/8"	1/8"	6"
#4x8"	Yes	NO	5/16"	1/8"	1/8"	8"
#4-1/2x4"	Yes	Yes	3/8"	9/64"	9/64"	4"
#4-1/2x5"	Yes	Yes	3/8"	9/64"	9/64"	5"
#4-1/2x6"	Yes	Yes	3/8"	9/64"	9/64"	6"
#4-1/2x8"	Yes	NO	3/8"	9/64"	9/64"	8"
#5x4"	Yes	Yes	7/16"	3/16"	3/16"	4"
#5x5"	Yes	Yes	7/16"	3/16"	3/16"	5"
#5x6"	Yes	Yes	7/16"	3/16"	3/16"	6"
#5x8"	Yes	NO	7/16"	3/16"	3/16"	8"
#6x4"	Yes	NO	1/2"	7/32"	7/32"	4"
#6x5"	Yes	Yes	1/2"	7/32"	7/32"	5"
#6x6"	Yes	Yes	1/2"	7/32"	7/32"	6"
#7x6"	Yes	Yes	5/8"	1/4"	1/4"	6"
#8x6"	Yes	Yes	3/4"	5/16"	5/16"	6"

Spotting & Centering Drills

High Speed Steel

- Prevent misalignment caused by using regular drills for centering. These can be chucked close to the point ensuring accurate and true starts.



LIST 103S90 90° Point

LIST 103S118 118° Point



KEO®

<u>SIZE</u>	<u>103S90</u>	<u>103S118</u>	<u>Flute Length</u>	<u>Overall</u>
1/8"	Yes	Yes	3/8"	1-1/4"
3/16"	Yes	Yes	1/2"	1-3/8"
1/4"	Yes	Yes	5/8"	1-1/2"
5/16"	Yes	Yes	5/8"	1-1/2"
3/8"	Yes	Yes	1"	2"
7/16"	Yes	Yes	1"	2"
1/2"	Yes	Yes	1"	2"
9/16"	Yes	Yes	1"	2"
5/8"	Yes	Yes	1-1/8"	2-1/4"
3/4"	Yes	Yes	1-1/8"	2-1/4"
7/8"	Yes	Yes	1-1/4"	2-1/2"
1"	Yes	Yes	1-1/4"	2-1/2"

NC Spotting Drills

High Speed Steel & Cobalt



KEO NC Spotting drills are designed with a narrow chisel edge for quick starting and a constant web to allow for resharpener without web thinning.

LIST 104S90 Standard length cobalt 90°

LIST 104S120 Standard length cobalt 120°

KEO®



<u>SIZE</u>	<u>104S90</u>	<u>104S120</u>	<u>Flute Length</u>	<u>Overall</u>
1/4"	Yes	Yes	3/4"	2-1/2"
3/8"	Yes	Yes	1-1/8"	3-1/8"
1/2"	Yes	Yes	1-3/8"	3-3/4"
5/8"	Yes	Yes	1-5/8"	4-3/8"
3/4"	Yes	Yes	1-7/8"	5"
1"	Yes	Yes	2-1/4"	6"

LIST 105S90 Longer lengths cobalt 90°

LIST 105S120 Longer lengths cobalt 120°

LIST 103L90 Longer lengths HSS 90°

<u>SIZE</u>	<u>105S90</u>	<u>105S120</u>	<u>103L90</u>	<u>Flute Length</u>	<u>Overall</u>
1/4"x4"	Yes	Yes	Yes	3/4"	4"
1/4"x6"	Yes	Yes	Yes	3/4"	6"
3/8"x5"	Yes	Yes	Yes	1-1/8"	5"
3/8"x7"	Yes	Yes	Yes	1-1/8"	7"
1/2"x6"	Yes	Yes	Yes	1-3/8"	6"
1/2"x8"	Yes	Yes	Yes	1-3/8"	8"
5/8"x7"	Yes	Yes	Yes	1-5/8"	7"
5/8"x9"	Yes	Yes	Yes	1-5/8"	7"
3/4"x8"	Yes	Yes	Yes	1-7/8"	8"
3/4"x10"	Yes	Yes	Yes	1-7/8"	10"
1"x8"	Yes	Yes	Yes	2-1/4"	8"
1"x10"	Yes	Yes	Yes	2-1/4"	10"



Spotweld Drills



- Cobalt- Rugged high performance drill designed to effectively cut auto body spot welds. Spur point design cuts through the weld on one panel while leaving the second panel free of holes.
- Standard pack quantity = 5

Proudly Manufactured in the USA
with globally source material

LIST 110SW Single end

LIST 110SWD Double end

	For weld		
<u>110SW</u>	<u>SIZE</u>	<u>Size</u>	<u>Overall</u>
Single End	6.5mm	1/4"	1.75"
	8mm	5/16"	1.75"
	10mm	3/8"	1.75"

	For weld		
<u>110SWD</u>	<u>SIZE</u>	<u>Size</u>	<u>Overall</u>
DbL. End	6.5mm	1/4"	3.62"
	8mm	5/16"	3.62"
	10mm	3/8"	3.62"



Twin End Drill

LIST L201TE

- Premium Hi-Molybdenum tool steel, gold surface treated, 135° split point for accurate starting without a center punch.
- Standard pack quantity = 12

	Flute	
<u>SIZE</u>	<u>Length</u>	<u>Overall</u>
3/32"	9/16"	1-3/4"
7/64"	5/8"	1-15/16"
1/8"	5/8"	1-15/16"
9/64"	5/8"	2"
5/32"	5/8"	2-1/8"
3/16"	5/8"	2-5/16"
7/32"	3/4"	2-9/16"
1/4"	13/16"	2-5/8"
10	5/8"	2-5/16"
11	5/8"	2-5/16"
20	5/8"	2-1/8"
30	5/8"	2"



Acrylic Drills

LIST 100AD

- Special 60° angle to penetrate through acrylic material without chipping or cracking
- 0° rake on cutting edges prevents "grabbing" upon break-through.

**Sizes over 1/4" have 1/4" shank.*

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
3/32"	1-1/4"	2-1/4"
1/8"	1-5/8"	2-5/8"
5/32"	2"	3"
3/16"	2-5/16"	3-3/8"
7/32"	2-1/2"	3-13/16"
1/4"	2-3/4"	3-15/16"
*9/32"	1-31/32"	3-9/16"
*5/16"	2-1/8"	3-13/16"
*3/8"	2-5/16"	4-1/4"



VIKING
DRILL & TOOL
America's Finest High-Speed Steel Cutting Tools

Proudly Manufactured in the USA
with globally source material

Micro Flush Drills

- Short flute for rigidity and less breakage.
- 135° point for longer tool life.
- High speed steel, fast spiral flute.

WESTHOFF
MACHINE COMPANY INC.



LIST 302MF 2" overall

LIST 304MF 4" overall

LIST 306MF 6" overall

<u>SIZE</u>	<u>Flute Length</u>		
	<u>302MF</u>	<u>304MF</u>	<u>306MF</u>
0.010	1/4"	1/4"	NO
0.015	3/8"	3/8"	3/8"
0.020	1/2"	1/2"	1/2"
0.025	1/2"	1/2"	1/2"
0.030	1/2"	1/2"	1/2"
0.035	1/2"	1/2"	1/2"
0.040	1/2"	1/2"	1/2"
0.050	NO	1/2"	1/2"
0.060	NO	1/2"	1/2"



Core Drills



LIST 135CD

- Enlargens or straightens cored or drilled holes.
 - Created better tolerance holes and better finish than a twist drill.
 - Oxide finish, high speed steel.
 - Can be used to open holes 70 to 80% of the tool diameter.
- Typical stock is four flute- shank size is same as cutting diameter*

SIZE	Flute Length	Overall	SIZE	Flute Length	Overall
1/4"	3-3/4"	6-1/8"	17/32"	4-3/4"	8"
9/32"	3-7/8"	6-1/4"	9/16"	4-7/8"	8-1/4"
5/16"	4"	6-3/8"	19/32"	4-7/8"	8-1/4"
11/32"	4-1/8"	6-1/2"	5/8"	4-7/8"	8-1/4"
3/8"	4-1/4"	6-3/4"	21/32"	5-1/8"	9"
13/32"	4-3/8"	7"	11/16"	5-3/8"	9-1/4"
7/16"	4-5/8"	7-1/4"	3/4"	5-7/8"	9-3/4"
15/32"	4-3/4"	7-1/2"	7/8"	6-1/8"	10"
1/2"	4-3/4"	7-3/4"	1"	6-3/8"	11"

"Hole Hog"

Hole enlarging core drill, low profile



LIST 135HH

- 1/2" reduced shank, HSS. For opening existing holes. The 4 flute design prevents grabbing as a standard S&D drill would do.
- 3/8" to 3/4" black/gold with 3 flats on shank.*



**13/16" and larger have oxide finish, round shank.*

SIZE	Minimum Starting Hole	Flute Length	Overall	SIZE	Minimum Starting Hole	Flute Length	Overall
3/8"	1/4"	1-7/8"	4-5/16"	*13/16"	7/16"	2"	4"
1/2"	5/16"	1-7/8"	4-5/16"	*7/8"	9/16"	2"	4"
9/16"	3/8"	1-7/8"	4-5/16"	*15/16"	19/32"	2"	4"
5/8"	25/64"	1-7/8"	4-5/16"	*1"	5/8"	2"	4"
11/16"	7/16"	1-7/8"	4-5/16"	*1-1/16"	5/8"	2"	4"
3/4"	15/32"	1-7/8"	4-5/16"	*1-1/8"	11/16"	2"	4"
				*1-3/16"	3/4"	2"	4"
				*1-1/4"	15/16"	2"	4"

Glass / Tile Drill Bit

Carbide tipped, single spur

For use in glass/ceramic tile. It is recommended to scratch an "X" in the surface prior to drilling with a carbide tipped scriber to prevent drill walking.

LIST 170GT

Available sizes:	1/4"
1/8"	5/16"
5/32"	3/8"
3/16"	1/2"



Marble, Granite & Tile Drill

Carbide tipped "V" tip, diamond ground

LIST 170MG

For use in very hard materials, hex shank

<u>SIZE</u>	<u>Flute Length</u>	<u>Overall</u>
3/16" x 4"	2-1/2"	4"
7/32" x 4"	2-1/2"	4"
1/4" x 4"	2-1/2"	4"
1/4" x 6"	4-1/2"	6"
5/16" x 4"	4-1/2"	4"
5/16" x 6"	4-1/2"	6"
3/8" x 4"	2-1/2"	4"
3/8" x 6"	4-1/2"	6"
1/2" x 6"	4-1/2"	6"
5/8" x 6"	4-1/2"	6"
3/4" x 6"	4-1/2"	6"
7/8" x 6"	4-1/2"	6"
1" x 6"	4-1/2"	6"



Annular Cutters

For use in magnetic drills or machines with proper adapter



M42 Cobalt cutters last 30% longer than competitors' M2 HSS.

LIST 2521 Cobalt 1" depth cutter

LIST 2522 Cobalt 2" depth cutter

All Cobalt cutters include a pilot pin and have 3/4" weldon 2 flat shank.



SIZE	1" 2521	2" 2522
7/16"	Yes	Yes
1/2"	Yes	Yes
9/16"	Yes	Yes
5/8"	Yes	Yes
11/16"	Yes	Yes
3/4"	Yes	Yes
13/16"	Yes	Yes
7/8"	Yes	Yes
15/16"	Yes	Yes
1"	Yes	Yes
1-1/16"	Yes	Yes
1-1/8"	Yes	Yes
1-3/16"	Yes	Yes
1-1/4"	Yes	Yes
1-5/16"	Yes	Yes
1-3/8"	Yes	Yes
1-7/16"	Yes	Yes
1-1/2"	Yes	Yes
1-9/16"	Yes	Yes
1-5/8"	Yes	Yes
1-11/16"	Yes	Yes
1-3/4"	Yes	Yes
1-13/16"	Yes	Yes
1-7/8"	Yes	Yes
1-15/16"	Yes	Yes
2"	Yes	Yes

ANNULAR CORE CUTTER CATEGORY	High Speed Steel with Cobalt increase cutter capability and life.	Carbide Tipped Cutters cut the hardest metals at the highest speeds.
	M42	TCT
		<i>See next page for carbide tipped</i>
Mild Steel	✓	✓
Structural Steel	✓	✓
Construction Steel	✓	✓
High Strength Steel	✗	✓
Fine Grain Steel	✗	✓
Stainless Steel	✓	✓
Aluminium	✓	✓
Copper/Brass	✓	✓
Cast Iron	✗	✓
Plastics	✓	✗
Standard Railtrack	✗	✗
Hardened Railtrack	✗	✗

For sizes not listed, please call to check lead time

Carbide Tipped Annular Cutters



LIST 252CT

- Tri-Blade teeth with micro grain carbide provide smooth & vibration free cut.
- Resists higher temperatures, ideal for tough alloys, hardened steel. Perfect for bridge repair and truck chasis.

Stocked in 2" depth of cut. Carbide tipped have 3/4" universal shank and include pilot pin.



Available Sizes			
3/4"	1"	1-5/16"	1-5/8"
13/16"	1-1/16"	1-3/8"	1-3/4"
7/8"	1-1/8"	1-1/2"	1-13/16"
15/16"	1-1/4"	1-9/16"	1-7/8"
			2"

Please call for sizes you do not see to check lead time.

Annular Cutter Accessories

LIST 252AC

Description 1/2" chuck w/ key and 3/4" shank adapter Order # CHUC05		Description 5/8" chuck w/key and 2 morse taper shank Order# CHUC04		Description #2 Morse taper to 2 set screws 3/4" shank Order# ARBO02	
Description 1/2" 3 flat shank to 2 set screws 3/4" shank Order# CHUC11		Description R8 to 2 set screws 3/4" shank Order# ARBORR8		Description #3 Morse taper to 2 set screws 3/4" shank Order# ARBO03	

LIST 252PP

Pilot Pins:

- 1" depth for cobalt cutters 1/2" and up
- 1" depth for cobalt cutters 7/16"
- 2" depth for cobalt cutters 1/2" and up
- 2" depth for cobalt cutters 7/16"
- 2" depth for carbide tipped cutters 3/4" and up

Order number:

- PILOTS
- PILOTS12
- PILOTL
- PILOTL12
- PILOTU2B



Hole Saws

Bi-Metal



LIST 15HS

- M42 8% cobalt cutting edge , electron beam welded to steel backer.
- 1-1/2" cutting depth
- Positive rake teeth for better chip clearance.
- Variable pitch teeth for less friction/heat



Applications:

Wood, plastic, machinable metals, stainless, nail-embedded wood

Available sizes:

9/16"	14mm	1-3/4"	44mm	3-1/4"	83mm
5/8"	16mm	1-13/16"	46mm	3-3/8"	86mm
11/16"	17mm	1-7/8"	48mm	3-1/2"	89mm
3/4"	19mm	2"	51mm	3-5/8"	92mm
13/16"	21mm	2-1/16"	52mm	3-3/4"	95mm
7/8"	22mm	2-1/8"	54mm	3-7/8"	98mm
15/16"	24mm	55mm		100mm	
1"	25mm	2-1/4"	57mm	4"	102mm
1-1/16"	27mm	2-5/16"	59mm	4-1/8"	105mm
1-1/8"	29mm	2-3/8"	60mm	4-1/4"	108mm
1-3/16"	30mm	2-1/2"	64mm	4-3/8"	111mm
1-1/4"	32mm	2-9/16"	65mm	4-1/2"	114mm
1-5/16"	33mm	2-5/8"	67mm	4-3/4"	121mm
1-3/8"	35mm	68mm		5"	127mm
1-7/16"	37mm	2-3/4"	70mm	5-1/4"	133mm
1-1/2"	38mm	2-7/8"	73mm	5-1/2"	140mm
1-9/16"	40mm	3"	76mm	5-3/4"	146mm
1-5/8"	41mm	3-1/8"	79mm	6"	152mm
1-11/16"	43mm				

**Hole saws require separate arbor/pilot drill*

Hole Saw Arbors

LIST15AR

- Durable carbon steel arbors include pilot drill



MA24 MA34 MA35 MA35PSN MA45PSN

ARBOR	Shank size	Thread	Fits Saws
MA24	1/4" hex	1/2"-20	9/16" to 1-3/16"
MA34	3/8" hex	1/2"-20	9/16" to 1-3/16"
MA35	3/8" hex	5/8"-18	1-1/4" to 6"
MA35PSN	3/8" hex	5/8"-18	1-1/4" to 6"
MA45PSN	7/16" hex	5/8"-18	1-1/4" to 6"

Pilot Drills

LIST 15PD 1/4" diameter, single flat on shank

*HSS Split point

Length	Order #
--------	---------

- *4-5/16" MPD401
- *3-1/16" MPD4S01
- 2-7/8" MPD4SCT01 (Carbide tipped)



Carbide Grit Hole Saws

For hard, abrasive materials



LIST 15CG

- Resistant to heat, wear and abrasion
- Carbide grains bonded to alloy back
- Carbide tip pilot drill recommended for masonry related materials
- 1-1/2" depth of cut

Applications: Acoustic tile, brick, cast iron, cement board, ceramic, cinderblock, composites, flooring, fiberglass, hardened steel, particle board, asbestos board and formica.



***Require separate arbor/pilot drill-see previous page**

Available Sizes:					
3/4"	19mm	1-3/4"	44mm	3-1/4"	83mm
13/16"	21mm	1-13/16"	46mm	3-3/8"	86mm
7/8"	22mm	1-7/8"	48mm	3-1/2"	89mm
15/16"	24mm	2"	51mm	3-5/8"	92mm
1"	25mm	2-1/16"	52mm	3-3/4"	95mm
1-1/16"	27mm	2-1/8"	54mm	3-7/8"	98mm
1-1/8"	29mm	2-1/4"	57mm	4"	102mm
1-3/16"	30mm	2-5/16"	59mm	4-1/8"	105mm
1-1/4"	32mm	2-3/8"	60mm	4-1/4"	108mm
1-5/16"	33mm	2-1/2"	64mm	4-3/8"	111mm
1-3/8"	35mm	2-9/16"	65mm	4-1/2"	114mm
1-7/16"	37mm	2-5/8"	67mm	4-3/4"	121mm
1-1/2"	38mm	2-3/4"	70mm	5"	127mm
1-9/16"	40mm	2-7/8"	73mm	5-1/2"	140mm
1-5/8"	41mm	3"	76mm	5-3/4"	146mm
1-11/16"	43mm	3-1/8"	79mm	6"	152mm

LIST 15CT

- 2/3 tooth design for faster/longer cutting
- New side slot for easier slug removal
- Cutting depth of 1-7/8"

Applications: Kraken is designed to cut aluminum, fastener embedded wood, stainless, tile backer, acoustic tile, drywall, fiberglass, countertops and plastic



**Requires separate arbor and pilot drill. See previous pages*



Available Sizes:

9/16"	14mm	1-5/8"	41mm	3-1/4"	83mm
5/8"	16mm	1-11/16"	43mm	3-3/8"	86mm
11/16"	17mm	1-3/4"	44mm	3-1/2"	89mm
3/4"	19mm	1-13/16"	46mm	3-5/8"	92mm
13/16"	21mm	1-7/8"	48mm	3-3/4"	95mm
7/8"	22mm	2"	51mm	3-7/8"	98mm
15/16"	24mm	2-1/8"	54mm	4"	102mm
1"	25mm	2-1/4"	57mm	4-1/8"	105mm
1-1/16"	27mm	2-5/16"	59mm	4-1/4"	108mm
1-1/8"	29mm	2-3/8"	60mm	4-3/8"	111mm
1-3/16"	30mm	2-1/2"	64mm	4-1/2"	114mm
1-1/4"	32mm	2-9/16"	65mm	4-3/4"	121mm
1-5/16"	33mm	2-5/8"	67mm	5"	127mm
1-3/8"	35mm	2-3/4"	70mm	5-1/4"	133mm
1-7/16"	37mm	2-7/8"	73mm	5-1/2"	140mm
1-1/2"	38mm	3"	76mm	5-3/4"	146mm
1-9/16"	40mm	3-1/8"	79mm	6"	152mm

HD Carbide Tipped Hole Saws



LIST 15HD

HS Series 1" drilling depth

Application: Carbon steel, cast iron, stainless aluminum, hard rubber, titanium & formica

Relton HD hole saws function as a 4pc unit including:
Head, shank, pilot drill and ejector spring



Available Sizes	Order number for:		
	Shank	Pilot Drill	Eject. Spring
11/16"	S-12	SP-41	ES-41
3/4"	S-12	SP-41	ES-41
13/16"	S-12	SP-41	ES-41
7/8"	S-12	SP-41	ES-41
15/16"	S-12	SP-41	ES-41
1"	HS-S4	SP-41	ES-41
1-1/8"	HS-S4	SP-41	ES-41
1-1/4"	HS-S4	SP-41	ES-41
1-3/8"	HS-S4	SP-41	ES-41
1-1/2"	HS-S4	SP-41	ES-41

Available Sizes	Order number for:		
	Shank	Pilot Drill	Eject. Spring
1-5/8"	HS-S4	SP-41	ES-41
1-3/4"	HS-S4	SP-41	ES-41
1-7/8"	HS-S4	SP-41	ES-41
2"	HS-S6	SP-61	ES-61
2-1/8"	HS-S6	SP-61	ES-61
2-1/4"	HS-S6	SP-61	ES-61
2-3/8"	HS-S6	SP-61	ES-61
2-1/2"	HS-S6	SP-61	ES-61
2-3/4"	HS-S6	SP-61	ES-61
3"	HS-S6	SP-61	ES-61

More sizes may be available-please call

HD Hole Saw Shanks

LIST 15HAR

- 3" overall
- 3 equal flats on shank

Order #	Shank size	Pilot Hole	Thread size
S-12	3/8"	1/4"	1/2"-13
HS-S4	1/2"	1/4"	3/4"-10
HS-S6	1/2"	3/8"	3/4"-10



HD Hole Saw Pilot Drills

LIST 15PD

Order #	Saw Depth	SIZE	Material
SP-41	1"	1/4"	HSS
SP-42	2"	1/4"	HSS
SP-61	1"	3/8"	HSS
SP-62	2"	3/8"	HSS

Order #	Saw Depth	SIZE	Material
CP-41	1"	1/4"	Carbide Tip.
CP-42	2"	1/4"	Carbide Tip.
CP-61	1"	3/8"	Carbide Tip.
CP-62	2"	3/8"	Carbide Tip.



