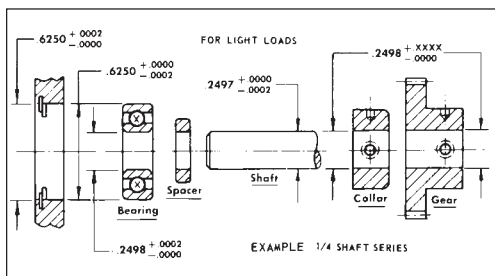


TECHNICAL SECTION

SECTION 6. Military Specifications — Shaft and Bearing Fits

**TABLE 6.1
MILITARY CROSS REFERENCES**



STANDARD TOLERANCES

Inch

Unless otherwise specified, tolerances are as follows:

Two (2) place decimals $\pm .016$

Three (3) place decimals $\pm .005$

Fractional $\pm 1/32$

Angles $\pm 1^\circ$

Metric

(All dimensions in millimeters)

Unless otherwise specified, tolerances are as follows:

One (1) place decimals ± 0.8

Two (2) place decimals ± 0.13

Angles $\pm 1^\circ$

Materials			Finishes		Used On
PIC Catalog Designation	UNS Designation	Mil. or Fed. Specification	PIC Catalog Designation	Mil. or Fed. Specification	PIC Products
#303 Stainless Steel (Bar)	S30300	ASTM-A-582	**	**	Gears ⁽²⁾ , Shafts, Couplings
#303 Stainless Steel (Sheet)	S30300	ASTM-A-666	**	**	Gears ⁽²⁾
#303 Stainless Steel (Spring Temper)	S30200	ASTM-A-666	**	**	Springs, Washers
#416 Stainless Steel	S41600	ASTM-A-582	**	**	Racks, Gears, Shafts
#440 Stainless Steel	S44004	QQ-S-763 Class 10 Type A	**	**	Ball Bearings
#420 Stainless Steel	S42000	QQ-S-763	**	**	Retainer Rings
2024-T4/T351 Alum (Bar)	A92024	QQ-A-225/6	Anodized	MIL-A-8625	Gears ⁽²⁾ , Spacer Posts
2024-T3 Alum (Sheet)	A92024	QQ-A-250/4	Anodized	MIL-A-8625	Gears ⁽²⁾
2024-T4/T351 Alum (Bar)	A92024	QQ-A-225/6	Black Anodized	MIL-A-8625	Dials, Drum
2024-T3 Alum (Sheet)	A92024	QQ-A-250/4	Black Anodized	MIL-A-8625	Dials, Disc
#108 Cast Aluminum	—	ASTM-B26	Anodized	MIL-A-8625	Hangers, Breadboards
Bronze (Tobin)	C46400	ASTM-B-21 Alloy 464	—	—	Worm Wheels
Oil-Less Bronze	—	MIL-B-438 Type II Grade 1	Lubricated with SAE 30 Oil	—	Bearings Thrust Washers
Brass (Laminated)	—	MIL-S-22499 Comp. 2 Class 1	—	—	Shims
Beryllium Copper	—	QQ-C-533	Anodized	MIL-A-8625	Retainer Rings
Neoprene (Molded)	—	MIL-R-6855 Class II	—	—	Flex. Couplings Pulley Belts
Grease	—	MIL-G-23827	—	—	Gears, Bearings -65°F to +250°F
Oil	—	MIL-G-6085	—	—	Gears, Bearings -65°F to +250°F
A2 Stainless Steel (Type #304)	S30400	DIN 267 (QQ-S-763)	**	**	Fasteners
A4 Stainless Steel (Type #316)	S31600	DIN 267 (QQ-S-763)	**	**	Fasteners

NOTES:

1. Brief description of the UNIFIED NUMBERING SYSTEM

The unified numbering system (UNS) provides a means of correlating many nationally used numbering systems currently administered by societies, trade associations, and individual users and producers of metal and alloys, thereby avoiding confusion caused by use of more than one identification number for the same material – and by the opposite situation of having the same number assigned to two or more entirely different materials

2. Refer to 12-4 for gear material specifications by product series.

**Clear passivate finish to military or federal specifications. Available upon request.