



# **Metal Lath and Accessories**

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QUALITY PRODUCTS – COAST TO COAST

A GIBRALTAR INDUSTRIES COMPANY 

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# DIAMOND MESH LATH

**Flat Lath** is manufactured from prime quality steel sheets that are slit and expanded to form small diamond shaped openings (over 10,000 per square yard). This large number of openings provides more plaster keys than any other type of lathing material. This allows for better stucco bonding in either pumped or troweled applications. Each sheet has square ends and smooth parallel edges for fast, easy handling and installation; and can be readily bent for curved surfaces.

Weight/sq. yard	Finish	Sheet weight	Sheet size	Sheets/bundle	Bundles/pallet	Pallet weight
1.75 lbs.*	Galvanized	3.5 lbs.	27" x 96"	10	50	1750 lbs.
2.5 lbs.	Galvanized	5.0 lbs.	27" x 96"	10	50	2500 lbs.
3.4 lbs.	Galvanized	6.8 lbs.	27" x 96"	10	50	3400 lbs.
1.75 lbs.	Stainless	3.5 lbs.	27½" x 96"	10	25	875 lbs.
2.5 lbs.	Stainless	5.0 lbs.	27½" x 96"	10	25	1275 lbs.
3.4 lbs.	Stainless	6.8 lbs.	27½" x 96"	10	25	1700 lbs.

\*1.75 lb. does not meet requirements of ASTM C847, but is commonly used in one-coat stucco systems.

**Self-Furred Lath** is used extensively in exterior stucco work over sheathing and as a plaster base over masonry walls. Self-furring dimples or embossed "V" grooves hold the lath approximately ¼ inch away from solid surfaces to aid in the keying of stucco to the lath. **AMICO self-furred lath does not require additional self-furring mechanisms to function as required by ASTM C1063.**

**Dimpled** (dimples spaced approximately 4" on center in both directions)

Weight/sq. yard	Finish	Sheet weight	Sheet size	Sheets/bundle	Bundles/pallet	Pallet weight
1.75 lbs.	Galvanized	3.5 lbs.	27" x 96"	10	25	875 lbs.
2.5 lbs.	Galvanized	5.0 lbs.	27" x 96"	10	25	1250 lbs.
3.4 lbs.	Galvanized	6.8 lbs.	27" x 96"	10	25	1700 lbs.

**V Groove** (embossed "V" grooves spaced 6" on center lengthwise)

Weight/sq. yard	Finish	Sheet weight	Sheet size	Sheets/bundle	Bundles/pallet*	Pallet weight
1.75 lbs.	Galvanized	3.5 lbs.	27" x 96"	10	50	1750 lbs.
2.5 lbs.	Galvanized	5.0 lbs.	27" x 96"	10	50	2500 lbs.
3.4 lbs.	Galvanized	6.8 lbs.	27" x 96"	10	50	3400 lbs.

\*25 bundles/pallet at Fontana, CA facility only

As per current revisions of ASTM C-1063, metal lath applied to solid substrates must have ¼" self-furring properties, built into the lath sheet. Therefore, AMICO recommends the use of self furred (SF) lath over solid substrates, as required by current codes. Self furred lath is not required over framing members less than 1 5/8" in diameter or over open framing.



# TILATH<sup>®</sup> PAPER BACKED METAL LATH

**Tilath<sup>®</sup>** is diamond mesh lath, regular or self-furred, to which Grade D, style 2, asphalt saturated paper is applied in an “offset” fashion, providing a ship lap application, per ASTM C-1063 (see the illustrations below). Tilath is an ideal selection for applications requiring two layers of moisture barrier, where the synthetic air barrier provides the first barrier. Furthermore, Tilath is an ideal choice for manufactured veneer stone (MVS) installations.

## Flat and Self-Furred Tilath<sup>®</sup>

Weight/sq. yard*	Finish	Sheet weight*	Sheet size	Sheets/bundle	Bundles/pallet	Pallet weight
1.75 lbs.	Galvanized	3.68 lbs.	27” x 96”	10	25	920 lbs.
2.5 lbs.	Galvanized	5.18 lbs.	27” x 96”	10	25	1295 lbs.
3.4 lbs.	Galvanized	6.98 lbs.	27” x 96”	10	25	1745 lbs.

\*Weight per sq. yard does NOT include the Grade D paper; Sheet weight DOES include the paper.

## Tilath<sup>®</sup> Rib Lath (1/8” rib)

Weight/sq. yard	Finish	Sheet weight*	Sheet size	Sheets/bundle	Bundles/pallet	Pallet weight
2.75 lbs.	Galvanized	5.68 lbs.	27” x 96”	10	25	1420 lbs.
3.4 lbs.	Galvanized	6.98 lbs.	27” x 96”	10	25	1745 lbs.

\*Weight per sq. yard does NOT include the Grade D paper; Sheet weight DOES include the paper.

### Lath Attachment Detail

### Tilath<sup>®</sup> Paper Backed Lath Construction Detail

Tilath<sup>®</sup> is produced with lath and paper offset on one side and end to allow the lath to overlap at joints. Tilath<sup>®</sup> is to be “shingled” up the wall, beginning with a 6” starter strip of Grade-D paper at base of wall, followed by installation of first sheet, metal-overhang down. Then, the lap detail can be achieved, as shown (at left). AMICO-Fontana produces Tilath<sup>®</sup> with a 4” end lap, 2” side lap and paper is 29” wide.

