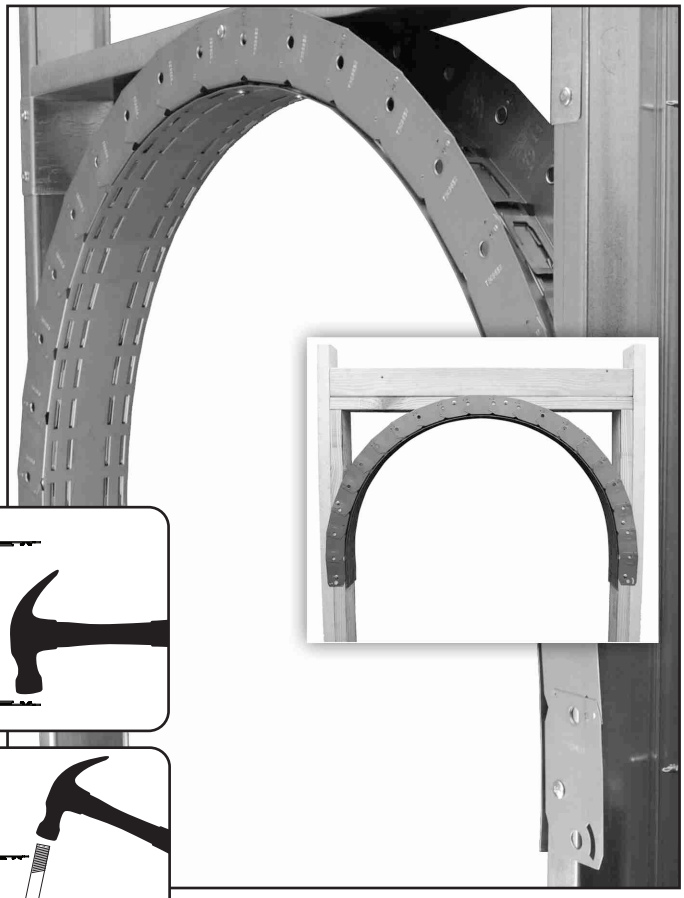
FLEX-C ARCH™



Use Flex-C Arch to frame arches in a fraction of the time required by traditional methods. This sturdy product is manufactured to accomodate most doorway and window arch applications.

With Flex-C Arch you can easily form arches on site or shop form them ahead of time. Either way, Flex-C Arch ensures the highest job production rates.

Flex-C Arch allows installers to create perfectly formed arches that will eliminate call backs.

Create perfect arches using these easy steps:

First, draw the desired arch/curve on a concrete surface.
Second, lay the Flex-C Arch on the drawn line and bend it with your hands to match the curve.
Third, with the Flex-C Arch sitting on the concrete hammer the tabs flat to embed them. When the Flex-C Arch is too narrow to reach the tabs with a hammer you may need to use a bolt as a punch.

Flex-C Arch can also be secured into shape by installing self-drilling screws along the sides or through the face.

Finally, slide the Flex-C Arch over the rough opening and secure it with screws or nails. Note: When splicing, first shape and secure Flex-C Arch then overlap and connect with screws.

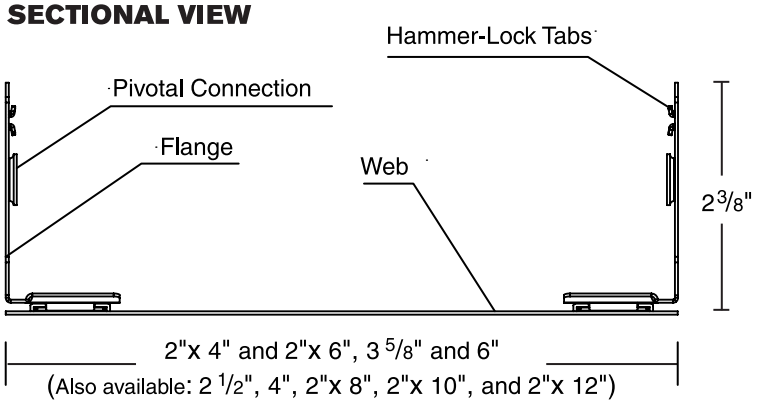
Standard sizes: 2"x 4", 2"x 6", 3 5/8" and 6" for residential or commercial applications.
Available lengths: 5' and 8'
Minimum radius: 9"

