

HOLZ-HER LUMINA 1594 EDGE BANDER

HOLZ-HER U.S. Inc., the industry leader with more than 100 years of experience in product quality and customer support, is proud to present the latest in edgbanding technology: the **HOLZ-HER LUMINA** edgbander series. The **HOLZ-HER LUMINA** represents the most advanced edgbanding **technology and the best service and support programs** in the woodworking industry.

Machine Overview

- Heavy, rigid, welded frame for continuous, multi-shift production.
- Heavy, strong transport chain with round and flat guides. Intelligent automatic chain lubrication. Sensor-controlled system for metering lubrication to match load.
- Pneumatic activated infeed roller stop, to ensure minimum workpiece intervals.
- Servo controlled pressure beam with upper feed belt
- Short Part Device
- Air floatation infeed table
- PPC 319 Color Graphic 19" Touch Screen Controller
- Pre-Milling (1804) with servo positioning of cutterheads and variable speed
- Magazine for coil and strips (MG-701)
- **Glu Jet hybrid technology (GJ301)**
- Spray Units for PUR Glue (1856)
- **Ltronic System with NIR** for laser edge
- Pressure Section (1914MOT)
- 2 Motor End Trimming (KA-701)
- Top and Bottom Trimming (FR-701) with full servos and Multi-Profile tooling
- Flush Trimming/Corner Rounding (FF701) with full servos and tool changer
- Profile Scraper (ZK-701) with full servos and Multi-Profile tooling
- Finish Scraper (FK-701)
- Buffing (1951-K)
- Nesting shoe kit for top/bottom trimmer and profile scraper
- Conveyor speed – Variable 10-25 mpm
- Edge thickness
 - 0,4 - 8 mm (with standard multi-profile tooling)
 - 15 mm with optional straight tooling
- Panel thickness 6 - 60 mm.
- Extendable work piece support up to 1068 mm (42 inches)
- Automatic central lubrication of the transport chain
- LED lights inside the hoods
- **ECOMode+** - Automatic "stand-by" mode, which powers down all drives if no workpiece is fed into the machine. New IE2 class energy efficient motors. Auto-shutdown of the glue system to conserve energy (in 6 minutes)

BENEFITS OF HOLZ-HER EDGE BANDERS

- Quickest changeover time in the industry (takes just seconds)
- Quickest heat-up time in the industry (2-3 minutes)
- Patented **Glu Jet hybrid technology** require less than half the energy consumption of standard Glue pots
- Patented **Ltronic System with NIR Technology**

ELECTRONIC CONTROL SYSTEM Control PPC 319 Power- PC



- Windows-like user interface, all information is displayed in plain text and/or graphics
- Rotatable and tiltable operating control at eye level
- 19" LED touch screen – high gloss finish
- USB connection and Ethernet network connection
- Dust-proof touch keyboard with soft keys
- Program list with program names and numbers
- **Extensive 80-program storage**
- Individual selection of the units, along with all the functions and basic setting options for desired values, path points and tool corrections.
- Positioning for units and their axis settings are controlled centrally and clearly by fine adjustment (depending on equipment)
- Interval indicator for very short work piece spacing
- Integrated process line control - process points are stored generally or program-specific
- Clear and complete acquisition of all operating data
- Diagnosis system - Service messages in plain text
- Integrated synchronous bus control system for high accuracy when adjusting the individual units
- Individual user management of up to 10 users, with password protection
- Barcode interface (optional)

Bar code scanner

- Standard bar codes: Code 39 or Code EAN 128
- 2D codes: DataMatrix, PDF417



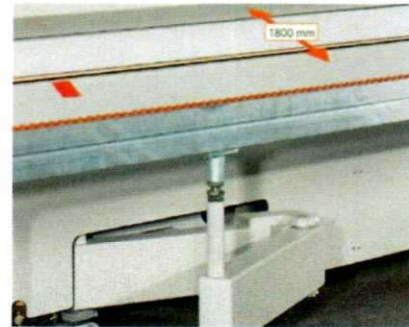
GUIDE UNIT FOR SHORT PARTS (1883)

