ERECTION MANUAL FOR ...

4” CORRUGATED

S-SERIES / FN TYPE GRAIN BINS 30 DEGREE ROOF
64 LB/BU
30’ – 48’ DIA.

IMPORTANT- TO THE DEALER OR ERECTOR:
BE SURE THIS BOOK IS RETURNED TO THE BIN OWNER FOR HIS FUTURE REFERENCE.

SIOUX STEEL COMPANY, SIOUX FALLS, SOUTH DAKOTA 57101

800-557-4689
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IMPORTANT ERECTION INFORMATION

1. **GENERAL**

   At time of delivery, be sure to check all bundles and parts for proper quantity and condition. If a shortage or damage has occurred, do not accept delivery without making note on the freight bill or delivery receipt. If shortage or damage is found, notify your carrier immediately, so they can send an inspector to make a formal report. Compliance with the carrier’s procedure is essential for settlement of claim as the Company’s responsibility ends when carrier receives shipment.

   To facilitate erection, it is advised that you:
   A. Retain your loading list, it will assist you in erection. It will help you identify parts and tell how many are needed.
   B. Save yourself time by reading the instructions. Read all instructions completely.
   C. Keep erection manual handy during erection and for future reference or necessary parts identification.
   D. Have the proper tools and equipment handy.
   E. Arrange parts in sequence.
   F. Do not permit moisture to form between sheets stored outside. If moisture is present, dry at once.
   G. When choosing a site for the bin, be sure to consider accessibility, relation to other structures, as well as power requirements for erection.

2. **BIN MODEL NUMBER**

   The grain bin type, diameter, number of rings and structural model can be determined by the model number as shown below:

   ![Example Model Number]

   A. Indicates basic bin model.
   B. Indicates nominal bin diameter.
   C. Indicates number of wall rings.
   D. Indicates structural model, ‘S’ denotes standard model; ‘R’ indicates extra heavy model, ‘2S’ indicates 2 row stiffened.

3. **STRUCTURAL MODELS**

   All bins through 7 rings in height are available in two (2) structural models. Depending upon the intended use, and in order to comply with Sioux warranty, the appropriate structural model bin must be used as specific limitations apply to each bin. If in doubt, consult the dealer and/or manufacturer regarding the use of any bin (erected or non-erected) equipped with grain handling and/or grain conditioning devices and what limitations may apply or which structural model may be appropriate.
IMPORTANT ERECTION INFORMATION

4. WALL PENETRATIONS

Any penetration of the bin must take into consideration the forces existing in the structure. Penetrations should not be installed in the field without approval from the manufacturer. Improper penetration of a bin may result in structural failure.

5. GRAIN CONDITIONING AND STORAGE

Good management of grain in storage is required. Provide aeration. Probe, sample, and check grain at regular and frequent intervals. Do not fill over electric motors or the drive mechanism of stirring machines. Storage and drying bins that are larger than 21 feet in diameter, or more than 18 feet in sidewall height, must be equipped to be unloaded from the center of the bin.

6. STIRRING/RECIRCULATING DEVICES

Stirring and recirculating devices create additional wall loads, which if not properly allowed for, may result in bin wall failure. Sioux S-series bins are available in both a standard and heavy configuration. Standard bins are not designed for stirring or recirculating devices. Be certain that the appropriate bin series is selected with regard to application. Ensure that the manufacturer’s installation and operating procedures for the stirring/recirculating device is followed. In the event these devices are added to an existing bin, consult the dealer and/or manufacturer for recommendations.

7. VENTILATION

Adequate ventilation must be provided in the bin to allow for pressure build-up or vacuum in the bin. Depending upon the conditioning system you employ, provide ventilation equal to or greater than the system airflow. Carefully install the means of ventilation so as not to weaken the structure. Never obstruct ventilation passages, and periodically check for ice, snow, and debris build-up. Sioux Steel Co. strongly recommends that manhole cover and fill cap be open while operating fans.

Improperly ventilated bins may cause excessive air pressure differentials and result in bin failure. Sioux warranty does not cover improperly vented bins.

8. GRAIN BIN DOOR

Should door be removed for equipment installation or access, be certain that door is securely shut before filling the bin. See door installation details for specific information.
IMPORTANT ERECTION INFORMATION

9. BIN SPECIFICATIONS

Capacity and dimensional specifications are not given in the manual, but are available from your dealer. It is recommended that the specifications be reviewed prior to the foundation construction and bin erection.

10. PROCEDURE

To assist in the planning, erection and use of your bin, a general procedure is given below. This procedure is a guide only, and may vary according to your specific requirements.

1. Determine your equipment and capacity requirements.
2. Understand and be prepared to follow proper grain conditioning and storage practices.
3. Select the appropriate model bin.
4. Understand and be prepared to follow the limitations for the use of your specific bin.
5. Carefully read and understand the owners/users manual supplied with your bin.
6. Carefully read and understand the erection and accessory installation manuals.
7. Consider site requirements.
8. Select an adequate foundation design, prepare site, and construct foundation.
9. Obtain the necessary erection equipment and tools.
10. Assemble the top ring.
11. Assemble the roof (including accessories).
12. Assemble the wall and install door.
13. Seal and anchor the bin.
14. Install accessories. *
15. Understand the operation and limitation for each accessory.

*Note that some accessories (such as ladder equipment) may require installation simultaneous to bin erection.
IMPORTANT SAFETY INFORMATION

1. SAFETY ALERT SYMBOL:

   WATCH FOR THIS SYMBOL. IT POINTS OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS “ATTENTION – BE ALERT! YOUR SAFETY IS INVOLVED.”

   PLEASE HEED! FAILURE TO DO SO MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

2. Several safety labels (decals) are attached to the equipment at various places to call your attention to its message concerning your personal safety. Read and heed each message and become alert to the possibility of personal injury or death.

   It is your responsibility as an owner, operator, or supervisor to know what hazards exist and to make them known to all other personnel working in the area, so that they too may take any necessary safety precautions that may be required.

   If any decals become damaged, detached, or illegible, contact your dealer or Sioux Steel Company for replacements.

3. You may decide to buy and install auxiliary or accessory equipment made by other manufacturers. Sioux Steel Company has no control over the design or manufacture of such equipment.

   If you install this equipment, obtain, read, and understand the instructions and precautions of the equipment manufacturer.

4. Thoroughly read and understand the owner/user’s manual supplied with your bin. It has important information regarding safety, inspection and use of your bin. If you do not receive an owner/user’s manual along with this erection manual, or need a replacement due to loss, damage, etc., be sure to contact your dealer or Sioux Steel Company immediately.
CENTER COLLAR SUPPORT AND SIDEWALL JACK DETAILS

NOTES:

1. THE SUPPORT SHOWN ON THIS DRAWING IS ONLY A REPRESENTATION.

2. USE THE CENTER SUPPORT TO POSITION COLLAR TO START ROOF ASSEMBLY.

3. SUPPORT MAY BE USED TO ATTACH INCLINED WORK PLATFORM TO AID IN ROOF ASSEMBLY.

4. IMPORTANT! THE SUPPORT REPRESENTED HERE IS COMMON FOR 15’ THROUGH 48’ DIA. ROOFS, BUT MAY NOT BE ADEQUATE FOR ROOFS USING RAFTERS AND PURLINS. THE SUPPORT MUST BE DESIGNED TO CARRY THE DEAD AND LIVE LOADS OF THE STRUCTURE DURING CONSTRUCTION.