# RIB LATH

**Rib Lath** is for horizontal stucco application and has unique solid metal “ribs” running parallel down the length of the lath sheet. The rib lath sheet provides greater stiffness and is allowed to span over studs, specific to the product applications outlined below.

**1/8” Flat Rib Lath** has eighteen ribs, 1/8” high, spaced 1 1/2” on center. The 2.75 lbs. product may be installed over horizontal spans up to 16” on center, and the 3.4 lbs. product may be installed over spans of 19” on center, when following ASTM C-1063-06.

Weight/sq. yard	Finish	Sheet weight	Sheet size	Sheets/bundle	Bundles/pallet	Pallet weight
2.75 lbs.	Galvanized	5.5 lbs.	27” x 96”	10	50	2750 lbs.
3.4 lbs.	Galvanized	6.8 lbs.	27” x 96”	10	50	3400 lbs.

**3/8” High Rib Lath** is designed with seven longitudinal ribs (each 3/8” deep) and eight small flat ribs in between the high ribs. This product is used almost exclusively for ceiling and soffit applications, but is not recommended for vertical or wall applications. ASTM C-1063-06 allows High Rib Lath to span up to 24” on center between.

Weight/sq. yard	Finish	Sheet weight	Sheet size	Sheets/bundle	Bundles/pallet	Pallet weight
3.4 lbs.	Galvanized	6.8 lbs.	27” x 96”	10	50	3400 lbs.
4.0 lbs.	Galvanized	8.0 lbs.	27” x 96”	10	50	4000 lbs.

## Support Spacing for Metal Lath (adapted from ASTM C-1063-06, table 3)

Types of Lath <sup>3</sup>	Nominal Weight (per sq. yard)	VERTICAL SPACING (INCHES)			HORIZONTAL INCHES	
		Wood	Solid Plaster (Metal)	Other (Metal)	Wood or Concrete	Metal
Diamond Mesh Lath	2.50 lbs.	16 <sup>1</sup>	16 <sup>1</sup>	12	12	12
	3.40 lbs.	16 <sup>1</sup>	16 <sup>1</sup>	16	16	16
Flat Rib Lath	2.75 lbs.	16	16	16	16	16
	3.40 lbs.	19	24	19	19	19
3/8” Rib Lath	3.40 lbs.	24	24 <sup>2</sup>	24	24	24

<sup>1</sup> Spans may be increased to 24” o.c. with self-furred metal lath over sold sheathing assemblies approved for this use.

<sup>2</sup> May be used for studless partitions.

<sup>3</sup> Metal lath used a reinforcement for plaster shall be furred away from vertical supports at least 1/4”. Self-furred lath meets furring requirements. EXCEPTION: Furring of expanded metal lath is not require on supports having a bearing surface width of 1 5/8” or less.

# SPRAY LATH PRODUCTS

(produced only in AMICO's Fontana, CA facility)

Spray lath is used primarily on the West coast, where stucco is spray applied to the surface of the lath to build stucco thickness. Rib Lath is often attached directly to the vertical framing members without a solid board substrate included. Spray products are categorized as follows:

**Spray Lath – V-Ribbed** is intended for applications not requiring a water resistant barrier. The plain kraft paper is applied between V grooves to conserve machine applied stucco and allows visual location of studs during installation.

Weight/ sq. yard	Sheet size	Sheet weight	Sheets/ bundle	Bundles/ pallet	Pallet weight
3.4 lbs.	27" x 96"	6.8 lbs.	10	50	1700 lbs.
3.4 lbs.	27" x 48"	3.4 lbs.	10	50	850 lbs.

**Spray Rib Lath - Flat (1/8") Rib** has two (2) strips of kraft paper, 12" wide, attached to the lath, permitting visual alignment of lath for mechanical attachment of the rib to the substrate. Flat Rib is allowed by Building Code to span 16" on center for the 2.75# Flat Rib, 19" on center for 3.4# Flat Rib.

Weight/ sq. yard	Sheet size	Sheet weight	Sheets/ bundle	Bundles/ pallet	Pallet weight
2.75 (1/8") lbs.	27" x 96"	5.5 lbs.	10	50	2750 lbs.
2.75 (1/8") lbs.	27" x 48"	2.75 lbs.	10	50	1375 lbs.
3.4 (1/8") lbs.	27" x 96"	6.8 lbs.	10	50	3400 lbs.

**Spray Rib Lath - High (3/8") Rib** is a more rigid lath product than Diamond Mesh, and like Spray Lath, has strips of kraft paper attached between the ribs. The additional rigidity is well suited for horizontal applications such as soffits. The High Rib allows for (up to) 24" spans.

Weight/ sq. yard	Sheet size	Sheet weight	Sheets/ bundle	Bundles/ pallet	Pallet weight
3.4 (3/8") lbs.	27" x 96"	6.8 lbs.	10	50	3400 lbs.



# METAL ACCESSORIES

**Corner Beads** provide exterior corner protection and a straight ground for screeding. The **X-1 Corner Bead** has a 3" wide flange that is flexible and adaptable to various ground heights. The **X-1-N Narrow Wing Corner Bead** has the same design as X-1, but with a shorter, 2½" wide flange. The **X-2 Reinforced Corner Bead** is superior in strength to X-1, due to added stiffener strips in the ¾" wide flange. The chart below outlines the specifics on each style.

