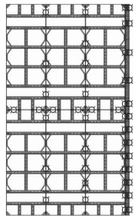
SYMONS BY DAYTON SUPERIOR — Sym-Ply® Safety Applications

ALL SYMONS COMPONENTS AND ACCESSORIES ARE DESIGNED WITH SAFETY AND PERFORMANCE IN MIND. THE APPLICATION NOTES ON THIS SHEET WILL HELP YOU ACHIEVE A SAFE AND PRODUCTIVE FORMING OPERATION. IT IS RECOMMENDED THAT ALL CONSTRUCTION PERSONNEL THOROUGHLY FAMILIARIZE THEMSELVES AND COMPLY WITH THE APPLICABLE INDUSTRY STANDARDS AND SAFE PRACTICES ESTABLISHED BY "THE AMERICAN CONCRETE INSTITUTE, AMERICAN NATIONAL STANDARDS INSTITUTE, THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, AND THE SCAFFOLDING AND SHORING INSTITUTE."

IMPORTANT:
ALL FORMING AND SHORING COMPONENTS MUST BE INSPECTED REGULARLY FOR DAMAGE OR EXCESSIVE WEAR. EQUIPMENT FOUND TO BE DAMAGED OR EXCESSIVELY WORN MUST BE REPLACED IMMEDIATELY.

OUTER CORNER CLAMPING REQUIREMENTS



Caution: Additional clamps are required at corners!
Concrete pressure forces at corners require the installation of additional clamps at and near the formed corners.
Please refer to the Sym-Ply Application Guide for stack configurations and clamp placement.

SYM-PLY LIFT BRACKETS DETAILS



LIFT BRACKET AT VERTICAL CROSSMEMBER

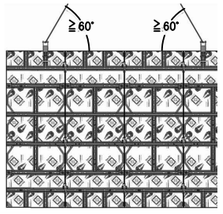


LIFT BRACKET AT TIE BOX

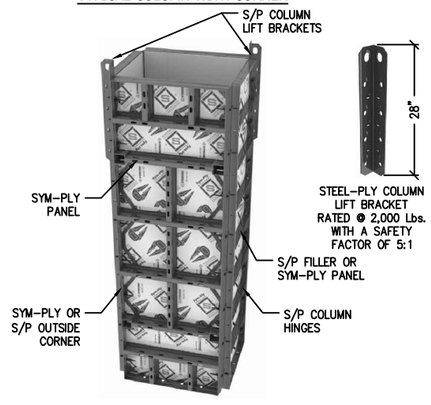
SYM-PLY LIFT BRACKET
SAFE WORKING LOAD = 2,000 lbs.
@ 5:1 SAFETY FACTOR
(MINIMUM 60° LIFT FROM HORIZONTAL)

LIFTING AND BRACKET PLACEMENT OF GANG FORM

⚠ CAUTION
THE ANGLE FOR THE ATTACHED LIFTING LINES MUST BE GREATER THAN OR EQUAL TO 60 DEGREES FROM HORIZONTAL. WHEN MORE THAN TWO BRACKETS ARE INSTALLED, A SPREADER BEAM MUST BE USED.



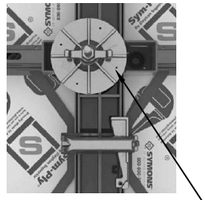
TYPICAL COLUMN WITH CORNER



STEEL-PLY COLUMN LIFT BRACKET RATED @ 2,000 Lbs. WITH A SAFETY FACTOR OF 5:1

FRAME TIE PLATE USED AT DOUBLE 2 INCH FILLER

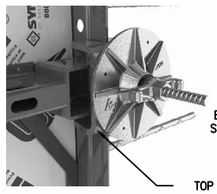
FRAME TIE PLATE MUST BE USED AS SHOWN WHEN USING TWO (2) INCH FILLERS

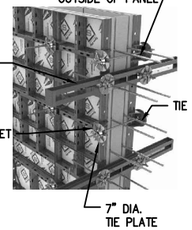


7" X 7" FRAME TIE PLATE INSURES ALL PANELS AND FILLERS ARE ADEQUATELY SUPPORTED BY THE TIE.

ATTACHING WALERS ON BULKHEADS

NOTE: - SAFE WORKING LOAD OF THE TOP TIE BRACKET CLIP IS 7,000 lbs.