Ejector Springs

LIST 15ES

Order #	Saw Depth	SIZE
ES-41	1"	1/4"
ES-42	2"	1/4"
ES-61	1"	3/8"
ES-62	2"	3/8"



HD Carbide Tipped Hole Saws



Relton HD hole saws function as a 4pc unit including:
Head, shank, pilot drill and ejector spring (see previous page)

LIST 15IC

STHS Series

2" depth interrupted cut for pipe

Application: Pipe, trench duct, cellular metal, & all types of ferrous/non-ferrous metals where an interrupted cut may occur



Available Sizes	Order number for:		
	Shank	Pilot Drill	Eject. Spring
3/4"	S-12	SP-42	ES-42
7/8"	S-12	SP-42	ES-42
1"	HS-S4	SP-42	ES-42
1-1/8"	HS-S4	SP-42	ES-42
1-1/4"	HS-S4	SP-42	ES-42
1-3/8"	HS-S4	SP-42	ES-42
1-1/2"	HS-S4	SP-42	ES-42
1-3/4"	HS-S4	SP-42	ES-42

Available Sizes	Order number for:		
	Shank	Pilot Drill	Eject. Spring
2"	HS-S6	SP-62	ES-62
2-1/4"	HS-S6	SP-62	ES-62
2-3/8"	HS-S6	SP-62	ES-62
2-1/2"	HS-S6	SP-62	ES-62
2-3/4"	HS-S6	SP-62	ES-62
3"	HS-S6	SP-62	ES-62
3-1/4"	HS-S6	SP-62	ES-62
3-1/2"	HS-S6	SP-62	ES-62

More sizes may be available-please call

LIST 15TTS

HST Series

2" depth for tub, tile & spa, *marble/granite

Application: Spas, hot tubs, *ceramic tile, *marble, *granite, gelcoat fiberglass



**Because of varying densities of these materials, the number of holes achieved may vary. Slowing drill speed is recommended. Some marble or granite may be so dense it may require diamond tools*

Available Sizes	Order number for:		
	Shank	Pilot Drill	Eject. Spring
3/4"	S-12	CP-42	ES-42
7/8"	S-12	CP-42	ES-42
1"	HS-S4	CP-42	ES-42
1-1/8"	HS-S4	CP-42	ES-42
1-1/4"	HS-S4	CP-42	ES-42
1-3/8"	HS-S4	CP-42	ES-42
1-1/2"	HS-S4	CP-42	ES-42
1-5/8"	HS-S4	CP-42	ES-42

Available Sizes	Order number for:		
	Shank	Pilot Drill	Eject. Spring
1-11/16"	HS-S4	CP-42	ES-42
1-3/4"	HS-S4	CP-42	ES-42
1-15/16"	HS-S4	CP-42	ES-42
2"	HS-S6	CP-62	ES-62
2-1/8"	HS-S6	CP-62	ES-62
2-1/4"	HS-S6	CP-62	ES-62
2-1/2"	HS-S6	CP-62	ES-62
3"	HS-S6	CP-62	ES-62

Masonry Drills

Carbide tipped, round shank



LIST 160MD

- Wide flutes provide dust removal in softer materials.
- Carbide tip is larger than nominal drill size to provide clearance for fasteners.
- For drilling brick, concrete and sandstone.



SIZE	Shank	Overall
1/8" x 3"	1/8"	3"
3/16" x 4"	3/16"	4"
3/16" x 6"	3/16"	6"
7/32" x 4"	7/32"	4"
1/4" x 4"	1/4"	4"
1/4" x 6"	1/4"	6"
1/4" x 13"	1/4"	13"
1/4" x 18"	1/4"	18"
1/4" x 24"	1/4"	24"
5/16" x 4"	1/4"	4"
5/16" x 6"	1/4"	6"
5/16" x 13"	5/16"	13"
5/16" x 18"	5/16"	18"
5/16" x 24"	5/16"	24"
3/8" x 4"	5/16"	4"
3/8" x 6"	5/16"	6"
3/8" x 13"	3/8"	13"
3/8" x 18"	3/8"	18"
3/8" x 24"	3/8"	24"
7/16" x 4"	1/4"	4"
7/16" x 6"	3/8"	6"
7/16" x 13"	3/8"	13"
7/16" x 18"	3/8"	18"
1/2" x 4"	3/8"	4"

SIZE	Shank	Overall
1/2" x 6"	3/8"	6"
1/2" x 13"	3/8"	13"
1/2" x 18"	3/8"	18"
1/2" x 24"	3/8"	24"
9/16" x 6"	3/8"	6"
9/16" x 6"	1/2"	6"
9/16" x 13"	3/8"	13"
9/16" x 13"	1/2"	13"
9/16" x 18"	1/2"	18"
5/8" x 6"	3/8"	6"
5/8" x 6"	1/2"	6"
5/8" x 13"	1/2"	13"
5/8" x 18"	1/2"	18"
5/8" x 24"	1/2"	24"
3/4" x 6"	1/2"	6"
3/4" x 13"	1/2"	13"
3/4" x 18"	1/2"	18"
3/4" x 24"	1/2"	24"
7/8" x 6"	1/2"	6"
7/8" x 13"	1/2"	13"
7/8" x 18"	1/2"	18"
1" x 6"	1/2"	6"
1" x 13"	1/2"	13"
1" x 18"	1/2"	18"

LIST 160TC

Straight shank carbide tipped drill for masonry screws.
Single flat on end of the shank.



Available sizes	
5/32" x 4-1/2"	3/16" x 4-1/2"
5/32" x 5-1/2"	3/16" x 7-1/2"
5/32" x 7-1/2"	



Masonry Hammer Drills

Carbide tipped, hex shank



LIST 160HD

- Hex shank eliminated spinning in hammer drill chucks.
- Longer life at higher speed due to "super H" carbide tip.

Smaller sizes may have 3 flat shank while larger sizes have hex shank .

* Requires 1/2" minimum chuck

** May have round shank



SIZE	Flute Length	Overall
**1/8" x 3"	1-1/2"	3"
**1/8" x 6"	4-1/2"	6"
**5/32" x 3"	1-1/2"	3"
**5/32" x 6"	4-1/2"	6"
**3/16" x 3"	1-1/2"	3"
3/16" x 4"	2-1/2"	4"
3/16" x 6"	4"	6"
3/16" x 13-1/2"	12"	13-1/2"
3/16" x 18"	16"	18"
7/32" x 4"	2-1/2"	4"
7/32" x 6"	4-1/2"	6"
1/4" x 4"	2-1/2"	4"
1/4" x 6"	4-1/2"	6"
1/4" x 13-1/2"	12"	13-1/2"
1/4" x 18"	16"	18"
1/4" x 24"	22"	24"
9/32" x 4"	2-1/2"	4"
9/32" x 6"	4-1/2"	6"
5/16" x 4"	2-1/2"	4"
5/16" x 6"	4-1/2"	6"
5/16" x 13-1/2"	12"	13-1/2"
5/16" x 18"	16"	18"
5/16" x 24"	22"	24"
3/8" x 4"	2-1/2"	4"
3/8" x 6"	4-1/2"	6"
3/8" x 13-1/2"	12"	13-1/2"
3/8" x 18"	16"	18"
3/8" x 24"	22"	24"
7/16" x 6"	4-1/2"	6"
7/16" x 13-1/2"	12"	13-1/2"
1/2" x 4"	2-1/2"	4"
1/2" x 6"	4-1/2"	6"
1/2" x 13-1/2"	12"	13-1/2"

SIZE	Flute Length	Overall
1/2" x 18"	16"	18"
1/2" x 24"	22"	24"
9/16" x 6"	4-1/2"	6"
9/16" x 13-1/2"	12"	13-1/2"
9/16" x 18"	16"	18"
5/8" x 6"	4-1/2"	6"
*5/8" x 13-1/2"	12"	13-1/2"
*5/8" x 18"	16"	18"
*5/8" x 24"	22"	24"
*11/16" x 6"	4-1/2"	6"
*11/16" x 13-1/2"	12"	13-1/2"
*11/16" x 18"	16"	18"
3/4" x 6"	4-1/2"	6"
*3/4" x 13-1/2"	12"	13-1/2"
*3/4" x 18"	16"	18"
*3/4" x 24"	22"	24"
*7/8" x 6"	4-1/2"	6"
*7/8" x 13-1/2"	12"	13-1/2"
*7/8" x 18"	16"	18"
*7/8" x 24"	22"	24"
*1" x 6"	4-1/2"	6"
*1" x 13-1/2"	12"	13-1/2"
*1" x 18"	16"	18"
*1-1/8" x 6"	4-1/2"	6"
*1-1/8" x 13-1/2"	12"	13-1/2"
*1-1/8" x 18"	16"	18"
*1-1/4" x 6"	4-1/2"	6"
*1-1/4" x 13-1/2"	12"	13-1/2"
*1-1/4" x 18"	16"	18"
*1-3/8" x 6"	4-1/2"	6"
*1-1/2" x 6"	4-1/2"	6"
*1-1/2" x 12"	10"	12"
*1-1/2" x 18"	16"	18"

SDS+ Masonry Drills

ThunderTwist



LIST 160SDS

For drills that accept SDS+ shank

- *Tricarb* tip adds longer life & faster penetration due to increased chiseling action
- *ThunderTwist* flute design and copper brazing alloy creates very reliable drill
- Made with highest quality USA chrome-molybdenum-nickel available
- Vacuum heat treated and shot-peened for superior strength



SIZE	Flute Length	Overall
5/32" x 6-5/8"	4"	6-5/8"
3/16" x 6-5/8"	4"	6-5/8"
3/16" x 8-5/8"	6"	8-5/8"
3/16" x 10-5/8"	8"	10-5/8"
3/16" x 12-5/8"	10"	12-5/8"
3/16" x 14-5/8"	12"	14-5/8"
7/32" x 6-5/8"	4"	6-5/8"
7/32" x 8-5/8"	6"	8-5/8"
7/32" x 11-5/8"	9"	11-5/8"
7/32" x 14-5/8"	12"	14-5/8"
1/4" x 6-5/8"	4"	6-5/8"
1/4" x 8-5/8"	6"	8-5/8"
1/4" x 12-1/4"	9-5/8"	12-1/4"
1/4" x 14-5/8"	12"	14-5/8"
9/32" x 8-5/8"	6"	8-5/8"
5/16" x 6-5/8"	4"	6-5/8"
5/16" x 12-5/8"	10"	12-5/8"
5/16" x 18-5/8"	16"	18-5/8"
5/16" x 14-5/8"	12"	14-5/8"
3/8" x 6-5/8"	4"	6-5/8"
3/8" x 10-5/8"	8"	10-5/8"
3/8" x 12-5/8"	10"	12-5/8"
3/8" x 20-5/8"	18"	20-5/8"
7/16" x 6-5/8"	4"	6-5/8"
7/16" x 12-5/8"	10"	12-5/8"
7/16" x 18-5/8"	16"	18-5/8"
1/2" x 6-5/8"	4"	6-5/8"
1/2" x 10-5/8"	8"	10-5/8"

SIZE	Flute Length	Overall
1/2" x 12-5/8"	10"	12-5/8"
1/2" x 18-5/8"	16"	18-5/8"
9/16" x 6-3/4"	4"	6-3/4"
9/16" x 12-3/4"	10"	12-3/4"
9/16" x 18-3/4"	16"	18-3/4"
5/8" x 6-3/4"	4"	6-3/4"
5/8" x 12-3/4"	10"	12-3/4"
5/8" x 18-3/4"	16"	18-3/4"
11/16" x 6-3/4"	4"	6-3/4"
11/16" x 12-3/4"	10"	12-3/4"
11/16" x 18-3/4"	16"	18-3/4"
3/4" x 6-3/4"	4"	6-3/4"
3/4" x 9-3/4"	7"	9-3/4"
3/4" x 12-3/4"	10"	12-3/4"
3/4" x 18-3/4"	16"	18-3/4"
3/4" x 24"	22"	24"
13/16" x 8-3/4"	6"	8-3/4"
13/16" x 12-3/4"	10"	12-3/4"
13/16" x 18-3/4"	16"	18-3/4"
7/8" x 6-3/4"	4"	6-3/4"
7/8" x 12-3/4"	10"	12-3/4"
7/8" x 18-3/4"	16"	18-3/4"
7/8" x 24"	21"	24"
1" x 13-1/8"	10-1/4"	13-1/8"
1" x 18-3/4"	16"	18-3/4"
1" x 25"	22"	25"
1-1/8" x 12-3/4"	10"	12-3/4"
1-1/8" x 18-3/4"	16"	18-3/4"
1-1/4" x 12-3/4"	10"	12-3/4"
1-1/4" x 18-3/4"	16"	18-3/4"



Step Drills

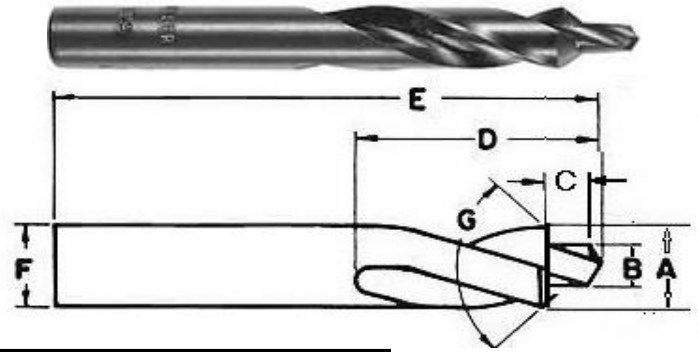
For drilling & countersinking 82° machine screw clearance holes



LIST 145CH

•Stub length high speed steel, black oxide. G= 82° for clearance holes.

•Drill & Countersink in one operation.
Intended for high production in wood, metal or plastic.



Screw Size	Major dia A	Minor dia B	Pilot length C	Fl. Length D	Overall E	Shank F
2	3/16"	0.090	3/16"	1-1/8"	2-3/16"	3/16"
3	7/32"	0.103	3/16"	1-1/4"	2-3/8"	7/32"
4	15/64"	0.116	3/16"	1-5/16"	2-7/16"	15/64"
5	17/64"	0.129	1/4"	1-7/16"	2-5/8"	1/4"
6	19/64"	0.142	1/4"	1-9/16"	2-3/4"	1/4"
7	21/64"	0.155	1/4"	1-11/16"	2-15/16"	1/4"
8	11/32"	0.168	1/4"	1-11/16"	3"	1/4"
9	3/8"	0.182	1/4"	1-13/16"	3-1/8"	3/8"
10	13/32"	0.195	1/4"	1-15/16"	3-5/16"	3/8"
12	29/64"	0.221	5/16"	2-1/8"	3-9/16"	3/8"
14 or 1/4"	1/2"	0.255	5/16"	2-1/4"	3-3/4"	1/2"
16 or 9/32"	9/16"	0.286	5/16"	2-1/2"	5"	1/2"
18 or 5/16"	5/8"	0.317	3/8"	2-1/2"	5"	1/2"
20	11/16"	0.328	3/8"	2-1/2"	5"	1/2"
24 or 3/8"	3/4"	0.380	3/8"	2-1/2"	5"	1/2"

LIST 14582



•Jobber length, bright finish, high speed steel.
•Drill & countersink for 82° flat head machine screw in one operation.

Screw Size	Major dia A	Minor dia B	Pilot length C	Fl. Length D	Overall E	Shank F
4	15/64"	0.116	3/8"	2-5/8"	3-7/8"	15/64"
5	0.257	0.128	3/8"	2-7/8"	4-1/8"	0.257
6	9/32"	0.142	1/2"	2-15/16"	4-1/4"	9/32"
8	0.332	0.169	1/2"	3-7/16"	4-3/4"	0.332
10	0.386	0.196	5/8"	3-3/4"	5-1/8"	0.386
1/4"	1/2"	0.257	11/16"	4-1/2"	6"	1/2"
5/16"	5/8"	0.32	3/4"	5-3/16"	7-1/8"	5/8"
3/8"	3/4"	0.383	7/8"	3-1/8"	*5"	3/4"
7/16"	13/16"	0.446	1"	3-3/8"	*5-1/4"	13/16"
1/2"	7/8"	0.51	1"	3-1/2"	*5-1/2"	7/8"

*Shorter than jobber length

Step Drills

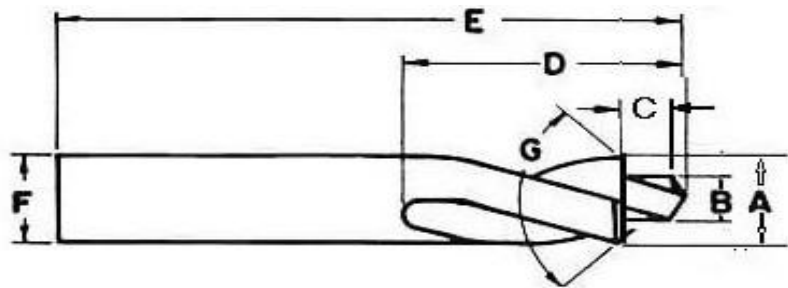
Capscrew clearance & chamfered holes to be tapped



LIST 14590

Capscrew clearance

- Bright, jobber length, high speed steel G = 90°
- Drill & counterbore clearance hole for capscrews in one operation.



* Shorter than jobber length

Screw Size	Major dia A	Minor dia B	Pilot length C	Fl. Length D	Overall E	Shank F
4	7/32"	0.136	3/8"	2-1/2"	3-3/4"	7/32"
5	0.228	0.141	3/8"	2-5/8"	3-7/8"	0.228
6	1/4"	0.15	1/2"	2-3/4"	4"	1/4"
8	0.29	0.178	1/2"	2-15/16"	4-1/4"	0.29
10	0.332	0.204	5/8"	3-7/16"	4-3/4"	0.332
1/4"	13/32"	9/32"	11/16"	3-7/8"	5-1/4"	13/32"
5/16"	1/2"	11/32"	3/4"	4-1/2"	6"	1/2"
3/8"	19/32"	13/32"	7/8"	5-3/16"	7-1/8"	19/32"
7/16"	21/32"	15/32"	1"	5-5/8"	7-5/8"	21/32"
1/2"	25/32"	17/32"	1"	3-1/4"	*5-1/8"	25/32"
5/8"	29/32"	21/32"	1"	3-7/8"	*5-7/8"	29/32"



LIST 145TD Holes to be tapped

Bright, high speed steel, jobber length drill for holes to be tapped and 45° chamfer.

