UNPARALLELED CUSTOM PROTECTION



DEEP DRAWN CANS

FROM PLASTIC TO DEEP DRAWN ALUMINUM TO PRE-ENGINEERED



DEEP DRAWN HOUSINGS & VALUE ADDED PROCESSES



19" RACKMOUNT CASES



TRANSIT & STORAGE CONTAINERS



CARRY & INSTRUMENT CASES

ZERO KNOWS... SOLUTIONS!

In practice, ZERO Manufacturing produces quality, deep-drawn and fabricated aluminum and molded plastic cases, enclosures and assemblies metal and plastic cases, containers and enclosures. But in truth, our products are protection solutions—ensuring the safe transport and viability of valuable equipment and electronics, without compromise.



Whether we meet your needs with one of our 3,000+ standard products and over 32,000 tools, or the infinite possibilities through a specialized custom design, ZERO has the engineering expertise and manufacturing experience to provide the perfect solution for your protection needs.

Please review our website for current specifications, alloys, materials and information on Deep Drawn.

Call 1.800.500.9376
or email sales@zerocases.com for engineering & design assistance to meet specific requirements and customization.

Certified
ISO 9001:2008/AS9100
Rev. C

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OVERVIEW



Zero is the leading manufacturer of quality, deep-drawn aluminum and plastic cases and enclosures. We offer over 32,000 pre-tooled sizes and can develop any custom design according to your specifications. Zero is the only case manufacturer to offer full in-house modification services - eliminating the need for multiple vendors when fulfilling alteration, assembly, accessory and cosmetic requirements.

Deep draw is the process of gripping a sheet of aluminum (or brass, copper, cold rolled steel or mu metal) between a pressure pad and a draw ring. Hundreds of tons of pressure is then exerted onto the metal by a computer-controlled press to draw the aluminum or other metal over a punch die. The entire process can include a series of consecutive presses to create the desired shape without distorting the metal. The result? Durable, seamless, draft-free, dust-free and waterproof enclosures designed to protect what's inside.

Why work with Zero?

- No tooling or set up cost on stock sizes
- No tooling cost on 32,000 pre-tooled products
- Free trimming to height specification
- Low tooling cost for custom jobs
- In-house modification services (to adapt a standard box to special requirements)
- 5 axis laser capabilities for precision modifications and prototyping.

AEROSPACE ELECTRONICS INDUSTRIAL MEDICAL MILITARY

TABLE OF CONTENTS



STANDARD CANS AND BOXES
Aluminum

General Information 6
Rectangular and Square Boxes 7-29
Round Housings 30-37
Covers 38-47
Nutplates 48-50
Custom Work and Modifications 51-52



PRECISION MINIATURE PRODUCTS
Aluminum, Brass, Copper, Mu-metal, and Steel

General Information 53-54
Square Precision Miniatures 55
Rectangular Precision Miniatures 56-58
Round Precision Miniatures 59



RECTANGULAR AND SQUARE FLANGED

Rectangular & Square Sizes 60



ROUND FLANGED

Round Sizes 61



ARINC STYLE HOUSINGS

ARINC Style Housings 62

Glossary 63-64

Sizes, trim height and in-stock availability subject to change without notice.
Please review the current pdf catalog at www.zerocases.com/pdf/DeepDrawn.pdf

(Company): 19178 (ZERO East), 2J777 (ZERO Halliburton), 53031 (TA Case Company), 11357 (M&M) Electronics Enclosures), 94637 (Halliburton Enterprises), 76571 (Moorlee Manufacturing Company).
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THE ZERO PROCESS

It all starts with a single sheet of metal. Zero uses only the highest quality aerospace aluminum alloys. Each piece is precision sheared and formed using the Zero method of deep drawing, then tempered to specification.

Equipment and Capabilities

Facility Size:
286,000 square feet

Presses:
45 (up to 440 ton CNC controlled)

Tooled sizes:
32,000 sizes

Maximum draw depth:
18"

Maximum draw width/length:
60" x 98"

Processes:
Washer system, etch, chem film

Sheet metal fabrications:
Press brakes (up to 130 tons); metal fabricator (58 stations); 544 punch presses; extrusion forming; shears (up to 12" wide and 10 gauge capacity); Trumpf 5-axis Laser (eliminates the need for tooling – great for design and small production runs).

Weld:
Resistance and fusion welding.

Assembly:
Hopper-fed riveters; presses for threaded insert and stud installation.

Paint:
Overhead conveyor (540'); five paint booths (for virtually all wet and dry paints); 60' drying oven; two batch ovens; off-line paint booths.

Tool and die:
9,600 square feet; 40 pieces of primary equipment; foundry; CNC milling machines; coordinate measuring machine and profile projector.



Summary of Certifications

Welding IAW MIL-STD-2219, Class B&C. (Class A by contract only) and certified to MIL-STD-1595);
MIL-H-6088G (Heat Treat Aluminum);
MIL-I-45205A (Inspection System);
MIL-STD-45662A (Standards traceable to NIST) (Calibration System);
Based on MIL-STD-105E/ANSI/ASQC Z1-4-1993 105E level II (Sample Plan);
MIL-C-5541E Class 1A & 3 (Chem Film);
MIL-P-85582D C1 or C2 (Prime);
MIL-STD-171D (Paint); DOD-P-15328 (Wash Prime).
MIL-PRF-28800

EXCEPTIONAL FEATURES OF DEEP DRAWN ALUMINUM PRODUCTS BY ZERO MANUFACTURING, INC.

High Strength-to-Weight Ratio
Aluminum alloys are known for their strength and light weight, especially when heat-treated to T6 condition.

Extraordinary Resistance to Corrosion
Aluminum is highly resistant to nearly all substances that cause corrosion and weathering.

Endurance Against Stress, Tearing and Cracking
Aluminum offers a much better fracture toughness than most other materials used in enclosures, including resistance to breakage and fractures.

Sustaining Cold Temperatures
Instead of becoming more fragile and brittle in cold weather, the tensile strength of aluminum actually increases, without loss of ductility.

RFI/EMI Shielding and ESD/Grounding
Aluminum has the highest electrical conductivity-to-weight ratio of any metal, making it excellent for RFI/EMI shielding and for ESD/grounding systems. Aluminum is also an efficient reflector for externally generated interference, including the electromagnetic wavelengths of radio and radar.

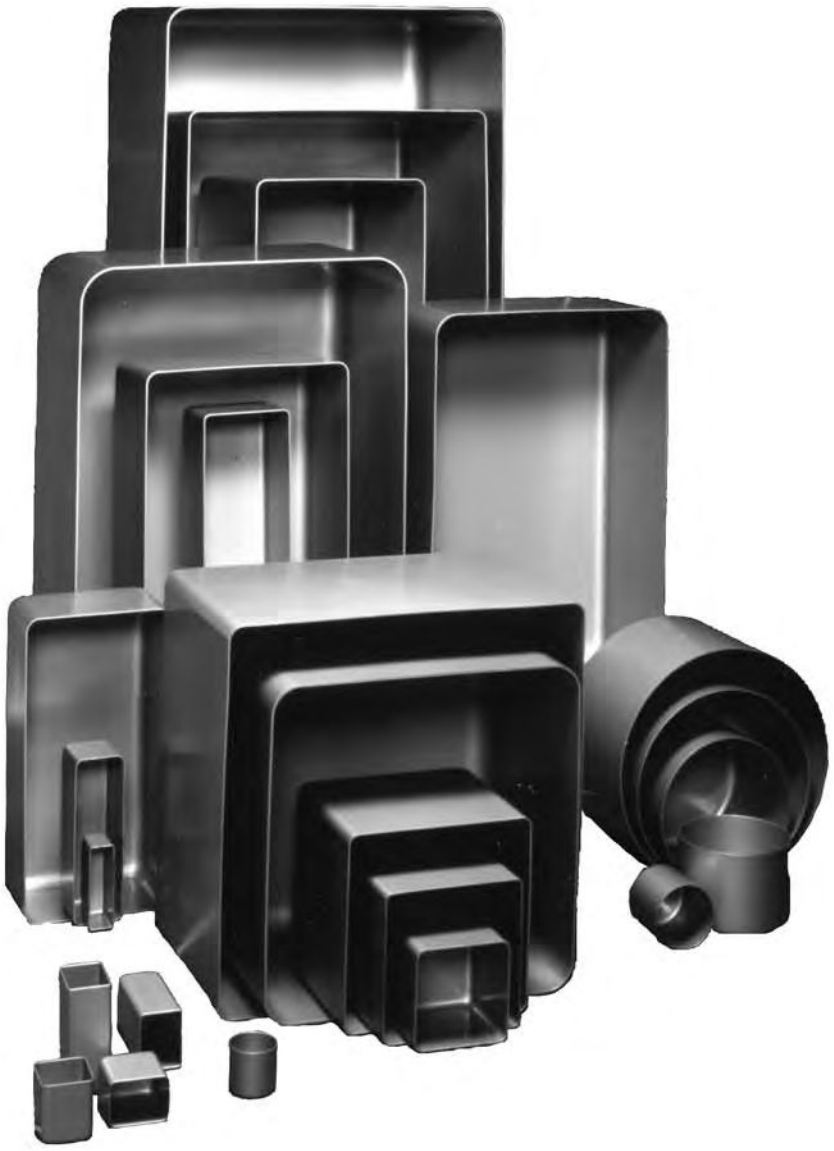
Heat Dissipation/Shielding
Aluminum is widely used in "heat sinks" and heat exchangers because of its high thermal conductivity. In an enclosure, it can efficiently transport heat away from electronics and other equipment. It also has high reflectance to encroaching radiated heat, such as sunlight. (Aluminum has a light reflectivity of over 80%.) Also, the low coefficient of aluminum's thermal expansion allows it to sustain higher temperatures without distortion.

Special Environments
Aluminum is non-toxic, odorless, tasteless, non-absorbing, non-sparking, non-magnetic and resistant to fire. It can therefore be used in a wide variety of special environments, including sanitary or clean rooms, food service areas and certain volatile situations. Aluminum also meets more traditional protective requirements such as to be watertight, splash proof, drip proof and resistant to salt exposure.

Modifications
Zero Manufacturing provides in-house customization and modification of all our aluminum products. We offer extensive alteration, assembly, accessorizing, finish, marking and testing services. This means that Zero is your one-stop shop for all casing and enclosure needs. Please see pages 51-52 for more information.

STANDARD CANS AND BOXES

Zero Manufacturing is the premier source for deep-drawn rectangular, square, round and octagonal cases and enclosures. Though we most often recommend aluminum as a durable and protective medium, we also provide deep-drawn products in brass, copper, cold rolled steel and mu metal (in select sizes). Covers are available for most of the items in this catalog.



W x L	Covers	Trim Height	Nutplates	Alloy	Heat Treat *
Standard Part Number Provided.	Five options as specified on page 38. **CF** - Flush fitting cover **CI** - Inside fitting cover **COG** - Outside gasket fitting cover (gasket not included) **COL** - Outside fitting cover with loose fit **COT** - Outside fitting cover with tight fit	Minimum and maximum allowable are listed in inches.	Nine patterns are standard (see page 49). Additional configurations are available as a custom item.	The standard alloy used in drawing a particular size is given. However, the alloy can be changed. Alloy options: AL11=1100-0 AL30=3003-0 AL60=6061-0	Only alloy 6061-0 can be heat treated. When heat treatment is needed, no alloy need to be specified. However, hardness needs to be specified. Options: T4 T6 T = Temper

*Only 6061 can be heat-treated T4 - T6

GENERAL INFORMATION

Standards
Every box and cover listed are standard items. In ordering, all that is necessary is the Zero Manufacturing part number, your required trim height and the quantity. There is never a tooling charge on a standard Zero Manufacturing box.

Be sure to include trim heights
Any standard box or CF cover is available, without tooling charges, in any increment of height between the maximum and minimum dimensions shown. If closer tolerance than standard is required contact the Zero Manufacturing sales department.

Prices
Prices for all standard parts and for many secondary operations can be quoted by phone.

Delivery
Call for delivery, including next day shipping.

Specials

Alloys
Alloys other than those listed as standard may be ordered by adding one of the following suffixes to the part number:

AL11 = 1100-0 Soft
AL60 = 6061-0 Hard
AL30 = 3003-0 Medium

Example: Z48-48A-3.00-T6 or H0180184-AL60 changes the material of this part number from 1100-0 aluminum to 6061-0 aluminum.

There is no tooling charge when you utilize standard dies.

Materials and specifications
Every standard box and cover listed in this catalog may, on request, be delivered to you with certification of its alloy and related materials specifications. Zero Manufacturing maintains a strict program of materials inspection and quality control, beginning with receipt of raw stock through final production and shipping.

Material
Aluminum Association alloys and gauge designations are used throughout this catalog. Alloys shown below are listed with Aluminum Association and Government Designations.

Aluminum Association	*Federal Spec.*
1100-0	QQ-A-250/1
3003-0	QQ-A-250/2
6061-0	QQ-A-250/11
3003-H14	QQ-A-250/2

Material thickness
Thickness shown is the nominal dimension of the blank before drawing. Actual wall thickness of an average box is normally 75% or more of the nominal blank thickness. ***This is dependent on depth of draw, number of draws and net blank thickness (a variable within mill tolerances).***

Alternate alloys and heat treating
Most boxes and covers can be drawn on stock tooling using any drawable aluminum alloy. When 6061-0 alloy is drawn it can be heat treated, on order, to T-4 or T-6 hardness.
Example: Z48-48A-3.00-T6

Determined weight of container

Thickness		lbs./sq. ft.
.020	=	.29
.025	=	.35
.030	=	.43
.032	=	.46
.040	=	.58
.050	=	.71
.063	=	.89
.080	=	1.12
.090	=	1.28
.100	=	1.41



Standard enclosure tolerances
Length, width and trim height:
Dimensions up to
6" ± .02"
6" to 24", ± .03"
over 24", ± .06"
Radius Tolerances ± .030
Closer tolerances, on trim heights can be provided on special order at additional cost.
Nutplate locations, vertical and horizontal, ± .03"
NOTE: Width and length are measured at point of tangency between bottom radius (R_1) and side (R_2).
Draw marks, small scratches and minor scuffing is inherent in drawn boxes. For a scratch free finish on exterior of boxes, secondary operations must be specified.

Bow Tolerances
Bowing, or "oil canning", may occur in the base or any side of a deep drawn box, particularly when multiple drawing operations are performed. The following tolerances for this bow condition are additive to basic dimensional tolerances:

Basic Size ②	Maximum Bow ①
Up to 6"	0.03"
Over 6" to 12"	0.06"
Over 12"	0.12"

NOTE ① – The bow condition will be checked by placing a straight edge across the tangent points of the corner radii of the side or bottom of the box, and measuring the maximum deviation from the straight edge to the surface of the metal. This applies to either a concave or convex condition.

NOTE ② – The basic size refers to the box width or length. The maximum allowable bow will be determined by the larger of the two dimensions for any given side, and by the smaller of the two dimensions for the bottom.

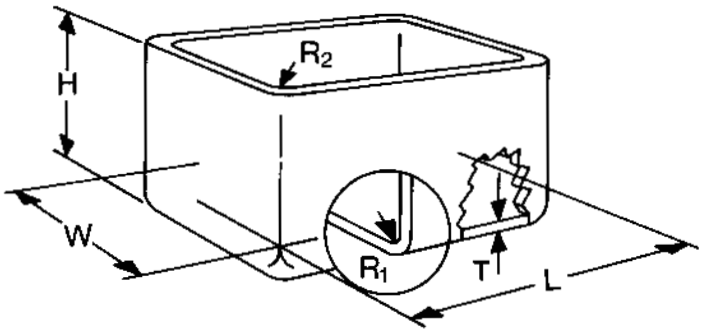
Modified or custom deep drawn parts
Zero Manufacturing has a completely equipped design and manufacturing facility to perform any secondary operation or modification to standard boxes and covers. We also have an experienced staff of tool and die makers to satisfy your custom or special deep drawn requirements. Detailed information on this service is shown on pages 51-52 of this catalog, or contact Zero Manufacturing direct.

RECTANGULAR BOXES
Ordering information



Zero Manufacturing's deep-drawn rectangular boxes are available in any height between the maximum and minimum dimensions listed. When ordering, give the part number and height desired in inches.

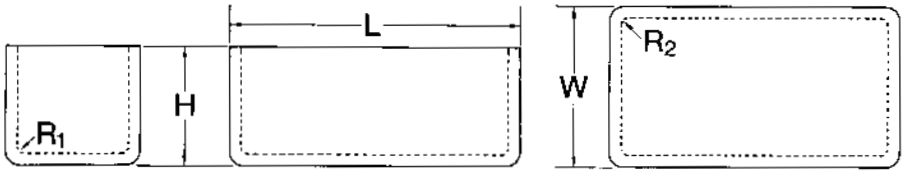
Remember that Zero Manufacturing can save you time and money by fulfilling all your modification needs in-house. Eliminate extra vendors and let Zero finish the job for you.



Key to drawing

- **W** Width measured at tangency between bottom radius (R1) and side
- **L** Length measured at tangency between bottom radius (R1) and side
- **H** Height
- **T** Normal blank gauge thickness prior to drawing
- **R1** Radius at bottom
- **R2** Radius of side (on rectangular boxes and covers)

Width (W), length (L) and height (H) are all outside dimensions and are measured at points of tangency. Thicknesses (T) shown are nominal blank thickness prior to drawing. Actual wall thickness is 75% or more of nominal blank thickness, but is dependent upon depth of draw, number of draws and net blank thickness (a variable within mill tolerances).



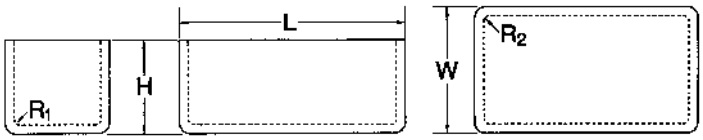
Part Number Example:				
Z48-48A-3.00	Z48-48A-3.00-AL30	Z48-48A-3.00-T6	Z48-48A-3.00-AA	Z48-48A-3.00-AA-T6
A 3.00” X 3.00” box trimmed to 3.00” made from 1100-0 alloy.	A 3.00” X 3.00” X 3.00” box, with a change in alloy to 3003-0. See page 6.	A 3.00” X 3.00” X 3.00” box, with a change in alloy to 6061-0 that has been heat treated and aged to T6 condition. See page 6.	A 3.00” X 3.00” X 3.00” box with nutplates installed in an ‘AA’ pattern. See page 49.	A 3.00” X 3.00” X 3.00” box with nutplates installed and an alloy change with heat treat.

Tangent: Straight edge meets the curve.

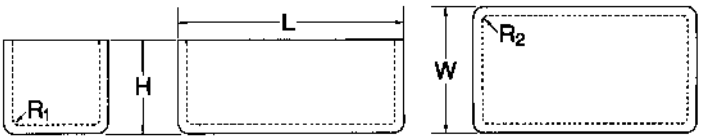
RECTANGULAR BOXES

Widths: 0.31” to 0.94”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height				
0.42	0.77	0.44		See page 56									
0.45	0.82	1.25		See page 56									
0.50	1.00	1.38		See page 56									
0.50	1.00	1.00		See page 56									
0.50	1.06	1.30		See page 56									
0.50	1.44	0.65		See page 56									
0.50	1.50	0.75		See page 56									
0.52	1.34	1.63	0.50	.032	6061-0	.13	.06		HA050133				
0.53	0.53	1.00		See page 55									
0.55	1.19	0.38		See page 56									
0.55	1.25	1.11		See page 56									
0.56	0.69	0.25		See page 56									
0.59	1.00	1.13		See page 56									
0.59	1.48	0.88		See page 56									
0.62	0.62	0.60		See page 55									
0.62	2.72	0.50		See page 56									
0.66	1.78	1.50		See page 56									
0.67	1.36	0.40		See page 56									
0.70	0.81	1.00		See page 56									
0.72	1.50	0.48		See page 56									
0.72	1.84	0.56	0.37	.020	6061-0	.09	.11		ZT11-29				
0.73	1.98	0.75		See page 56									
0.74	1.99	0.75		See page 56									
0.75	0.75	1.13		See page 55									
0.75	1.50	0.63		See page 56									
0.75	1.50	0.50		See page 56									
0.75	1.59	1.38		See page 56									
0.75	2.19	0.78		See page 56									
0.77	0.89	0.63		See page 56									
0.77	2.03	0.50		See page 56									
0.78	1.09	2.13		See page 56									
0.79	1.41	1.63		See page 56									
0.81	2.28	0.62	0.37	.032	6061-0	.09	.09		ZT13-36				
0.84	1.03	0.60		See page 56									
0.86	1.48	0.75		See page 56									
0.88	1.06	2.00		See page 56									
0.88	1.28	1.63		See page 56									
0.91	1.47	0.88		See page 56									
0.91	1.66	2.12	0.44	.050	6061-0	.16	.25		Z14-26				
0.92	1.82	1.13		See page 56									
0.94	1.38	0.80		See page 56									
0.94	1.13	1.00		See page 56									
0.94	1.19	2.00		See page 56									
0.94	1.44	2.25		See page 56									



RECTANGULAR BOXES

Widths: 0.94" to 1.19"

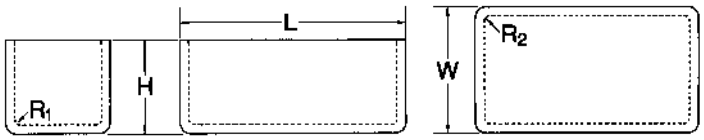
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX. H	OUTSIDE HEIGHT MIN. H	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
INCHES		INCHES		INCHES		INCHES		Specify trim height	Specify trim height				
0.94	1.94	1.38		See page 56									
0.94	3.25	2.44	0.44	.040	6061-0	.12	.14	ZT15-52		•		•	
0.94	4.00	1.87	0.44	.040	6061-0	.13	.13		Z15-64				
0.90	2.90	0.90		See page 56									
0.95	0.95	1.75		See page 55									
0.95	1.36	2.25		See page 57									
0.97	0.97	1.75		See page 55									
0.97	1.06	2.00		See page 57									
0.97	1.23	2.81		See page 57									
0.98	1.08	2.50		See page 57									
0.98	2.36	0.75		See page 57									
0.98	2.78	0.70		See page 57									
0.98	1.09	1.63		See page 57									
0.98	1.23	2.81		See page 57									
0.98	1.23	0.46		See page 57									
0.98	1.41	1.00		See page 57									
0.98	1.64	0.60		See page 57									
1.00	1.00	2.13		See page 55									
1.00	1.00	2.50		See page 55									
1.00	1.00	1.25		See page 55									
1.00	1.50	0.94		See page 57									
1.00	1.59	0.48		See page 57									
1.00	1.61	2.63		See page 57									
1.00	1.75	1.00	0.44	.020	6061-0	.12	.14		ZT16-28				
1.00	2.05	0.70		See page 57									
1.00	2.06	0.71		See page 57									
1.00	2.38	0.94		See page 57									
1.00	2.50	0.50	0.14	.080	6061-0	.06	.06		Z16-34				
1.00	2.75	2.00	0.44	.040	6061-0	.12	.22	Z16-44A					
1.00	2.75	2.00	0.44	.040	6061-0	.12	.17	ZT16-44B					
1.00	3.25	2.44	0.44	.040	6061-0	.12	.08		ZT16-52A				
1.00	3.25	1.50	0.54	.063	6061-0	.16	.06		ZT16-52B				
1.03	2.03	0.81	0.50	.040	6061-0	.10	.12		Z16-32				
1.03	1.03	0.50		See page 55									
1.03	1.09	0.41		See page 57									
1.05	1.41	0.75`		See page 57									
1.05	1.47	1.00		See page 57									
1.05	1.78	1.25		See page 57									
1.05	3.00	1.31	0.37	.020	6061-0	.12	.12		Z17-48A				
1.06	2.50	3.25	0.50	.032	6061-0	.13	.13		H0100253				
1.06	1.25	2.50		See page 57									
1.09	1.44	2.25		See page 57									
1.10	3.22	0.65		See page 57									
1.11	1.23	0.45		See page 57									
1.12	2.75	4.75	0.37	.050	6061-0	.19	.19		Z18-44A				
1.19	3.19	0.94		See page 57									
1.19	1.19	2.25		See page 55									
1.19	1.23	0.46		See page 57									

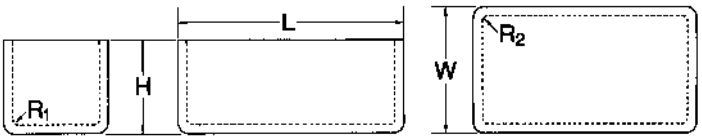
RECTANGULAR BOXES

Widths: 1.19” to 1.60”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W (INCHES)	OUTSIDE LENGTH L (INCHES)	OUTSIDE HEIGHT MAX. H (INCHES)	OUTSIDE HEIGHT MIN. H (INCHES)	BLANK GAUGE T (INCHES)	ALLOY	CORNER RADII BOTTOM R1 inside (INCHES)	CORNER RADII SIDE R2 inside (INCHES)	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
1.19	1.45	1.10		See page 57									
1.19	1.69	1.11		See page 57									
1.19	1.75	1.12	0.37	.040	6061-0	.09	.08		ZT19-28				
1.23	4.69	2.00	0.37	.025	3003-0	.12	.12		ZT19-75				•
1.25	1.25	1.35		See page 55									
1.25	1.45	2.50		See page 57									
1.25	1.50	2.50		See page 57									
1.25	1.95	1.00		See page 57									
1.25	3.19	0.58		See page 57									
1.21	3.25	1.75	0.37	.032	6061-0	.19	.19	ZT20-52					
1.27	1.27	0.94		See page 55									
1.27	1.95	0.61		See page 57									
1.28	1.28	2.13		See page 55									
1.30	3.60	1.00	0.50	.032	6061-0	.09	.09		Z21-58				
1.31	1.87	4.00	0.56	.050	6061-0	.25	.19	Z21-30		X			
1.31	3.06	2.00	0.50	.032	6061-0	.25	.12		Z21-49A				
1.31	3.06	1.00	0.37	.032	6061-0	.12	.12	Z21-49B					
1.31	3.06	0.87	0.32	.050	6061-0	.09	.09		ZT21-49C				
1.31	1.31	3.00		See page 55									
1.31	1.86	1.63		See page 57									
1.33	2.77	1.50	0.56	.050	6061-0	.12	.27		ZT21-44				
1.35	1.56	2.75		See page 57									
1.35	1.56	2.00		See page 57									
1.37	3.37	1.50	0.50	.020	6061-0	.16	.06		ZT22-54				
1.37	5.00	3.06	0.44	.050	6061-0	.12	.20	ZT22-80					
1.38	2.27	3.50	0.50	.032	6061-0	.13	.13		H0130223				
1.39	1.50	2.00		See page 57									
1.44	1.88	1.00		See page 57									
1.44	1.44	2.75		See page 55									
1.44	1.67	1.25		See page 57									
1.44	1.75	3.00		See page 57									
1.44	2.44	2.37	0.37	.040	6061-0	.08	.08	ZT23-39				•	
1.46	3.02	3.50	0.75	.040	6061-0	.48	.20		H0140304				
1.50	1.50	1.75	0.44	.040	6061-0	.19	.19	Z24-24					
1.50	1.50	2.75		See page 55									
1.50	1.86	2.50	0.37	.050	6061-0	.12	.12	Z24-30					
1.50	1.97	3.62	0.37	.063	6061-0	.12	.11		Z24-31				
1.50	2.00	1.00		See page 57									
1.50	2.00	2.00	0.44	.040	6061-0	.19	.19	Z24-32					
1.50	2.50	0.94		See page 57									
1.50	3.67	1.45		See page 57									
1.50	3.75	3.00	0.50	.040	6061-0	.12	.20	ZT24-60A		•	•	•	
1.50	3.75	2.00	0.56	.040	6061-0	.25	.20		ZT24-60B	•	•	•	
1.50	3.75	3.00	0.50	.063	6061-0	.19	.19	ZT24-60C		•	•	•	
1.50	1.76	1.00		See page 57									
1.50	4.00	1.50	0.37	.025	6061-0	.12	.25		Z24-64A				
1.51	7.13	0.69	0.50	.032	6061-0	.09	.09		H0150713				
1.56	1.88	1.19		See page 57									
1.59	1.84	1.19		See page 57									
1.60	1.60	2.44		See page 55									



RECTANGULAR BOXES

Widths: 1.60” to 1.87”

Note: Flush fitting covers are available for any box listed.

