12' Panel Clamp

Model - 79F-12-PC

108 Parker Ave.
Poughkeepsie, NY 12601
Tel: (800)-901-8037
Fax: (336)-375-1112
Web: www.jltclamps.com
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Company Introduction

We at JLT Clamps would like to thank you and your company for selecting the JLT Clamps 12’ Panel Clamp. With proper care, your Panel Clamp will provide you with many years of reliable service.

This manual contains important information about the installation, operation and maintenance of your 12’ Panel Clamp. We urge you to read it carefully, become familiar with the components and features it describes, and follow its recommendations, to help make your panel clamp as trouble-free and productive as possible.

This manual is intended for use by anyone working with this machine. It should be kept available for immediate reference so that all operations can be performed with maximum efficiency and safety. Do not attempt to perform maintenance or operate this machine until you have read and understand the information contained in this manual.
Limited Warranty - (This supersedes all previous warranties)

JLT Clamps guarantees all products of its manufacture to be free of defects in workmanship or material when properly installed, serviced and maintained under normal conditions. JLT Clamps' obligation under this warranty is limited to repairing or replacing any part or parts thereof which shall within one (1) year after shipment to the original user, be returned to its factory, transportation charges prepaid, and which JLT Clamps' examination shall disclose to be defective.

JLT Clamps assumes no liability for labor charges incidental to the adjustment, service, repairing, removal, replacement of parts or other losses, or for expense of repairs made outside of its factory, except when made pursuant to JLT Clamps' PRIOR written consent.

JLT Clamps does not guarantee equipment furnished by us, but manufactured by others, such as belts, electric motors, starters, controls or other electrical equipment or accessories, as they are guaranteed separately by their respective manufacturers. JLT Clamps assumes no liability whatever for any of these parts claimed to be defective or for damages or delays caused by defects beyond making such repair or furnishing duplicate parts within the manufacturer's warranty, nor shall we be liable for any defective material repaired or replaced without our consent.

The foregoing shall constitute the fulfillment of all of our obligations under this warranty and there are no other warranties or guarantees, expressed or implied except as stated herein.
RULES FOR SAFE OPERATION
RULES FOR SAFE OPERATION

General Safety Rules

• Follow lockout procedure before servicing.

• Read and understand manual before operating machine.

• Wear eye protection.

• See the plant supervisor to determine what protective equipment each job requires.

• Do not wear loose clothing, jewelry, or long hair around operating equipment.
INSTALLATION
Receiving & Unpacking

Inspect the shipping crates and skids for shipping damage.

If any shipping damage has occurred, notify the shipping company immediately.

Unpacking Instructions:

The Panel Clamp is shipped with the legs and the clamps strapped to the frame. Unstrap and remove the clamps and the legs from the frame. Remove the shipping skid.
Layout Requirements

The 12' Panel Clamp has the following dimensions: 70" High, 145" Long, and 48" Wide.
Frame and Leg Assembly Section

With the rear of the Panel Clamp frame flat on the floor, attach the legs to the frame with 5/8" hex cap screws, lock washers and nuts (included).

Lift the Panel Clamp from the floor up onto its legs.

Move the Panel Clamp to the desired location.
Clamps Installation

Attach two mounting stampings to each clamp with 1/4" x 3-15/16" spacer, a 1/4" x 5" hex cap screw, and a 1/4" elastic stop nut, as shown.

Insert the clamps into the Panel Clamp Rack. You will probably want an equal number of clamps on each row.

NOTE: The clamps will move in and out 3/16" when pushed or pulled. This is an intentional "floating" feature of the clamp.

Apply Bates Boothcoat before starting.
**Safety & Training**

According to many OSHA, ANSI, STATE, and LOCAL CODES it is the EMPLOYER'S RESPONSIBILITY to:

- Permit only trained and authorized employees to operate equipment.
- Inspect and maintain guards, safety devices, and start/stop controls.
- Instruct, train, and supervise the safe method of work

**Be sure personnel are properly trained and safety rules are clearly understood before operating or performing maintenance!**
12' Panel Clamp Operation

Setting up the clamps:

Clamps should be spaced no more than 18" apart. The jaws of the clamps are toed in 1 degree to keep panels from bowing when edge gluing.

For laminating or face gluing, be sure to use Taylor Rocker Plates to insure even pressure across the face of the stock.

Do not exceed a total weight of 2000lbs.
NOTE: Each clamp weighs 25 pounds.