SPECIFICATIONS

Flanges and Web:

- ASTM A653, structural grade 33, hot dipped galvanized steel.
- Standard protective coating equal or superior to ASTM A653 coating designation G-40 or A-40
- 20 gauge

SECTIONAL VIEW



FLEX-ABILITY CONCEPTS

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(405) 996.5343 (FAX) 996.5353
5500 SW 36th St. Oklahoma City, OK 73179
www.flexabilityconcepts.com

PART 1 – GENERAL

1.1 DESCRIPTION
- A. Scope of Work All interior and exterior load-bearing and non load-bearing light gage steel and wood studs, track, joists, trusses, bridging and related accessories are as indicated on the Contract Drawings and specified herein.
- B. Related work specified elsewhere.

1.2 SUMMARY
- A. This Section includes the following:
  1. Exterior and Interior non load-bearing walls.
  2. Exterior and Interior load-bearing walls.

1.3 PERFORMANCE REQUIREMENTS
- A. Engineering Responsibility: Engage a fabricator who assumes undivided responsibility for engineering FLEX-C ARCH metal framing by employing a qualified professional engineer to prepare design calculations, shop drawings, and other structural data.
- B. Design exterior non load-bearing curtainwall framing to accommodate lateral deflection without regard to contribution of sheathing materials.
- C. All Exterior and Interior load-bearing applications are to be engineered by a qualified professional Engineer.

1.4 QUALITY ASSURANCE
- A. Installer Qualifications: Engage an experienced Installer who has completed cold-formed metal framing similar in material, design, and extent to that indicated for this project and with a record of successful in-service performance.
- B. Standard
  1. Work shall meet the requirements of the following standards:
     a. American Iron and Steel Institute (A.I.S.I.) "Design of Cold Formed Steel Structural Members," 1986 with 1989 amendments.
     b. American Welding Society (A.W.S.) D.1.3, 1981 "Structural Welding Code – Sheet Steel."
     c. American Society for Testing Materials (A.S.T.M.)
     d. American Institute of Steel Construction (A.I.S.C.) "Manual of Steel Construction," 9th edition.
     e. All pertinent Federal, State, and Local codes.
  2. The most stringent requirements shall govern in conflicts between specified codes and standards.
  3. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification within the past twelve months.
- C. Inspection
  1. As directed by Architect, Owner's testing agency may inspect the maintenance of a quality control program including spot checking weldments and welding procedures in accordance with A.W.S. standards.
  2. Full responsibility for quality control shall remain with the Contractor.

1.5 DELIVERY, STORAGE, AND HANDLING
- A. Protect FLEX-C ARCH metal framing from corrosion, deformation, and other damage during delivery, storage, and handling.
- B. Store FLEX-C ARCH metal framing, protect with waterproof covering, and ventilate to avoid condensation.

1.6 SUBMITTALS
- A. Structural Calculations
  1. Submit structural calculations prepared by the Professional Engineer of record. Calculations shall include, but are not limited to:
     a. Description of design criteria.
     b. Engineering analysis depicting stress and deflection (stiffness) requirements for each framing application.
     c. Selection of framing components and accessories.
     d. Verification of attachments to structure and/or adjacent framing components.
- B. Drawings
  1. Submit drawings prepared by the manufacturer for approval by the Project Architect and Engineer. These drawings should include:
     a. Cross-sections, plans and/or elevations depicting component locations.
     b. Connection details showing screw types and locations, weld lengths and locations or other related fastener requirements.
     c. Where the Contractor intends on erecting prefabricated/prefinished panels, drawings depicting panel configurations, dimensions and locations would be developed by the Contractor.

PART 2- PRODUCTS

2.1 AVAILABLE MANUFACTURERS:
- A. Manufacturers offering FLEX-C ARCH metal framing that may be incorporated in the work include, and are limited to, the following:
  1. FLEX-ABILITY CONCEPTS - 5500 SW 36th St. Oklahoma City, OK 73179 (405) 996.5343 (FAX) 996.5353 www.flexc.com

2.2 MATERIALS
- A. Galvanized – Steel Sheet ASTM A 653, and as follows:
  1. Coating Designation: Galvanized Steel equal or superior to ASTM A653 G40 or A40
  2. Grade: 33

2.3 ARCH FRAMING
- A. Flex-C Arch: manufacturer's standard flexible U-shaped channel assembly with screw attachments at each segment for securing desired radius.