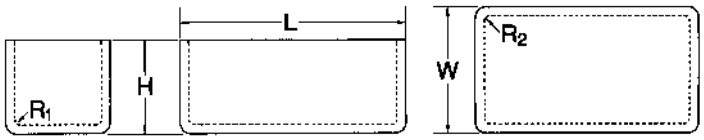
OUTSIDE WIDTH W INCHES	OUTSIDE LENGTH L INCHES	OUTSIDE HEIGHT MAX. H INCHES	OUTSIDE HEIGHT MIN. H INCHES	BLANK GAUGE T INCHES	ALLOY	CORNER RADII BOTTOM R1 inside INCHES	CORNER RADII SIDE R2 inside INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
1.60	3.03	0.75		See page 57									
1.61	3.55	0.68		See page 57									
1.62	2.75	3.25	0.37	.063	6061-0	.06	.19	ZT26-44					
1.62	2.81	2.25	0.37	.050	6061-0	.06	.20		ZT26-45				
1.62	3.37	1.87	0.50	.032	6061-0	.25	.12		Z26-54				
1.62	4.25	5.00	0.50	.050	6061-0	.12	.12	Z26-68A					•
1.65	4.53	1.75	0.50	.032	6061-0	.25	.25		ZT26-72				
1.62	5.75	2.56	0.50	.050	6061-0	.19	.20		ZT26-92				
1.63	1.75	1.13		See page 57									
1.63	1.88	1.25		See page 57									
1.63	2.02	2.88		See page 58									
1.63	3.38	2.75	0.50	.040	6061-0	.25	.13		H0160334				
1.65	2.72	3.50	0.50	.032	6061-0	.19	.19		H0160273				
1.65	3.00	2.25	0.35	.020	6061-0	.11	.11		ZT26-48				
1.66	1.66	0.75	0.50	.020	6061-0	.12	.12		Z26-26				
1.72	3.78	2.25	0.33	.063	6061-0	.09	.09		ZT27-60				
1.74	8.49	3.00	0.50	.063	6061-0	.13	.13		H0170846				
1.75	1.75	2.00	0.44	.040	6061-0	.19	.19	Z28-28*		•			
1.75	1.75	3.00		See page 55									
1.75	2.00	2.00	0.44	.025	6061-0	.16	.25		Z28-32A	•			
1.75	2.00	2.00	0.44	.032	6061-0	.16	.09		ZT28-32B	X		•	
1.75	2.00	2.00	0.44	.040	6061-0	.09	.08	ZT28-32C		X		•	
1.75	2.00	2.50		See page 58									
1.75	2.37	1.50	0.44	.032	6061-0	.12	.12	ZT28-38A					
1.75	2.37	2.50	0.44	.040	6061-0	.12	.11		ZT28-38B	•		•	
1.75	2.37	2.50	0.44	.050	6061-0	.12	.11		ZT28-38C	•		•	
1.75	2.37	2.50	0.44	.063	6061-0	.12	.19		ZT28-38D			•	
1.75	2.50	2.75	0.56	.040	6061-0	.31	.25		Z28-40A	•			
1.75	2.50	1.75	0.44	.040	6061-0	.16	.25	Z28-40B		•			
1.75	2.75	3.50	0.56	.050	6061-0	.31	.25	Z28-44					•
1.75	2.87	2.50	0.44	.050	6061-0	.12	.20		ZT28-46A			•	
1.75	2.87	2.50	0.42	.063	6061-0	.12	.19		ZT28-46B			•	•
1.75	3.00	1.50	0.37	.050	6061-0	.12	.12	Z28-48A		•			
1.75	3.00	1.50	0.37	.032	6061-0	.12	.14	Z28-48B		•			
1.75	3.11	1.87	0.44	.040	6061-0	.25	.25		Z28-50A				
1.75	3.37	2.31	0.44	.040	6061-0	.09	.14	ZT28-54		•			
1.75	3.75	1.62	0.44	.032	6061-0	.06	.19		ZT28-60				
1.75	5.00	4.00	0.50	.040	6061-0	.19	.19	Z28-80					
1.75	6.50	2.00	0.50	.025	6061-0	.12	.19		Z28-104				
1.75	10.00	3.25	0.50	.063	6061-0	.06	.19		ZT28-160	•		•	
1.75	12.00	2.25	0.60	.063	6061-0	.19	.19		ZT28-192				
1.79	2.01	3.88	0.50	.050	6061-0	.14	.14		H0170205				
1.81	1.81	1.50	0.30	.032	6061-0	.09	.16		ZT29-29B				
1.87	1.87	2.50	0.44	.050	6061-0	.16	.16	Z30-30A					
1.87	2.81	4.00	0.50	.050	6061-0	.25	.19		Z30-45				
1.87	2.87	1.75	0.50	.063	6061-0	.19	.19		Z30-46A				
1.87	4.31	4.00	0.50	.050	6061-0	.25	.19		Z30-69				

*Z28-28 does not fit Z28-28-COT cover.

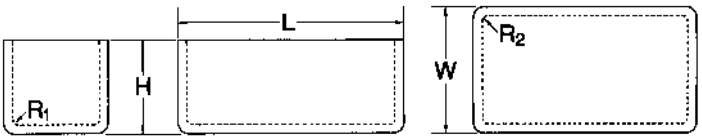
RECTANGULAR BOXES

Widths: 1.88” to 2.12”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH X L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
1.88	2.22	1.25		See page 58									
1.88	1.88	3.25	0.50	.040	6061-0	.13	.19		H0180184				
1.94	3.94	2.25	0.50	.063	6061-0	.12	.12		ZT31-63				
1.95	4.61	0.52		See page 58									
1.97	2.44	2.38		See page 58									
1.97	2.97	3.25	0.50	.032	6061-0	.25	.19		Z31-47A				
1.97	2.97	4.00	0.50	.040	6061-0	.25	.25	Z31-47B					
1.97	3.78	2.62	0.50	.063	6061-0	.09	.19		ZT31-60				
2.00	2.00	1.13		See page 55									
2.00	2.00	2.25	0.50	.063	6061-0	.25	.25	Z32-32A		•			
2.00	2.00	3.50	0.37	.040	6061-0	.12	.16	Z32-32B		•			
2.00	2.25	3.75	0.37	.040	6061-0	.12	.12	Z32-36					
2.00	2.50	1.50	0.50	.040	6061-0	.20	.20		H0200254				
2.00	2.50	2.25	0.50	.050	6061-0	.25	.25		Z32-40A	•			
2.00	2.50	4.50	0.50	.050	6061-0	.25	.25	Z32-40B		•			
2.00	2.50	0.50		See page 58									
2.00	2.94	3.00	0.44	.032	6061-0	.19	.19		ZT32-47A	•		•	
2.00	2.94	3.00	0.44	.040	6061-0	.12	.17		ZT32-47B			•	
2.00	2.94	3.00	0.44	.050	6061-0	.12	.17		ZT32-47C	•		•	
2.00	2.94	3.00	0.63	.063	6061-0	.19	.16		ZT32-47D				
2.00	3.00	3.25	0.50	.063	6061-0	.25	.25		Z32-48A	•			
2.00	3.00	2.00	0.44	.063	6061-0	.19	.19	Z32-48B					
2.00	3.00	2.25	0.44	.040	6061-0	.12	.08	ZT32-48C					
2.00	3.00	2.00	0.44	.040	6061-0	.19	.17	ZT32-48D				•	
2.00	3.50	1.50		See page 58									
2.00	3.50	1.50	0.50	.040	6061-0	.20	.20		H0200354				
2.00	3.50	3.00	0.56	.050	6061-0	.25	.25	Z32-56A		•			
2.00	3.50	3.00	0.37	.050	6061-0	.12	.25		Z32-56B				
2.00	4.00	2.50	0.50	.050	6061-0	.25	.25	Z32-64A		•	•		
2.00	4.00	2.00	0.37	.063	6061-0	.12	.16	Z32-64B		•	•		
2.00	4.00	1.75	0.50	.040	6061-0	.20	.20		H0200404				
2.00	4.00	3.00	0.50	.063	6061-0	.12	.12	ZT32-64D		•	•	•	
2.00	4.48	2.19	0.37	.025	6061-0	.09	.09	Z32-71A					
2.00	5.00	4.00	0.56	.040	6061-0	.19	.20		ZT32-80A	•			
2.00	5.22	4.00	0.75	.063	6061-0	.25	.25	Z32-83					•
2.00	5.50	2.25	0.62	.063	6061-0	.31	.31		Z32-88A				
2.00	6.50	2.25	0.50	.050	6061-0	.12	.25		Z32-104A				
2.00	6.75	3.44	0.50	.063	6061-0	.06	.19		ZT32-108				
2.05	3.61	1.00		See page 58									
2.06	2.19	1.87	0.44	.050	6061-0	.06	.05		ZT33-35	•			
2.07	2.43	0.53	0.44	.040	6061-0	.06	.24		Z33-39				
2.08	4.86	5.50	0.50	.040	6061-0	.12	.20		Z33-76				
2.09	2.70	3.00	0.44	.050	6061-0	.19	.19	Z34-43A					
2.11	2.44	3.00		See page 58									
2.12	2.50	0.75	0.22	.040	6061-0	.06	.06		ZT34-40				
2.12	3.00	2.12	0.60	.032	6061-0	.19	.19		ZT34-48				
2.12	3.12	3.50	0.50	.040	6061-0	.12	.20	ZT34-50A		•		•	
2.12	3.12	3.50	0.50	.050	6061-0	.12	.20		ZT34-50B	•		•	



RECTANGULAR BOXES

Widths: 2.12" to 2.50"

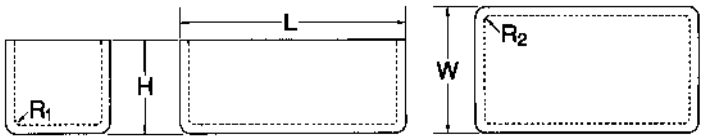
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W INCHES	OUTSIDE LENGTH X L INCHES	OUTSIDE HEIGHT MAX. H INCHES	OUTSIDE HEIGHT MIN. H INCHES	BLANK GAUGE T INCHES	ALLOY	CORNER RADII BOTTOM R1 inside INCHES	CORNER RADII SIDE R2 inside INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
2.12	3.50	5.00	0.50	.050	6061-0	.14	.17	ZT34-56					
2.12	3.66	3.00	0.50	.050	6061-0	.19	.44		Z34-58				
2.12	4.25	3.00	0.50	.063	6061-0	.25	.12	Z34-68					
2.12	5.00	3.00	0.50	.032	6061-0	.22	.22		ZT34-80A				•
2.12	5.00	5.25	0.44	.040	6061-0	.12	.20		ZT34-80B				•
2.12	5.12	3.75	0.56	.050	6061-0	.25	.27		ZT34-82				
2.12	7.94	1.25	0.44	.032	6061-0	.12	.12		ZT34-127				
2.19	4.62	3.75	0.44	.040	6061-0	.12	.17	ZT35-74		•			
2.19	4.94	2.50	0.61	.040	6061-0	.19	.22		ZT35-79				
2.22	2.70	3.00	0.50	.032	6061-0	.16	.16		ZT35-43				
2.25	2.90	3.25	0.37	.032	6061-0	.08	.11		ZT35-46				
2.22	4.50	2.25	0.51	.032	6061-0	.16	.16		ZT35-72				
2.25	2.25	2.50	0.50	.050	6061-0	.25	.25	Z36-36		•			
2.25	3.00	3.00	0.50	.050	6061-0	.25	.25	Z36-48					
2.25	3.25	3.00	0.37	.050	6061-0	.06	.08	ZT36-52		•			
2.25	3.75	2.75	0.37	.040	6061-0	.12	.25	Z36-60A		•			
2.25	3.75	2.00	0.44	.040	6061-0	.19	.20		ZT36-60B	•			
2.25	4.16	3.25	0.50	.032	6061-0	.22	.62		ZT36-67				
2.25	5.00	2.50	0.56	.063	6061-0	.25	.25		ZT36-80				
2.25	5.12	2.00	0.37	.050	6061-0	.19	.19		Z36-82				•
2.25	6.75	2.25	0.62	.050	6061-0	.27	.27	ZT36-108					
2.31	3.75	3.12	0.37	.063	6061-0	.06	.12	ZT37-60					
2.28	4.94	9.50	0.56	.050	6061-0	.25	.27		ZT37-79				
2.31	4.37	3.25	0.50	.040	6061-0	.09	.08	ZT37-70		•		•	
2.31	5.37	1.75	0.50	.063	6061-0	.12	.12		ZT37-86				
2.31	5.94	3.50	0.42	.063	6061-0	.12	.25		ZT37-95				
2.31	7.56	3.50	0.50	.063	6061-0	.12	.25		ZT37-121	•			
2.36	3.75	5.00	0.50	.063	6061-0	.12	.12		Z38-56				
2.36	8.14	2.00	0.50	.063	6061-0	.25	.25		H0230816				
2.37	2.87	2.75	0.50	.063	6061-0	.12	.19	ZT38-46		•			
2.37	3.25	3.37	0.50	.063	6061-0	.25	.12	Z38-52A			•		
2.37	3.87	1.00	0.22	.040	6061-0	.06	.19		Z38-62				
2.37	4.36	0.75	0.22	.040	6061-0	.06	.19		ZT38-70				
2.37	4.44	3.50	0.62	.063	6061-0	.09	.06	ZT38-71		•		•	•
2.37	4.87	4.25	0.31	.040	6061-0	.09	.20		ZT38-78				
2.37	5.87	2.50	0.44	.063	6061-0	.19	.19		Z38-94	•			
2.37	6.50	1.00	0.22	.040	6061-0	.06	.19		Z38-104				
2.41	2.62	3.50	0.56	.050	6061-0	.19	.20		ZT39-42				
2.41	4.91	5.50	0.50	.040	6061-0	.16	.16	ZT39-79					
2.44	2.44	1.75	0.37	.032	6061-0	.16	.16		ZT39-39				
2.44	4.56	2.87	0.50	.032	6061-0	.12	.22		ZT39-73				
2.45	8.75	3.00	0.50	.032	6061-0	.19	.19		H0240873				
2.47	5.00	5.88	0.50	.040	6061-0	.11	.11		ZT39-80				
2.50	2.50	2.25	0.44	.050	6061-0	.19	.19	Z40-40A					
2.50	2.50	2.75	0.56	.050	6061-0	.34	.19	Z40-40B					
2.50	2.62	2.50	0.44	.040	6061-0	.12	.11		ZT40-42A	•			
2.50	2.62	2.25	0.50	.040	6061-0	.09	.12	ZT40-42B		•			

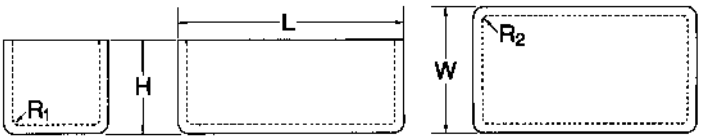
RECTANGULAR BOXES

Widths: 2.50" to 2.75"

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
2.50	3.00	2.50	0.50	.050	6061-0	.25	.25	Z40-48					
2.50	3.37	0.69	0.22	.040	6061-0	.06	.06		ZT40-54				
2.50	3.50	2.50	0.50	.050	6061-0	.25	.25	Z40-56A					
2.50	3.50	3.50	0.56	.050	6061-0	.37	.25		Z40-56B				
2.50	3.50	2.50	0.75	.032	6061-0	.25	.27		Z40-56C				
2.50	3.50	2.00	0.50	.040	6061-0	.20	.22		H0250354				
2.50	4.00	4.00	0.50	.050	6061-0	.25	.25	Z40-64A		X			•
2.50	4.00	3.00	0.62	.050	6061-0	.37	.25	Z40-64B		X			•
2.50	4.28	3.00	0.50	.063	6061-0	.12	.12		H0250426				
2.50	4.56	2.37	0.50	.040	6061-0	.12	.14		ZT40-73A	•			
2.50	4.56	5.00	0.53	.050	6061-0	.16	.20		ZT40-73B				
2.50	5.00	5.87	0.62	.040	6061-0	.11	.11	ZT40-80					
2.50	6.00	3.25	0.50	.063	6061-0	.25	.25	Z40-96A					
2.50	6.00	3.25	0.75	.032	6061-0	.25	.27		Z40-96B				
2.50	6.00	4.12	0.38	.050	6061-0	.12	.20		ZT40-96C	•			
2.50	6.00	4.25	0.81	.063	6061-0	.25	.19		ZT40-96D	•			
2.50	6.37	5.00	0.50	.050	6061-0	.16	.20	ZT40-102				X	
2.50	6.50	2.00	0.50	.050	6061-0	.12	.19		Z40-104				
2.50	6.50	1.50	0.50	.063	6061-0	.06	.06		Z40-104A				
2.53	4.72	3.00	0.62	.063	6061-0	.37	.12		Z41-76A	•			
2.53	4.72	3.00	0.37	.063	6061-0	.12	.12	Z41-76B		•			
2.53	4.72	2.50	0.37	.050	6061-0	.12	.12		Z41-76C	•			
2.56	2.56	5.00	0.75	.050	6061-0	.31	.31		Z41-41A				
2.56	6.00	3.00	0.75	.050	6061-0	.37	.37		Z41-96				
2.56	8.66	9.00	0.50	.050	6061-0	.16	.17		ZT41-139				
2.59	2.59	4.31	0.50	.050	6061-0	.25	.19	Z42-42A		•			
2.63	2.63	3.50	0.50	.090	6061-0	.22	.30		H0260269				
2.68	7.43	1.75	0.50	.050	6061-0	.09	.17		H0260745				
2.69	3.12	0.94	0.30	.032	6061-0	.09	.09		ZT43-50				
2.69	5.69	4.50	0.50	.050	6061-0	.12	.14		ZT43-91A	•		•	
2.69	5.87	2.87	0.62	.040	6061-0	.12	.11		ZT43-94	•			
2.69	8.01	2.50	0.23	.050	6061-0	.06	.06		ZT43-128				
2.71	3.05	2.00	0.62	.050	6061-0	.18	.18		Z43-49				
2.73	3.80	2.68	0.62	.063	6061-0	.25	.25		Z44-60				
2.75	2.81	3.25	0.50	.040	6061-0	.16	.14		ZT44-45				
2.75	3.00	2.75	0.50	.050	6061-0	.25	.19		Z44-48				
2.75	3.25	3.50	0.50	.050	6061-0	.09	.20	ZT44-52A		•		•	
2.75	3.69	2.12	0.50	.040	6061-0	.19	.20	ZT44-59				•	
2.75	3.87	2.50	0.50	.063	6061-0	.31	.31		Z44-62				
2.75	4.00	3.25	0.52	.040	6061-0	.16	.14		ZT44-64				
2.75	4.50	2.50	0.50	.063	6061-0	.31	.31	Z44-72					
2.75	4.38	3.00	0.25	.032	6061-0	.19	.19		Z44-70				
2.75	5.37	2.50	0.57	.050	6061-0	.26	.26		ZT44-86				



RECTANGULAR BOXES

Widths: 2.75" to 3.00"

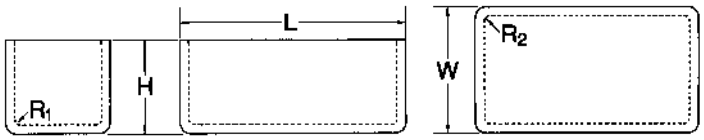
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX. H	OUTSIDE HEIGHT MIN. H	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
INCHES	INCHES	INCHES	INCHES	INCHES		INCHES	INCHES	Specify trim height	Specify trim height				
2.80	5.32	5.50	0.50	.063	6061-0	.11	.11		H0270536				
2.81	3.00	3.50	0.50	.050	6061-0	.12	.11	ZT45-48A		•		•	
2.81	3.12	2.50	0.40	.040	6061-0	.12	.08		ZT45-50				
2.81	3.31	1.00	0.38	.032	6061-0	.03	.20		Z45-53				
2.81	5.00	2.00	0.44	.032	6061-0	.12	.16		ZT45-80				
2.84	3.72	3.00	1.28	.040	6061-0	.62	.76		ZT46-60				
2.87	2.87	2.00	0.50	.040	6061-0	.12	.12	Z46-46A					
2.87	4.00	3.50	0.50	.050	6061-0	.09	.14	ZT46-64A		X		•	
2.87	5.00	8.00	0.50	.063	6061-0	.25	.25		H0280506				
2.87	5.00	5.62	0.50	.040	6061-0	.12	.11	ZT46-80					
2.87	6.00	2.50	0.50	.063	6061-0	.09	.12		ZT46-96				
2.92	5.26	6.75	0.50	.063	6061-0	.19	.27		H0290526				
2.94	13.00	2.00	0.44	.050	6061-0	.12	.19		Z47-208				
3.00	3.00	6.00	0.50	.040	6061-0	.25	.25	Z48-48A		•	•		
3.00	3.00	2.50	0.50	.063	6061-0	.22	.23		Z48-48B				
3.00	3.00	3.00	0.62	.063	6061-0	.19	.19	ZT48-48C		X		•	
3.00	3.00	4.25	0.50	.040	6061-0	.06	.06		Z48-48E	•			
3.00	3.25	2.00	0.50	.063	6061-0	.09	.09	ZT48-52		•		•	
3.00	3.50	3.25	0.50	.050	6061-0	.25	.25	Z48-56A		•		•	
3.00	3.50	3.00	0.56	.050	6061-0	.17	.20		ZT48-56B				•
3.00	3.75	3.50	0.50	.040	6061-0	.16	.20	ZT48-60A		•		•	
3.00	3.75	4.00	0.50	.050	6061-0	.14	.20		ZT48-60B	•		•	
3.00	3.75	4.75	0.50	.063	6061-0	.12	.19	ZT48-60C		•		•	
3.00	4.00	2.50	0.44	.063	6061-0	.19	.12	Z48-64A		•			
3.00	4.00	2.50	0.37	.063	6061-0	.12	.12	Z48-64B					
3.00	4.00	3.00	0.50	.063	6061-0	.25	.25	Z48-64C					
3.00	4.00	3.12	0.37	.063	6061-0	.12	.16	ZT48-64D		•	•		
3.00	4.25	3.50	0.50	.063	6061-0	.09	.09		ZT48-68A	•			
3.00	4.50	3.00	0.44	.063	6061-0	.19	.19	Z48-72		•			•
3.00	4.91	5.25	0.46	.040	6061-0	.14	.26		ZT48-79				
3.00	5.00	8.00	0.50	.063	6061-0	.19	.19		HA300506				
3.00	5.00	3.50	0.50	.063	6061-0	.25	.25	Z48-80A		X		•	
3.00	5.00	2.00	0.50	.063	6061-0	.12	.25	Z48-80B		X			
3.00	5.00	6.75	0.56	.063	6061-0	.19	.19	ZT48-80C		•			
3.00	5.00	1.50	0.50	.025	6061-0	.12	.12		Z48-80D				
3.00	5.25	1.87	0.50	.050	6061-0	.09	.16		Z48-84A				
3.00	5.25	3.00	0.50	.032	6061-0	.19	.19	ZT48-84B		•		•	
3.00	5.25	3.00	0.50	.040	6061-0	.17	.17	ZT48-84C				•	
3.00	5.25	3.50	0.50	.050	6061-0	.09	.17	ZT48-84D				•	
3.00	5.34	6.75	0.50	.063	6061-0	.19	.19		H0300536				
3.00	6.00	3.06	0.50	.063	6061-0	.25	.25	Z48-96					
3.00	6.87	3.00	0.69	.080	6061-0	.37	.25		Z48-110	•			
3.00	7.00	4.00	0.50	.040	6061-0	.19	.20	ZT48-112		X		•	
3.00	7.50	3.25	0.87	.063	6061-0	.31	.31		Z48-120A				

RECTANGULAR BOXES

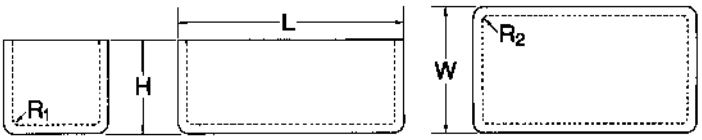
Widths: 3.00" to 3.37"

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
3.00	7.50	5.50	0.87	.063	6061-0	.31	.31		Z48-120B				
3.00	9.00	3.50	0.50	.063	6061-0	.25	.25	Z48-144		•			
3.00	10.00	3.00	0.62	.063	6061-0	.25	.25	Z48-160A		•			
3.00	10.00	4.00	0.62	.063	6061-0	.25	.25		ZT48-160B				
3.00	11.12	3.50	0.56	.050	6061-0	.12	.20		ZT48-178	•		•	•
3.00	12.00	3.00	0.62	.063	6061-0	.25	.19		Z48-192		•		
3.00	16.00	3.25	0.62	.063	6061-0	.19	.19		ZT48-256	•		•	
3.03	5.97	3.25	0.56	.063	6061-0	.31	.22		Z49-96A			•	
3.03	5.97	3.00	0.37	.063	6061-0	.12	.22		Z49-96B			•	
3.03	13.00	2.50	0.50	.050	6061-0	.12	.20		ZT49-208				
3.06	6.00	5.50	0.50	.063	6061-0	.12	.19		ZT50-96			•	•
3.10	4.73	4.25	0.50	.050	6061-0	.12	.20	ZT50-76A		X		•	
3.10	4.73	5.12	0.50	.063	6061-0	.12	.19	ZT50-76B				•	
3.12	3.12	6.00	0.50	.032	6061-0	.12	.28	Z50-50A					
3.12	3.50	3.25	0.69	.050	6061-0	.30	.20		ZT50-56	•		•	
3.12	4.00	4.25	0.50	.063	6061-0	.09	.09	ZT50-64A		•			
3.13	7.07	1.00	0.50	.063	6061-0	.06	.25		H0310706				
3.16	4.56	3.87	0.87	.063	6061-0	.56	.25		Z50-73				
3.16	4.78	3.56	0.13	.040	6061-0	.03	.09		ZT50-77				
3.20	3.20	3.00	1.00	.032	6061-0	.53	.63		H0310313				
3.20	5.81	2.00	0.44	.032	6061-0	.25	.25		Z52-93				
3.25	3.75	1.00		See page 58									
3.25	4.00	2.50	0.62	.040	6061-0	.19	.17	ZT52-64				•	
3.25	4.62	3.00	0.44	.050	6061-0	.19	.19	Z52-74		•			
3.25	5.00	2.63	0.75	.063	6061-0	.34	.27		H0320506				
3.25	5.00	5.00	0.50	.040	6061-0	.12	.25	ZT52-80					
3.25	5.25	5.00	0.69	.050	6061-0	.44	.31		Z52-84A	•			•
3.25	5.25	2.50	0.56	.050	6061-0	.31	.31		Z52-84B	•			•
3.25	5.25	3.00	0.75	.063	6061-0	.25	.25		Z52-84C				
3.25	5.25	3.00	0.50	.050	6061-0	.25	.33		ZT52-84D	•			
3.25	5.50	2.50	0.50	.032	6061-0	.25	.31		H0320553				
3.25	6.62	3.50	0.63	.063	6061-0	.19	.12		ZT52-106			•	
3.25	10.50	4.62	0.50	.050	6061-0	.12	.20		ZT52-168	•		•	
3.26	3.26	3.00	0.50	.050	6061-0	.20	.20		H0320325				
3.26	3.47	4.87	0.64	.040	6061-0	.20	.19		Z52-56				
3.28	3.28	9.75	0.50	.032	6061-0	.19	.19		H0320323				
3.29	3.30	7.75	0.50	.050	6061-0	.22	.22	Z53-53		•			
3.31	4.50	4.00	0.50	.050	6061-0	.19	.20		ZT53-72			•	
3.31	6.56	5.00	0.50	.050	6061-0	.25	.25		Z53-105				
3.31	12.12	1.62	0.41	.040	6061-0	.09	.20		ZT53-194	•			
3.34	4.09	6.00	0.50	.063	6061-0	.25	.19		Z54-66A*	•			•
3.37	4.12	4.25	0.50	.063	6061-0	.19	.12		ZT54-66B	•			

*Z54-66A is not available in other alloys.



RECTANGULAR BOXES

Widths: 3.37” to 3.75”

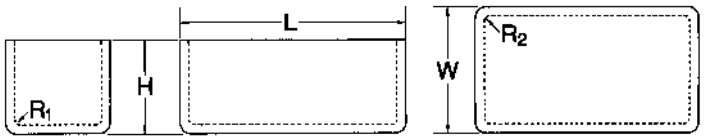
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1	CORNER RADII SIDE R2	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE COT	COVERS AVAILABLE COL	COVERS AVAILABLE COG	COVERS AVAILABLE CI
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	X = Stock • = Non Stock			
3.37	4.62	4.25	0.56	.040	6061-0	.16	.27		ZT54-74	•		•	
3.37	6.12	2.50	0.50	.063	6061-0	.25	.19		Z54-98				
3.38	4.00	5.13	0.50	.050	6061-0	.14	.14		H0330405				
3.42	4.69	4.50	1.00	.050	6061-0	.13	.13		H0340465				
3.44	8.34	3.00	0.62	.063	6061-0	.19	.18		Z55-133				
3.48	4.17	3.00	0.38	.063	6061-0	.12	.25		Z56-67				
3.50	3.50	3.25	0.50	.063	6061-0	.25	.25	Z56-56A		•			
3.50	3.50	2.50	0.50	.063	6061-0	.06	.12	ZT56-56B				•	
3.50	3.50	2.00	0.50	.040	6061-0	.12	.14	ZT56-56C					
3.50	3.59	6.00	0.37	.050	6061-0	.12	.25	Z56-58					
3.50	4.00	3.50	0.56	.063	6061-0	.25	.25	Z56-64		•			
3.50	4.38	2.50	0.56	.090	6061-0	.19	.19		Z56-70				
3.50	4.50	3.50	0.50	.063	6061-0	.25	.25	Z56-72A		•			
3.50	4.75	3.37	0.50	.050	6061-0	.12	.20	ZT56-76					
3.50	4.98	5.00	0.75	.063	6061-0	.25	.25		H0350496				
3.50	5.00	3.00	0.50	.063	6061-0	.25	.25	Z56-80			•		
3.50	5.00	3.00	0.50	.040	6061-0	.20	.20		H0350504				
3.50	5.25	6.50	0.50	.050	6061-0	.16	.23	ZT56-84A					
3.50	5.25	5.75	0.50	.050	6061-0	.31	.23		H0350525				
3.50	5.25	3.50	0.62	.063	6061-0	.16	.16	ZT56-84B					
3.50	5.50	2.75	0.44	.063	6061-0	.06	.06	ZT56-88		•			
3.50	6.00	3.50	0.44	.050	6061-0	.19	.19	Z56-96A		X			•
3.50	6.00	3.50	0.44	.050	6061-0	.19	.20		ZT56-96B	•			
3.50	6.50	2.62	0.44	.050	6061-0	.19	.19		Z56-104A				
3.50	6.50	2.50	0.44	.063	6061-0	.12	.12		ZT56-104B				
3.50	7.50	3.87	0.69	.050	6061-0	.22	.23	ZT56-120				•	
3.50	8.75	2.75	0.62	.050	6061-0	.19	.20		ZT56-140				
3.50	9.00	3.75	0.56	.063	6061-0	.25	.25		Z56-144A				
3.50	9.00	3.75	0.56	.050	6061-0	.19	.20		ZT56-144B	•		•	
3.50	12.12	3.75	0.50	.040	6061-0	.16	.14		ZT56-194			•	
3.56	4.65	1.44	0.31	.040	6061-0	.09	.33		ZT57-75				
3.59	11.00	3.00	0.50	.063	6061-0	.19	.19		Z58-176A				
3.64	3.64	2.00	0.75	.063	6061-0	.19	.25		Z58-58				
3.64	10.26	5.00	0.44	.050	6061-0	.12	.26		ZT58-164				
3.69	6.50	1.00	0.24	.063	6061-0	.06	.19		Z58-104				
3.69	7.50	3.00	0.56	.050	6061-0	.25	.25		Z59-120A				
3.69	7.50	4.25	0.56	.050	6061-0	.34	.25	Z59-120B		•			
3.69	7.50	5.00	0.56	.050	6061-0	.19	.20	ZT59-120C		•		•	
3.69	7.50	4.00	0.63	.063	6061-0	.19	.25		Z59-120D				
3.69	16.25	3.62	0.63	.063	6061-0	.19	.19		ZT59-260				
3.72	3.72	4.00	0.50	.050	6061-0	.19	.45		ZT60-60B	•		•	
3.72	5.03	3.75	0.44	.040	6061-0	.12	.20		ZT59-81			•	
3.73	11.50	3.00	0.50	.063	6061-0	.19	.19		Z60-184A				
3.75	3.75	3.75	0.56	.063	6061-0	.25	.25	Z60-60A		•		•	