Screw Size	Major dia A	Minor dia B	Pilot length C	Fl. Length D	Overall E	Shank F
4-40	0.1285	0.089	3/8"	1-5/8"	2-3/4"	0.1285
5-40	9/64"	0.101	1/2"	1-3/4"	2-7/8"	9/64"
6-32	5/32"	0.109	1/2"	2"	3-1/8"	5/32"
8-32	3/16"	0.136	1/2"	2-5/16"	3-1/2"	3/16"
10-32	1/4"	0.161	5/8"	2-3/4"	4"	1/4"
1/4-20	21/64"	0.204	13/16"	3-5/16"	4-5/8"	21/64"
1/4-28	21/64"	0.218	13/16"	3-5/16"	4-5/8"	21/64"
5/16"-18	13/32"	0.261	15/16"	3-7/8"	5-1/4"	13/32"
5/16-24	13/32"	0.272	15/16"	3-7/8"	5-1/4"	13/32"
3/8-16	31/64"	0.316	1"	4-3/8"	5-7/8"	31/64"
3/8-24	31/64"	0.339	1"	4-3/8"	5-7/8"	31/64"
7/16-14	17/32"	0.375	1-1/16"	4-13/16"	6-5/8"	17/32"
7/16-20	17/32"	0.39	1-1/16"	4-13/16"	6-5/8"	17/32"
1/2-13	5/8"	0.437	1-1/16"	5-3/16"	7-1/8"	5/8"
1/2-20	5/8"	0.452	1-1/16"	5-3/16"	7-1/8"	5/8"
5/8-11	3/4"	0.531	1-1/16"	5-5/8"	7-5/8"	3/4"



Step Drills

For thinner materials



LIST 155HS

High speed steel, straight flute

LIST 155CO

Cobalt straight flute



***For 1/2" and 3/4" conduit sizes*

**Quick change hex shank*

SIZE #	RANGE	Hex Shank	Order number	
		Size	155HS	155CO
1	1/8" - 1/2"	*1/4"	10231	NO
2	3/16" - 1/2"	*1/4"	10232	10232CB
3	1/4" - 3/4"	3/8"	10233	10233CB
4	3/16" - 7/8"	3/8"	10234	10234CB
**9	7/8" & 1-1/8"	7/16"	10239	NO
5	1/4" - 1-3/8"	7/16"	10235	NO
SET (1,2,3)	1/8" - 3/4"	see 1,2,3	10502ZR	10502CB

LIST 156HS

High speed steel, straight flute



LIST 156CO

All Unibor step drills have 1/4" quick change impact hex shank

Cobalt spiral flute

SIZE #	RANGE	Order number	
		156HS	156CO
1	1/8" - 1/2"	06X1EIMP	06S1EIMPCO
2	3/16" - 1/2"	06X7EIMP	06S7EIMPCO
3	1/4" - 3/4"	06X2EIMP	06S2EIMPCO
4	3/16" - 7/8"	06X5EIMP	06X5EIMPCO



LIST 157ST

Titanium nitride(TiN), high speed steel, straight flute



LIST 157SP

Titanium nitride(TiN), high speed steel, spiral fluted

**1/4" shanks are quick change hex- round shanks have 3 flats*

SIZE #	RANGE	Shank	Order number	
		Size	157ST	157SP
1	1/8" - 1/2"	*1/4" hex	280-HX-2	281-HX-2
2	3/16" - 1/2"	*1/4" hex	280-HX-1	281-HX-1
3	1/4" - 3/4"	*1/4" hex	280-HX-3	281-HX-3
4	3/16" - 7/8"	3/8" round	NO	281-4
5	1/4" - 1-1/2"	1/2" round	NO	281-5
1, 2, 3	1/8" - 3/4"	*1/4" hex	880-HX-SET	881-HX-SET



Step Drill/Reamer

High speed steel



LIST 158SR

- Start and enlargen holes in materials up to 1/2" thick
- 90° notch point starts holes easily
- Gold oxide enhances lubricity and reduces friction
- 3/8" shank with 3 flats
- 5 steps on each reamer

<u>Size Range</u>	<u>Order number</u>
5/16" - 9/16"	83710
9/16" - 13/16"	83720
13/16" - 1-1/16"	83730
3pc SET	83750



Proudly Manufactured in the USA
with globally source material



Hex Shank Drills

Quick change shank



LIST 12HS

- Fits 1/4" hex quick change adapters
- Drill can be removed/replaced from the shank
- High speed steel, 118° point

<u>Available sizes</u>	<u>Flute length</u>	<u>Overall</u>
1/16"	7/8"	3-1/16"
5/64"	1"	3-1/8"
3/32"	1-1/4"	3-3/4"
7/64"	1-1/2"	3-3/4"
1/8"	1-5/8"	3-1/2"
9/64"	1-3/4"	4"
5/32"	2"	4-1/16"
11/64"	2-1/8"	4-3/4"
3/16"	2-5/16"	4-1/16"
13/64"	2-7/16"	4-3/4"
7/32"	2-1/8"	4-1/2"
15/64"	2-5/8"	5"
1/4"	2-3/4"	5-1/8"
5/16"	3-3/16"	5-5/8"
3/8"	3-5/8"	6-1/8"



Snappy "Vix Bit" Drill Guides



LIST 12VB

- Self-centering drill guide provides accurate drilling into hinges, door butts, window pulls, window latches, striker plates and any hardware with pre-drilled screw holes.
- 1/4" quick change hex shanks

SIZE	Screw Size	Drill Size	Order Number
#3	3 & 4	5/64"	WLF73200078
#5	5 & 6	7/64"	WLF73200109
#9	8, 9, 10	9/64"	WLF73200140
#12	12	11/64"	WLF73200171
5mm	Shelf Pin	5mm	WLF73200196
#14	14	13/64"	WLF73200203
1/4"	Shelf Pin	1/4"	WLF73200250



LIST 12RD

Replacement drill bits

SIZE	Order Number
#3	WLF73201078
#5	WLF73201109
#9	WLF73201140
#12	WLF73201171
5mm	WLF73201196
#14	WLF73201203
1/4"	WLF73201250

Flat Spade Bit for Wood

IRWIN®



LIST 10FS6 6" overall

LIST10FS4 4" overall

- Patented point for fast chip removal and overall drilling speed
- Double cutting spurs reduce breakout for cleaner holes
- 1/4" quick change hex shank, impact rated



SIZE	Order number	
	10FS6	10FS4
1/4"	88804	NO
5/16"	88805	NO
3/8"	88806	NO
7/16"	88807	NO
1/2"	88808	87908
9/16"	88809	NO
5/8"	88810	87910
11/16"	88811	NO
3/4"	88812	87912
13/16"	88813	NO
7/8"	88814	87914
15/16"	88815	NO
1"	88816	87916
1-1/8"	88818	NO
1-1/4"	88820	87918
1-3/8"	88822	NO
1-1/2"	88824	87920



Self Feeding Wood Bit

7/16" hex shank, 5" overall

LIST 10SF

- Hardened, re-sharpenable cutting edges
- Replaceable screw point pulls bit for clean and true holes
- 7/16" quick change, impact rated shank



SIZE	Order #
1"	3046004
1-1/8"	3046005
1-1/4"	3046006
1-3/8"	3046007
1-1/2"	3046008
1-3/4"	3046009

SIZE	Order #
2"	3046010
2-1/8"	3046011
2-1/4"	3046012
2-9/16"	3046013
3"	3046014

Auger, Solid Center with Cutting Spur

IRWIN®



LIST 10AU

- Single cutting spur scribes outside of the hole for faster, smoother and cleaner holes
- Solid center design provides durability
- Screw point for fast drilling in soft or hardwoods
- Full-length heat treated prevents bending and improves drill life



SIZE	Twist Length	Overall	Hex Shank
1/4"	4-1/2"	7-1/2"	3/16"
5/16"	4-1/2"	7-1/2"	7/32"
3/8"	4-1/2"	7-1/2"	5/16"
7/16"	4-1/2"	7-1/2"	5/16"
1/2"	4-1/2"	7-1/2"	5/16"
9/16"	4-1/2"	7-1/2"	5/16"
5/8"	4-1/2"	7-1/2"	5/16"
11/16"	4-1/2"	7-1/2"	5/16"

SIZE	Twist Length	Overall	Hex Shank
3/4"	4-1/2"	7-1/2"	5/16"
13/16"	4-1/2"	7-1/2"	5/16"
7/8"	4-1/2"	7-1/2"	5/16"
15/16"	5"	9-1/2"	5/16"
1"	5"	9-1/2"	7/16"
1-1/8"	5"	9-1/2"	7/16"
1-1/4"	5"	9-1/2"	7/16"
1-1/2"	5"	9-1/2"	7/16"

12" Ship Auger

7/16" impact hex shank



LIST 10SA

- Screw point ideal for general wood applications
- Bit can be resharpened
- Quick change hex shank
- 9" twist length

Available sizes

9/16"
11/16"
13/16"

17" WeldTec Ship Auger

7/16" impact hex shank



LIST 1017

- Welded cutting edge for long life in tough materials, including nail-embedded wood
- Wide flutes for maximum chip removal
- Fully forged for durability bits 3/4" and larger
- 12" twist length

- 3/8" hex quick-change shank sizes 3/8", 7/16" and 1/2"
- 7/16" hex quick-change shank sizes 9/16" and larger

Available Sizes:

3/8"
7/16"
1/2"
9/16"
5/8"

11/16"
3/4"
13/16"
7/8"
15/16"

1"
1-1/16"
1-1/8"
1-1/4"
1-3/8"

1-1/2"
1-5/8"
1-3/4"
2"

Pole Augers 23" & 24"

7/16" hex shank

IRWIN®



LIST 10PA

- Ideal for drilling poles and construction timbers
- Cutting spur scribes outside of hole for a clean, smooth hole
- Impact hex shank
- Bit can be resharpened
- Medium-fast screw point ideal for general wood applications
- 21" twist length

Available Sizes:

5/8" x 23"

11/16" x 24"

3/4" x 24"

13/16" x 24"

15/16" x 24"

Pole Augers 29"



LIST 1029

- Extra long twist for poles and timbers
- Resharpenable tip
- Cutting spur scribes outside of hole for a clean, smooth hole
- 7/16" hex shank
- Medium-fast screw point ideal for general wood applications
- 24" twist length

Available Sizes:

9/16"

5/8"

11/16"

3/4"

13/16"

7/8"

1"

1-1/16"

Bellhanger bits

Hole in flute - sometimes called "Installer bits"



LIST 10BH

- Durable stiff bit intended to create holes for wiring
- Hole in flute helps to pull wire back through

Available Sizes:

1/4" x 18"

3/8" x 18"

3/8" x 24"

TRU CUT
MANUFACTURING, INC.

Brad Point Drills

To cut clean holes in wood, plastic and sheet metal

- High speed steel
- Center spur helps locate hole position
- Spurs provide clean breakthrough in wood



LIST 10BP

Brad point jobber length drills



Flute		
SIZE	Length	Overall
5/64"	1"	2"
3/32"	1-1/4"	2-1/4"
7/64"	1-1/2"	2-5/8"
1/8"	1-5/8"	2-3/4"
9/64"	1-3/4"	2-7/8"
5/32"	2"	3-1/8"
11/64"	2-1/8"	3-1/4"
3/16"	2-5/16"	3-1/2"
13/64"	2-7/16"	3-5/8"
7/32"	2-1/2"	3-3/4"

Flute		
SIZE	Length	Overall
15/64"	2-5/8"	3-7/8"
1/4"	2-3/4"	4"
17/64"	2-7/8"	4-1/8"
9/32"	2-15/16"	4-1/4"
19/64"	3-11/16"	4-3/8"
5/16"	3-3/16"	4-1/2"
21/64"	3-5/16"	4-5/8"
11/32"	3-7/16"	4-3/4"
23/64"	3-1/2"	4-7/8"
3/8"	3-5/8"	5"

Flute		
SIZE	Length	Overall
25/64"	3-3/4"	5-1/8"
13/32"	3-7/8"	5-1/4"
27/64"	3-15/16"	5-3/8"
7/16"	4-1/16"	5-1/2"
29/64"	4-3/16"	5-5/8"
15/32"	4-5/16"	5-3/4"
31/64"	4-3/8"	5-7/8"
1/2"	4-1/2"	6"

LIST 10BPTL

Brad point taper length drills



Flute		
SIZE	Length	Overall
1/8"	2-3/4"	5-1/8"
5/32"	3"	5-3/8"
3/16"	3-3/8"	5-3/4"
1/4"	3-3/4"	6-1/8"
5/16"	4"	6-3/8"

Flute		
SIZE	Length	Overall
11/32"	4-1/8"	6-1/2"
3/8"	4-1/4"	6-3/4"
7/16"	4-5/8"	7-1/4"
1/2"	4-3/4"	7-3/4"

Brad Point S&D Drill

High speed steel 1/2" round shank

LIST 10SD

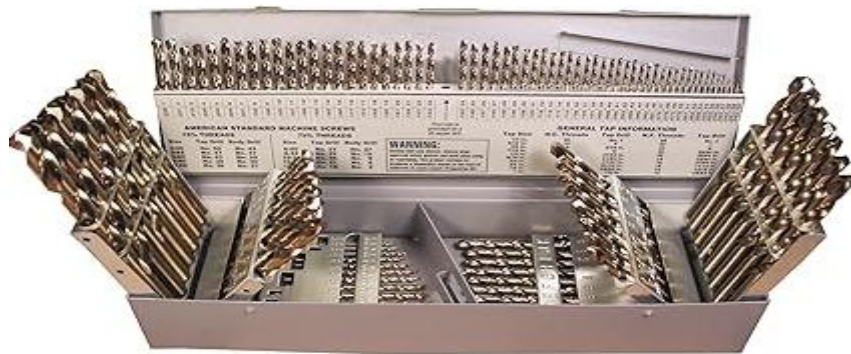
- 6" overall, 3" flute
- For clean holes in wood & plastics



Available Sizes			
33/64"	37/64"	41/64"	45/64"
17/32"	19/32"	21/32"	23/32"
35/64"	39/64"	43/64"	47/64"
9/16"	5/8"	11/16"	

Drill Sets

We have many drill sets of different lengths and types in stock. Custom sets may also be able to be ordered- if you do not see the set you are looking for, please inquire.



115pc



29pc

Jobber Length

		Order number			
Size Range	Qty.	Oxide 118°	Bright 118°	Cobalt 135° s/pt	TiN 135° s/pt
1/16" - 1/4"	13	VIK42020	VIK43430	VIK68320	VIK88670
1 - 7mm	13	VIK44180	HUO11050BR	HUO11050CO	NO
1/16" - 1/2"	15	VIK42030	VIK43450	VIK68340	VIK88680
1/16" - 3/8"	21	VIK42050	VIK43480	VIK68360	VIK96740
1 - 13mm	25	VIK44060	HUO11150BR	HUO11150CO	NO
A - Z	26	VIK42060	VIK43500	VIK68380	HUO10500TN
1/16" - 1/2"	29	VIK42070	VIK43520	VIK68400	VIK96690
1 - 5.9mm	41	HUO112500X	HUO11250BR	NO	NO
6 - 10mm	41	HUO112000X	NO	NO	NO
#1 - #60	60	VIK42080	VIK43540	VIK68420	VIK96700
#61 - #80	20	VIK42040	VIK43460	VIK68310	NO
Combo	114*	VIK43310	Call	Call	NO
Combo	115**	VIK43440	VIK43550	VIK69280	VIK95110

*114 combo set includes fraction, metric and wire gage plus #2 centerdrill

**115 pc combo includes fraction, letter and wire gage plus #2 centerdrill



21pc

Screw Machine

		Order Number		
Length(stub)		Oxide 118°	Bright 118°	Cobalt 135° s/pt
Size Range	Qty.			
1/16" - 1/4"	13	VIK43690	HUO11300BR	HUO11300CO
1/16" - 3/8"	21	VIK43710	HUO11350BR	HUO11350CO
1/16" - 1/2"	29	VIK43730	VIK10390	HUO11450CO



13pc

Proudly Manufactured in the USA
with globally source material

Drill Sets (Continued)



Mechanic length

Proudly Manufactured in the USA
with globally source material

Ultra-Bor Super Premium

Hi-Molybdenum black/gold 135° split point
3 flats on shank 3/16" and up



15pc set 1/16" to 1/2" by 1/32" increments

Order number VIK66470



Vortex Point

Hi-Molybdenum black/gold
3 flats on shank 3/16" and up



15pc set 1/16" to 1/2" by 1/32" increments

Order number VIK22873



Silver & Deming

1/2" shank HSS black/bright 118°
6" overall, 3" flute

8pc set 9/16" to 1" by 1/16" increments

Black plastic case

Order number VIK43200

Metal Huot case

Order number VIK43200M



Drill Sets (Continued)



MICHIGAN
DRILL & CUTTING TOOLS



Left Hand Drill Sets



Jobber Length LH

Bright finish, 118° point

Description	Order number
13pc 1/16" - 1/4" by 1/64"	MID307GL
15pc 1/16" - 1/2" by 1/32"	MID307RL
21pc 1/16" - 3/8" by 1/64"	MID307SL
29pc 1/16" - 1/2" by 1/64"	MID307FL



29pc set

Screw machine length (Stub)

Left hand



DRILLCO



WALTER



Cobalt 135° split point

11pc set 1/16" to 3/8" by 1/32"

3 flats on shank 3/16" and up

Order number DCO300LH11

Provided in roll-up pouch



Drill & Tap Sets

The typical drill and tap set in stock will include oxidized USA HSS jobber length drills and bright HSS hand plug taps(4-5 threads of lead)
Special sets may be able to be provided- please call.

Different drills can be provided using a dash after the part number and the following:

BR Bright

*CO Cobalt

*TN TiN

*Metric set HSS drills only

If you choose an import tap set, it will be a European or Korean HSS tap.

NC=National Coarse

NF= National Fine



18pc



		Order Number	
PCS.	RANGE	USA Taps	Import Taps
18pc NC	6-32 to 1/2"-13	HUO12600U	HUO12600i
18pc NF	6-40 to 1/2"-20	HUO12650U	HUO12650i
36pc NC+NF	6-32 to 1/2"-20	HUO12700U	HUO12700i
* 18pc Metric	M2.5 to M12	HUO12675U	HUO12675i



36pc

Drill Blank Sets

Includes Huot metal case and HSS jobber length blanks
Other sets may be able to be made to order- please call.

15pc 1/16" to 1/2" by 1/32"

Order number HUO10350BK15

29pc 1/16" to 1/2" by 1/64"

Order number HUO10550BK29



29pc

Left hand cobalt / spiral extractor set

- 10pc set designed for removal of broken screws, bolts, fittings and studs.
- LH 135° split point cobalt mechanic length drills.
- Appropriate size extractor for each drill.
- 5 drills ranging from 5/64" to 19/64" and #1 to #5 spiral extractors

Order number IRW11119



RH Cobalt jobber / spiral extractor kit

- 10pc set made to remove broken studs, bolt, screws and fittings.
- RH 135° split point cobalt jobber drills from 5/64" to 19/64"
- Extractor and drill size etched on each tool.

Order number IRW11117



LH Screw Machine/ Straight Extractor Set

- 10pc set for broken fasteners/fittings removal.
- 5 drills - sizes 3/32" to 5/16".
- LH Premium black/gold HSS stub drills-3 flats on shank on the 3 largest sizes. 135° split point.
- Square extractors can remove in either direction.