Operating Configurations:

The Panel Clamp can be operated in a number of different configurations. The best configuration to use depends upon the length of the panels that you are gluing.

For short panels, slide the clamped panels from the side(s) of the rack into a clear "work" area for loading and unloading, then slide them back to the side for curing of the glue.

For long panels, the Panel Clamp should be loaded from the bottom up, and unloaded from the top down. Idle clamps can be slid to the sides for storage, or hung from the Panel Clamp.

As the report summarizes the frequency (quantity) of the rip widths produced, it can be used to lend insight on more effective saw arbor configurations for the various suppliers of lumber.
TROUBLESHOOTING
## TROUBLESHOOTING

### Operational Troubleshooting

<table>
<thead>
<tr>
<th>Issue</th>
<th>Potential Causes</th>
<th>Potential Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stock is buckling, popping out of the clamps</strong></td>
<td>Clamps may be too tight</td>
<td>Check that the glue is not &quot;pre-curing&quot;, drying before the boards are clamped. A thicker glue spread will often decrease pre-cure.</td>
</tr>
<tr>
<td></td>
<td>Glue spread may be too heavy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The stock may not be prepared properly. The glue joints must be cut square.</td>
<td></td>
</tr>
<tr>
<td><strong>Stock is sliding</strong></td>
<td>Glue spread may be too heavy</td>
<td></td>
</tr>
<tr>
<td><strong>Panels are falling apart or &quot;checking&quot;</strong></td>
<td>Check stock for: Squareness and straightness of glue joints. Adjust rip saws if necessary.</td>
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<tr>
<td></td>
<td>Glazed (hard, shiny) joints caused by dull saw blades.</td>
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<tr>
<td></td>
<td>Proper moisture content. The moisture content of the stock should be uniform from board to board and should be from 6% to 8%</td>
<td></td>
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<tr>
<td></td>
<td>Check glue for: Proper type of glue (PVA or aliphatic resin recommended).</td>
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<tr>
<td></td>
<td>Amount of water added. PVA glue breaks down as over 5% water is added by weight.</td>
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<tr>
<td></td>
<td>Caulking. PVA glues will caulk if the glue or lumber is too cold.</td>
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</tbody>
</table>
Check that there is sufficient clamp pressure. All joints should be pulled up tight, showing some squeezed out glue. If the clamp pressure appears to be low, check the lack of lubrication. Oil the screws and thrust washers if necessary.

Be sure to rip the stock to the width and glue on the same day that it is cut to length.

Lumber absorbs and loses moisture primarily through its ends. You may have noticed that the ends of long boards are often dry and cracked while the center sections of the boards may not yet fully dry.

When wet boards are cut to length, the resulting boards immediately begin losing moisture through their (new) ends, and the new ends begin to shrink. Then when the boards are ripped, more stock is removed from the middles of the boards than from the ends. After gluing, as the middles of these boards finally lose moisture and shrink, open joints may appear at the middles of the glued panels.

On the other hand, when dry boards are cut to length, the resulting boards immediately begin absorbing moisture through their (new) ends, and the ends begin to swell. The longer the wait before ripping, the more the ends swell. Then the boards are ripped, more stock is removed from the ends of the boards than from the middles. After gluing, as the middles of these boards finally absorb moisture and expand, open joints or "checks" may appear at the ends of the glued panels.
To avoid these problems, be sure to rip the stock to width and glue it in the same day that it is cut to length, before the ends of the stock have had a chance to lose or absorb moisture.

Check the relative humidity of your glueroom. If your glueroom is too humid, the ends of the stock absorb moisture before, during and after gluing, causing them to swell. This may cause open joints at the center of the glued panels. If your glueroom is too dry, the ends of the stock will lose moisture, causing them to shrink. This may cause open joints at the ends of the glued panels, or "end checks".

There is a direct relationship between the relative humidity of your glueroom and the Equilibrium Moisture Content (EMC) of the stock. A rise in the glueroom's humidity will mean a corresponding rise in the stock's EMC. Therefore, as can be seen from the graph below, if the stock has been properly dried to between 6% and 8%, then to insure that the stock will not be absorbing or losing moisture before, during and after gluing, you should keep the relative humidity of your glueroom between 30% and 42%.
TROUBLESHOOTING

**Glue Joints are "Sunken"**
Panels that are surfaced too soon after gluing may have sunken glue joints. It's best to wait 24 hours after gluing before surfacing.