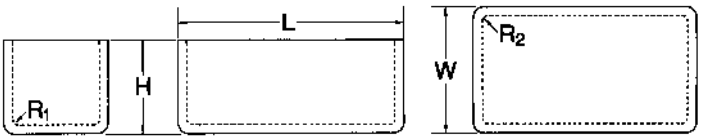
RECTANGULAR BOXES

Widths: 3.75” to 4.00”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX. H	OUTSIDE HEIGHT MIN. H	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
INCHES		INCHES		INCHES		INCHES		Specify trim height	Specify trim height				
3.75	3.75	2.87	0.56	.040	6061-0	.19	.17		ZT60-60C			•	
3.75	3.87	4.75	0.56	.040	6061-0	.14	.20		ZT60-62	•		•	
3.75	4.50	3.75	0.56	.063	6061-0	.25	.25	Z60-72					
3.75	4.91	2.00	0.31	.032	6061-0	.25	.25		Z60-79				
3.75	5.00	5.00	0.44	.063	6061-0	.19	.50	Z60-80A			•		
3.75	5.00	4.50	1.00	.080	6061-0	.48	.45		Z60-80B				
3.75	7.50	3.31	0.61	.040	6061-0	.19	.20		ZT60-120				
3.75	7.87	3.75	0.62	.063	6061-0	.37	.31	Z60-126A		•	•		
3.75	7.87	3.75	0.62	.063	6061-0	.37	.62		Z60-126B				
3.75	9.28	3.00	0.56	.090	6061-0	.22	.28		ZT60-149				
3.75	13.31	4.50	0.50	.050	6061-0	.12	.20		ZT60-213			•	
3.80	4.00	2.25	0.50	.040	6061-0	.13	.13		H0380404				
3.81	3.81	10.00	0.75	.063	6061-0	.25	.25	Z61-61A					
3.81	8.25	2.50	0.42	.063	6061-0	.12	.12		ZT61-132	•			
3.81	10.16	2.00	0.50	.063	6061-0	.25	.25	Z61-163A					
3.83	6.84	4.00	0.50	.063	6061-0	.25	.69		Z62-110				
3.85	5.98	4.00	0.50	.063	6061-0	.25	.25		H0380596				
3.87	4.62	3.50	0.56	.050	6061-0	.12	.20		ZT62-74			•	
3.87	4.62	2.50	0.56	.050	6061-0	.12	.20		Z62-74A				
3.87	4.87	2.50	0.53	.050	6061-0	.16	.33		ZT62-78				
3.87	5.50	3.06	0.50	.050	6061-0	.20	.20	Z62-88				•	
3.87	10.25	3.00	0.75	.090	6061-0	.22	.28		ZT62-164				
3.88	7.38	2.50	0.75	.063	6061-0	.31	.31		H0380736				
3.89	4.98	10.75	0.50	.050	6061-0	.19	.19		H0380495				
3.94	4.63	0.56		See page 58									
3.98	5.17	3.50	0.75	.063	6061-0	.31	1.22		Z64-83A				
3.99	3.99	8.00	0.50	.050	6061-0	.13	.68		H0390395				
4.00	4.00	2.50	0.50	.040	6061-0	.13	.13		H0400404				
4.00	4.00	3.75	0.87	.063	6061-0	.31	.31	Z64-64A		•		•	•
4.00	4.00	4.25	0.62	.063	6061-0	.19	.19	ZT64-64B		•		•	
4.00	4.50	3.50	0.50	.040	6061-0	.20	.20		H0400454				
4.00	4.50	3.75	0.87	.063	6061-0	.31	.31	Z64-72A					•
4.00	4.50	3.75	0.87	.032	6061-0	.34	.34		Z64-72B				
4.00	5.00	3.00	0.69	.050	6061-0	.19	.19	Z64-80A					
4.00	5.00	3.00	0.50	.032	6061-0	.19	.20		Z64-80B				
4.00	5.00	4.62	0.50	.040	6061-0	.12	.12		Z64-80C				•
4.00	5.00	4.00	0.62	.040	6061-0	.17	.17	ZT64-80D		X			
4.00	5.00	5.25	0.61	.040	6061-0	.19	.19		Z64-80E				
4.00	5.25	3.00	0.62	.050	6061-0	.25	.25		Z64-84A	•			
4.00	5.25	3.75	0.62	.032	6061-0	.31	.25		ZT64-84B			•	
4.00	5.25	3.87	0.62	.050	6061-0	.25	.23		ZT64-84C	•		•	
4.00	5.50	4.37	0.69	.063	6061-0	.19	.19	ZT64-88		X		•	
4.00	6.00	3.50	0.81	.050	6061-0	.25	.22	Z64-96A			•	•	
4.00	6.00	3.75	0.56	.032	6061-0	.16	.22	ZT64-96B		•		•	
4.00	6.00	4.00	0.56	.063	6061-0	.12	.19	ZT64-96C		•			
4.00	6.00	3.75	0.52	.040	6061-0	.16	.20		ZT64-96D				
4.00	6.50	3.00	0.75	.063	6061-0	.31	.31		H0400656				
4.00	6.50	3.75	0.87	.063	6061-0	.31	.31	Z64-104A		X			



RECTANGULAR BOXES

Widths: 4.00 to 4.47”

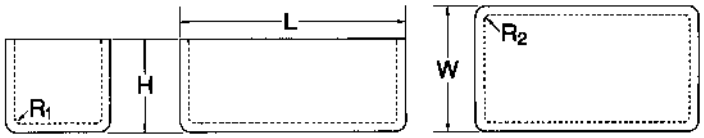
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
4.00	6.50	7.00	1.00	.063	6061-0	.31	.31	Z64-104B		X			
4.00	6.50	3.75	0.50	.032	6061-0	.31	.34		Z64-104C				
4.00	7.00	3.75	0.75	.063	6061-0	.31	.31		H0400706				
4.00	7.00	6.75	0.87	.063	6061-0	.31	.31	Z64-112A			•		•
4.00	7.00	4.75	0.94	.063	6061-0	.37	.75		Z64-112B				
4.00	7.77	6.19	0.75	.063	6061-0	.25	.25	Z64-124A					
4.00	7.75	3.50	0.75	.063	6061-0	.25	.25		ZT64-124B				
4.00	8.00	2.50	0.50	.050	6061-0	.13	.13		H0400805				
4.00	8.12	4.75	0.62	.063	6061-0	.19	.19	ZT64-130A		•		•	
4.00	8.75	3.00	0.75	.040	6061-0	.19	.28		Z64-140A				
4.00	8.75	3.00	0.75	.063	6061-0	.19	.25	Z64-140B					
4.00	8.75	3.37	0.62	.063	6061-0	.25	.44		ZT64-140C				
4.00	9.00	5.00	0.50	.063	6061-0	.25	.25	Z64-144				X	
4.00	10.46	11.50	0.75	.063	6061-0	.50	.50		H0401056				
4.00	10.50	11.50	1.06	.080	6061-0	.50	.50		Z64-168A				
4.00	10.50	5.31	0.75	.063	6061-0	.50	.50		ZT64-168B				
4.00	10.75	3.75	0.56	.050	6061-0	.25	.25		Z64-172				
4.00	11.13	2.50	0.50	.050	6061-0	.13	.13		H0401115				
4.00	13.25	4.00	0.75	.050	6061-0	.37	.37	Z64-212					
4.00	16.87	3.50	0.75	.080	6061-0	.33	.33		Z64-270				•
4.12	6.75	4.62	0.62	.063	6061-0	.12	.25		ZT66-108A	•		•	
4.12	6.75	3.87	0.62	.040	6061-0	.19	.17		ZT66-108B			•	
4.13	5.13	3.00	0.50	.040	6061-0	.19	.20		H0410514				
4.24	5.98	4.00	0.50	.063	6061-0	.13	.17		H0420596				
4.25	4.25	4.50	0.94	.063	6061-0	.37	.44		Z68-68A			•	
4.25	4.25	4.00	0.56	.050	6061-0	.19	.20	ZT68-68B		•		•	
4.25	4.25	4.62	0.63	.063	6061-0	.19	.19		ZT68-68C	•		•	
4.25	5.00	2.50	0.62	.090	6061-0	.19	.38		Z68-80				
4.25	5.81	3.00	0.63	.063	6061-0	.19	.19		ZT68-93				
4.25	6.00	4.75	0.50	.063	6061-0	.12	.19	ZT68-96				•	
4.25	6.87	3.50	0.56	.040	6061-0	.12	.23		ZT68-110	•			
4.25	12.65	4.00	0.78	.040	6061-0	.37	.33		ZT68-203				
4.31	7.00	3.50	0.50	.050	6061-0	.16	.28	Z69-112A		•			
4.31	10.00	3.00	1.00	.063	6061-0	.50	.50		Z69-160A				
4.31	10.06	3.50	0.62	.050	6061-0	.16	.20	ZT69-161		•		•	
4.32	9.16	4.00	0.87	.063	6061-0	.31	.31		Z69-147				
4.34	9.75	3.26	0.50	.040	6061-0	.12	.12		Z69-156				
4.37	4.50	3.50	0.87	.090	6061-0	.25	.25		Z70-72A				
4.37	5.00	4.25	0.81	.040	6061-0	.19	.25		Z70-80A				
4.37	5.50	2.50	0.81	.050	6061-0	.25	.25		Z70-88				
4.37	5.50	3.00	0.50	.040	6061-0	.25	.25		H0430554				
4.37	5.87	7.19	0.75	.063	6061-0	.25	.25	Z70-94					
4.37	6.37	1.00	0.37	.063	6061-0	.12	.25		Z70-102A				
4.37	6.37	6.00	0.50	.063	6061-0	.25	.25	Z70-102B					
4.44	5.00	1.00	0.24	.063	6061-0	.06	.19		Z71-80				
4.44	7.62	1.00	0.24	.063	6061-0	.06	.19		Z71-122				
4.47	7.00	3.75	0.50	.063	6061-0	.13	.25		H0440696				

RECTANGULAR BOXES

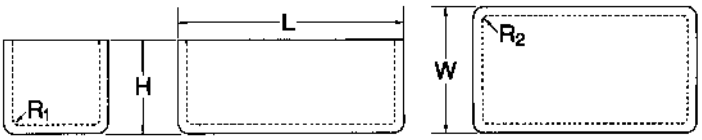
Widths: 4.50” to 4.87”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
4.50	4.50	3.00	0.50	.040	6061-0	.19	.19		H0450454				
4.50	5.00	3.50	0.50	.040	6061-0	.20	.20		H0450504				
4.50	5.00	4.25	0.87	.063	6061-0	.31	.31	Z72-80					
4.50	5.50	3.00	0.50	.040	6061-0	.20	.20		H0450554				
4.50	6.00	4.00	0.50	.040	6061-0	.20	.22		H0450604				
4.50	6.00	3.37	0.69	.063	6061-0	.12	.16	Z72-96			X		
4.50	6.37	3.00	0.62	.063	6061-0	.25	.50		Z72-102				
4.50	6.50	3.00	0.75	.090	6061-0	.30	.30		H0450659				
4.50	7.72	3.62	0.62	.050	6061-0	.19	.20		ZT72-123				
4.50	7.75	7.00	0.56	.063	6061-0	.25	.25	Z72-124					
4.50	8.00	3.50	0.56	.040	6061-0	.19	.172		ZT72-128A	•		•	
4.50	8.00	2.50	0.69	.050	6061-0	.14	.14	ZT72-128B		•		•	
4.50	8.00	4.50	0.62	.050	6061-0	.19	.17		ZT72-128D	•		•	
4.50	9.25	5.00	0.63	.050	6061-0	.19	.44		ZT72-148C				
4.50	9.25	5.62	0.62	.063	6061-0	.19	.19	ZT72-148A		•			
4.50	11.87	3.25	0.50	.050	6061-0	.12	.20	ZT72-190				•	
4.53	4.53	2.25	0.69	.032	6061-0	.22	.22		ZT73-73				
4.61	5.06	3.31	0.50	.063	6061-0	.12	.30		Z74-81				
4.62	7.75	5.00	0.50	.050	6061-0	.12	.20		ZT74-124				
4.62	17.37	4.50	0.62	.063	6061-0	.19	.19		ZT74-278	•		•	
4.69	4.94	6.00	0.52	.040	6061-0	.16	.17		ZT75-79				
4.69	7.50	7.00	1.06	.063	6061-0	.50	.50		Z75-120A		•		
4.69	7.50	3.00	0.50	.050	6061-0	.12	.25		Z75-120B				
4.70	5.95	0.50	0.22	.040	6061-0	.06	.19		ZT75-96				
4.73	7.25	4.00	1.00	.063	6061-0	.50	.25		Z76-116				
4.75	4.75	4.25	0.62	.063	6061-0	.16	.12	ZT76-76A		•		•	
4.75	4.75	4.50	0.52	.040	6061-0	.16	.25		ZT76-76B	•			
4.75	4.75	4.50	0.41	.050	6061-0	.12	.20		ZT76-76C	•		•	
4.75	4.75	1.50	0.42	.063	6061-0	.12	.20		ZT76-76D				
4.75	5.00	4.75	0.87	.040	6061-0	.31	.16		Z76-80A				
4.75	5.00	3.50	0.50	.040	6061-0	.16	.16		Z76-80B				
4.75	5.00	4.25	1.00	.063	6061-0	.27	.12		Z76-80C				
4.75	6.00	4.50	0.70	.040	6061-0	.22	.20		ZT76-96A	•		•	
4.75	6.00	4.50	0.50	.050	6061-0	.19	.20	ZT76-96B		•		•	
4.75	6.00	4.50	0.62	.063	6061-0	.16	.19		ZT76-96C	•		•	
4.75	6.50	11.75	0.75	.090	6061-0	.50	.50		Z76-104				
4.75	7.00	7.00	0.50	.063	6061-0	.25	.50		H0470706				
4.75	7.75	5.75	1.06	.063	6061-0	.50	1.58		Z76-124				
4.75	9.50	4.50	0.56	.040	6061-0	.19	.19	ZT76-152A		•		•	
4.75	9.50	5.25	0.62	.050	6061-0	.19	.20	ZT76-152C		•		•	
4.75	12.00	7.00	1.12	.090	6061-0	.50	.75	Z76-192A					
4.78	7.87	6.06	0.62	.040	6061-0	.25	.26		ZT77-126				
4.78	8.78	4.00	0.81	.063	6061-0	.25	.12		ZT77-141				
4.81	6.94	4.00	0.50	.050	6061-0	.16	.16		Z77-111				
4.81	9.56	6.25	0.62	.063	6061-0	.27	.36		ZT77-153	•		•	
4.87	6.50	3.50	0.75	.050	6061-0	.19	.19	Z78-104A*		•	•		
4.87	6.50	8.00	0.87	.063	6061-0	.34	.19	Z78-104B		•	•		

*Z78-104A does not fit Z78-104A-COT cover.



RECTANGULAR BOXES

Widths: 4.87" to 5.37"

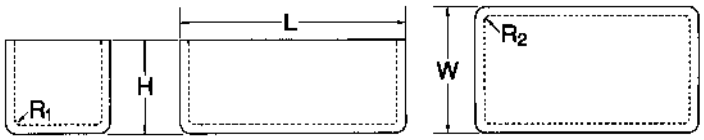
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W INCHES	OUTSIDE LENGTH L INCHES	OUTSIDE HEIGHT MAX. H INCHES	OUTSIDE HEIGHT MIN. H INCHES	BLANK GAUGE T INCHES	ALLOY	CORNER RADII BOTTOM R1 inside INCHES	CORNER RADII SIDE R2 inside INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
4.87	12.00	4.50	0.56	.063	6061-0	.25	.25		ZT78-192				
4.89	5.94	1.25	0.61	.040	6061-0	.19	.19		ZT79-95				
4.91	5.00	8.00	0.80	.063	6061-0	.37	.19		ZT79-80				
4.95	15.89	4.00	0.68	.063	6061-0	.31	.31		ZT79-254				
5.00	5.00	4.50	0.87	.063	6061-0	.31	.31	Z80-80A		•		•	
5.00	5.00	4.00	0.62	.040	6061-0	.12	.12		Z80-80B				
5.00	5.00	6.00	0.50	.063	6061-0	.25	.27		H0500506				
5.00	5.12	4.00	0.62	.063	6061-0	.19	.19		ZT80-82				
5.00	5.50	5.00	0.87	.063	6061-0	.31	.31	Z80-88					
5.00	6.00	5.00	0.87	.063	6061-0	.31	.31	Z80-96					
5.00	6.12	5.00	0.69	.063	6061-0	.12	.22	Z80-98A					
5.00	6.12	5.00	0.87	.063	6061-0	.37	.22		Z80-98B				
5.00	6.12	5.25	0.62	.063	6061-0	.16	.19	ZT80-98C		•			
5.00	6.37	5.00	0.50	.063	6061-0	.19	.19		ZT80-102				
5.00	7.00	5.00	0.87	.063	6061-0	.31	.31	Z80-112A		X	•		•
5.00	7.00	4.75	0.87	.040	6061-0	.31	.34		Z80-112B				
5.00	7.00	7.00	0.69	.063	6061-0	.19	.19	ZT80-112C		•		•	
5.00	7.37	5.00	0.81	.050	6061-0	.25	.25		Z80-118A				
5.00	7.37	7.00	0.87	.063	6061-0	.25	.25	Z80-118B					
5.00	7.50	4.00	0.62	.050	6061-0	.12	.11	ZT80-120A		•		•	
5.00	8.00	4.75	0.62	.040	6061-0	.25	.27	ZT80-128A		X		•	
5.00	8.00	6.00	0.62	.063	6061-0	.25	.25	ZT80-128B		X		•	
5.00	11.00	7.00	0.75	.063	6061-0	.44	.44	ZT80-176A					
5.00	15.25	5.50	0.75	.063	6061-0	.22	.20		ZT80-244				
5.12	8.25	6.25	0.87	.063	1100-0	.31	.25		Z82-132			•	•
5.16	5.53	2.00	0.80	.050	6061-0	.25	.25		ZT83-89				•
5.16	8.28	8.50	0.75	.063	6061-0	.25	.25		ZT83-133			•	
5.17	7.53	5.50	1.06	.050	6061-0	.50	.50		Z82-120				
5.19	8.00	4.25	0.69	.063	6061-0	.12	.16		Z83-128A				
5.19	8.00	4.25	0.81	.063	6061-0	.25	.16		Z83-128B	•			
5.19	15.56	3.56	0.42	.063	6061-0	.12	.12		ZT83-249				
5.25	5.25	6.87	0.56	.040	6061-0	.16	.17	ZT84-84A				•	
5.25	5.25	4.00	0.62	.063	6061-0	.19	.19	ZT84-84B				•	
5.25	6.37	4.00	0.87	.063	6061-0	.34	.50		Z84-102				
5.25	9.75	4.00	0.87	.063	6061-0	.31	.50	Z84-156					
5.25	11.00	4.25	0.75	.050	6061-0	.20	.20		ZT84-176A	•			
5.25	11.00	3.50	0.75	.090	6061-0	.20	.16		ZT84-176B	•			
5.25	11.87	6.25	0.94	.063	6061-0	.44	.50		ZT84-190	•		•	
5.31	5.31	5.00	1.50	.063	6061-0	.81	.81		Z85-85				
5.34	6.47	4.50	0.62	.063	6061-0	.25	.25	Z86-103			•		
5.37	5.75	5.50	0.62	.050	6061-0	.19	.20		ZT86-92B	•		•	
5.37	5.75	4.00	0.62	.063	6061-0	.12	.16		ZT86-92C	•		•	

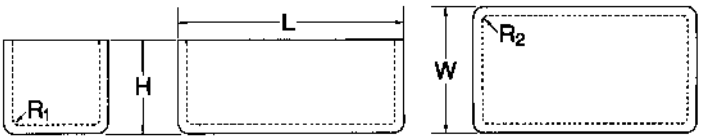
RECTANGULAR BOXES

Widths: 5.37” to 6.00”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
5.37	8.00	3.00	0.62	.063	6061-0	.19	.19		ZT86-128B			•	
5.37	9.37	4.00	0.56	.050	6061-0	.25	.52		ZT86-150				
5.37	12.50	7.00	0.94	.063	6061-0	.62	.62		ZT86-200				
5.37	13.50	7.00	0.94	.063	6061-0	.62	.62		ZT86-216				
5.40	9.15	4.38	0.56	.063	6061-0	.19	.19		ZT87-147	•			
5.50	5.50	3.75	0.56	.050	6061-0	.12	.20	ZT88-88B		•		•	
5.50	6.25	4.00	0.50	.050	6061-0	.19	.20	ZT88-100				•	
5.50	8.00	4.75	0.87	.063	6061-0	.25	.25	Z88-128A		X			
5.50	8.00	2.37	0.87	.090	6061-0	.25	.22		Z88-128B				
5.50	8.50	4.75	0.50	.063	6061-0	.25	.25	ZT88-136				•	
5.50	9.62	3.62	0.56	.050	6061-0	.19	.20		ZT88-154A	•		•	
5.56	9.84	3.00	0.87	.090	6061-0	.25	.25		Z89-158				
5.62	19.62	5.00	0.62	.063	6061-0	.31	.31		Z90-314				
5.65	7.47	4.25	0.80	.050	6061-0	.25	.26		ZT91-119				
5.69	10.00	7.00	0.81	.063	6061-0	.25	.25	Z91-160					•
5.70	7.51	4.50	0.62	.080	6061-0	.31	.75		Z91-120A				
5.70	7.51	4.25	0.44	.080	6061-0	.12	.75		Z91-120B				
5.75	6.49	4.00	0.50	.063	6061-0	.13	.19		H0570646				
5.75	7.62	4.87	0.56	.040	6061-0	.22	.20		ZT92-122				
5.75	9.03	4.50	0.62	.050	6061-0	.19	.14		ZT92-144				
5.75	9.06	6.00	0.69	.063	6061-0	.14	.12	ZT92-145A		•		•	
5.85	11.10	9.25	1.00	.063	6061-0	.50	.50		Z94-178				
5.85	7.48	4.50	0.50	.050	6061-0	.17	.20		H0580745				
5.87	6.75	4.00	0.87	.063	6061-0	.31	.31	Z94-108A					
5.87	6.75	5.37	0.69	.050	6061-0	.33	.33		ZT94-108B				
5.87	7.00	5.50	0.62	.063	6061-0	.19	.19		ZT94-112				
5.87	7.50	4.50	0.56	.050	6061-0	.12	.20		ZT94-120A	•		•	
5.94	6.50	5.00	0.81	.063	6061-0	.25	.25		Z95-104A	•			
5.94	6.50	5.00	0.81	.040	6061-0	.25	.28		Z95-104B				
6.00	6.00	5.00	0.87	.063	6061-0	.31	.31	Z96-96		•			•
6.00	6.00	6.75	0.75	.050	6061-0	.31	.31		H0600605				
6.00	7.00	5.00	0.87	.063	6061-0	.31	.31	Z96-112A		•	•		
6.00	7.00	4.00	0.50	.040	6061-0	.19	.37		Z96-112B				
6.00	7.00	4.00	1.00	.040	6061-0	.34	.37		Z96-112C				
6.00	7.00	5.00	0.69	.040	6061-0	.19	.33		ZT96-112D	•		•	
6.00	7.50	5.00	0.87	.063	6061-0	.31	.31	Z96-120A					
6.00	8.00	6.00	0.87	.063	6061-0	.37	.31		Z96-128A				
6.00	8.00	5.00	0.87	.063	6061-0	.25	.31	Z96-128B					
6.00	8.00	6.00	0.75	.050	6061-0	.19	.20	ZT96-128C		X		•	
6.00	8.00	5.00	0.69	.063	6061-0	.22	.19	ZT96-128D				X	
6.00	8.50	4.50	0.50	.040	6061-0	.19	.20		ZT96-136A	•		•	
6.00	9.00	5.00	0.87	.063	6061-0	.31	.31	Z96-144		X			
6.00	9.50	2.50	0.62	.063	6061-0	.19	.19		Z96-152				
6.00	9.62	5.25	0.87	.063	6061-0	.31	.50	Z96-154					
6.00	8.00	4.50	0.50	.063	6061-0	.17	.19		H0600806				
6.00	10.00	5.00	0.56	.050	6061-0	.12	.14	ZT96-160A		•		•	



RECTANGULAR BOXES

Widths: 6.00” to 6.69”

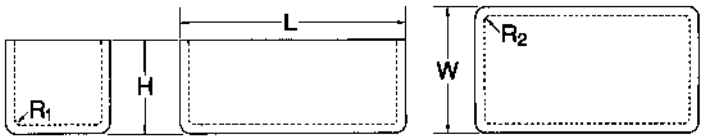
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
6.00	10.00	4.25	0.42	.063	6061-0	.12	.12		ZT96-160B				
6.00	10.25	3.00	1.25	.063	6061-0	.19	.91		Z96-164				
6.00	11.12	4.50	0.62	.050	6061-0	.12	.11		ZT96-178B			•	
6.00	12.00	5.50	0.87	.063	6061-0	.50	.50	Z96-192			•		
6.00	13.50	6.50	0.75	.050	6061-0	.44	.52		ZT96-216A			•	
6.00	14.50	5.25	1.00	.063	6061-0	.44	.50		Z96-232A			•	
6.09	8.59	4.00	0.56	.090	6061-0	.19	.25		ZT97-138				
6.12	6.62	1.50	0.42	.063	6061-0	.12	.06		ZT98-106				
6.12	7.00	5.00	0.87	.063	6061-0	.31	.31		Z98-112A				
6.12	11.12	4.00	1.12	.090	6061-0	.50	.75		Z98-178				
6.12	12.00	4.50	0.87	.063	6061-0	.25	.37		Z98-192A				
6.12	12.00	4.50	0.87	.090	6061-0	.25	.37		Z98-192B				
6.13	6.88	6.00	0.75	.050	6061-0	.50	.92		H0610685				
6.19	10.19	4.00	0.84	.090	6061-0	.25	.65		ZT99-163				
6.19	16.87	6.00	1.06	.063	6061-0	.50	.50		Z99-270B				
6.25	6.25	5.00	0.56	.063	6061-0	.12	.19	ZT100-100				•	
6.25	7.37	3.25	0.87	.063	6061-0	.31	.50		Z100-118				
6.25	11.50	3.75	0.75	.050	6061-0	.25	.25		H0621155				
6.25	12.56	4.00	0.63	.063	6061-0	.19	.19		ZT100-201				
6.31	9.31	5.50	0.62	.063	6061-0	.31	.31		Z101-149A				
6.38	12.63	10.00	1.00	.090	6061-0	.50	.75		Z102-202				
6.50	6.50	4.75	2.00	.090	6061-0	1.19	1.19		Z104-104A				
6.50	6.50	7.50	0.50	.063	6061-0	.25	.44	Z104-104B					
6.50	6.50	3.50	2.00	.090	6061-0	1.41	1.41		Z104-104C				
6.50	6.50	3.50	1.50	.090	6061-0	1.00	1.00		Z104-104D				
6.50	6.50	6.00	1.87	.090	6061-0	1.25	1.50		Z104-104E				
6.50	6.50	4.75	0.75	.040	6061-0	.25	.25		Z104-104H				
6.50	6.50	4.00	0.81	.050	6061-0	.27	.21		ZT104-104J			•	
6.50	6.50	3.50	1.50	.063	6061-0	1.09	1.09		Z104-104K				
6.50	7.50	5.87	0.75	.063	6061-0	.25	.25		ZT104-120				
6.50	8.25	6.00	0.62	.063	6061-0	.31	.31		Z104-132				
6.50	8.50	5.00	0.50	.050	6061-0	.19	.27		ZT104-136A	•		•	•
6.50	8.50	5.50	0.50	.063	6061-0	.19	.25	ZT104-136B		•		•	•
6.50	9.25	4.00	0.87	.071	6061-0	.25	.62		Z104-148	•			
6.50	10.00	4.25	0.62	.050	6061-0	.19	.39		ZT104-160A	•		•	
6.50	10.00	4.50	0.62	.063	6061-0	.19	.19		ZT104-160B			•	
6.50	15.50	2.00	0.81	.063	6061-0	.22	.22		Z104-248A				
6.50	15.50	7.00	1.12	.063	6061-0	.50	.50		Z104-248B				
6.50	13.00	4.75	0.42	.063	6061-0	.12	.19		ZT104-208				
6.50	16.00	7.12	1.59	.090	6061-0	.75	.75		ZT104-256				
6.50	16.50	4.12	0.62	.050	6061-0	.25	.31		Z104-264A				
6.50	17.00	6.50	1.00	.070	6061-0	.31	.31		Z104-272				
6.61	8.81	0.75	0.50	.063	6061-0	.12	.18		Z106-140				
6.62	8.62	5.00	0.75	.063	6061-0	.50	.97		H0660866				
6.62	12.25	5.00	0.72	.040	6061-0	.34	.33		ZT106-196				
6.62	22.75	3.50	1.25	.090	6061-0	.50	.75		Z106-364				
6.69	10.56	5.00	0.75	.063	6061-0	.31	.31		Z107-169A				
6.69	10.69	6.00	1.12	.090	6061-0	.50	.50	Z107-171A					•

