

TECHNICAL SOURCE GUIDE

STEEL LUMBER CONNECTORS

By Elbin L. Clevelan, University of South Carolina

Practically everyone who has ever worked on domestic construction has used or at least has seen metal connectors for construction lumber. They have existed for decades. (My house, built in 1929, has old iron plates for floor joist hangers.) However, if you haven't looked beyond the bins at your local home improvement center, you will be amazed at the incredible variety of these connectors which are now available. At least ten companies are manufacturing connectors of every conceivable configuration. (see the list below.) All have multi-page catalogs which you can use to select the item appropriate for your application. A quick survey of one catalog revealed more than 160 different products. However, should you have a special need that one of the standard devices will not accommodate, several companies will custom design and manufacture the hardware that you need. Some companies manufacture decorative versions for exposed use and some companies offer special items for joining round posts and logs.

Lumber connectors have several advantages which make theatrical applications worth considering. (1) They provide more shear strength than nails and they eliminate the need to notch horizontal members for ledger strips which takes time and which weakens the member. (2) They provide a ready bearing which holds the member in place while it is fastened. There's no need to have one person strain to hold a heavy timber in place while a second person tries to "nail it before it moves!" (3) Connectors can be easily installed on one member while it's on ground level. That reduces ladder work and makes construction safer. (4) All companies have Product Use Guides with instructions and load tables to insure that your work will pass safety codes. Since each company engineers its own products, never assume that a similar product from a different company will have the same capacity. The quality of the steel, its thickness, the number and placement of penetrations and the forming machinery employed during manufacturing all affect the strength of the end product. (5) Most companies have hardware especially designed for joining GLL, wood trusses, and wooden I- beams. (6) Most companies have connectors designed for use on compound angles such as those on hip rafters These can be very useful in the theatre where we often construct scenery at skewed angles or in forced perspective. (7) Using lumber connectors often speeds up the work, saving time and money.

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It will be well worth your while to acquire catalogs from a couple of the companies below so that you have full information on the broad range of products available.

Atlas Framing Connectors

Atlas Engineered Products, Inc.
10611 East 59th St.
Indianapolis, IN. 46236
1-800-251-8351

Cleveland Timber Connectors

Cleveland Steel Specialty Co.
14400 South Industrial Ave.
Cleveland, OH. 44137-3249

Build-A-Deck

Crawford Products, Inc.
301 Winter Street
West Hanover, MA. 02339
1-800-328-5935

Kant-Sag

United Steel Products Co.
703 Rogers Drive
Montgomery, MN. 56069

Superspeed Connectors

K.C. Metals
1960 Hartog Drive
San Jose, CA. 95131

Tym-Saver Products

N.H. Rudeem Company, Inc.
2721 Nevada Ave. North
Minneapolis, MN. 55427

Structural Framing Connectors

Panel Clip Company
Farmington, MI.
1-415-449-4100

SilverWoodConnectors

Silver Metal Products, Inc.
2150 Kittyhawk Rd.
Livermore, CA. 94550-9611

Strong-Tie Connectors

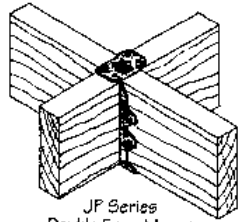
1450 Doolittle Drive
P.O. Box 1568
San Leandro, CA. 94577
1-415-562-7775

Structural Wood Fasteners

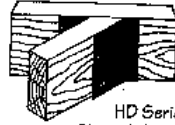
TECO
5530 Wisconsin Ave.
Cherry Chase, MD. 20815

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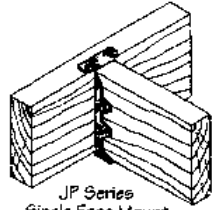
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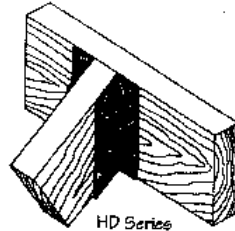
JP Series
Double Face Mount
Joist Hanger



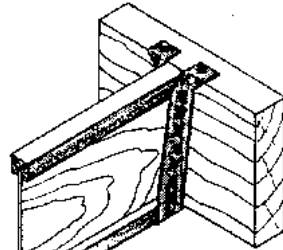
HD Series
Skewed Face Mount
Joist Hanger



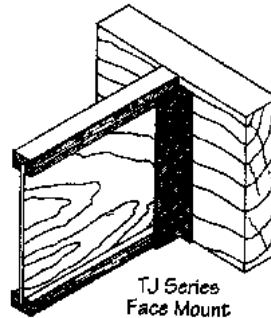
JP Series
Single Face Mount
Joist Hanger



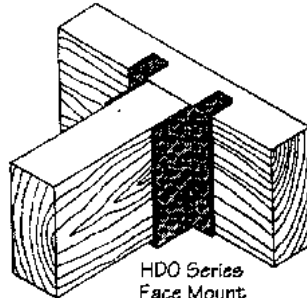
HD Series
Sloped Face Mount
Joist Hanger



THF Series
Face Mount
Joist Hanger



TJ Series
Face Mount
Joist Hanger



HDO Series
Face Mount
Joist Hanger

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