5. IMPROPER DESIGN AND USE OF COLLAR SUPPORT MAY RESULT IN DAMAGE TO THE ROOF AND PERSONAL INJURY.

NOTES:

1. JACKS ARE USED TO LIFT THE BIN SLOWLY AND EVENLY DURING ASSEMBLY OF THE WALL SHEETS.

2. THE JACK SHOWN HERE IS ONLY A REPRESENTATION. JACKS SHOULD BE DESIGNED USING ACCEPTED ENGINEERING PRACTICES TAKING INTO ACCOUNT THE DEAD AND LIVE LOADS ASSOCIATED WITH CONSTRUCTION. JACKS MUST BE CAPABLE OF SUFFICIENT LIFT TO ALLOW ASSEMBLY OF TWO TIERS PER SETTING.

3. SIZE AND PLACEMENT OF JACKS MUST BE CALCULATED BASED ON THE TOTAL DEAD AND LIVE LOAD OF THE COMPLETED BIN. JACKS SHOULD NOT BE POSITIONED MORE THAN TWO BODY SHEET LENGTHS APART OR 18’- 9”.

4. IMPORTANT! THE JACK REPRESENTED IS NOT ADEQUATE FOR ALL SIZES OF BINS. ON LARGER BINS, ELECTRIC OR HYDRAULIC JACKS ARE RECOMMENDED. CONSULT THE JACK MANUFACTURER FOR INSTRUCTIONS.

5. IMPROPER DESIGN OR USE OF JACKS MAY RESULT IN DAMAGE TO THE BIN AND PERSONAL INJURY.
### BIN BOLT TORQUE VALUES / SPECIFICATIONS

NOTE: ALL VALUES ARE IN FT-LBS TORQUE

<table>
<thead>
<tr>
<th>BIN BOLT SIZE</th>
<th>GRADE</th>
<th>USE</th>
<th>PRE-SET WRENCH TORQUE FOR (FT-LBS)</th>
<th>TOLERANCE</th>
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</thead>
<tbody>
<tr>
<td>¼-20</td>
<td>GD 2</td>
<td>LIGHT, NON-STRUCTURAL, FASTENING</td>
<td>4</td>
<td>4-1/2</td>
</tr>
<tr>
<td>¼-20</td>
<td>GD 5</td>
<td>STRUCTURAL FASTENING, (SMALL PARTS)</td>
<td>8</td>
<td>9-7</td>
</tr>
<tr>
<td>5/16-18</td>
<td>GD 5</td>
<td>STRUCTURAL FASTENING, (ROOF, SIDEWALL)</td>
<td>22</td>
<td>25-20</td>
</tr>
<tr>
<td>3/8-16</td>
<td>GD 5</td>
<td>STRUCTURAL FASTENING, (STIFFENER)</td>
<td>32</td>
<td>35-30</td>
</tr>
<tr>
<td>3/8-16</td>
<td>GD 8</td>
<td>STRUCTURAL FASTENING, (SIDEWALL)</td>
<td>37</td>
<td>40-35</td>
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<tr>
<td>7/16-14</td>
<td>GD 8</td>
<td>STRUCTURAL FASTENING, (SIDEWALL)</td>
<td>47</td>
<td>50-45</td>
</tr>
<tr>
<td>5/16-18</td>
<td>GD 8.2</td>
<td>STRUCTURAL FASTENING, (SIDEWALL)</td>
<td>22</td>
<td>25-20</td>
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<tr>
<td>3/8-16</td>
<td>GD 8.2</td>
<td>STRUCTURAL FASTENING, (SIDEWALL)</td>
<td>37</td>
<td>40-35</td>
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<td>7/16-14</td>
<td>GD 8.2</td>
<td>STRUCTURAL FASTENING (SIDEWALL)</td>
<td>47</td>
<td>50-45</td>
</tr>
</tbody>
</table>

**CAUTION**

FAILURE TO PROPERLY TORQUE ALL FASTENERS MAY RESULT IN STRUCTURAL DAMAGE TO THIS BIN OR TANK

**CAUTION**

UNDER NO CONDITION SHALL ANY OTHER BOLTS, SCREWS, FASTENERS, OR ANCHOR BOLTS BE SUBSTITUTED FOR THOSE SUPPLIED BY SIOUX

**IMPORTANT**

ALL BIN BOLTS OR BOLTS, FURNISHED WITH A NEOPRENE BACKED WASHER, MUST NOT BE TIGHTENED OR SPUN BY THE BOLT HEAD. ALWAYS TIGHTEN BOLTS BY SPINNING THE NUT. FAILURE TO DO SO WILL DAMAGE THE NEOPRENE SEAL AND RENDER THE SEALING QUALITIES OF THE WASHER USELESS.
FOUNDATION SEALING & ANCHORING DETAILS

PLAN VIEW OF BIN FOUNDATION

BIN SIDEWALL

NOTES:
1. ANCHOR STRAP REQUIREMENTS
   42' DIA. – 14 EACH
   48' DIA. – 16 EACH

ANCHOR STRAPS
(SEE NOTE 1)

ANCHOR STRAP DETAIL

ANCHOR DETAILS
(VIEWED FROM OUTSIDE)

PLENUM STIFFENER DETAIL

BIN FLANGE MUST BE SEALED TO CONCRETE. USE EITHER SATURATED FOAM OR MASTIC (PASTE) TYPES OF SEALANT. APPLY BEFORE BIN/TANK IS LOWERED ONTO FOUNDATION. BE CERTAIN CONCRETE IS CLEAN AND DRY BEFORE APPLICATION. LOW AREAS WILL REQUIRE AN EXTRA THICKNESS OF SEALANT. OPTIONAL FOAM SEALANT INSTALLATION INSTRUCTIONS ARE INCLUDED IN THE SEALANT CARTON.

PLEASE NOTE: AFTER A PERIOD OF TIME, MASTIC SEALANT MAY CRACK DUE TO EXPANSION OR CONTRACTION. PERIODICALLY CHECK THE SEALANT AND RE-APPLY IF NECESSARY.

FOUNDATION SEAL DETAILS
**BODYSHEET SEALANT DETAILS**

CONTINUOUS STRIP OF SEALANT
TURN AROUND CORNER 4”
(TYP. AT EVERY VERTICAL SEAM)

6" STRIP OF SEALANT
(TYP. AT EVERY VERT. SEAM LAP)
SEE NOTE 2

ALWAYS LAP UPPER SHEET OVER LOWER SHEET FOR WATERSHED

ASSY. DIRECTION
ALWAYS LAP UPPER SHEET OVER LOWER SHEET FOR WATERSHED

HEX BOLT W/NEOPRENE WASHER TO THE OUTSIDE
SEE WALL SHEET STRETCHOUT FOR FASTENER SPECS.

