



THE POWER OF RED™

BACKBONE™ ONE-SIDED FORMING

CONCRETE
FORM SUPPORT
SYSTEMS

BROCHURE



SYMONS®
BY DAYTON SUPERIOR



Small Components

- **S-Wedge** — Connects the OSF Waler to the Inside Corner
- **Connection Bolt** — Fastens the OSF Waler to the Frame, Frame 200H x 300W or Frame 200H x 413W
- **Tie Nut** — One piece, and easy to release
- **Tie Rod** — Extends the cast-in anchor element to the re-usable connector nut
- **Hexagon Nut** — Connects cast-in element to the re-usable anchor elements
- **Loop Tie** — Cast-in to transfer tensile loads to the building structure
- **Tie Plate with Nut** — Distributes tensile loads into the building and remains permanently in the concrete with a tie rod.

Symons One-Sided Forming (OSF) frame is strong, flexible and allows concrete pressure up to 60 kN/m^2 (1,250psf). The distance between the Support Frames is determined by the height of the wall and the concrete pressure. The form is plumbed using jacks at the base.

Symons one-sided wall has Support Frames that transfer the forces through the anchors embedded in the concrete at the foot of the formwork and through the rear pressure jack on the bracket.

Six Principle Components:

OSF Frame 325 (10'-8")

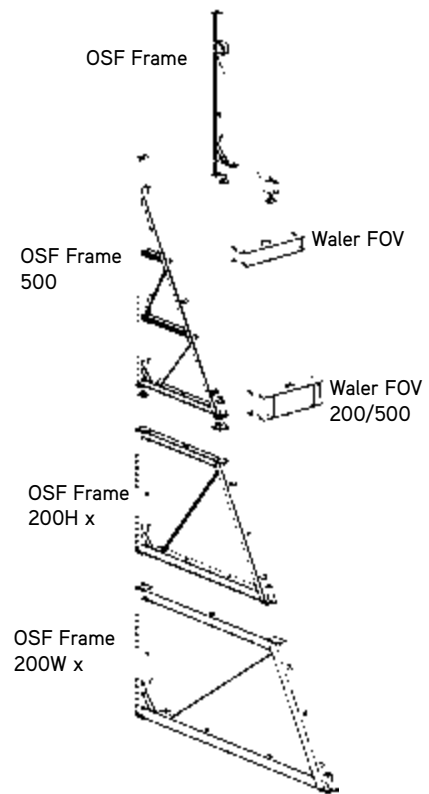
For one-sided forming up to a maximum height of 3.25m (10'-8")

OSF Waler for 325

The loads that arise during the use of the OSF Support Frame 325 are distributed via the waler into the anchor.

OSF Frame 500 (16'-5")

For one-sided forming up to a maximum height of 5m (16'-5"). A $1 \times 2\frac{3}{4}$ " NC Grd 5 bolt, nut, and $\frac{1}{8}$ " flat washer is used to fasten a Frame 500 to Frames (4 of each per connection).



One-Sided Forming Components

OSF Waler for 200/500

The loads that arise during the use of the Support Frame 500 and the Frame 200 are distributed via the waler into the anchor ties.

OSF Frame 200H x 300W (6'-6" x 9'-7")

Used with the Support Frame 500 for one-sided forming up to a maximum height of 6.6m (21'-7").

OSF Frame 200H x 413W (6'-6" x 13'-6")

Used together with the Frame 500 and the Frame 200H x 300W for one-sided forming up to a maximum height of 9m (29'-6").

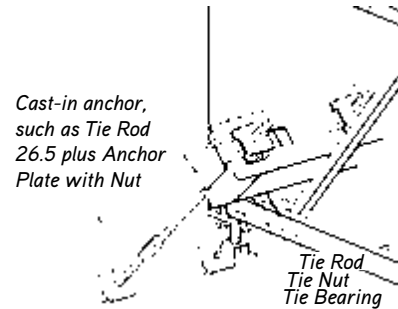
When working with the Frame 500 and the Frame 200H x 300W, the Frame 200H x 413W creates a supporting structure for tie-free walls up to 9m (29'-6") high. They are secured with the OSF Waler.