- For end edgebanding on narrow parts
- removable
- Workpiece thickness: min. 6 mm, max. 60 mm
- Workpiece width: 400 - 2500 mm
- workpiece length: 140 - 250 mm
- **max. feed speed: 12 m/min**



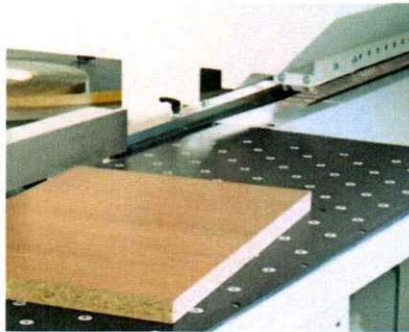
HEAVY PULL-OUT WORKPIECE SUPPORT

- Self-Supporting
- Mounted to the machine frame
- Heavy steel support arms and pivots
- Extendable to 72"
- Folds flat against the machine
 - Useful when using return conveyors



AIR FLOATATION INFEEED TABLE

- Ensures easy and gentle movement of panels to reduce possibility of scratching, especially on high gloss.
- Self-contained with motorized fan
- Length = 71" Width: 24"
- Fully integrated infeed fence

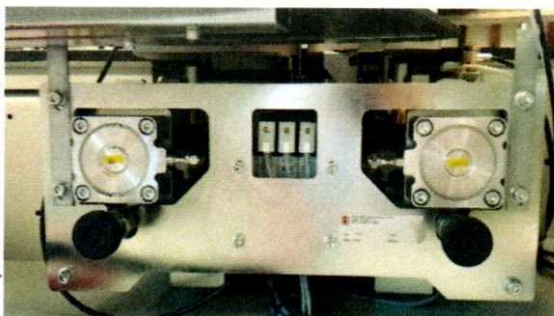


INFEED FENCE for PRE-MILLING



- Accurate and sturdy with hardened linear guides
- Fully programmable for pre-milling stock removal via the control
- Automated positioning via servo

PREMILLING STATION (1804 MOT2)



- 2 (two) plunge controlled, counter rotating cutter units
- Motors: 2 x 2 kW, 200 Hz (Electronic Variable Speed 8,000 to 12,000 RPM)
- Programmable height positioning via NC servos
- 3 mm plunge stroke - Individually selectable for each motor
- Diamond tooling provided as standard

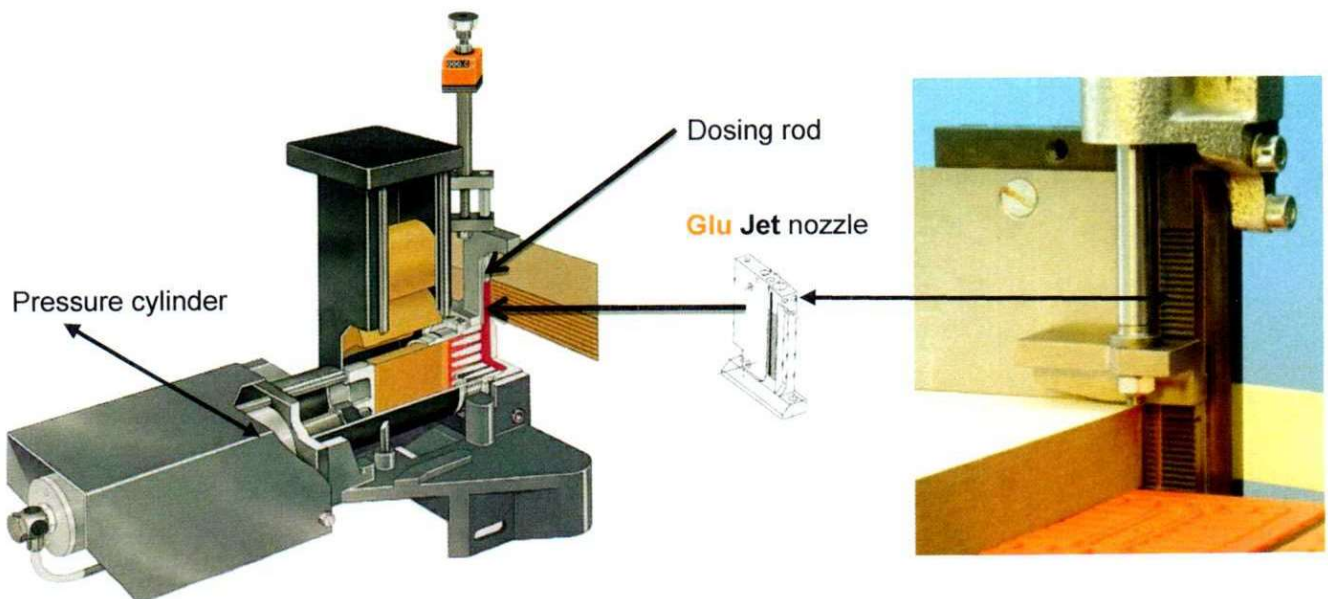
ADAPTIVE PRESSURE AND GLUE QUANTITY CONTROL