HEX NUT TO INSIDE

WALL SHEET NUMBER
THIS NUMBER INDICATES CORRECT SHEET LOCATION ON BIN.
REFER TO THE WALL SHEET LAYOUT FOR YOUR SPECIFIC MODEL BIN REGARDING SHEET LOCATIONS.

IMPORTANT! VERTICAL SEAMS MUST BE STAGGERED AS SHOWN. CENTERED ON SHEET ABOVE

THE ENDS OF SHEETS ARE ALSO PAINTED WITH A CERTAIN COLOR WHICH CORRESPONDS TO A CERTAIN GAUGE

<table>
<thead>
<tr>
<th>GAUGE</th>
<th>COLOR CODE</th>
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<tbody>
<tr>
<td>19</td>
<td>GRAY</td>
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<tr>
<td>18</td>
<td>ORANGE</td>
</tr>
<tr>
<td>17</td>
<td>YELLOW</td>
</tr>
<tr>
<td>15</td>
<td>LIGHT BLUE</td>
</tr>
<tr>
<td>14</td>
<td>DARK GREEN</td>
</tr>
<tr>
<td>13</td>
<td>DARK BROWN</td>
</tr>
<tr>
<td>12</td>
<td>BLACK</td>
</tr>
<tr>
<td>11</td>
<td>PURPLE</td>
</tr>
<tr>
<td>10</td>
<td>DARK BLUE</td>
</tr>
<tr>
<td>9</td>
<td>RED</td>
</tr>
<tr>
<td>8</td>
<td>COPPER</td>
</tr>
</tbody>
</table>

1. ASSEMBLE EACH SHEET IN A TIER USING THE SEALANT METHOD SHOWN ON SHEET (B) IN DETAIL ABOVE.
2. ALONG THE BOTTOM OF EACH SHEET, PLACE A STRIP OF SEALANT AS SHOWN ON SHEET (A) WHERE THE TWO LOWER TIER SHEETS WILL LAP.
3. AS EACH NEW TIER IS ADDED, ASSEMBLE SHEET (B) TO SHEET (A) AND PLACE SEALANT ON THE END PER SHEET (B). IMPORTANT! THE VERTICAL SEAM OF (B) AND (C) MUST LIE IN THE CENTER OF ABOVE SHEET (A).
4. ASSEMBLE SHEET (C) TO SHEET (B).
5. REPEAT ASSEMBLY METHOD THROUGHOUT THE TANK.
DOOR INSTALLATION INSTRUCTIONS

TO OPEN DOOR BOARDS
FULL BOTH HANDLES UP
AND SLIDE IN-THEN
SWING DOOR BOARD IN
TO CLOSE AND LATCH DOOR
BOARDS. PULL BOARD SHUT,
SLIDE BOTH HANDLES OUT TO
ENGAGE CAM, THEN SNAP DOWN
TO LOCK.

BE CERTAIN ALL DOOR BOARDS ARE
CLOSED AND PROPERLY LATCHED
PRIOR TO OPERATING FANS AND
FILLING BIN.
FAILURE TO HEED MAY RESULT IN
STRUCTURAL DAMAGE TO BIN.

INSTALLATION NOTES:

A. DOOR SHOULD BE INSTALLED SO THAT ALL DECALS MAY BE READ. DOOR PANEL SWING MAY
BE CHANGED AFTER INSTALLATION BY SWITCHING THE HINGES AND LATCHES FROM SIDE TO SIDE.
B. BE CERTAIN TO THOROUGHLY CAULK DOOR PRIOR TO INSTALLATION.
C. REMOVE INNER DOOR HINGES, INNER DOOR PANELS, AND OUTER DOOR COVER.
D. SINGLE BOLTED INSTALLATION SHOWN. SOME BINS REQUIRE DOUBLE BOLTING. BE CERTAIN
THAT ALL SHEET HOLES ARE FASTENED.
E. BOLT SIZES-USE 3/8” X 1-1/4” BIN BOLTS IN ALL 7/16” DIA HOLES.
F. INSTALL BOLTS WITH NEOPRENE WASHERS TO OUTSIDE FOR WEATHERSEAL ON UPPER PORTION
OF DOOR. ON LOWER PORTION WHERE THE DOOR JAMB LAPS OUTSIDE OF WALL SHEET, THE
BOLTS MUST BE INVERTED SO THE NEOPRENE WEATHERSEAL IS TO THE INSIDE.
USE FLAT WASHERS BETWEEN NUTS AND ALL SLOTTED HOLES.
G. SET DOOR FRAME INTO OPENING, INSERT ALL BOLTS, BUT DO NOT TIGHTEN AT THIS TIME.
NOTE: DO NOT DISTORT DOOR FRAME WITH USE OF ALIGNMENT OR DRIFT PUNCHES!
IF NECESSARY, DRILL OR REAM HOLES TO INSERT BOLTS IN DOOR FRAME.
H. REINSTALL INNER DOOR PANELS AT ORIGINAL LOCATIONS. CLOSE LATCHES TO LOCK PANELS
IN PLACE. PANELS MUST BE FULLY SEATED OVER BEARING PINS.
I. TIGHTEN FRAME BOLTS STARTING AT CENTER AND WORKING TOWARD TOP AND BOTTOM ON
EACH SIDE. INSTALL INNER PANEL HINGE BOLTS AND TIGHTEN.
J. KEEP INNER PANELS LATCHED AND LOOSEN ALL BEARING PIN BOLTS. RETIGHTEN ALL BEARING
PIN BOLTS. THIS MAKES LOADING ON Pins UNIFORM FOR EASIER OPERATION OF PANELS.
K. ADJUST LOCK BOLTS SO THEY CAN BE LATCHED WITHOUT EXCESSIVE FORCE. CHECK TO MAKE
SURE PANELS ARE SEATED OVER ALL BEARING PINS. REASSEMBLE DOOR.

IMPORTANT: DOOR JAMB MUST BE TO
THE INSIDE OF
UPPER WALL SHEET.
DOOR JAMB MUST
BE TO THE OUTSIDE
OF LOWER WALL
SHEET. THIS IS
IMPORTANT FOR
PROPER WATER
SHEDDING.