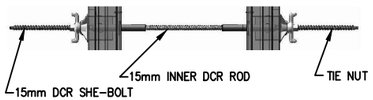


BULKHEAD SYM-HOOK
6,000 Lb WORKING LOAD @ 2:1 SAFETY FACTOR

TIES AND TIE CAPACITIES



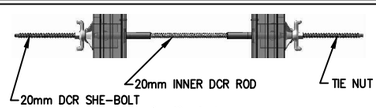
15 mm TAPER TIE DETAIL
SAFE WORKING LOAD OF TIE ASSEMBLY = 18,750 LBS. @ 2:1 SF



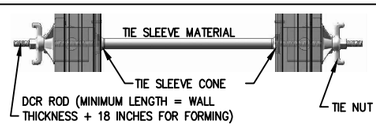
SHE-BOLT DETAIL
SAFE WORKING LOAD OF TIE ASSEMBLY = 18,750 LBS. @ 2:1 SF



20 mm TAPER TIE DETAIL
SAFE WORKING LOAD OF TIE ASSEMBLY = 19,600 LBS. @ 2:1 SF



SHE-BOLT DETAIL
SAFE WORKING LOAD OF TIE ASSEMBLY = 19,600 LBS. @ 2:1 SF



TIE SLEEVE DETAIL
SAFE WORKING LOAD OF 15mm DCR ROD = 18,750 LBS.@ 2:1 SF
SAFE WORKING LOAD OF 20mm DCR ROD = 19,600 LBS.@ 2:1 SF

SPECIFIC TIE NOTES

1.) WHEN USING TAPER TIES AND/OR SHE-BOLTS, IT IS VERY IMPORTANT THAT THE TIE NUTS ARE CONSISTENTLY FITTED SNUG. AN OVER TIGHTENED TIE COULD CAUSE A TIE FAILURE DUE TO UNEVEN TIE LOADING. USE OF WALL SPREADERS IS RECOMMENDED TO AID IN MAINTAINING FORM SPACING BOTH DURING ERECTION AND POUR PROCESSES.
2.) TAPER TIES AND SHE-BOLTS MUST BE ADEQUATELY LUBRICATED TO AID IN STRIPPING.



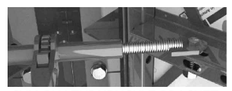
TYPICAL TIE PLATE ORIENTATION AT PANEL JOINTS



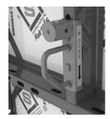
SAFETY TIE OFF LOCATIONS (DO NOT ATTACH TO CRANE)
SAFETY TIE OFF LOCATIONS



SYM-PLY TURNBUCKLE BRACKET ON TYPE 1 PANEL



SYM-PLY TURNBUCKLE BRACKET ON TYPE 2 PANEL



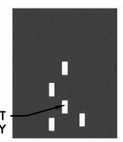
SYM-PLY TIE OFF BRACKET
RATED @ 5,000 Lbs
(DO NOT ATTACH TO CRANE)

