DIE WEAR TOLERANCES

SCOPE

1. Die wear varies according to the material which is forged and the shape of the forging. Consequently, Die Wear Tolerances for various materials are applied in addition to Length/Width Tolerances on dimensions pertaining to forged surfaces only. Die Wear Tolerances do not apply on center-to-center dimensions. (See example 4 on page 11.)

TOLERANCE

2. (a) Die Wear Tolerances for all length, width, and diameter dimensions under 30 in. or 750 mm are computed by multiplying the largest length or diameter (measured parallel to the fundamental parting line of the dies) by the appropriate factor in Table I below. Die Wear Tolerances for all length, width and diameter dimensions over 30 in. or 750 mm are taken directly from Table I below.

   (b) Die Wear Tolerances on external dimensions are expressed as plus values only. (See examples 5 and 6, page 12.) Die Wear Tolerances on internal dimensions are expressed as minus values only. (See examples 7 and 8, page 13.)

   (c) Die Wear Tolerances per surface, on both external and internal dimensions are one-half the computed amount.

NOTE:

Allowances for die wear occuring on dimensions measured perpendicular to the fundamental parting line of the dies are included in Die Closure Tolerances (page 14).

TABLE I: DIE WEAR TOLERANCES

Materials	Under 30 in. or 750 mm Factor (in./inch) (mm/millimeter)	Over 30 in. or 750 mm Constant	
		in.	mm
Carbon, Low Alloys	.005	.15	3.81
Stainless	.007	.21	5.33
Super Alloys, Titanium	.009	.27	6.86
Aluminum	.004	.12	3.05
Brass & Copper	.004	.12	3.05

UNITS OF MEASURE

3. Die Wear Tolerances combined with Length/Width Tolerances are expressed as decimal inch, in units of 0.01 or greater and expressed as decimal millimeter in units of .1 mm or greater. Decimals used in computing tolerances are totaled and raised to the next highest .01 in the inch system or .1 in the metric system.