



Solid Carbide Coolant Thru Drill General Reference

Feed Rate Based On Drill Diameter

WORKPIECE MATERIAL	SFM	1/8" (3.18mm)	1/4" (6.35mm)	3/8" (9.53mm)	1/2" (12.75mm)	3/4" (19.05mm)
N Aluminum 6061 7075	250-650 400	12,250 RPM .001-.004 IPR .004 IPR 49 IPM	6,125 RPM .001-.007 IPR .006 IPR 36.75 IPM	4,075 RPM .002-.009 IPR .007 IPR 28.5 IPM	3,050 RPM .002-.014 IPR .008 IPR 24.5 IPM	2,000 RPM .004-.024 IPR .010 IPR 20 IPM
P Carbon Steel 1018 A36	250-400 300	9,150 RPM .003-.006 IPR .004 IPR 36.5 IPM	4,575 RPM .005-.010 IPR .005 IPR 23 IPM	3,050 RPM .006-.012 IPR .006 IPR 18 IPM	2,300 RPM .007-.014 IPR .007 IPR 16 IPM	1,500 RPM .008-.016 IPR .008 IPR 12 IPM
P Alloy Steel 4130 4140	250-400 275	8,400 RPM .003-.006 IPR .004 IPR 33.5 IPM	4,200 RPM .005-.010 IPR .005 IPR 21 IPM	2,800 RPM .006-.012 IPR .006 IPR 16.5 IPM	2,100 RPM .007-.014 IPR .007 IPR 14.5 IPM	1,400 RPM .008-.016 IPR .008 IPR 11 IPM
P Tool Steel A2 D2	80-200 125	3,800 RPM .002-.004 IPR .002 IPR 7.5 IPM	1,900 RPM .003-.005 IPR .003 IPR 5.5 IPM	1,275 RPM .004-.006 IPR .004 IPR 5 IPM	950 RPM .005-.007 IPR .005 IPR 4.75 IPM	625 RPM .006-.008 IPR .006 IPR 3.75 IPM
M 300 Series Stainless Steel 303 304 316	130-230 175	5,350 RPM .003-.005 IPR .003 IPR 16 IPM	2,675 RPM .004-.008 IPR .004 IPR 10.5 IPM	1,775 RPM .005-.009 IPR .005 IPR 9 IPM	1,330 RPM .006-.010 IPR .006 IPR 8 IPM	890 RPM .007-.012 IPR .007 IPR 6 IPM
M 400 Series Stainless Steel 410 420	130-230 150	4,580 RPM .003-.005 IPR .003 IPR 14 IPM	2,300 RPM .004-.008 IPR .004 IPR 9 IPM	1,525 RPM .005-.009 IPR .005 IPR 7.5 IPM	1,150 RPM .006-.010 IPR .006 IPR 7 IPM	765 RPM .007-.012 IPR .007 IPR 5.5 IPM
M PH Stainless Steel 15-5 17-4	130-230 150	4,580 RPM .003-.005 IPR .003 IPR 14 IPM	2,300 RPM .004-.008 IPR .004 IPR 9 IPM	1,525 RPM .005-.009 IPR .005 IPR 7.5 IPM	1,150 RPM .006-.010 IPR .006 IPR 7 IPM	765 RPM .007-.012 IPR .007 IPR 5.5 IPM
K Cast iron	200-400 300	9,150 RPM .003-.005 IPR .005 IPR 46 IPM	4,575 RPM .006-.009 IPR .006 IPR 27.5 IPM	3,050 RPM .007-.011 IPR .007 IPR 21 IPM	2,300 RPM .008-.012 IPR .008 IPR 18.5 IPM	1,500 RPM .009-.014 IPR .009 IPR 13.5 IPM
S Titanium 6AL-4V	50-180 75	2,300 RPM .002-.004 IPR .003 IPR 7 IPM	1,150 RPM .004-.006 IPR .004 IPR 4.5 IPM	765 RPM .005-.008 IPR .005 IPR 4 IPM	575 RPM .006-.010 IPR .006 IPR 3.5 IPM	380 RPM .007-.012 IPR .007 IPR 2.5 IPM

SFM=Surface Feet Per Minute
 RPM=Revolutions Per Minute
 IPR=Inches Per Revolutions
 IPM=Inches Per Minute

Use combinations of each below to find one another.

How to convert SFM to RPM $RPM = 3.82 * SFM$ Diameter "Type in 3.82 * SFM and press equals. Now Divide by Tool Diameter"	How to convert RPM to SFM $SFM = RPM * Diameter * .262$	How to convert IPR to IPM $IPM = RPM * IPR$	How to convert IPM to IPR $IPR = IPM \div RPM$
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