



Industry's single source supplier of stock and custom rubber products



ISO 9001:2000 Certified

Canada's largest variety of industrial rubber products

Robco has supplied the requirements of Canadian industry with quality products and services for over 90 years. Our success is attributed to our ability to offer complete customer satisfaction in supplying rubber components of all shapes, sizes and materials, regardless of quantity. Years of experience, combined with the knowledge of our skilled staff ensure each order is supplied at a competitive price and delivery on time.

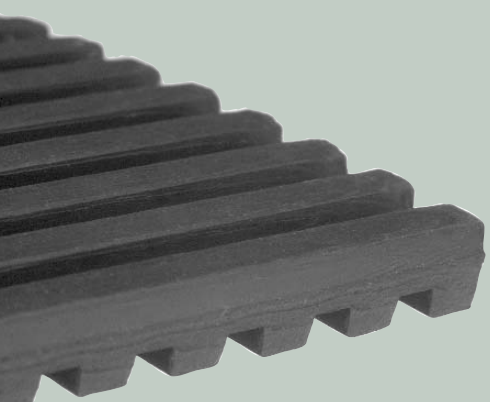
Our manufacturing facilities are equipped with state-of-the-art production equipment, supported by an extensive inventory of quality, brand name materials. Computerization of all manufacturing and support functions, combined with a rigorous Quality Assurance program, (ISO 9001:2000 certified) enable our customers to depend on us for quality fabrication of rubber products.



Our facilities and techniques can provide you with:

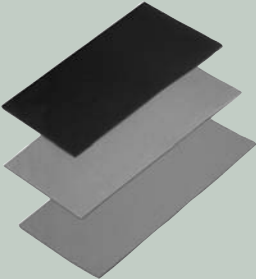


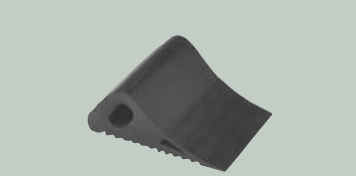
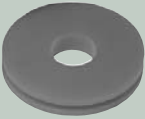



- steel rule or all steel die cutting, creasing or scoring
- extrusions
- punched parts
- kit packaging and shrink wrapping
- adhesives
- stitched or sewn components
- lathe cutting
- custom hand fabrication
- moulded parts
- design and material selection
- slitting, sheeting or shearing

In support of our production facilities, Ontario Rubber provides a team of specially trained sales people to serve you faster and more efficiently.

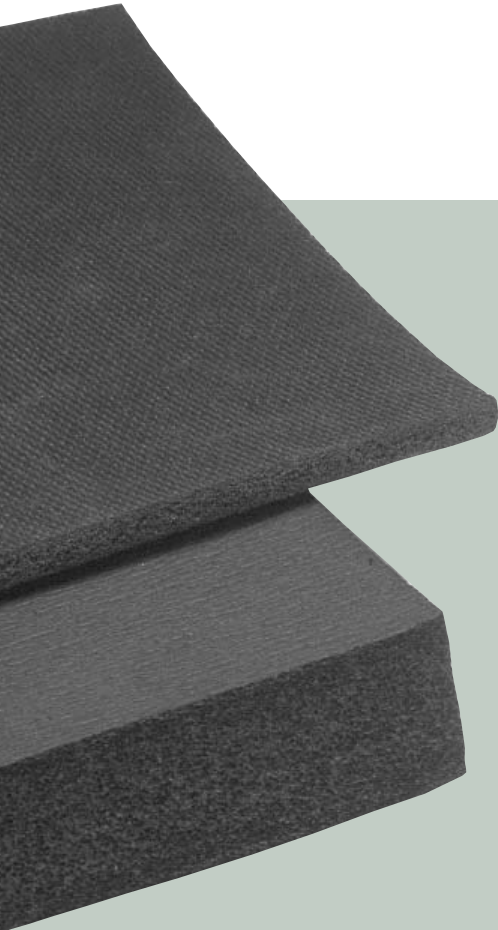


ISO 9002

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Sheet Stock



Sponge Rubber Sheet & Weather Stripping

Natural Open Cell Sponge

Open cell natural sponge rubber has excellent abrasion resistance, compressibility and good dry sealing properties. It readily absorbs liquids and gases. Available in sheets, strips or die-cut parts. We stock 1523 (medium), both 1323 (soft) and 1723 (firm) available with minimums. See also Anti-fatigue mats page 9.

Roll width: 37" and 48"
Colour: black
Temperature limits: -40°F to 175°F

SC-41 Closed Cell Sponge

Closed cell sponge rubber is recommended for minimum air and water absorption. Available in sheet, strips, gaskets and die-cut parts, with or without adhesive backing. Closed cell sponge is also an excellent oil resistant backing for Anti-fatigue mats (see page 9).

Roll width; 48"
Colour: black
Temperature limits: -40°F to 175°F
Density: soft

SC-42 Closed Cell Sponge

Same as SC-41 but different density

Roll width: 48"
Colour: black
Temperature limits: -40°F to 150°F
Density: soft/medium

SC-43 Closed Cell Sponge*

Same as SC-41 but different density.

Roll width: various widths
Temperature limits: -40°F to 150°F
Colour: black
Density: medium/firm

Polyurethane Foam

Available in sheet, strips, gaskets and die-cut parts, polyurethane foam is a light weight, cost-effective cushion in cases for sensitive instruments and housings for domestic and commercial appliances. It can be supplied with or without adhesive back.

Roll width: 54"
Colour: Neutral
Temperature limits: -40°F to 150°F

*not normally stocked.
Other sponges and foams available upon special request.

Sheet Stock



Robco 4730 (Soft) - Microcellular Urethane Foam

Robco 4730 offers enhanced recovery and sealing capability over other foam/sponge types, particularly with low seating stress applications. This material exhibits resistance to UV exposure, ozone and is environmentally safe and clean. Robco 4730 also meets the flammability requirements of UL HBF and MVSS 302. Manufactured to tight tolerances, Robco 4730 can easily be die-cut and accepts an array of adhesive options for virtually any application.

Robco 4740 (Medium) - Microcellular Urethane Foam

Robco 4740 offers enhanced recovery over other foam/sponge types, resulting in a superior seal in a multitude of applications. Its properties also make it a perfect choice where vibration and impact damping is needed. This material exhibits resistance to UV exposure, ozone, and is environmentally safe and clean. Robco 4740 is an excellent choice for seals and spacers used in electronic equipment, and Robco 4740 meets the flammability requirements of UL HBF and MVSS 302. Robco 4740 can easily be die-cut and accepts an array of adhesive options for virtually any application.

Silicone Closed Cell Sponge Sheet

Quality material for use as sheets, strips or die-cut parts requiring stability in extreme temperature fluctuations. Adhesive back available upon request.

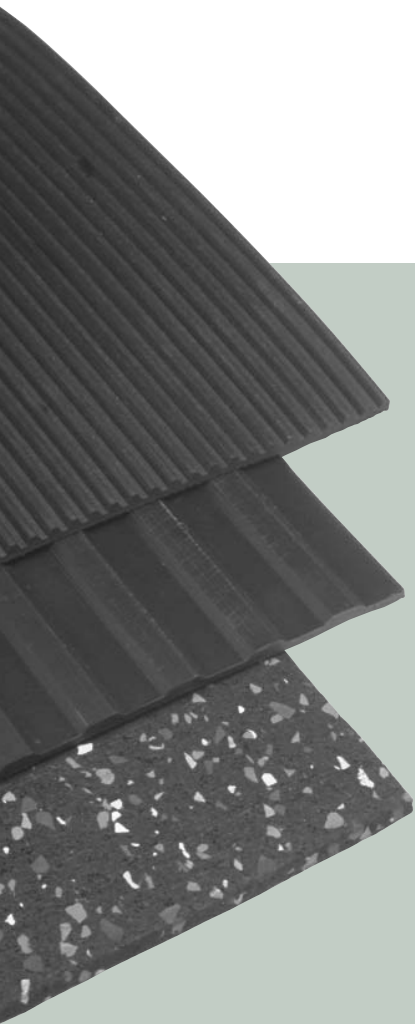
Sheet size: 24" x 36" (other sizes available upon request)
 Colour: white (other colours available upon request)
 Temperature limits: -50°F to 400°F

Physical Properties

	1523	SC-41	SC-42	SC-43	Polyurethane Foam	4730	4740	Silicone
Polymer	Natural	NBR/PVC/NEO Blend	NBR/PVC/NEO Blend	Nitrile/PVC	Polyurethane	Microcellular Urethane	Microcellular Urethane	Silicone
Compression Deflection	5-9 psi	3-5 psi	4-8 psi	9-13 psi	Upholstery Grade	1-12 psi	4-40 psi	12-20 psi
Hardness shore"00"	45	20-40	35-50	45-60	Medium	3-12	8-25	Medium
Temperature Limit (°F)	-40° to 175°	-40° to 150°	-40° to 150°	-40° to 150°	-40° to 175°	-40° to 190°	-40° to 190°	-50° to 400°
Intermittent Limit	200 °F	200 °F	200 °F	200 °F	150 °F	250°F	250°F	500 °F
Tensile	25-75 psi	50 psi min	75 psi min	70 psi	10 psi min	50 psi	95 psi	50 psi
Elongation (minimum)	300%	100%	100%	100%	150%	155%	155%	100%
Compression Set (maximum)	15%	30%	25%	25%	10%	2%	5%	25%

Other sponges and foams available upon special request.

Mats & Matting



Rubber Runner Matting

Cost-effective, black rubber matting gives you economic floor protection, safety and comfort. This neat easy-to-clean matting helps prevent serious injuries on wet or snowy floors. It clings to linoleum and concrete, decreasing the chance of slipping. This corrugated matting also helps to deaden noise in office and show room aisles and halls. Increased sound proofing and comfort can be achieved by backing this rubber matting with sponge rubber (see Anti-Fatigue Matting, page 9). Rubber matting is quick to install, and rolls away in minutes for storage.

Three Surface Styles (see diagrams below)

Fine Rib: @ 24", 36", 48" and 72" widths

Wide Rib: @ 24", 36" and 48" widths

Round Rib

Fine Rib



Wide Rib



Round Rib



Vinyl Runner Matting

Soft, durable, easy-to-vacuum, nonskid vinyl matting withstands, oil, grease, fats, solvents, chemicals and more while deadening noise on hard floors. It also resists flame, ultraviolet light, ozone, tearing and curing. It will not crack at low outdoor temperatures. This completely fade resistant vinyl matting is in harmony with any decor. Available from stock in black, brown and grey. Also available upon request in green and other colours.

Thickness: 1/8"

Three Surface Styles (see diagrams above)

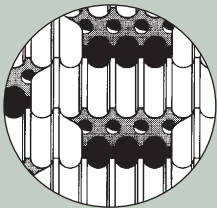
Round Rib: 36" width

Wide Rib: 24" and 36" widths

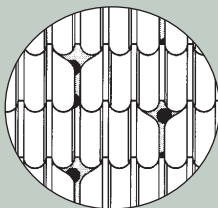
Fine Rib: 24" and 36" widths

Ask your representative about custom colours.

Standard Weave



Closed Weave



Link Mats

These attractive, durable mats are custom-manufactured for your size requirements in your choice of patterns with or without your company logo or other letters and numbers. Mud, snow, slush and salt have no damaging effect on these fade resistant vinyl mats. Maintenance is simple. Rinse with plain water or wipe with a mild detergent solution.

Two styles are available, standard, open weave and closed weave (see diagrams at left). The closed weave style was designed to prevent heels from catching between the links.

Link matting is sold by the square foot, nosing included.

Thickness: 1/2"

Weight, Standard Weave: 1-1/2 lbs. per square foot

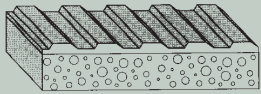
Weight, Closed Weave: 2 lbs. per square foot

Other styles of matting such as diamond pattern, cross rib, etc. are available upon request.

Mats & Matting

Anti-Fatigue Mats

Anti-Fatigue mats soothe aching feet, leg cramps and lower back pain caused by standing on the job. Productivity increases with these soft, comforting mats and runners. Ontario Rubber runner matting is laminated to sponge rubber. Since Ontario Rubber laminates these fatigue mats in-house, many sponge thicknesses, widths and materials can be combined to meet your particular requirements. Mats can be made to fit single work stations or entire assembly lines. Materials to produce these mats are available from stock. Popular combinations include oil and abrasion resistant surfaces.



Switchboard Matting

Perfect for switchboard work in electrical rooms, this 1/4-inch thick material has eight 1/16-inch lengthwise corrugations per inch of width on the top and a fabric imprint on the bottom to prevent slipping. Ontario Rubber Switchboard Matting performs satisfactorily at 30,000 dielectric volts.

Thickness: 1/4"
Roll Width: 36"
Colour: black only



Protec Mats

Robco Protec Mats protect floors from cleats, skates, heels, tools and other blunt impact. Excellent resistance to tearing, freezing and wear. This non-skid, 100% rubber mat reduces noise, eases wear on high traffic areas (rinks, gyms, farm applications, etc.).

Size: 3/4 " thick x 4 feet wide x 6 feet long

Robco PFM Protective Floor Matting

Robco PFM is a fibre-reinforced rubber matting, manufactured from masticated tire-derived NBR and SBR rubber. The unique manufacturing process thermosets the rubber granulates into a solid homogeneous sheet, giving it a superior impact, abrasion and tear resistance. Robco PFM rubber is available with commercial easy-to-clean non-slip surface texture, or an industrial finish that provides excellent anti-slip properties, wet or dry. There are three distinct styles for Robco PFM:

- High fraction matting: Uses include athletic centres, dairy runners, marine deck coverings and industrial walkways.
- Anti-Fatigue Tile: For production line and station work where a foamed backing allows for increased working comfort and reduced back-related work injuries.
- Sound-Suppressing Underlay: To reduce the noise transmission of foot traffic in homes and business.

Robco PFM is a cost effective, durable product with a virtually limitless range of uses. PFM is also available in a speckled colour finish. Contact Robco Customer Service for more information about this product.



TMRoyal Tread is a trademark of Accurate Elastomer Corp.

Tubing & Cord



Tubing

Neoprene

Robco neoprene tubing is ideal for handling oil and gas in low pressure applications.

Latex, Pure Gum Amber Tubing

Latex, Pure Gum Amber Tubing and Pure gum Tubing is a premium grade, used in applications where these products excellent tensile strength and abrasion resistance is required.

