

NO.	REVISION	DATE	BY	CKD
E	Reformat, added note, removed Ref. Specifications, revised Tol. Table. ECR 6781	10/5/00	DJS/ JLB	JTG

Material Grade Designation: SAE-AISI 1045

Color Code: Yellow-Black

Material Description: Cold-Finished Round Carbon Steel Bar. Stock lengths: 10 ft, 12 ft

Part Number Example: M 1003-9 Suffix indicates the O.D. in sixteenths of an inch.

Material Specification:

ASTM A 108 - 95: Standard Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality

Note: The following chemical composition and mechanical properties information is shown for engineering reference only and is subordinate to the above material specification.

Chemical Composition of Cold-Finished Carbon Steel Bars, %: (ASTM A 108)

Carbon	0.43-0.50
Manganese	0.60-0.90
Phosphorus	0.040 max
Sulfur	0.050 max

Estimated Mechanical Properties and Machinability of Steel Bars:
(SAE J1397 May92 Information Report)

Tensile Strength MPa	Tensile Strength psi	Estimated Minimum Values Yield Strength MPa	Estimated Minimum Values Yield Strength psi	Estimated Minimum Values Elongation in 2 in, %	Reduction in Area %	Brinell Hardness	Average Machinability Rating 1212=100%
630	91000	530	77000	12	35	179	55

Size Tolerances for Cold-Finished Carbon Steel Bars, Rounds: (ASTM A29/A29M)

Size, in.	All tolerances are in inches and are minus
To 1½, incl	0.003
Over 1½ to 2½, incl	0.004
Over 2½ to 4, incl	0.005
Over 4 to 6, incl	0.006
Over 6 to 8, incl	0.007
Over 8 to 9, incl	0.008

Astr Industry Products Co., Ltd E-mail: allen@astrindustry.com www.astrmfg.com	DRN: RCS	CKD: KFM	DESCRIPTION Round 1045 CRS	DWG/ITEM NO. M 1003
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