



**Aluminum Beam Gang**

# Aluminum Beam Gang System



Symons Aluminum Beam Gang Forming System offers computer-optimized aluminum beams with an extremely high strength-to-weight ratio. The unique beam attachment clips, sturdy aluminum beams and steel walers combine to create the most rigid, compact, and lightweight gang form system on the market.

The Aluminum Beam Gang Forming System can be used for virtually any concrete forming application. Unlike competitive aluminum gang forming products that may suffice for simple straight walls, you can form corners, pilasters, core walls, curved walls, and other configurations easily with this system.

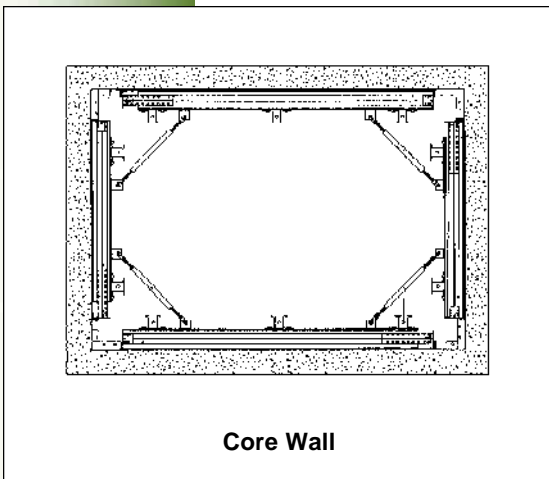


Symons also has a unique Transition Bracket to permit quick attachment to other Symons concrete forming systems. The Transition Bracket allows you to switch over to Versiform® or Steel-Ply® components to fit your forming needs.

## **System Flexibility**

Waler spacings and tie locations can be adapted to specific forming requirements for maximum Aluminum Beam Gang flexibility on almost any project.

Tie patterns are easily accommodated with two different tie capacities. Less time is required because ties can be conveniently placed. Tie and waler hardware, walkway brackets and wall braces are standard components, available for rent or purchase.

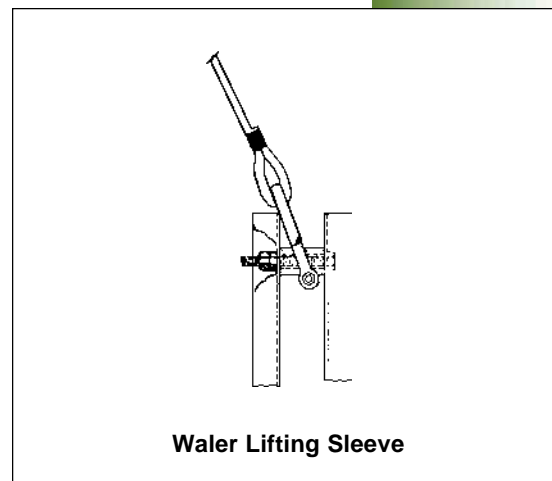
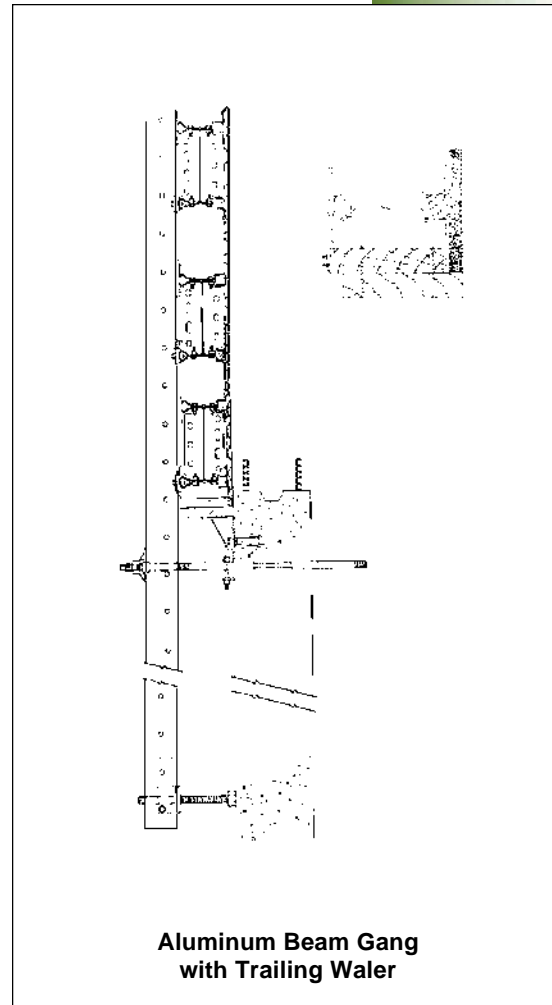