Clear Vinyl Plastic Tubing

This non-toxic, oil and acid-proof tubing is well suited to food, beverage and laboratory demands. Vinyl tubing adapts well to the extreme temperatures of sterilizing procedures, retaining its transparency throughout cleaning. A wide variety of wall thicknesses are available.

Constant temperature limit: 212 °F (100 °C)

Intermittent temperature limit: 250 °F (121 °C)

Silicone Tubing

An excellent high temperature resistant tubing available in grey (see page 4 for property table).

Other sizes and materials available by special order.

To place a special order, please specify inside diameter and wall thickness.

Small orders of unusual sizes require minimum production runs.

Cord

Solid Cord

Solid round cord is supplied in black, 70 durometer neoprene. Other compounds available upon request. Solid cord can be fabricated in large sizes and short lengths, or split forming half-round profiles. Cord can also be cut and jointed to produce odd-size O-rings.

Diameter range: 1/8" to 1"

Neoprene Closed Cell Sponge Cord

An excellent soft, compressible gasket or cushion, this EPDM enhanced neoprene sponge cord is often used where superior compression and resilience is needed. Medium density, (SC-41) black sponge cord can also be split to form half-round profiles.

Other material compounds available upon request.

Diameter range: 1/8" to 1"

Channels

Channels and Gaskets U-Channel for glass, wood or metal

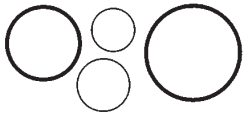
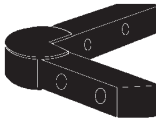
1/16" EPDM Channel	1/8" Neoprene low	1/8" Neoprene high channl	3/16" Neoprene channel	1/4 Neoprene light channel
EXTCH006 	EXTCH012L 	EXTCH012H 	EXTCH018 	EXTCH025L
1/4" Neoprene heavy channel	1/4" x 1-1/8" EPDM channel	3/8" EPDM channel	1/2" EPDM channel	
EXTCH025H 	EXTCH025112 	EXTCH037 	EXTCH050 	
			11-1/2 ft. lengths	

Flanged Tubing

EPDM (medium "P")	EPDM 3/16" with 1/4" ID tube	EPDM (large "P")
EXTCHMEDP 	EXTCH018TU 	EXTCHLARP
250 ft. coil	250 ft. coil	50 ft. lengths

Small Rubber Parts

Many of these parts are available from stock.



Bump-ons

These adhesive backed bumpers are available on sheets in a variety of square, spherical, circular and rectangular shapes. Made of urethane, these stick-on bumpers will not crack, dry-out or discolour. Quick installation on small appliances—no fasteners required.

Button Bumpers

Excellent low-cost noise deadeners for office machines, washers and dryers, furniture and thousands of other applications (see page 14 for specifications).

Corner Bumpers

Perfect protection for sharp corners, these non-marking or black bumpers are made from a tough rubber compound with recessed holes and metal washers. Other compounds are available upon request. One size only (see page 17 for specifications).

Durometer: 70 ± 5 (A)

Grommets

Used extensively for equipment and appliances such as electrical insulators, sound deadeners and wear parts. There are 140 types and sizes (see page 18-23 for specifications). Many sizes are available to meet Army-Navy specifications.

Colour: black

Lab Stoppers

These general purpose lab stoppers are stocked in 18 sizes in black natural rubber. Upon request, Robco also has green neoprene stoppers. All stoppers can be pre-drilled with clear, medical grade plastic tubing inserted for use in the lab. Call and explain your requirement, a Robco sales representative is ready to assist you (see page 15).

O-rings

General purpose sealing element for water, petroleum products or acids, available in many materials. In metric and imperial sizes. Customer fabrication of other sizes also available (see page 24-25 for specifications). Colours available by special order only.

Colour: black

Recess Bumpers

Used as feet on appliances, filing cabinets and many office machines, recessed bumpers are stocked in many shapes and sizes, some complete with inserted steel washers (see page 15 for specifications).

Colour: black

Rubber Bands

Used in various industries, Robco offers elastic bands in various sizes direct from stock (see page 26).

Stem Bumpers

Also used on appliances, filing cabinets and office machines, available from stock in black. Numerous sizes and contours available (see page 13 for specifications).

Colour: black

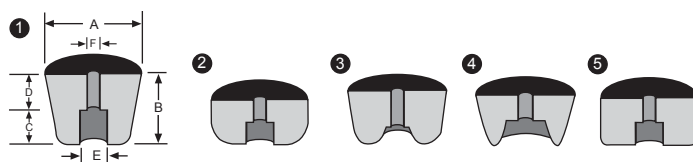
Step Bushings

Ideal shock mounts for dampening noise and protecting threads on compressors, condensers and motors. Also widely used to protect holes in glass and tile. Many sizes and diameters are available (see page 17 for specifications).

Suction Cups/Vacuum Lifters

Perfect compressed air or vacuum production line helpers, providing sure positive grip for today's automated machines (see page 27 for specifications). Some available with fittings.

Recessed Bumpers by "B" Dimension



Part No.	Fig. No.	A		B		C		D		E		F	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
2061	2	7/16	11.1	5/32	4.0	3/32	2.4	1/16	1.6	1/4	6.4	5/32	4.0
206	2	3/8	9.5			3/32	2.4	3/32	2.4	3/16	4.8	5/64	2.0
2073*	5	1/2	12.7	3/16	4.8	3/32	2.4	3/32	2.4	7/32	5.6	1/8	3.2
2075	5	1/2	12.7			1/8	3.2	1/16	1.6	0.275	7.0	0.150	3.9
207*	2	1/2	12.7			1/8	3.2	1/8	3.2	1/4	6.4	1/8	3.2
2062	1	3/8	9.5			3/16	4.8	1/16	1.6	1/4	6.4	3/32	2.4
2076*	5	1/2	12.7	1/4	6.4	3/16	4.8	1/16	1.6	15/64	6.0	1/8	3.2
2093*	5	5/8	15.9			1/8	3.2	1/8	3.2	3/8	9.5	3/16	4.8
2194	3	15/16	23.8			3/32	2.4	5/32	4.0	1/2	12.7	5/16	7.9
2195	3	15/16	23.8			1/8	3.2	1/8	3.2	1/2	12.7	1/4	6.4
2072	5	17/32	13.5	17/64	6.7	5/32	4.0	7/64	2.8	1/4	6.4	1/8	3.2
2087*	4	3/4	19.1	9/32	7.1	5/32	4.0	1/8	3.2	1/4	6.4	1/8	3.2
2092*	5	3/4	19.1			1/8	3.2	5/32	4.0	3/8	9.5	3/16	4.8
2184*	1	3/4	19.1	19/64	7.5	3/16	4.8	7/64	2.8	11/32	8.7	1/8	3.2
208	2	5/8	15.9			3/16	4.8	1/8	3.2	1/4	6.4	3/32	2.4
2071*	5	1/2	12.7	5/16	7.9	3/16	4.8	1/8	3.2	1/4	6.4	5/32	4.0
2081*	2	5/8	15.9			3/16	4.8	1/8	3.2	1/4	6.4	3/16	4.8
2088*	2	5/8	15.9			3/16	4.8	1/8	3.2	1/4	6.4	1/8	3.2
2196	4	15/16	23.8	11/32	8.7	3/16	4.8	5/32	4.0	3/8	9.5	3/16	4.8
2085*	2	3/4	19.1			3/16	4.8	3/16	4.8	5/16	7.9	5/32	4.0
2095*	4	15/16	23.8	3/8	9.5	3/16	4.8	3/16	4.8	3/8	9.5	5/32	4.0
2806*	2	5/8	15.9			3/16	4.8	1/4	6.4	1/4	6.4	1/8	3.2
2813*	5	9/16	14.3			7/32	5.6	5/32	4.0	3/8	9.5	3/16	4.8
2198*	4	7/8	22.2	13/32	10.3	3/16	4.8	7/32	5.6	3/8	9.5	3/16	4.8
2083*	5	11/16	17.5	7/16	11.1	3/16	4.8	1/4	6.4	1/4	6.4	1/8	3.2
2084*	1	3/4	19.1			1/4	6.4	3/16	4.8	7/16	11.1	3/16	4.8

Part No.	Fig. No.	A		B		C		D		E		F	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
2086*	5	23/32	18.3	7/16	11.1	7/32	5.6	7/32	5.6	1/4	6.4	1/8	3.2
209*	2	13/16	20.6			1/4	6.4	1/4	6.4	5/16	7.9	5/32	4.0
2074*	5	1/2	12.7			3/16	4.8	5/16	7.9	1/4	6.4	5/32	4.0
2082*	1	5/8	15.9	1/2	12.7	1/4	6.4	1/4	6.4	5/16	7.9	5/32	4.0
2089*	1	3/4	19.1			1/4	6.4	1/4	6.4	3/8	9.5	3/16	4.8
2091*	5	3/4	19.1			1/4	6.4	1/4	6.4	3/8	9.5	9/64	3.6
2094*	1	15/16	23.8			1/4	6.4	1/4	6.4	3/8	9.5	1/8	3.2
2197*	4	1.000	25.4			1/4	6.4	1/4	6.4	3/8	9.5	3/16	4.8
2090*	1	5/8	15.9			7/16	11.1	3/16	4.8	5/16	7.9	0.147	3.7
2096*	1	15/16	23.8			7/16	11.1	3/16	4.8	7/16	11.1	7/32	5.6
2803*	1	5/8	15.9	5/8	15.9	5/16	7.9	5/16	7.9	5/16	7.9	5/32	4.0
2808*	2	1-11/16	42.9			3/8	9.5	1/4	6.4	3/4	19.1	1/4	6.4
2809*	5	1-1/2	38.1			11/32	8.7	9/32	7.1	3/4	19.1	5/16	7.9
2802*	1	5/8	15.9			1/4	6.4	1/2	12.7	5/16	7.9	0.165	4.2
2804*	5	5/8	15.9	3/4	19.1	5/16	7.9	7/16	11.1	5/16	7.9	5/32	4.0
2805*	5	5/8	15.9			5/16	7.9	7/16	11.1	5/16	7.9	11/64	4.4
2807*	5	5/8	15.9			1/4	6.4	1/2	12.7	5/16	7.9	5/32	4.0
2811*	5	15/16	23.8	15/16	23.8	9/16	14.3	3/8	9.5	3/8	9.5	3/16	4.8
2097*	2	1.000	25.4			5/8	15.5	3/8	9.5	5/16	9.5	5/32	4.0
2098*	5	1.000	25.4	1.00	25.4	9/16	14.3	7/16	11.1	3/8	9.5	7/32	5.6
2580*	2	1.000	25.4			5/8	15.9	3/8	9.5	5/16	7.9	5/32	4.0
2812*	5	1.000	25.4	1-1/4	31.8	5/8	15.9	5/8	15.9	1/4	6.4	1/8	3.2
2099*	2	1.000	25.4	1-1/2	38.1	5/8	15.9	7/8	22.2	5/16	7.9	5/32	4.0
2199*	1	1.000	25.4	2-1/4	57.2	1-3/8	34.9	7/8	22.2	5/16	7.9	5/32	4.0

All parts shown in this section are not always in stock.

*Inserting hole in base & stem

Lab Stoppers

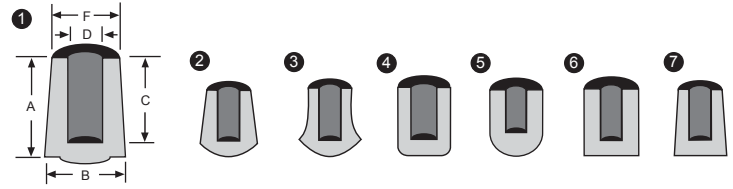
All sizes stocked from No. 000 to 15.

Colours: black natural and green neoprene compound

Part No.	Top Diameter		Bottom Diameter		Overall Length		No. of Pieces	
	inch	mm	inch	mm	inch	mm	per lb.	per kg
000	1/2	12.7	3/8	9.5	3/4	19.1	180	396
00	1/2	12.7	3/8	9.5	1	25.4	105	231
0	5/8	15.9	1/2	12.7	1	25.4	77	169
1	3/4	19.1	9/16	14.3	1	25.4	57	125
2	7/8	22.2	5/8	15.9	1	25.4	52	114
3	15/16	23.8	3/4	19.1	1	25.4	39	86
4	1	25.4	13/16	20.6	1	25.4	33	73
5	1-1/8	28.6	7/8	22.2	1	25.4	28	62
6	1-1/4	31.8	1	25.4	1	25.4	20	44
7	1-3/8	34.9	1-1/8	28.6	1	25.4	15	33
8	1-9/16	39.8	1-5/16	33.3	1	25.4	12	26
9	1-3/4	44.5	1-7/16	36.5	1	25.4	10	22
10	1-15/16	49.2	1-5/8	41.3	1	25.4	8	18
11	2-3/16	55.6	1-7/8	47.6	1	25.4	6	13
12	2-1/2	63.5	2-1/8	54.0	1	25.4	4	9
13	2-3/4	69.9	2-5/16	58.7	1	25.4	4	9
14	2-9/16	90.5	3	76.2	1-1/2	38.1	10 oz.	284 g
15	4	101.6	3-1/4	82.6	1-5/8	41.3	12 oz.	340 g



End Bumpers by "D" Dimension



Part No.	Fig. No.	A		B		C		D		E	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
618	5	3/4	19.1	3/8	9.5	5/8	15.9	1/16	1.6	3/8	9.5
627	4	1/4	6.4	1/4	6.4	3/16	4.8	3/32	2.4	1/4	6.4
6182	5	7/8	22.2	1/2	12.7	1/2	12.7			1/2	12.7
6203	3	1/2	12.7	3/8	9.5	3/8	9.5	0.105	2.7	1/4	6.4
6206	3	7/16	11.1	11/32	8.7	21/64	8.3			13/64	5.2
125	5	7/16	11.1	1/4	6.4	5/16	7.9			7/32	5.6
2051	1	7/8	22.2	7/16	11.1	3/4	19.1	1/8	3.2	3/8	9.5
6183	5	19/64	7.5	1/4	6.4	7/32	5.6			1/4	6.4
6201	3	1/2	12.7	3/8	9.5	3/8	9.5			1/4	6.4
6205	3	1/2	12.7	3/8	9.5	3/8	9.5	0.140	3.6	1/4	6.4
632	4	1/4	6.4	11/32	8.7	5/32	4.0	9/64	3.6	11/32	8.7
624	6	1/4	6.4	3/16	4.8	0.210	5.3	0.146	3.7	3/16	4.8
2053	1	7/8	22.2	7/16	11.1	3/4	19.1	5/32	4.0	3/8	9.5
6208	6	1/2	12.7	7/32	5.6	3/8	9.5			7/32	5.6
6204	3	1/2	12.7	3/8	9.5	3/8	9.5	0.161	4.1	1/4	6.4
6202	3	1/2	12.7	3/8	9.5	3/8	9.5	0.175	4.4	1/4	6.4
620	3	1/2	12.7	3/8	9.5	3/8	9.5			1/4	6.4
621	4	3/8	9.5	1/2	12.7	1/4	6.4			1/2	12.7
623	6	1-1/4	31.8	3/8	9.5	1.000	25.4	3/16	4.8	3/8	9.5
631	4	11/16	17.5	3/8	9.5	5/8	15.9			3/8	9.5
6822	5	0.600	15.2	1/4	6.4	7/16	11.1			1/4	6.4
6209	6	21/32	16.7	15/32	11.9	5/8	15.9	0.210	5.3	15/32	11.9
205	1	7/8	22.2	7/16	11.1	3/4	19.1	7/32	5.6	3/8	9.5
628	4	3/8	9.5	1/2	12.7	1/4	6.4			1/2	12.7
626	3	15/32	11.9	13/32	10.3	3/8	9.5	15/64	6.0	5/16	7.9
6292	2	11/16	17.5	17/32	13.5	1/2	12.7			29/64	11.5

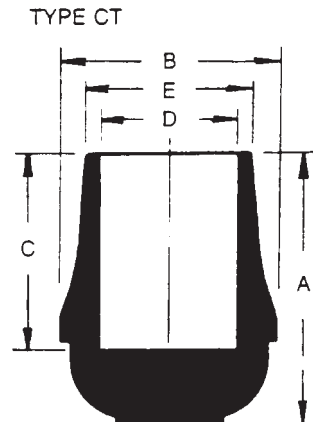
All parts shown in this section are not always in stock.