AFTER
INSTALLATION
APPLY A BEAD
OF CLEAR
SILICONE
CAULK
AROUND
SHEET EDGES

(2) 3/8” DIA HOLES
MUST BE FIELD
DRILLED THROUGH
SIDEWALL SHEET
FOR
HEADERS WITH
DOUBLE HOLE
SPACING. (BOTH
UPPER AND LOWER
HEADERS)

OPTIONAL TO USE
EXISTING DOOR
BOLTS FOR TOP
2 HOLES IN STEP

DOOR STEP: FIELD DRILL 11/32” DIA HOLES TO INSTALL STEP. POSITION AT DESIRED HEIGHT. IF
INSTALLED DIRECTLY UNDER DOOR, EXISTING DOOR BOLTS MAY BE USED FOR TOP 2 STEP

1. CONTINUOUS STRIP
FULL HEIGHT
OF DOOR, APPLY NEXT TO
INSIDE SET OF HOLES
(TYPICAL EACH SIDE)

2. FOLD 8" LONG
STRIP AND APPLY
AT SEAM DIRECTLY
ABOVE AND
BELOW EACH JAMB
(TYP. 4 PLACES)

3. APPLY 2
CONTINUOUS
STRIPS ACROSS
BOTTOM OF DOOR
DIRECTLY ABOVE
HOLES

4. APPLY 12"
LONG STRIP AT
LOWER CORNER OVER
SIDE AND
BOTTOM
CAULKING

5. BE CERTAIN
THAT ALL AREAS ARE
WELL
CAULKED AFTERT
INSTALLATION
CHECK ENTIRE
DOOR OPENING FOR
LEAKS. RECAULK AS
NECESSARY

SEE NOTE D

IMPORTANT: DOOR JAMB MUST BE TO
THE INSIDE OF
UPPER WALL SHEET.
DOOR JAMB MUST
BE TO THE OUTSIDE
OF LOWER WALL
SHEET. THIS IS
IMPORTANT FOR
PROPER WATER
SHEDDING.

USE 3/8” (168879)
FLANGE
NUTS WHEN MOUNTING

NOTE: DO NOT DISTORT DOOR FRAME WITH USE OF ALIGNMENT OR DRIFT PUNCHES!
IF NECESSARY, DRILL OR REAM HOLES TO INSERT BOLTS IN DOOR FRAME.
H. REINSTALL INNER DOOR PANELS AT ORIGINAL LOCATIONS. CLOSE LATCHES TO LOCK PANELS
IN PLACE. PANELS MUST BE FULLY SEATED OVER BEARING PINS.
I. TIGHTEN FRAME BOLTS STARTING AT CENTER AND WORKING TOWARD TOP AND BOTTOM ON
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K. ADJUST LOCK BOLTS SO THEY CAN BE LATCHED WITHOUT EXCESSIVE FORCE. CHECK TO MAKE
SURE PANELS ARE SEATED OVER ALL BEARING PINS. REASSEMBLE DOOR.

IMPORTANT: DOOR JAMB MUST BE TO
THE INSIDE OF
UPPER WALL SHEET.
DOOR JAMB MUST
BE TO THE OUTSIDE
OF LOWER WALL
SHEET. THIS IS
IMPORTANT FOR
PROPER WATER
SHEDDING.
LOGO INSTALLATION

SIOUX LOGO WALL SHEET MUST BE PLACED IN TOP ROW OF BIN AND SHOULD BE LOCATED IN AN AREA EASY TO SEE FROM ROAD FOR PRODUCT IDENTIFICATION.
ROOF ASSEMBLY INSTRUCTIONS

<table>
<thead>
<tr>
<th>BIN DIA.</th>
<th>DIM. ‘A’</th>
<th>DIM. ‘B’</th>
</tr>
</thead>
<tbody>
<tr>
<td>30’</td>
<td>10’-11”</td>
<td>64”</td>
</tr>
<tr>
<td>36’</td>
<td>12’-8”</td>
<td>64”</td>
</tr>
<tr>
<td>42’</td>
<td>14’-4”</td>
<td>64”</td>
</tr>
<tr>
<td>48’</td>
<td>16’-1”</td>
<td>64”</td>
</tr>
</tbody>
</table>

NOTES:
1. PLACE CENTER COLLAR SUPPORT IN CENTER OF FOUNDATION AND ADJUST TO COMPLY WITH DIMENSION “A” AND “B” IN TABLE.
2. REFER TO PAGE 14 FOR CENTER COLLAR PART NUMBER.
3. PLACE TOP RING OF BODYSHEETS ON FOUNDATION FOR ASSEMBLY. REFER TO BODYSHEET LAYOUT DRAWING FOR CORRECT PART NUMBERS. SEE DECAL ON PAGE 9.
4. CHECK TO BE SURE BODYSHEETS ARE POSITIONED CORRECTLY. SEE PAGE 9.
5. CAULK AND ASSEMBLE THE TOP RING OF BODYSHEETS.
6. CHOOSE LOCATION OF MANWAY SHEET AND BEGIN BOLTING ROOF CLIPS TO THE TOP OF BODYSHEETS. REFER TO DETAIL A, PAGE 14 FOR PROPER METHOD OF ASSEMBLY.
7. PREPARE ALL ROOF LADDER RUNGS FOR ASSEMBLY. SEE PAGE 17.
   FOR CORRECT SHEET AND RUNG PART NUMBERS, SEE PAGE 17.
8. BEGIN ROOF ASSEMBLY (SEE PAGES 14 & 15).
9. REFERENCE PAGE 18 FOR BRIDGING RING ASSEMBLY DETAILS.
10. COMPLETE THE ROOF ASSEMBLY, PLACE THE LADDER RUNGS ON THE ROOF PANEL TO EITHER SIDE OF THE MAN WAY ROOF PANEL.
**MANWAY DETAIL SCHEDULE**

LOCATE SOCKET MOUNT AFTER ROOF PANEL IS INSTALLED ON THE BIN BY:
- FASTENING DOOR HOLDER SOCKET (ITEM 4) LOOSELY TO MANWAY RETAINER PLATE (ITEM 7).
- FASTEN SOCKET/RETAINER PLATE ASSEMBLY (ITEMS 4 & 7) LOOSELY TO BRIDGING RING TUBE USING (2) U-BOLTS (ITEM 13).
- FLIP MANWAY COVER (ITEM 5) UP AND ALIGN THE ATTACHED DOOR HOLDER SOCKET WITH THE MATING DOOR HOLDER PLUG.
- ONCE ALIGNED, TIGHTEN U-BOLTS AND DOOR HOLDER SOCKET.