OSF Walers

If waler profiles are used, the distance between Frames is not dependent on the grid of the formwork panels, but by the structural characteristics of the frames, walers, and anchors. Formwork with smaller panel widths can be efficiently employed with steel walers.

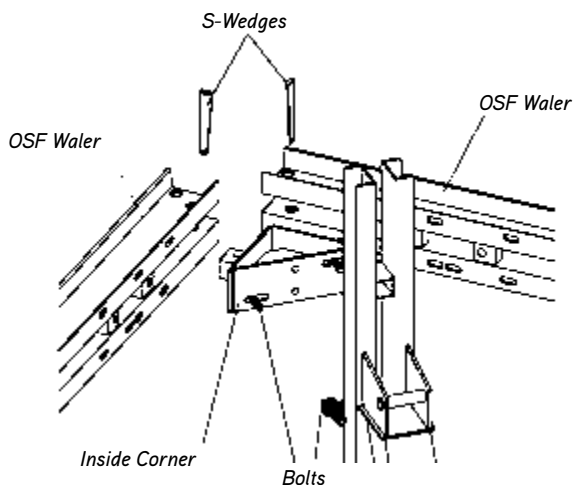
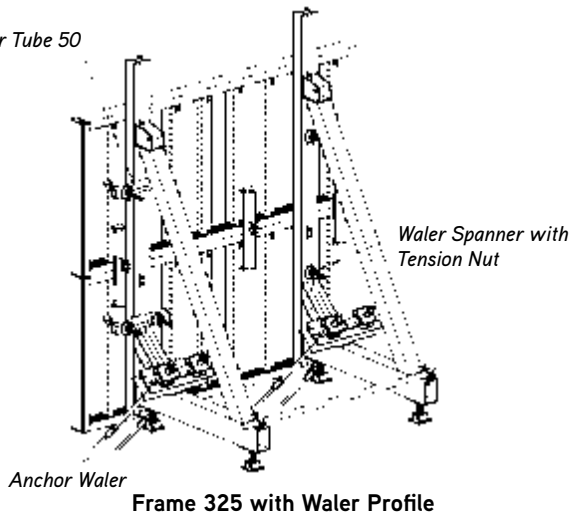
Corners

Corners can be formed by combining the Frame 325, Walers 240 and the Inside Corner. The Inside Corner connects the walers and forms a point of attachment for a Frame 325. The maximum pouring pressure with this Frame arrangement is 50 kN / m² (1044 lb / ft²). Depending on loading, additional rows of walers may be necessary.



Typical Anchoring Application

Center Tube 50



Typical Inside Corner Application

One-Sided Forming with Versiform Walers

Sill Required

The one-sided wall forming components are designed to fit up with 5" or 8" Versiform walers used with most of Symons forming systems. However, some of the systems require the use of a 2x sill (1½") to allow for a positive connection of walers to formwork.

Systems that require a 1½" sill:

- **Versiform** — when lifted from the walers
- **Max-A-Form®** — when stiffeners are used vertically
- **Flex-Form®**