Part No.	Fig. No.	A		B		C		D		E	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
6261	2	5/8	15.9	1/2	12.7	7/16	11.1	0.246	6.2	3/8	9.5
635	2	13/16	20.6	5/8	15.9	19/32	15.1	1/4	6.4	1/2	12.7
6207	5	3/8	9.5	3/8	9.5	9/32	7.1			3/8	9.5
6293	2	11/16	17.5	17/32	13.5	1/2	12.7	17/64	6.7	29/64	11.5
2052	1	3/4	19.1	15/32	11.9	17/32	13.5	19/64	7.5	27/64	10.7
6291	2	11/16	17.5	17/32	13.5	1/2	12.7			29/64	11.5
633	4	3/8	9.5	7/16	11.1	1/4	6.4	5/16	7.9	7/16	11.1
629	2	11/16	17.5	17/32	13.5	1/2	12.7			29/64	11.5
6251	7	5/8	15.9	5/8	15.9	1/2	12.7	21/64	8.3	15/32	11.9
6224	7	7/16	11.1	5/8	15.9	5/16	7.9			1/2	12.7
625	7	1-1/8	28.6	9/16	14.3	1.000	25.4	11/32	8.7	1/2	12.7
6252	7	5/8	15.9	5/8	15.9	1/2	12.7	3/8	9.5	15/32	11.9
6253	1	5/8	15.9	1/2	12.7	1/2	12.7			1/2	12.7
6301	1	11/16	17.5	19/32	15.1	9/16	14.3	0.400	10.2	33/64	13.1
630	2	29/32	23.0	19/32	15.1	11/16	17.5	13/32	10.3	1/2	12.7
6222	2	3/4	19.1	11/16	17.5	1/2	12.7	15/32	11.9	19/32	15.1
622	2	3/4	19.1	0.725	18.5	1/2	12.7	1/2	12.7	5/8	15.9
6223	2	11/16	17.5	13/16	20.6	1/2	12.7	9/16	14.3	11/16	17.5
676	2	1.000	25.4	7/8	22.2	3/4	19.1	0.595	15.1	3/4	19.1
673	2	1.000	25.4	7/8	22.2	3/4	19.1	5/8	15.9	3/4	19.1
6751	2	7/8	22.2	1.000	25.4	5/8	15.9	0.713	18.2	7/8	22.2
682	2	1-1/8	28.6	1-1/8	28.6	7/8	22.2	13/16	20.6	1.000	25.4
6821	2	7/8	22.2	1-1/8	28.6	5/8	15.9			1.000	25.4
680	2	7/8	22.2	1-1/4	31.8	3/4	19.1	0.938	23.8	1-1/8	28.6
681	4	1-1/4	31.8	1-1/4	31.8	1-1/8	28.6	1.000	25.4	1-1/4	31.8

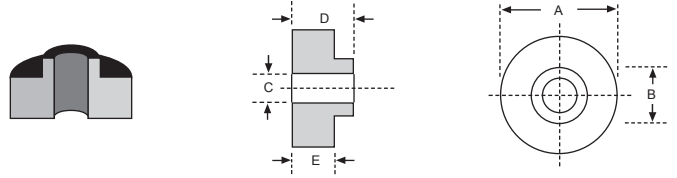
Furniture Tips

Nominal Hardness – 60-70 Durometer

Part No.	A		B		C		D		E	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
CT-15	1-9/32	32.5	25/32	19.8	1-1/16	27.0	3/8	9.5	1/2	12.7
CT-16	1-3/8	34.9	7/8	22.2	1-1/32	26.2	1/2	12.7	5/8	15.9
CT-17	1-5/16	33.3	15/16	23.8	1	25.4	19/32	15.1	23/32	18.3
CT-18	1-3/8	34.9	1-1/8	28.6	1	25.4	23/32	18.3	7/8	22.2
CT-19	1-11/32	34.1	1-1/4	31.8	1-1/16	27.0	13/16	20.6	31/32	24.6
CT-20	1-3/8	34.9	1-3/8	34.9	1	25.4	15/16	23.8	1-3/32	27.8



Step Bushings by "C" Dimension



Part No.	A		B		C		D		E	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
7041	1/2	12.7	3/32	2.4	1/32	0.8	1/4	6.4	1/8	3.2
7022	3/8	9.5	0.212	5.4	0.950	2.4	0.107	2.7	0.040	1.0
702	3/8	9.5	3/16	4.8			3/32	2.4	1/16	1.6
7024	3/8	9.5	1/4	6.4	1/8	3.2	3/8	9.5	1/8	3.2
7025	3/8	9.5	0.209	5.3			7/64	2.8	0.041	1.0
7026	3/8	9.5	1/4	6.4	0.150	3.8	3/16	4.8	1/16	1.6
704	17/32	13.5	3/8	9.5	0.160	4.1	9/16	14.3	3/32	2.4
2431	1/2	12.7	0.240	6.1	0.166	4.2	1/4	6.4	3/32	2.4
703	27/64	10.7	19/64	7.5	11/64	4.4	1/4	6.4	5/64	2.0
701	11/32	8.7	0.208	5.3	0.177	4.5	5/32	4.0	1/16	1.6
705	9/16	14.3	3/8	9.5			1/4	6.4	1/8	3.2
7042	17/32	13.5	7/16	11.1	3/16	4.8	1/2	12.7	1/8	3.2
7061	5/8	15.9	5/16	7.9			7/64	2.8	1/16	1.6
7062	5/8	15.9	13/64	5.2			7/32	5.6	1/8	3.2
7093	1.000	25.4	21/32	16.7	0.203	5.2	3/8	9.5	3/16	4.8
7075	11/16	17.5	3/8	9.5	13/64	5.2	0.110	2.8	0.075	1.9
7021	13/32	10.3	5/16	7.9	7/32	5.6	3/16	4.8	5/64	2.0
7023	3/8	9.5	19/64	7.5			3/16	4.8	5/64	2.0

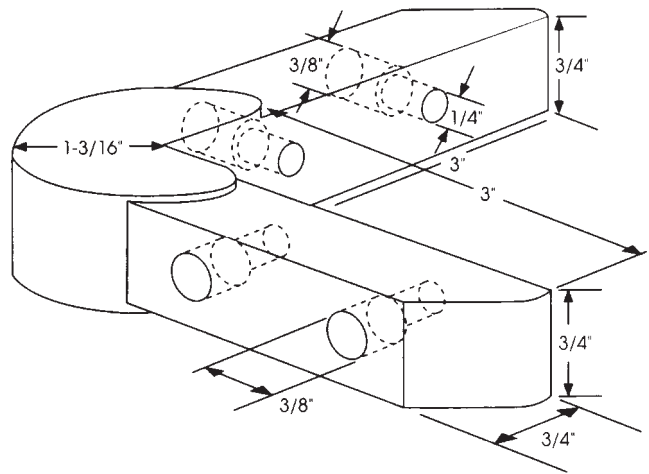
Part No.	A		B		C		D		E	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
7073	3/4	19.1	3/8	9.5	7/32	5.6	5/16	7.9	1/8	3.2
7092	1.000	25.4	5/8	15.9			17/32	13.5	3/8	4.8
706	5/8	15.9	7/16	11.1			1/4	6.4	3/16	4.8
709	1.000	25.4	1/2	12.7	1/4	6.4	17/32	13.5	11/32	8.7
7071	3/4	19.1	1/2	12.7			3/8	9.5	3/16	4.8
7091	1.000	25.4	1/2	12.7			3/8	9.5	1/4	6.4
7094	1.000	25.4	0.615	15.6	0.265	6.7	5/8	15.9	1/4	6.4
707	3/4	19.1	15/32	11.9			5/8	15.9	5/16	7.9
708	7/8	22.2	1/2	12.7	5/16	7.9	3/8	9.5	1/4	6.4
7072	3/4	19.1	1/2	12.7			3/8	9.5	3/16	4.8
7096	1.000	25.4	5/8	15.9			3/8	9.5	3/16	4.8
7074	63/64	25.0	5/8	15.9	21/64	8.3	21/64	8.3	3/16	4.8
7095	1.000	25.4	0.615	15.6			5/8	15.9	1/4	6.4
7081	15/16	23.8	5/8	15.9	3/8	9.5	3/8	9.5	1/4	6.4
7101	1-1/4	31.8	1/2	12.7			9/16	14.3	3/8	4.8
711	1-1/4	31.8	13/16	20.6	7/16	11.1	37/64	14.7	1/2	12.7
7063	1-3/8	34.9	3/4	19.1			7/16	11.1	3/16	4.8
712	1-3/16	30.2	1.073	27.3	0.493	12.5	9/16	14.3	1/8	3.2

Corner Bumpers

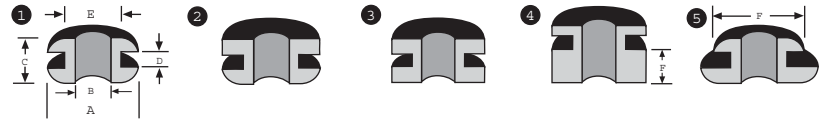
Made of a tough rubber compound with recessed holes and metal washers.
Standard black or nonmarking bumpers available



inch	mm
1/4	6.4
3/8	9.5
3/4	19.1
1-3/16	30.2
3	76.2



Grommets by "E" Dimension (cont'd)



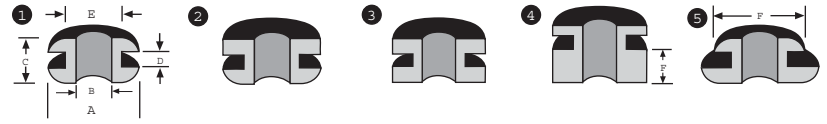
Part No.	Fig. No.	A inch	A mm	B inch	B mm	C inch	C mm	D inch	D mm	E inch	E mm	F inch	F mm
2272	1	7/8	22.2	5/16	7.9	11/32	8.7	3/32	2.4			x	x
AN931-7-11†	1	15/16	23.8	7/16	11.1	5/16	7.9	1/16	1.6	11/16	17.5	x	x
25A	1	15/16	23.8	7/16	11.1	5/16	7.9	1/16	1.6			x	x
27A	1	7/8	22.2	9/16	14.3	15/64	6.0	1/16	1.6			x	x
26	1	31/32	24.6	1/2	12.7	9/32	7.1	3/32	2.4			x	x
AN931-4-12†	1	1.000	25.4	1/4	6.4	1/4	6.4	1/16	1.6			x	x
AN931-5-12†	1	1.000	25.4	5/16	7.9	5/16	7.9	1/16	1.6	3/4	19.1	x	x
1113	1	1-1/16	27.0	5/16	7.9	1/2	12.7	5/32	4.0			x	x
AN930-4†	1	1.000	25.4	1/2	12.7	9/32	7.1	3/32	2.4			x	x
930-4	1	1.000	25.4	1/2	12.7	9/32	7.1	3/32	2.4			x	x
930-41	1	1.000	25.4	1/2	12.7	1/4	6.4	1/16	1.6			x	x
930-42	1	1.000	25.4	1/2	12.7	5/16	7.9	1/8	3.2			x	x
AN931-5-13†	1	1-1/16	27.0	5/16	7.9	5/16	7.9	1/16	1.6			x	x
1112	3	1-1/16	27.0	5/16	7.9	5/16	7.9	1/16	1.6			x	x
AN931-8-13†	1	1-1/16	27.0	1/2	12.7	5/16	7.9	1/16	1.6			x	x
1102	1	1-1/16	27.0	1/2	12.7	5/16	7.9	1/16	1.6	13/16	20.6	x	x
1110	1	1-1/16	27.0	1/2	12.7	11/32	8.7	1/8	3.2			x	x
AN931-9-13†	1	1-1/16	27.0	9/16	14.3	5/16	7.9	1/16	1.6			x	x
28	1	1-1/16	27.0	9/16	14.3	5/16	7.9	1/16	1.6			x	x
43	1	1-1/16	27.0	9/16	14.3	7/16	11.1	7/32	5.6			x	x
2301	1	1-1/16	27.0	11/16	17.5	1/4	6.4	1/16	1.6			x	x
1118	1	1-1/8	28.6	1/2	12.7	0.302	7.7	1/16	1.6			x	x
1103	1	1-1/8	28.6	5/8	15.9	5/16	7.9	1/16	1.6	7/8	22.2	x	x
29	1	1-1/8	28.6	5/8	15.9	3/8	9.5	1/8	3.2			x	x
1117	1	1-1/8	28.6	3/4	19.1	9/32	7.1	1/16	1.6			x	x
1107	1	1-1/8	28.6	3/4	19.1	5/16	7.9	3/32	2.4			x	x
1105	1	1-1/8	28.6	13/16	20.6	1/4	6.4	3/64	1.2	15/16	23.8	x	x
1224	2	1-3/16	30.2	13/16	20.6	25/32	19.8	1/2	12.7			x	x
AN931-2-16†	1	1-1/4	31.8	1/8	3.2	1/4	6.4	1/16	1.6			x	x
AN931-6-16†	1	1-1/4	31.8	3/8	9.5	1/4	6.4	1/16	1.6			x	x
1108	1	1-1/4	31.8	1/2	12.7	1/4	6.4	1/16	1.6	1.000	25.4	x	x
26A	1	1-1/4	31.8	1/2	12.7	1/4	6.4	1/16	1.6			x	x
31	1	1-5/16	33.3	11/16	17.5	3/8	9.5	1/16	1.6			x	x

