

# Taps: Recommended Tapping Conditions

## HY-PRO® and HY-PRO® DIN\* Cutting Conditions for Machining Centers

Work Material	Examples	HY-PRO® Speed (SFM)	HY-PRO® Coolant Through** Speed (SFM)
Low Carbon Steel	A36, 1018, 12L14	50 - 90	150 - 250
Medium Carbon Steel	1025, 1035, 1144	40 - 80	100 - 200
High Carbon Steel	1065	40 - 60	100 - 120
Alloy Steels	4140, 4340, 8620	40 - 80	50 - 150
Hardened Steels	Up to 35 HRC	20 - 60	40 - 120
Stainless Steels	303, 304, 316, 400	40 - 80	50 - 120
Copper and Alloys	Cu, Brass, Bronze (Including castings)	30 - 80	150 - 250
Aluminum Alloys	2024, 6061, 7075	30 - 80	150 - 300
Aluminum Casting	326, 390, < 16% Si	30 - 80	150 - 250
Zinc Alloy Casting	ZDC	30 - 80	150 - 200

## EXOTAP® NRT® and HY-PRO® NRT® (Nu-Roll Tap) Cutting Conditions for OSG Forming Taps

Work Material	Examples	HY-PRO® - NRT® Speed (SFM)	EXOTAP® - NRT® Speed (SFM)
Low Carbon Steel	A36, 1018, 12L14	35 - 100	35 - 130
Medium Carbon Steel	1025, 1035, 1144	20 - 50	20 - 50
High Carbon Steel	1080, 1095	15 - 25	15 - 30
Alloy Steels	4140, 4340, 8620	15 - 25	15 - 30
Hardened Steels	(HYPRO up to 30 HRC) (EXO up to 35 HRC)	10 - 15	10 - 15
Stainless Steels	303, 304, 316, 400	15 - 40	15 - 50
Copper and Alloys	Cu, Brass, Bronze (Including castings)	30 - 90	30 - 100
Aluminum Alloys	2024, 6061, 6063, 7075	50 - 90	65 - 150
Aluminum Casting	326, 390, < 16% Si	45 - 100	65 - 130
Zinc Alloy Casting	ZDC	30 - 80	30 - 100

\* Rigid Setup Required to run these speeds.

\*\* 250psi minimum recommended for these speeds.