<table>
<thead>
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<td>BIN BOLT, 5/16-18 X 3/4</td>
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30' 30 DEG MANWAY ASSEMBLY (PN 207885):
SAME AS THE 42' MANWAY ASSEMBLY EXCEPT SUBSTITUTE 207884 FOR ITEM 23

36' 30 DEG MANWAY ASSEMBLY (PN 207894):
SAME AS THE 42' MANWAY ASSEMBLY EXCEPT SUBSTITUTE 207893 FOR ITEM 23

48' 30 DEG MANWAY ASSEMBLY (PN 207815):
SAME AS THE 42' MANWAY ASSEMBLY EXCEPT SUBSTITUTE 207813 FOR ITEM 23
REFERENCES SPIDER DETAILS PRIOR TO ASSEMBLING 60" CENTER COLLAR

12022 BRIDGING RING CLIP (IF NECESSARY) SEE PAGE 18

5/16" X 1-1/4" BIN BOLT
(NEOPRENE WASHER BETWEEN LADDER OR CLIP AND ROOF RIB)

5/16" X 1-1/4" HEX BOLT W/FLAT WASHER
TO FASTEN ALL PANELS

12722 FOAM WEATHER STRIP
(3 REQD) FOR 60" CENTER COLLAR. REMOVE BACKING TO APPLY. TRIM OFF EXCESS.

INSTALL ROOF CLIPS AT EVERY 8TH HOLE IN TOP RING. INSTALL THREE #12328 INTERMEDIATE ROOF CLIPS IN EVERY OTHER HOLE BETWEEN ALL REGULAR ROOF CLIPS. PLUG ALL REMAINING HOLES WITH 3/8" X 1" HEX BOLTS W/ NEOPRENE WASHERS.

NOTES:
1. IT IS IMPORTANT THAT THE TOP ROW SHEETS ARE POSITIONED CORRECTLY SO THAT IT WILL NOT BE NECESSARY TO ROTATE THE ERECTED BIN TO ALIGN WITH THE ANCHORS.
2. TO HELP ERECTION, IT IS SUGGESTED THAT A ROOF PROP BE BUILT AND PRE-ADJUSTED TO DIMENSION "A" ON PAGE 12. NOTE THAT THIS DIMENSION MAY HAVE TO BE ADJUSTED SLIGHTLY TO ALLOW INSTALLATION OF THE LAST PANEL.
3. ESTABLISH THE DESIRED LOCATION OF THE MANWAY ROOF PANEL. THE ROOF LADDER RUNGS SHOULD BE INSTALLED ON AN ADJACENT PANEL.
4. DO NOT TIGHTEN BOLTS UNTIL ALL PANELS HAVE BEEN INSTALLED. SEE INSTALLATION DETAILS.
ROOF PANEL ASSEMBLY INSTRUCTIONS 30’-48’ DIAMETER

ROOF SHEET ASSEMBLY PROCESS:
PANEL “A” ROOF SHEETS SHOULD BE STARTED AT 3 EQUAL LOCATIONS AROUND COLLAR. HOLES WILL HAVE TO BE COUNTED TO ASSURE EQUAL POSITION OF SHEETS. PANEL “B” ROOF SHEETS SHOULD BE STARTED 2 HOLES FROM PANEL “A” ROOF SHEETS. FILL IN BETWEEN PANELS “A” & “B” WITH PANEL “C” ROOF SHEETS TO ASSURE PROPER ALIGNMENT OF RING TO SIDEWALL SHEET. CONTINUE ASSEMBLING WALL SHEETS IN A COUNTERCLOCKWISE DIRECTION FOR THE REST OF THE PANELS.

CENTER COLLAR IDENTIFICATION (1) PC
30’ – 30 HOLES IN CENTER COLLAR
36’ – 36 HOLES IN CENTER COLLAR
42’ – 42 HOLES IN CENTER COLLAR.
48’ – 48 HOLES IN CENTER COLLAR.
EQUIPMENT SPIDER DETAILS: 30’-48’ DIAMETER BINS

STANDARD SPIDER ASSEMBLY 12295

NOTE: HOLE FOR BRACE MUST BE IN “UP” POSITION ON SPIDER SECTION

12294 SPIDER BRACE (2 REQD) USE (4) 5/16” X ¾” HEX BOLTS AND LOCKWASHERS TO ATTACH EACH BRACE TO SPIDER BRACKET AND SPIDER RING.

167453 SPIDER BRACKET (6 REQD) USE 5/16” X ¾” HEX BOLTS AND LOCKWASHERS TO ATTACH EACH BRACKET TO PEAK RING AND SPIDER RING.

( IT IS RECOMMENDED THAT ASSEMBLY BE DONE PRIOR TO PLACING CENTER COLLAR ON CENTER COLLAR SUPPORT.)

( FOR EASE OF ROOF PANEL INSTALLATION, IT IS RECOMMENDED TO LEAVE BOLTS IN CENTER COLLAR AND SPIDER LOOSE UNTIL AFTER ROOF PANELS ARE INSTALLED.)

HEAVY DUTY OPTIONAL SPIDER ASSEMBLY 190214

NOTE: HOLE FOR BRACE MUST BE IN “UP” POSITION ON SPIDER SECTION

12294 SPIDER BRACE (2 REQD) USE (4) 5/16” X ¾” HEX BOLTS AND LOCKWASHERS TO ATTACH EACH BRACE TO SPIDER BRACKET AND SPIDER RING.

190212 SPIDER BRACKET LH (6 REQD)
190213 SPIDER BRACKET RH (6 REQD) USE 5/16” X ¾” HEX BOLTS AND LOCKWASHERS TO ATTACH EACH BRACKET TO PEAK RING AND SPIDER RING.

USE 5/16 X 1-1/4 BOLTS WHERE CENTER SPIDER SECTIONS OVERLAP.

( IT IS RECOMMENDED THAT ASSEMBLY BE DONE PRIOR TO PLACING CENTER COLLAR ON CENTER COLLAR SUPPORT.)

( FOR EASE OF ROOF PANEL INSTALLATION, IT IS RECOMMENDED TO LEAVE BOLTS IN CENTER COLLAR AND SPIDER LOOSE UNTIL AFTER ROOF PANELS ARE INSTALLED.)
30'-48' 30 DEGREE FARM ROOF DETAILS

### ROOF SHEET

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<td>48' 30DEG HIGH LOCATION</td>
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### MANWAY SHEET

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### LADDER RUNGS

30' 36' 42' 48'
12729 12728 12726 12725
12735 12732 12729 12728
167109 67122 12733 12731
12742 67109 12736 12734
12750 67145 167109 12737
167104 67126 12744 167128
12757 67123 12746 12745
12757 67130 16105 167107
12757 12755 167134
12757 12757 207824
12757

**NOTE:** FOR THE 36', 42' & 48' LADDERS, THE BOTTOM LADDER RUNG WILL NEED TO BE INSTALLED BY HAVING THE (2) 11/32" HOLES DRILLED INTO THE TOP OF EACH ROOF RIB APPROXIMATELY 2" FROM THE BOTTOM END OF EACH ROOF RIB.

### LADDER SUPPORT PACKAGES

(2) 207794 (ROOF LADDER STIFFENER BRACKET (SHORT))
(207793) ROOF LADDER STIFFENER BRACKET (LONG)
(177586) BRACKET SPLICE (154008) BOLT 5/16 X ¾ (158372) FLG NUT 5/16

### LADDER PRE-ASSEMBLY

1 -1/4" BIN BOLT (177733)
NEOPRENE WASHER (154062)
IT IS RECOMMENDED THAT LADDER RUNGS BE PRE-ASSEMBLED AS SHOWN ABOVE.