Part No.	Fig. No.	A inch	A mm	B inch	B mm	C inch	C mm	D inch	D mm	E inch	E mm	F inch	F mm
AN931-11-16†	1	1-5/16	33.3	11/16	17.5	3/8	9.5	1/16	1.6	1.000	25.4	x	x
32	1	1-3/8	34.9	11/16	17.5	1/2	12.7	1/8	3.2			x	x
AN931-12-17†	1	1-3/8	34.9	3/4	19.1	3/8	9.5	1/16	1.6	1-1/16	27.0	x	x
1116	3	1-1/2	38.1	1/4	6.4	7/16	11.1	1/16	1.6	1-3/16	30.2	x	x
37	1	1-1/2	38.1	1.000	25.4	5/8	15.9	5/16	7.9	1-7/32	31.0	x	x
1106	3	1-1/2	38.1	1/4	6.4	7/16	11.1	1/16	1.6			x	x
AN931-8-20†	1	1-1/2	38.1	1/2	12.7	1/4	6.4	1/16	1.6			x	x
AN931-10-20†	1	1-1/2	38.1	5/8	15.9	1/4	6.4	1/16	1.6	1-1/4	31.8	x	x
AN931-12-20†	1	1-5/8	41.3	3/4	19.1	1/4	6.4	1/16	1.6			x	x
AN930-21†	1	1-9/16	39.7	7/8	22.2	3/4	19.1	3/16	4.8			x	x
36	1	1-5/8	41.3	7/8	22.2	7/16	11.1	1/16	1.6			x	x
AN931-14-20†	1	1-5/8	41.3	7/8	22.2	7/16	11.1	1/16	1.6			x	x
34	1	1-5/8	41.3	3/4	19.1	1/4	6.4	1/16	1.6			x	x
38	1	1-33/64	38.5	1-1/64	25.8	3/8	9.5	1/8	3.2	1-17/64	32.1	x	x
37A	1	1-3/4	44.5	1.000	25.4	7/16	11.1	1/16	1.6	1-3/8	34.9	x	x
39	1	1-7/8	47.6	1-1/8	28.6	3/8	9.5	1/16	1.6	1-1/2	38.1	x	x
AN931-12-26†	1	2.000	50.8	3/4	19.1	3/8	9.5	1/16	1.6			x	x
AN931-14-26†	1	2.000	50.8	7/8	22.2	7/16	11.1	1/16	1.6	1-5/8	41.3	x	x
41	1	2.000	50.8	1-5/16	33.3	7/16	11.1	1/16	1.6			x	x
AN931-24-28†	1	2-1/8	54.0	1-1/2	38.1	7/16	11.1	1/16	1.6	1-3/4	44.5	x	x
1104	1	2-1/8	54.0	1-1/2	38.1	7/16	11.1	1/16	1.6			x	x
AN931-16-30†	1	2-1/4	57.2	1.000	25.4	7/16	11.1	1/16	1.6	1-7/8	47.6	x	x
AN931-20-38†	1	2-3/4	69.9	1-1/4	31.8	7/16	11.1	1/16	1.6	2-3/8	60.3	x	x
AN931-20-40†	1	2-7/8	73.0	1-1/4	31.8	7/16	11.1	1/16	1.6	2-1/2	63.5	x	x
AN931-32-56†	4	4.000	101.6	2.000	50.8	1/2	12.7	1/16	1.6	3-1/2	88.9	x	x

* Chamfered ID.

† Military specification MIL-G-3036. Most AN grommets available in 4 groove widths (dimension "D"): 1/16" standard, 1/8", 3/16" or 1/4"

Grommets by "B" Dimension (cont'd)



Part No.	Fig. No.	A inch	A mm	B inch	B mm	C inch	C mm	D inch	D mm	E inch	E mm	F inch	F mm
25A	1	15/16	23.8	7/16	11.1	5/16	7.9	1/16	1.6	11/16	17.5	x	x
AN931-7-11†	1	15/16	23.8			5/16	7.9	1/16	1.6	11/16	17.5	x	x
230	1	13/16	20.6			9/32	7.1	1/16	1.6	5/8	15.9	x	x
231	2	13/16	20.6			9/32	7.1	1/16	1.6	5/8	15.9	x	x
330	2	13/16	20.6			11/32	8.7	1/8	3.2	5/8	15.9	x	x
AN930-4†	1	1.000	25.4			9/32	7.1	3/32	2.4	3/4	19.1	x	x
930-4	1	1.000	25.4			9/32	7.1	3/32	2.4	3/4	19.1	x	x
930-41	1	1.000	25.4	1/2	12.7	1/4	6.4	1/16	1.6	3/4	19.1	x	x
930-42	1	1.000	25.4			5/16	7.9	1/8	3.2	3/4	19.1	x	x
26	1	31/32	24.6			9/32	7.1	3/32	2.4	3/4	19.1	x	x
26A	1	1-1/4	31.8			1/4	6.4	1/16	1.6	1.000	25.4	x	x
AN931-8-13†	1	1-1/16	27.0			5/16	7.9	1/16	1.6	13/16	20.6	x	x
1102	1	1-1/16	27.0			5/16	7.9	1/16	1.6	13/16	20.6	x	x
1110	1	1-1/16	27.0			11/32	8.7	1/8	3.2	13/16	20.6	x	x
1118	1	1-1/8	28.6			0.302	7.7	1/16	1.6	7/8	22.2	x	x
1108	1	1-1/4	31.8			1/4	6.4	1/16	1.6	1.000	25.4	x	x
AN931-8-20†	1	1-1/2	38.1			1/4	6.4	1/16	1.6	1-1/4	31.8	x	x
AN931-9-13†	1	1-1/16	27.0			5/16	7.9	1/16	1.6	13/16	20.6	x	x
43	1	1-1/16	27.0	9/16	14.3	7/16	11.1	7/32	5.6	13/16	20.6	x	x
27A	1	7/8	22.2			15/64	6.0	1/16	1.6	3/4	19.1	x	x
28	1	1-1/16	27.0			5/16	7.9	1/16	1.6	13/16	20.6	x	x
AN931-10-14†	1	1-1/8	28.6			5/16	7.9	1/16	1.6	7/8	22.2	x	x
1103	1	1-1/8	28.6	5/8	15.9	5/16	7.9	1/16	1.6	7/8	22.2	x	x
AN931-10-20†	1	1-1/2	38.1			1/4	6.4	1/16	1.6	1-1/4	31.8	x	x
29	1	1-1/8	28.6			3/8	9.5	1/8	3.2	7/8	22.2	x	x
2301	1	1-1/16	27.0			1/4	6.4	1/16	1.6	13/16	20.6	x	x
AN931-11-16†	1	1-5/16	33.3	11/16	17.5	3/8	9.5	1/16	1.6	1.000	25.4	x	x
31	1	1-5/16	33.3			3/8	9.5	1/16	1.6	1.000	25.4	x	x
32	1	1-3/8	34.9			1/2	12.7	1/8	3.2	1.000	25.4	x	x
34	1	1-5/8	41.3			1/4	6.4	1/16	1.6	1-1/4	31.8	x	x
1117	1	1-1/8	28.6			9/32	7.1	1/16	1.6	7/8	22.2	x	x
1107	1	1-1/8	28.6	3/4	19.1	5/16	7.9	3/32	2.4	15/16	23.8	x	x
AN931-12-17†	1	1-3/8	34.9			3/8	9.5	1/16	1.6	1-1/16	27.0	x	x
AN931-12-20†	1	1-5/8	41.3			1/4	6.4	1/16	1.6	1-1/4	31.8	x	x
AN931-12-26†	1	2.000	50.8			3/8	9.5	1/16	1.6	1-5/8	41.3	x	x
1105	1	1-1/8	28.6	13/16	20.6	1/4	6.4	3/64	1.2	15/16	23.8	x	x
1224	2	1-3/16	30.2			25/32	19.8	1/2	12.7	15/16	23.8	x	x
36	1	1-5/8	41.3			7/16	11.1	1/16	1.6	1-1/4	31.8	x	x
AN930-21	1	1-9/16	39.7	7/8	22.2	3/4	19.1	3/16	4.8	1-1/4	31.8	x	x
AN931-14-20†	1	1-5/8	41.3			7/16	11.1	1/16	1.6	1-1/4	31.8	x	x

Part No.	Fig. No.	A inch	A mm	B inch	B mm	C inch	C mm	D inch	D mm	E inch	E mm	F inch	F mm
AN931-14-26†	1	2.000	50.8	7/8	22.2	7/16	7.9	1/16	1.6	1-5/8	41.3	x	x
37	1	1-1/2	38.1			5/8	15.9	5/16	7.9	1-7/32	31.0	x	x
37A	1	1-3/4	44.5	1.000	25.4	7/16	11.1	1/16	1.6	1-3/8	34.9	x	x
AN931-16-22†	1	1-3/4	44.5			7/16	11.1	1/16	1.6	1-3/8	34.9	x	x
AN931-16-30†	1	2-1/4	57.2			7/16	11.1	1/16	1.6	1-7/8	47.6	x	x
38	1	1-33/64	38.5	1-1/64	25.8	3/8	9.5	1/8	3.2	1-17/64	32.1	x	x
39	1	1-7/8	47.6	1-1/8	28.6	3/8	9.5	1/16	1.6	1-1/2	38.1	x	x
AN931-20-38†	1	2-3/4	69.9	1-1/4	31.8	7/16	11.1	1/16	1.6	2-3/8	60.3	x	x
AN931-20-40†	1	2-7/8	73.0			7/16	11.1	1/16	1.6	2-1/2	63.5	x	x
41	1	2.000	50.8	1-5/16	33.3	7/16	11.1	1/16	1.6	1-5/8	41.3	x	x
AN931-24-28†	1	2-1/8	54.0	1-1/2	38.1	7/16	11.1	1/16	1.6	1-3/4	44.5	x	x
1104	1	2-1/8	54.0			7/16	11.1	1/16	1.6	1-3/4	44.5	x	x
AN931-32-56†	1	4.000	101.6	2.000	50.8	1/2	12.7	1/16	1.6	3-1/2	88.9	x	x

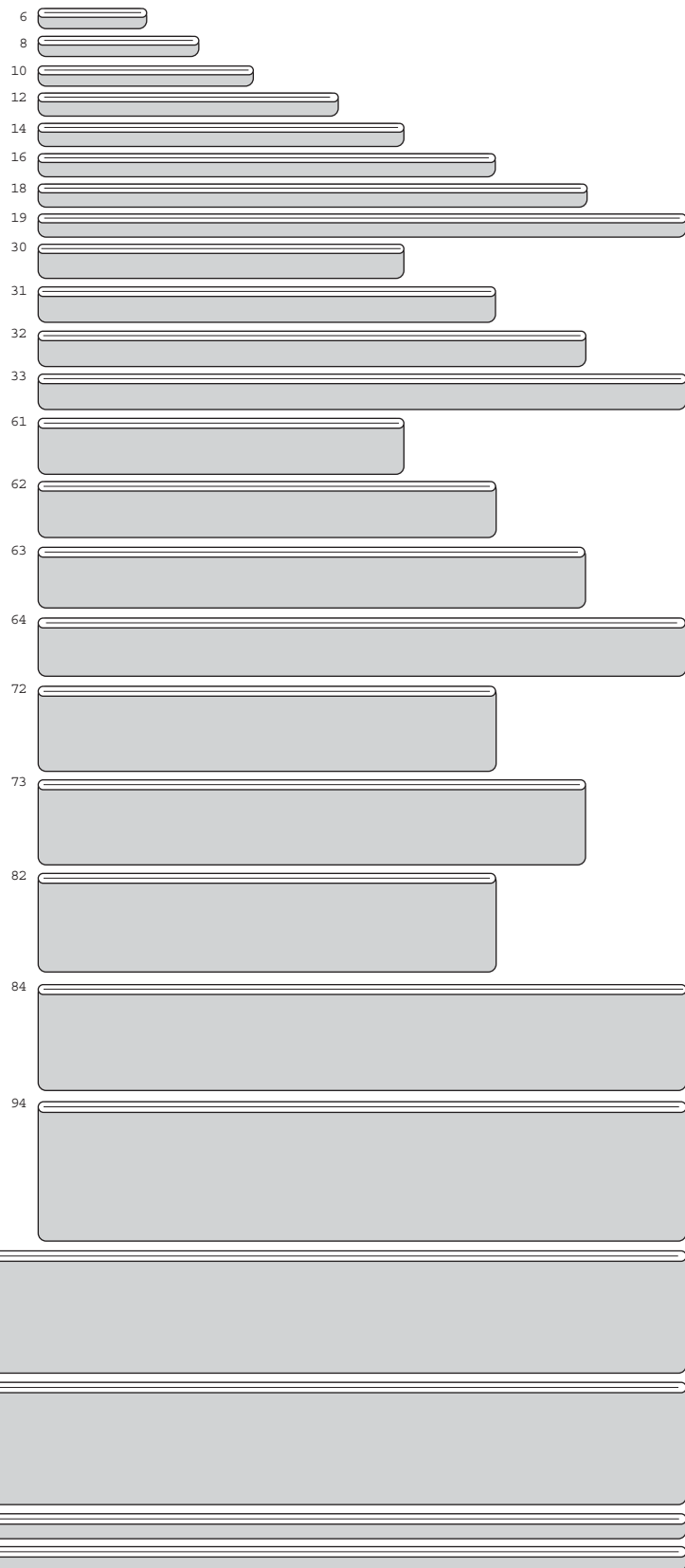
* Chamfered ID.

