



PIVOT BASIC SERIES

this expanded* line of NAPMA standard punches offers many important advantages

HOT-HEAD FORGING

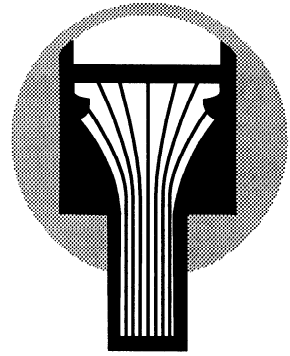
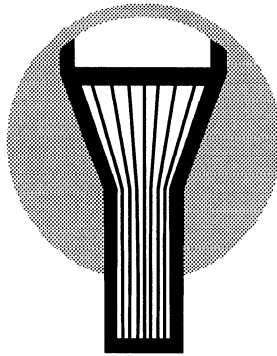
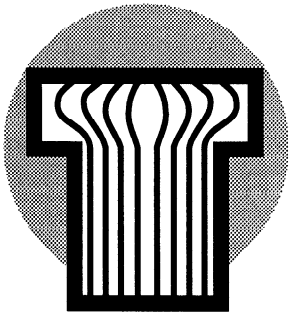
All shoulder type punches are specially hot-forged to minimize head breakage. Grain flow lines are uninterrupted and conform with the contour of the shoulder assuring maximum structural strength.

STRAIGHT GROUND®

Grind lines are parallel to the axis and perpendicular to the line of potential fractures. This resists wear, assures easier stripping, minimizes "Pick-up" and achieves maximum strength and punchability. (Straight grinding is exclusive with Pivot Punch). Patent No. 2,604,742 and 2,622,682.
TONDRA® TREATED

WHIPSLEEVE®

An inert metal sleeve that absorbs vibration, the Pivot Whipsleeve is cast at the point of the punch where failure normally occurs, thus greatly increasing punch life. When used with a bushing in the stripper it eliminates whipping or shifting and transfers side thrust to the stripper rather than imposing all the force on the working point. **Pivot Whipsleeve Straight-ground Punches** are capable of piercing metal thicknesses which exceed the diameter of the punches. Patent No. 2,431,567 and 2,622,682.
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