Order number VIK35484



Proudly Manufactured in the USA
with globally source material

Extensions

Extend reach on drills, hole saws and augers

LIST 10EX Round shanks

- For drills with 3/8" or 1/2" round or flatted shanks.
- Extension shank has 3 equal flats
- Includes hex key for set screws
- 3 sets of set screws 120° apart secure the drill

Drill Size	Overall	Body dia.	Extension shk.	Order #
3/8"	6-1/4"	3/4"	3/8"	VIK62710
1/2"	7-1/2"	3/4"	1/2"	VIK62730



America's Finest High-Speed Steel Cutting Tools

Proudly Manufactured in the USA
with globally source material



- For 1/2" shank drills
- 1 set of set screws to hold drill, hex key included

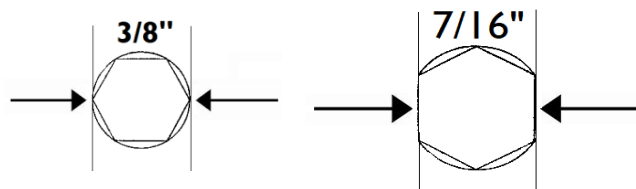
Drill Size	Overall	Body dia.	Extension shk.	Order #
1/2"	12"	13/16"	7/16" hex	SAE.50012



LIST 10HX Hex shanks

- For hole saws, auger or any cutting tools with hex shank
- Slotted screw holds tool in place

Size	Overall	Body Dia.	Extension shk.	Order #
3/8" hex	12-3/4"	3/4"	3/8" hex	140409
7/16" hex	12-3/4"	3/4"	7/16" hex	140126



LIST10QC 1/4"hex quick change

- Holds all 1/4" hex shank tools with quick change groove
- Body diameter 5/8"

Length	Order #
2-1/2"	IRW4935703
6"	IRW4935704
12"	IRW4935705

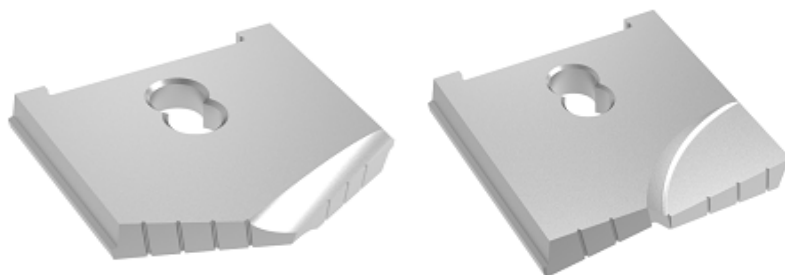




- Original universal spade drill for universal style holders.

LIST 25D D series 130° standard

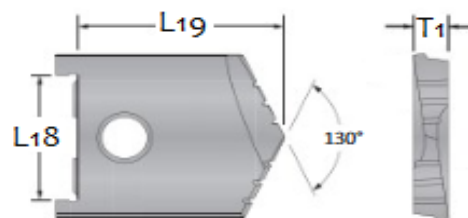
LIST 25DFB D Series 180° flat bottom



Series A through C are discontinued.
Some may be available-please call.

D Size	L19	L18	T1	Order Number	
				130°	Flat Bottom
2"	2-3/8"	1-3/4"	3/8"	ALL10244-0200	ALL10444-0200
2-1/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0201	-----
2-1/16"	2-3/8"	1-3/4"	3/8"	ALL10244-0202	Call
2-3/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0203	-----
2-1/8"	2-3/8"	1-3/4"	3/8"	ALL10244-0204	ALL10444-0204
2-5/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0205	-----
2-3/16"	2-3/8"	1-3/4"	3/8"	ALL10244-0206	Call
2-7/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0207	-----
2-1/4"	2-3/8"	1-3/4"	3/8"	ALL10244-0208	ALL10444-0208
2-9/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0209	-----
2-5/16"	2-3/8"	1-3/4"	3/8"	ALL10244-0210	Call
2-11/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0211	-----
2-3/8"	2-3/8"	1-3/4"	3/8"	ALL10244-0212	ALL10444-0212
2-13/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0213	-----
2-7/16"	2-3/8"	1-3/4"	3/8"	ALL10244-0214	Call
2-15/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0215	-----
2-1/2"	2-3/8"	1-3/4"	3/8"	ALL10244-0216	ALL10444-0216

Please inquire about any size that you do not see listed.



LIST 25DO D Series Oversize

D Oversize	L19	L18	T1	Order Number	
				130°	Flat Bottom
2-17/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0217	-----
2-9/16"	2-3/8"	1-3/4"	3/8"	ALL10244-0218	-----
2-19/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0219	-----
2-5/8"	2-3/8"	1-3/4"	3/8"	ALL10244-0220	-----
2-21/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0221	-----
2-11/16"	2-3/8"	1-3/4"	3/8"	ALL10244-0222	-----
2-23/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0223	-----
2-3/4"	2-3/8"	1-3/4"	3/8"	ALL10244-0224	-----
2-25/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0225	-----
2-13/16"	2-3/8"	1-3/4"	3/8"	ALL10244-0226	-----
2-27/32"	2-3/8"	1-3/4"	3/8"	ALL10244-0227	-----
2-7/8"	2-3/8"	1-3/4"	3/8"	ALL10244-0228	-----

For the full line of products, please visit

Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools

Allied Universal Spade Drill Blades (Continued)

General purpose replaceable drill insert M4



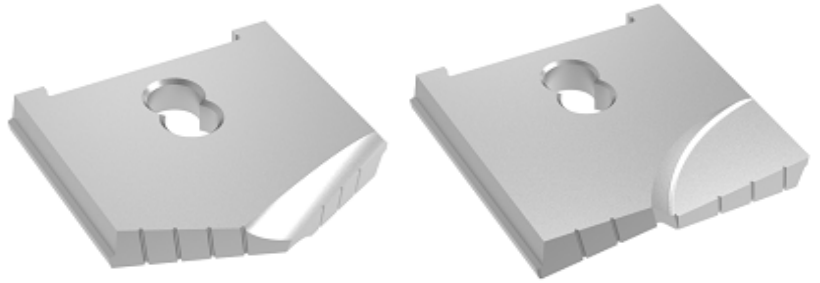
**ALLIED MACHINE
& ENGINEERING**



- Original universal spade drill for universal style holders.

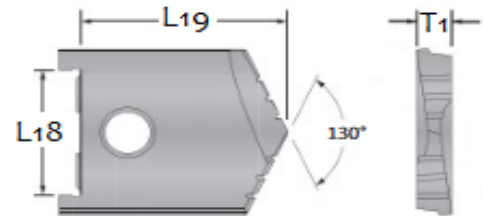
LIST 25E E series 130° standard

LIST 25EFB E Series 180° flat bottom



E Size	L19	L18	T1	Order Number	
				130°	Flat Bottom
2-1/2"	2-5/8"	2-1/16"	7/16"	ALL10254-0216	ALL10454-0216
2-17/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0217	-----
2-9/16"	2-5/8"	2-1/16"	7/16"	ALL10254-0218	Call
2-19/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0219	-----
2-5/8"	2-5/8"	2-1/16"	7/16"	ALL10254-0220	ALL10454-0220
2-21/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0221	-----
2-11/16"	2-5/8"	2-1/16"	7/16"	ALL10254-0222	Call
2-23/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0223	-----
2-3/4"	2-5/8"	2-1/16"	7/16"	ALL10254-0224	ALL10454-0224
2-25/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0225	-----
2-13/16"	2-5/8"	2-1/16"	7/16"	ALL10254-0226	Call
2-27/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0227	-----
2-7/8"	2-5/8"	2-1/16"	7/16"	ALL10254-0228	ALL10454-0226
2-29/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0229	-----
2-15/16"	2-5/8"	2-1/16"	7/16"	ALL10254-0230	Call
2-31/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0231	-----
3"	2-5/8"	2-1/16"	7/16"	ALL10254-0300	ALL10454-0300

Please inquire about any sizes that you do not see listed



LIST 25EO E Series Oversize

E Oversize	L19	L18	T1	Order Number	
				130°	Flat Bottom
3-1/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0301	-----
3-1/16"	2-5/8"	2-1/16"	7/16"	ALL10254-0302	-----
3-3/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0303	-----
3-1/8"	2-5/8"	2-1/16"	7/16"	ALL10254-0304	-----
3-5/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0305	-----
3-3/16"	2-5/8"	2-1/16"	7/16"	ALL10254-0306	-----
3-7/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0307	-----
3-1/4"	2-5/8"	2-1/16"	7/16"	ALL10254-0308	-----
3-9/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0309	-----
3-5/16"	2-5/8"	2-1/16"	7/16"	ALL10254-0310	-----
3-11/32"	2-5/8"	2-1/16"	7/16"	ALL10254-0311	-----
3-3/8"	2-5/8"	2-1/16"	7/16"	ALL10254-0312	-----

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Allied Universal Spade Drill Blades (Continued)

General purpose replaceable drill insert M4



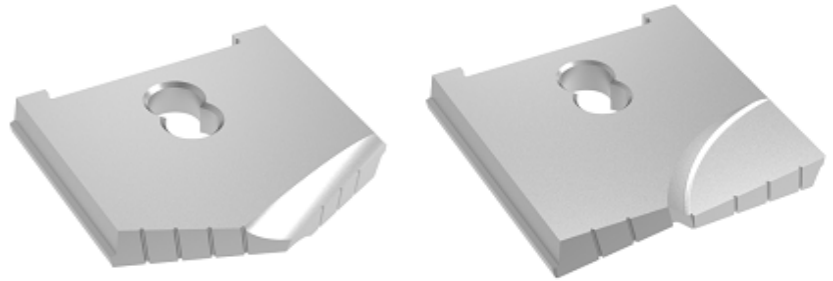
**ALLIED MACHINE
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- Original universal spade drill for universal style holders.

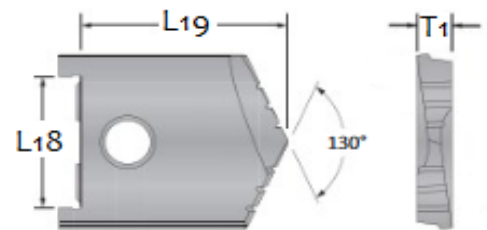
LIST 25F F series 130° standard

LIST 25FFB F Series 180° flat bottom



F Size	L19	L18	T1	Order Number	
				130°	Flat Bottom
3"	3-1/8"	2-5/8"	1/2"	ALL10264-0300	ALL10464-0300
3-1/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0301	-----
3-1/16"	3-1/8"	2-5/8"	1/2"	ALL10264-0302	Call
3-3/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0303	-----
3-1/8"	3-1/8"	2-5/8"	1/2"	ALL10264-0304	ALL10464-0304
3-5/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0305	-----
3-3/16"	3-1/8"	2-5/8"	1/2"	ALL10264-0306	Call
3-7/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0307	-----
3-1/4"	3-1/8"	2-5/8"	1/2"	ALL10264-0308	ALL10464-0308
3-9/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0309	-----
3-5/16"	3-1/8"	2-5/8"	1/2"	ALL10264-0310	Call
3-11/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0311	-----
3-3/8"	3-1/8"	2-5/8"	1/2"	ALL10264-0312	ALL10464-0312
3-13/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0313	-----
3-7/16"	3-1/8"	2-5/8"	1/2"	ALL10264-0314	Call
3-15/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0315	-----
3-1/2"	3-1/8"	2-5/8"	1/2"	ALL10264-0316	ALL10464-0316

Please inquire about any sizes that you do not see listed



LIST 25FO F Series Oversize

F Oversize	L19	L18	T1	Order Number	
				130°	Flat Bottom
3-17/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0317	-----
3-9/16"	3-1/8"	2-5/8"	1/2"	ALL10264-0318	-----
3-19/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0319	-----
3-5/8"	3-1/8"	2-5/8"	1/2"	ALL10264-0320	-----
3-21/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0321	-----
3-11/16"	3-1/8"	2-5/8"	1/2"	ALL10264-0322	-----
3-23/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0323	-----
3-3/4"	3-1/8"	2-5/8"	1/2"	ALL10264-0324	-----
3-25/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0325	-----
3-13/16"	3-1/8"	2-5/8"	1/2"	ALL10264-0326	-----
3-27/32"	3-1/8"	2-5/8"	1/2"	ALL10264-0327	-----
3-7/8"	3-1/8"	2-5/8"	1/2"	ALL10264-0328	-----

For the full line of products, please visit

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Allied Universal Spade Drill Blades (Continued)

General purpose replaceable drill insert M4



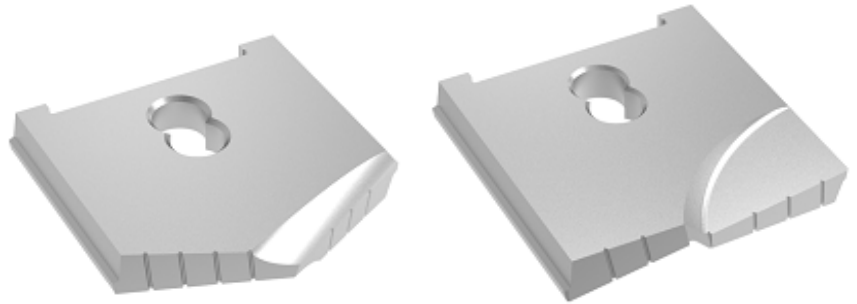
**ALLIED MACHINE
& ENGINEERING**



- Original universal spade drill for universal style holders.

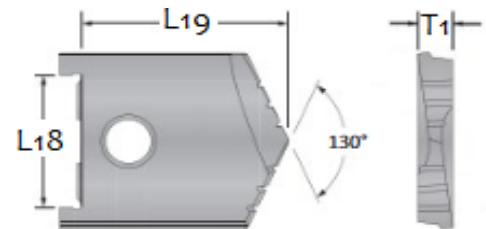
LIST 25G G series 130° standard

LIST 25GFB G Series 180° flat bottom



G Size	L19	L18	T1	Order Number	
				130°	Flat Bottom
3-1/2"	3-3/8"	3-1/16"	5/8"	ALL10274-0316	ALL10474-0316
3-17/32"	3-3/8"	3-1/16"	5/8"	Call	-----
3-9/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0318	Call
3-19/32"	3-3/8"	3-1/16"	5/8"	Call	-----
3-5/8"	3-3/8"	3-1/16"	5/8"	ALL10274-0320	ALL10474-0320
3-21/32"	3-3/8"	3-1/16"	5/8"	Call	-----
3-11/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0322	Call
3-23/32"	3-3/8"	3-1/16"	5/8"	Call	-----
3-3/4"	3-3/8"	3-1/16"	5/8"	ALL10274-0324	ALL10474-0324
3-25/32"	3-3/8"	3-1/16"	5/8"	Call	-----
3-13/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0326	Call
3-27/32"	3-3/8"	3-1/16"	5/8"	Call	-----
3-7/8"	3-3/8"	3-1/16"	5/8"	ALL10274-0328	ALL10474-0328
3-29/32"	3-3/8"	3-1/16"	5/8"	Call	-----
3-15/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0330	Call
3-31/32"	3-3/8"	3-1/16"	5/8"	Call	-----
4"	3-3/8"	3-1/16"	5/8"	ALL10274-0400	ALL10474-0400

Please inquire about any sizes that you do not see listed.



LIST 25GO G Series Oversize

G Oversize	L19	L18	T1	Order Number	
				130°	Flat Bottom
4-1/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0402	-----
4-1/8"	3-3/8"	3-1/16"	5/8"	ALL10274-0404	-----
4-3/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0406	-----
4-1/4"	3-3/8"	3-1/16"	5/8"	ALL10274-0408	-----
4-5/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0410	-----
4-3/8"	3-3/8"	3-1/16"	5/8"	ALL10274-0412	-----
4-7/16"	3-3/8"	3-1/16"	5/8"	ALL10274-0414	-----
4-1/2"	3-3/8"	3-1/16"	5/8"	ALL10274-0416	-----

For the full line of products, please visit

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Allied Universal Spade Drill Blades (Continued)

General purpose replaceable drill insert M4



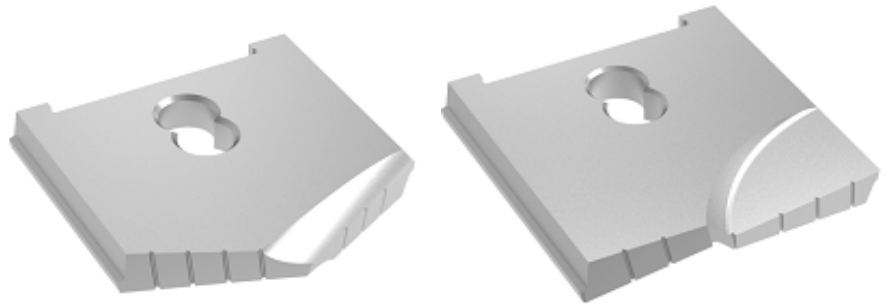
**ALLIED MACHINE
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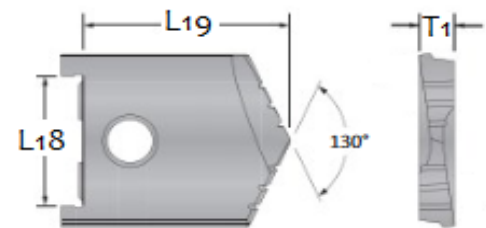
- Original universal spade drill for universal style holders.

LIST 25H1 H1 series 130° standard

Please inquire for any sizes
that you do not see listed.



H1 Size	L19	L18	T1	Order Number	
				130°	Flat Bottom
4"	3-11/16"	3-1/2"	11/16"	ALL10284-0400	Call
4-1/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0402	-----
4-1/8"	3-11/16"	3-1/2"	11/16"	ALL10284-0404	Call
4-3/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0406	-----
4-1/4"	3-11/16"	3-1/2"	11/16"	ALL10284-0408	Call
4-5/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0410	-----
4-3/8"	3-11/16"	3-1/2"	11/16"	ALL10284-0412	Call
4-7/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0414	-----
4-1/2"	3-11/16"	3-1/2"	11/16"	ALL10284-0416	Call



LIST 25H2 H2 series 130° standard

H2 Size	L19	L18	T1	Order Number	
				130°	Flat Bottom
4-9/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0418	-----
4-5/8"	3-11/16"	3-1/2"	11/16"	ALL10284-0420	Call
4-11/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0422	-----
4-3/4"	3-11/16"	3-1/2"	11/16"	ALL10284-0424	Call
4-13/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0426	-----
4-7/8"	3-11/16"	3-1/2"	11/16"	ALL10284-0428	Call
4-15/16"	3-11/16"	3-1/2"	11/16"	ALL10284-0430	-----
5"	3-11/16"	3-1/2"	11/16"	ALL10284-0500	Call

For the full line of products, please visit

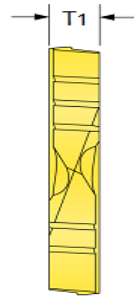
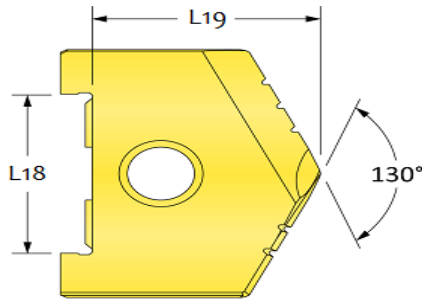
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Allied High Performance Spade Drill Inserts

- Production greatly increased over universal style blades.
- Fits universal style holders.
- TiN coated.



Series AA and D through H are discontinued-please call for availability.