# Labor Savings

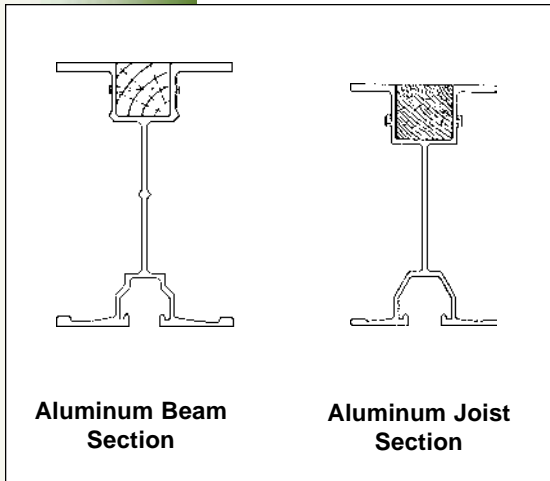
The Aluminum Beam Gang Forming System is easy to assemble, position and align. The lightweight aluminum beam gang maximizes the square footage of forming contact area.

The advantages of the Aluminum Beam Gang Forming System are:

- ◆ Users of job-built, lumber gang forms find this system lighter, with higher reuse and simple alignment.
- ◆ New  $\frac{3}{4}$ " plywood attached to the Aluminum Beam Gang provides an exceptional concrete finish for architects, engineers and owners.
- ◆ Lightweight Aluminum Beam minimizes total gang form weight and reduces crane size requirements.
- ◆ Aluminum Beam or Joist Extension Brackets can be used to build virtually any gang size dimension.
- ◆ Steel Walers provide maximum tie spacing for productive concrete forming and can be used when lifting the gang.
- ◆ Trailing Walers with plumbing screws and Walkway Brackets can be spliced on after the first lift is poured, eliminating the need to reposition Walers.
- ◆ Adapts to other Symons forming systems to reduce costly job-built details.



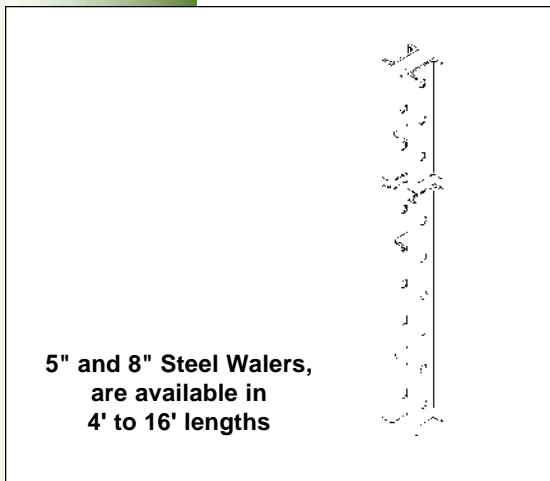
# System Components



## Aluminum Beam

The Aluminum Beam has a 7¼" section height with a 2" x 2" nailing strip for secure plywood attachment. This section height is compatible with the 2" x 8" lumber used for filler sections. Beam lengths range from 4' to 30' in even 2' increments, with the size indicated on each beam.

