

## Why Cox for Crossarms?

**For durable and economical crossarms, contact the Industrial Products Group of Cox Industries.**

Our company is experienced in satisfying utility and industrial customers; it combines the manufacturing capabilities of four specialized production facilities, two in South Carolina, one in Georgia, and one in North Carolina. Together, these facilities produce pentachlorophenol-treated Southern pine and Douglas fir crossarms, as well as CCA poles, pilings, posts, and marine-treated wood. We also offer custom treating and drying services, along with custom millwork.

A division of a long-time leader in wood preservation, Cox combines the service of attentive, smaller plants with the resources of a major company in wood preservation. Crossarms can be provided under WQC approval or inspection programs of other quality control organizations. We also offer "in house" logistical support. Special framing and inventory needs can easily be arranged.

Cox Industrial Products Group is a good choice for your crossarm needs. We maintain in excess of 200,000 pieces of blanks/ready-to-ship arms on hand for emergency situations. We can offer products made to your specifications with prompt turnaround. We offer economical delivery throughout the Southeast.



### Available Sizes

#### Length

Standard utility lengths (8' and 10'), as well as custom sizes in lengths from 4' up to 28'.

#### Thickness

3 1/2" X 4 1/2", 3 3/4" x 4 3/4", and 4 1/4" X 5 1/4", as well as custom sizes up to 8" thick and 18" wide.

### Species

- Southern pine
- Douglas fir

### Treatments

- CCA
- Pentachlorophenol
- CCA with ET<sup>®</sup> oil emulsion

### Applicable Standards

ANSI 05.3 – Standard for Solid Sawn-Wood Crossarms and Braces Specifications and Dimensions

AWPA C-25 and C-28 for pressure treating solid sawn and laminated crossarms

AWPA Use Category System – UC3B Above ground, critical

## Why Southern Pine Crossarms?

At Cox, we believe in Southern pine and have reliable sources for the high quality stock needed for southern pine crossarms. Southern pine is less costly than Douglas fir, and its availability throughout the southeast results in significant freight savings for northeastern and eastern utilities.

In addition, Southern pine crossarms are stronger and more elastic in nature than Douglas fir samples of the same cross-sectional size. Coupling these strength properties with the considerable cost savings and ready availability, Southern pine is now a viable alternative to Douglas fir for all users, from municipalities to cooperatives to regional investor-owned utilities.

Following are results of an independent study conducted by Mississippi Forest Products Laboratory (MFPL) on behalf of Cox Industries to study the structural integrity of Southern pine crossarms.

### Comparison of Mechanical Properties

Species	Size	FSPL (psi)	MOR (psi)	MOE (psi)	WEIGHT (lbs)
Douglas fir	3 1/2" x 4 1/2"	6,267	8,302	2,076,920	37.0
Southern pine	3 1/2" x 4 1/2"	5,170	<b>9,382</b>	1,825,257	44.0
Douglas fir	3 3/4" x 4 3/4"	5,662	7,978	2,057,162	40.0
Southern pine	3 3/4" x 4 3/4"	6,363	<b>10,395</b>	1,969,421	48.0

**FSPL (Fiber Stress Proportional Limits)** – For any given piece of wood subjected to stress, the load deformation curve reaches a proportional limit, beyond which the total deformation is non-recoverable and some permanent set is imposed. Simply stated, if any piece of wood is loaded beyond a certain amount the sample will not return to its prior shape. In the case of a crossarm, if an arm is overloaded by a tree falling on a line or any like situation, the arm will retain some "bend" or curve in the piece.

**MOR (Modulus of Rupture)** – The magnitude of a load required to cause failure, or the point at which a crossarm will break.

**MOE (Modulus of Elasticity)** – A measurement of an object's resistance to bending (also related to the "stiffness" of a member).

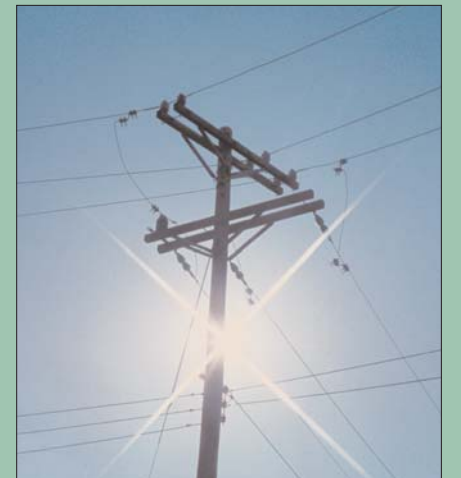
**Density (Weight Density)** – The weight of wood per unit volume. There exists a direct correlation between weight and strength. (i.e. the heavier a known sample, the stronger the said sample at a given moisture content.)