LIST 20A Series A HP insert

LIST 20B Series B HP insert

"A" HP				
SIZE	L19	L18	T1	Part number
31/32"	7/8"	3/4"	3/16"	ALL1021T-0031
1"	7/8"	3/4"	3/16"	ALL1021T-0100
1-1/32"	7/8"	3/4"	3/16"	ALL1021T-0101
1-1/16"	7/8"	3/4"	3/16"	ALL1021T-0102
1-3/32"	7/8"	3/4"	3/16"	ALL1021T-0103
1-1/8"	7/8"	3/4"	3/16"	ALL1021T-0104
1-5/32"	7/8"	3/4"	3/16"	ALL1021T-0105
1-3/16"	7/8"	3/4"	3/16"	ALL1021T-0106
1-7/32"	7/8"	3/4"	3/16"	ALL1021T-0107
1-1/4"	7/8"	3/4"	3/16"	ALL1021T-0108

"B" HP				
SIZE	L19	L18	T1	Part number
1-1/4"	1-3/32"	1-1/16"	9/32"	ALL1022T-0108
1-9/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0109
1-5/16"	1-3/32"	1-1/16"	9/32"	ALL1022T-0110
1-11/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0111
1-3/8"	1-3/32"	1-1/16"	9/32"	ALL1022T-0112
1-13/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0113
1-7/16"	1-3/32"	1-1/16"	9/32"	ALL1022T-0114
1-15/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0115
1-1/2"	1-3/32"	1-1/16"	9/32"	ALL1022T-0116

LIST 20AO Series A Oversize

LIST 20BO Series B Oversize

"A" HP				
Oversize	L19	L18	T1	Part number
1-9/32"	7/8"	3/4"	3/16"	ALL1021T-0109
1-5/16"	7/8"	3/4"	3/16"	ALL1021T-0110
1-11/32"	7/8"	3/4"	3/16"	ALL1021T-0111
1-3/8"	7/8"	3/4"	3/16"	ALL1021T-0112

"B" HP				
Oversize	L19	L18	T1	Part number
1-17/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0117
1-9/16"	1-3/32"	1-1/16"	9/32"	ALL1022T-0118
1-19/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0119
1-5/8"	1-3/32"	1-1/16"	9/32"	ALL1022T-0120
1-21/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0121
1-11/16"	1-3/32"	1-1/16"	9/32"	ALL1022T-0122
1-23/32"	1-3/32"	1-1/16"	9/32"	ALL1022T-0123
1-3/4"	1-3/32"	1-1/16"	9/32"	ALL1022T-0124

For the full line of products, please visit

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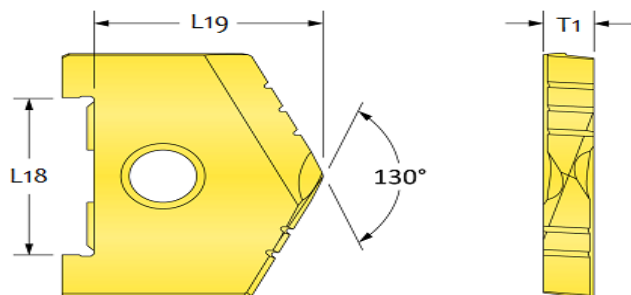
Allied High Performance Spade Drill Inserts (Continued)



- Production greatly increased over universal style blades.
- Fits universal style holders.
- TiN coated.



Series AA and D through H are discontinued-please call for availability.



LIST 20C Series C HP insert

LIST 20CO Series C Oversize

"C" HP				
SIZE	L19	L18	T1	Part number
1-1/2"	1-19/64"	1-1/4"	5/16"	ALL1023T-0116
1-17/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0117
1-9/16"	1-19/64"	1-1/4"	5/16"	ALL1023T-0118
1-19/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0119
1-5/8"	1-19/64"	1-1/4"	5/16"	ALL1023T-0120
1-21/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0121
1-11/16"	1-19/64"	1-1/4"	5/16"	ALL1023T-0122
1-23/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0123
1-3/4"	1-19/64"	1-1/4"	5/16"	ALL1023T-0124
1-25/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0125
1-13/16"	1-19/64"	1-1/4"	5/16"	ALL1023T-0126
1-27/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0127
1-7/8"	1-19/64"	1-1/4"	5/16"	ALL1023T-0128
1-29/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0129
1-15/16"	1-19/64"	1-1/4"	5/16"	ALL1023T-0130
1-31/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0131
2"	1-19/64"	1-1/4"	5/16"	ALL1023T-0200

"C" HP				
Oversize	L19	L18	T1	Part number
2-1/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0201
2-1/16"	1-19/64"	1-1/4"	5/16"	ALL1023T-0202
2-3/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0203
2-1/8"	1-19/64"	1-1/4"	5/16"	ALL1023T-0204
2-5/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0205
2-3/16"	1-19/64"	1-1/4"	5/16"	ALL1023T-0206
2-7/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0207
2-1/4"	1-19/64"	1-1/4"	5/16"	ALL1023T-0208
2-9/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0209
2-5/16"	1-19/64"	1-1/4"	5/16"	ALL1023T-0210
2-11/32"	1-19/64"	1-1/4"	5/16"	ALL1023T-0211
2-3/8"	1-19/64"	1-1/4"	5/16"	ALL1023T-0212

For the full line of products, please visit

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Allied T-A Drill Inserts

For T-A style holders, 132° point



**ALLIED MACHINE
& ENGINEERING**



- TiN super cobalt, original T-A, general purpose.
- GEN2 s.cobalt AM200 coated for longer tool life and higher penetration rates.

Please inquire on any sizes/coatings that you do not see listed

LIST 30YT

Y series TiN coated



LIST 30YH

Y series AM200 coated GEN2



Y Size	Thickness	Order number	
		TiN	AM200
3/8"	3/32"	ALL15YT-0012	ALL45YH-0012
25/64"	3/32"	ALL15YT-.390	ALL45YH-.390
10mm	3/32"	ALL15YT-10	ALL45YH-10
13/32"	3/32"	ALL15YT-0013	ALL45YH-0013
10.5mm	3/32"	ALL15YT-10.5	ALL45YH-10.5
27/64"	3/32"	ALL15YT-.421	ALL45YH-.421
11mm	3/32"	ALL15YT-11	ALL45YH-11

LIST 30ZT

Z Series TiN coated



LIST 30ZH

Z Series AM200 coated GEN2



Z Size	Thickness	Order number	
		TiN	AM200
7/16"	3/32"	ALL15ZT-0014	ALL45ZH-0014
11.5mm	3/32"	ALL15ZT-11.5	ALL45ZH-11.5
29/64"	3/32"	ALL15ZT-.453	ALL45ZH-.453
15/32"	3/32"	ALL15ZT-0015	ALL45ZH-0015
12mm	3/32"	ALL15ZT-12	ALL45ZH-12
31/64"	3/32"	ALL15ZT-.484	ALL45ZH-.484
12.5mm	3/32"	ALL15ZT-12.5	ALL45ZH-12.5
1/2"	3/32"	ALL15ZT-0016	ALL45ZH-0016

LIST 300T

#0 Series Tin coated



LIST 300H

#0 Series AM200 coated GEN2



#0 Size	Thickness	Order number	
		TiN	AM200
13mm	1/8"	ALL150T-13	ALL450H-13
33/64"	1/8"	ALL150T-.515	ALL450H-.515
17/32"	1/8"	ALL150T-0017	ALL450H-0017
13.5mm	1/8"	ALL150T-13.5	ALL450H-13.5
35/64"	1/8"	ALL150T-.546	ALL450H-.546
14mm	1/8"	ALL150T-14	ALL450H-14
9/16"	1/8"	ALL150T-0018	ALL450H-0018
14.5mm	1/8"	ALL150T-14.5	ALL450H-14.5
37/64"	1/8"	ALL150T-.578	ALL450H-.578
15mm	1/8"	ALL150T-15	ALL450H-15
19/32"	1/8"	ALL150T-0019	ALL450H-0019

For the full line of products, please visit

[Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools](#)

Allied T-A Drill Inserts (Continued)

For T-A style holders, 132° point



**ALLIED MACHINE
& ENGINEERING**



- TiN super cobalt, original T-A, general purpose.
- GEN2 s.cobalt AM200 coated for longer tool life and higher penetration rates.

LIST 3005T

#0.5 Series TiN coated



LIST 3005H

#0.5 Series AM200 coated GEN2

*#0.5 inserts can fit
#0 and #0.5 T-A holders*



		Order number	
#0.5 Size	Thickness	TiN	AM200
39/64"	1/8"	ALL150T-.609	ALL450H-.609
15.5mm	1/8"	ALL150T-15.5	ALL450H-15.5
5/8"	1/8"	ALL150T-0020	ALL450H-0020
16mm	1/8"	ALL150T-16	ALL450H-16
41/64"	1/8"	ALL150T-.640	ALL450H-.640
16.5mm	1/8"	ALL150T-16.5	ALL450H-16.5
21/32"	1/8"	ALL150T-0021	ALL450H-0021
17mm	1/8"	ALL150T-17	ALL450H-17
43/64"	1/8"	ALL150T-.671	ALL450H-.671
11/16"	1/8"	ALL150T-0022	ALL450H-0022
17.5mm	1/8"	ALL150T-17.5	ALL450H-17.5

LIST 301T

#1 Series TiN coated



LIST 301H

#1 Series AM200 coated GEN2



		Order number	
#1 Size	Thickness	TiN	AM200
45/64"	5/32"	ALL151T-.703	ALL451H-.703
18mm	5/32"	ALL151T-18	ALL451H-18
23/32"	5/32"	ALL151T-0023	ALL451H-0023
18.5mm	5/32"	ALL151T-18.5	ALL451H-18.5
47/64"	5/32"	ALL151T-.734	ALL451H-.734
19mm	5/32"	ALL151T-19	ALL451H-19
3/4"	5/32"	ALL151T-0024	ALL451H-0024
49/64"	5/32"	ALL151T-.765	ALL451H-.765
19.5mm	5/32"	ALL151T-19.5	ALL451H-19.5
25/32"	5/32"	ALL151T-0025	ALL451H-0025
20mm	5/32"	ALL151T-20	ALL451H-20
51/64"	5/32"	ALL151T-.796	ALL451H-.796
20.5mm	5/32"	ALL151T-20.5	ALL451H-20.5
13/16"	5/32"	ALL151T-0026	ALL451H-0026
21mm	5/32"	ALL151T-21	ALL451H-21
27/32"	5/32"	ALL151T-0027	ALL451H-0027
21.5mm	5/32"	ALL151T-21.5	ALL451H-21.5

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Allied T-A Drill Inserts (Continued)

For T-A style holders, 132° point



**ALLIED MACHINE
& ENGINEERING**



- TiN super cobalt, original T-A, general purpose.
- GEN2 s.cobalt AM200 coated for longer tool life and higher penetration rates.

LIST 3015T

#1.5 Series Tin coated



LIST 3015H

#1.5 Series AM200 coated GEN2

#1.5 inserts can fit

#1 and #1.5 T-A Holders



		Order number	
#1.5 Size	Thickness	TiN	AM200
55/64"	5/32"	ALL151T-.859	ALL451H-.859
22mm	5/32"	ALL151T-22	ALL451H-22
7/8"	5/32"	ALL151T-0028	ALL451H-0028
22.5mm	5/32"	ALL151T-22.5	ALL451H-22.5
57/64"	5/32"	ALL151T-.890	ALL451H-.890
23mm	5/32"	ALL151T-23	ALL451H-23
29/32"	5/32"	ALL151T-0029	ALL451H-0029
59/64"	5/32"	ALL151T-.921	ALL451H-.921
23.5mm	5/32"	ALL151T-23.5	ALL451H-23.5
15/16"	5/32"	ALL151T-0030	ALL451H-0030
24mm	5/32"	ALL151T-24	ALL451H-24

LIST 302T

#2 Series Tin coated



LIST 302H

#2 Series AM200 coated GEN2



*25mm

		Order number	
#2 Size	Thickness	TiN	AM200
24.5mm	3/16"	ALL152T-24.5	ALL452H-24.5
31/32"	3/16"	ALL152T-0031	ALL452H-0031
*63/64"	3/16"	ALL152T-25	ALL452H-25
1"	3/16"	ALL152T-0100	ALL452H-0100
25.5mm	3/16"	ALL152T-25.5	ALL452H-25.5
1-1/64"	3/16"	ALL152-1.015	ALL452H-1.015
26mm	3/16"	ALL152T-26	ALL452H-26
1-1/32"	3/16"	ALL152T-0101	ALL452H-0101
26.5mm	3/16"	ALL152T-26.5	ALL452H-26.5
1-3/64"	3/16"	ALL152T-1.046	ALL452H-1.046
1-1/16"	3/16"	ALL152T-0102	ALL452H-0102
27mm	3/16"	ALL152T-27	ALL452H-27
27.5mm	3/16"	ALL152T-27.5	ALL452H-27.5
1-3/32"	3/16"	ALL152T-0103	ALL452H-0103
28mm	3/16"	ALL152T-28	ALL452H-28
1-7/64"	3/16"	ALL152T-1.109	ALL452H-1.109
1-1/8"	3/16"	ALL152T-0104	ALL452H-0104
29mm	3/16"	ALL152T-29	ALL452H-29
1-5/32"	3/16"	ALL152T-0105	ALL452H-0105
29.5mm	3/16"	ALL152T-29.5	ALL452H-29.5
30mm	3/16"	ALL152T-30	ALL452H-30

For the full line of products, please visit

[Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools](#)

Allied T-A Drill Inserts (Continued)

For T-A style holders, 132° point



- TiN super cobalt, original T-A, general purpose.
- GEN2 s.cobalt AM200 coated for longer tool life and higher penetration rates.

LIST 3025T

#2.5 Series TiN coated



LIST 3025H

#2.5 Series AM200 coated GEN2

#2.5 inserts can fit

#2 and #2.5 T-A holders



		Order number	
#2.5 Size	Thickness	TiN	AM200
1-3/16"	3/16"	ALL152T-0106	ALL452H-0106
30.5mm	3/16"	ALL152T-30.5	ALL452H-30.5
1-7/32"	3/16"	ALL152T-0107	ALL452H-0107
31mm	3/16"	ALL152T-31	ALL452H-31
31.5mm	3/16"	ALL152T-31.5	ALL452H-31.5
1-1/4"	3/16"	ALL152T-0108	ALL452H-0108
32mm	3/16"	ALL152T-32	ALL452H-32
1-9/32"	3/16"	ALL152T-0109	ALL452H-0109
33mm	3/16"	ALL152T-33	ALL452H-33
1-5/16"	3/16"	ALL152T-0110	ALL452H-0110
34mm	3/16"	ALL152T-34	ALL452H-34
1-11/32"	3/16"	ALL152T-0111	ALL452H-0111
34.5mm	3/16"	ALL152T-34.5	ALL452H-34.5
1-3/8"	3/16"	ALL152T-0112	ALL452H-0112
35mm	3/16"	ALL152T-35	ALL452H-35

LIST 303T

#3 Series Tin coated GEN2



LIST 303H

#3 Series AM200 coated GEN2



**1-35/64*

		Order number	
#3 Size	Thickness	TiN	AM200
1-13/32"	1/4"	ALL453T-0113	ALL453H-0113
36mm	1/4"	ALL453T-36	ALL453H-36
1-7/16"	1/4"	ALL453T-0114	ALL453H-0114
37mm	1/4"	ALL453T-37	ALL453H-37
1-15/32"	1/4"	ALL453T-0115	ALL453H-0115
38mm	1/4"	ALL453T-38	ALL453H-38
38.5mm	1/4"	-----	ALL453H-38.5
1-1/2"	1/4"	ALL453T-0116	ALL453H-0116
1-17/32"	1/4"	ALL453T-0117	ALL453H-0117
39mm	1/4"	ALL453T-39	ALL453H-39
*1.547	1/4"	ALL453T-1.547	ALL453H-1.547
1-9/16"	1/4"	ALL453T-0118	ALL453H-0118
40mm	1/4"	ALL453T-40	ALL453H-40
1-19/32"	1/4"	ALL453T-0119	ALL453H-0119
41mm	1/4"	ALL453T-41	ALL453H-41
1-5/8"	1/4"	ALL453T-0120	ALL453H-0120
1-21/32"	1/4"	ALL453T-0121	ALL453H-0121
1-11/16"	1/4"	ALL453T-0122	ALL453H-0122

For the full line of products, please visit

[Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools](#)

Allied T-A Drill Inserts (Continued)

For T-A style holders, 132° point

- S.Cobalt TiN coated and AM200 coating
- GEN2 geometry for longer tool life and higher penetration rates.

#3 Series continued from previous page

LIST 303T

#3 Series TiN coated GEN2



LIST 303H

#3 Series AM200 coated GEN2



LIST 304T

#4 Series Tin coated
GEN2



#4 Size	Thickness	Order number	
		TiN	AM200
48mm	5/16"	Call	ALL454H-48
1-29/32"	5/16"	Call	ALL454H-0129
49mm	5/16"	Call	ALL454H-49
1-15/16"	5/16"	Call	ALL454H-0130
50mm	5/16"	Call	ALL454H-50
1-31/32"	5/16"	Call	ALL454H-0131
2"	5/16"	ALL454T-0200	ALL454H-0200
51mm	5/16"	Call	ALL454H-51
2-1/32"	5/16"	Call	ALL454H-0201
52mm	5/16"	Call	ALL454H-52
2-1/16"	5/16"	Call	ALL454H-0202
53mm	5/16"	Call	ALL454H-53
2-3/32"	5/16"	Call	ALL454H-0203
2-1/8"	5/16"	ALL454T-0204	ALL454H-0204
54mm	5/16"	Call	ALL454H-54
2-5/32"	5/16"	Call	ALL454H-0205
55mm	5/16"	Call	ALL454H-55
2-3/16"	5/16"	Call	ALL454H-0206
56mm	5/16"	Call	ALL454H-56
2-7/32"	5/16"	Call	ALL454H-0207



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Please inquire about any inserts that you do not see listed.

#3 Size	Thickness	Order number	
		TiN	AM200
43mm	1/4"	ALL453T-43	ALL453H-43
1-23/32"	1/4"	ALL453T-0123	ALL453H-0123
44mm	1/4"	ALL453T-44	ALL453H-44
1-3/4"	1/4"	ALL453T-0124	ALL453H-0124
45mm	1/4"	ALL453T-45	ALL453H-45
1-25/32"	1/4"	ALL453T-0125	ALL453H-0125
45.5mm	1/4"	ALL453T-45.5	ALL453H-45.5
1-13/16"	1/4"	ALL453T-0126	ALL453H-0126
1-27/32"	1/4"	ALL453T-0127	ALL453H-0127
47mm	1/4"	ALL453T-47	ALL453H-47
1-7/8"	1/4"	ALL453T-0128	ALL453H-0128

LIST 304H

#4 Series AM200 coated
GEN2



#4 Size	Thickness	Order number	
		TiN	AM200
57mm	5/16"	Call	ALL454H-57
2-1/4"	5/16"	ALL454T-0208	ALL454H-0208
2-9/32"	5/16"	Call	ALL454H-0209
2-5/16"	5/16"	Call	ALL454H-0210
59mm	5/16"	Call	ALL454H-59
2-11/32"	5/16"	Call	ALL454H-0211
60mm	5/16"	Call	ALL454H-60
2-3/8"	5/16"	ALL454T-0212	ALL454H-0212
61mm	5/16"	Call	ALL454H-61
2-13/32"	5/16"	Call	ALL454H-0213
2-7/16"	5/16"	ALL454T-0214	ALL454H-0214
62mm	5/16"	Call	ALL454H-62
2-15/32"	5/16"	Call	ALL454H-0215
63mm	5/16"	Call	ALL454H-63
2-1/2"	5/16"	ALL454T-0216	ALL454H-0216
64mm	5/16"	Call	ALL454H-64
2-17/32"	5/16"	Call	ALL454H-0217
65mm	5/16"	Call	ALL454H-65
2-9/16"	5/16"	ALL454T-0218	ALL454H-0218

For the full line of products, please visit

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Allied T-A Drill Inserts (Continued)

For T-A style holders, 132° point

- GEN2 geometry for longer tool life and higher penetration rates.
- Super cobalt, AM200 coating.

LIST 305H

#5 Series AM200 coated GEN2



#5 Size	Thickness	Order number
2-1/2"	7/16"	ALL455H-0216
2-17/32"	7/16"	ALL455H-0217
2-9/16"	7/16"	ALL455H-0218
2-19/32"	7/16"	ALL455H-0219
2-5/8"	7/16"	ALL455H-0220
2-21/32"	7/16"	ALL455H-0221
2-11/16"	7/16"	ALL455H-0222
2-23/32"	7/16"	ALL455H-0223
2-3/4"	7/16"	ALL455H-0224
2-25/32"	7/16"	ALL455H-0225
2-13/16"	7/16"	ALL455H-0226
2-27/32"	7/16"	ALL455H-0227
2-7/8"	7/16"	ALL455H-0228
2-29/32"	7/16"	ALL455H-0229
2-15/16"	7/16"	ALL455H-0230
2-31/32"	7/16"	ALL455H-0231
3"	7/16"	ALL455H-0300

LIST 306H

#6 Series AM200 coated GEN2



For use with #5 series T-A holders

#6 Size	Thickness	Order number
3-1/16"	7/16"	ALL456H-0302
3-1/8"	7/16"	ALL456H-0304
3-3/16"	7/16"	ALL456H-0306
3-1/4"	7/16"	ALL456H-0308
3-5/16"	7/16"	ALL456H-0310
3-3/8"	7/16"	ALL456H-0312
3-7/16"	7/16"	ALL456H-0314
3-1/2"	7/16"	ALL456H-0316



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Please inquire about any inserts that you do not see listed.

