

U S A S T A N D A R D

Preferred Limits and Fits for Cylindrical Parts

USAS B4.1-1967 (R1974)

Note

For soft conversion of nominal dimensions and limits given in this standard, 1 inch = 25.4 mm.

For explanation of conversion techniques see American National Standard Z210.1-1972, Metric Practice Guide.

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FOR CURRENT COMMITTEE PERSONNEL
PLEASE SEE ASME MANUAL AS-11

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PREFERRED LIMITS AND FITS

9.4 If standard stock sizes or special conditions require the use of other hole sizes and shaft sizes, reference should be made for the required fit to tables in Appendix I which are taken from the ABC proposal.

10. Machining Processes.

To indicate the machining processes which may normally be expected to produce work within the tolerances indicated by the grades given in this Standard, Fig. 6 has been provided. This information is intended merely as a guide in selecting suitable processes for a particular grade.

	GRADES									
	4	5	6	7	8	9	10	11	12	13
LAPPING & HONING										
CYLINDRICAL GRINDING										
SURFACE GRINDING										
DIAMOND TURNING										
DIAMOND BORING										
BROACHING										
REAMING										
TURNING										
BORING										
MILLING										
PLANING & SHAPING										
DRILLING										

FIG. 6 MACHINING PROCESSES