

Table 1

**STANDARD DIMENSIONAL TOLERANCE TABLE — MOLDED RUBBER PRODUCTS
DRAWING DESIGNATION "A1" HIGH PRECISION**

Size (Inches)		Fixed	Closure	Size (Millimeters)		Fixed	Closure
Above	Incl.			Above	Incl.		
0 -	.40	± .004	± .005	0 -	10	± .10	± .13
.40 -	.63	.005	.006	10 -	16	.13	.16
.63 -	1.00	.006	.008	16 -	25	.16	.20
1.00 -	1.60	.008	.010	25 -	40	.20	.25
1.60 -	2.50	.010	.013	40 -	63	.25	.32
2.50 -	4.00	.013	.016	63 -	100	.32	.40
4.00 -	6.30	.016	.020	100 -	160	.40	.50

Drawing Designation "A1" is the highest tolerance classification and indicates a high precision rubber product. Such products require expensive molds, fewer cavities per mold, costly in-process controls and inspection procedures. It is desirable that the exact method of measurement be agreed upon between rubber manufacturer and customer, as errors in measurement may be large in relation to the tolerance.

Some materials, particularly those requiring post curing, do not lend themselves to Drawing Designation "A1" tolerances.

Table 2

**STANDARD DIMENSIONAL TOLERANCE TABLE — MOLDED RUBBER PRODUCTS
DRAWING DESIGNATION "A2" PRECISION**

Size (Inches)		Fixed	Closure	Size (Millimeters)		Fixed	Closure
Above	Incl.			Above	Incl.		
0 -	.40	± .006	± .008	0 -	10	± .16	± .20
.40 -	.63	.008	.010	10 -	16	.20	.25
.63 -	1.00	.010	.013	16 -	25	.25	.32
1.00 -	1.60	.013	.016	25 -	40	.32	.40
1.60 -	2.50	.016	.020	40 -	63	.40	.50
2.50 -	4.00	.020	.025	63 -	100	.50	.63
4.00 -	6.30	.025	.032	100 -	160	.63	.80
6.30 & over - To find fixed dimensional tolerances multiply by 0.4%.				160 & over - To find fixed dimensional tolerances multiply by 0.4%.			

Drawing Designation "A2" tolerances indicate a precision product. Molds must be precision machined and kept in good repair. While measurement methods may be simpler than with Drawing Designation "A1", careful inspection will usually be required.

Table 3

**STANDARD DIMENSIONAL TOLERANCE TABLE — MOLDED RUBBER PRODUCTS
DRAWING DESIGNATION "A3" COMMERCIAL**

Size (Inches)		Fixed	Closure	Size (Millimeters)		Fixed	Closure
Above	Incl.			Above	Incl.		
0 -	.40	± .008	± .013	0 -	10	± .20	± .32
.40 -	.63	.010	.016	10 -	16	.25	.40
.63 -	1.00	.013	.020	16 -	25	.32	.50
1.00 -	1.60	.016	.025	25 -	40	.40	.63
1.60 -	2.50	.020	.032	40 -	63	.50	.80
2.50 -	4.00	.025	.040	63 -	100	.63	1.00
4.00 -	6.30	.032	.050	100 -	160	.80	1.25
6.30 & over - To find fixed dimensional tolerances multiply by 0.5%.				160 & over - To find fixed dimensional tolerances multiply by 0.5%.			

Drawing Designation "A3" tolerances indicate a "commercial" product and will normally be used for most products.

Table 4

**STANDARD DIMENSIONAL TOLERANCE TABLE — MOLDED RUBBER PRODUCTS
DRAWING DESIGNATION "A4" NON CRITICAL**

Size (Inches)		Fixed	Closure	Size (Millimeters)		Fixed	Closure
Above	Incl.			Above	Incl.		
0 -	.40	± .013	± .032	0 -	10	± .32	± .80
.40 -	.63	.016	.036	10 -	16	.40	.90
.63 -	1.00	.020	.040	16 -	25	.50	1.00
1.00 -	1.60	.025	.045	25 -	40	.63	1.12
1.60 -	2.50	.032	.050	40 -	63	.80	1.25
2.50 -	4.00	.040	.056	63 -	100	1.00	1.40
4.00 -	6.30	.050	.063	100 -	160	1.25	1.60
6.30 & over - To find fixed dimensional tolerances multiply by 0.8%.				160 & over - To find fixed dimensional tolerances multiply by 0.8%.			

Drawing Designation "A4" tolerances apply to products where dimensional control is non-critical and secondary to cost.