† Military specification MIL-G-3036. Most AN grommets available in 4 groove widths (dimension "D"): 1/16" standard, 1/8", 3/16" or 1/4"

Rubber Bands

Count per pound and sizes

Size	Approximate Count per pound	Length (inches)	Width (inches)	Thickness (inches)
6	9,900	39/64	1/16	1/32
8	7,200	7/8	1/16	1/32
10	5,040	1-1/4	1/16	1/32
12	3,780	1-3/4	1/16	1/32
14	3,042	2	1/16	1/32
16	2,430	2-2/12	1/16	1/32
18	1,890	3	1/16	1/32
19	1,665	3-1/2	1/16	1/32
30	1,440	2	1/8	1/32
31	1,710	2-1/2	1/8	1/32
32	990	3	1/8	1/32
33	855	3-1/2	1/8	1/32
61	765	2	1/4	1/32
62	585	2-1/2	1/4	1/32
63	495	3	1/4	1/32
64	435	3-1/2	1/4	1/32
72	405	2-1/2	3/8	1/32
73	340	3	3/8	1/32
82	305	2-1/2	1/2	1/32
84	215	3-1/2	1/2	1/32
94	140	3-1/2	3/4	1/32
105	70	5	5/8	1/16
106	55	6	5/8	1/16
5" thread	1,215	5	1/16	1/32
6" thread	585	6	1/16	1/16

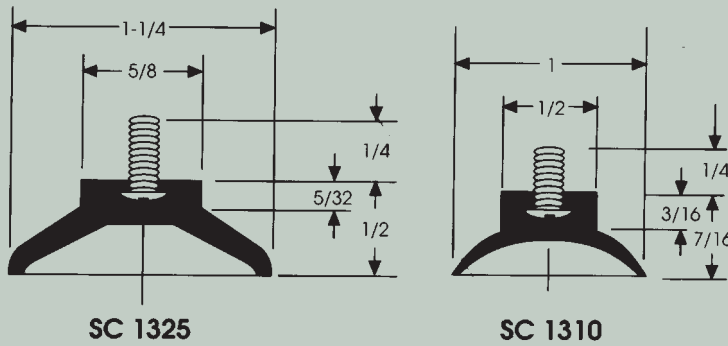


Robco rubber bands are Ultraviolet ray resistant and available in colours upon request.

Material-natural crepe

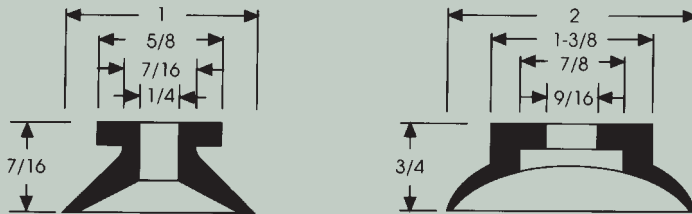
Actual sizes illustrated.

Small Rubber Parts



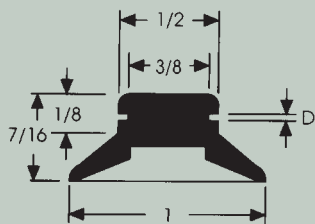
SC 1325

SC 1310



123

472



1310-B

1310-B-1	$D = 1/32$
1310-B-2	$D = 1/16$
1310-B-3	$D = 3/32$

Vacuum Lifters

“Little Grabber” LIFTER

This one finger lifter is ideal for light objects or raising corners for a better grip. Always handy and ready for use while a hand remains free for other work. Made from a tough, black Neoprene compound with a specially designed, moulded-in release tab.

No. 1230-3: 2"(5mm) diameter cup.

“Knuckle Saver” Lifter

The “Knuckle Saver” is extra-strong, making it perfect for breaking oil adhesions and lifting more than the “Little Grabber”

No. 3825: 3-1/4"(8.3 cm) diameter cup.

Suction Cups

SC 1325, SC 1310

With screw insert. (see illustration left)

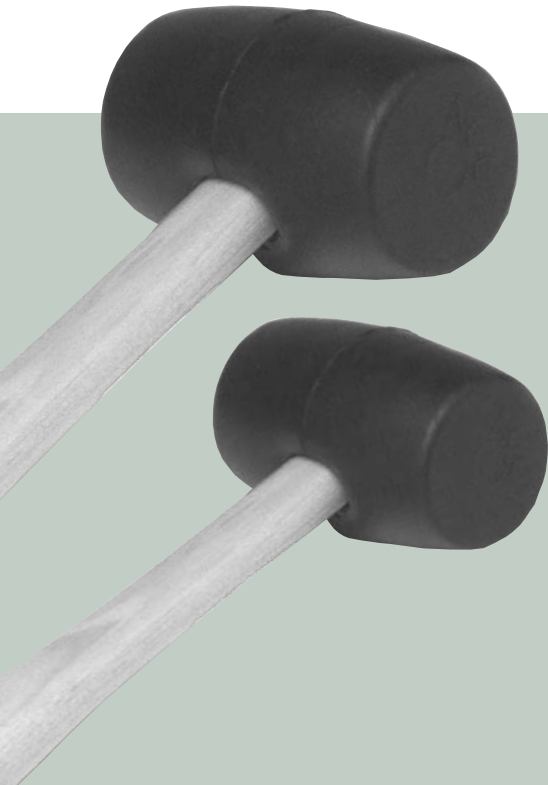
123, 472

Without screw insert. (see illustration left)

1310-B

With groove. (see illustration left)

Specialty Items



Mallets

Two-Tuff Mallets™

This tough mallet of non-marking grey natural rubber with a dual durometer head and a large, easy-grip Canadian ash wood handle conveniently replaces both white and black mallets. Ontario Rubber Two-Tuff Mallets™ are sold individually or in bulk. Other colours and styles also available upon request.

Mallet No.	Head Length		Head Diameter		Handle Length		Weight	
	inch	mm	inch	mm	inch	mm	lbs	kg
100	3-1/8	80	1-1/2	40	11-1/2	243	10 oz	0.28
200	3-1/2	90	2-1/8	54	11-1/2	243	1 lb. 2 oz.	0.51
400	4-1/2	113	2-1/2	64	12-1/2	318	1 lb. 5 oz.	0.62
900	5-1/2	139	3-1/2	90	12-1/2	318	2 lb. 9 oz.	1.20

™ Two-Tuff is a trademark of Ontario Rubber, Division Robco Inc.

Black and Non-Marking White Rubber Mallets

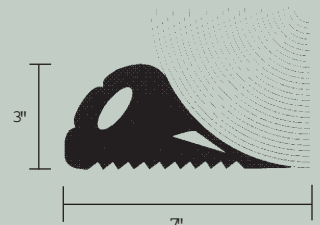
These tough and durable, all-purpose mallets are available with hardwood handles in the following sizes.

Mallet No.	Head Length		Face Diameter		Handle Length		Black		White	
	inches	mm	inches	mm	inches	mm	lbs	kg	lbs	kg
0	3	76.2	1-5/8	41.3	9-3/8	238.1	9 oz.	0.27	10 oz	0.28
1	3	76.2	2-1/4	57.2	10	254.0	1 lb 1 oz	0.48	1 lb 2 oz	0.51
2	3-15/16	100.0	2-1/4	57.2	10-5/8	269.9	1 lb 7 oz	0.65	1 lb 9 oz	0.71
3	4-1/2	114.3	2-1/2	63.5	13-1/2	342.9	2 lbs	0.91	2 lbs 5 oz	1.05
4	5	127.0	2-1/2	63.5	13-1/2	342.9	2 lbs 12 oz	1.25	3 lbs	1.36



Paper Roll Wedges

Rubber paper roll wedges were specially designed to "cradle" without denting, snagging or tearing outside layers. The sawtooth base holds tightly to the floor so that rolls can be piled in a pyramid without slipping. Handy for paper manufacturers, newspapers, publishing houses and other users of rolled goods. Standard length is 13 feet (4 meters). Wedges can also be cut to your specifications.



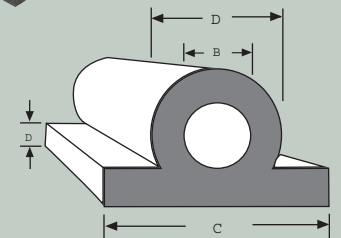
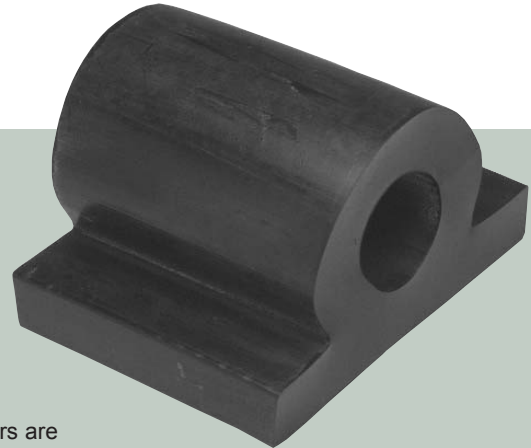
Specialty Items

Dock and Industrial Bumpers

These resilient, permanent bumpers absorb the shock of trucks at loading docks, as well as minimizing damage to cargo and dock. The high cost and inconvenience of repairs make bumpers a cost-effective preventive maintenance investment. Standard length is 30 feet (9 meters). Bumpers can be cut to desired length. One size only.

Marine style dock fenders as well as other sizes and types of industrial dock fenders are also available.

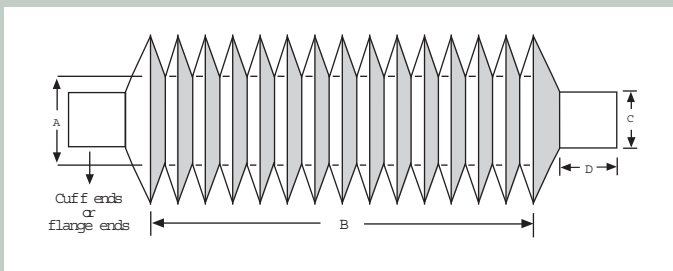
Standard Size	A	B	C	D
inches	4	2	6-1/2	1
centimeters	10.16	5.08	16.51	2.54



Neoprene Coated Nylon Fabric Bellows

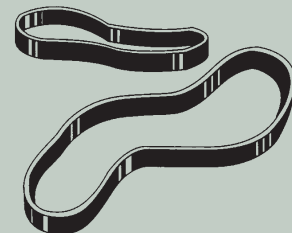
Robco custom fabricates bellows above 1 inch (2.5 cm) ID to your specifications from Tough Coat sheet material (see page 3). Tough Coat bellows are recommended as dust covers for ways, piston rods and shafts. Please specify the dimensions shown in the diagram when ordering.

- A. Bellows ID (inside diameter);
OD (outside diameter) is determined by minimum of 1" flange.
- B. Bellows extended length
- C. Collar ID
- D. Length of collars



Band Saw Bands

Robco band saw bands protect blades from the metal fly wheel rim. Manufactured from a specially compounded, tough, natural rubber, band saw bands are produced 1/8" (3.2 mm), 3/16" (4.8 mm) and 1/4" (6.4 mm) thicknesses to fit most wheel diameters. For increased service life, Robco recommends a rubber cover be vulcanized in place. This allows the band to be crowned, improving blade tracking.



Custom Manufacturing



Customizing

If you can spec it, we can make it. Robco can work with engineered designs, specific parts, or with sample parts that can be duplicated. Tooling is designed in-house and produced by skilled tool makers. Compounds can be developed specifically for your application. Ontario Rubber will then submit a sample for your approval. Send us a sample or fax your drawings for an estimate. We also accept requests via EDI or e-mail. Ask your representative for further details.

- Prototype Development
- Tooling Design and Production
- Compound Development
- Samples for Approval

Gaskets, Die Cutting and Stamping Services

The Gasket Experts;

Our manufacturing facilities are equipped with state of the art die cutting equipment. Computerization of all manufacturing and support functions combined with our ISO 9001:2000 registered Quality Assurance program enable our customers to depend on us for quality fabrication of gaskets or die cut parts.

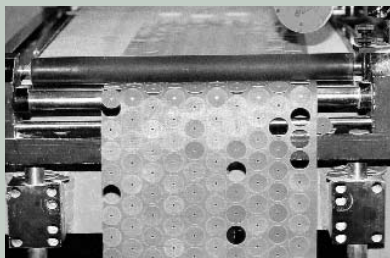
Robco has extensive experience in kiss cutting, creasing, scoring, lathe cutting, slitting and custom fabrication, in small or large volume.

In support of our production facilities, Ontario Rubber provides a team of specially trained salespeople to serve you quickly and efficiently.

Many of our products serve the requirements of a variety of industries including, pulp and paper, steel, mining, railroad, marine, chemical, petroleum, refining, food and beverage processing, construction, textile, electrical, OEM and automotive.

Mandrel Made Products

Mandrel wrapped parts can be custom machined into many different shapes eliminating costly and time consuming mould development. Custom shapes and small runs are specialties of Ontario Rubber well suited to the mandrel process.



Machining and Fabrication

Prototypes and small quantities make tooling costs for custom moulding and extrusion prohibitive. Robco can drill, grind, sand, turn and perform other precision machining to create complex parts to your specifications, avoiding costly tooling.

Custom Manufacturing

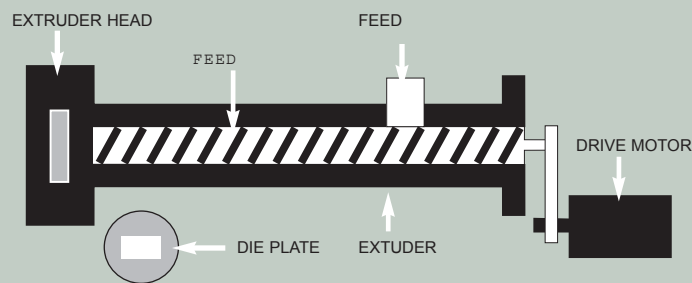
Custom Extrusion

Robco can supply short or long runs of extrusions in silicone, Viton®, EPDM, nitrile, SBR, vinyl and neoprene among others, to your specifications. Minimum runs are required based on the material and profile size. Fax us your sketches or drawings for an estimate.