LIST 307H

#7 Series AM200 GEN2



#7 Size	Thickness	Order number
3-9/16"	7/16"	ALL457H-0318
3-5/8"	7/16"	ALL457H-0320
3-11/16"	7/16"	ALL457H-0322
3-3/4"	7/16"	ALL457H-0324
3-13/16"	7/16"	ALL457H-0326
3-7/8"	7/16"	ALL457H-0328
3-15/16"	7/16"	ALL457H-0330
4"	7/16"	ALL457H-0400

LIST 308H

#8 Series AM200 GEN2



For use with #7 T-A Holders

#8 Size	Thickness	Order number
4-1/16"	7/16"	ALL458H-0402
4-1/8"	7/16"	ALL458H-0404
4-1/4"	7/16"	ALL458H-0408
4-5/16"	7/16"	ALL458H-0410
4-3/8"	7/16"	ALL458H-0412
4-7/16"	7/16"	ALL458H-0414
4-1/2"	7/16"	ALL458H-0416

For the full line of products, please visit

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Allied Carbide T-A Drill Inserts



**ALLIED MACHINE
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- Standard geometry, 132° point
- TiAlN coating for wear/oxidation resistance.
- Max working temperature 800°
- Solid carbide insert



Please call for sizes/coatings that you do not see listed

LIST 30C5

C5 carbide for low-hi strength steels, hi-temp alloys.

SIZE	Order Number	
	C5	C2
7/16"	ALL1C5ZA-0014	ALL1C2ZA-0014
15/32"	ALL1C5ZA-0015	Call
1/2"	ALL1C5ZA-0016	ALL1C2ZA-0016
17/32"	ALL1C50A-0017	Call
9/16"	ALL1C50A-0018	ALL1C20A-0018
5/8"	ALL1C50A-0020	ALL1C20A-0020
21/32"	ALL1C50A-0021	ALL1C20A-0021
11/16"	ALL1C50A-0022	Call
23/32"	ALL1C51A-0023	Call
3/4"	ALL1C51A-0024	ALL1C21A-0024
13/16"	ALL1C51A-0026	Call
7/8"	ALL1C51A-0028	ALL1C21A-0028
15/16"	ALL1C51A-0030	Call

LIST 30C2

C2 carbide for cast iron, non-ferrous metals, titanium alloys and some stainless steels.

SIZE	Order Number	
	C5	C2
1"	ALL1C52A-0100	ALL1C22A-0100
1-1/16"	ALL1C52A-0102	Call
1-1/8"	ALL1C52A-0104	ALL1C22A-0104
1-3/16"	ALL1C52A-0106	Call
1-1/4"	ALL1C52A-0108	ALL1C22A-0108
1-5/16"	ALL1C52A-0110	Call
1-3/8"	ALL1C52A-0112	ALL1C22A-0112
1-7/16"	ALL1C53A-0114	Call
1-1/2"	ALL1C53A-0116	ALL1C23A-0116
1-5/8"	ALL1C53A-0120	Call
1-3/4"	ALL1C53A-0124	ALL1C23A-0124
1-7/8"	ALL1C53A-0128	ALL1C23A-0128

For the full line of products, please visit

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LIST 30FB

- Super cobalt, Tin coated
- 180° flat bottom geometry

Please call for sizes that you
do not see listed



SIZE	Series	Thickness	Part number
3/8"	Y	3/32"	ALL15YT-0012-FB
13/32"	Y	3/32"	ALL15YT-0013-FB
27/64"	Y	3/32"	ALL15YT-.421-FB
7/16"	Z	3/32"	ALL15ZT-0014-FB
15/32"	Z	3/32"	ALL15ZT-0015-FB
1/2"	Z	3/32"	ALL15ZT-0016-FB
17/32"	#0	1/8"	ALL150T-0017-FB
14mm	#0	1/8"	ALL150T-14-FB
9/16"	#0	1/8"	ALL150T-0018-FB
19/32"	#0	1/8"	ALL150T-0019-FB
5/8"	#0.5	1/8"	ALL150T-0020-FB
16mm	#0.5	1/8"	ALL150T-16-FB
21/32"	#0.5	1/8"	ALL150T-0021-FB
17mm	#0.5	1/8"	ALL150T-17-FB
11/16"	#0.5	1/8"	ALL150T-0022-FB
18mm	#1	5/32"	ALL151T-18-FB
23/32"	#1	5/32"	ALL151T-0023-FB
3/4"	#1	5/32"	ALL151T-0024-FB
20mm	#1	5/32"	ALL151T-20-FB
13/16"	#1	5/32"	ALL151T-0026-FB
27/32"	#1	5/32"	ALL151T-0027-FB
22mm	#1.5	5/32"	ALL151T-22-FB
7/8"	#1.5	5/32"	ALL151T-0028-FB
29/32"	#1.5	5/32"	ALL151T-0029-FB
15/16"	#1.5	5/32"	ALL151T-0030-FB
24mm	#1.5	5/32"	ALL151T-24-FB
31/32"	#2	3/16"	ALL152T-0031-FB
*63/64"	#2	3/16"	ALL152T-25-FB

SIZE	Series	Thickness	Part number
1"	#2	3/16"	ALL152T-0100-FB
1-1/64"	#2	3/16"	ALL152T-1.015-FB
26mm	#2	3/16"	ALL152T-26-FB
1-1/32"	#2	3/16"	ALL152T-0101-FB
1-1/16"	#2	3/16"	ALL152T-0102-FB
1-3/32"	#2	3/16"	ALL152T-0103-FB
1-1/8"	#2	3/16"	ALL152T-0104-FB
1-5/32"	#2	3/16"	ALL152T-0105-FB
30mm	#2	3/16"	ALL152T-30-FB
1-3/16"	#2.5	3/16"	ALL152T-0106-FB
1-7/32"	#2.5	3/16"	ALL152T-0107-FB
1-1/4"	#2.5	3/16"	ALL152T-0108-FB
1-9/32"	#2.5	3/16"	ALL152T-0109-FB
33mm	#2.5	3/16"	ALL152T-33-FB
1-5/16"	#2.5	3/16"	ALL152T-0110-FB
1-11/32"	#2.5	3/16"	ALL152T-0111-FB
1-3/8"	#2.5	3/16"	ALL152T-0112-FB
1-7/16"	#3	1/4"	ALL153T-0114-FB
1-1/2"	#3	1/4"	ALL153T-0116-FB
1-9/16"	#3	1/4"	ALL153T-0118-FB
1-5/8"	#3	1/4"	ALL153T-0120-FB
1-11/16"	#3	1/4"	ALL153T-0122-FB
1-3/4"	#3	1/4"	ALL153T-0124-FB
1-25/32"	#3	1/4"	ALL153T-0125-FB
1-13/16"	#3	1/4"	ALL153T-0126-FB
1-7/8"	#3	1/4"	ALL153T-0128-FB
2"	#4	5/16"	ALL154T-0200-FB

*25mm

Important note:

#0 cannot be used in #0.5 T-A Holder

#1 cannot be used in #1.5 T-A holder

#2 cannot be used in #2.5 T-A holder

For the full line of products, please visit

[Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools](#)

LIST 30TS

Torx plus screws

- Torx plus screws for T-A style inserts
- Available in packs of 10, but can be sold individually

SERIES	Part Number
Y	ALL724-IP7-1
Z	ALL7247-IP7-1
#0	ALL72556-IP8-1
#0.5	ALL72567-IP8-1
#1	ALL7375-IP9-1
#1.5	ALL739-IP9-1
#2	ALL7495-IP15-1
#3, #4	ALL7514-IP20-1
#5,6,7,8	ALL7619-IP25-1

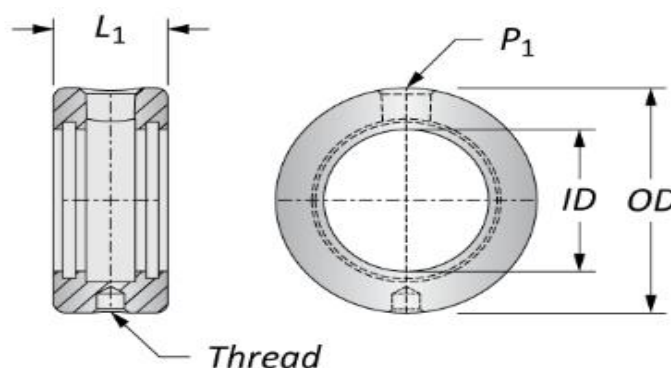


LIST 30RCA

Rotary Coolant Adapters

- Cost effective system to provide coolant on machines without through-spindle coolant.
- Can be used with auto tool change and manual clamping systems.
- Use with T-A, Structural and Universal holders.

Positive stop stud on machine contacting RCA stop must be used to prevent damage to the unit.



SERIES	Part Number	I.D.	O.D.	L1	P1	Rod	*Rebuild Kit
Y, Z, #0	ALL2T-2SR	3/4"	1-3/4"	7/8"	1/8" NPT	5/16"-18	ALL2T1-2SR
#1, #2	ALL2T-3SR	1"	2-1/8"	1-1/8"	1/8" NPT	5/16"-18	ALL2T1-3SR
#2, 3, 4	ALL2T-4SR	1-1/4"	2-1/2"	1-3/8"	1/4" NPT	3/8"-16	ALL2T1-4SR
#3, #4	ALL2T-5SR	1-3/4"	3"	1-3/8"	1/4" NPT	3/8"-16	ALL2T1-5SR
#5,6,7,8	ALL2T-6SR	2-1/4"	3-3/4"	1-3/4"	1/2" NPT	1/2"-13	ALL2T1-6SR

***Repair kit includes 2 O-rings, 2 snap rings and 2 thrust washers**

For the full line of products, please visit

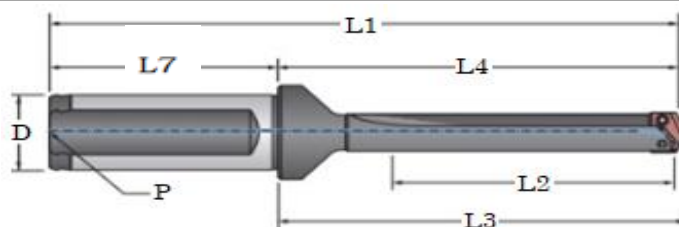
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Diameter range .374" - .436" (9.5mm - 11.07mm)

LIST 40Y

Y Series Straight flanged shank,
straight flute

Please call for items that
you do not see listed

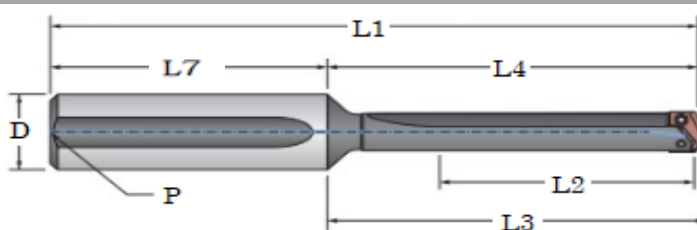


Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
*Stub	3.750	0.861	1.965	1.875	1.875	5/8"	1/16"	ALL210Y0S-063F
Short	4.436	1.141	2.496	2.406	2.030	3/4"	1/8"	ALL220Y0S-075F
Standard	5.561	2.266	3.621	3.531	2.030	3/4"	1/8"	ALL240Y0S-075F
Extended	7.561	4.266	5.621	5.531	2.030	3/4"	1/8"	ALL250Y0S-075F

*Stub length has a side pipe thread 1/8" NPT

LIST 41Y

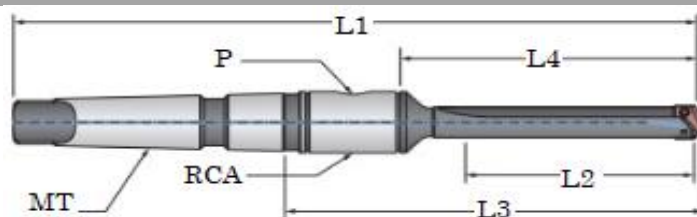
Y Series Straight shank,
straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	4.406	1.080	2.121	2.031	2.375	3/4"	1/8"	ALL220Y0S-075L
Standard	5.531	2.205	3.246	3.156	2.375	3/4"	1/8"	ALL240Y0S-075L
Extended	7.531	4.205	5.246	5.156	2.375	3/4"	1/8"	ALL250Y0S-075L

LIST 43Y

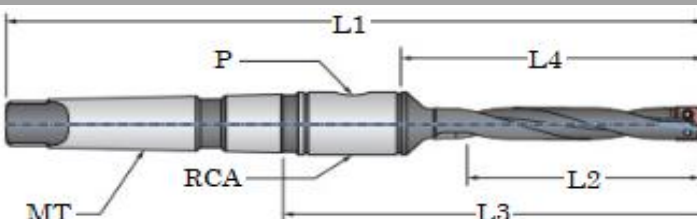
Y Series 2MT shank,
straight flute



Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Short	6.312	1.075	3.464	2.031	ALL2T-2SR	2	1/16"	ALL220Y0S-002i
Standard	7.437	2.200	4.589	3.156	ALL2T-2SR	2	1/16"	ALL240Y0S-002i
Extended	9.437	4.200	6.589	5.156	ALL2T-2SR	2	1/16"	ALL250Y0S-002i

LIST 44Y

Y Series 2MT shank,
spiral flute



Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Standard	7.437	2.719	4.589	3.156	ALL2T-2SR	2	1/16"	ALL240Y0H-002i
Extended	9.437	4.719	6.589	5.156	ALL2T-2SR	2	1/16"	ALL250Y0H-002i

Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

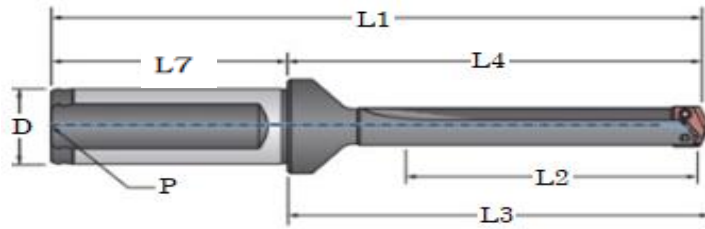
For the full line of products, please visit

Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools

Z Series Diameter range .437" - .510" (11.10mm - 12.95mm)**LIST 40Z**

Z series Straight flanged shank,
straight flute

Please call for items that
you do not see listed

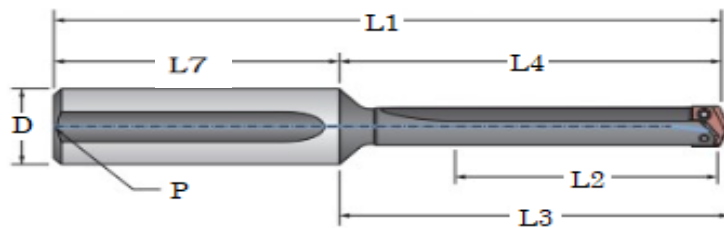


Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
*Stub	3.672	0.805	1.887	1.797	1.875	5/8"	1/16"	ALL210Z0S-063F
Short	4.436	1.142	2.496	2.406	2.030	3/4"	1/8"	ALL220Z0S-075F
Standard	5.561	2.267	3.621	3.531	2.030	3/4"	1/8"	ALL240Z0S-075F
Extended	7.561	4.267	5.621	5.531	2.030	3/4"	1/8"	ALL250Z0S-075F

*Stub length has a side pipe thread 1/8" NPT

LIST 41Z

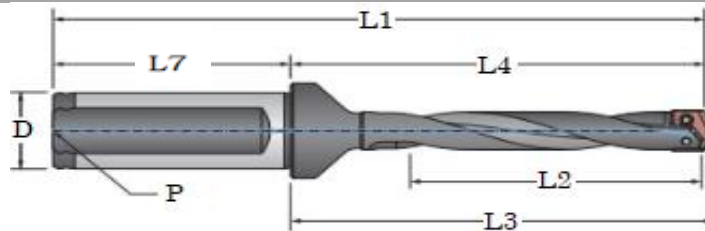
Z Series Straight shank,
straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	4.406	1.079	2.121	2.031	2.375	3/4"	1/8"	ALL220Z0S-075L
Standard	5.531	2.204	3.246	3.156	2.375	3/4"	1/8"	ALL240Z0S-075L
Extended	7.531	4.204	5.246	5.156	2.375	3/4"	1/8"	ALL250Z0S-075L

LIST 42Z

Z series Straight flanged shank,
spiral flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Standard	5.561	2.874	3.621	3.531	2.03	3/4"	1/8"	ALL240Z0H-075F

Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

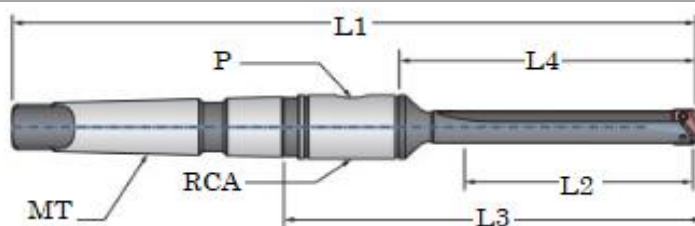
For the full line of products, please visit

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Z Series (Continued)

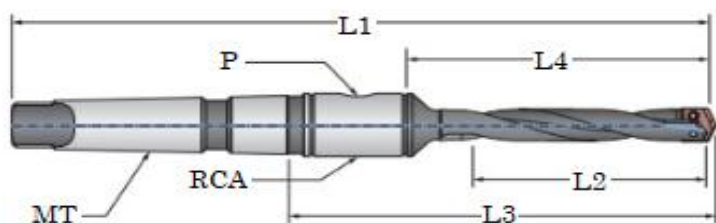
Diameter range .4370" - .510" (11.10mm - 12.95mm)

LIST 43Z

2 Morse taper shank,
straight flute


Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Short	6.312	1.074	3.464	2.031	2T-2SR	2	1/16"	ALL220Z0S-002i
Standard	7.437	2.199	4.589	3.156	2T-2SR	2	1/16"	ALL240Z0S-002i
Extended	9.437	4.199	6.589	5.156	2T-2SR	2	1/16"	ALL250Z0S-002i

LIST 44Z

2 Morse taper shank,
spiral flute


Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Standard	7.437	2.733	4.589	3.156	2T-2SR	2	1/16"	ALL240Z0H-002i
Extended	9.437	4.733	6.589	5.156	2T-2SR	2	1/16"	ALL250Z0H-002i

Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

For the full line of products, please visit

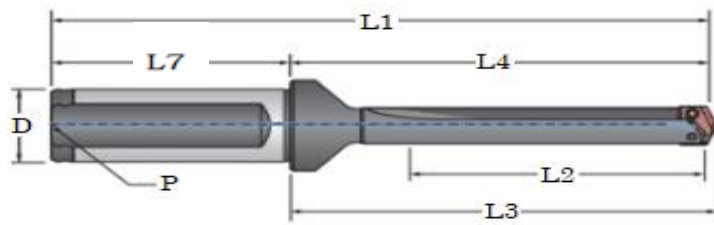
[Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools](http://Allied-AlliedMachineandEngineering-IndustrialHolemakingCuttingTools)

#0 Series Diameter range .511" - .695" (12.98mm - 17.65mm)