A thick, 5" wide base flange provides stability, and a special longitudinal web provides exceptional strength and rigidity. Although it weighs only 4.6 lbs./ft., the Aluminum Beam supports long spans with less deflection than job-built lumber gangs.



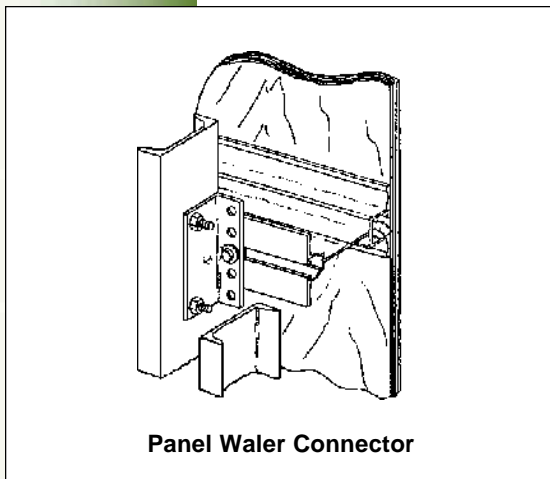
## Aluminum Joist

The Aluminum Joist has a section height of 6½" and a flange width of 4". At 3.5 lbs. per foot, it offers a lighter weight alternative to Aluminum Beams. Aluminum Joists are available in lengths of 5' to 21' in 2' increments.

## Walers

Two Waler sizes, 5" and 8", provide strong-back and tie placement support for the Aluminum Beam Gang Forming System. Steel Walers are less susceptible to damage and require fewer ties.

Waler lengths range from 4' to 16' in even 2' increments. Splice channels are available to extend Waler length with full moment strength.



Panel Waler Connectors attach the Aluminum Beam Gang to the Walers. Waler Lifting Sleeves, used for properly lifting gangs, have a safe load rating of 2,000 lbs.

### Beam Attachment Clips

A unique Beam Attachment Clip makes the job of securing Aluminum Beams or Joists to Walers quick and easy. The friction connection provides secure assembly, but is simple to modify for various forming conditions.

### Transition Brackets

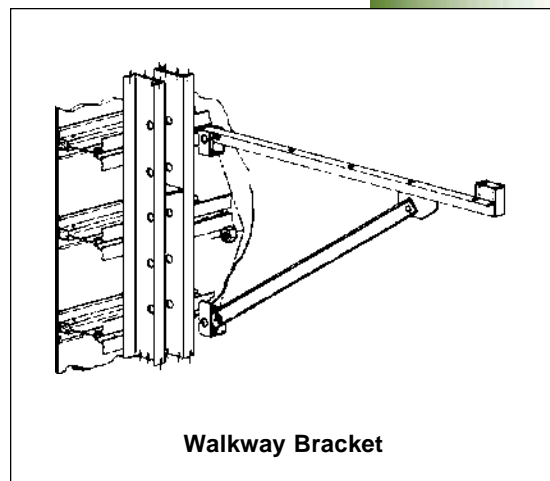
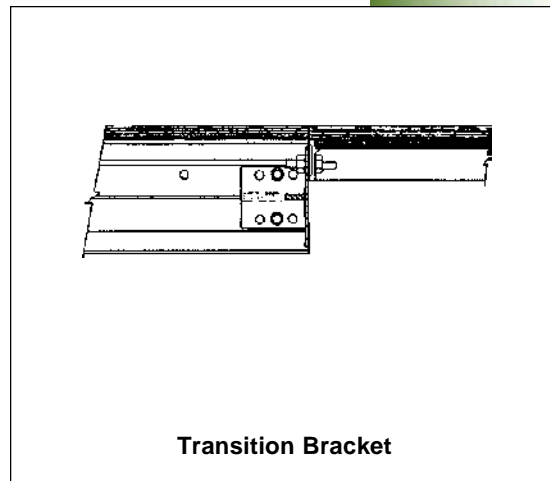
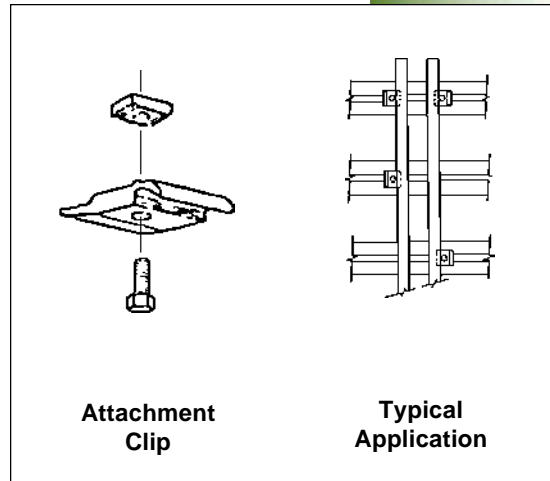
The Transition Bracket extends the forming capabilities of the Aluminum Gang Forming System. This bracket permits the system to be used with Versiform® and Steel-Ply® components to form bulkheads, pilasters, corners, core walls or other project details.