- Automatic, program controlled fine adjustment for edge thickness, edge materials, and glue types – guarantees best possible results
 - Automatic glue quantity control (based on edge material and glue type)
 - Automatic adaptive guillotine (based on edgeband thickness)
 - **Booster for added guillotine shear power (3mm x 50mm tall)**
 - Automatic pressure section (based on edge thickness and type)

GLUING STATION - GluJet with hybrid technology (GJ301 AUTO)



- Glue application through a nozzle applicator
- For glue cartridges and all commercial granulated hotmelts.
- Can run all glue types (EVA, PUR, PO) as standard, without any specialized add-on equipment.
- Automatic reload of the glue cartridges or granulated.
- Workpiece thickness 6 - 60 mm (*Depending on feed speed and glue viscosity*)
- **Heat-up time approx. 3 min.**
- Feed max. 25 m/min
- Automated programmable pressure controller for regulating the pressure at which the adhesive is applied
- Automatic glue temperature reduction according to time
- Automatic rinse function directly from control panel
- Magazine capacity:
 - Cartridges: 4 cartridges (approx. 1,4 kgs)
 - Granulated glue: approx. 1,5 kgs
- Tracing nozzle
 - The tracing nozzle allows compensation of tolerances in the panel thickness.
 - The sensing shoe is spring mounted and opens the nozzle exactly to the panel thickness measured.
 - This ensures perfect, clean glue application even on panels with high thickness tolerances!



GLUJET Peace of Mind® 3-Year Warranty

(Please see page 18 for complete details)

Ltronic with Near Infrared (NIR) technology

WHAT IS LTRONIC?



Co-extruded and coated "Laser Edging" can be processed with Ltronic. The NIR module in the Ltronic unit activates the functional layer on the laser edging under electronic control and is immediately ready for use without any heat-up time.

*(NIR = near infrared radiation)

WHAT ADDED VALUE DO I GET WITH LTRONIC?

Perfect visual results - with invisible joints.

The durability and service life of cabinet/furniture parts increases significantly, because no dirt can penetrate into the panel material via the joint.

No heat-up times or phases during the operating process.

Noiseless processing vs hot air.

Minimal cleaning time required.

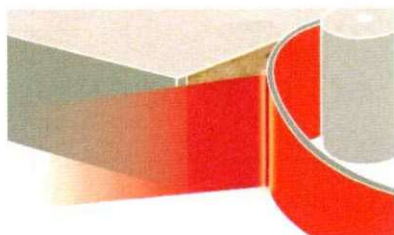
Long service life of the NIR module of approx. 1,000 operating hours, corresponding to approx. 1.3 million running feet at a feed rate of 15 m/min.