LIST 400

#0 Series Straight flanged shank, straight flute

Please call for items that you do not see listed

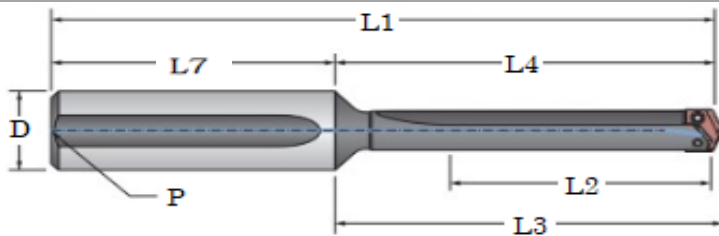


Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
*Stub	3.905	0.910	1.982	1.875	2.030	3/4"	1/8"	ALL21000S-075F
Short	4.530	1.220	2.607	2.500	2.030	3/4"	1/8"	ALL22000S-075F
Standard	5.655	2.345	3.732	3.625	2.030	3/4"	1/8"	ALL24000S-075F
Extended	7.655	4.345	5.732	5.625	2.030	3/4"	1/8"	ALL25000S-075F

*Stub length has a side pipe thread 1/8" NPT

LIST 410

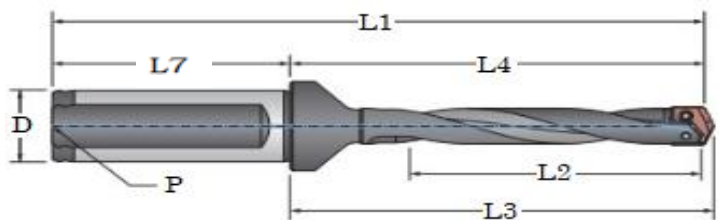
#0 Series Straight shank, straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	4.563	1.218	2.295	2.188	2.375	3/4"	1/8"	ALL22000S-075L
Standard	5.688	2.343	3.420	3.313	2.375	3/4"	1/8"	ALL24000S-075L
Extended	7.688	4.343	5.420	5.313	2.375	3/4"	1/8"	ALL25000S-075L

LIST 420

#0 Series Straight flanged shank, spiral flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Standard	5.655	2.987	3.732	3.625	2.030	3/4"	1/8"	ALL24000H-075F

Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

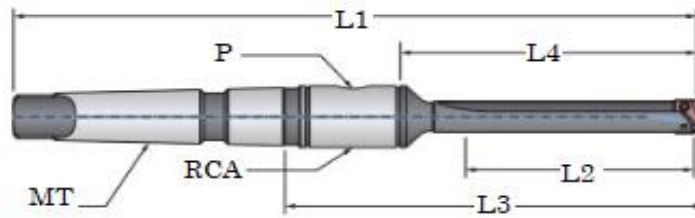
For the full line of products, please visit

[Allied - Allied Machine and Engineering - Industrial Holemaking Cutting Tools](http://Allied-AlliedMachineandEngineering-IndustrialHolemakingCuttingTools)

#0 Series (Continued) Diameter range .511" - .695" (12.98mm - 17.65mm)

LIST 430

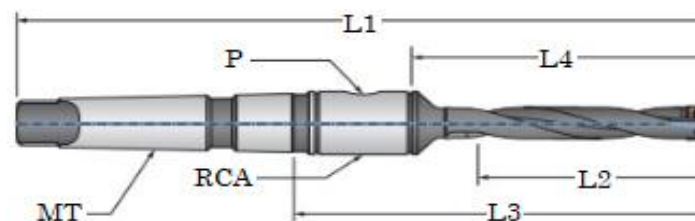
#0 Series 2MT shank,
straight flute



Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Short	6.469	1.213	3.638	2.188	2T-2SR	2	1/16"	ALL22000S-002i
Standard	7.594	2.338	4.763	3.313	2T-2SR	2	1/16"	ALL24000S-002i
Extended	9.594	4.338	6.763	5.313	2T-2SR	2	1/16"	ALL25000S-002i

LIST 440

#0 Series 2MT shank,
spiral flute

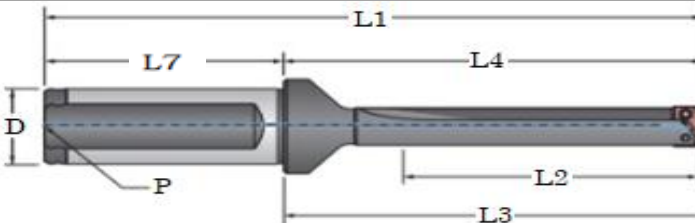


Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Standard	6.469	1.213	3.638	2.188	2T-2SR	2	1/16"	ALL24000H-002i
Extended	7.594	2.338	4.763	3.313	2T-2SR	2	1/16"	ALL25000H-002i

#0.5 Series Diameter range .609" - .6875" (15.47mm - 17.46mm)

LIST 4005

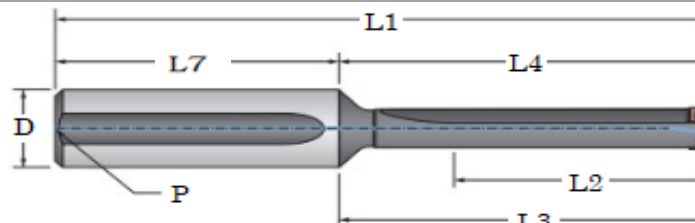
#0.5 Series Straight flanged
shank, straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Standard	5.655	2.320	3.732	3.625	2.030	3/4"	1/8"	ALL24005S-075F

LIST 4105

#0.5 Series Straight shank,
straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	4.563	1.194	2.295	2.188	2.375	3/4"	1/8"	ALL22005S-075L
Standard	5.688	2.319	3.420	3.313	2.375	3/4"	1/8"	ALL24005S-075L
Extended	7.688	4.319	5.420	5.313	2.375	3/4"	1/8"	ALL25005S-075L

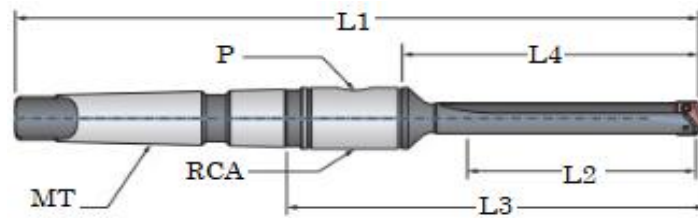
Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

For the full line of products, please visit

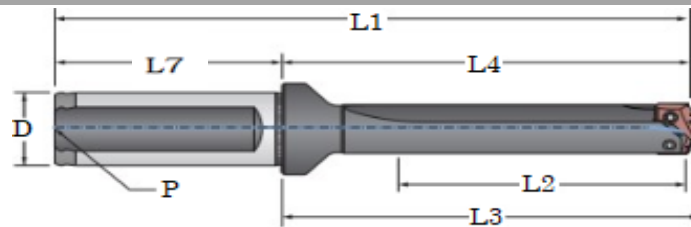
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**#0.5 Series (Continued)**

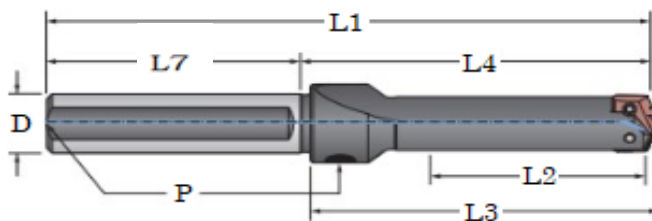
Diameter range .609" - .6875" (15.47mm - 17.46mm)

LIST 4305#0.5 Series 2MT shank,
straight flute*Please call for items that
you do not see listed*

Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Standard	7.594	2.313	4.763	3.313	2T-2SR	2	1/16"	ALL24005S-002i
Extended	9.594	4.313	6.763	5.313	2T-2SR	2	1/16"	ALL25005S-002i

#1 Series Diameter range .690" - .960" (17.53mm - 24.39mm)**LIST 401**#1 Series Straight flanged shank,
straight flute

Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
*Stub	5.264	1.992	3.124	2.984	2.280	1"	1/8"	ALL21010S-100F
Short	6.499	2.643	4.359	4.219	2.280	1"	1/8"	ALL22010S-100F
Intermediate	8.374	4.518	6.234	6.094	2.280	1"	1/8"	ALL23010S-100F
Standard	10.374	6.518	8.234	8.094	2.280	1"	1/8"	ALL24010S-100F
Extended	14.374	10.518	12.234	12.094	2.280	1"	1/8"	ALL25010S-100F

Stub length has a side pipe thread 1/8" NPT*LIST 411**#1 Series Straight shank,
straight flute

Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	6.875	2.619	4.015	3.875	3.000	3/4"	1/8"	ALL22010S-075L
Short	6.875	2.647	4.015	3.875	3.000	1"	1/8"	ALL22010S-100L
Intermediate	8.875	4.647	6.015	5.875	3.000	1"	1/8"	ALL23010S-100L
Standard	10.875	6.619	8.015	7.875	3.000	3/4"	1/8"	ALL24010S-075L
Standard	10.875	6.647	8.015	7.875	3.000	1"	1/8"	ALL24010S-100L
Extended	14.875	10.647	12.015	11.875	3.000	1"	1/8"	ALL25010S-100L

Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

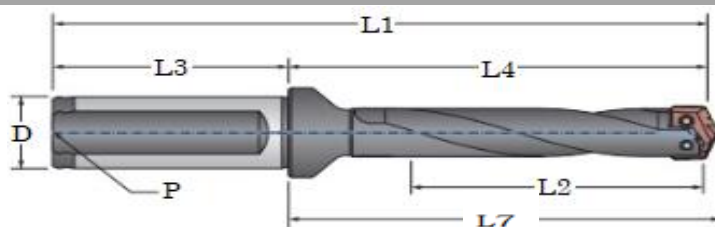
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#1 Series (Continued) Diameter range .690" - .960" (17.53mm - 24.39mm)**LIST421**

#1 Series Straight flanged
shank, spiral flute

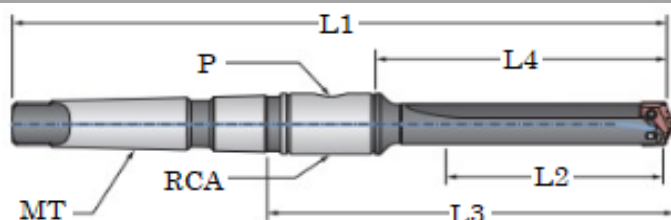
Please call for items that
you do not see listed



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Intermediate	8.374	5.229	6.234	6.094	2.280	1"	1/8"	ALL23010H-100F
Standard	10.374	7.229	8.234	8.094	2.280	1"	1/8"	ALL24010H-100F

LIST 431

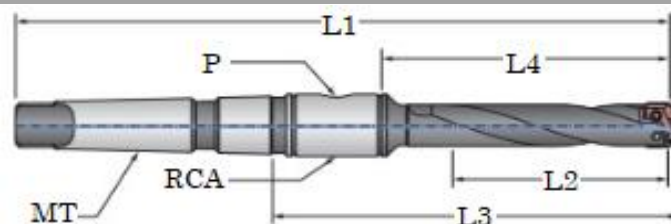
#1 Series Taper shank,
straight flute



Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Short	9.156	2.631	5.608	3.875	2T-3SR	3	1/8"	ALL22010S-003i
Short	10.156	2.631	5.671	3.875	2T-3SR	4	1/8"	ALL22010S-004i
Intermediate	11.156	4.631	7.608	5.875	2T-3SR	3	1/8"	ALL23010S-003i
Standard	13.156	6.631	9.608	7.875	2T-3SR	3	1/8"	ALL24010S-003i
Standard	14.156	6.631	9.671	7.875	2T-3SR	4	1/8"	ALL24010S-004i
Extended	17.156	10.631	13.608	11.875	2T-3SR	3	1/8"	ALL25010S-003i

LIST 441

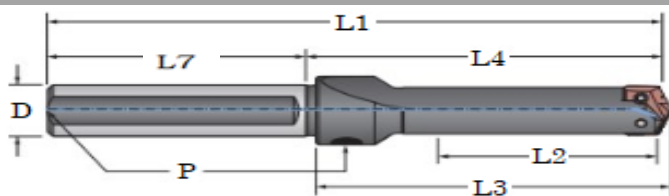
Series #1 Taper shank,
spiral flute



Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Standard	13.156	7.236	9.608	7.875	2T-3SR	3	1/8"	ALL24010H-003i
Standard	14.156	7.236	9.671	7.875	2T-3SR	4	1/8"	ALL24010H-004i
Extended	17.156	11.236	13.608	11.875	2T-3SR	3	1/8"	ALL25010H-003i

#1.5 Series Diameter range .859" - .9375" (21.8mm to 23.8mm)**LIST 4115**

Series #1.5 Straight
shank, straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	6.875	2.649	4.015	3.875	3.000	3/4"	1/8"	ALL22015S-075L

Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

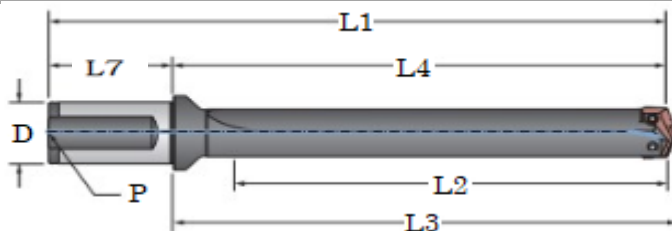
For the full line of products, please visit

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#2 Series Diameter range .961" - 1.380" (24.41mm - 35.05mm)**LIST402**

#2 Series Straight flanged
shank, straight flute

*Please call for items that
you do not see listed*

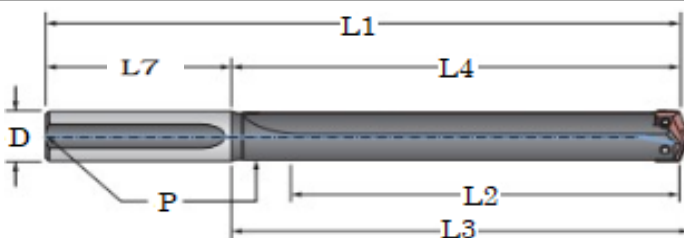


Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
*Stub	5.764	2.500	3.624	3.484	2.280	1-1/4"	1/4"	ALL21020S-125F
Short	7.343	3.391	5.203	5.063	2.280	1-1/4"	1/4"	ALL22020S-125F
Intermediate	9.343	5.391	7.203	7.063	2.280	1-1/4"	1/4"	ALL23020S-125F
Standard	11.343	7.343	9.203	9.063	2.280	1-1/4"	1/4"	ALL24020S-125F
Extended	15.343	11.391	13.203	13.063	2.280	1-1/4"	1/4"	ALL25020S-125F

**Also has 1/8"NPT on side of holder*

LIST 412

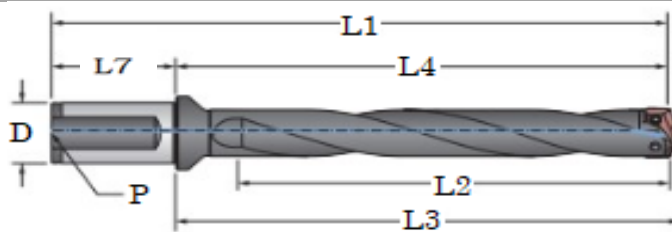
#2 Series Straight
shank, straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	8.000	3.226	4.640	4.500	3.500	1"	1/8"	ALL22020S-100L
Short	8.000	3.119	4.640	4.500	3.500	1-1/4"	1/8"	ALL22020S-125L
Intermediate	10.000	5.119	6.640	6.500	3.500	1-1/4"	1/8"	ALL23020S-125L
Standard	12.000	7.226	8.640	8.500	3.500	1"	1/8"	ALL24020S-100L
Standard	12.000	7.119	8.640	8.500	3.500	1-1/4"	1/8"	ALL24020S-125L
Extended	16.000	11.119	12.640	12.500	3.500	1-1/4"	1/8"	ALL25020S-125L

LIST 422

#2 Series Straight flanged
shank, spiral flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Intermediate	9.343	6.093	7.203	7.063	2.280	1-1/4"	1/4"	ALL23020H-125F
Standard	11.343	8.093	9.203	9.063	2.280	1-1/4"	1/4"	ALL24020H-125F

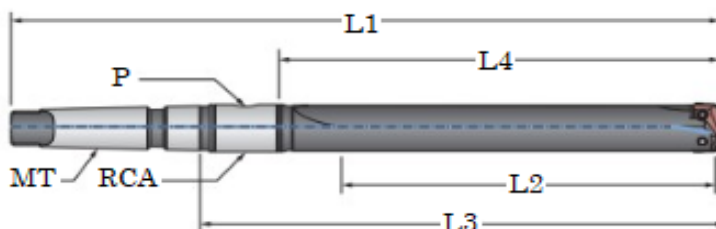
Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

For the full line of products, please visit

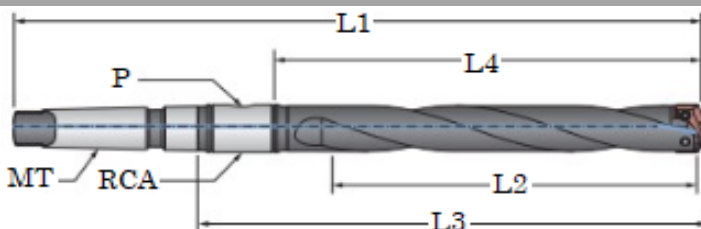
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**#2 Series (Continued)**

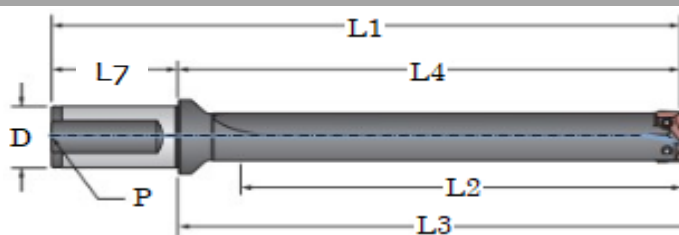
Diameter range .961" - 1.380" (24.41mm - 35.05mm)

LIST 432#2 Series Taper shank,
straight flute*Please call for items that
you do not see listed*

Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Short	9.781	3.229	6.233	4.500	2T-3SR	3	1/8"	ALL22020S-003i
Short	10.781	3.229	6.296	4.500	2T-3SR	4	1/8"	ALL22020S-004i
Intermediate	12.781	5.229	8.296	6.500	2T-3SR	4	1/8"	ALL23020S-004i
Standard	13.781	7.229	10.233	8.500	2T-3SR	3	1/8"	ALL24020S-003i
Extended	18.781	11.229	14.296	12.500	2T-3SR	4	1/8"	ALL25020S-004i

LIST 442#2 Series Taper shank,
spiral flute

Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Standard	13.781	7.850	10.233	8.500	2T-3SR	3	1/8"	ALL24020H-003i
Standard	14.781	7.850	10.296	8.500	2T-3SR	4	1/8"	ALL24020H-004i

#3 Series Diameter range 1.353" - 1.882" (34.36mm - 47.80mm)**LIST 403**#3 Series Straight flanged
shank, straight flute

Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	9.501	4.512	7.000	6.813	2.688	1-1/2"	1/4"	ALL22030S-150F
Intermediate	11.251	6.262	8.750	8.563	2.688	1-1/2"	1/4"	ALL23030S-150F
Standard	13.001	8.012	10.500	10.313	2.688	1-1/2"	1/4"	ALL24030S-150F

Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

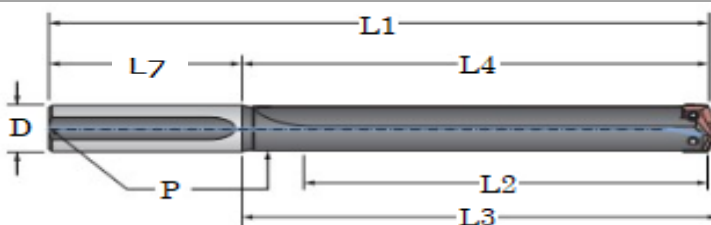
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#3 Series (Continued) Diameter range 1.353" - 1.882" (34.36mm - 47.80mm)

