

TRU-DRY[®]

BY CRAFTMARK



Radio Frequency Vacuum (RFV) Kiln Dried Timbers: The Process

Radio Frequency (RF) is a range of electromagnetic waves between audio and infrared, much like a cell phone. An amplifier is used to generate RF at a fixed frequency which allows control of the heat keeping the kiln at a consistent temperature throughout the process. Prior to being exposed to the RF waves, water molecules are not aligned. When RF is introduced to the wood, the water molecules will excite, align, and exit the wood through the natural veins water traveled while the tree was alive.

Radio Frequency Vacuum (RFV) Kiln Drying is used to dry the entire timber evenly, right down to its center. Conventional methods only dry the outer 1" to 1 ½" of timber and could cause case hardening. When drying larger size timbers our technology dries evenly to the center of each piece and will not case harden the timber. A Vacuum pump is added to the kiln system creating a low pressure environment where low-temperature drying can take place. This reduces the boiling point of water from 212°F to between 75°F and 95°F which provides a gently drying environment.

Lumber is kept straight with the addition of the top compression plate which distributes the RF waves and applies up to 250,000lbs of pressure to the timbers. This allows the timber to be held straight and flat during the drying process ensuring the timber stays straighter, squarer and truer than when dried conventionally.

Pitch is set in the drying process when the kilns are taken up to 164° F for 30 minutes. This is successful 98% of the time eliminating pitch drips. This process also kills any pests.

Drying Chambers are able to dry timbers up to 40' in length and to a moisture content of 19% or less to the center of the timber. Our patented End Point Detection and power amplifier technology allows drying of timbers to the core without cell collapse.

RFV Drying achieves what no other kiln drying method can-timbers that remain straight, stable and true for years to come.

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**...the most consistently and evenly dried
timbers on the market.**



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