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Arches - Traversing History, Navigating Trends, Mastering Manufacturing, and Precision in Measurement

UNVEILING THE ENIGMA OF ARCHES

BRENL

In this edition we're delving deep into the historical tapestry, contemporary trends, intricate manufacturing processes, and the art of arch measurement.

Arches have been an integral part of architecture for centuries, dating back to ancient civilizations. The Romans, in particular, are renowned

for their mastery of arch construction, evident in iconic structures like the Colosseum and triumphal arches. Arches have not only served as structural elements but also symbolized strength, durability, and aesthetic appeal throughout different era's.

While arches have a rich historical background, they continue to be a popular design element in contemporary architecture. Modern architects are embracing the timeless elegance of arches, incorporating them into residential and commercial buildings alike. From grand entranceways to sleek interior designs, arches add a touch of sophistication and uniqueness to any space.

THIS MONTH'S FEATURED EMPLOYEE

OTIMES

ROSS SEMPLE

TYPES OF ARCHES

There are several types of arches. Let's explore the different types and what they look like.

Arch: An arch is a curved structure that spans an opening. It has a distinctive curved shape, commonly seen in doorways, windows, and architectural elements.

Circle: A perfect circle is a two-dimensional shape with all points equidistant from the center. It has a constant radius around its circumference.

Semicircle: A semicircle is half of a circle, formed by cutting a full circle along its diameter. It has a curved shape resembling half of a perfect circle.

Oval/Elliptical: This type of arch is characterized by a curved profile that resembles an elongated circle. The oval arch is created by cutting an ellipse in half horizontally, resulting in a structure that has a broader and more stretched appearance compared to a traditional semicircular arch.

Convex: Convex refers to a surface or shape that curves outward. In an architectural context, convex arches project outward, creating a rounded and bulging appearance.

Concave: Concave refers to a surface or shape that curves inward. In the context of an arch, concave arches curve inward, creating a hollow or recessed appearance.



MEASURING ARCHES

Measuring arches made of wood requires precision and attention to detail. The process involves determining key dimensions to ensure accuracy in construction. Here's a step-by-step guide on how to measure wooden arches effectively

1. Identify the Arch Type: Determine the specific type of arch you are working with, whether it's a semicircular arch, oval etc. Some require a template while others can be calculated using the following measurements:. The arch type will influence the measurements you need to take.

2. Measure the Width: Start by measuring the width of the arch. This involves finding the distance between the two endpoints at the base of the arch. Use a tape measure or a straight edge to get an accurate measurement.



3. Determine the Rise: The rise is the vertical distance from the base to the highest point of the arch. Measure this distance along the centerline of the arch, ensuring that your measurement is perpendicular to the base.

4. Calculate the Radius: For a semicircular arch, calculating the radius is essential. The radius is half of the width of the arch. If you have the width measurement, simply divide it by 2 to find the radius.

5. Establish the Depth: The depth of the arch is the distance from the front face to the back face of the arch. Measure this at the center of the arch, perpendicular to the base. This measurement is crucial for ensuring the stability and visual appeal of the arch.

6. Account for Tolerances: Keep in mind that wood can expand or contract due to changes in humidity and temperature. When measuring, consider potential tolerances and account for any adjustments needed during construction.



MANUFACTURING ARCHES

The manufacturing process requires precision and expertise, as architects and builders carefully design and construct arches to ensure both structural integrity and visual appeal. Manufacturing arches out of wood involves a combination of craftsmanship, precision, and attention to detail. Below is a step-by-step guide on how Brenlo manufactures wooden arches:

- We begin by creating detailed architectural drawings or plans that outline the specifications of the arch, including dimensions, type of wood, and any decorative elements and choose a suitable wood species based on the project requirements.
- We then mill the selected wood into appropriately sized and shaped pieces.
- We then develop a template or a form that represents the exact shape of the arch. This template is used as a guide during the shaping process.
- We use a variety of tools such as jigsaws, routers, or bandsaws to carefully shape the wood according to the template.
- Depending on the design, we employ appropriate joinery techniques to connect the different components of the arch. Common joinery methods include mortise and tenon, dowels, or screws.
- We then sand the wooden arch thoroughly to create a smooth surface.

Remember, precision and accuracy are crucial throughout the manufacturing process. These projects involve intricate or complex designs, seeking the expertise of skilled woodworkers or craftsmen is essential. At Brenlo we manufacture arches in a variety of different species, From Poplar, exotic Species such as Red & White Oak to Walnut, Mahogany and many more to match the interior and exterior of your home.

FEATURED EMPLOYEE

ROSS SEMPLE



Meet Ross Semple, our distinguished Plant Manager at Brenlo, honored as the employee feature of the month. With an impressive 35-year tenure in wood moulding manufacturing and the lumber industry, Ross brings a wealth of experience to our team. Ross believes that effective communication, a positive attitude, confidence, and continuous encouragement, support, and recognition are the keys to successful management. His leadership style fosters a cohesive and motivated team. Beyond the workplace, Ross is a family man, married with three adult children. During leisure hours, he and his wife indulge in outdoor activities, including kayaking, fishing, and spending quality time with their two beloved dogs. A passionate hockey enthusiast, Ross adds another layer to his dynamic personality. Showroom 65 Worcester Road, Toronto, ON M9W 5N7 P: 416-749-6857 E: frogboard@brenlo.ca



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