NUCOR BUILDING SYSTEMS
WALL SHEETING ERECTION MANUAL

INSTRUCTIONS FOR INSTALLING WALL SHEETING

FOR FIELD USE

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DUE TO THE PROCESS OF CONTINUOUS IMPROVEMENT, THE PRODUCTS AND PROCEDURES IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE

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1.0 RECEIVING, HANDLING AND STORING MATERIALS

1.1 RECEIVING MATERIALS & FILING CLAIMS

- Check shipment against delivery tickets during unloading.
- Note any damage or discrepancies on the delivery tickets before signing as receiver.
- **Nucor Building Systems** is not responsible for carrier damage or discrepancies not noted on the delivery tickets.
- The customer assumes full responsibility for the condition of this material after delivery by the trucking company.
- **Nucor Building Systems** is not responsible for items accepted in questionable condition.
- Upon acceptance of shipment(s), the **contractor** is responsible for the proper storage and handling of materials as described in this manual.
- **Nucor Building Systems** is not responsible for injury, damage, or loss as a result of improper storage and/or handling.
- All claims must be filed with **Nucor’s Quality Services Representative** prior to any field modifications or purchases that may result in a charge to **Nucor**

This building is designed, manufactured, and delivered in accordance with most recent addition of the M.B.M.A. METAL BUILDING SYSTEMS MANUAL. CONSULT THE INFORMATION IN THE “COMMON INDUSTRY PRACTICES” SECTION.
1.2 HANDLING MATERIALS

Nucor wall panels are rolled and banded, with a cover panel placed top and bottom.

Panel bundle weight can be found on i.d. tag at low end of each bundle. Maximum weight is 4300 pounds.

Bundles up to 25 feet can be handled using a forklift. Forks must be spaced a minimum of five feet apart.

Bundles over 25 feet should be handled with a crane using a spreader bar and nylon slings. Lifting should occur at center of gravity.

Locate slings at 1/4 of the length of the panel from each end of the bundle.

Trim crates/boxes are to be handled the same as panel bundles.

STEEL CHOKERS/SLINGS, CABLES OR CHAINS SHALL NOT BE USED.
1.3 STORING MATERIALS

Panel and trim bundles / crates should be blocked 12 inches above grade.

Elevate one end to allow moisture to drain.

Loosely cover with waterproof tarp to allow proper air circulation.

Inspect daily and dry if necessary.

Accessories must be kept dry and free of contamination. Store indoors if possible.

If the panels are wet, the bundles should be opened and then the panels should be dried and re-stacked to prevent damage.

IMPORTANT NOTE: The finish on these panels may not perform as intended if not erected within 90 days from receipt at the job site. The finish is also subject to severe damage if moisture, debris, or dust is allowed to get between the panels; therefore, panels MUST BE STORED UNDER COVER with one end elevated to allow for drainage and protection against moisture, dust, or debris until erected. The manufacturer will not accept claims for non-performing panels if not properly stored at the jobsite. The customer assumes full responsibility for the condition of this material after delivery by the trucking company.
2.0 PANEL PROFILES

PART NUMBERING CONVENTIONS
Example: CW 6 - 12250

PANEL LENGTH (In Inches)
The last (2) digits are for fractions of an inch.

PANEL GAUGE
2 = 22 gauge
4 = 24 gauge
6 = 26 gauge

PANEL TYPE
CW = CLASSIC Panel
AW = ACCENT Panel
RC = REVERSE CLASSIC Panel

36" COVERAGE

12" 12" 12"
CLASSIC WALL PANEL

36" COVERAGE

12" 12" 12"
6" 6"
ACCENT WALL PANEL

36" COVERAGE

12" 12" 12"
REVERSE CLASSIC WALL PANEL
3.0 STANDARD PARTS

STANDARD BASE TRIM
18 Gauge Steel

OPTIONAL BASE TRIM
26 Gauge Steel

OUTSIDE CORNER
(For Optional Base Trim)

INSIDE CORNER
(For Optional Base Trim)

OPTIONAL FOAM WALL PANEL CLOSURES

OPTIONAL STRAIGHT AND BEVELED FOAM CLOSURES ARE AVAILABLE IN THESE PROFILES
Beveled Closures are available from 2:12 to 9:12 roof slope.
(See Construction drawing set for more Info & part marks)
3.0 STANDARD PARTS