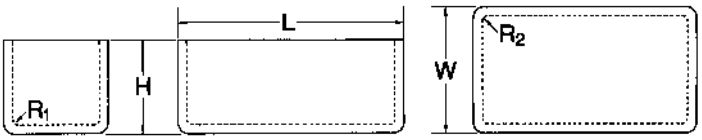
RECTANGULAR BOXES

Widths: 6.75” to 8.00”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
6.75	6.78	4.62	0.50	.050	6061-0	.19	.25		ZT108-109			•	
6.75	11.12	4.25	1.25	.090	6061-0	.50	.75		Z108-178				
6.75	11.50	5.50	0.62	.063	6061-0	.31	.44		ZT108-184				
6.87	8.37	4.50	0.87	.063	6061-0	.31	.50		Z110-134				
6.87	17.75	9.62	1.59	.090	6061-0	.75	.75		ZT110-284				
6.97	9.47	8.25	0.56	.080	6061-0	.25	.23	ZT111-152				•	
6.97	17.37	15.87	1.25	.090	6061-0	.50	.50		Z111-278				
7.00	7.00	6.00	0.75	.063	6061-0	.31	.31	Z112-112					•
7.00	7.50	4.00	0.56	.063	6061-0	.25	.25		ZT112-120				
7.00	8.00	4.00	0.75	.063	6061-0	.50	.50		Z112-128B				
7.00	8.00	6.00	0.75	.063	6061-0	.31	.31	Z112-128		•			X
7.00	8.25	2.00	0.50	.063	6061-0	.09	.33		H0700826				
7.00	8.92	6.00	1.00	.063	6061-0	.28	.44		Z112-143A				
7.00	9.00	7.00	1.00	.063	6061-0	.44	.44	Z112-144A		X			
7.00	9.00	7.00	0.75	.040	6061-0	.44	.47		Z112-144B				
7.00	9.00	7.00	1.00	.090	6061-0	.41	.41		Z112-144D				
7.00	9.00	7.37	0.81	.063	6061-0	.37	.37		ZT112-144E			•	
7.00	9.87	5.00	0.56	.050	6061-0	.16	.14		ZT112-158	•		•	
7.00	10.37	5.75	1.04	.040	6061-0	.50	.50		ZT112-166				
7.00	11.00	7.00	1.06	.063	6061-0	.50	.31	Z112-176A				X	X
7.00	11.00	7.00	0.68	.063	6061-0	.28	.32		Z112-176			X	X
7.00	11.00	3.50	0.81	.063	6061-0	.25	.31		Z112-176B				
7.00	12.50	11.00	0.69	.063	6061-0	.19	.75	ZT112-200A			•	•	
7.00	12.50	5.00	0.50	.063	6061-0	.19	.37		ZT112-200B	•		•	
7.00	24.00	6.00	1.31	.063	6061-0	.75	.75		Z112-384				
7.05	14.30	7.25	1.50	.090	6061-0	1.00	1.00		Z113-229				
7.06	10.56	9.00	1.31	.063	6061-0	.75	.75	Z113-169					•
7.12	8.25	4.50	0.87	.063	6061-0	.31	.50		Z114-132				
7.12	9.62	4.00	0.87	.063	6061-0	.31	.50		Z114-154				
7.19	18.00	8.00	1.06	.090	6061-0	.44	.50		Z115-288A				
7.25	11.38	6.00	1.00	.090	6061-0	.50	.50		Z116-182				
7.29	20.12	4.00	0.80	.063	6061-0	.37	1.19		ZT116-322			•	
7.50	7.50	6.00	0.75	.063	6061-0	.44	.44		Z120-120				
7.50	8.12	4.50	0.69	.050	6061-0	.25	.27		ZT120-130				
7.50	9.50	2.50	1.00	.040	6061-0	.44	.44		Z120-152A				
7.50	11.00	5.00	0.75	.063	6061-0	.25	.25		Z120-176				
7.50	12.00	11.50	1.12	.090	6061-0	.62	.62	Z120-192			•		
7.50	12.00	5.00	0.90	.090	6061-0	.19	.75		Z120-192A				
7.53	18.97	8.00	0.87	.063	6061-0	.37	.37		Z120-304				
7.56	16.10	5.00	1.00	.090	6061-0	.37	1.00		Z120-257				
7.66	7.66	5.00	1.50	.063	6061-0	1.00	1.00		Z122-122				
7.75	10.25	7.00	1.00	.090	6061-0	.50	.50		Z124-164				
7.75	10.50	6.00	1.12	.063	6061-0	.50	.50		Z124-168				
7.75	10.50	7.50	1.00	.060	6061-0	.75	.75		Z124-168B				
7.75	10.50	6.00	1.00	.063	6061-0	.41	.75		Z124-168C				
7.75	12.97	4.25	1.37	.050	6061-0	.75	.75		Z124-207A				
7.94	9.03	5.00	0.87	.090	6061-0	.28	.66		ZT127-145A				
8.00	8.00	7.00	1.00	.063	6061-0	.62	.62		Z128-128A				•



RECTANGULAR BOXES

Widths: 8.00" to 9.00"

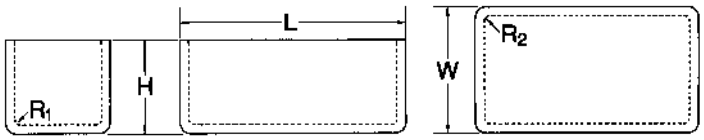
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W INCHES	OUTSIDE LENGTH L INCHES	OUTSIDE HEIGHT MAX. H INCHES	OUTSIDE HEIGHT MIN. H INCHES	BLANK GAUGE T INCHES	ALLOY	CORNER RADII BOTTOM R1 inside INCHES	CORNER RADII SIDE R2 inside INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height	COVERS AVAILABLE X = Stock • = Non Stock COT	COL	COG	CI
8.00	8.00	6.00	0.62	.063	6061-0	.25	.62	Z128-128B					•
8.00	9.00	5.75	0.50	.063	6061-0	.25	.25		H0800906				
8.00	9.00	6.00	0.62	.063	6061-0	.25	.25	Z128-144					•
8.00	9.62	5.00	1.00	.063	6061-0	.50	.50		Z128-154A				
8.00	10.00	4.00	0.33	.063	6061-0	.09	.09		ZT128-160			•	
8.00	11.00	7.50	1.44	.063	6061-0	.87	.87	Z128-176A					•
8.00	11.00	5.75	0.87	.050	6061-0	.25	.20	ZT128-176B		•		•	
8.00	11.00	6.62	0.81	.063	6061-0	.50	1.00		ZT128-176C	•		•	
8.00	13.50	8.25	0.81	.063	6061-0	.50	1.00	ZT128-216				X	
8.00	14.00	7.00	1.44	.063	6061-0	.87	.87	Z128-224					
8.00	21.00	8.50	1.50	.090	6061-0	.75	.75	Z128-336					
8.06	10.81	3.75	1.12	.063	6061-0	.50	.50		Z129-173				
8.25	9.75	5.00	0.56	.050	6061-0	.19	.20		ZT132-156A			•	
8.25	9.75	5.00	0.79	.050	6061-0	.25	.20		ZT132-156B				
8.25	14.25	8.00	1.50	.063	6061-0	1.00	1.00		Z132-228				
8.25	14.87	11.25	1.19	.063	6061-0	.50	.69	ZT132-238					•
8.37	10.81	4.00	0.50	.063	6061-0	.25	.31		Z134-173				
8.37	11.50	7.00	1.06	.063	6061-0	.50	.56		Z134-184				•
8.37	16.12	8.00	1.50	.090	6061-0	.91	.91		Z134-258A				
8.37	17.50	8.00	1.12	.090	6061-0	.47	.87		Z134-280A				
8.47	12.97	5.25	1.00	.090	6061-0	.50	.47		ZT135-207				
8.50	8.50	12.00	1.62	.090	6061-0	1.00	1.00		Z136-136A				
8.50	8.50	3.00	0.81	.063	6061-0	.37	.31		ZT136-136B				
8.50	10.25	5.00	0.75	.063	6061-0	.19	.22	Z136-164A		•			
8.50	11.50	5.62	1.06	.063	6061-0	.50	.50		ZT136-184				
8.50	12.00	10.00	1.62	.090	6061-0	1.00	1.00	Z136-192A					
8.50	12.00	6.00	0.87	.063	6061-0	.56	.56		Z136-192B				
8.50	12.62	8.00	1.25	.090	6061-0	.50	.75		Z136-202				
8.50	13.00	5.50	0.62	.063	6061-0	.19	.25		ZT136-208A	•			
8.50	13.00	5.12	0.62	.063	6061-0	.12	.09		ZT136-208B	•			
8.50	14.00	6.50	0.62	.063	6061-0	.22	.25		ZT136-224			•	
8.50	15.25	6.00	0.65	.090	6061-0	.28	.41		ZT136-244				
8.50	19.50	8.00	1.00	.090	6061-0	.50	.75		Z136-312				
8.50	20.50	8.50	1.62	.090	6061-0	1.00	1.00		Z136-328A				
8.50	20.50	8.50	1.62	.063	6061-0	1.00	1.03		Z136-328B				
8.50	24.00	5.00	1.62	.090	6061-0	1.00	1.00		Z136-384				
8.60	11.00	5.00	0.87	.063	6061-0	.25	.31		Z138-176				
8.75	9.12	8.00	1.00	.090	6061-0	.50	.75		Z140-146				•
8.75	9.75	5.00	0.81	.063	6061-0	.19	.19		ZT140-156			•	
8.75	12.00	8.00	1.06	.063	6061-0	.50	.75	Z140-192A		•			•
8.75	12.00	8.00	1.37	.090	6061-0	.75	.75		Z140-192B				
8.75	13.75	10.00	1.12	.090	6061-0	.50	.75		Z140-220A				
8.75	13.75	7.00	1.12	.050	6061-0	.50	.75		Z140-220B		•		
8.75	17.95	6.00	1.06	.063	6061-0	.50	.50		Z140-286	•			
8.78	15.53	12.00	0.62	.090	6061-0	.37	.37		ZT141-249			•	
9.00	9.00	8.37	1.06	.063	6061-0	.50	.50	Z144-144A					•
9.00	9.00	5.00	1.12	.090	6061-0	.50	.50	Z144-144B					
9.00	12.00	6.25	0.62	.050	6061-0	.20	.20	ZT144-192A		•		•	
9.00	12.00	6.50	1.00	.090	6061-0	.50	.66		ZT144-192B				
9.00	27.00	7.00	1.37	.090	6061-0	.75	.75		Z144-432A				

RECTANGULAR BOXES

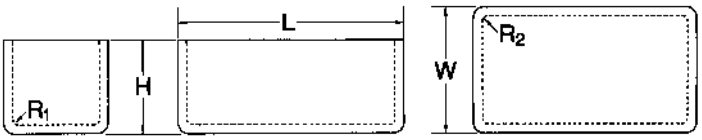
Widths: 9.00” to 11.00”

Note: Flush fitting covers are available for any box listed.



OUTSIDE WIDTH W	OUTSIDE LENGTH X L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
9.00	27.00	7.75	1.37	.063	6061-0	.75	.78		Z144-432B				
9.12	12.12	6.00	0.75	.063	6061-0	.25	.62		Z146-194A				
9.12	12.12	12.00	1.30	.063	6061-0	.62	.62		Z146-194B				
9.12	13.00	8.50	1.62	.063	6061-0	1.00	1.00		Z146-208A				
9.19	12.19	5.50	0.56	.090	6061-0	.25	.65		ZT147-195				
9.19	13.25	8.87	1.62	.090	6061-0	1.12	1.12		Z147-212D				
9.19	13.25	9.00	1.19	.090	6061-0	.56	.56	Z147-212A			•		X
9.19	13.25	9.00	1.19	.063	6061-0	.59	.59	Z147-212B			•		
9.19	13.25	3.50	0.81	.063	6061-0	.25	.59		Z147-212C				
9.37	10.25	4.00	0.56	.050	6061-0	.19	.20		ZT150-164A	•			
9.37	10.25	5.00	0.62	.063	6061-0	.19	.19	ZT150-164B				•	
9.37	14.00	6.00	1.00	.050	6061-0	.45	.45		ZT150-224	•		•	
9.37	14.50	10.00	1.62	.090	6061-0	1.00	1.00		Z150-232A				
9.69	13.75	6.00	1.12	.050	6061-0	.50	.50		Z155-220A				
9.73	11.50	8.00	1.12	.090	6061-0	.50	.75		Z156-184				
9.84	20.47	7.00	1.12	.063	6061-0	.50	.72		Z157-328A				
9.87	20.50	8.00	1.62	.090	6061-0	1.00	1.00		Z158-328A				
9.87	20.50	7.50	1.19	.090	6061-0	.63	1.00		Z158-328B				
9.93	9.93	9.00	1.75	.090	6061-0	1.37	1.37		Z159-159				
10.00	10.37	8.75	1.06	.063	6061-0	.50	.50	Z160-166		•		•	
10.00	11.00	7.50	1.25	.090	6061-0	.62	.62	Z160-176A					
10.00	12.00	9.00	1.62	.090	6061-0	1.00	1.00	Z160-192A					
10.00	12.00	9.00	1.25	.090	6061-0	.62	.62	Z160-192B				•	
10.00	14.00	6.00	0.75	.090	6061-0	.30	.30		H1001409				
10.00	16.00	9.00	1.62	.090	6061-0	1.00	1.00	Z160-256A					X
10.00	16.00	9.00	1.25	.090	6061-0	.62	.62		Z160-256B				
10.00	18.06	9.00	1.62	.090	6061-0	1.00	1.00		Z160-289				
10.00	20.00	6.00	0.69	.063	6061-0	.19	.19		ZT160-320				
10.03	13.03	8.00	0.75	.063	6061-0	.41	.41	Z161-209A					
10.06	13.06	9.00	0.81	.063	6061-0	.50	.50	ZT161-209B					
10.12	11.62	8.00	1.37	.090	6061-0	.75	.75		Z162-186				•
10.19	12.19	3.50	0.56	.063	6061-0	.19	.50		Z163-195A				
10.19	24.50	4.00	1.12	.063	6061-0	.50	.50		Z163-392A				
10.19	24.50	8.00	1.37	.063	6061-0	.81	.81	Z163-392B					
10.23	15.25	9.00	1.31	.063	6061-0	.75	.75		Z164-244A				
10.25	11.75	5.00	1.12	.090	6061-0	.50	.75		Z164-188				
10.31	12.44	8.87	1.00	.063	6061-0	.44	.50		ZT165-199				
10.38	16.38	6.00	1.50	.090	6061-0	1.00	1.00		Z166-262				
10.50	12.50	8.00	1.12	.090	6061-0	.50	1.00		Z168-200				
10.59	10.81	2.00	0.62	.040	6061-0	.37	.41		Z170-173A				
10.62	11.12	5.50	0.81	.050	6061-0	.25	.20		ZT170-178	•			
10.69	20.94	8.00	1.62	.090	6061-0	1.12	1.12		Z171-335				
10.75	16.00	8.00	1.12	.090	6061-0	.50	.75	ZT172-256					
10.81	16.87	9.00	1.37	.063	6061-0	.75	.75		Z173-270A*				
10.87	11.75	5.00	1.00	.063	6061-0	.50	.50		Z174-188				
11.00	11.00	9.00	1.62	.090	6061-0	1.00	1.00		Z176-176A				
11.00	11.00	9.00	1.19	.090	6061-0	.62	.62	Z176-176B					
11.00	18.00	10.00	1.62	.090	6061-0	1.00	1.00		Z176-288A				•
11.00	18.00	8.56	1.00	.063	6061-0	.50	1.00		ZT176-288C	•		•	

*Available with or without bead pattern. Please specify.



RECTANGULAR BOXES

Widths: 11.00” to 13.38”

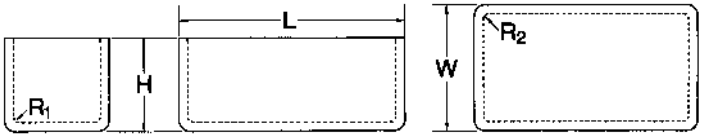
Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX.	OUTSIDE HEIGHT MIN.	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		H INCHES		T INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
11.00	18.00	10.00	1.62	0.063	6061-0	1.030	1.030		Z176-288B*				
11.25	16.19	5.00	1.00	0.080	6061-0	0.440	0.720		Z180-259A				
11.44	13.06	9.00	1.62	0.063	6061-0	1.000	1.000	Z183-209				•	
11.44	13.75	10.25	1.50	0.090	6061-0	0.870	0.870		Z183-220A				•
11.44	13.75	9.00	1.91	0.090	6061-0	0.910	0.910		ZT183-220B				
11.44	13.75	9.00	1.88	0.063	6061-0	0.910	0.910		Z183-220B				
11.44	13.75	10.00	1.12	0.090	6061-0	0.470	0.940		Z183-220C				
11.50	11.50	8.00	1.37	0.063	6061-0	0.870	0.870		Z184-184A				
11.50	11.50	10.00	2.00	0.063	6061-0	0.687	0.687		Z184-184B				
11.50	13.12	5.75	0.56	0.063	6061-0	0.190	0.190		ZT184-210			•	
11.50	15.00	9.25	1.31	0.063	6061-0	0.750	0.750		Z184-240				
11.50	64.25	9.00	1.50	0.080	6061-0	1.380	1.380		Z184-1028*				
11.56	13.19	9.00	1.12	0.063	6061-0	0.500	0.500		Z185-211A				
11.56	15.06	8.00	1.62	0.090	6061-0	1.000	1.000	Z185-241					
11.62	20.12	10.00	1.62	0.090	6061-0	1.000	1.000		Z186-322A				
11.62	20.12	10.00	1.62	0.063	6061-0	1.000	1.000		Z186-322B				
11.75	13.00	5.50	1.37	0.090	6061-0	0.750	0.750		Z188-208A				
11.75	14.50	10.00	1.62	0.100	6061-0	1.120	1.120		Z188-232				
11.75	27.25	9.00	1.19	0.090	6061-0	0.690	0.690		Z188-436				
11.78	14.78	9.00	1.00	0.063	6061-0	0.500	0.500		Z188-236				
12.00	12.00	10.00	1.62	0.090	6061-0	1.000	1.000		Z192-192A				
12.00	12.00	7.00	1.12	0.090	6061-0	0.620	0.620		Z192-192B				
12.00	12.00	6.00	0.87	0.090	6061-0	0.370	0.620		Z192-192C				
12.00	12.00	6.00	1.12	0.063	6061-0	1.000	1.030		Z192-192D				
12.00	13.00	9.00	1.12	0.063	6061-0	0.500	0.500		Z192-208A				
12.00	13.00	9.00	1.09	0.090	6061-0	0.500	0.500		Z192-208B				
12.00	16.00	8.00	0.69	0.090	6061-0	0.370	1.000		ZT192-256A				
12.00	16.00	8.00	0.69	0.063	6061-0	0.370	1.000		ZT192-256B				
12.00	16.00	10.00	1.25	0.090	6061-0	0.720	0.910		Z192-256C				
12.00	17.19	6.62	1.88	0.063	6061-0	0.910	0.910		ZT192-275				
12.00	18.00	10.00	1.62	0.090	6061-0	1.000	1.000	Z192-288A*					•
12.00	18.00	10.00	1.37	0.090	6061-0	0.750	0.750		Z192-288B				
12.00	18.00	9.00	1.12	0.063	6061-0	0.500	1.030		Z192-288C				
12.00	18.00	9.50	1.25	0.063	6061-0	0.660	0.940		Z192-288E				
12.00	18.00	10.00	1.12	0.090	6061-0	0.470	0.970		ZT192-288D				
12.00	19.25	8.00	1.62	0.090	6061-0	1.000	1.000		Z192-308				
12.00	21.50	10.00	1.50	0.090	6061-0	0.870	0.870		Z192-344A*				•
12.00	21.50	10.00	1.50	0.063	6061-0	0.910	0.910		Z192-344B*				
12.00	24.00	7.50	1.37	0.090	6061-0	0.750	0.750		Z192-384A				
12.12	15.12	9.00	1.00	0.063	6061-0	0.340	0.500		Z194-242**				
12.19	14.62	7.12	1.00	0.050	6061-0	0.500	0.500		Z195-234A				
12.19	14.62	7.00	1.12	0.063	6061-0	0.500	0.750		Z195-234B*				
12.31	19.94	10.00	1.62	0.090	6061-0	1.120	1.120		Z197-319				
12.37	12.87	10.00	1.12	0.090	6061-0	0.500	0.750		Z198-206A				
12.44	20.81	8.00	1.62	0.090	6061-0	1.000	1.000		Z199-333A*				
12.47	21.00	10.50	1.87	0.090	6061-0	1.250	1.250		Z200-336A				
12.81	13.12	7.37	0.81	0.063	6061-0	0.370	0.500		ZT205-210A				•
13.00	15.00	4.50	0.75	0.050	6061-0	0.300	0.330		ZT208-240	•			
13.00	22.50	8.00	1.37	0.090	6061-0	0.750	0.750		Z208-360A*				
13.19	13.25	7.00	1.25	0.063	6061-0	0.590	0.590		Z211-212				
13.25	19.75	6.50	1.21	0.090	6061-0	0.560	0.560		ZT212-316A				
13.25	19.75	6.50	1.21	0.063	6061-0	0.590	0.590		ZT212-316B				
13.38	16.92	4.00	0.75	0.050	6061-0	0.250	0.500		Z214-271				

*Available with or without bead pattern. Please specify. **Beaded only.

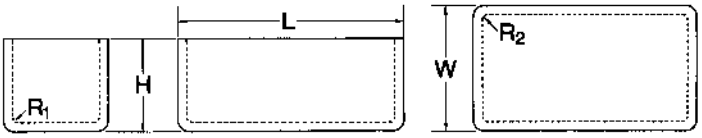
RECTANGULAR BOXES

Widths: 13.50” to 16.94



OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX. H	OUTSIDE HEIGHT MIN. H	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		INCHES		INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
13.50	20.31	12.00	1.50	.090	6061-0	1.00	1.00		Z216-325A*				
13.56	16.97	7.50	1.30	.063	6061-0	.62	1.00		ZT217-271				
13.62	15.00	9.00	1.50	.090	6061-0	.75	.75		Z218-240*				
13.62	20.62	10.00	1.87	.090	6061-0	1.25	1.50		Z218-330*				
13.75	26.12	14.00	2.37	.090	6061-0	1.53	1.53		Z220-418A*				
13.75	26.12	12.00	2.37	.063	6061-0	1.56	1.56		Z220-418B				
14.00	14.00	9.00	1.06	.063	6061-0	.50	.50	Z224-224A					
14.00	14.00	8.00	1.50	.090	6061-0	.50	.47		Z224-224B				
14.12	15.62	8.00	1.06	.063	6061-0	.50	1.00		Z226-250A*				
14.12	15.62	9.00	1.06	.090	6061-0	.50	.94		Z226-250B*				•
14.12	16.12	10.00	1.62	.090	6061-0	1.00	1.00		Z226-258**				•
14.50	17.00	12.00	1.37	.090	6061-0	.69	.80		Z232-272A*				
14.50	20.62	14.50	1.87	.090	6061-0	1.25	1.50		Z232-330A				•
14.50	20.62	8.50	1.87	.063	6061-0	1.25	1.53		Z232-330B*				
14.50	20.62	6.50	1.50	.090	6061-0	.91	.91		Z232-330C				
14.50	20.62	11.00	1.87	.080	6061-0	1.00	1.00		Z232-330D				
14.50	23.62	7.00	1.37	.090	6061-0	.75	.75		Z232-378*				
14.50	26.00	9.25	1.25	.090	6061-0	.87	.87		ZT232-416				
14.62	16.12	7.00	1.12	.063	6061-0	.50	1.02		Z234-258A				
14.62	16.12	8.00	1.37	.090	6061-0	1.00	.98		Z234-258B*				
14.62	16.12	10.87	1.50	.090	6061-0	1.12	1.12		Z234-258C				
14.75	26.00	9.00	1.37	.090	6061-0	.75	.75		Z236-416*				
14.95	23.37	6.00	2.47	.090	6061-0	1.19	1.19		Z239-374A*				
15.00	15.50	10.00	1.37	.090	6061-0	.75	.75	Z240-248A					•
15.00	15.50	9.00	1.37	.063	6061-0	.75	.75		Z240-248B				
15.00	18.50	10.00	1.37	.090	6061-0	.75	.75		Z240-296		•		
15.00	20.00	9.00	1.62	.090	6061-0	1.00	1.00		Z240-320				
15.00	21.50	8.00	1.12	.090	6061-0	1.00	1.00		Z240-344A				
15.00	29.25	10.00	1.62	.090	6061-0	1.00	1.00		Z240-468*				
15.15	21.65	6.50	1.38	.090	6061-0	.75	.94		Z242-347B				
15.25	16.50	10.00	1.12	.090	6061-0	.50	.87		Z244-264A				
15.25	16.50	10.00	1.50	.090	6061-0	.87	.87		Z244-264B				
15.25	20.25	16.00	2.62	.090	6061-0	2.00	1.50		Z244-324A*				
15.25	20.25	10.00	1.62	.090	6061-0	1.00	1.50		Z244-324B*				
15.44	27.44	11.00	2.12	.090	6061-0	1.50	1.50		Z247-439A*				
15.44	27.44	10.00	2.12	.063	6061-0	1.53	1.50		Z247-439B				
15.50	30.37	8.00	1.56	.063	6061-0	1.00	1.00		Z248-486*				
15.52	61.62	10.00	2.82	.080	6061-0	1.37	1.37		Z248-984				
15.55	17.50	10.00	1.12	.090	6061-0	.50	1.25		Z249-280A				
15.62	19.12	11.00	1.50	.090	6061-0	.87	.87		Z250-306A*				•
15.62	19.12	7.37	1.00	.063	6061-0	.50	.50		ZT250-306B			•	
15.81	27.81	9.44	1.62	.090	6061-0	1.00	1.00		Z253-445A				
15.87	15.87	7.00	1.06	.063	6061-0	.50	.50		Z254-254A*	•			
15.87	15.87	9.00	1.62	.090	6061-0	1.00	1.00	Z254-254B					
16.00	20.00	11.00	1.50	.090	6061-0	1.00	1.00		Z256-320				
16.12	26.12	10.00	1.62	.090	6061-0	1.00	1.00		Z258-418*				
16.50	20.00	10.00	1.06	.063	6061-0	.50	.88		Z264-320A*				
16.50	20.00	10.00	1.06	.063	6061-0	.50	2.00		Z264-320B*				•
16.50	20.00	10.00	1.50	.090	6061-0	.87	.87		Z264-320C				
16.55	16.68	10.00	1.62	.090	6061-0	1.00	1.00		Z265-267				
16.87	20.12	13.00	2.12	.090	6061-0	1.50	1.50		Z270-322*				
16.94	21.94	10.00	2.12	.090	6061-0	1.50	1.50		Z271-351A*				
16.94	21.94	10.00	1.50	.063	6061-0	.87	1.50		Z271-351B*				
16.94	32.94	14.00	1.69	.090	6061-0	1.09	1.09		Z271-527*				

*Available with or without bead pattern. Please specify. ** Beaded only.



RECTANGULAR BOXES

Widths: 17.00” to 28.25”

Note: Flush fitting covers are available for any box listed.

OUTSIDE WIDTH W	OUTSIDE LENGTH L	OUTSIDE HEIGHT MAX. H	OUTSIDE HEIGHT MIN. H	BLANK GAUGE T	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	COVERS AVAILABLE X = Stock • = Non Stock			
INCHES		INCHES		INCHES		INCHES		Specify trim height	Specify trim height	COT	COL	COG	CI
17.00	20.31	12.00	1.62	.090	6061-0	1.00	1.00		Z272-325A*				
17.00	22.00	9.44	1.50	.090	6061-0	.88	.88		Z272-352				
17.25	22.87	9.00	1.37	.090	6061-0	.75	.75		Z276-366*				
17.38	20.00	15.25	3.25	.100	6061-0	2.41	2.41		Z278-320A				
17.62	19.00	8.00	1.25	.063	6061-0	.50	.75		ZT282-304				
17.94	20.94	12.87	1.62	.090	6061-0	1.12	1.12		Z287-335**				
18.00	18.00	10.00	1.37	.090	6061-0	.75	.75		Z288-288B*				
18.00	18.00	8.25	1.25	.063	6061-0	.37	.78		Z288-288C				
18.00	21.00	16.00	1.87	.090	6061-0	1.25	1.25		Z288-336*				
18.00	27.00	10.00	1.50	.090	6061-0	1.00	1.00		Z288-432A*				
18.00	27.00	8.50	1.50	.063	6061-0	1.00	1.00		Z288-432B				
18.00	27.00	9.75	1.50	.090	6061-0	.84	.91		Z288-432C				
18.00	30.00	4.00	0.87	.080	6061-0	.37	1.00		Z288-480A				
18.48	22.12	8.00	0.75	.063	6061-0	.69	.69		Z296-354*				
18.62	22.75	13.00	1.50	.063	6061-0	.87	1.50		Z298-364A*				
18.62	22.75	13.00	1.50	.090	6061-0	.87	1.47		Z298-364B				
19.00	19.00	10.00	1.50	.090	6061-0	.87	.87		Z304-304*				
19.00	22.00	9.00	1.37	.090	6061-0	.75	.75		Z304-352A				
19.00	22.00	10.00	1.37	.063	6061-0	.75	.78		Z304-352B				
19.37	27.37	14.00	2.25	.100	6061-0	1.25	1.25		Z310-438A				
19.56	21.50	10.00	1.50	.063	6061-0	.87	.87		Z313-344A*				
19.56	21.50	11.25	1.50	.090	6061-0	.84	.84		Z313-344B				
19.94													
19.94	25.91	10.00	1.50	.100	6061-0	1.12	1.12		Z319-415*				
20.00	26.00	10.00	1.50	.090	6061-0	.91	.94		Z320-416B				
20.00	26.00	11.62	1.87	.090	6061-0	1.25	1.25		Z320-416*				
20.00	28.00	9.00	1.50	.090	6061-0	.91	.91		Z320-448				
20.12	21.37	10.00	1.62	.090	6061-0	1.00	1.00		Z322-342A*				
20.12	32.12	10.50	2.12	.090	6061-0	1.50	1.50		Z322-514*				
20.25	21.25	14.00	1.87	.090	6061-0	1.25	1.25		Z324-340*				
20.31	20.50	13.50	1.62	.090	6061-0	1.00	1.00		Z325-328A*				
20.40	20.40	10.00	1.50	.090	6061-0	1.00	1.00		Z327-327				
20.56	22.12	13.50	1.75	.090	6061-0	.75	1.25		Z329-354A				
20.62	28.12	14.00	1.87	.090	6061-0	1.25	1.50		Z330-450*				
21.00	26.00	16.25	2.00	.090	6061-0	1.10	1.10		Z336-416				
21.00	32.00	13.25	1.75	.100	6061-0	1.38	1.38		Z336-512*				
21.22	26.25	11.00	1.62	.063	6061-0	1.00	1.00		Z340-420*				
21.44	37.37	10.00	1.75	.063	6061-0	1.12	1.12		Z343-598*				
21.50	30.00	12.00	1.75	.090	6061-0	.91	.91		Z344-480A				
22.50	22.50	8.00	1.50	.090	6061-0	.87	.87		Z360-360A*				
23.00	23.00	11.00	1.87	.090	6061-0	1.25	1.25		Z368-368A*				
23.44	25.75	18.00	3.00	.090	6061-0	2.00	2.00		Z375-412				
24.00	26.00	14.00	1.87	.090	6061-0	1.25	1.25		Z384-416*				
25.00	32.00	11.00	2.25	.090	6061-0	1.50	1.50		Z400-512A*				
25.50	33.50	9.12	2.00	.090	6061-0	1.25	1.25		Z408-536A*				
27.25	37.25	15.00	1.87	.090	6061-0	1.25	1.25		Z436-596*				
28.00	54.19	10.00	1.87	.090	6061-0	1.25	1.25		Z448-867*				
28.25	28.25	10.00	1.87	.090	6061-0	1.25	1.25		Z452-452*				

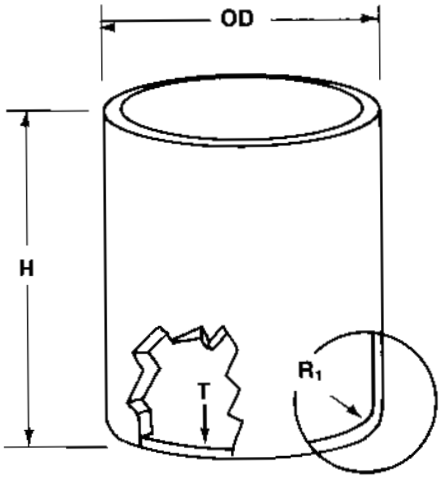
*Available with or without bead pattern. Please specify. **Beaded only.