High energy efficiency, since Ltronic optimizes its energy precisely to the length of the workpiece; no energy consumption in the gaps between panels.

No compressed air consumption vs hot air.

Ltronic is a fully integrated solution from HOLZ-HER with adaptive matching to all edgings with functional layer.

HOW DOES LTRONIC FUNCTION?



The NIR module is capable of transferring heat energy quickly and precisely to the specific point required making it ideal for activation of the function layer on laser edging.

The wave length used by the NIR module is very close to the intensity of the diode laser.

These waves energize the absorber in the functional layer on the laser edging, which is specifically matched to the diode laser.

WHAT ADVANTAGES DOES LTRONIC HAVE VERSUS HOT-AIR PROCESSES?

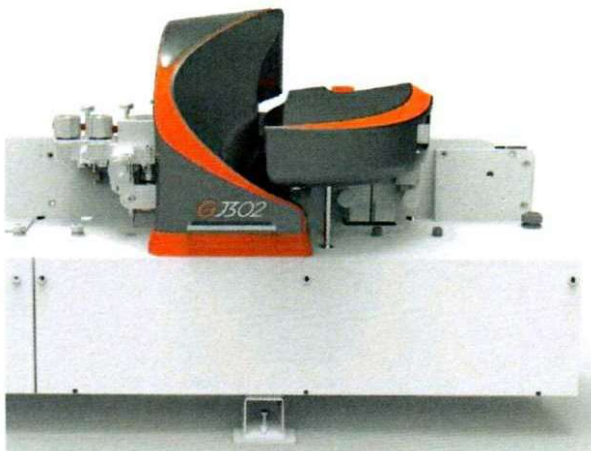
- **Ltronic** needs no heat-up times nor phases during the operating process.
- **Ltronic** is immediately ready to operate and needs no compressed air. The non-productive heat-up time needed with current hot-air processes takes at least 15 minutes at a heat output of 6 kW. In addition, the process requires a lot of compressed air. Generally speaking this is 1,500 NL / min, the equivalent of a 10 Hp rotary screw compressor. The electrical power is a total of approximately 10 kWh per hour for an air supply of approx. 53 CFM.
- In the banding operation this comes easily to \$ 4,000* annual electricity costs.
*Extrapolation for 220 working days and usage level of 70%
- The hot air noise emissions during processing come to almost 100 dB, comparable with that of a car horn in the immediate vicinity.
- Each brand and type of laser edging requires a different energy input, depending on the type/color of edging, edging thickness/height and feed-rate. The parameters of heat and compressed air for each application must be precisely matched to each other in hot air processes, while **Ltronic** controls precisely and efficiently the required heat energy via the machine control.

WHAT ADVANTAGES DOES LTRONIC HAVE VERSUS LASER PROCESSES?

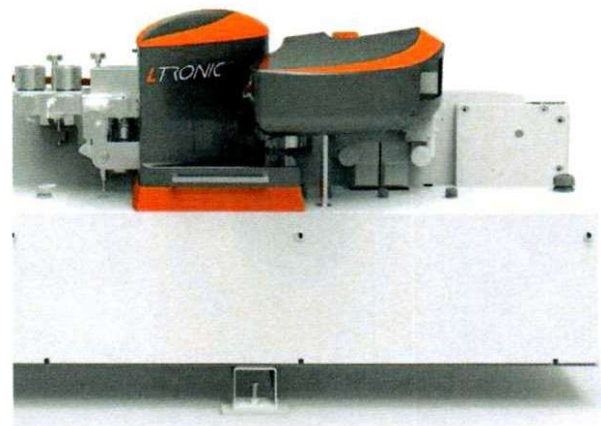
- The investment costs for the laser technology can quickly rise to approximately \$140,000, plus the edgebander, which can cost over \$ 230,000 depending on the model.
- **Ltronic** gets close to the capabilities of the diode laser and represents a cost-effective alternative to process laser edging of perfect quality.
- **Ltronic** also allows you to save the costs for an employed laser safety specialist.