SPlice STIFFENER BRACKETS TOGETHER IF REQUIRED FOR YOUR BIN SIZE. START STIFFENER BRACKET AT LOWEST AVAILABLE ROOF RIB AND CONTINUE ASSEMBLING TO ROOF RIB HOLES ALONG ENTIRE BRACKET LENGTH. REPEAT PROCESS FOR THE OTHER SIDE OF LADDER ON THE OPPOSITE ROOF RIB.
ROOF ERECTION DETAILS 30’-48’ DIAMETER BINS

SAFETY SUGGESTION: BRIDGING RINGS AND CONNECTORS COULD BECOME DISLODGED DURING HIGH WINDS OR WHEN THE INTERNAL PRESSURE OF THE BIN BECOMES TOO GREAT. IF THIS OCCURS THE ENTIRE RING WILL BECOME USELESS. TO REMEDY THIS SITUATION, HOLES MUST BE DRILLED THROUGH BRIDGING RING AND CONNECTOR AFTER RINGS HAVE BEEN INSTALLED. THEN A COTTER PIN OR BOLT SHOULD BE INSERTED THROUGH EACH HOLE. WELDING THE NUT TO THE BRIDGING RING AT EACH LOCATION IS ALSO ANOTHER OPTION.

BRIDGING RING INSTALLATION NOTES:
1. ASSEMBLE BRIDGING RING CONNECTORS BY FIRST INSTALLING LOCK COLLARS OVER CONNECTOR AND THEN THREADING NUTS ONTO CONNECTOR FROM BOTH ENDS UNTIL THEY ARE FULLY CONTRACTED. WHEN RINGS ARE COMPLETELY ASSEMBLED, BEGIN EXPANDING THE JOINTS WITH THE THREADED NUTS. CONTINUE THIS EXPANSION EVENLY ALL THE WAY AROUND THE ROOF UNTIL THE RINGS RAISE THE ROOF TO SHOW A SLIGHT CROWN. PLACE LOCK COLLARS AGAINST JAM NUTS AND INSERT COTTER PIN.
2. IT WILL BE NECESSARY TO FIELD CUT THE LAST BRIDGING RING SECTION TO FIT AS REQUIRED.

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BRIDGING RING SECTION SCHEDULE

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<th>HEX NUT QTY</th>
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BRIDGING RING LOCATION SCHEDULE

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<td>42'</td>
<td>7TH &amp; 10TH</td>
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<td>48'</td>
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TOP RIB HOLE COUNT DOWN FROM THIS HOLE TO LOCATE BRIDGING RING (SEE SCHEDULE)

NOTE: LADDER RUNG NOT REQUIRED AT RING INSTALLATIONS

5/16 X 1-1/4 HEX BOLT
5/16 FLAT WASHER
12022 BRIDGING RING CLIP INSTALL ON EVERY PANEL RIB AT HOLE LOCATION INDICATED.
FILL CAP ASSY 30'-48' BINS

DETAILED FILL CAP LATCH

HANDLE MOUNT GUIDE (1) 167452
MOUNT ON OUTER SLIDE ROD ENDS

HANDLE MOUNT (1) 167433
MOUNT ON OUTER SLIDE ROD ENDS

HANDLE (1) 167436
SPRINGS (2) 167444
MOUNT WITH 3/8" FLAT WASHER
(4) 154066 & 3/8" LOCK NUT
(2) 159781

FILL CAP SEAL (1) 167341
(APPLY TO TOP OF Z-RING)

OUTER SLIDE RODS
3/8" NUT (4) 154051
3/8" NEOPRENE WASHER (2) 154065 (TOP OF COVER)
3/8" FLAT WASHER (2) 154066 (BOTTOM OF COVER)

CATCH RECEIVER (1) 169160 SEE PLACEMENT IN DIAGRAM ABOVE

ACCESS HANDLE (2) 167295 SEE DETAILS NEXT PAGE

BRIDGING RING CLIP (6) 12022
SPACE EVENLY AROUND ROOF RIBS (USE ROOF RIB HARDWARE TO ATTACH IN TOP RIB HOLE.)

PEAK EXT FLASHING BUNDLE (168676)
CONSISTS OF (3) 163977 PCS
5/16 X ¾ BIN BOLT (154009) AND NUT (154048) (60)
(FOR ATTACHING FLASHING, HANDLES, BRACKETS
APPLY MASTIC TO ALL SEAMS & Z-RING SURFACES.
SEE NEXT PAGE FOR ORIENTATION DETAILS.)
FILL CAP ASSEMBLY 30’-48’ BINS

NOTE: FLASHING SEAMS MUST BE ORIENTED AS FOLLOWS:

30’ - NO INTERFERENCE IN ANY POSITION

36’ & 42’ – THE FLASHING SEAMS MUST BE ORIENTED ON THE Z-RING SO THERE IS NO INTERFERENCE WITH THE OUTER SEAM HOLE AND THE ROOF RIB BELOW. HALF OF THE HOLE LOCATIONS ON THE Z-RING WILL ALLOW CLEARANCE, WHILE THE OTHER HALF WILL CAUSE INTERFERENCE.

48’ – THE OUTER SEAM HOLE WILL ALWAYS BE IN AN INTERFERENCE STATE WITH THE ROOF RIBS, REGARDLESS OF ORIENTATION. IT WILL BE NECESSARY TO DRILL A 3/8” DIAMETER HOLE AT EACH OUTER SEAM HOLE LOCATION THROUGH THE ROOF RIB AND THEN SECURE WITH THE 5/16” HARDWARE INCLUDED.
OPTIONAL FLAT TOP ASSEMBLY DETAILS 30’-48’ BINS

ASSEMBLY INSTRUCTIONS:
1. ORIENT AND SECURE 3 PIECES OF 162037 FLASHING TO THE TOP OF Z-RING WITH HARDWARE AS SHOWN.
2. OVERLAP FLASHING ENDS AND SECURE TOGETHER.
3. STICK FOAM TO THE BOTTOM OF FLAT TOP FLANGE AROUND ENTIRE CIRCUMFERENCE.
4. LOCATE FLAT TOP INTO THE Z-RING SO THE FOAM COVERED REGION RESTS ON THE TOP OF Z-RING.
5. FLAT TOP MAY NEED TO BE TURNED SO THAT THE FLAT TOP MOUNT ANGLES ALIGN WITH Z-RING HOLES.
6. SECURE FLAT TOP USING (6) (162032) HOLD DOWN STRAPS WITH HARDWARE SHOWN. STRAPS WILL CONNECT THE FLAT TOP ANGLES TO THE Z-RING IN 6 EQUAL DISTANCE ARRAYED LOCATIONS.
VENT INSTALLATION DETAILS

(FOLLOW STEPS 1-5 IF ROOF PANELS WERE NOT PRE-PUNCHED. GO TO STEP 6, IF ROOF PANEL CAME PRE-PUNCHED)

STEP 1. POSITION BASE OF VENT ASSEMBLY ON CENTER OF PANEL AT DESIRED DISTANCE FROM EAVE TO END OF PANEL.