Principles of Extrusion

- Unvulcanized rubber compound is fed into the extruder.
- The flute of the screw carries the rubber forward to the die, building up pressure and temperature
- the rubber is forced through the die

Basic Extruder



Custom Moulding

Robco can custom compression mould, transfer mould and injection mould rubber to your specifications. All moulded parts prices are quoted based on the complexity of the required mould. Tooling is a one time cost.

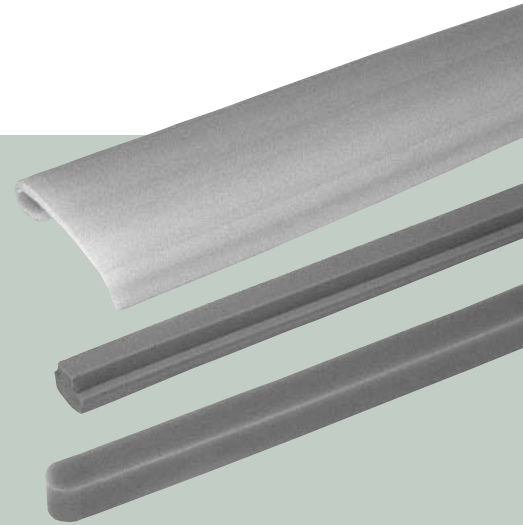
Fax us a drawing for an estimate, or ask your representative about e-mail. If the part is for a new application, or replaces one for which no drawing exists, please state conditions that the part will be subjected to (i.e. temperature, chemicals, mechanical wear, etc.) to help us assist you in material selection.

Robco is also able to meet your custom compounding requirements.

COMPRESSION MOULDING – the most suitable moulding process for commercial applications where flash and/or tight tolerances are not critical. Tooling costs are generally the least expensive of the moulding processes and part cost is usually lower.

INJECTION MOULDING – The moulding process in which uncured rubber stock is fed into an injection press, where it is heated and then injected into a closed mould.

TRANSFER MOULDING – this process moulds with less flash and better tolerance control than with compression moulding. It is the best process for parts with inserts. Mould and tooling costs are generally more expensive than compression moulding.



Custom Manufacturing

Bonding and Vulcanizing

Rubber to Metal

Rubber can be vulcanized to most metals. The success of the adhesion depends on part design, type of rubber and the metal's surface. One of the most superior bonds is achieved by imbedding metal parts in the rubber. This process mechanically locks in the metal parts without costly adhesives. Contact cement and cyanoacrylate adhesives can also be used to bond rubber to metal. Some metals, ie. stainless, galvanized, and aluminum may require special preparation.

Rubber to Rubber

Bonding rubber to rubber is a fast, cost-effective way to reduce equipment down time and avoid tooling development. Chemicals and mechanical bonding can be completed in a matter of hours or days rather than the weeks sometimes required for custom tooling. Cylindrical, tapered and rectangular sleeves, odd sized O-rings, endless belts and gaskets are a few of the products that can be produced by hot vulcanizing rubber to rubber. Other methods of bonding include, contact cement, cyanoacrylate adhesives and cold vulcanizing (see also Adhesives and Sealants, page 33)

Urethane Products

Urethane elastomers bridge the gap between rubber and metal, offering versatility in physical properties, processing techniques and application performance.

Coupling high impact strength with superior abrasion resistance, urethane is unaffected by oils, grease and mild chemical solutions. This self-lubricating material produces misalignment tolerant, quiet running gears and sprockets. Its high load-bearing properties and low compression set also make urethane ideal for shock mounts, bearings and rollers at impact points.

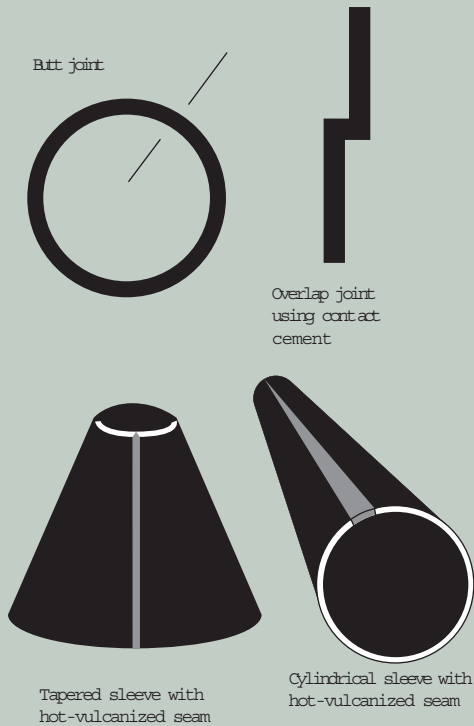
This material has gained wide-spread acceptance in the aircraft industry due to its ability to withstand temperature variations. It has excellent flex life, even to - 40 °F.

There are a number of typical urethane applications. Please note, all urethane parts, except sheet, are moulded. Each mould is custom manufactured, consequently, your representative needs to understand the specifications of your application including parts volume and re-order frequency to best assist you. All tooling costs are amortized over the expense of the first run.

For a single unit requirement, parts can be machined and bonded from urethane sheet, where the configuration is not too complex. Machining can offer considerable savings over custom moulding. Ontario Rubber invites your inquiry.

Special high temperature resistant urethane is available to withstand up to 350 °F (176.7 °C).

Roll covering, moulding, extrusion and sheet products are all available in urethane from 10 (A) durometer to 75 (D) durometer.



Miscellaneous Products

Adhesives

SC-2000

SC-2000 resists oil and is nonflammable. This black adhesive air cures at room temperature for rubber to steel, rubber to rubber, rubber to fabric and other bonding combinations. It can be stored in a cool dry place for up to 2 years. Also available is white food grade C320.

Availability: 1/2 kg and 1 kg containers

#189

This fast setting, cream coloured solvent type adhesive has a high dead load strength and enough elasticity to resist shock and fatigue. Adhesive bonds will also resist moisture, oil and grease. Ontario Rubber #189 laminates effectively to plywood, paneling, metals, leather, fabrics, rubber, linoleum, pressed wood, Arborite and similar plastics. One gallon typically covers 180 to 220 square feet liberally applied to a moderately porous substrate.

Availability: quart, gallon and 45 gallon drums



Gasket Sealant

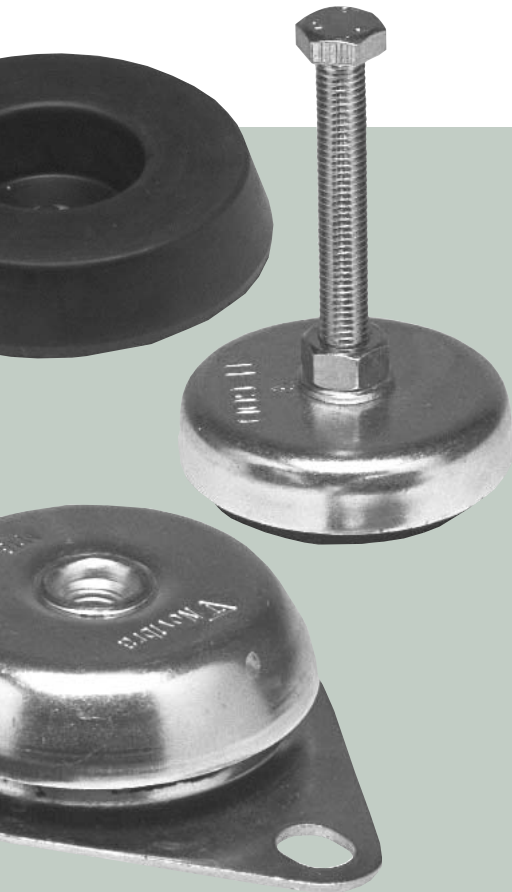
Jointex®

Two or three sizes of this adhesive backed PTFE gasket material minimize the need for an inventory of pre-cut gaskets. This chemically inert material has an unlimited shelf life, no waste and seals pressure vessels, flue ducts, heat exchangers, food and pharmaceutical equipment, glass, fibreglass and damaged flanges. Jointex® is ideal for any application where a cut gasket is not available.

Installation: Cut required length from the spool. Peel back protective adhesive liner and stick into position. Material stays in place even on vertical or overhead applications. Complex shapes, bends and uneven profiles can be accommodated. Cross over the two ends with a short overlap and bolt up the assembly.

Nominal Size		Standard Spool Length		Jumbo	
inches	mm	feet	meters	feet	meters
1/8	3.175	100	30.18	1,000	301.75
3/16	4.762	75	22.86	750	228.86
1/4	6.350	50	14.63	500	146.30
3/8	9.525	25	7.32	250	73.15
1/2	12.700	15	4.57	150	45.72
5/8	15.875	15	4.57	150	45.72
3/4	19.050	15	4.57	90	27.43

Anti-Vibration Mounts



Anti-Vibration Mounts

Are you experiencing abnormal wear in machine parts and increased costs due to prolonged equipment down time?

Is excessive absenteeism and turnover a problem where you work?

Have you noticed the formation of cracks in walls, floors and ceilings of your plant?

Anti-vibration mounts have specially compounded rubber cushioning elements which naturally absorb sound and motion better than cork, or felt and steel vibration dampers. All mount designs use rubber's superior insulating properties and an unmatched rubber to metal bonding technique so secure the joint is stronger than the bulk of the rubber.

This family of vibration mounts includes dozens of sizes, each designed to solve specific isolation problems. Mounts segregate sensitive components from ambient vibration damage. Ontario Rubber's product standardization makes it possible to deliver most mounts from stock ensuring off-the-shelf availability.

Computer Aided Selection

Robco's sales staff can assist you in selecting a mount using our unique computer aided selection guide. The computer uses the parameters of your application recommending only the most appropriate types. It is then possible to quickly select the most cost-effective solution.

Hardness Classes

Anti-vibration mounts fall into the following two categories:

- hardness A @ 40° IRH
- hardness B @ 60° IRH

Standard mounts are produced with natural rubber.

Thread System

Anti-vibration mounts are stocked in standard metric threads. UNC threads can be supplied on special order only.

Anti-Vibration Mounts

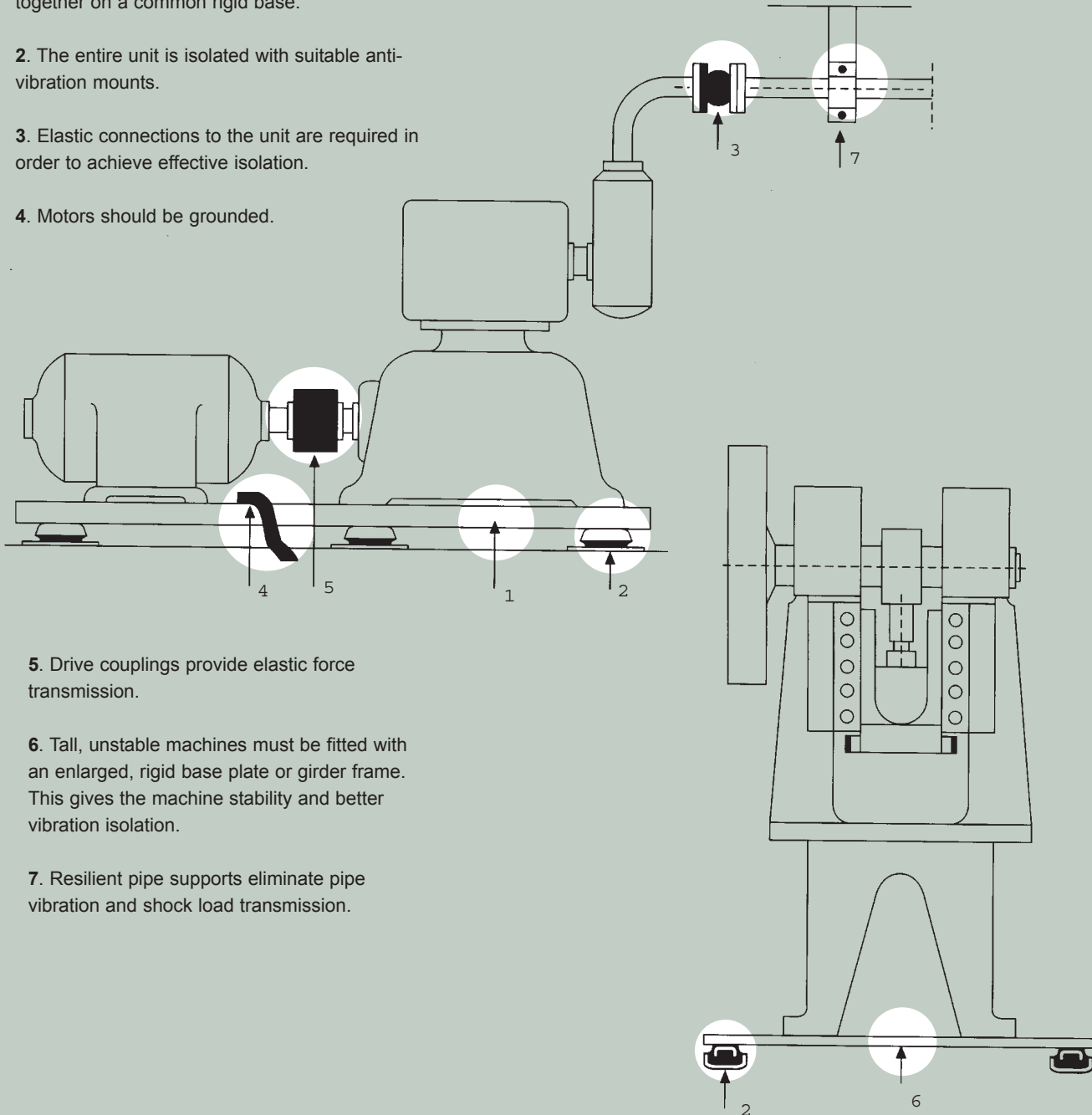
Installation Principles

1. The various parts of the unit are brought together on a common rigid base.

2. The entire unit is isolated with suitable anti-vibration mounts.

3. Elastic connections to the unit are required in order to achieve effective isolation.

4. Motors should be grounded.

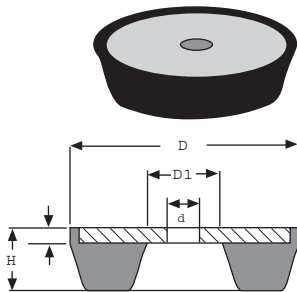
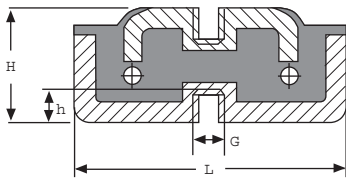
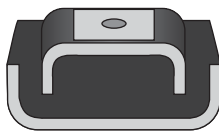
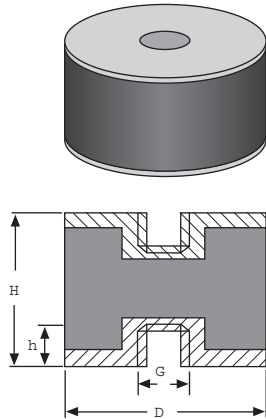


5. Drive couplings provide elastic force transmission.

6. Tall, unstable machines must be fitted with an enlarged, rigid base plate or girder frame. This gives the machine stability and better vibration isolation.