No Sill Required

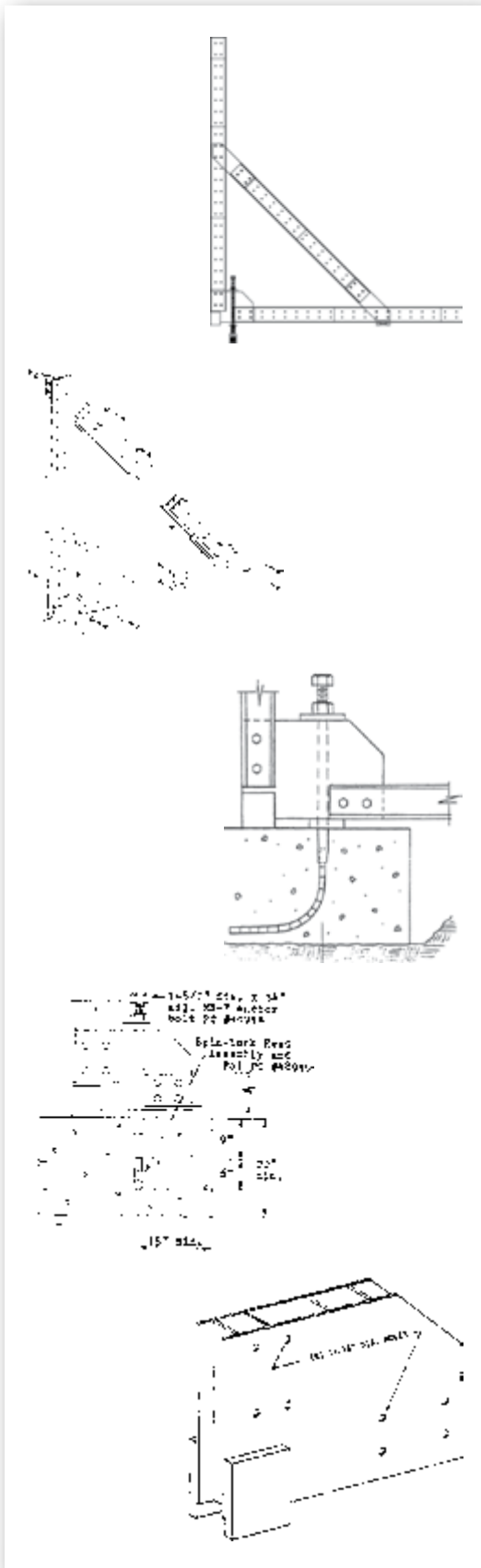
If the waler assembly and the forms are lifted separately, a waler connection (positive connection) is not necessary, and the sill can be eliminated. However, a sill may be used if desired.

Systems that do not require a sill:

- **Mini-Max Walers** — when lifted from the forms. A Mini-Max system can not be used when lifting from the walers unless a 4½" build-up is used under the forms.
- **Horizontal Steel-Ply®**
- **Versiform** — when lifting from the forms
- **Max-A-Form** — when stiffeners are used horizontally

How-To:

- Use 42" pigtail applications when shear values are less than 15,000 lbs. in 2000 psi concrete, or 18,000 lbs. in 3000 psi concrete.
- Use 42" pigtails with 6" cones for applications when shear values are 15,000 to 24,000 lbs in 2000 psi concrete, or 18,000 lbs. in 3000 psi concrete.
- The load on the bearing plate under the Diagonal Attachment Bracket is equal to the tension load on the anchor.
- The diagonal waler may be either a 5" x 8' or 8" x 8' waler
- Use Spin-Lock head assembly for existing concrete (2000 psi minimum) or rock applications.



One-Sided Forming with Soldier Beams

Symons standard form systems, such as Steel-Ply, Versiform or Max-A-Form, can be combined with Symons Soldiers to create tieless concrete forming schemes for one-sided wall forming. The ideal application for Soldiers is creating a tieless forming scheme which offers substantial savings in time and labor costs.

A complete line of hardware and accessories, including One-Sided Brackets and Jack Brackets, simplifies plans for one-sided wall forming applications.

PC	Length	Weight
38900	1'-6"	45 lbs.
	457.2 mm	20.41 kg
38903	2'-0"	52 lbs.
	609.6 mm	23.59 kg
38917	3'-0"	67 lbs.
	914.4 mm	30.39 kg
38901	4'-0"	83 lbs.
	1219.2 mm	37.65 kg
38902	8'-0"	148 lbs.
	2438.4 mm	67.13 kg
38904	12'-0"	212 lbs.
	3657.6 mm	96.16 kg