STEP 2. USING THE BASE AS A TEMPLATE, Scribe or Mark ALL MOUNTING HOLE LOCATIONS ON PANEL.

STEP 3. MARK OUT CUTOUT FOR INSIDE OPENING AS SHOWN.


STEP 5. CUT VENT OPENING IN PANEL AT LOCATION MARKED IN STEP 3.

STEP 6. APPLY GASKET KIT ON BASE ASSEMBLY AS SHOWN. IT IS IMPORTANT THAT THE BASE BE PROPERLY SEALED TO PANEL TO PREVENT LEAKAGE.

STEP 7. POSITION VENT ASSEMBLY ON PANEL AGAIN AND ALIGN HOLES FASTEN BASE WITH THE 5/16" X 1-1/4" HEX BIN BOLTS PROVIDED. NOTE THAT THE NEOprene WASHER WITH EACH BOLT MUST BE ON THE EXTERIOR SIDE OF PANEL FOR WEATHER SEAL. (IF THE OPTIONAL METHOD OF PANEL CUTOUT WAS USED, THEN FORM THE EXCESS MATERIAL ON THE INSIDE OF OPENING UP AGAINST THE BASE ON ALL SIDES.

NOTES:
1. IT IS ADVISABLE TO PERIODICALLY CHECK ALL VENT SCREENS FOR DEBRIS AND/OR ICE AND SNOW ACCUMULATION.
2. THERE IS EXTRA CAULKING PROVIDED WITH EACH VENT KIT. USE THIS EXTRA CAULKING IN ADDITION TO THAT SPECIFIED. SHOULD ANY OPENINGS EXIST THAT MAY LEAK AFTER VENT HAS BEEN INSTALLED.
OUTSIDE STIFFENER AND ANCHOR INSTALL DETAILS

NOTE: TWO-ROW STIFFENERS ARE OPTIONAL ON 9 & 10 RING BIN CONFIGURATIONS.

- **3/8" X 1-1/2" HEX BIN BOLT** (TYP. FOR MOUNTING STIFFENER)
- **3/8" HEX NUT**
- **3/4" HEX NUT**
- **3/4" FLAT WASHER**
- **WASHER PLATE**
- **ANCHOR ROD (SEE FOUNDATION PLAN)**
- **MAINTAIN 1/4" GAP BETWEEN STIFFENER AND FOUNDATION UNTIL BIN SETTLES**
- **SECOND WALL SHEET**
- **BOTTOM WALL SHEET**
OPTIONAL OUTSIDE WIND RING ASSY / NON-STIFF BINS

SEE NOTE 1

TOP SHEET SEAM

SIDEWALL SHEET

SIDEWALL LADDER

3/8" X 1-1/4" BIN BOLT TYP.

188060 WIND RING BRACKET

163923 STIFFENER

3/8" HEX NUT TYP.

3/8" X 1-1/2" HEX BOLT

WIND RING TUBING
(SEE NOTES 2 & 3)

13287 SPLICE CLAMP

1/4" X 1-1/4" DRILL SCREW

188060 WIND RING BRACKET
(2 PER WALL SHEET, AT EACH STIFFENER, EVENLY SPACED)
APPROX 56 ¼" APART

IMPORTANT! SOME BINS WILL HAVE ONE SHORT WIND RING TUBE. THIS SHORT PIECE MUST BE USED TO COMPLETE EACH WIND RING

EXTERNAL VIEW SHOWN

NOTES:
1. WIND RING MUST BE LOCATED 20 INCHES BELOW TOP HORIZONTAL SEAM TO AVOID OBSTRUCTION WITH SIDEWALL LADDER. WIND RING BRACKETS MUST BE LOCATED SO THEY ARE NOT UNDER OR NEAR SIDEWALL LADDER. SEE ILLUSTRATIONS.
2. FIELD CUT LAST SECTION OF RING TUBING TO FIT. IT IS IMPORTANT THAT CUT IS MADE AS SQUARE AS POSSIBLE.
3. BE CERTAIN THAT ALL TUBING ENDS BUTT TOGETHER TIGHTLY BEFORE CLAMP IS INSTALLED.
4. SECURE TUBE ENDS BY DRIVING (2) DRILL SCREWS THROUGH CLAMP INTO TUBING AT EACH CLAMP LOCATION.
### 30' DIAMETER WALL SHEET LAYOUTS

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### NOTES:

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   c) Floor flashing – see Floor Manual.
   Proper fastener tightening is important – see page 7.
36’ DIAMETER WALL SHEET LAYOUTS

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2. SEE PAGE 9 FOR SEAM SEALANT DETAILS.
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   a) DOOR INSTALLATION – SEE PAGE 10.
   b) ANCHOR INSTALLATION – SEE PAGE 8.
   c) FLOOR FLASHING – SEE FLOOR MANUAL.
   PROPER FASTENER TIGHTENING IS IMPORTANT – SEE PAGE 7.
### 36' DIAMETER 10 TIER WALL SHEET LAYOUTS

**NOTES:**
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3. USE 3/8” X 1” HEX BIN BOLTS FOR SEAM FASTENING EXCEPT AS NOTED BELOW.
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   - b) ANCHOR INSTALLATION – SEE PAGE 8.
   - c) FLOOR FLASHING – SEE FLOOR MANUAL.
   - PROPER FASTENER TIGHTENING IS IMPORTANT – SEE PAGE 7.

#### 3610

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### 30’-36’ DIAMETER HEAVY WALL SHEET LAYOUTS

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### NOTES:
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42'-48' DIAMETER WALL SHEET LAYOUTS

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   b) ANCHOR INSTALLATION – SEE PAGE 8.
   c) FLOOR FLASHING – SEE FLOOR MANUAL.
   PROPER FASTENER TIGHTENING IS IMPORTANT – SEE PAGE 7.
### 42' DIAMETER 9-10 TIER WALL SHEET LAYOUTS

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   b) **ANCHOR INSTALLATION** – SEE PAGE 8.
   c) **FLOOR FLASHING** – SEE FLOOR MANUAL.

**PROPER FASTENER TIGHTENING IS IMPORTANT** – SEE PAGE 7.
# 48' DIAMETER 9-10 TIER WALL SHEET LAYOUTS

## Important! See Page 33 for Sheet Assembly Details

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   c) Floor flashing – see floor manual.
   Proper fastener tightening is important – see page 7.
2 ROW OUTSIDE STIFFENED BIN INSTRUCTIONS

NOTE: IT IS RECOMMENDED THAT WHEN STARTING THE 2ND ROW, THE SHORT SHEET (110) IS STARTED FIRST.