2.4 FRAMING ACCESSORIES
- A. Fabricate steel-framing accessories of the same material and finish used for framing members; with a minimum yield strength of 33.000 psi.
- B. Provide accessories of manufacturer's standard thickness and configuration, unless otherwise indicated.

2.5 FASTENERS
- A. Mechanical Fasteners: Corrosion-resistant coated, self-drilling, self-threading steel drill screws.
  1. Head Type: Low-profile head beneath sheathing, manufacturer's standard elsewhere.
- B. Welded Electrodes: Comply with AWS standards.

2.6 MISCELLANEOUS MATERIALS
- A. Galvanizing Repair Paint: SSPC-Paint 20 of DOD-P-21035, with dry film containing a minimum of 94 percent zinc dust by weight.

2.7 FABRICATION
- A. Fabricate FLEX-C ARCH metal framing and accessories plumb, square, true to line, true to radius, and with connections securely fastened, according to manufacturer's recommendations and the requirements of this Section.
  1. Fabricate assemblies in jig templates or free form scribed radiuses.
  2. Extreme care should be taken when handling or cutting any metal products. Observe all safety precautions when handling or cutting FLEX-C ARCH .
  3. Cut FLEX-C ARCH metal framing by sawing or shearing; do not torch cut.
  4. Fasten FLEX-C ARCH metal framing by welding or screw fastening, as standard with fabricator. Wire tying of FLEX-C ARCH framing members is not permitted.
     a. Comply with AWS requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.
     b. Locate mechanical fasteners and install according to FLEX-C ARCH manufacturer's instructions with screw penetrating the web and slidable side angle and joined members by not less than 3 exposed screw threads.
  5. Fasten other materials to FLEX-C ARCH metal framing by welding, bolting, or screw fastening, according to manufacturer's recommendations.
- B. Reinforce, stiffen, and brace framing assemblies to withstand handling, delivery, and erection stresses. Lift fabricated assemblies to prevent damage or distortion.
- C. Fabrication Tolerances: Fabricate assemblies as required.

PART 3- EXECUTION

3.1 INSTALLATION, GENERAL
- A. FLEX-C ARCH metal framing may be shop or field fabricated for installation, or it may be field assembled.
- B. Install FLEX-C ARCH metal framing and accessories plumb, square, true to line, true to radius, and with connections securely fastened, according to manufacturer's recommendations and the requirements of this Section.
  1. Extreme care should be taken when handling or cutting any metal products. Observe all safety precautions when handling or cutting FLEX-C ARCH .
  2. Cut FLEX-C ARCH members by sawing or shearing; do not torch cut.
  3. Fasten FLEX-C ARCH members by welding or screw fastening, as standard with fabricator. Wire tying of FLEX-C ARCH members is not permitted.
     a. Comply with AWS requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.
     b. Locate mechanical fasteners and install according to FLEX-C ARCH manufacturer's instructions with screw penetrating the web and slidable side angle and joined members by not less than 3 exposed screw threads.
     c. Install FLEX-C ARCH members in one or multi-piece lengths as specified.
     d. Splice FLEX-C ARCH segments by overlapping the webs and slidable angles of the assemblies and joining them using approved screw fasteners with screw penetrations of not less than 3 exposed screw threads.
     e. Provide temporary bracing and leave in place until framing is permanently stabilized.
     f. Do not bridge building expansion and control joints with FLEX-C ARCH metal framing. Independently frame both sides of joints.
     g. Fasten reinforcement plate over web penetrations that exceed size of manufacturer's standard punched openings.

3.2 REPAIRS AND PROTECTION
- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed FLEX-C ARCH metal framing with galvanizing repair paint according to ASTM A 780 and the manufacturer's instructions.
- B. Touchup painting: Wire brush, clean, and paint scarred areas, welds, and rust spots on fabricated and installed prime-painted, FLEX-C ARCH metal framing.
  1. Touchup painted surfaces with same type of shop paint used on adjacent surfaces.
- C. Provide final protection and maintain conditions in a manner acceptable to manufacturer and installer to ensure that FLEX-C ARCH metal framing is without damage or deterioration at the time of substantial completion.