Style	Length*	Finish	Pieces/ carton	Weight/ carton	Cartons/ pallet	Pallet weight
X-1	10'	Galvanized	30	56 lbs.	21	1166 lbs.
X-1	10'	Zinc	30	48 lbs.	21	1008 lbs.
X-1-N	8'	Galvanized	40	55 lbs.	20	1095 lbs.
X-1-N	8'	Zinc	40	47 lbs.	20	935 lbs.
X-1-N	10'	Galvanized	30	51 lbs.	21	1078 lbs.
X-1-N	10'	Zinc	30	44 lbs.	21	920 lbs.
X-2	10'	Galvanized	30	76 lbs.	21	1600 lbs.
X-2	10'	Zinc	30	67 lbs.	21	1407 lbs.
Wire*	8', 9', 10'	Zinc Coated	40	44 lbs.	24	1056 lbs.

X-1

X-2

\*AMICO Wire Corners are discussed further on page 13 (Specialty Products)

**Cornalath (Cornerite)** is used in corners where walls intersect with walls or ceilings. The reinforcing of corners helps prevent cracks. The 105° angle offers resistance when pushed into the transition. Available in galvanized steel only.

Length	Finish	Pieces/ carton	Weight/ carton	Cartons/ pallet	Fontana pkg**
2" x 2" – 4'	Galvanized	125	35 lbs.	N/A	30
2" x 2" – 8'	Galvanized	75	50.4 lbs.	21	30
3" x 3" – 8'	Galvanized	75	70.8 lbs.	15	25

**Striplath** is diamond mesh lath, produced in 4" and 6" wide strips with smooth edges. Striplath is used to reinforce plaster around door and window corners, reducing cracks caused by stress.

Width	Length	Finish	Pieces/ carton	Weight/ carton	Cartons/ pallet	Fontana pkg**
4"	8'	Galvanized	75	50.4 lbs.	20	25
6"	8'	Galvanized	75	70.8 lbs.	20	30

\*Other lengths available by request.

\*\*Cornalath is only produced in 4' lengths in Fontana, CA facility. Packaging information in last column is unique to Fontana, CA facility.

AMICO recommends the use of zinc or vinyl accessories for all exterior applications. Contact your AMICO representative for a vinyl catalog or visit our website.

# METAL ACCESSORIES

**X-66 Expanded Flange Casing Bead** (sometimes called a Plaster Stop) has a 3" expanded mesh flange. This trim is used to terminate plaster or stucco around doors, windows or any other opening. The chosen ground height aids in screeding the proper thickness of stucco.

Ground	Length	Pieces/ carton	Finish	Weight/ carton	Cartons/ pallet	Pallet weight
3/8"	10'	30	Galvanized Zinc	44 lbs. 42 lbs.	20	880 lbs. 840 lbs.
1/2"	10'	30	Galvanized Zinc	47 lbs. 44 lbs.	20	940 lbs. 880 lbs.
5/8"	10'	30	Galvanized Zinc	49 lbs. 47 lbs.	20	980 lbs. 940 lbs.
3/4"	10'	30	Galvanized Zinc	51 lbs. 49 lbs.	20	1020 lbs. 980 lbs.
7/8"	10'	30	Galvanized Zinc	53 lbs. 51 lbs.	20	1060 lbs. 1020 lbs.
1"	10'	30	Galvanized Zinc	56 lbs. 53 lbs.	20	1120 lbs. 1060 lbs.
1 1/4"	10'	30	Galvanized Zinc	59 lbs. 56 lbs.	20	1180 lbs. 1120 lbs.
1 1/2"	10'	30	Galvanized	76 lbs.	20	1520 lbs.

All X-66 Beads can be punched in the ground, but should not be used in lieu of a #7 FHA full weep screed at base of wall, in compliance with ASTM C1063-06.

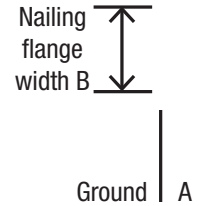
**N-66 Narrow Wing Casing Bead** has the same basic profile as X-66, but without the expanded flange. Nail and keying holes are provided in the flange, which is approximately 1 3/8" wide. N-66 is produced in Fontana, CA only, but is available for shipment. Weep holes are optional on all grounds.

Ground	Length	Pieces/ carton	Finish	Weight/ carton	Cartons/ pallet	Pallet weight
3/8"	10'	30	Galvanized Zinc	37 lbs. 35 lbs.	30	740 lbs. 700 lbs.
1/2"	10'	30	Galvanized Zinc	39 lbs. 38 lbs.	30	780 lbs. 760 lbs.
3/4"	10'	30	Galvanized Zinc	44 lbs. 41 lbs.	30	880 lbs. 820 lbs.
7/8"	10'	30	Galvanized Zinc	47 lbs. 44 lbs.	30	940 lbs. 880 lbs.
1"	10'	30	Galvanized	47 lbs.	30	940 lbs.



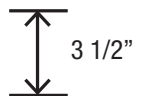
**J Metal Bead** will accommodate up to 1" of rigid insulation and 3/8" of one-coat stucco or direct applied systems. The 26-gauge J Metal can be punched for weep in ground flange as requested. J Metal is produced in Fontana, CA only, but is available for shipment.