NOTE: ANCHORING OF BIN WILL OCCUR AT EACH STIFFENER LOCATION. SEE PAGE 23 FOR DETAILS.
NEW PRODUCT WARRANTY
GRAIN BINS

LIMITED WARRANTY FOR NEW SIOUX STEEL COMPANY PRODUCTS

A. GENERAL PROVISIONS. "Sioux Steel" means Sioux Steel Company, 196 1/2 East Sixth Street, Sioux Falls, South Dakota 57104. The warranties described below are provided by Sioux Steel to the original purchasers of new products purchased from Sioux Steel or from an authorized Sioux Steel Dealer (the “Products”). Under these warranties, Sioux Steel will, at its option, repair or replace at its factory any Product covered under these warranties which is found to be defective in material and workmanship during the applicable warranty term or refund the purchase price paid for the defective Product. Customer will be responsible for labor charges for removing the defective Product and reinstalling the repaired or replacement Product, any premium charge for overtime labor requested of Sioux Steel and shipping charges to and from Sioux Steel’s factory. These warranties are not transferable.

B. WARRANTY PERIOD. Subject to exclusions and limitations set forth herein, each new Product is warranted for the number of years specified below. Each warranty term begins from the date of purchase regardless of receipt of the Product by Customer. Sioux Steel will only be responsible for defective products due to process, handle, ship, assemble, construct and install the Product. Customer must retain proof of the date of purchase. Replacement parts for and repairs to the Product will be warranted only for the remainder of the original warranty term. The replacement parts for or repairs to the Product will not extend the warranty term beyond the original warranty term. Products described below include all parts, components and accessories.

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<th>GRAIN BINS</th>
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<tr>
<td>Farm Use Grain Bins</td>
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<tr>
<td>Commercial Use Grain Bins</td>
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<tr>
<td>Centrifugal Fans, Axial Fans and Axial Heaters</td>
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<tr>
<td>Bin Accessories, including Bucket Elevators, Conveyors, Cage and Ladder Systems, Catwalks and Towers, Grain Dryers and Peak Walk-Arounds.</td>
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<tr>
<td>New Dazey Paddle Bin Sweep</td>
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<td>Daay Power Sweep</td>
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Exclusions specific to Grain Bins: Damage or loss of any kind from (1) excessive vacuum or internal pressure from the operation of fans in an empty grain bin and from the blockage of air passages for any reason including, but not limited to, the blockage of roof vents and discharge louvers by ice and snow; (2) a failure to properly compact and engineer soils; (3) a failure to properly construct footings and foundations; and (4) exposure to conditions in excess of, or not meeting, as the case may be, the wind and snow load requirements of each grain bin model.

C. ITEMS COVERED SEPARATELY. The Sioux Steel warranties do not cover any parts, components or materials that are part of the Product, or used in conjunction with the Product, that are not manufactured by Sioux Steel. Such parts, components and materials will be subject to the warranties provided by the manufacturer, if any. Manufacturers of electric motors provide warranty service only through authorized service centers. Service center locations are identified on the World Wide Web at www.baldor.com. Sioux Steel will not be responsible for motor repair or replacement.

D. WHAT IS NOT WARRANTED. Sioux Steel does not warrant and is not responsible for the following: (1) used products; (2) modification or alteration of the Products; (3) Products that have not been properly installed or not installed in accordance with the instruction manual, improper assembly, or improper construction by any persons other than Sioux Steel employees; (4) depreciation, damage or loss caused by the use of parts, components or accessories that are not manufactured by Sioux Steel; (5) unauthorized repairs; (6) use with non-matching materials or components; (7) improper or inadequate maintenance; (8) a failure to follow instructions/recommendations, misuse, lack of proper protection during storage, vandalism or theft, exposure to the elements or corrosive materials, accidents or acts of nature including lightning, flooding, hail, straight winds and tornadoes; and (5) cosmetic damage or damage that does not hinder the functionality of the Products.

E. LIMITATIONS OF WARRANTIES AND CUSTOMER’S REMEDIES. To the extent permitted by law, neither Sioux Steel, the Dealer nor any person or company affiliated with either of them makes any warranties, representations, conditions or promises express or implied as to the quality, performance or freedom from defects of the Products covered by these warranties other than those set forth herein. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NEITHER SIOUX STEEL, THE DEALER, NOR ANY PERSON OR COMPANY AFFILIATED WITH EITHER OF THEM WILL BE LIABLE FOR ANY DAMAGES, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL, SPECIAL, EXEMPLARY, CONSEQUENTIAL, LOST PROFITS AND REVENUES, LOST USE OF THE PRODUCTS OR ANY OTHER PROPERTY, BODILY INJURY OR PROPERTY DAMAGE CLAIMS OF ANY PERSON, LOST COMMODITIES, REMOVAL OR STORAGE COSTS FOR THE PRODUCTS, OTHER EQUIPMENT AND COMMODITIES, DAMAGE TO THE ENVIRONMENT ARISING FROM OR IN ANY MANNER RELATED TO ANY RELEASE OF HAZARDOUS MATERIALS, AND REMEDIATION EXPENSES THEREFORE, WHETHER BASED ON CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER LEGAL BASIS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO INSTANCE WILL SIOUX STEEL, THE DEALER OR ANY PERSON OR COMPANY AFFILIATED WITH EITHER OF THEM BE LIABLE TO CUSTOMER OR ANY PERSON IN AN AMOUNT IN EXCESS OF THE PURCHASE PRICE PAID BY CUSTOMER FOR THE PRODUCT.

F. NO DEALER WARRANTY. THE DEALER HAS NO AUTHORITY TO MAKE ANY WARRANTY, REPRESENTATION, CONDITION OR PROMISE ON BEHALF OF SIOUX STEEL, OR TO MODIFY THE TERMS OR LIMITATIONS OF THIS WARRANTY IN ANY WAY.

G. GOVERNING LAW/VENUE. These warranties, and all terms set forth herein, are governed by the laws of the State of South Dakota and, where applicable, the laws of the United States of America. Any and all disputes arising from these warranties, the purchase and use of the Products, bodily injury and property damage claims or otherwise must be venued in the South Dakota Circuit Court sitting in Minnehaha County, South Dakota. Customer agrees to such venue and waives any challenge to such court’s jurisdiction based upon lack of personal jurisdiction or inconvenience.

H. SECURING WARRANTY SERVICE. In order to receive warranty services, customer must give Sioux Steel written notice of a warranty claim within 30 days of the date of discovery of the defective materials or workmanship, and Customer must complete the following steps:

1. Obtain from Sioux Steel a Return Goods Authorization Number (“RGA Number”) by calling the Customer Service Department at 1-800-557-4689, and providing the following information:
   - An explanation as to why the Product is being returned.
   - The name of the territory representative, Dealer or Sioux Steel salesperson from whom the Product was purchased.
   - The Dealer’s identification number.
   - The invoice number and date of purchase.
   - Customer’s name, phone number, fax number, mailing address and email address.
   - The date that the Product will be returned.

2. Pay the shipping charges to ship the Product to Sioux Steel’s factory, and the return shipping charges.

3. Ship the Product to Sioux Steel at 196 1/2 East Sixth Street, Sioux Falls, South Dakota 57104.