### Extension Plates

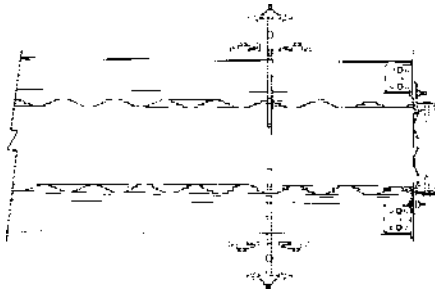
Extension Plates attach to the Transition Bracket and allow 2¾" to 11" extension beyond the end of the Aluminum Beam or Joist.

### Walkway Brackets

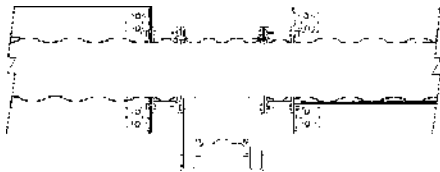
Work platforms supported by Walkway Brackets provide safe access to gangs when pouring concrete. These invaluable platforms also can be used when installing or stripping ties and related hardware.



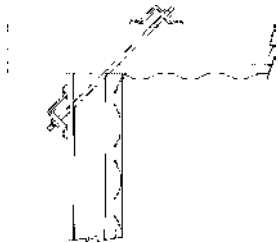
# Forming Details



**Aluminum Beam Gang and  
Steel-Ply Bulkhead**



**Aluminum Beam Gang and  
Steel-Ply Pilaster**



**Corner Tie Application**

## **System Compatibility**

Steel-Ply® or Versiform® panels bolt to a Transition Bracket that is bolted to the Aluminum Beam Gang Form. Plywood facing is used to continue the smooth architectural finish provided by the plywood faced gang form.

## **Bulkheads**

A Steel-Ply filler is attached by Wedge Bolts to Transition Corners. Transition Corners are bolted to Transition Brackets which are fastened to the Aluminum Beam Gang Form to create bulkheads.

## **Pilasters**

Pilaster details between Aluminum Beam Gangs can be formed with Steel-Ply components. The Pilaster Form and Steel-Ply or Versiform transition provide adjustable pilaster sizes, while linking gangs around this complex detail.

## **Outside Corners**

When forming outside corners with Aluminum Beam Gang Forms, the distance between a corner and the end Walers on adjoining gangs establishes the tie method.

Two corner tie methods are available using Corner Tie Brackets to resist the lateral loading of the concrete.

## **Inside Corners**

Standard Versiform corners are attached to Aluminum Beam Gang with a Transition Bracket and an Extension Plate. The combination provides the inside corner with proper alignment.

When you compare the Aluminum Beam Gang Forming System with other systems, you'll find that Symons offers a complete line of components and accessories to handle virtually any forming situation.