7. Resilient pipe supports eliminate pipe vibration and shock load transmission.

Anti-Vibration Mounts



Type C

Recommended for high-speed equipment, Type C cylindrical rubber mounts are perfect for fans, converters, pumps and electrical machinery experiencing wear from a mostly vertical motion. The securely vulcanized steel plate in Type C mounts bolt to floor or a base plate and the floor. Available in A and B hardness.

Reference	Dimensions in mm			Thread
	D	H	h	G
C 20/20	20	20	5.0	M6
C 20/30	20	30	5.0	M6
C 30/28	30	28	6.0	M8
C 30/36	30	36	6.0	M8
C 50/36	50	36	7.5	M10
C 50/42	50	42	7.5	M10
C 50/48	50	48	7.5	M10
C 75/36	75	36	8.0	M12
C 75/42	75	42	8.0	M12
C 75/48	75	48	8.0	M12
C 100/42	100	42	10.5	M16
C 100/48	100	48	10.5	M16
C 100/54	100	54	10.5	M16
C 140/42	140	42	12.5	M20
C 140/48	140	48	12.5	M20
C 140/60	140	60	12.5	M20

Type U

Type U mounts are superb for heavy, high-speed equipment. Perfect to insulate presses, punches, weaving machines, carpentry equipment, printing presses and other equipment suffering from impact shock.

Reference	Dimension in inches				Thread
	L	B	H	h	G
U100	100	50	42	12	M12
U130	130	70	54	12	M12
U170	170	100	70	20	M16
U200	200	100	70	20	M20

Type SE

This versatile mount prevents sewing machines, office equipment, domestic machines and electric motors from traveling.

Reference	Dimensions in mm				
	D	D1	d	H	†
SE75	55	18	8	15	3
SE250	75	26	10	17	4
SE 750	115	40	14	24	4

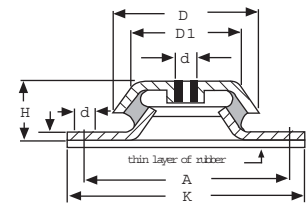
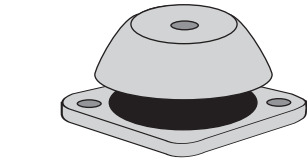
Anti-Vibration Mounts

Type RA

Type RA general purpose mounts are well suited to rolling mills, fans, pumps, machine tools, compressors, combustion engines, presses, punches, printing equipment, converters and more. Strong, stable and effective against vibration and noise, Type RA does not need to be bolted to the floor.

Reference	Dimensions in mm							Thread G
	D	D1	A	K	H	d	†	
RA 100	60	38	88	106	35.5	9.0	1.5	M 10
RA 200	93	70	124	133	35.0	10.0	2.5	M 10
RA 350	106	81	144	172	38.0	13.5	3.0	M 16
RA 500	121	92	158	188	42.0	13.5	3.0	M 16
RA 800	144	111	182	212	48.0	13.5	3.0	M 16
RA 1200*	158	120	140	170	58.0	14.5	3.0	M 20
RA 1800*	178	133	160	190	66.5	14.5	3.0	M 20

*Only available with 4 mounting holes

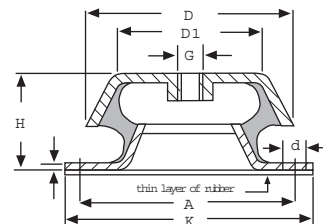
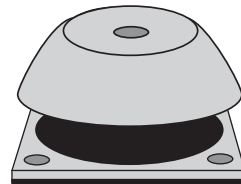


Type RAEM

Type RAEM mounts absorb more vibration than Type RA mounts. High resilience and good lateral (horizontal) stability make RAEM mounts effective for use under paper machines, punches, presses, rolling mills, printing machines, pumps, machine tools and other difficult to isolate machinery.

Reference	Dimensions in mm							Thread G
	D	D1	A	K	H	d	†	
RA 40 EM*	60	38	88	106	35.5	9.0	1.5	M 10
RA 125 EM*	82	60	110	128	35.5	11.0	1.5	M 10
RA 350 EM*	110	87	144	172	42.0	13.5	3.0	M 16
RA 800 EM*	152	121	182	212	54.0	13.5	3.0	M 16
RA 1500 EM	180	130	146	180	85.5	14.5	4.0	M 20
RA 2500 EM	220	156	180	220	105.5	18.0	4.0	M 24
RA 1500 EM Duplex	248	186	146	180	115.0	14.5	4.0	M 20

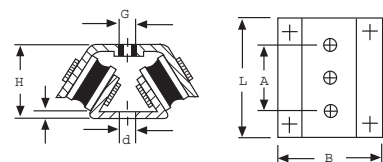
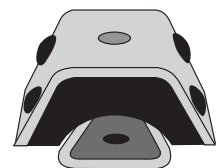
* Only available with 2 mounting holes.



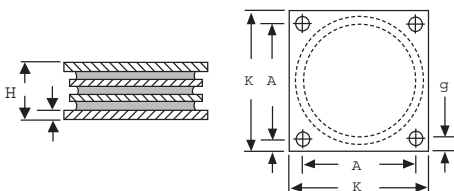
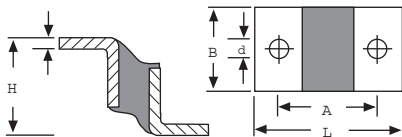
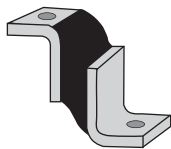
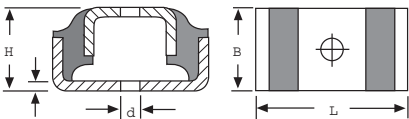
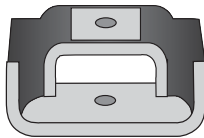
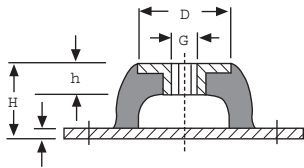
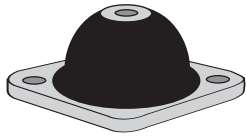
Type H

Type H mounts provide satisfactory horizontal and vertical impact absorption with the strength required for heavy equipment, including rolling mills, grinders, punches and compressors.

Reference	Dimensions in mm						Thread G	Approx. Weight kg
	B	L	H	A	d	†		
H 200	98	126	50	70	9	3	M 12	1.215
H 500	142	174	70	110	11	4	M 12	3.035
H 1000	166	221	90	150	14	6	M 16	6.03



Anti-Vibration Mounts



Type M

Specially designed for maximum horizontal and vertical impact shock, Type M mounts are ideal for compressors, refrigerators, electric motors and other sensitive equipment. Available in Shore A and B 57, or other durometers.

Reference	Dimensions in mm								Thread G
	D	E	A	K	H	d	h	†	
M 7	15	43	50	64	20	7.0	7	2	M 6
M 25	30	56	66	85	25	8.0	11	2	M 8
M 50	42	76	92	114	36	10.0	16	2	M 10
M 100	50	96	110	136	40	11.5	15	2	M 10
M 200	55	101	124	151	45	11.5	13	3	M 10
M 400*	75	–	120	150	63	14.5	18	3	M 12
M 600*	100	–	160	200	85	14.5	25	3	M 16
M 1500*	186	–	250	310	160	18.0	43	4	M 24

* Only available with 4 mounting holes.

Type BA

Type BA suspension mounts provide easy resilience when measurement apparatus, instruments, lowspeed machines and light fans are subject to shear stress. This mount is constructed of rubber elements vulcanized between two different size steel profiles.

Reference	Dimensions in mm				
	B	L	H	d	†
BA 20	20	90	50	10	4
BA 50	50	90	50	12	4
BA 100	100	90	50	15	4

Type DA

Type DA is recommended when a soft, resilient mount is required for light load domestic machines, office machines and instruments. Type DA is constructed of rubber elements vulcanized between two identical size steel profiles.

Reference	Dimensions in mm					
	B	L	H	A	d	†
DA 20	20	90	58	62	8	4
DA 50	50	90	58	62	10	4
DA 100	100	90	58	62	10	4

Type SAW

Well suited to large mixers, crushers, grinders and rolling mills, Type SAW mounts absorb vertical shock with little deformation. These mounts also provide superior horizontal vibration dampening.

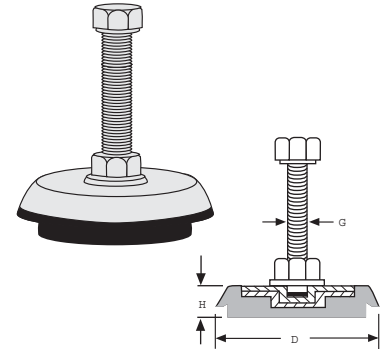
Reference	Dimensions in mm				
	K	H	A	d	†
SAW 125	148	52	118	13.5	5
SAW 150	166	63	136	13.5	6
SAW 200	220	82	184	17.0	8
SAW 300	310	120	270	20.0	10

Anti-Vibration Mounts

Type TF

Unsurpassed in insulating lathes, milling machines, grinding machines and printing presses from constant motion, Type TF mounts also decrease high frequency sound. This mount's leveling screws help minimize misalignment damage.

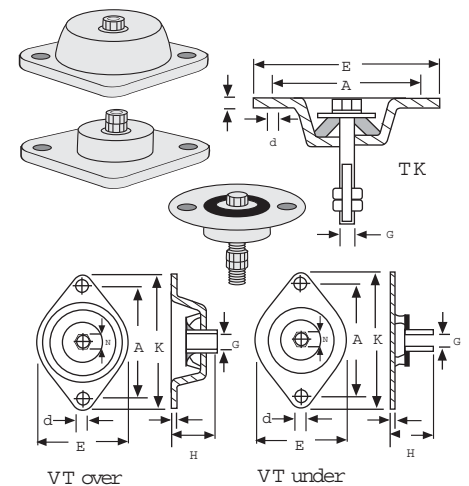
Reference	Dimensions in mm				
	D	H (minimum)	H (maximum)	Thread G	Screw Length (mm)
TF 250	82	22	28	M 12	100
TF 600	96	25	32	M 12	100
TF 1200	130	30	38	M 16	100
TF 3000	172	36	46	M 20	150



Type VT and TK

Type VT and TK mounts protect sensitive instruments from adjacent vibrations. They are excellent insulators for wall mounted machines, fans and refrigerators. The rubber part of Type VT mounts is subjected to shear load for high resilience at light loads. Both top and bottom designs are available.

Reference	Dimensions in mm									Thread G
	E	K	A	H	H1	H2	d	N	†	
VT over	75	114	96	33	—	—	9	—	1.5	M 8
VT under	75	114	96	33	—	—	9	15	1.5	M 8
TK	58	—	46	12	26	13.5	7	15	1.0	M 5

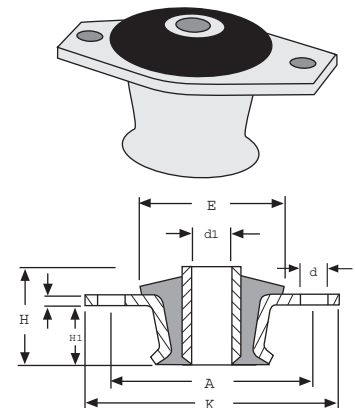


Type HK

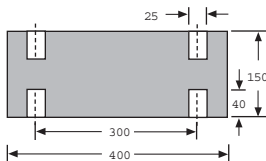
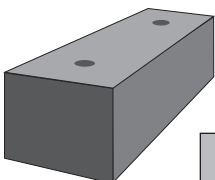
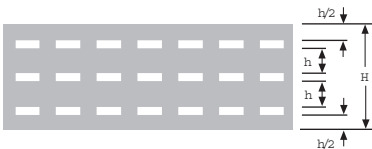
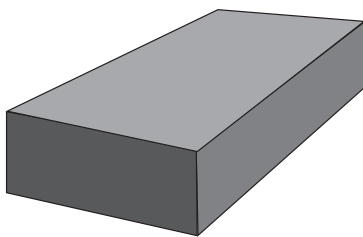
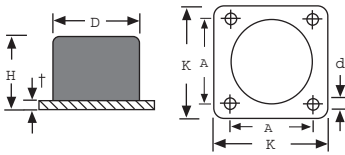
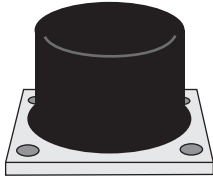
Type HK's resilience and impact resistance make it suitable for isolating tractors and construction vehicle cabs from vibration. These mounts are also recommended for isolating machinery in ships and other mobile units. Type HK was designed to permit high compression under vertical load and horizontal stability.

Reference	Dimensions in mm								
	K	A	F	H	H1	E	d	d1	†
HK 85	105	85	65	41	27	60	11	18	3
HK 85 EM	105	85	65	41	27	60	11	18	3
HK 115	140	115	90	71	55	85	14	22	4
HK 115 EM	140	115	90	71	55	85	14	22	4

F = mount width



Anti-Vibration Mounts



Type ANB Bumpers

Excellent vibration damping performance for overhead cranes, wagons and other machines that vibrate when braking. Protect machinery and buildings with this energy absorbing mount, reducing force of impact.