Ground A	Length	Pieces/ bundle	Nailing flange width B	Weight/ bundle	Bundles/ pallet
3/8"	10'	10	3 1/2"	26 lbs.	50
1/2"	10'	10	3 1/2"	28 lbs.	50
3/4"	10'	10	3 1/2"	29 lbs.	50
7/8"	10'	10	3 1/2"	30 lbs.	50
1"	10'	10	3 1/2"	32 lbs.	50
1 3/8"	10'	10	1 7/8" 3 1/2"	21 lbs. 35 lbs.	100 50
1 1/2"	10'	10	1 7/8" 3 1/2"	24 lbs. 36 lbs.	100 50



**Foundation Weep Screed (FHA #7)** is required at the base of walls as part of a drainage system for exterior stucco or manufactured stone applications. The 3 1/2" nailing flange serves as flashing when Grade D building paper or Tilath® is installed over the flange. Holes are punched into the nailing flange for easy attachment to the wall. Holes are also placed in the "V" stop to provide keying of the stucco mud when wet. As the mud cures, it will shrink slightly away from the "V" stop, allowing moisture to flow down the building paper and exit the sloped "V" stop surface. Foundation Weep Screed #7 is manufactured in 26 gauge galvanized metal or zinc alloy.

Ground A	Pieces/ bundle	Nailing flange width	Finish	Weight/ bundle	Bundles/ pallet
1/2"	10	3 1/2"	Galvanized	32 lbs.	100
5/8"	10	3 1/2"	Galvanized	34 lbs.	100
3/4"	10	3 1/2"	Galvanized	35 lbs.	100
7/8"	10	3 1/2"	Galvanized Zinc	36 lbs. 32 lbs.	100
1 3/8"	10	3 1/2"	Galvanized	41 lbs.	100
1 1/2"	10	3 1/2"	Galvanized	43 lbs.	100



# METAL ACCESSORIES

**Expansion Joints & Control Joints** are designed to relieve stress and minimize cracking. Control joints accommodate initial stucco shrinkage and minor thermal movement. These joints are required to form membrane panels no larger than 100 sq. ft. for ceilings and 144 sq. ft. for walls. Expansion joints are designed to deal with some minor structural movement. In all cases, connections should be embedded in sealant and flexible membrane applied behind all two-piece expansion joints.

**AMICO Expansion Joint (VV or M Type, #15 Joint)** is designed to provide for movement to accommodate expansion and contraction caused by initial stucco shrinkage and minor thermal movement. Produced in galvanized steel and zinc alloy in 10' lengths.

Ground	Pieces/ carton	Finish	Weight/ carton	Cartons/ pallet	Pallet weight
3/8"	24	Galvanized	49 lbs.	20 / 40	980 / 1960 lbs.
		Zinc	45 lbs.	20 / 40	900 / 1800 lbs.
1/2"	24	Galvanized	66 lbs.	20 / 40	1320 / 2640 lbs.
		Zinc	50 lbs.	20 / 40	1000 / 2000 lbs.
5/8"	24	Galvanized	65 lbs.	20 / 40	1320 / 2640 lbs.
		Zinc	58 lbs.	20 / 40	1150 / 2300 lbs.
3/4"	24	Galvanized	71 lbs.	20 / 40	1420 / 2840 lbs.
		Zinc	61 lbs.	20 / 40	1220 / 2440 lbs.
7/8"	24	Galvanized	83 lbs.	20 / 40	1660 / 3320 lbs.
		Zinc	71 lbs.	20 / 40	1420 / 2840 lbs.

**Inside Corner Expansion Joint (#30 Joint)** is similar to the standard M Type joint, but the flanges are bent to an angle to form inside corners, allowing movement. Available in galvanized steel or zinc alloy in 10' lengths. Verify availability and lead-time.

Ground	Pieces/ carton	Finish	Weight/ carton	Cartons/ pallet	Pallet weight
1/2"	24	Galvanized	66 lbs.	20	1320 lbs.
		Zinc	50 lbs.		1000 lbs.
3/4"	24	Galvanized	71 lbs.	20	1420 lbs.
		Zinc	61 lbs.		1220 lbs.
7/8"	24	Galvanized	83 lbs.	20	1660 lbs.
		Zinc	71 lbs.		1420 lbs.

**Griplock J Expansion Joint (#XJ15 Joint)** is similar to the M Expansion Joint except the J design provides locking of the stucco to the edge of the joint. This design helps reduce stucco separation at the edge of the joint when stucco is forced under the J flange. Produced in 10' lengths. Part comes pre-taped to ensure a clean joint.

Ground	Pieces/ carton	Finish	Weight/ carton	Cartons/ pallet	Pallet weight
1/2"	24	Galvanized Zinc	70 lbs. 61 lbs.	20	1400 lbs. 1220 lbs.
3/4"	24	Galvanized Zinc	77 lbs. 64 lbs.	20	1540 lbs. 1280 lbs.
7/8"	24	Galvanized Zinc	80 lbs. 66 lbs.	20	1600 lbs. 1320 lbs.

**2-Piece Expansion Joint (#40 Joint)** has male/female components to accommodate movement in two directions. The joint is used at thru-wall expansions with double studs or for transition of dissimilar substrates. Joint opening adjusts from 1/4" to 5/8". Produced in 10' lengths.

Ground	Pieces/ carton	Finish	Weight/ carton	Cartons/ pallet	Pallet weight
1/2"	15	Galvanized Zinc	57 lbs. 53 lbs.	25	1425 lbs. 1320 lbs.
3/4"	15	Galvanized Zinc	61 lbs. 57 lbs.	25	1525 lbs. 1425 lbs.
7/8"	15	Galvanized Zinc	63 lbs. 59 lbs.	25	1590 lbs. 1475 lbs.

**Zinc Control Joint** has a solid flange with large holes that aid in the attachment of adjoining metal lath. The improved shoulder design allows easier stucco embedment and increases holding capacity at the joint to minimize cracking. Part comes pre-taped to ensure a clean joint. Produced in 10' lengths.