ROUND HOUSINGS
Ordering information

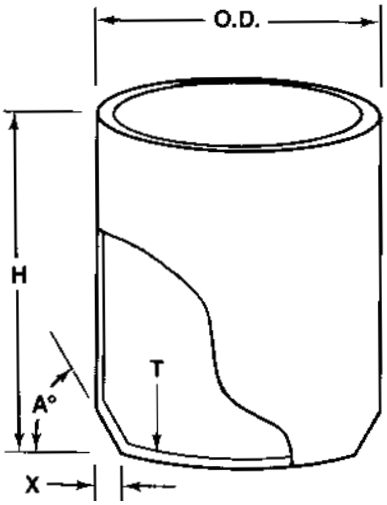
Zero Manufacturing offers two basic deep-drawn round housing configurations: Standard and Special. They are available in any height up to the maximum height listed. When ordering, give the part number and height desired in inches.

Remember that Zero Manufacturing can save you time and money by fulfilling all your modification needs in-house. Eliminate extra vendors and let Zero finish the job for you.





STANDARD VERSION **(Figure 1)**
The Standard Version round housing is drawn with a uniform bottom radius (R1).

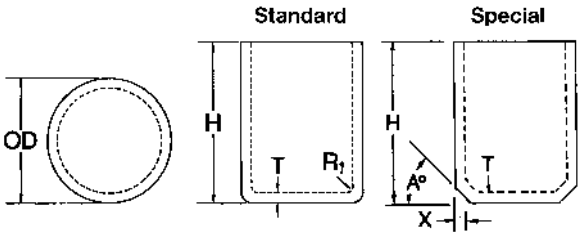


SPECIAL VERSION **(Figure 2)**
The Special Version round housings, available only through special order, feature an angle-beveled base instead of a uniform radius. The tables on the following pages show this under the R1 column as a combination of the angle of the bevel (dimension A) and the inset of the base from the outside vertical wall (dimension X). This is shown, for example, as 30. x 0.31.

Key to drawing

OD	Outside diameter measured at tangency between bottom radius (R1) and side
H	Outside height
T	Gauge thickness
A	Angle of the bevel (Special Version only)
X	Inset of the base from the outside vertical wall (Special Version only)

Part Number Example:		
ZR35A-2.00	ZR35A-2.00-AL60	ZR35A-2.00-T4
A 2.20” diameter X 2.00” round housing made from 1100-0 alloy.	A 2.20” diameter X 2.00” round housing with a change in alloy to 6061-0.	A 2.20” diameter X 2.00” round housing with a change in alloy to 6061-0 that has been heat treated to T4 condition.



ROUND HOUSINGS

Diameters: 0.56” to 1.76”

Note: Flush fitting covers are available for any boxes listed.

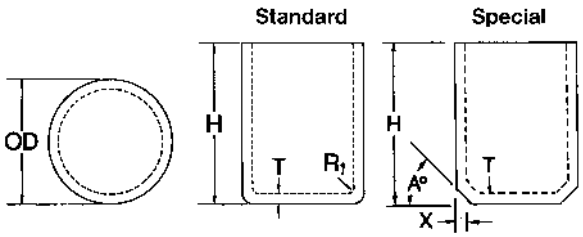
OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT (MAX)* **H** INCHES	BLANK GAUGE	ALLOY	BOTTOM RADIUS (INSIDE) INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height
0.56	1.88	See page 59				
0.63	2.25	See page 59				
0.66	2.63	See page 59				
0.75	2.63	See page 59				
0.81	1.88	See page 59				
0.84	1.88	See page 59				
0.87	1.25	.020	6061-0	.02		ZR14A
0.88	1.88	See page 59				
0.91	0.85	See page 59				
0.93	1.63	See page 59				
0.95	1.63	See page 59				
0.98	1.75	See page 59				
1.00	2.13	See page 59				
1.02	1.00	.025	6061-0	.06	ZR16A	
1.06	2.75	See page 59				
1.10	2.00	See page 59				
1.13	2.00	See page 59				
1.17	1.88	See page 59				
1.19	2.25	See page 59				
1.22	0.81	.025	6061-0	.06	ZR20A	
1.23	1.63	See page 59				
1.25	2.25	See page 59				
1.25	3.00	See page 59				
1.31	1.25	.032	6061-0	.14		HR013132
1.31	3.00	See page 59				
1.32	3.00	See page 59				
1.38	3.00	.040	6061-0	.04		HR013740
1.38	2.19	See page 59				
1.44	2.75	See page 59				
1.45	1.88	See page 59				
1.47	1.75	See page 59				
1.50	2.50	See page 59				
1.53	2.50	.040	6061-0	.06		ZR25A
1.56	2.50	See page 59				
1.60	3.25	See page 59				
1.62	2.50	.032	6061-0	.06	ZR26A	
1.63	3.25	See page 59				
1.65	1.00	.063	6061-0	.13		HR016663
1.69	2.50	See page 59				
1.70	2.50	See page 59				
1.72	1.62	.040	6061-0	.09	ZR27A	
1.75	2.37	.032	6061-0	.06	ZR28A	
1.75	1.25	.025	6061-0	.06		ZR28B

* See figure 2, page 30

ROUND HOUSINGS

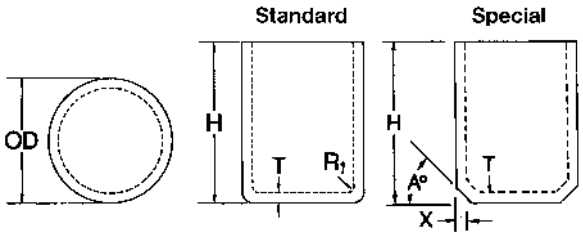
Diameters: 1.77” to 2.70”

Note: Flush fitting covers are available for any boxes listed.



OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT (MAX)* **H** INCHES	BLANK GAUGE	ALLOY	BOTTOM RADIUS (INSIDE) INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height
1.82	2.90	See page 59				
1.84	2.13	See page 59				
1.87	3.00	.050	6061-0	.12	ZTR30A	
1.91	1.56	.032	6061-0	.12	ZR31A	
1.92	5.00	.050	6061-0	.09	ZTR31B	
2.00	4.50	.032	6061-0	.20		HR019932
2.00	1.13	See page 59				
2.00	2.00	.032	6061-0	.19	ZR32A	
2.00	2.62	.025	6061-0	.09	ZR32B	
2.00	3.50	See page 59				
2.06	1.12	.032	6061-0	.12		ZR33A
2.06	3.88	See page 59				
2.08	1.50	.032	6061-0	.12	ZTR33B	
2.09	3.00	.040	6061-0	*30°x.31		ZTR33
2.11	2.50	See page 59				
2.12	1.12	.032	6061-0	.12		ZR34A
2.13	2.50	See page 59				
2.13	0.87	.063	6061-0	.50		ZR34B
2.13	1.75	.063	6061-0	.19		ZR34C
2.20	2.25	See page 59				
2.20	3.00	.050	6061-0	.22	ZR35A	
2.22	2.25	.025	3003-0	.05	ZTR35B	
2.25	4.50	.032	6061-0	.13		HR022432
2.25	5.25	.032	6061-0	.23		HR022532
2.31	3.75	.040	6061-0	.19		HR023140
2.33	3.25	.040	6061-0	.06	ZTR37A	
2.37	3.00	.040	6061-0	.06	ZTR38A	
2.38	2.13	See page 59				
2.38	4.50	.050	6061-0	.06		ZR38C
2.39	2.25	.050	6061-0	.06	ZTR38B	
2.44	2.063	.050	6061-0	.37	ZR39A	
2.48	2.50	.020	6061-0	.12	ZTR39B	
2.50	1.75	.050	6061-0	*30°x.31		ZTR40
2.50	6.50	.050	6061-0	.19	ZR40A	
2.50	4.00	.025	6061-0	.25	ZR40B	
2.50	4.00	.040	6061-0	.11		ZTR40C
2.50	8.50	.050	6061-0	.27		HR025150
2.50	9.75	.063	6061-0	.50		ZR40D
2.59	2.62	.040	6061-0	.06	ZTR41	
2.62	3.50	.050	6061-0	.06	ZTR42A	
2.67	1.75	.050	6061-0	.19		HR026750

*See Figure 2, Page 30.



ROUND HOUSINGS

Diameters: 2.75” to 3.51”

Note: Flush fitting covers are available for any boxes listed.

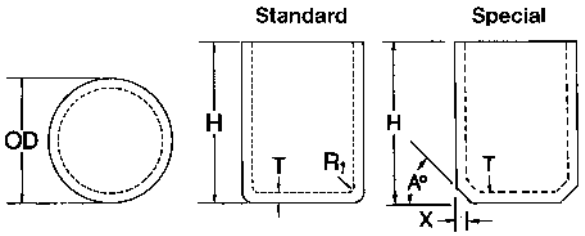
OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT (MAX)* **H** INCHES	BLANK GAUGE	ALLOY	BOTTOM RADIUS (INSIDE) INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height
2.75	5.00	.050	6061-0	.19	ZTR44A	
2.83	1.50	.040	6061-0	.25		HR028340
2.87	4.00	.032	6061-0	.14		HR028732
2.92	1.63	.050	6061-0	.50		HR029240
2.94	1.50	.063	6061-0	.13		HR029463
2.98	6.50	.032	6061-0	.19		HR029832
3.00	5.00	.063	6061-0	.31		HR030063
3.00	3.25	.032	6061-0	.27		HR029932
3.00	2.50	.050	6061-0	.31	ZR48A	
3.00	6.00	.050	6061-0	.50	ZTR48B	
3.00	3.00	.032	6061-0	.09	ZTR48C	
3.06	3.38	.050	6061-0	.09	ZTR49A	
3.09	3.50	.032	6061-0	.23		HR030932
3.12	7.00	.032	6061-0	.22		HR031132
3.12	1.25	.050	6061-0	.16		HR031250
3.12	6.50	.050	6061-0	.25		HRA31250
3.12	5.00	.063	6061-0	.38		HR031263
3.25	2.13	See page 59				
3.25	5.25	.050	6061-0	.31	ZR52A	
3.25	6.00	.050	6061-0	.19		HR032550
3.27	2.50	.050	6061-0	.13		HR032750
3.34	3.75	.040	6061-0	*45° x .50		ZTR53
3.35	4.25	.050	6061-0	.25		HR033550
3.38	1.13	See page 59				
3.38	2.50	.063	6061-0	.28		HR033763
3.43	2.50	.063	6061-0	.25		HR034363
3.44	3.75	.032	6061-0	.25		ZR55
3.48	3.87	.071	6061-0	.31	ZR56A	
3.48	2.25	.063	6061-0	.31	ZR56B	
3.50	3.46	.090	6061-0	.38		ZR56C
3.50	2.50	.040	6061-0	.25		HR035040
3.50	12.00	.063	6061-0	.25		HR035063

*See Figure 2, Page 30.

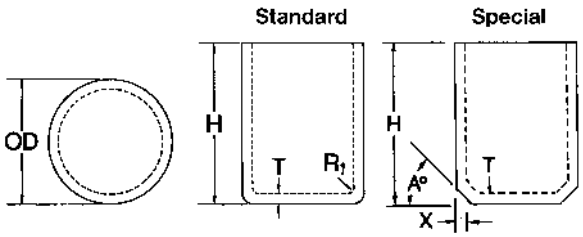
ROUND HOUSINGS

Diameters: 3.52” to 4.48”

Note: Flush fitting covers are available for any boxes listed.



OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT (MAX)* **H** INCHES	BLANK GAUGE	ALLOY	BOTTOM RADIUS (INSIDE) INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height
3.52	4.00	.050	6061-0	.19	ZR57A	
3.57	7.00	.050	6061-0	.25		HR035750
3.70	2.62	.063	6061-0	.25	ZR59A	
3.70	3.50	.063	6061-0	.09		ZR59B
3.72	2.00	.040	6061-0	.14		HR037240
3.80	6.00	.063	6061-0	.50		HR038063
3.85	2.25	.050	6061-0	.31		HR038550
3.86	2.50	.050	6061-0	.25		ZR62
3.90	5.00	.050	6061-0	.31		HR039050
3.92	2.75	.050	6061-0	.25		HR039250
3.98	2.00	.090	6061-0	.31		HR039890
4.00	4.50	.063	6061-0	.37	ZR64A	
4.00	3.50	.050	6061-0	.25	ZR64B	
4.00	4.00	.050	6061-0	.19	ZTR64C	
4.00	6.00	.050	6061-0	.50	ZTR64D	
4.00	6.00	.050	6061-0	.09		ZTR64E
4.00	4.00	.050	6061-0	.19		ZR64F
4.00	2.25	.032	6061-0	.28		HR040032
4.00	6.00	.050	6061-0	.47		HR040050
4.03	6.00	.063	6061-0	.47		HR040363
4.16	4.50	.040	6061-0	.50		ZTR66A
4.16	5.50	.063	6061-0	.50	ZTR66B	
4.19	3.50	.040	6061-0	.37		ZR67A
4.19	4.75	.050	6061-0	.37	ZR67B	
4.26	3.25	.032	6061-0	.09		ZTR68A
4.30	3.00	.063	6061-0	.27	ZR69A	
4.32	2.75	.040	6061-0	.27		HR043240
4.32	9.00	.050	6061-0	.23		HR043250
4.33	9.00	.032	6061-0	.20		ZR71
4.37	5.80	.040	6061-0	.20		ZR70
4.45	9.00	.063	6061-0	.38		HR044563
4.48	3.00	.040	6061-0	.31		HR044840



ROUND HOUSINGS

Diameters: 4.49” to 5.76”

Note: Flush fitting covers are available for any boxes listed.

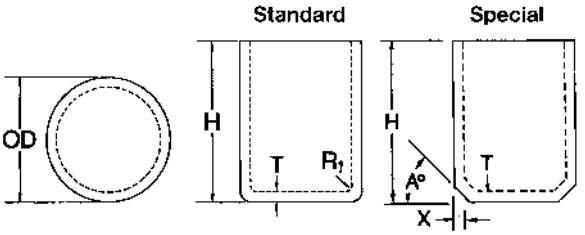
OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT (MAX)* **H** INCHES	BLANK GAUGE	ALLOY	BOTTOM RADIUS (INSIDE) INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height
4.50	1.00	.050	6061-0	.12	ZR72A	
4.50	3.25	.040	6061-0	.19	ZTR72B	
4.50	3.00	.063	6061-0	.31		HR045063
4.58	5.00	.050	6061-0	.41		HR045750
4.58	8.00	.050	6061-0	.44		HR045850
4.60	2.00	.032	6061-0	.31		HR046032
4.60	9.00	.050	6061-0	.28		HR046050
4.60	8.00	.063	6061-0	.44		HR046063
4.61	4.75	.050	6061-0	.06	ZR73A	
4.66	6.50	.050	6061-0	.28	ZR74	
4.75	2.50	.063	6061-0	.38		HR047563
4.88	4.50	.050	6061-0	.44		HR048850
4.90	4.50	.063	6061-0	.44		HR049063
4.91	8.25	.032	6061-0	.31		HR049132
4.91	5.00	.040	6061-0	.34		HR049040
4.91	3.50	.063	6061-0	.14	ZTR78A	
4.92	4.25	.040	6061-0	.34		HR049240
4.94	8.25	.050	6061-0	.31		HR049450
4.94	3.50	.032	6061-0	.19		HR049432
4.96	4.00	.063	6061-0	.31		HR049663
4.99	3.00	.032	6061-0	.25		HR049932
5.05	3.00	.032	6061-0	.23		HR050532
5.04	6.75	.063	6061-0	.22	ZTR81B	
5.08	4.00	.050	6061-0	.37	ZR81A	
5.11	4.00	.050	6061-0	.25		ZTR82
5.28	2.50	.050	6061-0	.09	ZR85	
5.50	4.00	.050	6061-0	.19	ZTR88A	
5.50	7.00	.050	6061-0	.25		HRA55050
5.50	3.00	.050	6061-0	.31		HR055050
5.57	4.25	.063	6061-0	.44		HR055763
5.58	2.25	.032	6061-0	.28		HR055732
5.60	5.50	.050	6061-0	.25		HR056050
5.60	6.00	.063	6061-0	.38		HR056063
5.61	3.25	.050	6061-0	.28		HR056150
5.61	3.75	.050	6061-0	*30°x.87		ZTR90
5.76	3.25	.040	6061-0	.44		HR057640

*See Figure 2, Page 30.

ROUND HOUSINGS

Diameters: 5.81” to 12.03”

Note: Flush fitting covers are available for any boxes listed.



OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT (MAX)* **H** INCHES	BLANK GAUGE	ALLOY	BOTTOM RADIUS (INSIDE) INCHES	PART NO. STOCKED Specify trim height	PART NO. NON-STOCKED Specify trim height
5.81	3.50	.063	6061-0	.38		HR058150
6.00	6.81	.050	6061-0	.37	ZR96**	
6.08	3.75	.050	6061-0	.25		HR060850
6.11	6.50	.050	6061-0	.81		ZTR98A
6.31	5.50	.032	6061-0	.31		HR063132
6.32	4.00	.040	6061-0	.41		HR063240
6.33	3.75	.040	6061-0	.31		HRA63240
6.38	3.50	.063	6061-0	.31		HR063863
6.56	5.00	.063	6061-0	.25	ZTR105	
6.63	3.50	.063	6061-0	.31		HR066263
6.76	4.00	.032	6061-0	.28		HR067632
6.79	10.00	.050	6061-0	.28		HR067950
6.82	10.00	.063	6061-0	.75		HR068263
6.98	5.00	.040	6061-0	*30°x.94		ZTR111
7.10	4.00	.063	6061-0	.50		HR071063
7.31	4.25	.032	6061-0	.31		HR073132
7.35	4.25	.050	6061-0	.31		HR073550
7.88	5.00	.063	6061-0	.38		HR078863
7.88	5.75	.050	6061-0	.25		HR078850
8.00	10.00	.050	6061-0	1.50	ZTR128	
8.14	5.00	.040	6061-0	*30°x1.00		ZTR130
8.14	6.25	.050	6061-0	*30°x1.00		ZTR131
8.21	5.50	.032	6061-0	.25		HR082132
8.50	5.50	.125	6061-0	.50		ZR136
8.75	7.00	.040	6061-0	.14	ZTR140	
9.00	4.00	.050	6061-0	.50		HR090050
9.08	6.25	.050	6061-0	.50		ZTR145
9.61	5.50	.050	6061-0	.38		HR096050
9.63	6.00	.050	6061-0	.38		HR096350
9.81	6.00	.063	6061-0	.75		ZR157A
9.98	5.50	.032	6061-0	.38		HR099832
10.06	6.00	.063	6061-0	.38		HR100663
10.20	5.75	.050	6061-0	.34		HR102050
10.28	5.75	.090	6061-0	.34		HR102890
11.12	6.00	.050	6061-0	.28		ZTR178
12.03	7.00	.050	6061-0	.14	ZTR192	
13.00	6.00	.063	6061-0	.62		HR130063

*See Figure 2, Page 30.

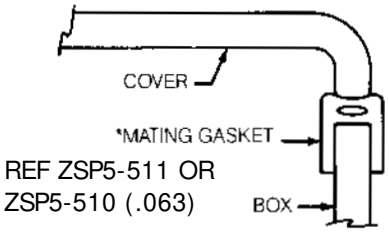
** Outside fitting cover available.
6.094 diameter; .625 height, .125 radius; part number ZR-96-COG.

COVERS
Ordering information

Zero Manufacturing's case covers are available in five basic configurations.

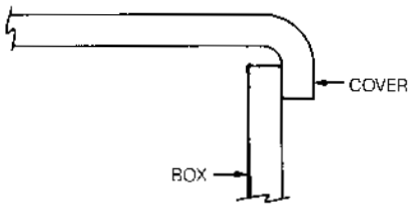
Remember that Zero Manufacturing can save you time and money by fulfilling all your modification needs in-house. Eliminate extra vendors and let Zero finish the job for you.



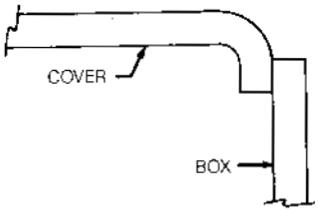


NOTE: MATING GASKETS SUPPLIED ON SPECIAL ORDER ONLY.

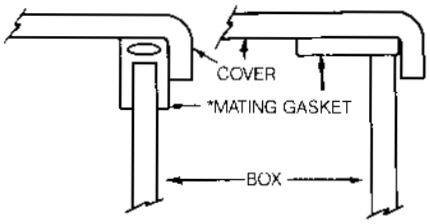
Flush-fitting covers (CF)
Flush-fitting covers are available for all boxes listed in this catalog.They can be made to any height increment between the maximum and minimum listed.



Outside-fitting covers (COT, COL)
Zero offers both tight-fitting (COT) and loose-fitting (COL) covers, with no variation of clearance for a gasket. Height variations are available with special setup or tooling, for which charges may apply.

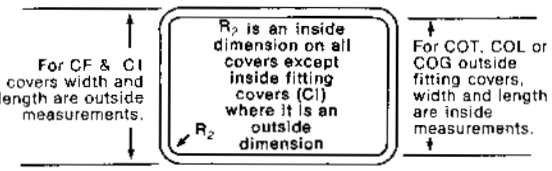


Inside-fitting covers (CI)
Zero offers tight fitting inside covers, though no height variation is available without special tooling.



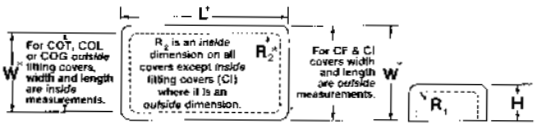
NOTE: GASKET CONFIGURATION IS ZERO'S OPTION.

Gasket-fitting covers (COG)
Gasket-fitting covers allow clearance for a gasket. No height variation is available without special tooling, and gaskets are not included. You may purchase the gaskets from Zero through special order.



Part Number Example:	
ZT28-160-COT-.37	ZT28-160-COT-.37-BB
A 1.75" X 10.02" X .37" tight fitting cover made from 3003H14 alloy.	A 1.75" X 10.02" X .37" tight fitting cover with screws and washers installed in a 'BB' pattern. See page 49.

COVERS



See page 38 for clarification of dimensions

Part Number ZT15-52-COT to Z32-83-CI

Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.

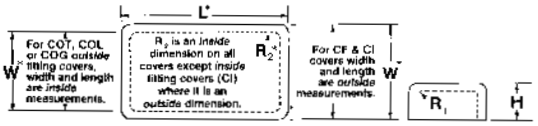
WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
.95	3.27	.31	.040	3003-H14	.03	.19		ZT15-52-COT	AA
1.09	3.41	.31	.040	6061-T4	.06	.27		ZT15-52-COG	AA
1.16	4.62	.25	.025	6061-T4	.06	.12		ZT19-75-CI	
1.31	1.87	.37	.050	3003-H14	.03	.22	Z21-30-COT		AA
1.52	2.52	.19	.040	3003-H14	.03	.12		ZT23-39-COG	AA
1.50	3.77	.31	.032	3003-H14	.03	.22		ZT24-60-COT	AA
1.64	3.87	.31	.050	3003-H14	.06	.22		ZT24-60-COG-1	AA
1.80	4.05	.16	.040	6061-T4	.06	.39		ZT24-60-COG-3	AA
1.75	4.00	.16	.063	3003-H14	.06	.37		ZT24-60-COG-4	AA
1.56	3.81	.31	.040	3003-H14	.03	.25		ZT24-60-COL	AA
1.55	4.17	.31	.040	6061-T4	.12	.12		Z26-68A-CI	
1.75	1.75	.31	.040	6061-T4	.06	.22		Z28-28-COT*	AA
1.77	2.02	.31	.040	6061-T4	.06	.12	ZT28-32-COT		AA
1.78	2.03	.25	.025	3003-H14	.03	.28		Z28-32A-COT	AA
1.89	2.14	.31	.050	6061-T4	.06	.08		ZT28-32-COG	AA
1.81	2.44	.31	.032	6061-T4	.06	.16		ZT28-38A-COT	AA
1.80	2.42	.31	.040	3003-H14	.03	.14		ZT28-38B-COT	AA
1.78	2.41	.31	.050	6061-T4	.06	.14		ZT28-38C-COT	AA
1.91	2.53	.25	.050	6061-T4	.06	.19		ZT28-38C-COG	AA
1.87	2.50	.31	.063	3003-H14	.06	.31		ZT28-38D-COG	AA
1.75	2.50	.31	.025	3003-H14	.02	.28		Z28-40-COT	AA
1.66	2.66	.31	.040	6061-T4	.06	.25		Z28-44-CI	
1.92	3.05	.31	.040	6061-T4	.06	.33		ZT28-46A-COG	AA
1.60	2.72	.56	.063	3003-H14	.06	.19		ZT28-46B-CI	
1.75	3.00	.31	.032	6061-T4	.06	0.1562		Z28-48A-COT	AA
1.77	3.39	.31	.040	6061-T4	.06	.17		ZT28-54-COT	AA
1.75	10.02	.37	.063	3003-H14	.06	.25		ZT28-160-COT	BB
1.87	10.12	.31	.063	3003-H14	.06	.31		ZT28-160-COG	BB
2.02	2.02	.31	.063	3003-H14	.06	.31		Z32-32A-COT	AA
2.02	2.02	.44	.040	3003-H14	.03	.16		Z32-32B-COT	AA
2.02	2.52	.31	.063	3003-H14	.06	.25		Z32-40-COT	AA
2.03	2.97	.31	.032	6061-T4	.06	.20		ZT32-47A-COT	AA
2.03	2.97	.31	.050	6061-T4	.09	.09		ZT32-47C-COT	AA
2.25	3.19	.19	.032	6061-T4	.06	.25		ZT32-47A-COG	AA
2.25	3.17	.19	.040	6061-T4	.06	.25		ZT32-47B-COG	AA
2.16	3.09	.31	.050	6061-T4	.06	.08		ZT32-47C-COG	AA
2.03	3.03	.31	.063	3003-H14	.06	.25		Z32-48A-COT	AA
2.16	3.14	.31	.040	6061-T4	.06	.25		ZT32-48D-COG	AA
2.04	3.54	.31	.050	6061-T4	.06	.28		Z32-56-COT	AA
2.03	4.03	.25	.032	3003-H14	.03	.28		Z32-64A-COT	AA
2.03	4.03	.37	.063	3003-H14	.03	.25	Z32-64B-COT		AA
2.03	4.03	.25	.025	3003-H14	.03	.19		ZT32-64C-COT	AA
2.02	4.02	.31	.063	3003-H14	.03	.20		ZT32-64D-COT	AA
2.25	4.25	.19	.063	3003-H14	.06	.31		ZT32-64D-COG	AA
2.05	4.05	.31	.050	3003-H14	.03	.20		ZT32-64A-COL	AA
2.06	4.06	.31	.063	3003-H14	.03	.22		Z32-64B-COL	AA
2.06	4.06	.31	.063	3003-H14	.03	.22		ZT32-64D-COL	AA
2.00	5.00	.31	.032	6061-T4	.06	.25		ZT32-80A-COT	AA
2.03	5.03	.31	.032	3003-H14	.03	.22		ZT32-80B-COT	AA
2.17	5.17	.31	.040	6061-T4	.08	.30		ZT32-80B-COG	AA
1.87	5.09	.50	.063	3003-H14	.12	.31		Z32-83-CI	

* Does not fit Z28-28 enclosure.

COVERS

Part Number ZT33-35-COT to Z48-48A-COT

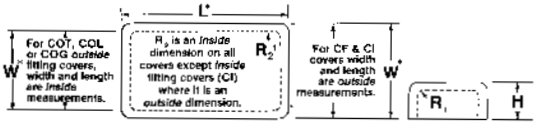
Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.



See page 38 for clarification of dimensions.

WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
2.11	2.23	.31	.050	3003-H14	.03	.11		ZT33-35-COT	AA
2.16	3.14	.31	.040	6061-T4	.06	.25		ZT34-50A-COT	AA
2.19	3.16	.31	.050	6061-T4	.06	.25		ZT34-50B-COT	AA
2.30	3.30	.31	.040	6061-T4	.06	.33		ZT34-50A-COG	AA
2.28	3.28	.31	.050	6061-T4	.06	.33		ZT34-50B-COG	AA
2.05	4.91	.62	.050	6061-T4	.06	.22		ZT34-80A-CI	
2.03	4.91	.62	.063	3003-H14	.16	.22		ZT34-80B-CI	
2.23	4.66	.31	.050	6061-T4	.06	.23		ZT35-74-COT	AA
2.28	2.28	.37	.050	3003-H14	.03	.28		Z36-36-COT	AA
2.27	3.27	.31	.050	6061-T4	.06	.12		ZT36-52-COT	AA
2.28	3.78	.31	.040	3003-H14	.03	.25		Z36-60A-COT	AA
2.30	3.80	.31	.040	6061-T4	.06	.25		ZT36-60B-COT	AA
2.16	5.02	.50	.050	6061-T4	.06	.19		Z36-82-CI	
2.33	4.39	.31	.050	6061-T4	.06	.09		ZT37-70-COT	AA
2.45	4.52	.31	.050	6061-T4	.06	.08		ZT37-70-COG-1	AA
2.47	4.53	.25	.040	6061-T4	.09	.22		ZT37-70-COG-2	AA
2.58	4.62	.19	.040	6061-T4	.06	.23		ZT37-70-COG-3	AA
2.34	7.59	.31	.063	3003-H14	.06	.25		ZT37-121-COT	BB
2.41	2.91	.31	.063	3003-H14	.06	.25		ZT38-46-COT	AA
2.44	3.31	.44	.063	3003-H14	.06	.19		Z38-52A-COL	AA
2.42	4.48	.31	.050	3003-H14	.03	.14		Z38-71-COT	BB
2.53	4.58	.31	.050	6061-T4	.08	.20		ZT38-71-COG-1	BB
2.61	4.67	.19	.063	3003-H14	.06	.25		ZT38-71-COG-2	BB
2.22	4.28	.31	.063	3003-H14	.03	.14		ZT38-71-CI	
2.37	5.87	.44	.063	3003-H14	.08	.25		Z38-94-COT	BB
2.53	2.66	.31	.050	6061-T4	.06	.11		ZT40-42A-COT	AA
2.55	2.67	.31	.040	3003-H14	.03	.17		ZT40-42B-COT-1	AA
2.55	2.67	.31	.050	3003-H14	.03	.17		ZT40-42B-COT-2	AA
2.53	4.03	.31	.050	3003-H14	.03	.31	Z40-64-COT		AA
2.39	3.89	.44	.050	6061-T4	.06	.25		Z40-64-CI	
2.53	4.59	.31	.050	6061-T4	.06	.20		ZT40-73A-COT	BB
2.55	6.05	.31	.050	6061-T4	.06	.25		ZT40-96C-COT	BB
2.58	6.01	.31	.063	3003-H14	.06	.25		ZT40-96D-COT	BB
2.64	6.52	.31	.050	6061-T4	.06	.33	ZT40-102-COG		BB
2.56	4.75	.31	.032	3003-H14	.03	.19		Z41-76-COT	AA
2.62	2.62	.37	.050	6061-T4	.08	.20		Z42-42-COT	AA
2.72	5.72	.31	.050	6061-T4	.06	.19		ZT43-91A-COT	BB
2.75	5.75	.31	.050	3003-H14	.03	.22		ZT43-91B-COT	BB
2.84	5.84	.31	.050	6061-T4	.06	.17		ZT43-91A-COG	BB
2.87	5.87	.31	.032	6061-T4	.09	.28		ZT43-91B-COG	BB
2.73	5.92	.31	.040	3003-H14	.03	.17		ZT43-94-COT	BB
2.78	3.28	.31	.050	6061-T4	.06	.23		ZT44-52A-COT	BB
2.81	3.31	.31	.050	3003-H14	.03	.28		ZT44-52B-COT	BB
2.91	3.41	.25	.050	6061-T4	.08	.33		ZT44-52A-COG	BB
3.00	3.94	.25	.040	6061-T4	.06	.30		ZT44-59-COG	AA
2.83	3.02	.31	.050	6061-T4	.06	.12		ZT45-48A-COT-1	AA
2.87	3.05	.31	.040	6061-T4	.06	.19		ZT45-48B-COT-1	AA
2.86	3.03	.31	.050	6061-T4	.06	.22		ZT45-48B-COT-2	AA
2.95	3.12	.31	.050	6061-T4	.06	.11		ZT45-48A-COG	AA
2.89	4.02	.31	.050	6061-T4	.06	.08	ZT46-64A-COT		AA
2.91	4.03	.31	.050	6061-T4	.06	.23		ZT46-64C-COT	AA
3.02	4.14	.31	.050	6061-T4	.06	.11		ZT46-64A-COG	AA
3.05	4.17	.31	.040	6061-T4	.06	.33		ZT46-64B-COG	AA
3.03	3.03	.87	.040	3003-H14	.03	.28		Z48-48A-COT	AA

Part Number Z48-48A-COL to ZT52-106-COG



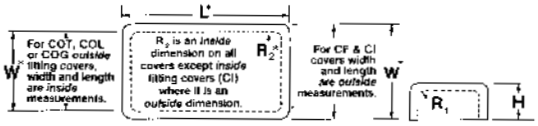
*See page 38 for clarification of dimensions

Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.

WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
3.06	3.06	.87	.040	6061-T4	.08	.31		Z48-48A-COL	AA
3.06	3.06	.31	.063	3003-H14	.03	.28	ZT48-48C-COT		BB
3.25	3.25	.19	.063	3003-H14	.06	.37		ZT48-48C-COG	AA
3.06	3.31	.31	.063	3003-H14	.03	.19		ZT48-52-COT	BB
3.12	3.37	.25	.063	3003-H14	.06	.22		ZT48-52-COG	AA
3.00	3.50	.31	.050	6061-T4	.06	.31		Z48-56A-COT	AA
3.12	3.62	.50	.050	6061-T4	.06	.31		Z48-56A-COG	AA
3.14	3.64	.31	.050	6061-T4	.06	.30		ZT48-56B-COG	AA
2.87	3.37	.31	.050	6061-T4	.06	.20		ZT48-56B-CI	
3.06	3.80	.31	.040	6061-T4	.06	.27		ZT48-60A-COT	AA
3.05	3.78	.31	.050	3003-H14	.03	.27		ZT48-60B-COT	AA
3.02	3.75	.31	.063	3003-H14	.06	.25		ZT48-60C-COT	AA
3.16	3.87	.31	.040	6061-T4	.06	.20		ZT48-60A-COG	AA
3.14	3.87	.31	.050	6061-T4	.06	.20		ZT48-60B-COG	AA
3.11	3.84	.31	.063	3003-H14	.06	.19		ZT48-60C-COG	AA
3.03	4.03	.50	.063	3003-H14	.06	.22		Z48-64A-COT	AA
3.05	4.05	.31	.063	3003-H14	.03	.19		ZT48-64D-COL	AA
3.02	4.27	.31	.063	3003-H14	.03	.12		ZT48-68A-COT	AA
3.03	4.53	.50	.063	3003-H14	.06	.25		Z48-72-COT	AA
2.87	4.37	.31	.063	3003-H14	.06	.12		Z48-72-CI	
3.03	5.03	.31	.063	3003-H14	.03	.31	Z48-80-COT		AA
3.12	5.12	.50	.063	3003-H14	.06	.37		Z48-80-COG	AA
3.03	5.03	.44	.063	3003-H14	.03	.25		ZT48-80C-COT	AA
3.03	5.28	.31	.050	6061-T4	.06	.16		ZT48-84B-COT	AA
3.19	5.44	.31	.032	6061-T4	.06	.17		ZT48-84B-COG-1	AA
3.26	5.51	.19	.032	6061-T4	.06	.34		ZT48-84B-COG-2	AA
3.12	5.39	.31	.050	6061-T4	.06	.17		ZT48-84D-COG-1	AA
3.23	5.46	.19	.050	6061-T4	.06	.34		ZT48-84D-COG-2	AA
3.03	6.91	.31	.063	3003-H14	.06	.31		Z48-110-COT	BB
3.02	7.02	.31	.040	3003-H14	.02	.25	ZT48-112-COT		BB
3.28	7.28	.31	.040	6061-T4	.06	.39		ZT48-112-COG	BB
3.03	9.03	.50	.063	3003-H14	.06	.31		Z48-144-COT	BB
3.03	10.03	.50	.063	3003-H14	.06	.31		Z48-160A-COT	BB
3.02	11.17	.31	.050	6061-T4	.06	.23		ZT48-178-COT	BB
3.16	11.26	.31	.050	6061-T4	.06	.33		ZT48-178-COG	BB
2.78	10.94	.31	.050	6061-T4	.06	.19		ZT48-178-CI	
3.06	12.06	1.00	.063	3003-H14	.12	.22		Z48-192-COL	BB
3.06	16.06	.31	.063	3003-H14	.03	.28		ZT48-256-COT	EE
3.25	16.25	.19	.063	3003-H14	.06	.37		ZT48-256-COG	EE
3.19	6.12	.37	.063	3003-H14	.06	.34		Z49-96-COG	BB
3.19	3.56	.31	.050	3003-H14	.03	.22		ZT50-56-COT	BB
3.28	3.66	.25	.050	6061-T4	.08	.33		ZT50-56-COG	BB
3.12	4.00	.31	.063	3003-H14	.06	.16		ZT50-64A-COT	BB
3.16	4.78	.31	.050	6061-T4	.06	.19	ZT50-76A-COT		BB
3.25	4.89	.31	.050	6061-T4	.06	.33		ZT50-76A-COG-1	BB
3.28	4.91	.31	.050	6061-T4	.06	.23		ZT50-76A-COG-2	BB
3.23	4.83	.31	.063	3003-H14	.06	.31		ZT50-76B-COG	BB
3.31	6.25	.19	.063	3003-H14	.06	.38		ZT50-96-COG-1	BB
2.91	5.83	.50	.063	3003-H14	.06	.19		ZT50-96-CI	BB
3.16	6.91	.31	.032	6061-T4	.06	.31		ZT50-110-COT	BB
3.55	4.30	.19	.040	6061-T4	.08	.36		ZT52-64-COG	BB
3.25	4.62	.31	.050	3003-H14	.03	.19		Z52-74-COT	BB
3.25	5.28	.31	.050	3003-H14	.06	.37		Z52-84-COT	BB
3.16	5.16	1.00	.050	6061-0	.12	.31		Z52-84A-CI	
3.28	5.28	.31	.050	6061-T4	.06	.37		ZT52-84D-COT	BB
3.37	6.74	.25	.063	3003-H14	.06	.25		ZT52-106-COG	BB

COVERS

Part Number ZT52-168-COT to ZT62-74-COG

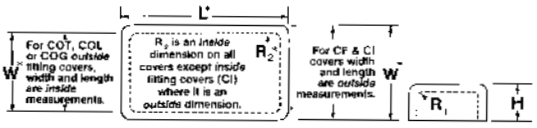


See page 38 for clarification of dimensions

Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.

WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
3.28	10.53	.31	.050	6061-T4	.06	.23		ZT52-168-COT	BB
3.42	10.67	.31	.050	6061-T4	.06	.33		ZT52-168-COG	BB
3.28	3.28	.31	.063	3003-H14	.06	.25		Z53-53-COT	BB
3.45	4.64	.25	.063	3003-H14	.06	.19		ZT53-72-COG-1	BB
3.46	4.83	.25	.050	6061-T4	.06	.20		ZT53-72-COG-2	BB
3.37	12.19	.31	.032	3003-H14	.03	.22		ZT53-194-COT	EE
3.37	4.12	.31	.063	3003-H14	.06	.19		Z54-66A-COT	BB
3.41	4.16	.50	.063	3003-H14	.06	.25		Z54-66A-COL	BB
3.23	3.97	.87	.063	3003-H14	.06	.19		Z54-66A-CI	
3.37	4.14	.31	.063	3003-H14	.06	.17		ZT54-66B-COT	BB
3.41	4.66	.31	.040	6061-T4	.06	.28		ZT54-74-COT	BB
3.55	4.80	.50	.040	6061-T4	.06	.39		ZT54-74-COG	BB
3.53	3.53	.50	.063	3003-H14	.06	.25		Z56-56A-COT	BB
3.62	3.62	.25	.063	3003-H14	.09	.25		ZT56-56B-COG	BB
3.50	4.00	.62	.063	3003-H14	.06	.28		Z56-64-COT	BB
3.53	4.53	.50	.063	3003-H14	.03	.31		Z56-72-COT	BB
3.56	5.06	.31	.063	3003-H14	.05	.25		Z56-80-COL	BB
3.53	5.27	.31	.050	6061-T4	.06	.25		ZT56-84A-COT	BB
3.55	5.30	.31	.040	3003-H14	.03	.23		ZT56-84B-COT	BB
3.66	5.41	.31	.050	6061-T4	.06	.36		ZT56-84A-COG-1	BB
3.66	5.39	.31	.050	6061-T4	.06	.20		ZT56-84A-COG-2	BB
3.62	5.37	.31	.063	3003-H14	.06	.28	ZT56-84B-COG		BB
3.80	5.55	.19	.040	6061-T4	.08	.36		ZT56-84D-COG	BB
3.39	5.12	.37	.050	6061-T4	.06	.26		ZT56-84B-CI	
3.53	5.53	.31	.063	3003-H14	.06	.12		ZT56-88-COT	BB
3.54	6.05	.50	.063	3003-H14	.06	.22	Z56-96A-COT		BB
3.41	5.89	.50	.050	6061-T4	.12	.19		Z56-96A-CI	
3.52	6.02	.31	.050	6061-T4	.06	.23		ZT56-96B-COT-1	BB
3.53	6.03	.31	.040	6061-T4	.06	.26		ZT56-96B-COT-2	BB
3.62	7.62	.31	.050	6061-T4	.25	.36		ZT56-120-COG-1	BB
3.78	7.78	.31	.050	6061-T4	.12	.23		ZT56-120-COG-2	BB
3.52	9.02	.31	.050	6061-T4	.06	.22		ZT56-144B-COT	BB
3.53	9.03	.31	.040	6061-T4	.06	.19		ZT56-144C-COT	BB
3.80	9.30	.16	.040	6061-T4	.06	.45		ZT56-144B-COG	BB
3.73	12.37	.19	.040	6061-T4	.06	.36		ZT56-194-COG	BB
3.83	5.14	.19	.040	6061-T4	.06	.33		ZT59-81-COG-1	BB
4.00	5.31	.31	.050	6061-T4	.06	.39		ZT59-81-COG-2	BB
3.72	7.53	.31	.063	3003-H14	.06	.31		Z59-120B-COT	BB
3.70	7.52	.31	.050	3003-H14	.03	.25		ZT59-120C-COT	BB
3.83	7.66	.31	.050	6061-T4	.06	.20		ZT59-120C-COG	BB
3.78	3.78	.50	.063	3003-H14	.06	.28		Z60-60A-COT	BB
3.78	3.78	.31	.050	6061-T4	.06	.47		ZT60-60B-COT-1	BB
3.81	3.81	.31	.050	3003-H14	.03	.47		ZT60-60B-COT-2	BB
3.81	3.81	.31	.050	3003-H14	.03	.53		ZT60-60B-COT-3	BB
3.87	3.87	.25	.063	3003-H14	.06	.37		ZT60-60A-COG	BB
3.89	3.89	.31	.050	6061-T4	.06	.36		ZT60-60B-COG-1	BB
3.92	3.92	.25	.040	6061-T4	.08	.30		ZT60-60C-COG	BB
3.80	3.92	.31	.040	3003-H14	.03	.26		ZT60-62-COT	BB
3.92	4.75	.25	.040	6061-T4	.08	.33		ZT60-62-COG	BB
3.78	5.05	.31	.063	3003-H14	.03	.56		Z60-80A-COL	BB
3.81	5.06	.31	.063	3003-H14	.06	.56		ZT60-80C-COT	BB
3.80	7.87	.31	.063	3003-H14	.06	.37		Z60-126A-COT	BB
3.81	7.94	.50	.063	3003-H14	.06	.34		Z60-126A-COL	BB
3.92	13.46	.31	.050	6061-T4	.06	.30		ZT60-213-COG	EE
3.87	8.31	.50	.063	3003-H14	.06	.22		ZT61-132-COT	BB
4.02	4.78	.31	.050	6061-T4	.06	.33		ZT62-74-COG	BB

COVERS



See page 38 for clarification of dimensions

Part Number Z62-88-COG to ZT74-278-COT

Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.

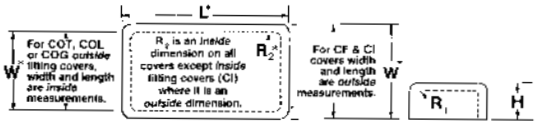
WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
4.00	5.62	.31	.050	3003-H14	.03	.25		Z62-88-COG	BB
4.06	4.06	.50	.063	3003-H14	.06	.38		Z64-64A-COT	BB
3.84	3.84	.37	.063	3003-H14	.06	.28		Z64-64A-CI	
4.12	4.12	.50	.063	3003-H14	.06	.44		Z64-64A-COG	BB
4.06	4.06	.31	.063	3003-H14	.03	.28		ZT64-64B-COT-1	BB
4.17	4.17	.31	.040	6061-T4	.09	.33		ZT64-64B-COG-1	BB
4.25	4.25	.19	.063	3003-H14	.06	.37		ZT64-64B-COG-2	BB
3.87	4.37	1.00	.063	3003-H14	.09	.31		Z64-72A-CI	
3.92	4.92	.50	.040	6061-T4	.06	.12		Z64-80C-CI	
4.06	5.05	.31	.040	3003-H14	.03	.23	ZT64-80D-COT		BB
4.03	5.28	.31	.063	3003-H14	.06	.31		Z64-84-COT	BB
4.16	5.41	.25	.050	6061-T4	.06	.36		ZT64-84-COG	BB
4.06	5.56	.31	.063	3003-H14	.03	.28	ZT64-88-COT		BB
4.14	5.62	.25	.063	3003-H14	.06	.31		ZT64-88-COG	BB
4.15	6.15	.37	.050	6061-T4	.06	.34		Z64-96A-COG	BB
4.03	6.03	.31	.063	3003-H14	.06	.28		Z64-96A-COL	BB
4.05	6.05	.31	.040	3003-H14	.03	.27		ZT64-96B-COT	BB
4.17	6.17	.25	.040	6061-T4	.08	.33		ZT64-96B-COG	BB
4.00	6.00	.31	.063	3003-H14	.03	.25		ZT64-96C-COT	BB
4.03	6.53	.31	.063	3003-H14	.06	.37	Z64-104-COT		BB
4.06	7.06	.50	.063	3003-H14	.03	.34		Z64-112A-COL	BB
3.86	6.86	.69	.063	3003-H14	.06	.31		ZT64-112A-CI	
4.06	8.19	.31	.063	3003-H14	.06	.25		ZT64-130A-COT	EE
4.12	8.25	.31	.063	3003-H14	.06	.375		ZT64-130A-COG-1	EE
4.25	8.37	.19	.063	3003-H14	.06	.31		ZT64-130A-COG-2	EE
4.12	9.12	.50	.063	3003-H14	.06	.37	Z64-144-COG		BB
3.81	16.69	.75	.063	3003-H14	.12	.33		Z64-270-CI	
4.12	6.75	.31	.063	3003-H14	.06	.25		ZT66-108A-COT	BB
4.19	6.81	.31	.063	3003-H14	.03	.28		ZT66-108C-COT	BB
4.25	6.91	.31	.050	6061-T4	.06	.20		ZT66-108A-COG	BB
4.30	6.92	.25	.040	6061-T4	.06	.33		ZT66-108B-COG-1	BB
4.42	7.05	.19	.040	6061-T4	.05	.36		ZT66-108B-COG-2	BB
4.25	6.87	.25	.063	3003-H14	.06	.31		ZT66-108C-COG-1	BB
4.30	4.30	.31	.050	6061-T4	.06	.23		Z68-68B-COT	BB
4.37	4.37	.62	.063	3003-H14	.06	.56		Z68-68A-COG	BB
4.26	4.26	.31	.063	3003-H14	.06	.19		ZT68-68C-COT	BB
4.55	4.55	.31	.050	6061-T4	.06	.36		ZT68-68B-COG	BB
4.51	4.51	.31	.063	3003-H14	.06	.34		ZT68-68C-COG	BB
4.37	6.11	.31	.063	3003-H14	.06	.31		ZT68-96-COG	BB
4.30	6.92	.25	.040	6061-T4	.06	.33		ZT68-110-COT	BB
4.34	7.03	.31	.050	6061-T4	.06	.36		Z69-112A-COT	BB
4.34	7.03	.31	.050	6061-T4	.06	.17		ZT69-112B-COT	BB
4.31	10.09	.37	.063	3003-H14	.09	.25		ZT69-161-COT	CC
4.45	10.20	.19	.040	6061-T4	.06	.23		ZT69-161-COG	CC
4.56	6.06	.31	.063	3003-H14	.03	.23	Z72-96-COL		BB
4.37	5.87	.31	.063	3003-H14	.06	.16		Z72-96-CI *	
4.52	8.03	.31	.040	3003-H14	.03	.17		ZT72-128A-COT	BB
4.56	8.06	.31	.050	3003-H14	.03	.20		ZT72-128B-COT	BB
4.50	8.00	.31	.050	6061-T4	.06	.17		ZT72-128D-COT	BB
4.80	8.30	.19	.040	6061-T4	.08	.33		ZT72-128A-COG	BB
4.62	8.13	.31	.050	6061-T4	.06	.14		ZT72-128B-COG	BB
4.73	8.23	.19	.050	6061-T4	.06	.33		ZT72-128D-COG	BB
4.52	9.27	.31	.063	3003-H14	.06	.22		ZT72-148A-COT	BB
4.66	12.03	.31	.050	6061-T4	.06	.33		ZT72-190-COG	BB
4.75	25.62	.19	.063	3003-H14	.09	.16		ZT72-406-COG	EE
4.69	17.50	.31	.063	3003-H14	.03	.28		ZT74-278-COT	EE

* Z72-96-CI does not fit Z72-96 enclosure.

COVERS

Part Number ZT74-278-COG to Z84-84B-COG

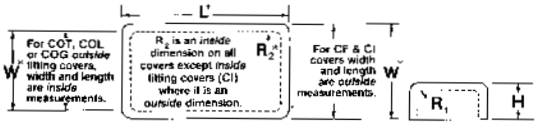
Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.



See page 38 for clarification of dimensions.

WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
4.87	17.62	.19	.063	3003-H14	.06	.37		ZT74-278-COG	EE
4.72	7.53	.37	.063	3003-H14	.06	.58		Z75-120A-COL	BB
4.83	4.83	.31	.040	6061-T4	.06	.31		ZT76-76B-COT	BB
4.77	4.77	.31	.063	3003-H14	.06	.28		ZT76-76A-COT	BB
4.87	4.87	.31	.063	3003-H14	.06	.31		ZT76-76A-COG	BB
4.81	4.81	.31	.050	6061-T4	.06	.28		ZT76-76C-COT	BB
4.92	4.92	.31	.040	6061-T4	.06	.33		ZT76-76C-COG	BB
4.87	4.87	.31	.050	6061-T4	.06	.14		ZT76-76D-COG-1	BB
4.78	6.03	.31	.040	6061-T4	.06	.22		ZT76-96A-COT*	BB
4.77	6.02	.31	.050	6061-T4	.06	.22		ZT76-96B-COT	BB
4.78	6.03	.31	.063	3003-H14	.06	.22		ZT76-96C-COT**	BB
4.89	6.14	.31	.050	6061-T4	.06	.20		ZT76-96B-COG	BB
4.87	6.11	.31	.063	3003-H14	.06	.31		ZT76-96C-COG-1	BB
4.95	6.20	.19	.063	3003-H14	.06	.36		ZT76-96C-COG-2	BB
4.77	9.52	.31	.040	6061-T4	.06	.23		ZT76-152A-COT	BB
4.80	9.55	.31	.040	3003-H14	.03	.23		ZT76-152B-COT	BB
4.77	9.53	.31	.050	6061-T4	.06	.22		ZT76-152C-COT-1	BB
4.81	9.56	.31	.050	3003-H14	.03	.23		ZT76-152C-COT-2	BB
5.01	9.75	.19	.040	6061-T4	.06	.31		ZT76-152A-COG-2	BB
4.97	9.70	.19	.063	3003-H14	.06	.50		ZT76-152A-COG-3	BB
5.05	9.80	.19	.040	6061-T4	.08	.36		ZT76-152A-COG-4	BB
4.91	9.66	.25	.050	6061-T4	.08	.30		ZT76-152B-COG	BB
4.89	9.64	.31	.050	6061-T4	.06	.20		ZT76-152C-COG-1	BB
5.03	9.78	.19	.050	6061-T4	.08	.36		ZT76-152C-COG-2	BB
4.87	9.62	.31	.063	3003-H14	.03	.44		ZT77-153-COT	EE
4.94	9.69	.25	.063	3003-H14	.06	.47		ZT77-153-COG-1	EE
5.06	9.81	.19	.063	3003-H14	.06	.53		ZT77-153-COG-2	EE
4.87	6.50	.44	.063	3003-H14	.03	.22		Z78-104A-COT***	BB
4.91	6.53	.31	.050	6061-T4	.06	.23		ZT78-104C-COT	BB
5.06	6.69	.31	.050	6061-T4	.06	.33		ZT78-104C-COG	BB
4.91	6.56	.31	.063	3003-H14	.03	.25		Z78-104A-COL	BB
5.03	5.03	.31	.063	3003-H14	.06	.34		Z80-80A-COT	BB
5.25	5.25	.62	.063	3003-H14	.06	.34		Z80-80A-COG	BB
5.25	5.37	.19	.063	3003-H14	.06	.37		ZT80-82-COG	BB
5.00	6.12	.50	.090	3003-H14	.06	.22		ZT80-98-COT	BB
5.02	6.14	.31	.063	3003-H14	.06	.22		ZT80-98C-COT	BB
5.02	7.02	.50	.063	3003-H14	.12	.37	Z80-112A-COT		BB
5.11	7.11	.31	.040	3003-H14	.03	.28		ZT80-112C-COT	BB
5.06	7.06	.31	.063	3003-H14	.03	.28		ZT80-112D-COT	BB
5.25	7.25	.19	.063	3003-H14	.06	.37		ZT80-112C-COG	BB
5.12	7.12	.25	.063	3003-H14	.06	.31		ZT80-112D-COG	BB
5.06	7.06	.37	.063	3003-H14	.03	.41		Z80-112A-COL	BB
4.87	6.87	.44	.063	3003-H14	.12	.31		Z80-112-CI	
5.03	7.52	.31	.050	6061-T4	.06	.12		ZT80-120A-COT	BB
5.14	7.64	.31	.050	6061-T4	.06	.14		ZT80-120A-COG	BB
5.05	8.06	.31	.063	3003-H14	.03	.28	ZT80-128-COT		BB
5.17	8.17	.31	.040	6061-T4	.06	.20		ZT80-128A-COG	BB
5.12	8.12	.31	.063	3003-H14	.06	.19		ZT80-128B-COG	BB
5.31	8.44	.50	.063	3003-H14	.06	.37		Z82-132-COG	BB
4.97	8.08	.50	.090	6061-0	.06	.25		Z82-132-CI	
5.31	8.44	.50	.063	3003-H14	.06	.37		ZT83-133-COG	BB
5.42	5.42	.25	.040	6061-T4	.08	.30		ZT84-84-COG-1	BB
5.41	5.41	.25	.050	6061-T4	.08	.30		ZT84-84A-COG-2	BB
5.41	5.41	.31	.050	6061-T4	.06	.20		ZT84-84A-COG-3	BB
5.50	5.50	.19	.040	6061-T4	.08	.36		ZT84-84A-COG-4	BB
5.50	5.50	.19	.063	3003-H14	.06	.37		Z84-84B-COG	BB

* ZT76-96A-COT fits ZT76-96C enclosure. **ZT76-96C-COT does not fit ZT76-96C enclosure. ***Z78-104A-COT does not fit Z78-104A enclosure



See page 38 for clarification of dimensions

COVERS

Part Number ZT84-176-COT to ZT100-100-COG

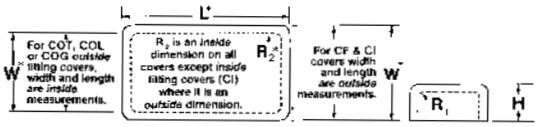
Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.

WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
5.31	11.06	.31	.050	3003-H14	.03	.28		ZT84-176-COT	CC
5.31	11.94	.31	.063	3003-H14	.03	.59		ZT84-190-COT	CC
5.37	12.00	.25	.063	3003-H14	.06	.62		ZT84-190-COG-1	CC
5.50	12.12	.19	.063	3003-H14	.06	.69		ZT84-190-COG-2	CC
5.44	5.83	.31	.050	6061-T4	.06	.27		ZT86-92A-COT	BB
5.44	5.81	.31	.063	3003-H14	.03	.31		ZT86-92B-COT	BB
5.41	5.80	.31	.063	3003-H14	.06	.25		ZT86-92C-COT	BB
5.53	5.89	.31	.050	6061-T4	.06	.33		ZT86-92A-COG-1	BB
5.67	6.05	.19	.040	6061-T4	.08	.36		ZT86-92A-COG-2	BB
5.53	5.91	.25	.050	6061-T4	.08	.30		ZT86-92B-COG-1	BB
5.65	6.03	.19	.050	6061-T4	.08	.36		ZT86-92B-COG-2	BB
5.50	5.86	.31	.063	3003-H14	.06	.31		ZT86-92C-COG	BB
5.47	6.59	.25	.063	3003-H14	.06	.37		Z86-103-COL	BB
5.50	8.12	.25	.063	3003-H14	.06	.31		ZT86-128B-COG-1	CC
5.44	9.19	.31	.063	3003-H14	.05	.25		ZT87-147-COT	BB
5.55	5.55	.31	.050	6061-T4	.06	.23		ZT88-88B-COT	BB
									BB
5.64	5.64	.31	.050	6061-T4	.06	.31		ZT88-88B-COG-1	BB
5.64	5.64	.31	.050	6061-T4	.06	.14		ZT88-88B-COG-2	BB
5.67	6.42	.31	.050	6061-T4	.06	.20		ZT88-100-COG	BB
5.53	8.03	.31	.063	3003-H14	.03	.31	Z88-128A-COT		BB
5.51	8.01	.31	.063	3003-H14	.06	.22		ZT88-128C-COT	BB
5.59	8.59	.50	.090	3003-H14	.03	.31		ZT88-136-COG	BB
5.62	9.77	.31	.050	6061-T4	.06	.20		ZT88-154A-COG-1	BB
5.78	9.89	.19	.050	6061-T4	.06	.36		ZT88-154A-COG-2	BB
5.56	9.87	.31	.063	3003-H14	.16	.25		Z91-160-CI	
5.76	9.08	.31	.050	6061-T4	.06	.17		ZT92-144-COT	BB
5.81	9.12	.31	.050	3003-H14	.03	.22		ZT92-145A-COT	CC
									CC
5.91	9.22	.25	.050	6061-T4	.08	.27		ZT92-145A-COG	CC
5.91	7.53	.31	.050	3003-H14	.03	.23		ZT94-120A-COT	BB
6.03	7.64	.31	.050	6061-T4	.06	.33		ZT94-120A-COG	BB
6.03	7.05	.25	.050	6061-T4	.08	.30		ZT94-120B-COG-1	BB
6.16	7.78	.19	.050	6061-T4	.08	.36		ZT94-120B-COG-2	BB
5.97	6.53	.31	.063	3003-H14	.03	.28		Z95-104-COT	BB
6.03	6.03	.50	.063	3003-H14	.09	.41		Z96-96-COT	BB
5.86	5.86	.62	.063	3003-H14	.08	.31		Z96-96-CI	
6.03	7.03	.31	.063	3003-H14	.03	.34		Z96-112A-COT	BB
6.06	7.06	.31	.063	3003-H14	.06	.37		ZT96-112D-COT	BB
6.17	7.17	.25	.040	6061-T4	.09	.45		ZT96-112D-COG	BB
6.05	7.05	.31	.063	3003-H14	.03	.37		Z96-112A-COL	BB
6.02	8.02	.31	.063	3003-H14	.06	.25	ZT96-128C-COT		BB
6.12	8.12	.25	.063	3003-H14	.06	.34		ZT96-128C-COG	BB
6.14	8.14	.31	.050	6061-T4	.06	.27		ZT96-128D-COG	BB
6.05	8.55	.31	.040	3003-H14	.03	.27		ZT96-136-COT	BB
6.30	8.80	.19	.040	6061-T4	.08	.39		ZT96-136-COG-2	BB
6.03	9.03	.50	.063	3003-H14	.03	.37	Z96-144-COT		BB
6.02	10.03	.31	.050	6061-T4	.06	.16		ZT96-160A-COT	CC
6.14	10.14	.31	.050	6061-T4	.06	.14		ZT96-160A-COG	CC
6.03	11.14	.31	.032	6061-T4	.06	.87		ZT96-178A-COT	CC
6.14	11.28	.31	.050	6061-T4	.06	.14		ZT96-178B-COG	CC
6.05	12.05	.31	.063	3003-H14	.06	.55		Z96-192-COL	CC
6.16	13.66	.31	.050	6061-T4	.09	.70		ZT96-216-COG	DD
6.23	14.75	.25	.063	3003-H14	.06	.69		Z96-232-COG	CC
6.37	6.37	.31	.063	3003-H14	.06	.31		ZT100-100-COG	BB

COVERS

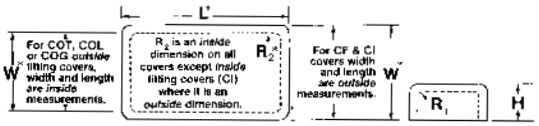
Part Number ZT100-128-COT to ZT140-156-COG-2

Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.



