

## HSS Twist Drill Recommended Speeds and Point Angles

(Scroll down for recommended feed rates by diameter)

Steels	Point Angle	SFM
Steel < 180 HB	118	80-110
Steel 180-280 HB	118	45-70
Steel 280-380 HB	135-140	30-45
Steel >380 HB	135-140	15-25
<b>Stainless Steels</b>		
Stainless steel 200-300 series	135-140	20-40
Stainless steel 400 series and PH	118	30-60
<b>Cast Iron</b>		
Gray cast iron < 180 HB	90	100-150
Gray cast iron 180-200 HB	118	70-100
Gray cast iron - > 200 HB	118	50-70
Ductile/Nodular cast iron	118	70-80
Cast Iron - chilled	135-140	25-35
<b>High-temp alloys</b>		
Inconel 600 series	135-140	15-30
Inconel X	135-140	10-15
Hastelloy	135-140	15-30
Titanium and titanium alloys	135-140	20-30
A-286	135-140	15-25
Monel	118	40-50
<b>Non-ferrous</b>		
Aluminum and aluminum alloys	118	200-300
Brass	111	150-250
Bronze	118	100-200
Copper	118	100-200

## HSS Twist Drill Recommended Feed Rates by Diameter

Diameter	Feed - IPR
1/4" to 5/16 "	.006" to.010"
3/8" to 7/16"	.008" to.012"

1/2" to 9/16"	.010" to.014"
5/8" to 11/16"	.012" to.016"
3/4" to 13/16"	.013" to.018"
7/8" to 1 1/8"	.015" to .025"
1 1/4" to 1 1/2"	.020" to .040"
Over 1 1/2"	.025" and up