ALLIED MACHINE & ENGINEERING

Recommended Cutting Data

Structural Steel GEN3SYS® XT Pro | Imperial (inch)

ISO	Material	Speed (SFM) - Mist Coolant		Feed Rate (IPR) by Diameter												
		Hardness (BHN)	 AM420 Speed	12 series 0.4724 - 0.5117	13 series 0.5118 - 0.5511	14 series 0.5512 - 0.5905	15 series 0.5906 - 0.6298	16 series 0.6299 - 0.6692	17 series 0.6693 - 0.7086	18 series 0.7087 - 0.7873	20 series 0.7874 - 0.8660	22 series 0.8661 - 0.9448	24 series 0.9449 - 1.0235	26 series 1.0236 - 1.1416	29 series 1.1417 - 1.2597	32 series 1.2598 - 1.3780
P	**Structural Steel** A36, A285, A516, A572, etc.	100 - 150	350	0.008	0.009	0.010	0.010	0.012	0.012	0.014	0.015	0.016	0.017	0.018	0.019	0.019
		150 - 250	300	0.007	0.008	0.009	0.009	0.010	0.010	0.012	0.014	0.015	0.016	0.017	0.018	0.018
		250 - 350	260	0.006	0.007	0.008	0.008	0.009	0.009	0.011	0.012	0.013	0.014	0.015	0.016	0.016

Speed and Feed Multiplier

	Depth of Cut	
	<= 1.5xD	> 1.5xD
Speed	See above chart	0.75
Feed	See above chart	0.90

NOTE: The speeds and feeds listed above are based on a rigid setup using air mist through tool coolant. Speed may be increased up to 50% if using high pressure flood or through coolant.
NOTE: If drilling dry without coolant, speed must be reduced significantly based on setup, drill depth, and material hardness. Up to 50% speed and feed reduction may be necessary in these types of applications. Contact the Application Engineering department for assistance.
NOTE: If drilling material thickness of 0.500" (12.7mm) or less, a minimum of 10% reduction in feed is required to minimize material deflection.