See page 38 for clarification of dimensions.

WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
6.30	8.05	.31	.040	3003-H14	.03	.23		ZT100-128-COT	BB
6.66	6.66	.50	.050	6061-T4	.08	.39		ZT104-104J-COG	BB
7.16	7.97	.31	.063	3003-H14	.06	.59		ZT104-117-COG	BB
6.53	8.53	.31	.063	3003-H14	.06	.31		ZT104-136-COT	BB
6.64	8.64	.31	.050	6061-T4	.06	.20		ZT104-136-COG	BB
6.76	8.76	.19	.050	6061-T4	.06	.39		ZT104-136A-COG-2	BB
6.34	8.34	.50	.090	3003-H14	.09	.19		ZT104-136-CI	
6.50	9.25	.50	.063	3003-H14	.03	.69		Z104-148-COT	BB
6.52	10.03	.31	.050	6061-T4	.06	.41		ZT104-160A-COT	CC
6.66	10.16	.31	.050	6061-T4	.06	.51		ZT104-160A-COG	CC
6.66	10.16	.25	.050	6061-T4	.08	.33		ZT104-160B-COG-1	BB
6.75	10.25	.19	.063	3003-H14	.06	.37		ZT104-160B-COG-2	BB
6.50	10.50	1.19	.063	6061-0	.06	.50		Z107-171A-CI	
6.89	6.91	.25	.050	6061-T4	.06	.20		ZT108-109-COG	BB
7.08	9.56	.50	.080	3003-H14	.25	.42		ZT111-152-COG	DD
6.87	6.87	.31	.063	3003-H14	.08	.31		Z112-112-CI	
7.03	8.03	.31	.063	3003-H14	.06	.37		Z112-128-COT	DD
6.87	7.87	1.19	.063	6061-0	.12	.31	Z112-128-CI		
7.03	9.03	.31	.063	3003-H14	.03	.50	Z112-144A-COT		DD
7.25	9.25	.19	.063	3003-H14	.03	.56		ZT112-144E-COG	DD
7.03	9.89	.31	.050	6061-T4	.06	.17		ZT112-158-COT	DD
7.23	10.09	.31	.063	3003-H14	.06	.31		ZT112-158-COG	DD
7.12	11.12	.50	.063	3003-H14	.06	.44	Z112-176-COG		DD
7.25	11.25	.19	.063	3003-H14	.06	.37		ZT112-176C-COG	DD
6.87	10.87	1.19	.090	6061-0	.09	.31	Z112-176A-CI		
7.03	12.53	.31	.063	3003-H14	.06	.44		ZT112-200B-COT	DD
7.25	12.75	.16	.063	3003-H14	.06	1.00		ZT112-200A-COG	DD
7.12	12.62	.31	.063	3003-H14	.06	.50		ZT112-200B-COG	DD
7.30	12.80	.16	.040	6061-T4	.06	.95		ZT112-200C-COG	DD
7.06	12.56	.50	.063	3003-H14	.06	.81		ZT112-200A-COL	DD
6.94	10.44	1.00	.063	6061-0	.12	.75		Z113-169-CI	
7.56	12.06	.50	.090	3003-H14	.12	.75		Z120-192-COL	DD
7.87	7.87	1.00	.063	6061-0	.12	.62		Z128-128A-CI	
7.87	8.87	.62	.063	3003-H14	.06	.25		Z128-144-CI	
8.25	10.25	.19	.063	3003-H14	.09	.44		ZT128-160-COG	DD
8.06	11.06	.31	.050	3003-H14	.03	.32		ZT128-176B-COT	DD
8.06	11.06	.31	.063	3003-H14	.03	1.09		ZT128-176C-COT	DD
8.14	11.14	.31	.050	6061-T4	.06	.27		ZT128-176B-COG	DD
8.12	11.12	.25	.063	3003-H14	.06	1.12		ZT128-176C-COG-1	DD
7.87	10.87	1.00	.063	6061-0	.12	.87		Z128-176A-CI	
8.12	13.62	.25	.063	3003-H14	.06	1.12	ZT128-216-COG-1		DD
8.25	13.75	.19	.063	3003-H14	.06	1.19		ZT128-216-COG-2	DD
8.41	9.92	.31	.050	6061-T4	.06	.33		ZT132-156A-COG	DD
8.06	14.68	.50	.063	3003-H14	.06	.69		ZT132-238-CI	
8.25	11.34	1.19	.063	6061-0	.12	.56		Z134-184-CI	
8.50	8.50	.81	.063	6061-0	.37	.31		ZT136-136B-	
8.56	10.31	.31	.063	3003-H14	.03	.28		ZT136-164A-COT	DD
8.75	10.50	.19	.063	3003-H14	.06	.37		ZT136-164B-COG	DD
8.52	13.02	.31	.063	3003-H14	.06	.25		ZT136-208A-COT	CC
8.56	13.06	.31	.063	3003-H14	.03	.19		ZT136-208B-COT	CC
8.62	14.12	.31	.063	3003-H14	.06	.37		ZT136-224-COG	DD
8.56	8.94	1.25	.063	6061-0	.12	.75		Z140-146-CI	
8.87	9.87	.25	.063	3003-H14	.06	.31		ZT140-156-COG	CC
9.00	10.00	.19	.063	3003-H14	.06	.37		ZT140-156-COG-2	CC



See page 38 for clarification of dimensions

COVERS

Part Number ZT140-192A-COT to Z322-514-CI

Note: Flush fitting covers (CF) are available for any boxes listed in this catalog.

WIDTH W	LENGTH L	OUTSIDE HEIGHT	BLANK GAUGE	ALLOY	CORNER RADII BOTTOM R1 inside	CORNER RADII SIDE R2 inside	PART NO. STOCKED	PART NO. NON-STOCKED	RECOMMENDED NUTPLATE PATTERNS
INCHES		H INCHES	T INCHES		INCHES		Specify trim height	Specify trim height	
8.78	12.03	.87	.063	6061-0	.12	.81		Z140-192A-COT	DD
8.62	11.87	1.00	.063	6061-0	.12	.78		Z140-192-CI	
8.81	13.81	.62	.063	3003-H14	.06	.81		Z140-220B-COL	DD
8.73	17.97	.50	.090	3003-H14	.14	.56		Z140-286-COT	FF
9.03	15.78	.50	.090	3003-H14	.09	.59		Z141-249-COG	FF
8.87	8.87	1.00	.090	6061-0	.12	.50	Z144-144A-CI-1		
8.87	8.87	1.00	.063	6061-0	.12	.50		Z144-144A-CI-2	
9.25	12.00	.19	.063	3003-H14	.06	.56		ZT144-183-COG	CC
9.03	12.02	.31	.050	6061-T4	.09	.23		ZT144-192A-COT	CC
9.06	12.06	.31	.050	3003-H14	.03	.28		ZT144-192C-COT	CC
9.16	12.16	.25	.050	6061-T4	.08	.33		ZT144-192A-COG	CC
9.37	13.44	.31	.063	3003-H14	.09	.72		Z147-212-COL	DD
9.00	13.06	1.19	.090	6061-0	.12	.56	Z147-212A-CI		
9.41	10.28	.31	.050	6061-T4	.06	.25		ZT150-164A-COT	CC
9.62	10.50	.19	.063	3003-H14	.06	.37		ZT150-164B-COG	CC
9.42	14.05	.31	.050	6061-T4	.06	.50		ZT150-224-COT	FF
9.53	14.16	.25	.050	6061-T4	.06	.64		ZT150-224-COG	FF
10.03	10.41	.31	.063	3003-H14	.06	.56		Z160-166-COT	CC
10.00	10.39	.31	.063	3003-H14	.06	.59		ZT160-166-COT	CC
10.12	12.12	.50	.090	3003-H14	.09	.75		Z160-192B-COG	DD
9.81	15.81	1.00	.090	6061-0	.12	1.00	Z160-256A-CI		
10.12	20.12	.25	.063	3003-H14	.08	.31		ZT160-320-COG	FF
9.94	11.44	1.00	.090	6061-0	.14	.75		Z162-186-CI	
10.37	18.37	.19	.063	3003-H14	.06	1.19		ZT162-290-COG	FF
10.33	12.45	.31	.063	3003-H14	.06	.53		ZT165-199-COT	FF
10.64	11.14	.37	.050	6061-T4	.06	.22		ZT170-178-COT	CC
11.06	18.06	.31	.063	3003-H14	.03	1.09		ZT176-288C-COT	FF
11.25	18.25	.19	.063	3003-H14	.06	1.19		ZT176-288C-COG	FF
10.84	17.84	1.00	.090	6061-0	.12	1.00		Z176-288A-CI	
11.62	13.25	.50	.063	3003-H14	.06	1.12		Z183-209-COG	FF
11.25	13.56	1.00	.090	6061-0	.22	.87		Z183-220A-CI	
11.62	13.25	.25	.063	3003-H14	.06	.28		ZT184-210-COG	FF
11.88	14.88	.75	.063	6061-0	.25	.61		Z188-236-COG-1	
11.83	17.83	1.00	.090	6061-0	.12	1.00		Z192-288A-CI	
11.81	21.31	1.00	.090	6061-0	.12	.87		Z192-344A-CI	
12.66	12.97	.50	.063	6061-0	.06	.50		ZT205-210A-CI	
13.06	15.06	.19	.050	3003-H14	.09	.41		ZT208-240-COT	FF
14.25	15.75	.25	.063	3003-H14	.08	1.12		ZT226-250-COG-1	JJ
14.37	15.87	.37	.063	3003-H14	.06	1.19		ZT226-250-COG-2	JJ
13.94	15.44	1.00	.090	6061-0	.12	.94		Z226-250B-CI	
13.94	15.94	1.00	.090	6061-0	.25	1.00		Z226-258-CI	
14.33	20.44	1.37	.090	6061-0	.12	1.50		Z232-330A-CI	
14.81	15.32	1.00	.090	6061-0	.12	.75		Z240-248A-CI	
15.06	18.56	.31	.090	3003-H14	.09	.87		Z240-296-COL	JJ
15.37	15.37	.19	.063	3003-H14	.06	1.19		ZT242-242-COG	HH
15.75	19.25	.25	.063	3003-H14	.06	.62		ZT250-306B-COG	JJ
15.88	15.87	.50	.063	3003-H14	.06	.56		Z254-254A-COT	HH
16.37	19.87	.69	.080	6061-0	.06	2.00		Z264-320B-CI	
19.94	31.94	1.00	.090	6061-0	.16	1.50		Z322-514-CI	

NUTPLATES
Ordering information

Zero Manufacturing offers three standard nutplate pattern configurations:
- A box equipped with nutplates and attaching hardware
- A cover equipped with nutplate screw and washer assemblies
- Moisture resistant assemblies (nutplates spaced no more than 4" apart, center-to-center)



For your convenience, we have established a recommended nutplate pattern for every outside-fitting cover. However, if you need to build to custom specifications, you may refer to Table 1 to review size requirements for each nutplate pattern. Please note that flush-fitting and inside-fitting covers may not be utilized as nutplate covers, and tight-fitting covers must be no higher than -5 or .31" for use with a nutplate.

Table 1

CAUTION: Nutplate patterns are restricted to minimum sizes due to space on basic enclosures as follows:

Pattern AA
Recommended for boxes under 1.62” wide

Pattern BB
Not recommended for boxes under 1.75” x 2.87”

Pattern CC
Not recommended for boxes under 2.00” x 2.50”

Pattern DD
Not recommended for boxes under 1.44” x 2.44”

Pattern EE
Not recommended for boxes under 1.75” x 2.87”

Pattern FF
Not recommended for boxes under 2.00” x 3.00”

Pattern GG
Not recommended for boxes under 1.75” x 3.75”

Pattern HH
Not recommended for boxes under 2.12” x 3.00”

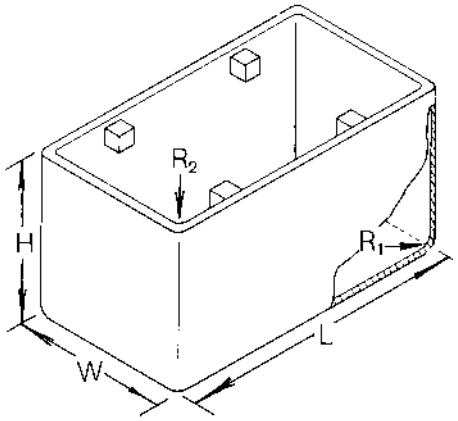
Pattern JJ
Not recommended for boxes under 2.00” x 4.00”

NOTE: CF and CI covers may not be utilized as nutplate covers.

COG and COL may be used for gasketed covers.

When ordering any enclosure, add the required nutplate pattern as a special order. Be sure to specify the same nutplate pattern for both the enclosure and the cover.

Remember that Zero Manufacturing can save you time and money by fulfilling all your modification needs in-house. Eliminate extra vendors and let Zero finish the job for you.

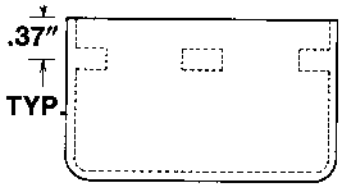


STANDARD NUTPLATE PATTERNS

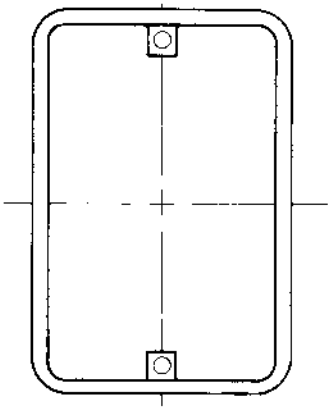
(Custom Nutplate Patterns available as special order item.)

NOTE: All nutplates are located on center lines or located .25" from radii points of tangency with the exception of pattern HH and JJ. The typical location of HH and JJ is as shown in pattern HH.

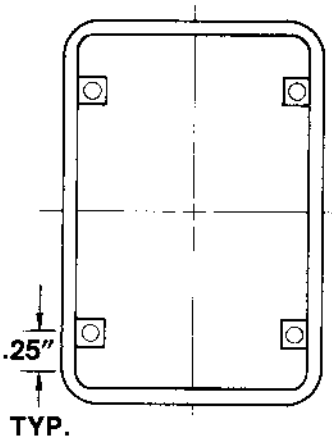
CAUTION: On all boxes under 1.62" width use pattern AA only.



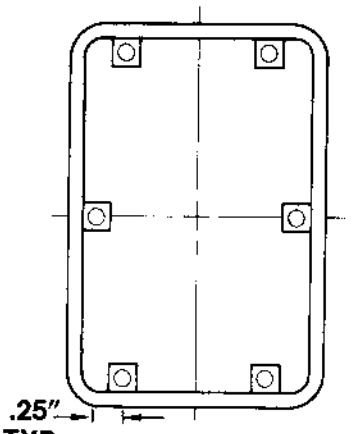
TYPICAL ELEVATION



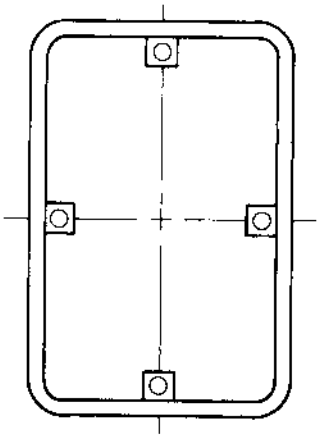
Pattern AA



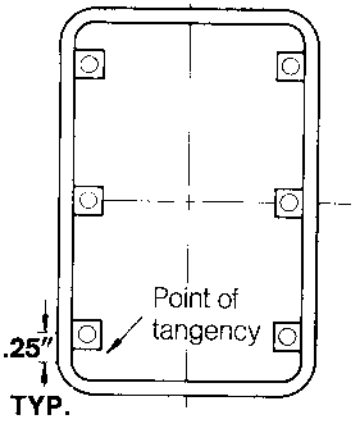
Pattern BB



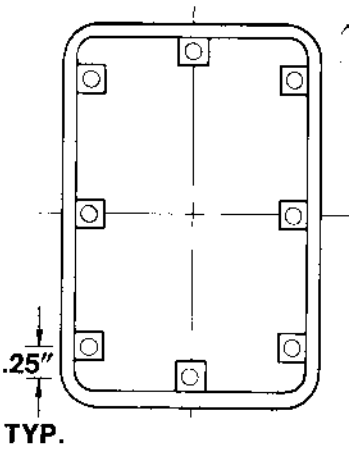
Pattern CC



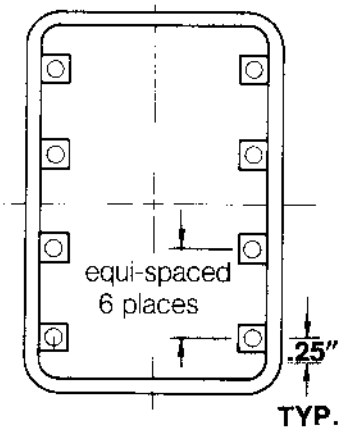
Pattern DD



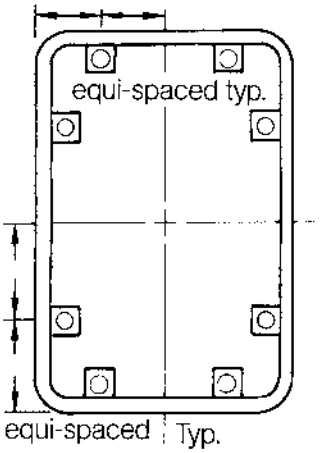
Pattern EE



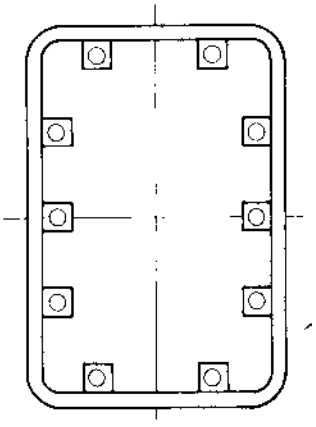
Pattern FF



Pattern GG

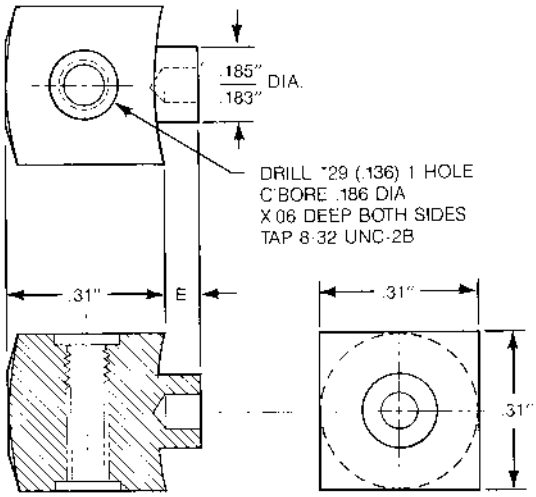


Pattern HH

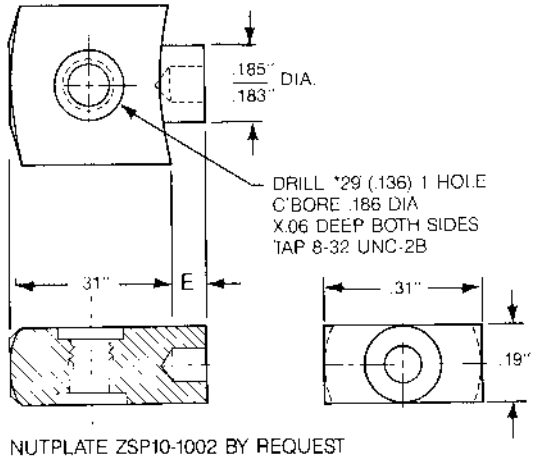


Pattern JJ

STANDARD DETAILS ON NUTPLATES AND ATTACHING HARDWARE



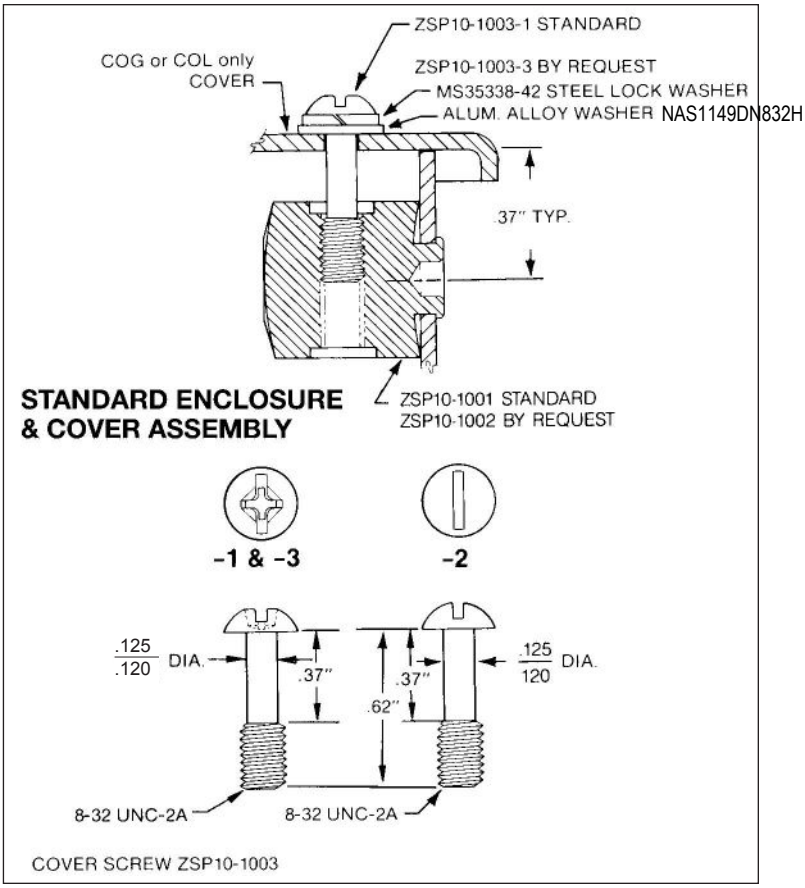
NUTPLATE ZSP10-1001 **STANDARD**

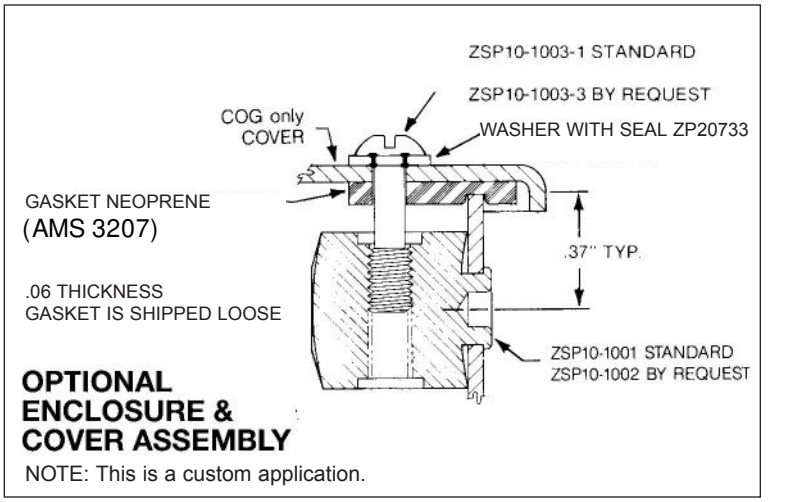


NUTPLATE ZSP10-1002 BY REQUEST

*— 3 Available on Standard nutplate only.

NUTPLATE DASH NO.	E MAX.	E MIN.	REMARKS	MATERIAL
–1	.113"	.103"	USE WITH .032 & .040 BOX MAT'L	ALUMINUM ALLOY 2011-T3 SPEC QQ-A-225/3
2	.130"	.120"	USE WITH .050 & .063 BOX MAT'L	
* –3	.160"	.150"	USE WITH .080 & .090 BOX MAT'L	





SCREW DASH NO.	MATERIAL	FINISH	HEAD TYPE
–1	STEEL—MILD CARBON C 1010	ASTMB63378 CLASS SC3 TYPE II	COMBINATION (PHILLIPS-SLOT)
–2	OBSOLETED		
–3	STAINLESS STEEL	PASSIVATE	COMBINATION

Note: We do not sell tooling to install nutplates. ZERO will install them. Covers are tapped.

CUSTOM WORK AND MODIFICATIONS

Custom Modifications
Custom cases are not only practical, but are often critical for the protection and performance of the equipment they contain. Zero specializes in creative solutions for custom needs. We use thirteen state-of-the-art networked CAD-based design systems that enable our engineers to develop intelligent and truly functional custom solutions that meet and exceed the most stringent specifications, including all military specs. Our extensive field experience and in-house mechanical test capabilities make us the indisputable leader in case design.

Trumpf TLC 1005 Laser
The Trumpf TLC 1005 Laser is a Zero Manufacturing exclusive. This computer controlled, five-axis laser marks a new era in the world of protective enclosures. It grants Zero unparalleled flexibility, speed and efficiency when custom cutting and fabricating aluminum and other metals. The laser allows us to bypass the entire tooling process, eliminating costly setup and tooling fees. It is the ideal tool for quick prototype turnaround and for fulfilling shorter runs.

Considerations
- Not all aluminum alloys are readily deep drawn, even in the annealed condition. The rate at which an alloy hardens governs the relative depth that can be economically drawn (1100-0, 3000-0, and 6061-0 are good alloys for this purpose). If extra strength is required, Zero Manufacturing can heat treat 6061-0 to a T-4 or T-6 condition in conjunction with the drawing process.
- Many materials, other than aluminum, can be deep drawn. Zero has the ability to draw most materials on special order.
- Sidewall thickness will reduce up to 25% in the case of a relatively severe draw.
- The drawn depth of a box should not be expected to exceed the smallest sectional dimension in one draw. For a box depth greater than the width or diameter, multiple draw operations are required.
- Inside corner radii should be a minimum of four to five times the material thickness. With multiple draws, the radii may be reduced by one thickness per draw operation.
- The deep draw process does not require any draft, such as in a casting. In fact, cones or tapered boxes are the most difficult shapes to draw.



Remember
Zero Manufacturing can save you time and money by fulfilling all your modification needs in-house. Eliminate extra vendors and let Zero finish the job for you.

CUSTOM WORK AND MODIFICATIONS

Modifications
Zero Manufacturing is a one-stop shop. Not only do we offer the standard or custom cases that you need, we also modify them according to aesthetic or functional specifications. Our complete in-house services eliminate your need for a broad vendor base and free up time and money otherwise dedicated to managing varied service providers.

Start with a Zero Manufacturing deep-drawn box and go from there. After more than four decades of technological design experience and product innovation, Zero has produced literally millions of specially modified enclosures for customers in every type of industry. Many of these were developed from standard boxes.

Following is a summary of the modification services that Zero offers:

Alterations
Piercing
Welding
Louvering
Ramping
Tapping
Trimming

Assembly
Install rivets, screws and washers
Mount hardware
Assemble nutplates
Standard and custom foam inserts

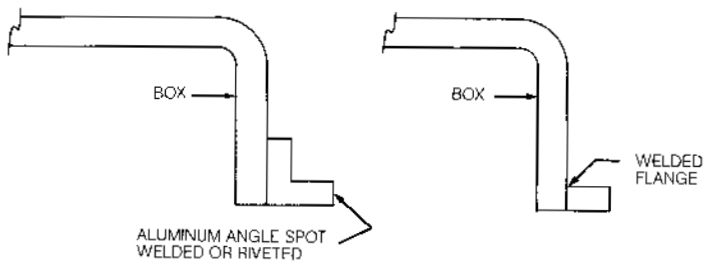
Accessories
Blowers
Brackets
Card edges
Covers
Flanges
Panels
Nutplates
Fans
Feet
Gaskets
Handles
Hinges
Labels
Latches
Nameplates
Standard and custom foam inserts

Finish
Paint coat
Powder coat
Anodize
Chemical film
Heat-treatment

Marking
Silk-screen
Stencil
Etch & fill
Label
Bar code
Emboss
Hot stamp

Testing
Watertight integrity
Pull test
Drop test
Die penetrant
First article report

OPTIONAL FEATURE
Mounting box or cover to flat surface (front or back) typical examples



PRECISION MINIATURE ENCLOSURES



Zero Manufacturing offers precision miniature enclosures in aluminum and cold-rolled steel.

Zero can modify each miniature enclosure in-house so that the product we provide is the perfect product to suit your needs. We offer a complete range of alteration, assembly, accessorizing, finish, marking and testing services. Please refer to the Modifications section in this catalog 52 for more details.

GENERAL INFORMATION

In order to maintain our consistently high level of quality and precision workmanship, our quality control procedures have been designed to comply with the inspection standards of Military Specifications MIL-I-45208.

Tolerances
Standard tolerances are ± 0.010" unless otherwise specified.

Plating/Finishing
All plating processes are available.

Heat Treating
Standard heat treating at Zero Manufacturing is Fast and Slow Cycle Hydrogen Annealing.

Tooling Capabilities
At Zero Manufacturing, a complete tool and die facility is at your disposal. Our standard line of enclosures is increasing every day. If you have a requirement not listed in our catalog, please feel free to contact us. If it can be made, we can make it for you.

Delivery
Please call.

Shipping
All parts are shipped in convenient cardboard cartons. All plated and annealed parts are individually packaged to prevent damage in shipping. However, on request, we can package to suit any requirement you may have.

HOW TO ORDER

Ordering Enclosures
In order to assure that you receive the correct part and to avoid delay in deliveries caused by misunderstanding, the steps outlined below should be followed when placing an order for parts:

1. Specify the Part Number, see Page 55 for Square ZMS Series, pages 56-58 for Rectangular ZMR Series, and page 59 for Circular ZMC Series.

2. To the Part Number, add the Depth of the part. Maximum Depth is found in column 3 for ZMS and ZMR Series parts and in column 2 for ZMC Series parts. Note: All parts listed are of maximum depth. With your exact specification, Zero Manufacturing will trim them to the desired depth.