Product #	Grounds	Pieces/ carton	Finish	Weight/ carton	Cartons/ pallet
CJ380	3/8"	25	Zinc	51 lbs.	20
CJ500	1/2"	25	Zinc	60 lbs.	20
CJ750	3/4"	25	Zinc	66 lbs.	20
CJ1000	1"	25	Zinc	75 lbs.	20

# HOW TO INSTALL METAL LATH

**These installation recommendations are intended to be instructional and accurate. This is first a guideline, providing a general overview and also equips the new steel lather with specific installation details, based on ASTM C 1063-99 Standard Specification for Installation of Metal Lath.**

Always consult your area building official before beginning any project to familiarize yourself with any local code requirements. This guide should not replace the designs and judgments of a qualified engineer and/or architect.

## Lath Installation

Begin at the right hand bottom corner of the wall. If paper backing behind the lath is required, leave the paper over hanging at the top and to the left of the sheet. Offset paper backing has the paper overlapping 1-1/2" on one end and one side and corresponding retracted on the opposite end and side, the sheets should always be installed in a horizontal application perpendicular to the framing.

Laps: Minimum of 1" at edges with ends nested paper to paper, metal to metal. Apply the second sheet to the left of the first sheet lapping paper over paper and lath over lath. Place the third sheet centered above the first two sheets. This process is similar to that of laying brick. This staggers the vertical butt joint seams and allows a more uniform dispersal of stress.

## Nailing Methods

On horizontal applications all nails shall be driven flush with base (driven home). On vertical applications nails shall be bent over to engage at least 3 strands over and through rib on rib lath and bridge ribs with staples.

## Lath Fasteners

To concrete: use (3/8" diameter shank, 3/4" in length)

To wood framing: use 11 gauge 1-1/2" length, 7/16" head nails (roofing nails 4d 1-1/2" x1/4 head)

To sheathing wood: use 14 gauge, 1.5" leg, 3/4" crown staples

To metal framing: use self drilling, self tapping #12 x 3/4" wafer head screws. Use of powder actuated or power actuated fasteners is acceptable, but may cause spalling when shot to the substrate; follow manufacturers instructions carefully.

## Fastener Spacing

Spacing of nails, staples or screws is 6" on center maximum along the framing member (horizontal or vertical).

\*Note: Staples are not permitted on ceiling applications.

## Span Limitations

Every finish material is subject to span limitations, which is the maximum distance between frame members. When sheathing is not required, 16" on center is the maximum spacing of framing to prevent

undue sagging. Then self-furring lath is installed over sheathing or solid surface, the maximum spacing of supports maybe 24" on center.

\*Note: Lath shall be furred away from vertical supports or solid surfaces at least 1/4". Self-furring lath "dimples" "V-grooved" or "ribbed" lath meets these furring requirements. See chart "Support Spacing for Metal Lath" on page 3 (Rib Lath).

## Cut and Trim to Fit

Standard sheet shears or metal cutting scissors are effectively used for notching and snipping. A conventional circular saw equipped with a metal cutting blade easily zips through steel lath to cut to desired lengths.

## Wire Tie

Lath is to be wire tied at 9" on center at edges, ends and at laps between framing members. On plywood sheathing only, lath may be nailed or stapled in lieu of tying at the same center spacing noted above.

## Accessories

Corner beads shall be used to protect all external corners with a plumb and true edge. Flashing shall be used where lath and stucco is to be applied on walls. Intersection of roof plane (i.e.: bulkheads, sidewalls, headwalls), a stucco stop, flashing/ counter flashing shall be carried over the flashing to terminate the stucco.

## Important Installation Note

Lath accessories are designed to make plaster jobs easier, more efficient and provide the final product a more professional look. To ensure this, accessories should be attached every 18" with nails, staples or tie wires. For expansion joint, corner and casing beads, the nose can be used as a screed for the stucco brown coat, but must be embedded by 1/8 inch thickness of plaster on the final coat.

## Jointing for Cracking Control

It is difficult to anticipate or prevent plaster cracks, but they can be largely controlled by means of expansion joints. The expansion joints should be installed between lath. The lath is to be broken underneath the expansion joint to function properly. Fasten the joints to the lath using info found under "Lath Fasteners" section.

Walls and ceilings that use metal lath for the plaster base should be divided into rectangular panels with an expansion type control joint at least every 18 feet or at the juncture of a dissimilar wall, or in either direction in a length to width ratio of 2½ to 1, or in ceilings or walls exceeding 144' in area.

Expansion or control joints shall be formed by using the single #15 expansion joint accessory or by installing casing bead back with a flexible barrier membrane behind the casing bead. The separation spacing shall be not less than 1/8". An expansion control joint shall be installed where an expansion joint occurs in the base exterior wall.

# INSTALLATION DETAIL PHOTOS

## Attachment of Lath to studs

- 1) Wafer head screws are power driven to allow quick and easy attachment of Diamond Mesh Lath to framing members.
- 2) Diamond Mesh Lath can be cut to size with hand tools.

## Attachment of Rib Lath to ceilings

- 1) High (3/8") Rib Lath attached to ceiling joist, spaced at 24" o/c max. Flat Rib Lath can span up to 16" o/c.

## Attachment to solid surfaces

- 1) Self-Furred Diamond Mesh Lath is secured to masonry surfaces with hardened concrete nails and power driven fasteners at the furring dimples. Paper backed lath is often used in this type of application as a bond breaker.
- 2) The scratch coat is applied with complete embedment of the self-furred lath in the plaster.
- 3) Scratch coat is fully embedded in the lath and is isolated from supporting structure. Water resistant backing paper allows controlled and uniform curing of this plaster foundation.

