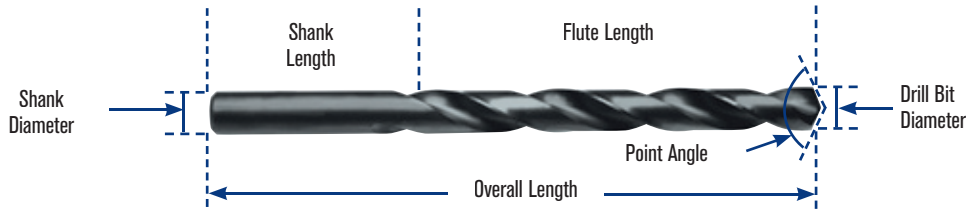


## Engineered for Controlled Precision and Speed



**Overall Length:** The length from the point to the end of the drill bit

**Point Angle:** The angle of the cutting edges

**Drill Diameter:** The cutting diameter of the drill bit

**Shank Length:** The end of the drill bit that is secured by the drill

**Flute Length:** The length from the point to the end of the flutes

### Tip Geometry

METAL DRILLING

**118° Conventional Point**

- General use
- Not self-centering
- Best for stationary drills
- Performs better in softer materials vs. hard metal

118° Point Angle

**135° Split Point**

- Self-centering (won't "walk")
- Best for portable drills
- Requires less force than 118°

135° Point Angle

**TURBOMAX® Tip**

- Self-centering (won't "walk")
- Precision-ground to stay sharp longer and drill faster
- Best for portable drills
- Requires less force than 118°

### Drill Bit Selection

Material	Point Angle	Black & Gold (135°)	TURBOMAX® (TURBOMAX)	Heavy-Duty (135°)	Titanium Nitride (TiN) Coated (135°)	Cobalt (135°)	General Purpose (118°)
Wood/Drywall		●	●	●	●	●	●
Sheet Metal		●	●	●	●	●	●
Mild Steel		●	●	●	●	●	●
High Alloy Steels		●	●	●	●	●	●
Stainless Steel		●	●	●	●	●	●
Cast Iron		●	●	●	●	●	●
Aluminum, Brass & Copper		●	●	●	●	●	●
Plastic		●	●	●	●	●	●

Key: ● Recommended ● Acceptable ● Not Recommended

# Metal Drilling

## Step Drill Bits / Sets

### UNIBIT® HSS Metric Titanium Nitride (TiN) Coated



16103

- Titanium Nitride coating resists heat and friction, extending the cutting edge life up to six times longer than other high speed steel step drill bits.
- SpeedPoint® tip for fast starts.\*

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
▲ #1MT 4 mm - 12 mm (1 mm steps)	9	1/4"	16101
▲ #2MT 4 mm - 12 mm (2 mm steps)	5	1/4"	16102
▲ #3MT 6 mm - 18 mm (2 mm steps)	7	3/8"	16103
▲ #4MT 4 mm - 22 mm (2 mm steps)	10	3/8"	16104
▲ #5MT 5 mm - 35 mm (2 - 3 mm steps)	13	7/16"	16105

### UNIBIT HSS Fractional



10234

- SpeedPoint® tip for fast starts.\*
- Geometry of single-flute cutting edge drills true, round holes and provides maximum step control.

**Sets:** 10225, 10228, 10502

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
▲ #1 1/8" - 1/2" (1/32" steps)	13	1/4"	10231
▲ #2 3/16" - 1/2" (1/16" steps)	6	1/4"	10232
▲ #3 1/4" - 3/4" (1/16" steps)	9	3/8"	10233
▲ #4 3/16" - 7/8" (1/16" steps)	12	3/8"	10234
▲ #5 1/4" - 1-3/8" (1/8" steps)	10	7/16"	10235
▲ #9 7/8" and 1-1/8" (1/2" and 3/4" Knock-Out)	2	7/16"	10239
#10 1/2" (single hole)	1	1/4"	10310
#11 7/8" (single hole)	1	3/8"	10311ZR
#12 3/8" (single hole)	1	1/4"	10312ZR
#13 1-1/8" (single hole)	1	7/16"	10313ZR
#14 1-7/32" (single hole)	1	7/16"	10314
#20 9/16" - 1" (hole enlarging)	8	7/16"	10220
#21 13/16" - 1-3/8" (hole enlarging)	10	7/16"	10221

METAL DRILLING

### UNIBIT HSS Metric



11101ZR

- SpeedPoint® tip for fast starts.\*
- Geometry of single-flute cutting edge drills true, round holes and provides maximum step control.

Description	# of Hole Sizes	Hex Shank Size	Carded Item #
▲ #1M 4 mm - 12 mm (1 mm steps)	9	1/4"	11101ZR
▲ #2M 4 mm - 12 mm (2 mm steps)	5	1/4"	11102
▲ #3M 6 mm - 18 mm (2 mm steps)	7	3/8"	11103
▲ #4M 4 mm - 22 mm (2 mm steps)	10	3/8"	11104
▲ #5M 5 mm - 35 mm (2-3 mm steps)	13	7/16"	11105ZR
#20M 14 mm - 24 mm (hole enlarging)	6	7/16"	11580
#21M 20 mm - 34 mm (hole enlarging)	8	7/16"	11581
PG29M 5 mm - 28.3 mm	10	7/16"	11194
29 mm 5 mm - 29 mm	10	7/16"	11195

### UNIBIT Sets



10502CB

▲ - SpeedPoint™ Tip

Description	Type	Contents	Item #
4-Piece Set	High Speed Steel Set	#1, 2, 4 & 21	10225
4-Piece Set	High Speed Steel Set w/#1 TiN	#1, 2 & 3 plus #1T	10228
3-Piece Set	High Speed Steel Set	#1, 2 & 3	10502ZR
3-Piece Set	Titanium Nitride Coated Set	#1T, 2T & 3T	15502
3-Piece Set	Cobalt Set	#1C, 2C & 3C	10502CB
9-Piece Set	Unibit/TiN Turbomax Set	#1, #4 & 7-Piece TiN (1/16", 3/32", 1/8", 3/16", 7/32", 1/4", 3/8")	3018008

\*included on all self-starting sizes except for #1