Ltronic and **GluJet** Exchange Units

- Quick-change from **Ltronic** to **GluJet**
- Approx. 5 minute changeover
- **Ltronic** has zero heat-up time and is ready immediately
- **GluJet** has 3-minute heat up time



GluJet for standard edges



Ltronic for laser edges

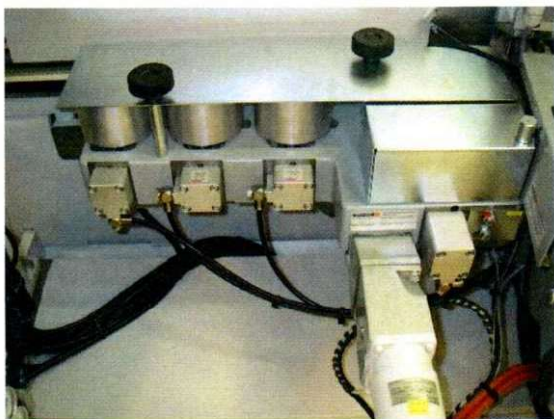
“SYNCRO” EDGEFEED MAGAZINE (MG-701)

- Fully automatic feed of coils and strip material.
- Edge banding thickness 0,3 – 8 mm .
- Utilizes motion detector to ensure accurate, trouble-free positioning of edge material.

IMPORTANT NOTE:

The 1805 - 6 channel MULTIPLE EDGESTRIP MAGAZINE is not possible on machines with “exchange units”.

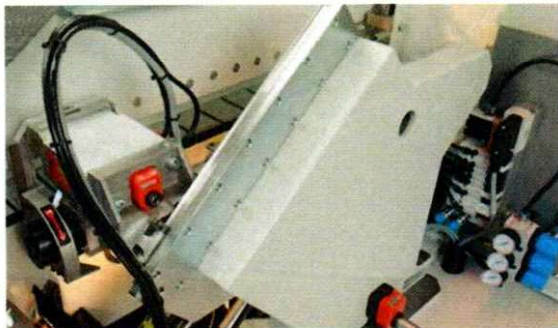
PNEUMATIC PRESSURE SECTION (1914 MOT)



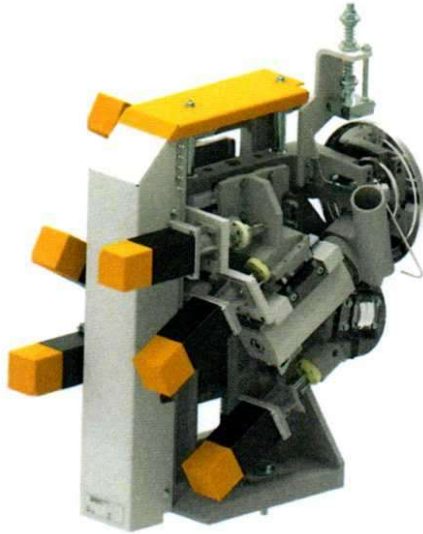
- With 4 individual, automatically controlled pressure rollers – Pressure amount is calculated and automatically adjusted according to edgeband thickness.
- Pneumatically synchronized to panel leading and trailing ends.
- One of the rollers is cylindrical and three are slightly conical to provide maximum pressure at the top, bottom, and middle of the edgestrip.
- Motorized adjustment for edgeband thickness **automatically controlled via the controller.**

END TRIM UNIT (KA-701)

- Heavy duty construction with linear guide bars for precision end trimming.
- Motors: 2 x .65 kW Speed 12,000 RPM.
- Mounted with **uni-point axis** enabling quick change for chamfer trimming up to 10°.
- Mechanically indexes to workpiece ends for a perfect finish.
- “PCS” Pneumatic Changeover System included as standard



Automated TOP/BOTTOM TRIM UNIT (FR-701 MOT 6)