Adaptability

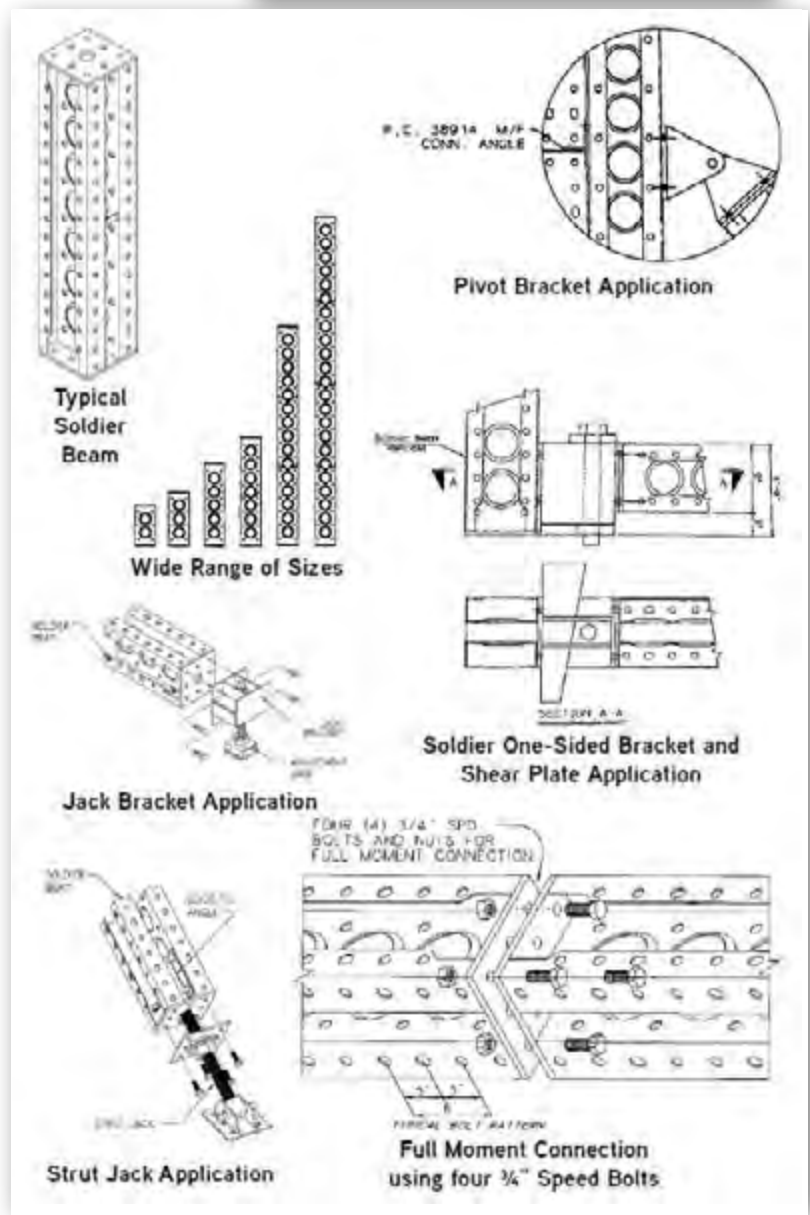
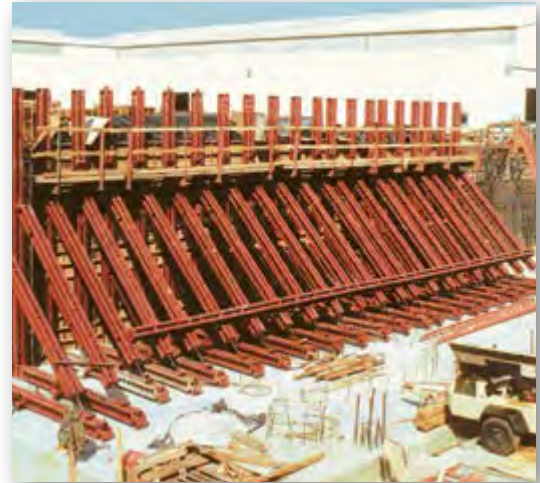
Soldier beams are lightweight, strong, and the unique hole pattern makes them adaptable to virtually any configuration. The complete line of durable, all-steel hardware and accessories provides additional versatility for almost any one-sided wall forming application.

Inventory Options

Every size of Symons Soldier beams and every accessory are available for rent or purchase. Ask your representative for more information.

Components

- Connection Angle — Connects vertical Soldier to form
- Pivot Bracket — Connects vertical Soldier to strut
- Strut Jack — Connects strut to horizontal Soldier
- One-Sided Bracket — Connects vertical Soldier to horizontal Soldier
- Jack Bracket — Levels and plumbs frame and form
- Shear Plate — Resists concrete pressure





SYMONS®

BY DAYTON SUPERIOR

1125 Byers Road
Miamisburg, OH 45342
937-866-0711
888-977-9600
WWW.SYMONS.COM

**THE
POWER
OF RED™**

SYM91228
REV. 03/24

Copyright © 2024 Dayton Superior Corporation, All Rights Reserved.