## Attachment of trims/joints

- 1) Type "M" Expansion Joint is installed vertically over the window opening allowing for expansion and contraction.
- 2) AMICO X-1 Corner Bead provides protection for outside corners and a reliable straight ground for screeding.
- 3) X-66 Expanded Casing Bead is typically installed at door and window openings as a plaster stop.

# METAL LATH SPECIFICATIONS

## Specification for Metal Lath and Accessories Section 09100 — Lath and Plaster

### I. General

1. ASTM Reference Standards: C-847 – Metal lath and trims for interior and exterior application of portland cement stucco; C-841 – Interior metal lath and trims for stucco; C-1063 – Application of metal lath and accessories.
2. Reference – ASTM C-926 – Application of portland cement based plaster.
3. All galvanized products produced from G-60 pre-galvanized steel coil, per ASTM C-847. Zinc accessories, per ASTM B-69, are produced from 99% zinc alloy and are recommended for exterior applications.
4. Chapter 25, 2006 International Building Code, with revisions.

### II. Products

1. Lath shall be \_\_\_\_\_ (2.5, 3.4) lbs./sq. yd. \_\_\_\_\_ (flat/ self furred) diamond mesh, as produced by Alabama Metal Industries, Inc. (AMICO) or pre-approved equal, per ASTM C-847. Rib Lath shall be used for horizontal applications, see Table 3, ASTM C1063-06 for style of Rib Lath for spacing of framing.

*(Verify with the stucco manufacturer as to what lath weight is required in their specification or warranty requirements. Self furred metal lath must be used on solid substrates)*

2. Metal Trims and Accessories – shall be produced according to ASTM C-841, or C-1063, and come packaged for site storage. All metal accessories shall be identified on the drawings and submitted to architect for approval prior to purchase. Identify the planned location of the metal accessory and method of attachment in submittal documents.
3. Attachment – Wire ties, screws, and staples shall all comply in size and gauge to requirements found in ASTM C-1063.
4. Grade D Moisture Resistant Paper – paper to be used in backup on sheathing shall comply with Federal Specification UU-B-790a, Type 1, Grade 2, Style 2. Contractor may elect to install AMICO's Tilath®, paper-backed metal lath to achieve 1 of the 2 layers of Grade D paper.
5. Storage: all lath and accessories shall be protected from the elements per ASTM C-1063 during storage and on the job site.

### III. Products

1. Verify that the substrate to apply the metal lath framing is free of gaps, protrusions or other foreign objects that would impair the integrity of the stucco membrane. If stucco system will be applied over wood sheathing, verify the sheathing has a 1/8" gap on all edges of every sheet. Do not begin work unless this condition exists.
2. Apply 2 layers of Grade D Asphalt Paper, or pre-approved equivalent, to the substrate to receive stucco. Contractor's option: 1 layer of Grade D and Tilath® paper-backed metal lath, to equal the 2 layers of Grade D.
3. Shingle the edges, overlapping 2" on all sides. Apply mechanical fastening in a manner that attaches the building paper, without more fasteners than required for the fastening pattern.
4. Accessories to be attached prior to the application of the lath include Casing Beads (X-66) and Foundation Weep Screeds (#7 FHA). X-66 to be attached to assure a straight line and square angles and to separate structural from non-structural elements such as window/door openings. The #7 FHA flange to be installed under the Grade D building paper.
5. Attach metal lath sheets to the substrate, beginning at the base of the wall and working up the wall. Sheets shall be installed perpendicular to the vertical framing, lapping the lath 1" at the edges. Stagger the joints of lath on the surface, similar to a brick pattern, therefore staggering the vertical butt joints.
6. Fasteners shall be driven into the framing members 3/4" and engage at least 3 strands of diamond mesh to secure to surface. Spacing of fasteners shall be 6" on center (maximum) along the framing member vertically. No staples are allowed on ceiling applications.
7. Wire Ties – shall be installed a minimum 9" on center at edges, ends and laps between framing members. Staples, nails or screws will not be allowed in these areas, per ASTM C-1063.
8. Accessories – choose casing beads, expansion and/or control joints to the specified ground of the stucco system, based on number of coats – scratch, brown finish. Set corner beads to the specified ground height to match the other accessories. Wire tie all control/expansion joints, per ASTM C-1063. Lath sheets must be broken beneath expansion/control joints and wire tied into place. Create breaks in all lath that bridge over dissimilar surfaces, across expansion joints in structure.
  - a. If not specified on the drawings, metal lath used for a plaster base shall be divided into rectangular panels with expansion joints placed every 100 sq. ft. for ceilings, 144 sq. ft. for walls, with no dimension exceeding 18 feet, with a maximum length/width ratio of 2 to 1.

# SPECIALTY METAL PRODUCTS

**N093 Drywall Control Joint** is similar to the control joint for veneer finish drywall installations or direct applied systems finish for exterior applications. Provided in zinc alloy only. Comes with removable tape across joint.

Grounds	Length	Pieces/ carton	Weight/ carton	Cartons/ pallet	Pallet weight
3/52"	10'	25	27 lbs.	20	540 lbs.

**Wire Corners** allow a sharp plaster edge. They are manufactured from zinc coated wire electronically wired to form the corners. Bullnose, arch and short flange configurations are also available in 8' and 9' lengths. All items are shipped from AMICO's Fontana, CA location.