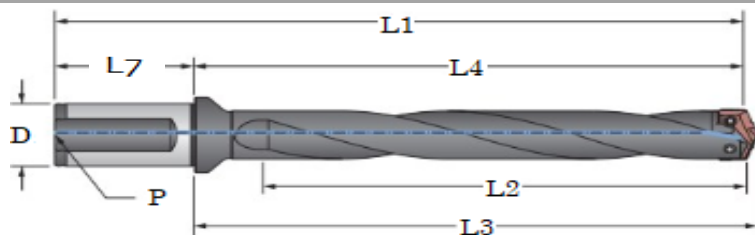
LIST 413 Straight shank, straight flute

Please call for items that
you do not see listed



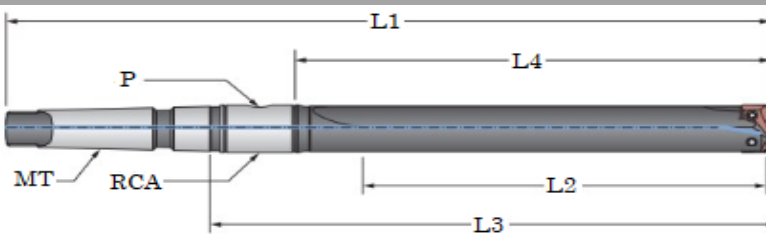
Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	10.000	4.320	6.187	6.000	4.000	1-1/4"	1/4"	ALL22030S-125L
Short	10.000	3.838	6.187	6.000	4.000	1-1/2"	1/4"	ALL22030S-150L
Intermediate	11.750	5.798	7.937	7.750	4.000	1-1/2"	1/4"	ALL23030S-150L
Standard	13.500	7.820	9.687	9.500	4.000	1-1/4"	1/4"	ALL24030S-125L
Standard	13.500	7.548	9.687	9.500	4.000	1-1/2"	1/4"	ALL24030S-150L

LIST 423 Straight flanged shank, spiral flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Intermediate	11.251	7.312	8.750	8.563	2.688	1-1/2"	1/4"	ALL23030H-150F
Standard	13.001	9.062	10.500	10.313	2.688	1-1/2"	1/4"	ALL24030H-150F

LIST 433 Taper shank, straight flute



Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Short	12.562	4.391	8.124	6.000	2T-4SR	4	1/4"	ALL22030S-004i
Short	13.812	4.048	8.124	6.000	2T-5SR	5	1/4"	ALL22030S-005i
Intermediate	14.312	6.141	9.874	7.750	2T-4SR	4	1/4"	ALL23030S-004i
Standard	16.062	7.891	11.624	9.500	2T-4SR	4	1/4"	ALL24030S-004i
Standard	17.312	7.548	11.624	9.500	2T-5SR	5	1/4"	ALL24030S-005i
Extended	21.562	13.391	17.124	15.000	2T-4SR	4	1/4"	ALL25030S-004i

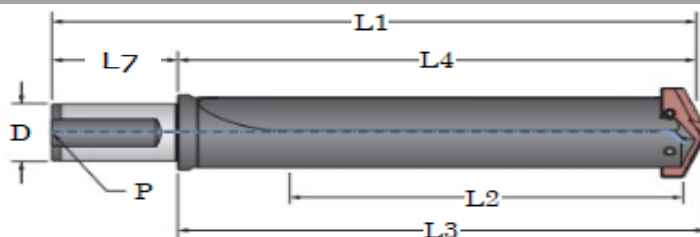
Extended See deep hole drilling guidelines www.alliedmachine.com/DeepHoleGuidelines

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#4 Series Diameter range 1.850" - 2.570" (46.99mm - 65.28mm)**LIST 404** Straight flanged
shank, straight flute

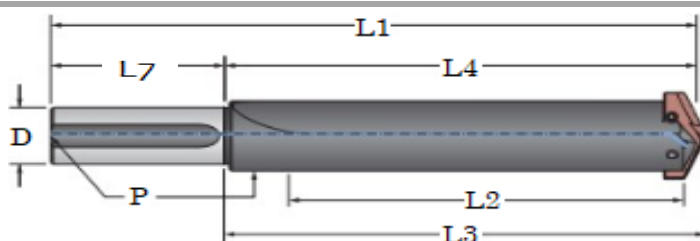
Please call for items that
you do not see listed



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	9.751	4.798	7.250	7.063	2.688	1-1/2"	1/4"	ALL22040S-150F
Standard	13.751	8.798	11.250	11.063	2.688	1-1/2"	1/4"	ALL24040S-150F

LIST 414

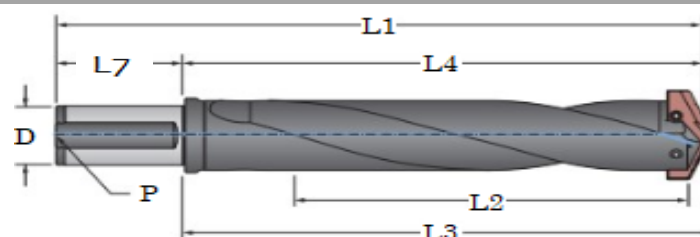
Straight shank,
straight flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Short	10.500	4.918	6.687	6.500	4.000	1-1/2"	1/4"	ALL22040S-150L
Standard	14.500	8.918	10.687	10.500	4.000	1-1/2"	1/4"	ALL24040S-150L

LIST 424

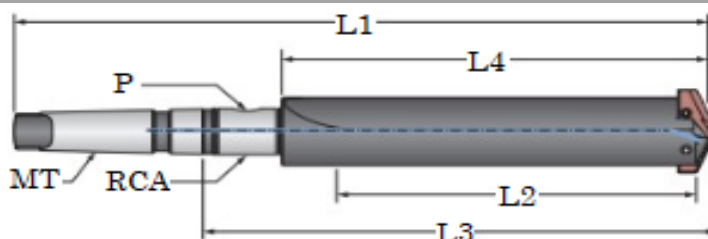
Straight flanged shank,
spiral flute



Length	L1	L2	L3	L4	L7	D	(P)ipe	Order number
Standard	13.751	9.949	11.250	11.063	2.688	1-1/2"	1/4"	ALL24040H-150F

LIST 434

Taper shank,
straight flute



Length	L1	L2	L3	L4	RCA	MT	(P)ipe	Order number
Short	13.062	5.139	8.624	6.500	2T-4SR	4	1/4"	ALL22040S-004i
Short	14.312	4.537	8.624	6.500	2T-5SR	5	1/4"	ALL22040S-005i
Standard	17.062	9.139	12.624	10.500	2T-4SR	4	1/4"	ALL24040S-004i

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Decimal equivalent chart

Drill Size	Decimal
0.1mm	.0039
.2mm	.0079
.3mm	.0118
80	.0135
79	.0145
1/64"	.0156
.4mm	.0157
78	.0160
77	.0180
.5mm	.0197
76	.0200
75	.0210
74	.0225
.6mm	.0236
73	.0240
72	.0250
71	.0260
.7mm	.0276
70	.0280
69	.0292
68	.0310
1/32"	.0312
.8mm	.0315
67	.0320
66	.0330
65	.0350
.9mm	.0354
64	.0360
63	.0370
62	.0380
61	.0390
1mm	.0394
60	.0400
59	.0410
58	.0420
57	.4300
56	.0465
3/64"	.0469
55	.0520
54	.0550
1.5mm	.0591
53	.0595
1/16"	.0625
52	.0635
51	.0670
50	.0700
49	.0730
48	.0760
5/64"	.0781

Drill Size	Decimal
47	.0785
2mm	.0787
46	.0810
45	.0820
44	.0860
43	.0890
42	.0935
3/32"	.0938
41	.0960
40	.0980
2.5mm	.0984
39	.0995
38	.1015
37	.1040
36	.1065
7/64"	.1094
35	.1100
34	.1110
33	.1130
32	.1160
3mm	.1181
31	.1200
1/8"	.1250
30	.1285
29	.1360
3.5mm	.1378
28	.1405
9/64"	.1406
27	.1440
26	.1470
25	.1495
24	.1520
23	.1540
5/32"	.1562
22	.1570
4mm	.1575
21	.1590
20	.1610
19	.1660
18	.1695
11/64"	.1719
17	.1730
16	.1770
4.5mm	.1772
15	.1800
14	.1820
13	.1850
3/16"	.1875
12	.1890

Drill Size	Decimal
11	.1910
10	.1935
9	.1960
5mm	.1969
8	.1990
7	.2010
13/64"	.2031
6	.2040
5	.2055
4	.2090
3	.2130
5.5mm	.2165
7/32"	.2188
2	.2210
1	.2280
A	.2340
15/64"	.2344
6mm	.2362
B	.2380
C	.2420
D	.2460
1/4"	.2500
6.5mm	.2559
F	.2570
G	.2610
17/64"	.2656
H	.2660
I	.2720
7mm	.2756
J	.2770
K	.2810
9/32"	.2812
L	.2900
M	.2950
7.5mm	.2953
19/64"	.2969
N	.3020
5/16"	.3125
8mm	.3150
O	.3160
P	.3230
21/64"	.3281
Q	.3320
8.5mm	.3346
R	.3390
9mm	.3543
T	.3580
23/64"	.3594
U	.3680

Drill Size	Decimal
9.5mm	.3740
3/8"	.3750
V	.3770
W	.3860
25/64"	.3906
10mm	.3937
X	.3970
Y	.4040
13/32"	.4062
Z	.4130
10.5mm	.4134
27/64"	.4219
11mm	.4331
7/16"	.4375
11.5mm	.4528
29/64"	.4531
15/32"	.4688
12mm	.4724
31/64"	.4844
12.5mm	.4921
1/2"	.5000
13mm	.5118
33/64"	.5156
17/32"	.5312
13.5mm	.5315
35/64"	.5469
14mm	.5512
9/16"	.5625
14.5mm	.5709
37/64"	.5781
15mm	.5906
19/32"	.5938
39/64"	.6094
15.5mm	.6102
5/8"	.6250
16mm	.6299
41/64"	.6406
16.5mm	.6496
21/32"	.6562
17mm	.6693
43/64"	.6719
11/16"	.6875
17.5mm	.6890
45/64"	.7031
18mm	.7087
23/32"	.7188
18.5mm	.7283
47/64"	.7344
19mm	.7480

Drill Size	Decimal
3/4"	.7500
49/64"	.7656
19.5mm	.7677
25/32"	.7812
20mm	.7864
51/64"	.7969
20.5mm	.8071
13/16"	.8125
21mm	.8266
53/64"	.8281
27/32"	.8438
21.5mm	.8465
55/64"	.8594
22mm	.8661
7/8"	.8750
22.5mm	.8858
57/64"	.8906
23mm	.9055
29/32"	.9062
59/64"	.9219
23.5mm	.9252
15/16"	.9375
24mm	.9449
24.5mm	.9646
31/32"	.9688
25mm	.9843
63/64"	.9844
1"	1.0000

CONVERT TO METRIC

.500 x 25.4 = 12.7mm

Metric to Imperial

12.7 ÷ 25.4 = .500



Tap drill sizes

Cutting taps based on 75% thread

Forming taps based on 65% thread

Tap Size	Cutting Tap Drill	Forming Tap Drill
0-80	3/64"	No.54
1-64	No.53	1.65mm
1-72	No.53	1.7mm
2-56	No.50	5/64"
2-64	No.50	2.0mm
3-48	No.47	No.43
3-56	No.46	2.3mm
4-40	No.43	No.39
4-48	No.42	2.6mm
5-40	No.39	No.33
5-44	No.38	2.9mm
6-32	No.36	1/8"
6-40	No.33	3.2mm
8-32	No.29	No.25
8-36	No.29	No.24
10-24	No.25	11/64"
10-32	No.21	No.16
12-24	No.17	5mm
12-28	No.15	No.8
1/4"-20	No.7	No.1
1/4"-28	No.3	A
5/16"-18	F	7.3mm
5/16"-24	I	M
3/8"-16	5/16"	S
3/8"-24	Q	T
7/16"-14	U	13/32"
7/16"-20	W	10.5mm
1/2"-13	27/64"	11.8mm
1/2"-20	29/64"	12mm
9/16"-12	31/64"	17/32"
9/16"-18	33/64"	13.5mm
5/8"-11	17/32"	14.75mm
5/8"-18	37/64"	15.25mm
3/4"-10	21/32"	45/64"
3/4"-16	11/16"	23/32"
7/8"-9	49/64"	
7/8"-14	13/16"	
1"-8	7/8"	
1"-12	59/64"	
1"-14	15/16"	

Tap Size	Cutting Tap Drill	Forming Tap Drill
M1.6x.35	1.25mm	1.45mm
M1.8x.35	1.45mm	1/16"
M2x.4	1.60mm	No.49
M2.2x.45	1.75mm	No.42
M2.5x.45	2.05mm	No.41
M3x.5	2.5mm	No.34
M3.5x.6	2.9mm	3.3mm
M4x.7	3.3mm	3.7mm
M4.5x.75	3.75mm	4.2mm
M5x.8	No.19	No.13
M6x1.0	5mm	No.2
M7x1.0	6mm	6.5mm
M8x1.25	H	M
M8x1.0	J	19/64"
M10x1.5	8.5mm	U
M10x1.25	8.75mm	9.5mm
M12x1.75	13/32"	7/16"
M12x1.25	10.75mm	11.5mm
M14x2.0	12mm	33/64"
M14x1.5	12.5mm	17/32"
M16x2.0	14mm	19/32"
M16x1.5	14.5mm	39/64"
M18x2.5	15.5mm	17mm
M18x1.5	16.5mm	11/16"
M20x2.5	17.5mm	18.75mm
M20x1.5	18.5mm	49/64"
M22x2.5	19.5mm	21mm
M22x1.5	20.5mm	27/32"
M24x3.0	53/64"	57/64"
M24x2.0	22mm	
M27x3.0	24mm	
M27x2.0	63/64"	
M30x3.5	1-3/64"	
M30x2.0	1-7/64"	
M33x3.5	1-11/64"	
M33x2.0	31mm	
M36x4.0	32mm	
M36x3.0	33mm	
M39x4.0	35mm	
M39x3.0	36mm	

Pipe tap drill sizes				
Tap Size	NPT*	NPTF*	NPS	NPSF
1/16"	D	C	1/4"	D
1/8"	R	Q	S	R
1/4"	7/16"	7/16"	29/64"	7/16"
3/8"	37/64"	9/16"	19/32"	37/64"
1/2"	23/32"	45/64"	47/64"	45/64"
3/4"	59/64"	29/32"	15/16"	59/64"
1"	1-5/32"	1-9/64"	1-3/16"	1-5/32"
1-1/4"	1-1/2"	1-31/64"	1-33/64"	
1-1/2"	1-47/64"	1-23/32"	1-3/4"	
2"	2-7/32"	2-3/16"	2-7/32"	
2-1/2"	2-5/8"	2-39/64"	2-21/32"	
3"	3-1/4"	3-15/64"		

*For tapping without reaming

British Standard Pipe drill sizes			
Tap Size	T.P.I	BSPP	BSPT
1/8"	28	8.8mm	8.4mm
1/4"	19	11.80mm	11.2mm
3/8"	19	15.25mm	14.75mm
1/2"	14	19mm	18.25mm
5/8"	14	21mm	-----
3/4"	14	24.5mm	23.75mm
7/8"	14	28.25mm	-----
1"	11	30.75mm	30mm
1-1/4"	11	39.5mm	38.50mm
1-1/2"	11	45mm	44.5mm
1-3/4"	11	51mm	-----
2"	11	57mm	58mm
2-1/2"	11	-----	71mm

Calculate the tap drill size for any tap! (Not pipe)

Imperial:

$$1 \div \text{pitch} = x \quad \text{Tap diameter} - x = \text{drill}$$

Example: For a 1"-8 $1 \div 8 = .125$ $1" - .125 = 7/8"$ drill

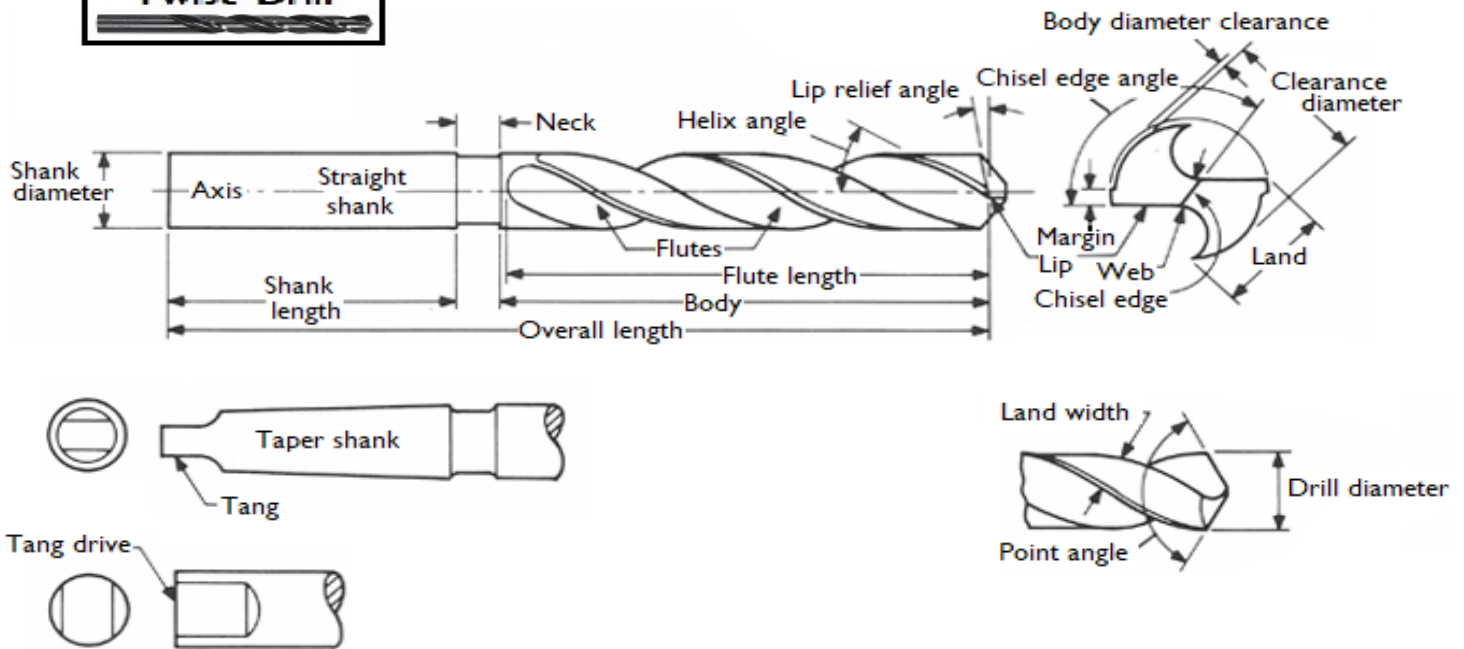
Metric:

$$\text{Tap diameter} - \text{pitch} = \text{drill}$$

Example: For M12x1.75 $12\text{mm} - 1.75 = 10.25\text{mm}$



Drill terminology



Feed and Speed

Information provided is for reference only. Every machine setup is different and many factors are involved. Use these charts as a baseline of where to start and adjust as necessary.

Drilling speeds

Material	SFM
Aluminum	250
Brass/Bronze	200
Copper	70
Cast Iron (soft)	120
Cast Iron (hard)	80
Magnesium	300
Mild Steel	110
Cast Steel	50
Alloy Steel (hard)	60
Tool Steel	60
Stainless Steel	30
Titanium	30
High Manganese	15

Drill feed and speed

$$\text{RPM} = \text{SFM} \times 3.82 \div \text{TD}$$

$$\text{IPM} = \text{RPM} \times \text{IPR}$$

Drill depths

Specified depth:

$$\text{TD} \div 3 + \text{Depth}$$

Thru hole:

$$\text{TD} \div 3 + 1 + \text{Material thickness}$$

Center drill feed and speed

Speed = 500 to 1500 RPM

Feed = .004 - .007 IPR

Drill Feed

Diameter	IPR
< 1/8"	.001-.002
1/8" - 1/4"	.002-.004
1/4" - 1/2"	.004-.007
1/2" - 1"	.007-.015
>1"	.015-.025

RPM= Rotations per minute

TD= Tool diameter

IPM= Inches per minute

SFM= Surface feet / minute

IPR= Inches per revolution

NOTES:

NOTES:

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