



Specifications

Section 1 – General

- 1.1 This specification designates the quality, design criteria, materials, and workmanship of the XpresSteel Building.
- 1.2 XpresSteel Buildings are manufactured in accordance with recognized industry organizations including: MBMA, AISC, AWS, AISI, etc. XpresSteel Buildings are manufactured in plants that hold an AISC Quality Certification for Metal Buildings.
- 1.3 XpresSteel warranty for:
 - a) Materials and workmanship: 1 year.
 - b) SP panel finish: 10 years
 - c) KXL or Galvalume panel finish: 20 years

Section 2 – Primary Framing

- 2.1 Primary Framing consists of sidewall columns and roof rafters available in a Rigid Frame design with a center ridge gable or single slope shape, and a Continuous Beam design with an interior support column.
- 2.2 End Wall Frames and Columns consist of a roll formed Zee or Cee shaped member in depths of 8 ½" or 11 ½" or welded 3 plate "I" sections.
- 2.3 Materials:
 - a) Structural Steel Plate, Bar, Sheet, and Strip for Use in Bolted and Welded Constructions: ASTM A 572, A 1011, A 529, ASTM A 1008 with minimum yield strength of 50,000 psi (345 MPa).
 - b) Structural Steel Material for Use in Roll Formed or Press Broken Secondary Structural Members: ASTM A 1011, or A 1008 with minimum yield strength of 55,000 psi (380 MPa).
 - c) Paint for primary framing, end wall frames, and columns will be Red Oxide.

Section 3 – Secondary Framing

- 3.1 Secondary Framing consists of girts in 6 ½" or 8 ½" and roof purlins in 6 ½", 8 ½" or 11 ½" depths as required to meet design requirements.
 - a) Girts will be outset of sidewalls and flush at end walls.
 - b) All girts on a wall will be the same depth.
 - c) Base of wall supports are continuous angles supplied for wall panel attachment. Base angles are attached to the concrete with concrete fasteners furnished by others.
- 3.2 Diagonal Bracing is furnished to used to transfer loads to the foundation and are supplied as rod or cable.
- 3.3 Materials
 - a) Steel Material for Use in Roll Formed or Press Broken Secondary Structural Members: ASTM A 1011, or A 1008 with minimum yield strength of 55,000 psi (380 MPa).
 - b) Paint for secondary framing will be Red Oxide.

Section 4 - Roof & Wall Covering

- 4.1 Roofs are Panel Rib profile, 36" wide module, 1 3/16" deep, exposed fasteners.
 - a) Standard thickness 26 Gauge Galvalume or Galvanized 80 ksi steel
 - b) Standard painted material thickness 26 gauge, 50 ksi steel
 - c) Optional thickness 24 Gauge, 50 ksi steel
 - d) Purlin bearing edge standard.
 - e) Ridge panels are pre-formed.
 - f) Finish options:
 - i) KXL
 - ii) SP
 - iii) Galvalume
- 4.2 Wall Panels
 - a) Panel Rib profile, 36" wide module, 1 3/16" deep, exposed fasteners.
 - i) Standard thickness 26 Gauge, 50 ksi steel
 - ii) Optional thickness 24 Gauge, 50 ksi steel
 - iii) Finish options:
 - (1) KXL
 - (2) SP
 - (3) Galvalume (50 ksi)
 - b) Vee Rib profile, 36" wide module, 1 3/16" deep, fasteners semi-concealed
 - i) Standard thickness 26 Gauge, 50 ksi steel
 - ii) Optional thickness 24 Gauge, 50 ksi steel
 - iii) Finish options:
 - (1) KXL
 - (2) SP
- 4.3 Materials
 - a) Galvalume Steel Sheet Used in Roll Formed or Press Broken Roof, Wall Covering and Trim, Aluminum-zinc alloy-coated steel sheet, ASTM A 792, with minimum yield strength of 80,0000 psi or 50,000 psi ; Coating designation AZ50 for painted panels and AZ55 for unpainted panels.
 - b) Galvanized steel sheet for roll formed or press broken roof and wall coverings, trim and flashing: ASTM A 653, with minimum yield strength of 50,000 psi
 - c) Finishes
 - i) KXL Pre-Painted Finish: 1 mil (0.025 mm) Kynar 500 coating on exterior surface.
 - (1) Interior Finish: Off white 0.5 mil (0.01 mm) washcoat as required by manufacturer.
 - ii) SP Pre-Painted Finish: 0.8 mil baked on silicone polyester exterior surface.
 - (1) Interior finish: Off white 0.5 mil (0.01 mm) washcoat.
 - iii) Galvalume: 55% Aluminum-Zinc alloy coating

Section 5 – Fasteners

- 5.1 Structural Bolts and Nuts Used with Primary Framing: High strength, ASTM A 325.
- 5.2 Bolts and Nuts Used with Secondary Framing Members: ASTM A 325 or ASTM 307.

