



## List 52513 & 78537 - PHOENIX® PDZ-2D List 52514 & 78538 - PHOENIX® PDZ-3D

ABOUT OSG

DRILLING

THREADING

MILLING

HOLDERS

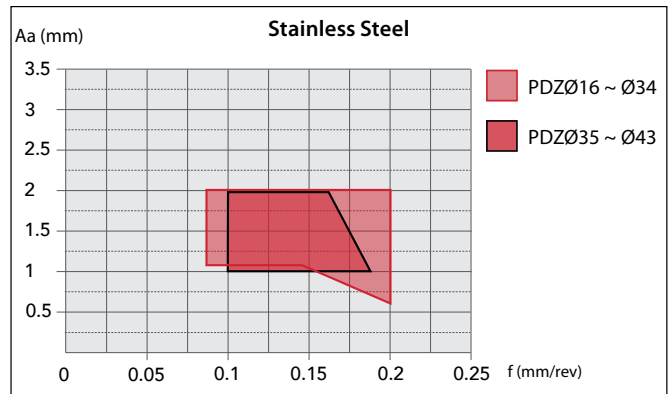
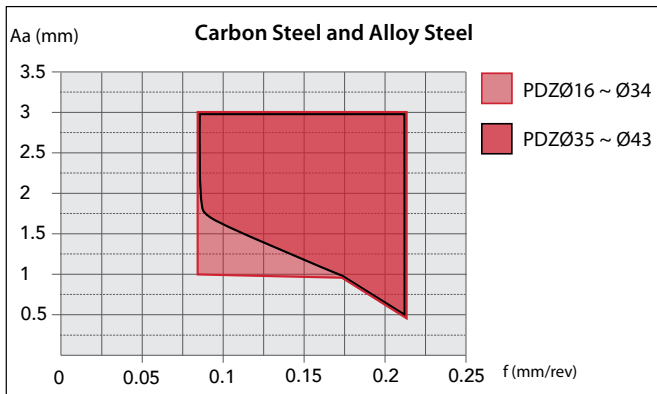
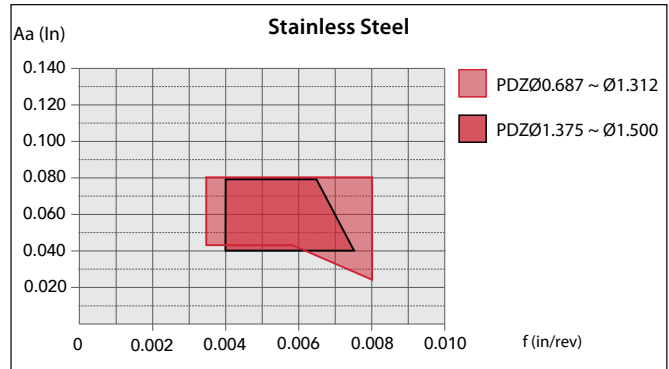
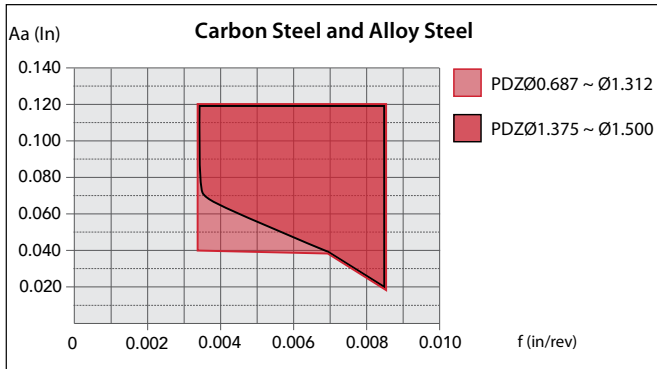
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Work Material	Tensile Strength - Hardness	Drilling Speed Vc (SFM)	Feed Rate, f (in/rev)						
			Drilling Depth 2xD						
			Ø0.630-0.650 (16-16.5mm)	Ø0.669-0.728 (17-18.5mm)	Ø0.748-0.787 (19-20mm)	Ø0.827-0.945 (21-24mm)	Ø0.984-1.102 (25-28mm)	Ø1.142-1.299 (29-33mm)	Ø1.338-1.693 (34-43mm)
<b>P</b> Mild Steels, Carbon Steels (1010, 1018) Carbon Steels, Alloy Steels (1050, 4140) Die Steels (D2, H13)	~180 HB	650 (500 - 800)	.0024 (.0015 - .004)	.0024 (.0015 - .004)	.0027 (.0015 - .004)	.003 (.0015 - .0047)	.003 (.0015 - .0047)	.004 (.002 - .006)	.004 (.002 - .007)
	~280 HB	500 (330 - 720)	.003 (.0015 - .0055)	.0035 (.0015 - .0063)	.004 (.0015 - .007)	.0055 (.0015 - .008)	.007 (.0024 - .010)	.008 (.003 - .012)	.008 (.003 - .014)
	~280 HB	400 (260 - 600)	.0024 (.0015 - .004)	.0027 (.0015 - .004)	.003 (.0015 - .0047)	.0047 (.0015 - .006)	.0055 (.0024 - .008)	.007 (.003 - .010)	.007 (.003 - .010)
<b>M</b> Stainless Steels (304, 420)	~250 HB	425 (260 - 600)	.0027 (.0015 - .004)	.003 (.0015 - .004)	.0035 (.0015 - .0047)	.004 (.0015 - .006)	.005 (.0024 - .008)	.006 (.003 - .010)	.006 (.003 - .010)
<b>K</b> Cast Iron (FC250) Ductile Cast Iron (60-40-18)	~350 N/mm <sup>2</sup>	650 (500 - 920)	.003 (.0015 - .0055)	.004 (.0015 - .0063)	.0047 (.0015 - .008)	.0063 (.003 - .010)	.008 (.0024 - .012)	.008 (.003 - .012)	.008 (.003 - .014)