**HEAD TRIM**
26 Gauge Steel

**JAMB TRIM**
For Classic and Accent Panel
26 Gauge Steel

**JAMB TRIM**
For Reverse Classic Panel
26 Gauge Steel

**SILL TRIM**
26 Gauge Steel

**JAMB COVER TRIM**
26 Gauge Steel

**PLASTIC DOOR END CLOSURE**
(For Optional Base Trim at F. O.'s)
Left and Right Part included as shown

Part Numbers
CCA01-8" Girts
CCB01-10" Girts
CCC01-12" Girts

Part No. HTA
Part No. JTA
Part No. JTD
Part No. STA
Part No. H4220
4.0 PROPER FASTENER INSTALLATION

SEE THE FASTENER SCHEDULE BELOW

RECOMMENDED TOOL TYPES:
2000 - 2500 rpm screw gun with torque adjustable clutch
Manual or electric rivet tool
6-7 amp or higher rated tools (DO NOT USE CORDLESS SCREW GUNS)

DO NOT USE IMPACTING TOOLS
To assure proper voltage to the tool, extension cords should be checked for proper wire size/chord length.
16 gage wire, maximum chord length = 100’
14 gage wire, maximum chord length = 200’
12 gage wire, maximum chord length = 300’

DRIVING TIPS:
Drive fasteners perpendicular to panel surface
Compress the insulation at fastener location with one hand while driving the fastener with the other. This will help keep the panel flat and prevent the fastener from “walking”.
Excessive pressure can cause drill point failure. Let the fastener do the work.

FIELD CUTTING OF PANELS:
When field cutting or mitering wall panels, non-abrasive cutting tools such as nibblers or tin-snips shall be used. Abrasive cutting tools such as mechanical grinders or power saws can damage the material finish and create excess metal shavings that can corrode the panels. The use of non-approved cutting devices may void the factory warranty.

IMPORTANT NOTE: NOSE CONES SHOULD BE USED ON SCREW GUNS TO PREVENT DISTORTING THE PANEL AND TO HELP AVOID OVER-DRILLING THE FASTENERS.

FASTENER SEQUENCE
FASTENERS SHOULD BE INSTALLED FROM THE BASE TO THE EAVE. This will help prevent the panels from oil-canning. See section 7.4 for detail.

IMPORTANT NOTE: After a panel has been installed, be sure to brush off all metal filings. Leaving these filings from the self-drilling fasteners may stick to the panel finish and cause rust staining to take place. Failure to remove these filings may void panel finish warranty.
### FASTENER SPECIFICATIONS USAGE