Section 6 – Closures, Mastics, & Closures

- 6.1 At roof and wall panel endlaps, sidelaps, rake, eave, transitions and accessories – closures, tape mastic or gunnable sealant will be provided as required to provide a weather-tight system
- Closures: Formed to match panel profiles; closed cell elastic material.
 - Tape Mastic: Pre-formed butyl rubber-based, non-hardening, non-corrosive to metal; white or light gray.
 - Gunnable Sealant: Non-skinning synthetic elastomer based material; gray or bronze.

Section 7 – Accessories

- 7.1 Blanket Insulation: Glass fiber, with factory laminated facing material.
- Glass fiber: Odorless, neutral colored, long filament, flexible resilient, produced in compliance with the NAIMA 202 specifications.
 - Thickness: 3", 4" or 6".
 - Flame spread Index: 25 or less, when tested in accordance with UL 723.
 - Smoke Developed Index: 50 or less, when tested in accordance with UL 723
 - Facing:
 - White polypropylene scrim kraft; Light duty
 - White polypropylene scrim kraft; Standard duty
- 7.2 Windows: Extruded aluminum frames with extruded aluminum sash of 6063-T5 alloy, complying with AAMA 101 performance and testing requirements.
- Screens: 18 by 16 fiberglass mesh.
 - Finish on all exposed areas of aluminum windows and fins: Baked enamel complying with AAMA 603.8.
 - Color: Manufacturer's standard bronze.
 - Type: Horizontally sliding.
 - Type: Single hung.
 - Type: Fixed.
 - Glass: Sealed insulating units, ASTM E 774, CBA rated with a 5 year warranty against seal failure; polysulfide sealant; overall unit thickness not less than 5/8"
- 7.3 Service Doors:
- Doors for Cylindrical Locks: SDI 100, Type 1, Style 2, 1-3/4" thick, min. 20 ga. steel face sheets.
 - Type: Full flush.
 - Type: Half glass.
 - Frames: SDI 100, modified drywall type, 4-3/4" (120 mm) jamb depth minimum 16 ga. (1.52 mm) steel; self-framing and self-flashing.
 - Hardware Reinforcements: Comply with SDI 100; 8
 - Finish: Two coat baked on paint on all exposed surfaces manufacturer's standard bronze or white color.
 - Weatherstripping: At jambs, head and sill, complying with water and air resistance requirements of SDI 115 and SDI 116.
 - Hardware:
 - One key in-knob lever lockset per opening.
 - Three full mortise hinges per leaf, one with non-removable pin.
 - Single Door Size: 3' x 7' (915 x 2135 mm).

- 7.4 Louvers: 18 ga. galvanized steel, self-framing, self-flashing with integral head gutter, with paint finish.
- Type: Fixed blade
 - Type: Operable blade, with weather-stripped blades and 15' (4575 mm) of pull chain with dogging clip.
 - Accessories:
 - Screen: Exterior mounted, removable insect screen.
 - Minimum Free Area: 65 percent.
 - Size: 3' x 3' (915 x 915 mm).
 - Color: Manufacturer's standard bronze.
- 7.5 Eave Gutters: 26 ga. steel sheet, with gutter straps, fasteners and joint sealant.
- Downspouts: 3" x 4" (100 mm x 125 mm) in 10' (3050 mm) lengths, with downspout elbows and downspout straps; same color as wall panels.
- 7.6 Translucent Skylight Roof Panels: Tuf-Lite; UV stabilized thermosetting polyester resin reinforced with chopped and woven roving glass fiber in Panel Rib profile.
- Color: White, with textured exterior surface and minimum 50 percent light transmittance.
- 7.7 Gravity Ventilators: APEX 20; factory assembled, round, with 20" (510 mm) diameter throat with damper, operating cord and bird screen and base configured to match Panel Rib profile.
- Color: Egyptian White.
- 7.8 Ridge Ventilators: 10' (3050 mm) long, 26 ga. (0.45 mm) Galvalume, with damper with chain and worm gear operator and bird screen, and base configured to match roof panel.
- Throat Opening: 9" (229 mm).
 - Individual vents are connected to form continuous ridge vent with one operator for each 5 vents.
 - Color: Egyptian White
- 7.9 Liner Panels: Panel Rib profile for interior use, 28 Gauge, 8'-0" Long; with a white polyester finish.

Section 8 – Plans and Drawings

- 8.1 Anchor Bolt Setting Plans, including building reactions are provided.
- 8.2 Erection drawings are provided with each building. An engineer's stamp for erection drawings is available for a nominal charge.

Section 9 – Miscellaneous

- 9.1 Anchor Bolts, Foundation Designs, and Erection Labor and Supervision are not provided by XpresSteel Buildings. Contact you XpresSteel representative if you need assistance in obtaining these services and material.

Revision 1 as of 10/6/03

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