MULTI-SHEAR WALL BRACKET & GUIDE PLATE

RATED @ 2,000 Lbs IN 2,000 P.S.I. CONCRETE @ 3:1 SAFETY FACTOR

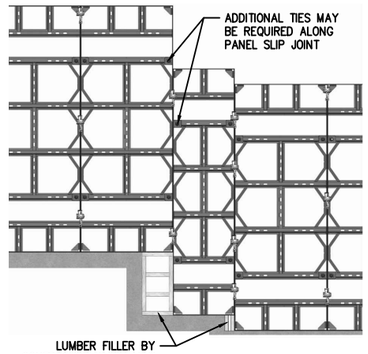


FRONT VIEW OF BRACKET — REAR VIEW OF BRACKET



TOP VIEW OF BRACKET

STEPPED ELEVATIONS



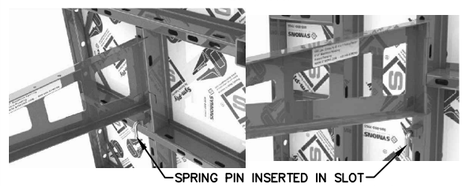
FALL FORWARD BRACKET
MAXIMUM SPACING OF FALL FORWARD BRACKET IS 8'-0" C/C



INSTALLATION AND REMOVAL OF FALL FORWARD BRACKETS.
SEE WALKWAY BRACKET INSTALLATION AND REMOVAL INSTRUCTION

SECURING WALKWAY BRACKETS

MAXIMUM SPACING OF WALKWAY BRACKET IS 8'-0" AT A PERMISSIBLE LOAD OF 500 Lbs.
@ 4:1 SAFETY FACTOR



WALKWAY BRACKET ON VERTICAL PANEL — WALKWAY BRACKET ON HORIZONTAL PANEL

INSTALLATION AND REMOVAL OF WALKWAY BRACKETS
TO INSTALL,
WITH THE BRACKET AT A SLIGHT ANGLE, INSERT THE TOP HOOK INTO AND AGAINST THE TOP OF A SLOT.
WITH THE TOP OF THE BRACKET HELD AGAINST THE VERT./HORIZ. MEMBER, ROTATE THE BOTTOM HOOK INTO THE LOWER SLOT AND SLIDE THE ENTIRE BRACKET DOWN UNTIL THE HOOKS ENGAGE AND THE SPRING PIN SNAPS INTO THE SLOT.

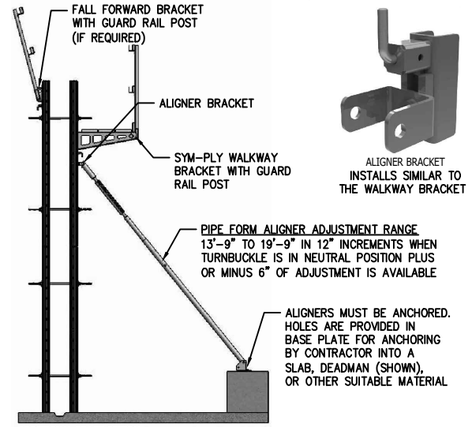
NOTE: BE SURE SPRING PIN SNAPS INTO SLOT AS THIS PREVENTS UPLIFT AND/OR ACCIDENTAL REMOVAL.

TO REMOVE,
PULL THE SPRING HANDLE BACK AND SLIDE THE BRACKET UP AND PULL THE BRACKET AWAY FROM THE VERTICAL/HORIZONTAL MEMBER.

THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ANY ADDITIONAL COMPONENTS (PLANKING, GUARDRAILS, ETC.) REQUIRED TO CREATE A WORK PLATFORM WHICH MEETS OR EXCEEDS ALL APPLICABLE INDUSTRY STANDARDS.

VERTICAL FORM ALIGNMENT

(MAXIMUM SPACING 8 FEET)



ALIGNER BRACKET
INSTALLS SIMILAR TO THE WALKWAY BRACKET

TOP TIE BRACKET DETAILS



TOP TIE BRACKET AT VERTICAL CROSSMEMBER



TOP TIE BRACKET AT TIE BOX

TOP TIE BRACKET
SAFE WORKING LOAD = 7,000 lbs. @ 2:1 SAFETY FACTOR

⚠WARNING

UNSECURED GANG FORMS CAN FALL OVER CAUSING SEVERE INJURY OR DEATH



IMPORTANT:
BRACING
1.) BRACING MUST BE IN PLACE WHILE SETTING FORMWORK AND REMAIN IN PLACE UNTIL FORMS ARE STRIPPED.
2.) CONTRACTOR IS TO INSURE THAT FORMWORK IS PROPERLY BRACED AND STABILIZED AGAINST WIND AND OTHER EXTERNAL FORCES.

STRIPPING AND REMOVAL OF GANG FORMS
1.) ATTACH THE CRANE RIGGING TO THE LIFTING BRACKETS AND SLOWLY TAKE UP THE SLACK IN THE RIGGING.
2.) SECURE BACKSIDE GANG TO PREVENT ITS FALLING, PROIR TO STEP 3.
3.) SAFELY REMOVE ALL TIES, BRACES, AND ALIGNERS.
4.) BREAK THE BOND BETWEEN THE CONCRETE AND THE FORMS. DO NOT USE THE CRANE TO BREAK THE BOND.
5.) MOVE THE GANG FORM TO THE NEXT LOCATION.
6.) FULLY BRACE AND SECURE THE FORM BEFORE REMOVING CRANE RIGGING.



SYMONS RECOMMENDS GLOVES, HARDHATS, SAFETY SHOES, AND SAFETY GLASSES BE WORN DURING ALL FORMING AND POURING OPERATIONS.