	~800 N/mm <sup>2</sup>	525 (330 - 720)	.003 (.0015 - .0047)	.0035 (.0015 - .0055)	.004 (.0015 - .007)	.0055 (.0015 - .008)	.007 (.0024 - .010)	.007 (.003 - .010)	.007 (.003 - .010)
<b>N</b> Aluminum Alloys (6061, 7075)	~13% Si	650 (330 - 2600)	.003 (.0015 - .0047)	.004 (.0015 - .0063)	.0047 (.0015 - .008)	.0063 (.0015 - .010)	.008 (.0024 - .012)	.008 (.003 - .012)	.008 (.003 - .012)
<b>S</b> Heat Resistant Alloys (Inconel 718) Titanium Alloy (Ti-6Al-4V)	-	165 (50 - 200)	.0015 (.0008 - .0024)	.002 (.0012 - .0024)	.002 (.0012 - .0024)	.0024 (.0015 - .003)	.003 (.0024 - .004)	.004 (.0024 - .0047)	.004 (.0024 - .0047)
	-	200 (100 - 330)	.002 (.0015 - .003)	.0024 (.0015 - .003)	.0024 (.0015 - .003)	.003 (.0015 - .006)	.004 (.0024 - .008)	.0055 (.003 - .008)	.0055 (.003 - .008)
<b>H</b> Pre-hardened Steel (P20, Stavax) Die Cast Steels (A2, S7) Hardened Steels (D2)	40 - 43 Hrc	330 (200 - 400)	.0024 (.0015 - .004)	.0024 (.0015 - .0047)	.0027 (.0015 - .0047)	.003 (.0015 - .0047)	.004 (.0024 - .006)	.004 (.0024 - .006)	.004 (.0024 - .006)
	43 - 48 Hrc	260 (165 - 330)	.002 (.0015 - .003)	.002 (.0015 - .003)	.0024 (.0015 - .003)	.0024 (.0015 - .003)	.003 (.0015 - .004)	.003 (.0015 - .004)	.003 (.0015 - .004)
	50 - 55 Hrc	200 (130 - 260)	.002 (.0015 - .003)	.002 (.0015 - .003)	.0024 (.0015 - .003)	.0024 (.0015 - .003)	.003 (.0015 - .004)	.003 (.0015 - .004)	.003 (.0015 - .004)





# Cutting Conditions - Turning



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