<table>
<thead>
<tr>
<th>FASTENER</th>
<th>SPECIFICATIONS</th>
<th>USAGE</th>
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<tbody>
<tr>
<td>H1040</td>
<td>SELF-DRILLING SCREW 12-14x1 1/4&quot; TCP 2 W/O Washer 5/16&quot; HEAD</td>
<td>Used to attach wall panel, wall flashing and light gauge parts. Maximum insulation thickness is &lt; 6&quot;</td>
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<tr>
<td></td>
<td>Recommended Tool Types: -2000 RPM; Torque Adjustable Clutch -DO NOT use Impacting Tools</td>
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<tr>
<td>H1041</td>
<td>SELF-DRILLING SCREW 12-14x1 1/4&quot; TCP 2 FLAT TOP W/Wash. 5/16&quot; HEAD</td>
<td>Used to attach wall panel, wall flashing and light gauge parts. Maximum insulation thickness is &lt; 6&quot;</td>
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<tr>
<td></td>
<td>Recommended Tool Types: -2000 RPM; Torque Adjustable Clutch -DO NOT use Impacting Tools</td>
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<tr>
<td>H1045</td>
<td>SELF-DRILLING SCREW 12-14x2&quot; TCP 3 W/O Washer 5/16&quot; HEAD</td>
<td>Used to attach wall panel, wall flashing and light gauge parts. Use at insulation thickness of =/&gt; 6&quot;</td>
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<td>Recommended Tool Types: -2000 RPM; Torque Adjustable Clutch -DO NOT use Impacting Tools</td>
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<tr>
<td>H1047</td>
<td>SELF-DRILLING SCREW 12-14x2&quot; TCP 3 FLAT TOP W/ Washer 5/16&quot; HEAD</td>
<td>Used to attach wall panel, wall flashing and light gauge parts. Use at insulation thickness of =/&gt; 6&quot;</td>
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<td>Recommended Tool Types: -2000 RPM; Torque Adjustable Clutch -DO NOT use Impacting Tools</td>
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<tr>
<td>H1060</td>
<td>SELF-DRILLING SCREW No. 1/4-14x 7/8&quot; TCP 1 W/O Washer 5/16&quot; HEAD</td>
<td>Used to attach light gauge wall trim end laps and trim to wall panels.</td>
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<td></td>
<td>Recommended Tool Types: -2000 RPM; Torque Adjustable Clutch -DO NOT use Impacting Tools</td>
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<tr>
<td>H1061</td>
<td>SELF-DRILLING SCREW No. 1/4-14x 7/8&quot; TCP 1 W/ Washer 5/16&quot; HEAD</td>
<td>Used to attach light gauge wall trim end laps and trim to wall panels.</td>
</tr>
<tr>
<td></td>
<td>Recommended Tool Types: -2000 RPM; Torque Adjustable Clutch -DO NOT use Impacting Tools</td>
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</tr>
<tr>
<td>H1100</td>
<td>POP RIVET 1/8&quot; x 3/16&quot; Stainless Steel Blind Pop Rivet</td>
<td>Used at trim laps, corner caps and attaching light gauge material to siding where screws can’t be used.</td>
</tr>
<tr>
<td></td>
<td>Recommended Tool Types: -Manual or Electric Rivet Tool -DO NOT use Impacting Tools</td>
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5.0 PANEL PREPARATION

5.1 PRE-DRILLING PANELS

NUCOR RECOMMENDS PRE-DRILLING OF SIDELAP JOINTS, WHICH IN MANY CASES, WILL SPEED ERECTION AND MAKE A TIGHT JOINT.

STEP 1: Stack panels with ends flush on a level place on the ground in piles not exceeding 10 panels. Then place small wooden blocks under side lapping edge of stack of panels to hold them at correct height and position while drilling screw holes. Hold panels tightly together at each end with "Vise Grip Pliers". Carefully mark positions for sidelap fasteners on top of high rib. Fasteners should be located "ON CENTER" of high rib as shown below.

STEP 2: Drill holes for "Stitch" screws (Use #1,-7/32"-15/64" drill-bit) on top sheet of sidelap. Be sure panels are well nested before drilling.

WHEN USING OTHER TYPE FASTENERS, SIZE OF DRILL-BIT MAY CHANGE!
5.2 IMPORTANT INFORMATION ABOUT WALL PANEL ORIENTATION

Nucor "ACCENT" and "REVERSE CLASSIC" wall panels are "HANDED" panels. The "UP Turned" leg of the panel ALWAYS goes on the bottom. See the details below.

![Diagram of panel erection]

- Steel Line
- "NUCOR CLASSIC WALL" PANEL
- "NUCOR ACCENT PANEL"
- "NUCOR RC PANEL"

DIMENSION MAY VARY
TUCK PANEL TIGHT TO THIS CORNER
5.3 WALL PANEL ERECTION NOTES

- **Block girts to “level” position before starting panel erection.** Keep this blocking (blocking is not provided by NBS) in place until the wall panel to girt fasteners are installed.

- Make sure that the first wall panel is **aligned and plumb**.

- To prevent “Oil-Canning”, **all panel fasteners should start from the base** and then be fastened to each girt location working toward the eave.

- Make sure that the foundation is **square, level, and correct** to the out-to-out steel line dimensions.

- The erection crew is responsible for **cleaning all wall panels** before leaving the job site.

- Prevailing wind, main traffic area, etc. should be taken into consideration when sheeting the wall.

- **Panels must be stored properly to prevent moisture damage.** Reference section 1.3 for additional information.

- At flush girt conditions, pre-drill columns (& stubs if req’d) for ease of panel attachment at these areas.
6.0 BASE TRIM INSTALLATION

6.1 STANDARD BASE ANGLE TRIM

At Standard Base Angle Trim laps, apply a bead of *polyurethane tube caulk* (H3152) to all adjoining surfaces and lap 1”.