**Panels are Bowed**
The spacer between the two clamp mounting stampings may be missing on some clamps. These clamps then will not be able to 'float' in and out to automatically center themselves on the panels.

On 8' long panels or longer, a special clamp tightening sequence should be used. First tighten the clamp on the quarters (1/4 of the way in from each end of the panel), then the center clamp(s), then the end clamps, and finally all remaining clamps.

**Panels are Barrel or Hour Glass Shaped**
Check the individual boards for barrel or hour glass shapes; adjust the rip saws as needed.
Weekly Maintenance
(Photocopy for weekly use)

<table>
<thead>
<tr>
<th>Weekly Maintenance Checklist</th>
<th>Comments</th>
<th>Date</th>
<th>By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean clamps with a plastic scraper</td>
<td></td>
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<tr>
<td>Apply Bates Boothcoating to the clamps</td>
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</tbody>
</table>
## Monthly Maintenance
(Photocopy for monthly use)

<table>
<thead>
<tr>
<th>Monthly Maintenance Checklist</th>
<th>Comments</th>
<th>Date</th>
<th>By</th>
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</table>
Model & Serial Plate Location

You will find the Model/Serial plate on the machine in the following location. You will need this information for ordering spare or replacement parts.

Model Plate # PLA79.1195

The Model Plate is located in the middle of the angle piece on the machine.
What is it? A creamy emulsion of high-quality waxes and oils which forms a durable water-proof film upon drying.

What Does It Do? Protects gluing equipment from hard-to-remove adhesives and paint spraybooths from overspray, saving costly labor time needed for clean-up.

How Do You Apply It? Spray it, paint it, or roll it on, or wipe it on with a rag or sponge.

How Do You Remove It? Scrape off adhesive or paint build-up with a wide-blade scraper, wipe it off, or wash it off with a stream of hot water.

Storage? Store at temperatures above freezing.

OSHA/EPA? A Non-Hazardous product which should be treated with the same care as motor oil or canning wax.

PACKAGING & PRICING

(1) 5 Gallon Pails
- $50.00 per pail, including C.O.D. delivery by U.P.S. to Eastern U.S.A.
- $55.00 per pail, including C.O.D. delivery by U.P.S. to Western U.S.A., Louisiana & Florida
- $45.00 per pail + prepaid shipping charges to destinations outside the 48 contiguous states, payment due prior to shipment.

(2) 24 Gallon and 55 Gallon Drums

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>55 gal.</td>
<td>470 lbs.</td>
<td>$4.80</td>
<td>$264.00</td>
</tr>
<tr>
<td>24 gal.</td>
<td>205 lbs.</td>
<td>$6.00</td>
<td>$144.00</td>
</tr>
</tbody>
</table>

- shipped F.O.B. Buffalo, New York
- terms on Drums are 2%, 10 days, net 30 days, from date of shipment for approved accounts
- Invoices paid after due date will be assessed a late payment service charge of 1.5% per month.

* BATES BOOTHCOATING is a registered trademark of U C Coatings Corporation
MATERIAL SAFETY AND PRODUCT DATA SHEET

MANUFACTURER’S NAME: U.C. COATINGS CORPORATION
STREET ADDRESS: P.O. BOX 277
CITY, STATE & ZIP CODE: Williamsville, NY 14221
EMERGENCY TELEPHONE NO: (716) 634-5582

HMIS RATINGS (NPCA)
- HEALTH 1
- FLAMMABILITY 1
- REACTIVITY 0
- PERS. PROTEC. EQUIP C

SECTION I - IDENTITY

Common Name Used on Label
BATES BOOTHCOATING

Trade Name and Synonyms
Aqueous emulation of oil and paraffin wax

Chemical Name
N. A. (mixture)

Chemical Family
Water-based emulsions

COMPOSITION

<table>
<thead>
<tr>
<th>MAJOR COMPONENT</th>
<th>CHEMICAL NAMES</th>
<th>% BY WEIGHT</th>
<th>% BY VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td>Petroleum Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wax</td>
<td>Paraffin Wax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soap</td>
<td>Emulsifier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antifreeze</td>
<td>Ethylene Glycol</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percentages are regarded as trade secrets

SECTION II – HAZARDOUS INGREDIENTS

Principal Hazardous Components (Chemical & Common Names)

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENT</th>
<th>CAS NUMBER</th>
<th>TLV UNITS</th>
<th>% BY VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

SECTION III – PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion Data)

Boiling Point/Range: 212°F
Vapor Pressure (mm Hg): same as water

% Volatile By Volume: same as water
Vapor Density (Air = 1): same as water
Evaporation Rate (BuAcl = 1): <1

Solubility In Water: infinite
Reactivity in Water: none

Appearance & Odor
cream colored liquid of paint-like consistency, slightly oily odor

WI/Gal: 7.8 lbs.
Specific Gravity (H₂O = 1): .94

Flash Point
over 300°F
ACGIH Threshold Limit Value: N.A.