*Note: All samples were independently procured and conformed to ANSI 05.3-1995 and SPIB specifications. Sampling was in accordance with ASTM D2915. Following receipt, MFPL personnel tested the crossarms in static bending using ASTM D198-98.*

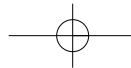


mean value  
**New Product Now Available:  
DuraBrace by Cox.**

This crossarm brace forms a triangle to ensure that the arm will remain stable and will not pivot. Our new brace was recently accepted by the Technical Standards Committee (Electric) of the USDA, and will appear on page cu-1. A variety of sizes is available through



*For all your crossarm needs, contact the Cox Industrial Products Group at 803-492-7728 or [www.coxwood.com](http://www.coxwood.com).*



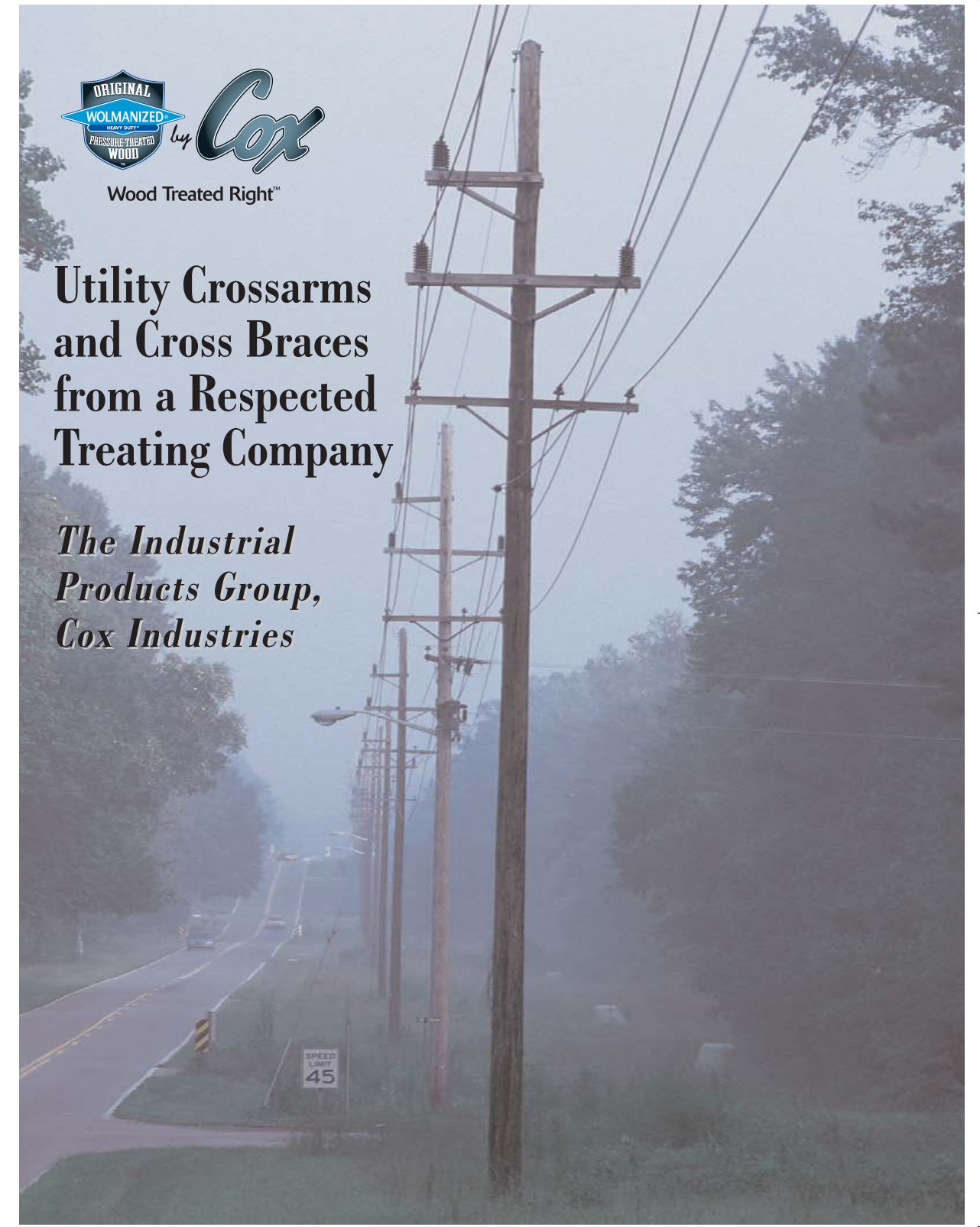


**Production Process**

*Incoming stock, purchased from select mills, is cut and surfaced to specifications. We chamfer the top edge, and drill holes. Surfacing and drilling takes place at our Eutawville, SC, plant; treatment is done at one of our four facilities.*

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**Utility Crossarms  
and Cross Braces  
from a Respected  
Treating Company**

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Products Group,  
Cox Industries***