Reference	Dimensions in mm					
	K	A	D	d	H	t
ANB 15	25	17	15	3.6	13.0	1.0
ANB 25	35	25	25	4.8	21.5	1.5
ANB 35	50	35	35	5.8	29.5	1.5
ANB 50	70	50	50	7.0	43.0	3.0
ANB 75	100	75	75	9.0	63.0	3.0
ANB 100	130	100	100	11.0	84.0	4.0
ANB 150	185	150	150	13.5	126.0	6.0
ANB 200	240	200	200	13.5	168.0	8.0
ANB 300	360	300	300	17.0	250.0	10.0

Bobbins

These inexpensive, compact mounts perform well in compression and shear applications. bobbin style mounts are available with threaded inserts or bolts. Three standard thicknesses are available, 43°, 57° and 68° Shore A. Alternate compounds and durometers can be produced upon request.

Type BL Support Bearing

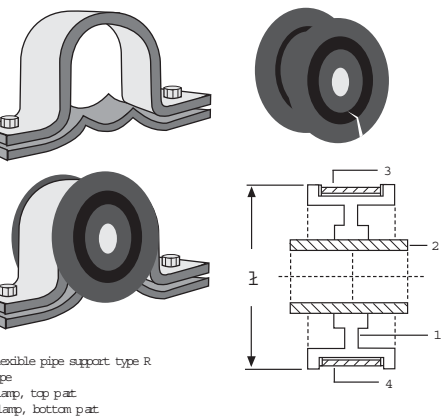
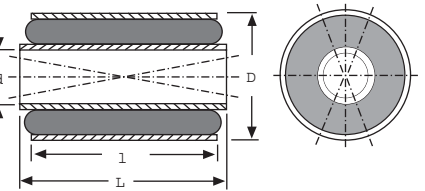
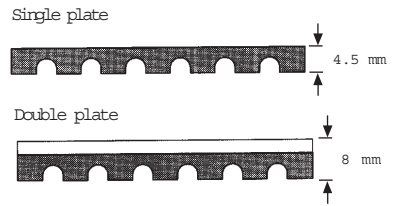
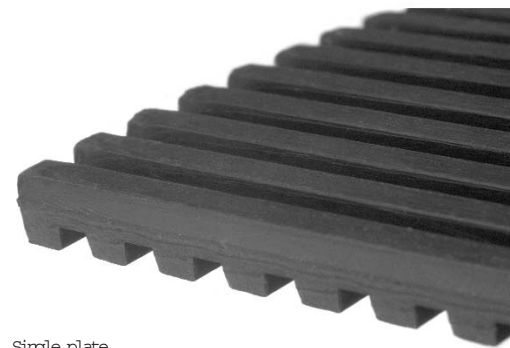
Type BL is recommended for use under bridge ties, buildings and concrete structures because it is not effected by changes in temperature, will not creep and has a low compression set. It is available with or without intermediate plates vulcanized in the rubber.

Reference	Dimensions in mm					
	External Dimension (mm)	Number of layers	Installation Height (mm)	Rubber Height (mm)	Maximum Load Vertically	Maximum Horizontal Movement
BL 1/3	150 x 200	3	21	15	300	15
BL 1/4	150 x 200	4	28	20	300	20
BL 1/5	150 x 200	5	36	25	300	25
BL 1/6	150 x 200	6	42	30	300	30
BL 1/7	150 x 200	7	49	35	300	35
BL 2/2	200 x 300	2	24	20	600	20
BL 2/3	200 x 300	3	36	30	600	30
BL 2/4	200 x 300	4	48	40	600	40
BL 2/5	200 x 300	5	60	50	600	50
BL 2/6	200 x 300	6	72	60	600	60
BL 3/3	300 x 400	3	36	30	1,200	30
BL 3/4	300 x 400	4	48	40	1,200	40
BL 3/5	300 x 400	5	60	50	1,200	50
BL 3/6	300 x 400	6	72	60	1,200	60

Type GK

This specially formulated rubber block was designed to fit loosely between machine and base. Type GK is shipped with four dowel sockets to affix to machine or base if necessary. Dowels reduce friction and the risk of traveling.

Anti-Vibration Mounts



1. Flexible pipe support type R
2. Pipe
3. Clamp, top part
4. Clamp, bottom part

Vibration Plate

This oil resistant rubber plate is effective in isolating high frequency vibration. It comes in two versions, a single plate with uniform ribs on one side, and a double plate with ribs on both sides perpendicular to each other.

Type VP Sleeves

Construction

Type VP sleeves are excellent for bearing vibration problems. They consist of rubber elements securely bonded between two concentric sleeves. Type VP was designed to absorb motion from all angles.

Application

Since the bonded rubber absorbs the full movement, lubrication and other bearing maintenance is minimized. Rail cars, tractors, automobiles, harvesters, bulldozers, vibratory screens and other structures fitted with type VP sleeves operate smoothly and quietly.

Reference	Dimensions in mm				Approximate Weight(kg)
	d	D	L	l	
10/2525	10	25	25	20	0.035
10/2540	10	25	40	35	0.057
15/3530	15	35	30	25	0.076
15/3550	15	35	50	45	0.120
20/4540	20	45	40	35	0.160
20/4575	20	45	75	70	0.315
25//5045	25	50	45	40	0.211
25/5085	25	50	85	80	0.416
60//6055	30	60	55	45	0.335
30/60100	30	60	100	90	0.630
35/6560	35	65	60	50	0.434
35/65110	35	65	110	100	0.810
40/7065	40	70	65	55	0.555
40/70120	40	70	120	110	1.090
45/7570	45	75	70	60	0.673
45/75130	45	75	130	120	1.280
50/8075	50	80	75	65	0.767
50/80140	50	80	140	130	1.484

Type R/KL Pipe Support

Piping is often rigidly fixed. Line vibration can cause pipe fractures and noise which may be harmful to employees. Resilient pipe supports eliminate pipe fractures and minimize noise caused by rigid pipe hardware. These pipe supports also allow the pipe to expand and contract to coincide with temperature fluctuations.

The rubber's dielectric properties make these pipe supports suitable for electric insulation.

All pipe supports consist of a cylindrical rubber body, an externally bonded steel strap and clamps (refer to diagram). Pipe supports are available in two types, regular (120 °F/48.9 °C) and high temperature resistant (250 °F/121 °C).

Rollers, Roll Covering and Restoration

Roll Covering

Robco's experience with materials and manufacturing techniques spans over 85 years, allowing us to solve demanding roller requirements in numerous industries.

We manufacture roll coverings from compounds which are best suited to resist strains imposed by heat, abrasion and chemicals. These rollers are used extensively in the textile, printing, metal fabricating, processing and manufacturing industries.

From the smallest drive roller to the largest band saw wheel, Robco offers cost-effective solutions. Only the best neoprene, nitrile, SBR, natural rubber, EPDM, silicone, Hypalon® and urethane are used.

Urethane Rollers

Roll coverings are available in 10 (A) to 75 (D) durometers. Combining high impact strength with superior abrasion resistance, urethane is not effected by oils, grease or mild chemical solutions, or water (see also Urethane Products, page 32).

Do not hesitate to **call or fax** your sales representative for further details. We can quote covering new rollers or stripping and recovering worn rollers.

Glossary of Terms

The information is provided as a reference to you, our customer. We recommend that your representative evaluate particular applications before final determination is made.*

abrasion resistance – the ability of a surface to resist wearing due to contact with another surface moving with respect to it. Very important to hose and the covers of conveyor belts and cables.

acid resistance – to withstand chemical reactions with or degeneration by acid.*

acrylic rubber – synthetic rubber containing acrylonitrile; for example nitrile rubber. *

aging – accelerated aging tests are run on various rubbers to quickly determine the destructive influence of ultraviolet light, oxygen, ozone and temperature fluctuations. Natural or shelf aging requires many years for proper evaluation. Accelerated aging tests provide comparable values. There is no absolute correlation between natural aging and accelerated aging.

atmospheric aging – the loss of physical properties due to the normal action of its surroundings (weather).

butyl – a synthetic rubber made by polymerization of isoprene and isobutylene.* Commonly used for inner tubes.

compression moulding – the most suitable moulding process for commercial applications where flash and/or tight tolerances are not critical. Tooling costs are generally the least expensive of the moulding processes and part cost is usually lower.

compression set – this property is similar to permanent set in that it has a tendency to take a permanent set in that it has a tendency to take a permanent deformation under stress. It is actually a characteristic of liquids and is sometimes referred to as hot-flow or cold-flow. It is measured 1) as the amount by which a standard test piece fails to return to its original thickness after subjected to a standard compressive load or deflection for a fixed period of time or 2) as the distance returned relative to the amount deflected.

corona resistance – ability of a conductor (rubber) to resist destruction when a high-voltage electrostatic field ionizes within insulation voids. Indication of failure appears as surface cracks.

dielectric strength – the maximum electrical potential gradient that a material can withstand without rupture; usually specified in volts per millimeter of thickness. Also known as electrical strength.*

durometer (hardness) – an instrument consisting of a small drill or blunt indenter point under pressure; used to measure hardness of [rubber]. *

elastomer – a material, such as synthetic rubber or plastic, which at room temperature can be stretched under low stress to at least twice its original length and, upon immediate release of this stress, will return with force to its approximate original length.*

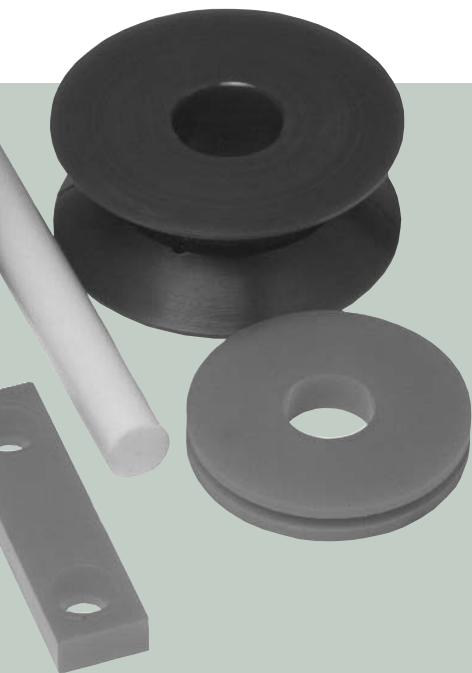
elongation – the fractional increase in a material's length due to stress in tension or to thermal expansion.* To describe this property as measured it is more accurate to speak of ultimate elongation or elongation at break.

EPDM – an elastomer which is based on ethylene and propylene terpolymers. * Excellent ozone resistance. Also abbreviated EPT.



* Definitions as defined in the McGraw-Hill Dictionary of Scientific and Technical Terms, Third Edition (McGraw-Hill: New York).

Glossary of Terms



flame resistant – the resistance to burning or material that will not support combustion under ordinary conditions.

flex cracking – rubber articles subjected to repeated flexing periodically develop small cracks on their surface.

hardness – resistance of rubber to indentation.* Also known as durometer. Various instruments measure durometer. Several scales are used, depending on the hardness range. The 00 scale is used for foams and sponge; the A and D scales for solid elastomers. Readings on each scale are from 0 to 100. Durometer hardness is a convenient non-destructive method of testing.

heat resistance – the ability of rubber to retain its useful properties under the destructive influence of heat.

hydrocarbon solvents (or aromatic) – solvents with basic benzene structure, usually coal tar types such as benzene, toluene and xylene.

hypalon® – a chlorosulfonated polyethylene polymer that is completely resistant to ozone attack under the most extreme conditions; possesses excellent acid, base and other chemical stability. Fade resistant. A registered trademark.

injection moulding – The moulding process in which uncured rubber stock is fed into an injection press, where it is heated and then injected into a closed mould.

low temperature flexibility – the temperature at which the rubber becomes too stiff to function in its intended manner.

Neoprene – a polymer of chloroprene used to form materials resembling natural rubber.* Neoprene possesses improved fluid resistance.

Nitrile rubber (or Buna N) – a synthetic rubber formed by polymerization of acrylonitrile with butadiene.*

non-aromatic – straight chain organic structures, such as petroleum solvents.

oxidation – a chemical reaction that increases the oxygen content of a compound.*

permanent set – permanent plastic deformation of a structure or of a test piece after removal of an applied load. Also known as set.*

pH – determine the concentration of either an acid or base.

polymer – a substance made of giant molecules formed by the union of simple molecules (monomers).

polymerization – 1) the bonding of any two or more monomers to produce a polymer; 2) any chemical reaction that produces such a bonding.

polyurethane rubber – a synthetic polyurethane resin elastomer that has high resistance to abrasion, oils and ozone. Also known as urethane.*

* Definitions as defined in the McGraw-Hill Dictionary of Scientific and Technical Terms, Third Edition (McGraw-Hill: New York).

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pure gum amber – a natural rubber compound.

resilience – the ability of a strained body, by virtue of high yield strength and low elastic modulus, to recover its size and form following deformation.

rubber, natural – most commonly used forms are smoked sheet and pale crepe organic material—latex.

SBR – a synthetic rubber that is formed by copolymerization of butadiene and styrene.

silicone rubber – elastomeric materials made from silicone, oxygen, hydrogen and carbon. These materials feature exceptional heat and compression set resistance.

specific gravity – the ratio of the density of any substance to the density of some other substance taken as the standard, water being the standard for liquids and solids.

tear resistance – the resistance to growth of a nick or cut when tension is applied to the cut specimen (ASTM D624).

tension modulus – the term modulus or stress is used to denote resistance to being stretched. This amount of stretch is normally expressed as a percentage of original length and the stress as pounds per square inch (psi) at the fixed elongation.

tensile strength – the maximum stress a material subjected to stretching load can withstand without tearing. Also known as hot strength.* It is measured as strength at break and expressed in pounds per square inch (psi) of cross section. This property has an absolute value in some applications where the product is actually subjected to tension in service, but, as with the other tensile properties, it is most frequently used in evaluating compounding materials on a cooperative basis. The tensile strength may be considered either separately or together with the modulus of elongation in defining an optimum state of cure for any specific compound.

transfer moulding – this process moulds with less flash and better tolerance control than with compression moulding. It is the best process for parts with inserts. Mould and tooling costs are generally more expensive than compression moulding.

urethane – an organic materials noted for its high abrasion, ozone, corona and radiation resistance characteristics. See also polyurethane.

Viton® – a fluorocarbon polymer designed to meet the most rigid requirements in oils, solvents, synthetic lubricants and corrosive chemicals, at elevated temperatures. A registered trademark.



* Definitions as defined in the McGraw-Hill Dictionary of Scientific and Technical Terms, Third Edition (McGraw-Hill: New York).

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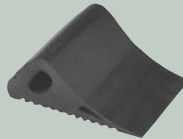
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