If job has optional foam panel closures, attach to inside of wall panel at base and fasten through panel and closure, into base trim. (as shown) Fastening pattern will vary per wall panel type.

Refer to this manual; sections 7.1-7.4 and/or the const drawing set for more fastening info.

Field mitre base angle at corners.

**INSULATION HINT:** At the base, fold the insulation backer over the fiber to help prevent water from wicking.
6.2 **OPTIONAL BASE TRIM**

Before lapping trim, field cut the back vertical leg of the adjoining trim piece 1” as shown below. This will help to make the trim lap more readily.

If job has optional foam panel closures, attach to inside of wall panel at base and fasten through panel and closure, into base trim. (as shown) Fastening pattern will vary per wall panel type. Refer to this manual; sections 7.1-7.4 and/or the const drawing set for more fastening info

At Optional Base Trim laps, apply a bead of **polyurethane tube caulk (H3152)** to all adjoining surfaces and lap 1”.

See the erection drawing details for base trim corner termination parts numbers.

**INSULATION HINT:** At the base, fold the insulation backer over the fiber to help prevent water from wicking.
7.0 FASTENER REQUIREMENTS FOR EACH PANEL TYPE

7.1 FASTENER REQUIREMENTS FOR “CLASSIC” WALL PANEL

NOTE: USE NOSE CONES ON SCREW GUNS TO PREVENT DISTORTING THE PANEL AND TO HELP AVOID OVER-DRIVING THE FASTENERS

N.B.S. "CLASSIC WALL" ERECTION NOTES
ERECTOR NOTE: 1/2” SIDELAP MASTIC (H3010) IS REQ’D IN SNOWDRIFT CONDITIONS. REFER TO THE ELEVATIONS FOR LOCATION REQUIREMENTS.

CLASSIC PANEL
Fasten to base and eave structural members with 12-14 x 1 1/4" TCP 2 structural fasteners (H1040) at 6" o.c. (next to each rib)

Fasten sidelaps with 12-14 x 7/8" self-drilling screws (H1060):
- At girts
- 30" o.c. between supports

Fasten trim with 12-14 x 7/8" delf-drilling screws (H1060) at 12" O.C.
7.2  FASTENER REQUIREMENTS FOR "ACCENT" WALL PANEL

**NOTE:** USE NOSE CONES ON SCREW GUNS TO PREVENT DISTORTING THE PANEL AND TO HELP AVOID OVER-DRIVING THE FASTENERS

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**N.B.S. "ACCENT PANEL" ERECTION NOTES**

ERECTOR NOTE: 1/2" SIDELAP MASTIC (H3010) IS REQ'D IN SNOWDRIFT CONDITIONS. REFER TO THE ELEVATIONS FOR LOCATION REQUIREMENTS.

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**ACCENT PANEL:**

Fasten structural members with 12-14 x 1 1/4" TCP 2 structural fasteners (H1040) at 12" o.c. (in each rib)

Fasten trim with 12-14 x 7/8" TCP1 self-drilling screws (H1060) at 12" O.C.

Fasten sidelaps with 12-14 x 7/8" TCP1 self-drilling screws (H1060):
- At girts
- 30" o.c. between supports
7.3 FASTENER REQUIREMENTS FOR "REVERSE CLASSIC" WALL PANEL

NOTE: USE NOSE CONES ON SCREW GUNS TO PREVENT DISTORTING THE PANEL AND TO HELP AVOID OVER-DRIVING THE FASTENERS

N.B.S. REVERSE "CLASSIC WALL" ERECTION NOTES
ERECTOR NOTE: 1/2" SIDELAP MASTIC (H3010) IS REQ'D IN SNOWDRIFT CONDITIONS. REFER TO THE ELEVATIONS FOR LOCATION REQUIREMENTS.