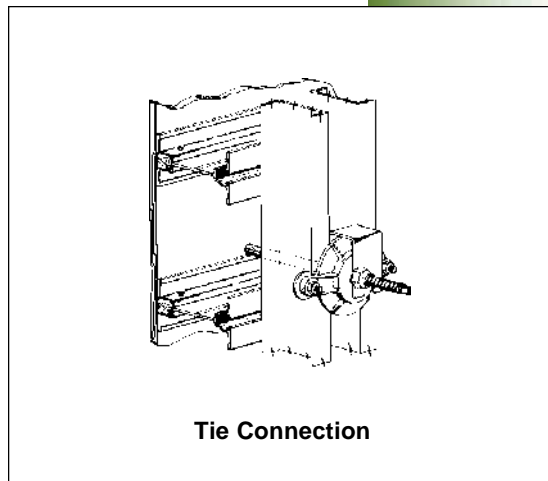
The Aluminum Beam Gang Forming System provides solutions for bulkheads, pilasters, corners, batter walls, core walls, curved walls, multiple lifts, top ties and walkways. There are no unsolved details to be concerned with, and no makeshift field solutions are necessary.

Contour-threaded hardware is available for use with the Aluminum Beam Gang Form System to eliminate concrete buildup and special transitions to other forming systems. Like Symons other forming system accessories, these components are designed to eliminate mishaps, reduce waste and maximize forming productivity.

#### **Form Protection**

One of the most important items for the care of Aluminum Beam Gang Forms is the proper use of a good form release agent. Magic Kote® Form Release:

- ◆ Makes form stripping faster and easier
- ◆ Reduces or eliminates cleaning between form uses
- ◆ Protects metal components against rust and corrosion
- ◆ Leaves concrete surface free of residue or dusting problems
- ◆ Does not stain or discolor the concrete surface.



**Adjustable Column Form** — Form square or rectangular columns efficiently with a minimum number of steel panels.

**Alisply™** — Clamp-type, metric-dimension system is quickly assembled and reconfigured for fast-paced gangforming.

**Aluminum Beams and Joists** — Lightweight beams/ joists from 4' to 30' (122cm to 914cm) for deck or gangform applications.

**Box Culvert Traveler** — Rolling steel framework is compatible with Steel-Ply, Versiform and Max-A-Form systems.

**Chemicals** — Liquid, cement, epoxy and other specialty products for concrete construction and repair.

**DeckFast™** — A quick two-component system of modular panels and shores for creating flat concrete decks.

**Flex-Form®** — Specially designed steel-faced system for forming curved walls and round tanks with no surface "chording".

**Form Liner** — More than 100 standard patterns, in four different materials, create unique concrete textures.

**FrameFast™** — Provides 24,000 lb. (106kN) load capacity per shore frame with spacings from 3' to 15' (91.4cm to 457.2cm).

**Garage Beam** — A complete system to form an economical, poured-in-place concrete parking garage.

**Max-A-Form®** — A durable, all-steel forming system that is ideal for pier caps and self-spanning applications.

**Rasto™** — The advantages of a clamp-type gangform, with the handset flexibility for details.

**Resi-Ply™** — A low cost, 1<sup>1</sup>/<sub>8</sub>" (2.9cm) plywood forming system for residential construction, in 4-bar, 5-bar and 6-bar spacing.

**Roller Deck** — Column-mounted deck support system replaces conventional shoring, providing access for other trades.

**ShorFast™** — High capacity aluminum leg and jack shoring system can support up to 30 kips (133kN) per leg.

**Steel-Ply®** — The most recognized modular system, with more than 80 panel and filler sizes, for handsetting or gangforming.

**Symons Soldier™** — The "next generation" construction beam that can be used as a brace, strongback, waler or shore.

**Street Smart™** — Reusable steel forms for residential curb and gutters, industrial slabs and highway paving applications.

**Symons Silver™** — A lightweight aluminum system that makes residential forming operations efficient and productive.

**Versiform®** — Steel frame/plywood face gangforming system that provides a smooth concrete finish.



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