

IMPACT PIN SELECTION GUIDE



Pin Style	Cone Angles	Materials*	Length	Major Diameter	Minor Diameter	Markers	Applications	Nominal Stroke Length	Typical Max Depth of Mark**
10MP	30° 45°	Carbide	0.62" 16mm	0.09" 2.3mm	0.04" 1.0mm	TMP1700, TMM4200, TMM5400	Great for high resolution graphics and 2-D codes with multi-pixel cells. Pneumatically driven. Light marking in plastic or soft metals. Extremely fast marking, especially in multi-pin markers.	0.14" 3.5mm	0.001 – 0.003" 0.02mm
25S	22° 30° 45° 60°	Carbide, Powdered Metal	1.8" 45mm	0.19" 4.8mm	0.09" 2.4mm	TMP4210, TMM5400, TMP3200, TMM4200, TMM4250	Very fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Pneumatically driven.	0.38" 9.6mm	0.0025 – 0.011" 0.06 – 0.28mm
25L	22.5° 30° 45° 60°	Carbide, Powdered Metal	2.2" 55mm	0.19" 4.7mm	0.09" 2.4mm	TMP6100, TMM5100, TMP1700, TMP3200, TMM7200	Fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Pneumatically driven.	0.50" 12.7mm	0.0025 – 0.016" 0.06 – 0.40mm
25XL	22.5° 30° 45° 60°	Carbide, Powdered Metal	2.5" 64mm	0.19" 4.7mm	0.09" 2.4mm	TMP6100, TMM5100, TMM7200, TMP1700, TMP3200, DPP2000	Similar to 25L. Extra length for recessed or hard to reach marking surfaces. Pneumatically driven.	0.50" 12.7mm	0.0025 – 0.016" 0.06 – 0.40mm
25XLE	30° 45°	Carbide	1.8" 46mm	0.16" 4.0mm	0.09" 2.4mm	TMP1700, TMP3200, TMP6100, Benchmark® 320, Benchmark® 460	Fast, limited penetration marking. For marking small characters on relatively smooth surfaces. Electrically driven.	0.15" 3.8mm	0.0025 – 0.011" 0.06 – 0.28mm
101	30° 45° 60°	Carbide, Powdered Metal	3.9" 99mm	0.31" 7.9mm	0.15" 3.9mm	TMM5100, TMM7200	For deep marks, large dots and characters, and/or rough surfaces. Pneumatically driven.	0.75" 19mm	0.006 – 0.022" 0.15 – 0.56mm
150S	30° 45° 60°	Powdered Metal, Carbide-Tipped	2.75" 70mm	0.62" 15.7mm	0.37" 9.5mm	TMP6100, TMM5100, TMM7200, TMP1700, DPP2000	Similar to 101. High speed marking. Pneumatically driven.	0.25" 6.35mm	0.006 – 0.022" 0.15 – 0.56mm
150SA	30° 45°	Carbide-Tipped	2.75" 70mm	0.62" 15.7mm	0.37" 9.5mm	TMP6100, TMP3200, TMM4200, TMP4210, TMM4250, TMM7200, TMP1700	Similar to 150S.	0.75" 19mm	0.006 – 0.022" 0.15 – 0.56mm
150	30° 45°	Powdered Metal	5.25" 133.4mm	0.62" 15.7mm	0.37" 9.5mm	TMM7200, TMP7000	Very heavy duty, deep penetration, large character marking; and/or very rough surfaces such as castings and mill surfaces. Pneumatically driven.	1.00" 25.4mm	0.020 – 0.030" 0.51 – 0.76mm

*Carbide = Tungsten Carbide (Hardness approximately 92 Rockwell A), Powdered Metal (Hardness 63 – 65 Rockwell C).

**Varies with material hardness, cone angle and marking head utilized.