REVERSE CLASSIC PANEL:
Fasten structural members with 12-14 x 1 1/4" TCP 2 structural fasteners (H1040) at 12" o.c. (in each rib)
Fasten sidelaps with 12-14 x 7/8" TCP1 self-drilling screws (H1060):
- At girts
- 30" o.c. between supports
Fasten trim with 12-14 x 7/8" TCP1 self-drilling (H1060) screws at 12" o.c.
7.4 PROPER FASTENER SEQUENCE DETAIL

NOTE: "CLASSIC" Profile shown. Refer to Sections 7.2 and 7.3 for Fastener quantity requirements for "ACCENT" and "REVERSE CLASSIC" profiles.
8.0 CORNER TRIM INSTALLATION

8.1 "CLASSIC" PANEL

"CLASSIC" PANEL OUTSIDE CORNER DETAIL

Filler Trim, IF REQUIRED, As Noted on Erection Drawing Wall Sheeting Elevations

Structural Fastener at Each Support, Stitch Fastener at 12" o.c. Between Supports (Typical at Corner Trim).

Girt (Typical)

Outside Corner Trim

3 1/2" Max.
Steel Line

Ref: to the Erection Drawing Sheeting Elevations for Start Panel Centerline of Rib Location.

NOTE: It is possible that Filler Trim is required at both the Endwall and the Sidewall. Refer to the Erection Drawing Wall Sheeting Elevations for Requirements and Part Numbers.

ALSO: Refer to Section 5.2 of this Manual for proper Panel Orientation.

"CLASSIC" PANEL INSIDE CORNER DETAIL

Filler Trim, IF REQUIRED, As Noted on Erection Drawing Wall Sheeting Elevations

Inside Corner Trim

Structural Fastener at Each Support, Stitch Fastener at 12" o.c. Between Supports (Typical at Corner Trim).

Girt (Typical)

"CLASSIC" Panel (Typ.)
8.2 "ACCENT" PANEL

"ACCENT" PANEL OUTSIDE CORNER DETAIL

NOTE: It is possible that Filler Trim is required at both the Endwall and the Sidewall. Refer to the Erection Drawing Sheeting Elevations for Requirements and Part Numbers.

ALSO: Refer to Section 5.2 of this Manual for proper Panel Orientation.

"ACCENT" PANEL INSIDE CORNER DETAIL

NOTE: It is possible that Filler Trim is required at both the Endwall and the Sidewall. Refer to the Erection Drawing Sheeting Elevations for Requirements and Part Numbers.

ALSO: Refer to Section 5.2 of this Manual for proper Panel Orientation.
8.0 CORNER TRIM INSTALLATION

8.3 "REVERSE CLASSIC" PANEL

"REVERSE CLASSIC" PANEL OUTSIDE CORNER DETAIL

NOTE: It is possible that Filler Trim is required at both the Endwall and the Sidewall. Refer to the Erection Drawing Sheeting Elevations for Requirements and Part Numbers.

ALSO: Refer to Section 5.2 of this Manual for proper Panel Orientation.

"REVERSE CLASSIC" Panel (Typical)
Filler Trim, IF REQUIRED, As Noted on Erection Drawing Wall Sheeting Elevations
Structural Fastener at Each Support, Stitch Fastener at 12" o.c. Between Supports (Typical at Corner Trim).
Girt (Typical)
Outside Corner Trim

Steel Line 6"
Refer to the Erection Drawing Sheeting Elevations for Start Panel Centerline of Rib Location.

"REVERSE CLASSIC" PANEL INSIDE CORNER DETAIL

NOTE: It is possible that Filler Trim is required at both the Endwall and the Sidewall. Refer to the Erection Drawing Sheeting Elevations for Requirements and Part Numbers.

ALSO: Refer to Section 5.2 of this Manual for proper Panel Orientation.

"REVERSE CLASSIC" Panel (Typical)
Filler Trim, IF REQUIRED, As Noted on Erection Drawing Wall Sheeting Elevations
Inside Corner Trim
Structural Fastener at Each Support, Stitch Fastener at 12" o.c. Between Supports (Typical at Corner Trim).
Girt (Typical)
9.0 GENERAL NOTES

9.1 TRANSLUCENT PANEL

NBS 5’-4” translucent panels are to be used strictly in vertical wall applications. This panel is not to be installed in a roof application where fall hazards could occur. NBS assumes no responsibility for the misuse of this panel.

9.2 FRAMED OPENING TRIM INSTALLATION

See Erection Drawings for Framed Opening trim installation instructions.