Style	Flange size	Length	Pieces/ carton	Weight/ carton	Cartons/ pallet
Straight	2.5" x 2.5"	10	40	44	24
Bullnose	2.5" x 2.5"	10	40	46	24
Arch	2.5" x 2.5"	10	40	36	24
Short Flange	2.5" x 1.5"	10	40	39	24

**Galvanized Hanger and Tie Wire** are used to support CRC gridwork for stucco and acoustical or drywall ceilings. Produced in #8, #9 and #12 gauge galvanized soft annealed wire in 12' lengths. Tie wire is produced in 16- and 18-gauge galvanized soft annealed steel.

Product	Length	Weight/package
Hanger Wire	12'	50 lb. hanks
Tie Wire	28"	25 lb. hanks

**Galvanized Cold Rolled Channel** is used to form suspended ceiling grids for lath and plaster applications and for horizontal bridging in steel framing.

Size	Pieces/ bundle	Weight/ 16' piece	Weight/ 20' piece	Weight/ bundle (16')	Weight/ bundle (20')
3/4"	20	4.9 lbs.	6.1 lbs.	98 lbs.	122 lbs.
1 1/2"	20	7.7 lbs.	9.6 lbs.	154 lbs.	192 lbs.
2"	20	9.6 lbs.	12.0 lbs.	192 lbs.	240 lbs.

# STAINLESS STEEL LATH

**Alloy 304** is available as a product providing an excellent corrosive resistant material for specialty lath applications. This product can be used over insulation boards to carry conventional stucco finishes and for external insulation requirements.

**Alloy 316** is used for swimming pool applications to provide an additional resistance to pool cleaning chemicals. It is also used for lathing in coastal locations where atmospheric salt is a concern.

Weight/sq. yard	Alloy	Sheet weight	Sheet size	Sheets/bundle	Bundles/pallet	Pallet weight
1.75 lbs.	304 or 316	approx. 3.50 lbs.	27½" x 96"	10	25	875 lbs.
2.5 lbs.	304 or 316	approx. 5.00 lbs.	24" x 96"	10	25	1275 lbs.
3.4 lbs.	304 or 316	approx. 6.80 lbs.	24" x 96"	10	25	1700 lbs.

Stainless Steel Lath is not in all AMICO distribution centers. Contact your representative for availability and shipping.



# SECURITY MESH™

**AMICO Security Mesh** consists of steel mesh panels used as a penetration resistant shield behind drywall finishes. These sheets are designed to be attached to metal or wood studs in walls using AMICO Secura Clips.

AMICO Security Mesh	Weight per 100 sq. ft.	Overall Thickness	Percent Open Area
ASM .50-13F	1.40 lbs.	.070"	57%
ASM .75-9F	1.71 lbs.	.120"	63%
ASM .75-13F	.75 lbs.	.070"	73%
ASM 1.5-9F	1.11 lbs.	.110"	77%
ASM 1.0-16F*	.41 lbs.	.048"	77%
ASM .75-9F	2.38 lbs.	.140"	63%

Tolerances: SWD = 0 + ¼" per foot of dimension / LWD = 0 + ½" per foot of dimension  
 Stock sizes: 4' x 8' / 4' x 10' / 5' x 8' / 5' x 10' / 6' x 8' / 6' x 10'  
 \*4' x 8' panels only

ASM .50-13F  
Maximum Security

ASM .75-9F  
Maximum Security

ASM .75-13F  
Medium Security

ASM 1.5-9F  
Medium Security

ASM 1.0-16F  
Minimum Security

ASM .75-9F  
Heavy Modified  
Maximum Security

**AMICO Security Clips** make any installation more secure by improving the holding power over standard drywall screws by 65%.

Panels Butted and Staggered

Panels Butted



# SECURITY MESH™ SPECIFICATIONS

## Construction Specification

### Section 09206 / 09 29 00

#### Security Mesh Penetration Barrier — Meets “Buy America”

## Part 1 General

### 1.01 SCOPE OF WORK

Supply and install steel expanded metal panels as a penetration barrier behind wall board using the manufacturers' recommended method of installation as outlined herein (specify project name)

### 1.02 SYSTEM DESCRIPTION

As manufactured by Alabama Metal Industries Corporation, (AMICO), Security Mesh shall be made from a sheet of steel that is simultaneously slit and stretched into a rigid, open mesh diamond making one continuous sheet that cannot unravel. The finished shape of the mesh openings shall be a flattened diamond. Conventional expanded metal not manufactured specifically for security purposes is NOT acceptable for this use. Security Mesh shall be attached to framing members by using AMICO Secura Clips following the manufacturers recommended spacing.

### 1.03 REFERENCES

All components and parts in this specification shall meet or exceed current standards and specifications as designated by the American Society for Testing and Materials. Shall be certified Security Mesh per ASTM F1267, Type 2, Class 1 mill finish, from carbon steel to meet or exceed ASTM A 1101 HSLA Steel and Underwriters Laboratories Fire Rated Assemblies (per U/L subject File #1857) will not be jeopardized by using AMICO's Security Mesh in the fire rated assembly.

### 1.05 STORAGE AND HANDLING

Materials shall be stored in a clean dry location with proper ventilation to avoid damage from moisture. Materials shall be protected against damage from weather, vandalism, and theft. In the event of freight damage, note freight bill and contact manufacturer immediately.

## Part 2 Products

### 2.01 MANUFACTURER

The behind the drywall finish penetration barrier system shall conform to the Security Mesh™ System as manufactured by ALABAMA METAL INDUSTRIES CORPORATION, (AMICO)

in Birmingham, Alabama. Telephone 800/366-2642; Facsimile 205/786-6527. Internet homepage- [www.amico-securityproducts.com](http://www.amico-securityproducts.com)

### 2.02 MATERIALS

A. AMICO SECURITY MESH — Security Mesh is manufactured in panels 4-ft. x 8-ft., 10-ft. and 12-ft, as manufactured by Alabama Metal Industries Corporation.