Flammable Limits
In Air % by Volume: unknown
Lower: Upper:

Extinguisher Media: water spray, carbon dioxide, dry chemical or foam
Special Fire Fighting Procedures: none
Unusual Fire and Explosion Hazards: none
### SECTION IV – PHYSICAL HAZARDS

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable ( )</th>
<th>Stable (XX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions to Avoid</td>
<td>Keep away from excessive heat or open flame.</td>
<td></td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>NONE</td>
<td></td>
</tr>
</tbody>
</table>

Hazardous Polymenization (XX0 will not occur () may occur.
Conditions to avoid: Keep away from excessive heat or open flame.

### SECTION V – HEALTH HAZARDS

<table>
<thead>
<tr>
<th>Threshold Limit Value</th>
<th>N.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signs and Symptoms Of Exposure:</td>
<td></td>
</tr>
<tr>
<td>(1) Acute Overexposure</td>
<td>MILD IRRITATION TO SKIN AND EYES.</td>
</tr>
<tr>
<td>(2) CHRONIC OVEREXPOSURE</td>
<td>SKIN AND EYE IRRITANT; OR RIBBED BREATING IF VAPORS MAY CAUSE HEADACHE, DIZZINESS, Nausea; SWALLOWING CAN CAUSE GASTRINTESTINAL IRRITATION, NAUSEA, VOMITING.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Chemical Listed as Carcinogen</th>
<th>National Toxicology Program</th>
<th>L.A.R.C Or Potential Carcinogen</th>
<th>Monographs</th>
<th>OSHA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA Permissible</td>
<td>No</td>
<td>ACGIH: Threshold Limit Value: N.A.</td>
<td>Other Exposure Limit Used: N.A.</td>
<td></td>
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### SECTION VI – SPECIAL PROTECTION INFORMATION

<table>
<thead>
<tr>
<th>Respiratory Protection</th>
<th>NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.</th>
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<tbody>
<tr>
<td>Ventilation</td>
<td>Area should be well ventilated and equipped with adequate exhaust system.</td>
</tr>
<tr>
<td>Protective Gloves</td>
<td>Impervious Gloves</td>
</tr>
<tr>
<td>Protective Eye</td>
<td>Safety Goggles or Glasses</td>
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</tbody>
</table>

### SECTION VII – SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken
In Handling and Storage: Store away from excessive heat or open flame.
Keep containers closed to minimize evaporation and skin formation.
Other Precautions: Freezing will render product useless.

Steps to be taken Case Material is Released or Spilled: Sontain Spill. Add adsorbent. Transfer to appropriate containers.

Waste Disposal Methods: Dispose of according to local, state and federal regulations for oil spills.
Parts Order Form

1. Sold to:
   Company __________________________
   Address __________________________
   Address __________________________
   City _______________________________
   State _____  Zip ____________________
   Your Name _________________________
   Phone # ___________________________
   Fax # ______________________________
   Purchase Order # ___________________

2. Ship to:
   Company __________________________
   Address __________________________
   Address __________________________
   City _______________________________
   State _____  Zip ____________________
   Attention: __________________________
   Phone # ___________________________
   Fax # ______________________________
   Purchase Order # ___________________

3. Parts Needed:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Part Name (see parts list)</th>
<th>Description</th>
<th>Price (each)</th>
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<tbody>
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</table>

4. Preferred Shipping Method:
   (check one)
   □ UPS Regular
   □ UPS Next Day Air
   □ Truck Carrier: __________________
   □ Air Freight
   □ Customer Pickup
   □ Other: _________________________

5. Fax, Mail, or Phone your Order to:
   JLT Clamps
   108 Parker Ave.
   Poughkeepsie, NY 12601
   Phone: (800) 901-8037
   Fax: (336) 375-1112