3. Then, at the end of the part number, specify the type of material from which the part is to be manufactured by adding a material code as follows:

ST - Cold Rolled Steel
AL - Aluminum

4. When you have completed a Part Number, the number should appear as follows:

ZMC-075-1.000-ST	Circular: 0.750" dia. 1.000" depth of Cold Rolled Steel
ZMS-150-1.750-BR	Square: 1.500" sq. 1.750" depth of Brass
ZMR-210-243-.875-AL-T6	Rectangular: 2.109" wide 2.438" long x 0.875" depth of aluminum 6061-O heat treated to 6061-T6

Ordering Mating Covers
To order a mating cover for use with any enclosure listed in this catalog use the following procedure:

1. Specify the Part Number, and

2. To the Part Number add the code IS (for Inside Cover) or OS (for Outside Cover). See the "Covers Available" column on pages 55 through 59 for availability.

Example: ZMR-022-151-IS-AL is an aluminum rectangular inside cover measuring 0.218"W x 1.515"L.

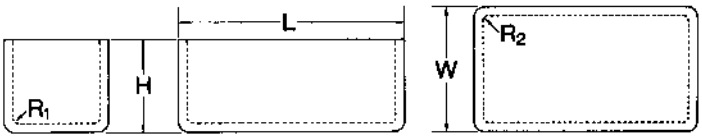
MATERIAL DETAILS
Thickness: The thickness at which a part may be made from each of these materials may be determined by consulting the Material Code chart shown at the top of each page.

Aluminum Alloy and Heat Treat: If aluminum is chosen, it will be 1100-0, 3003-0, or 6061-0 as chosen by Zero. If heat treat is desired, add -T4 or -T6 to the end of the part number and 6061-0 will be used and then heat treated to 6061-T4 or 6061-T6 respectively.

Alternative Materials: Most parts of the Precision Miniature Enclosures may also be manufactured by these materials: Nickel/Silver, Cupro Nickel, and Copper Dead Soft. However actual use is dependent upon the part requested. For additional information, please contact ZERO directly.

ZMS SERIES

Square Dimensions: .531" to 2.00"



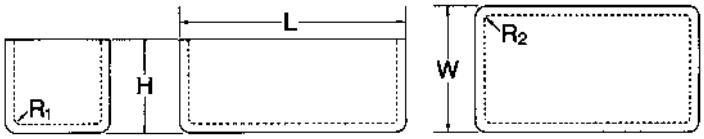
MATERIAL THICKNESS CODE					
A	.018 ST .020 AL .020 BR .020 MU	B	.024 ST .025 AL .025 BR .025 MU	C	.029 ST .032 AL .032 BR .031 MU

OUTSIDE WIDTH W	OUTSIDE LENGTH L	MAXIMUM DEPTH H	MATERIAL CODE T	R1/R2 RADIUS (INSIDE)	PART NO. NON-STOCKED	COVERS AVAILABLE	
INCHES		INCHES	INCHES	INCHES	Specify trim height	INSIDE	OUTSIDE
.531	.531	1.000	A	1/32	ZMS-053	•	
.620	.620	.595	A	3/16	ZMS-062	**	
.750	.750	1.125	A	3/64	ZMS-075	•	
.875	.875	2.125	A	3/32	ZMS-087	•	
.953	.953	1.750	A	5/64	ZMS-095	**	
.968	.968	1.750	A	3/32	ZMS-096	**	
1.000	1.000	2.125	A	3/32	ZMS-100	•	
1.000	1.000	2.500	A	1/16	ZMS-100A	•	
1.000	1.000	1.250	A	3/64	ZMS-100B	**	
1.031	1.031	.500	A	3/64	ZMS-103	**	
1.188	1.188	2.250	A	1/16 / 9/64	ZMS-118	•	
1.250	1.250	1.350	A	3/64	ZMS-125	**	
1.266	1.266	.938	A	1/8	ZMS-126	•	
1.281	1.281	2.125	A	1/8	ZMS-128	•	
1.312	1.312	3.000	A	1/8	ZMS-131	•	
1.438	1.438	2.750	B	7/64	ZMS-143	•	
1.500	1.500	2.750	B	1/8	ZMS-150	•	
1.600	1.600	2.438	B	1/8	ZMS-160	•	
1.750	1.750	3.000	B	1/8	ZMS-175	•	
2.000	2.000	1.125	B	1/8	ZMS-200	•	

*Special Gauge **No cover available

ZMR SERIES
Rectangular Widths: .218" to .938"

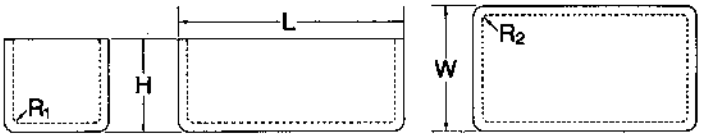
MATERIAL THICKNESS CODE					
A	.018 ST .020 AL .020 BR .020 MU	B	.024 ST .025 AL .025 BR .025 MU	C	.029 ST .032 AL .032 BR .031 MU



OUTSIDE WIDTH W	OUTSIDE LENGTH L	MAXIMUM DEPTH H	MATERIAL CODE T	R1/R2 RADIUS (INSIDE)	PART NO. NON-STOCKED	COVERS AVAILABLE	
INCHES		INCHES	INCHES	INCHES	Specify trim height	INSIDE	OUTSIDE
.218	1.515	.750	A	1/32	ZMR-022-151	**	
.420	.765	.437	A	.062	ZMR-042-077	•	
.450	.820	1.250	A	3/32	ZMR-045-082	**	
.500	1.000	1.375	A	3/64	ZMR-050-100	**	
.500	1.000	1.000	A	1/32	ZMR-050-100A	•	
.500	1.062	1.300	A	3/64	ZMR-050-106	**	
.500	1.437	.650	A	.062	ZMR-050-143	•	
.500	1.500	.750	A	.062	ZMR-050-150	•	
.550	1.187	.375	A	.032	ZMR-055-118	**	
.546	1.246	1.110	A	3/64	ZMR-055-125	**	
.562	.688	.250	A	5/64	ZMR-056-068	•	
.594	1.000	1.125	A	1/8	ZMR-059-100	**	
.593	1.484	.875	A	3/32	ZMR-059-148	•	
.620	2.720	.500	A	1/16	ZMR-062-272	•	
.625	3.078	.500	A	3/32	ZMR-062-308	•	
.655	1.780	1.500	A	.078	ZMR-065-178	•	
.672	1.360	.400	A	.062	ZMR-067-136	•	
.703	.812	1.000	A	.047	ZMR-070-081	**	
.719	1.500	.475	A	3/64	ZMR-071-150	•	
.730	1.980	.750	A	.062	ZMR-073-198	•	
.740	1.987	.750	A	.047	ZMR-074-199	•	
.750	1.500	.625	A	1/32	ZMR-075-150	•	
.750	1.500	.500	A	.062	ZMR-075-150A	•	
.750	1.594	1.150	B	1/16	ZMR-075-160	**	
.750	2.188	.780	A	3/32	ZMR-075-218	•	
.755	2.692	.580	A	3/64	ZMR-075-269	**	
.766	2.031	.500	A	5/64	ZMR-077-203	•	
.781	1.094	2.125	A	3/32	ZMR-078-109	**	
.790	1.410	1.625	A	.093	ZMR-079-141	**	
.797	2.375	.560	A	3/32	ZMR-080-237	**	
.844	1.031	.600	C	1/8	ZMR-084-103	**	
.859	1.484	.750	A	3/32	ZMR-086-149	•	
.875	1.062	2.000	A	11/64	ZMR-087-106	•	
.875	1.281	1.625	A	7/64	ZMR-088-128	**	
.900	2.900	.500	A	.125	ZMR-090-290	**	
.906	1.469	.875	A	.062	ZMR-090-146	•	
.920	1.820	1.125	A	.093	ZMR-092-182	•	
.938	1.125	1.000	A/B	5/32	ZMR-094-112	**	
.938	1.438	2.250	A	3/32	ZMR-094-143	**	
.938	1.938	1.375	B	5/64	ZMR-094-194	•	

*Special Gauge **No cover available

ZMR SERIES
Rectangular Widths: .953" to 1.625"



MATERIAL THICKNESS CODE								
A	.018 ST .020 AL .020 BR .020 MU		B	.024 ST .025 AL .025 BR .025 MU		C	.029 ST .032 AL .032 BR .031 MU	

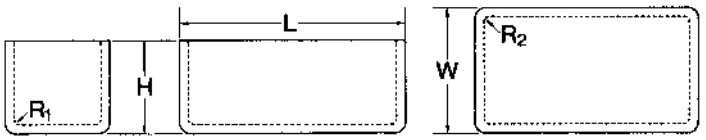
OUTSIDE WIDTH W	OUTSIDE LENGTH L	MAXIMUM DEPTH	MATERIAL CODE	R1/R2 RADIUS (INSIDE)	PART NO. NON-STOCKED	COVERS AVAILABLE	
INCHES		H INCHES	T INCHES	INCHES	Specify trim height	INSIDE	OUTSIDE
.953	1.359	2.250	B	7/64	ZMR-095-135	**	
.969	1.062	2.000	A	1/16	ZMR-097-106	**	
.969	1.234	2.812	B	9/64	ZMR-097-123	**	
.984	1.078	2.500	A	3/64	ZMR-098-107	**	
.984	2.359	.750	A	3/32	ZMR-098-236	•	
.984	2.781	.700	B	5/32	ZMR-098-278	•	
.984	1.094	1.625	A	3/32	ZMR-099-109	**	
.984	1.234	2.812	B	1/16	ZMR-099-123	**	
.984	1.234	.463	A	1/32	ZMR-099-124	**	
.984	1.406	1.000	A	1/32	ZMR-099-140	**	
.984	1.641	.600	A	1/32	ZMR-099-164	•	
1.000	1.500	.937	A	1/8	ZMR-100-150	•	
1.000	1.594	.475	A	1/16	ZMR-100-159	•	
1.000	2.050	.703	A	3/32	ZMR-100-205	•	
1.000	2.062	.705	A	3/32	ZMR-100-206	•	
1.000	2.375	.937	A	1/8	ZMR-100-238	•	
1.047	1.406	.745	C	1/8	ZMR-104-141	•	
1.047	1.469	1.000	A	3/64	ZMR-105-147	**	
1.047	1.775	1.250	A	1/16	ZMR-105-177	**	
1.062	1.250	2.500	A	11/64	ZMR-106-125	•	
1.094	1.438	2.250	A	7/64	ZMR-109-143	•	
1.109	1.234	.445	A	1/16	ZMR-110-123	•	
1.104	3.216	.650	A	.069	ZMR-110-321	**	
1.180	1.200	1.625	A	0.10 / 0.14	ZMR-116-118	*	
1.187	3.187	.937	A	.125	ZMR-118-318	•	
1.188	1.450	1.100	A	1/16	ZMR-118-144	•	
1.188	1.688	1.106	A****	1/8	ZMR-118-168	**	
1.250	1.450	2.500	B	0.109 / 0.203	ZMR-125-145	**	
1.250	1.500	2.000	A***	0.063/0.219	ZMR-125-150	•	
1.250	1.750	1.350	A	3/64	ZMR-125-175	•	
1.250	1.953	1.000	B	5/64	ZMR-125-194	•	
1.250	3.188	.575	A	1/16	ZMR-125-318	•	
1.312	1.859	1.625	B	.344	ZMR-131-186	**	
1.350	1.560	2.750	B	7/64	ZMR-135-156	•	•
1.350	1.560	2.000	B	1/2	ZMR-135-156A	•	•
1.391	1.500	2.000	A	.016/.109	ZMR-139-150	•	
1.438	1.672	1.250	A	1/16	ZMR-143-167	**	
1.438	1.750	3.000	A	9/32	ZMR-143-175	•	
1.500	2.000	1.000	B	1/16	ZMR-150-200		
1.500	2.500	.940	.040	1/8	ZMR-150-250	**	
1.500	3.672	1.450	B	3/16	ZMR-150-367	**	
1.558	1.758	1.000	C	.187	ZMR-156-176	**	
1.562	1.875	1.187	C	3/16	ZMR-156-187	**	
1.594	1.844	1.187	C	1/8	ZMR-159-184	•	
1.600	3.032	.750	A	.125	ZMR-160-303	**	
1.609	3.547	.680	B	5/64	ZMR-161-354	•	
1.625	1.750	1.125	A	1/8	ZMR-162-175	**	
1.625	1.875	1.250	A	.125	ZMR-162-187	**	

*Special Gauge **No cover available *** Not available in brass **** Not available in aluminum

ZMR SERIES

Rectangular Widths: 1.625" to 3.938"

MATERIAL THICKNESS CODE					
A	.018 ST .020 AL .020 BR .020 MU	B	.024 ST .025 AL .025 BR .025 MU	C	.029 ST .032 AL .032 BR .031 MU



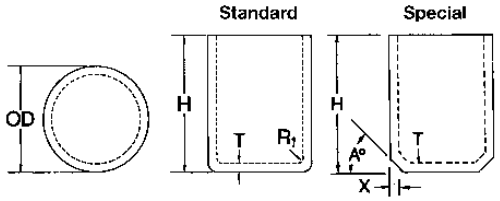
OUTSIDE WIDTH W INCHES	OUTSIDE LENGTH L INCHES	MAXIMUM DEPTH H INCHES	MATERIAL CODE T INCHES	R1/R2 RADIUS (INSIDE) INCHES	PART NO. NON-STOCKED Specify trim height	COVERS AVAILABLE INSIDE	COVERS AVAILABLE OUTSIDE
1.625	2.016	2.875	A	.350	ZMR-162-201	•	
1.750	2.000	2.500	B	1/4	ZMR-175-200	**	
1.875	2.219	1.250	B	.156	ZMR-187-222	**	
1.953	4.609	.520	.040	1/32	ZMR-195-460	**	
1.970	2.440	2.375	B	11/64	ZMR-197-244	**	
2.000	2.500	.500	B	.125	ZMR-200-250	•	
2.000	3.500	1.500	.050	1/8	ZMR-200-350	•	•
2.047	3.609	1.000	B	1/8	ZMR-204-360	•	
2.560	3.000	0.810	B	1/32	ZMR-256-300	**	
3.250	3.750	1.000	C	.125	ZMR-325-375	•	
3.938	4.625	.562	B	1/8	ZMR-393-462	**	

*Special Gauge **No cover available

ZMC SERIES

Circular Diameters: .375" to 3.375"

MATERIAL THICKNESS CODE					
A	.018 ST .020 AL .020 BR .020 MU	B	.024 ST .025 AL .025 BR .025 MU	C	.029 ST .032 AL .032 BR .031 MU

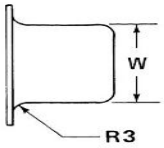


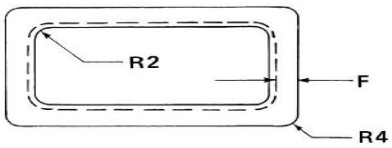
OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT MAX H INCHES	MATERIAL CODE T INCHES	BOTTOM RADIUS (INSIDE) INCHES	PART NO. NON-STOCKED Specify trim height	COVERS AVAILABLE INSIDE	 OUTSIDE
.375	.830	.020/A***	1/32	ZMC-037	**	
.562	1.875	.012/A****	1/16	ZMC-056	**	
.625	2.250	.012/A	1/16	ZMC-062	**	
.656	2.625	.012/A	1/16	ZMC-065	**	
.750	2.625	.012/A	1/16	ZMC-075	**	
.812	1.875	A	1/16	ZMC-081	**	
.844	1.750	A	5/64	ZMC-084	**	
.875	1.875	A	1/16	ZMC-087	**	
.910	.850	A	1/16	ZMC-091	**	
.930	1.625	A	1/16	ZMC-093	**	
.950	1.625	A	1/16	ZMC-095	**	
.975	1.750	B	5/64	ZMC-097	•	
1.000	2.125	A	5/64	ZMC-100	**	
1.062	2.750	A	1/16	ZMC-106	•	
1.125	2.000	A	5/64	ZMC-112[TOL]	•	
1.172	1.875	A	3/32	ZMC-117	**	
1.187	2.250	A	5/64	ZMC-118	•	
1.232	1.625	.016*	1/16	ZMC-123*	•	
1.250	2.250	A	3/32	ZMC-125	•	
1.250	3.000	C	3/32	ZMC-125A	•	
1.312	3.000	A	1/16	ZMC-131	•	
1.320	3.000	A	3/32	ZMC-132	•	
1.375	2.187	B	3/32	ZMC-137	•	
1.437	2.750	B	3/32	ZMC-143	**	
1.453	1.875	A	3/32	ZMC-145	•	
1.468	1.750	B	3/32	ZMC-147	•	
1.500	2.500	B	3/32	ZMC-150	•	
1.562	2.500	A	5/64	ZMC-156	•	
1.600	3.250	B	3/32	ZMC-160	•	
1.625	3.250	B	3/32	ZMC-162	**	
1.687	2.500	C	1/8	ZMC-168	•	
1.700	2.500	B	1/6	ZMC-170	**	
1.750	2.750	B	3/32	ZMC-175	**	
1.820	2.900	B	3/32	ZMC-182	**	
1.840	2.125	A	1/8	ZMC-184	•	
2.000	3.500	B	3/32	ZMC-200	•	
2.000	1.125	.040	3/32	ZMC-200A	**	
2.062	3.875	B	3/32	ZMC-206	**	
2.109	2.500	B	3/32	ZMC-211	•	
2.125	2.500	A/B	1/8	ZMC-212	**	
2.203	2.250	B	1/16	ZMC-220	•	
2.375	2.125	B	1/8	ZMC-237	•	
2.950	3.125	C	0.16	ZMC-295	•	
3.250	2.125	.050	3/16	ZMC-325*	**	
3.375	1.125	B	3/32	ZMC-337	**	

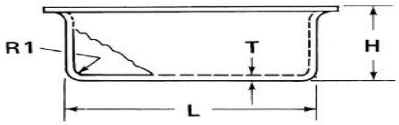
*Special Gauge **No cover available *** Available in aluminum only **** Not available in aluminum [TOL] Tolerance +/- 0.015"

Flanged Housings
Rectangular and Square Sizes









Look to Zero Manufacturing when an application calls for a standard aluminum rectangular or square housing with a flange.

With numerous sizes to choose from, you need only to select a part number and a final part height.

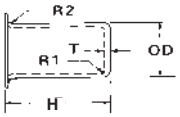
Height:
Choose between minimum and maximum heights listed with dimension information.

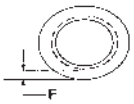
When ordering give part number and height desired in inches.

Example:
HF0300506-1.00 =
A rectangular flanged housing 3.00" W x 5.00" L x 1.00" H.

OUTSIDE WIDTH W INCHES	OUTSIDE LENGTH L INCHES	OUTSIDE HEIGHT MAX. H INCHES	OUTSIDE HEIGHT MIN. H INCHES	FLANGE WIDTH F INCHES	BLANK GAUGE T INCHES	ALLOY	CORNER RADII BOTTOM R1 Inside Inches	CORNER RADII SIDE R2 INSIDE Inches	FLANGE RADII TOP R3 Outside Inches	FLANGE RADII TOP R4 Outside Inches	PART NUMBER (Non-Stock) Specify Trim Height
1.75	1.75	0.88	.50	.25	.040	6061-0	.19	.19	.06	.50	HF0170174
2.13	5.00	1.00	.50	.44	.063	6061-0	.25	.25	.09	.50	HF0210506
2.50	4.56	1.30	.50	.63	.050	6061-0	.16	.20	.06	.50	HF0250455
2.87	5.00	3.50	.50	.25	.063	6061-0	.25	.25	.09	.50	HF0280506
3.00	5.00	1.50	.75	.50	.063	6061-0	.19	.19	.09	.50	HFA300506
3.21	3.52	1.50	.50	.50	.040	6061-0	.25	.63	.06	.50	HF0320354
3.50	5.00	1.50	.50	.50	.040	6061-0	.20	.20	.06	.50	HF0350504
3.73	3.73	1.50	.75	.50	.050	6061-0	.13	.44	.09	.50	HF0370375
3.88	7.38	1.50	.75	.50	.063	6061-0	.31	.31	.09	.50	HF0380736
4.00	4.00	2.06	.50	.27	.040	6061-0	.13	.13	.06	.13	HF0400404
4.00	4.50	2.00	.50	.50	.040	6061-0	.20	.20	.06	.50	HF0400454
4.00	5.00	2.50	.50	.50	.040	6061-0	.20	.20	.06	.50	HF0400504
4.00	11.13	2.13	.50	.26	.050	6061-0	.13	.13	.06	.13	HF0401115
4.13	5.13	2.00	.50	.50	.040	6061-0	.19	.20	.06	.50	HF0410514
4.24	5.98	2.00	.50	.50	.063	6061-0	.13	.17	.09	.50	HF0420596
4.50	5.00	2.00	.50	.50	.040	6061-0	.20	.20	.06	.50	HF0450504
4.50	5.50	2.00	.50	.50	.040	6061-0	.20	.20	.06	.50	HF0450554
4.75	7.00	2.25	2.00	.59	.063	6061-0	.25	.50	.16	.25	HF0470706
5.00	5.00	2.25	.50	.50	.063	6061-0	.25	.27	.09	.50	HF0500506
5.85	7.48	3.38	.50	.45	.050	6061-0	.17	.20	.09	.50	HF0580745
6.00	8.00	3.50	.50	.45	.063	6061-0	.17	.19	.09	.50	HF0600806
6.21	6.78	2.50	.75	.50	.063	6061-0	.31	.44	.09	.50	HF0620676
6.62	8.62	3.25	.75	.50	.063	6061-0	.50	.97	.09	.50	HF0660866
6.98	9.29	3.25	.50	.50	.063	6061-0	.14	.44	.09	.50	HF0690926
10.00	14.00	4.50	.75	.50	.090	6061-0	.30	.30	.09	.50	HF1001409

Flanged Housings
Round Sizes







Flanged round housings are also a Zero Manufacturing specialty.

When ordering give part number and height desired in inches.

Height:
Choose between minimum and maximum heights listed with dimension information.

Example:
HF046063-4.00 =
A round flanged housing
4.60" D x 4.00" H.

OUTSIDE DIAMETER INCHES	OUTSIDE HEIGHT MAX. H INCHES	OUTSIDE HEIGHT MIN. H INCHES	BLANK GAUGE T INCHES	ALLOY	CORNER RADII BOTTOM R1 Inside Inches	CORNER RADII SIDE R2 Outside Inches	FLANGE WIDTH INCHES	PART NUMBER (Non-Stock) Specify Trim Height
1.62	5.50	.50	.032	6061-0	.20	.06	.44	HF016232
2.00	3.50	.50	.032	6061-0	.23	.06	.44	HF019932
2.25	4.25	.50	.032	6061-0	.23	.06	.44	HF022532
2.25	1.75	.75	.063	6061-0	.38	.09	.44	HF022563
2.31	2.75	.50	.040	6061-0	.19	.06	.44	HF023140
2.50	1.75	.50	.050	6061-0	.27	.09	.44	HF025150
2.87	3.00	.50	.032	6061-0	.14	.06	.44	HF028732
3.00	2.25	.50	.032	6061-0	.27	.06	.44	HF029932
3.09	2.50	.50	.032	6061-0	.22	.06	.44	HF030932
3.43	1.50	.50	.063	6061-0	.25	.09	.44	HF034363
3.50	1.50	.50	.040	6061-0	.25	.06	.44	HF035040
3.50	11.00	.50	.063	6061-0	.25	.09	.44	HF035063
3.57	6.00	.50	.050	6061-0	.25	.09	.59	HF035750
3.75	2.75	.75	.063	6061-0	.31	.09	.44	HF037563
3.80	5.00	.75	.063	6061-0	.50	.09	.44	HF038063
4.00	5.00	.75	.050	6061-0	.47	.09	.44	HF040050
4.03	5.00	.75	.063	6061-0	.47	.09	.44	HF040363
4.32	3.50	.50	.040	6061-0	.27	.06	.44	HF043240
4.45	8.00	.75	.063	6061-0	.38	.09	.44	HF044563
4.50	2.00	.75	.063	6061-0	.31	.09	.44	HF045063
4.60	1.50	.75	.032	6061-0	.31	.06	.44	HF046032
4.94	7.25	.75	.050	6061-0	.31	.09	.44	HF049450
5.05	2.00	.50	.032	6061-0	.23	.06	.50	HF050532
5.60	4.25	.50	.050	6061-0	.25	.09	.50	HF056050
5.60	3.75	.75	.063	6061-0	.38	.09	.50	HF056063
6.31	5.75	.75	.032	6061-0	.31	.06	.50	HF063132
6.32	2.75	.75	.040	6061-0	.41	.06	.50	HF063240
13.00	4.75	1.00	.063	6061-0	.38	.31	.50	HF130063

ARINC Style Housings



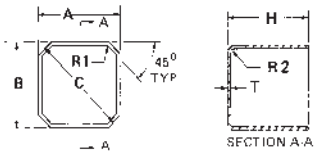
ARINC STYLE HOUSINGS

Used as air transport avionics equipment interfaces, all sizes are manufactured to meet Aeronautical Radio, Inc. (ARINC) specifications.

Height: Maximum height is listed.

When ordering give part number and height desired in inches.

Example: HDD5042-3.00 =
An AFINC style enclosure
3.175" W x 3.175" L x 3.00" H.



OUTSIDE WIDTH X LENGTH A INCHES	B INCHES	DIAGONAL WIDTH (OUTSIDE) C H INCHES	OUTSIDE HEIGHT D T INCHES	RADIUS BOTTOM R1 IVR Inches	TOP R2 IBR Inches	BLANK GAUGE INCHES	ALLOY	PART NUMBER (Non-Stock) Specify Trim Height
3.17	3.17	3.88	9.38	.13	.13	.032	6061-0	HDD5031
3.17	3.17	3.88	9.00	.13	.13	.032	6061-0	HDD5015
3.18	3.18	3.89	9.25	.21	.08	.032	6061-0	HDD5041
3.18	3.98	4.45	9.75	.13	.11	.050	6061-0	HDD5012
3.19	3.19	3.90	9.00	.13	.13	.032	6061-0	HDD5003
3.22	3.22	3.85	7.50	.13	.09	.032	6061-0	HDD5001
3.23	3.23	3.88	9.00	.13	.13	.032	6061-0	HDD5005
3.26	3.26	4.02	9.00	.06	.19	.032	6061-0	HDD5009
3.97	3.97	5.01	9.00	.07	.13	.050	6061-0	HDD5014
3.99	3.99	5.04	9.25	.13	.06	.050	6061-0	HDD5018-7542
4.86	5.11	6.05	9.00	.06	.09	.050	6061-0	HDD5037
4.95	4.95	6.34	9.50	.06	.19	.063	6061-0	HDD5019
4.98	4.98	6.36	10.00	.06	.13	.050	6061-0	HDD5013

Glossary of Terms

Alloy: An aluminum alloy is a metal that is a mixture of aluminum and one or more other elements.
1100: 99% pure aluminum.
3003: Aluminum/manganese alloy.
6061: Aluminum/manganese/silicon alloy.

Anodizing: Electrochemically converting the surface of aluminum from metallic aluminum to aluminum oxide (alumina) by making aluminum the anode in a plating-type electrochemical cell. It is used not only for added protection, but also in conjunction with dying and sealing to create decorative effects. MIL-A-8625 Type 2, Class A or B.

Artificial Aging: Speeding up the natural aging cycle by heating the metal for a short time.

CF: Flush fitting cover.

CI: Inside fitting cover.

COG: Outside fitting cover with gasket clearance.

COL: Outside fitting cover with loose fit.

COT: Outside fitting cover with tight fit.

Cold Working: Applying a mechanical force (such as deep drawing) to metal at room temperature at such a rate that strain-hardening occurs.

Deep Drawing: Using a ram to force an aluminum sheet into a draw die to produce a shell. See also draw die. Deep drawing is also used to produce many cup-shaped products in other industries.

Die: See draw die.

Draw Die: Tooling used in the deep drawing process to produce shells.

EMI Gasket: A gasket used in closures and on panel flanges to keep EMI radiation from entering or escaping from an enclosure.

EMI Shielding: Shielding against radiated or conducted EMI/RFI.

Flange: A rim into which a panel can be mounted.

Hardening: Increasing the hardness of metal by suitable treatment such as by strain or heat. Associated with processes such as age hardening, strain or work hardening, precipitation hardening, or quench hardening.

Heat Treat: Temper produced by heating.

Heat-Treatable Alloy: An aluminum alloy that can be hardened by heat treatment. Generally includes the 6061 alloy.

Height: The depth of a shell.

Mu-metal: A metal with high nickel content (78% nickel, iron, plus other additions) providing high magnetic permeability. Mu-metal shells are used as enclosures or covers for shielding/ magnetically isolating critical parts from magnetic interference. Mu-metal 'absorbs' magnetic lines in the vicinity rather than allowing them to pass through critical components.

Nutplate: A nut capable of receiving a screw for mounting a panel, etc.

O.D.: Outside diameter measured at tangency between bottom radius (R1) and side.

Points of Tangency: The points at which the straight portions of the shell walls intersect the beginning of the radius corners.

Precipitation Hardening: A metal-treating process that increases the strength of aluminum by precipitation alloying material into the structure of aluminum. Natural aging is involved if the process occurs at room temperature, while artificial aging involves the application of heat.

Quenching: The quick chilling of aluminum to retain, at room temperature, the metallurgical structure produced by heat treatment at an elevated temperature.

R1: The radius at the bottom of drawn shells.

R2: The radius at the sides of drawn shells.

Reflectivity: The ability of a surface to mirror or reflect radiant energy. The reflectance of aluminum is exceptionally high.

RFI: Radio frequency interference.

Seamless Construction: An exceptional attribute of deep drawn shells. Deep drawn shells have no seam.

Secondary Aluminum: Metal recovered aluminum scrap, segregated by alloy, and resmelted to produce purified metal. One of its more important uses is in the foundry industry. A great advantage of aluminum is that it can be recycled indefinitely, as a secondary product. This not only preserves aluminum as a natural resource, but it also saves energy, since secondary aluminum is less costly to produce.

Solution Heat Treating: A strengthening thermal treatment in which certain aluminum alloys are heated to a relatively high temperature and then held (soaked) for varying times. A rapid quench or natural aging follows the heating period.

Strength-to-Weight Ratio: The ratio of tensile strength to the weight of a material.

T: Material thickness.

Tangency: See points of tangency.

Temper Code: A letter-number code which designates heat treatment and cold work processes to create a temper.

Tensile Strength: The maximum pulling load that a material can sustain without failure.

Work Hardening: Hardening which occurs as the result of deforming metal crystals. Results from deep drawing and other cold forming processes, including bending.

ZERO Method: The technologies and craft of Zero Manufacturings deep drawn products.