B. AMICO SECURA CLIPS — Security Mesh shall be attached to framing members using AMICO Secura Clips and the appropriate threaded fasteners. A flat head bugle type self-tapping screw long enough to penetrate the steel stud at least 3/8" is recommended. For wood stud applications, use a 1-5/8" fine thread drywall screw allowing the fastener to penetrate the framing member at least 1½". AMICO recommends Secura Clips be installed a minimum of 12" vertically on framing members. Secura Clips are the manufacturer's preferred method of securing mesh panels to framing members. Certified tests show using Secura Clips to secure Security Mesh panels to framing members can increase the holding strength by 68% over standard threaded fasteners. The clips replace the need to weld panels to framing members on site.

C. FINISH — Security Mesh is supplied "mill finish" HR P&O. No sealers or galvanizing is required for typical applications. In some very unique situations stainless steel Security Mesh is supplied. For information concerning applications where stainless steel may be advantageous please call our Security Department at our corporate head-quarters in Birmingham, Alabama at 800/366-2642.

## Part 3 Execution

### 3.01 INSTALLATION

A. Installation and lay-out of the job shall be approved by the owner or general contractor prior to installation.

B. It is recommended for security applications that the framing members be no less than 20Ga.

C. Security Mesh panels may be installed with diamond running in either direction.

D. It is preferred to have mesh joints either joint staggered or butt together. It is also acceptable to overlap mesh joints. Panels shall join on a framing member.

## Construction Specification Physical Security Penetration Barrier for Plaster and Stucco Applications

### Part 1 General

#### DESCRIPTION OF WORK

Included work is not limited to the supply and installation of a complete in place security lath structural base for portland cement stucco or high strength gypsum plaster plus all complimentary accessories.

#### SUBMITTALS

Product Data. Submit manufacturers literature and Secura Lath Installation Guidelines for Walls and Ceilings.

#### QUALITY ASSURANCE

The contractor must have adequate experience with the construction methods involved with plaster and stucco installations.

#### REFERENCES

Secura Lath exceeds the requirements of ASTM C847 and ASTM C1063. Secura Lath is not specifically covered by current ASTM Lath specifications, but due to its weight and strength it exceeds current metal lath specifications. General requirements for steel – ASTM A569/569M & ASTM 1267. Underwriters Laboratories Rated Assemblies will not be jeopardized by using ASL in the fire rated assembly. (U/L Subject File #1857)

### Part 2 Products

#### MANUFACTURER

Physical penetration barrier shall conform to ASL 50-16R as manufactured by Alabama Metal Industries Corporation (AMICO), Birmingham, Alabama. Security Products Department: Telephone 800-366-2642.

#### MATERIALS

The carbon steel used in the manufacture of the expanded lathing product shall meet ASTM A569/569M and the requirements of EMMA557-99. Expanded metal lathing not manufactured specifically for security purposes is not permitted for this use.

Perforated kraft paper shall be vinyl coated on side and shall be factory attached to the metal lathing. Perforations allow the wire tying of the steel lathing to the carrying channel. The vinyl-coated paper encourages the complete embedment of the lath and a uniform stucco thickness.

#### STORAGE AND HANDLING

Materials shall be stored in a clean, dry location with proper ventilation to avoid damage from moisture. Materials shall be protected against damage from weather, vandalism, and theft. In event of freight damage, note freight bill and contact manufacturer immediately.

### Part 3 Execution

#### INSTALLATION

Secura Lath physical penetration barrier must be installed to the letter per the AMICO Secura Lath Installation Guidelines to obtain desired results and to keep cracking to a minimum. All stucco will crack to some degree due to shrinkage and movement, however by following the installation Guidelines implicitly, cracking should be kept to an acceptable level.

The AMICO Installation Guidelines procedures herein follow ASTM C1063, ASTM C841, ASTM C926, ML/SFA 920/91. In some instances Secura Lath will exceed these specs due to security requirements and the uniqueness of this system.

#### FINISH

For standard installations the lathing mesh shall be pre-galvanized prior to both the expanding process and the factory applied paper backing.

Finish	Dimensions	Panel Size	Weight Per Sq. Ft.
Pre-Galvanized	27" x 97"	18.2 sq. ft.	.83 lbs.

# Locations coast to coast to serve you better!

## Manufacturing & Distribution:

**Birmingham, AL**  
800-366-2642  
fax 205-780-7838

**Lakeland, FL**  
800-487-2511  
fax 863-688-2242

**Fontana, CA**  
800-962-0100  
fax 909-822-8135

**Toronto, Canada**  
800-663-4474  
fax 905-335-5682

## Distribution Centers:

**Chicago, IL**  
800-238-0322  
fax 815-932-4557

**Kansas City, MO**  
800-472-3121  
fax 816-421-5565

**Greenville, SC**  
800-476-4430  
fax 864-458-7245

**Seattle, WA**  
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fax 253-872-5676

**Montreal, Canada**  
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fax 514-648-4731

**Houston, TX**  
800-433-9945  
fax 713-921-5636

**Wilmington, DE**  
800-476-4430  
fax 302-429-9126

**Vancouver, Canada**  
800-665-4474  
fax 604-607-5075

Visit [www.amico-lath.com](http://www.amico-lath.com) to view or download data sheets, request a catalog or find an AMICO representative to contact for technical assistance.