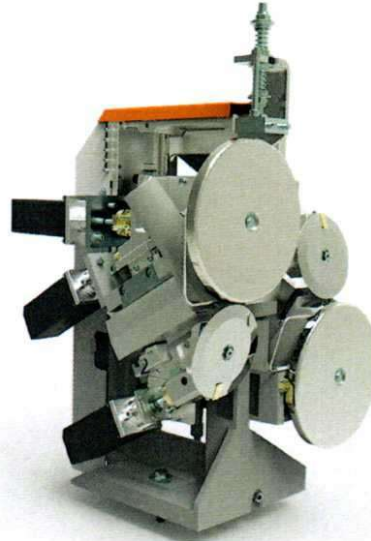


100% repetition accuracy at the touch of a button based on zero-clearance mechanisms and 6 high precision NC servo-axes.

Heavy duty floor-mounted machine with shock-absorbing mounts and large sensing rollers for perfect results even at high feed rates.

Machine adjustments on linear guides with central lubrication.
With standard blast nozzles in front of sensing rollers to blow away chips in front of sensing areas.

Horizontal sensing with angular sensing rollers with chemically applied nickel plating developed especially for processing modern, high gloss edging.



Multifunction cutting technique at highest level: Multistage, diamond tipped tools with fully automatic axis alignment

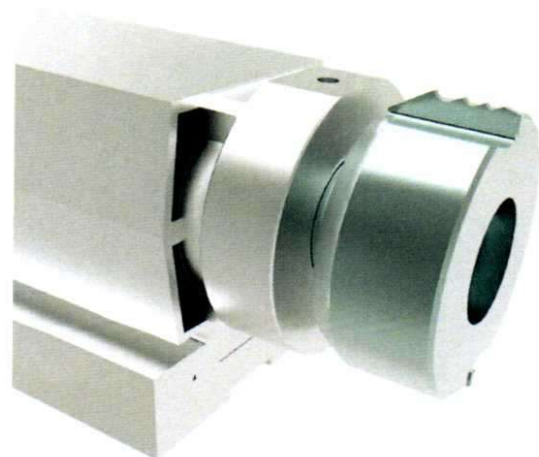
Standard

Applications / tool profiles:

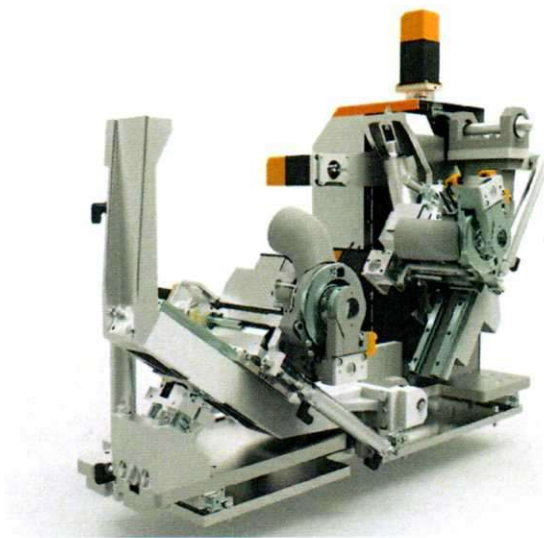
- Flush up to edge thickness of 8 mm in solid wood sector
- Radius 1.3 mm / 2 mm (double) for all common commercial plastic edging
- For thin edges, each radius can also be set as desired at the discharge as well with the NC servo-axes
- Chamfer 45° for HPL, aluminum, thin edging, etc.

Automatic Multi-Profile Tooling

- 8 mm flush
- 1.3 mm radius
- 2 mm radius
- 3 mm radius
- 10 degree bevel



SHAPING TRIMMING UNIT (FF-701 MOT 4)



100% repetition accuracy at the touch of a button based on zero-clearance mechanisms and 4 high precision NC servo-axes.
With 6 NC servo-axes for fully automatic version with revolving tool magazine

Standard

Standard features include two diamond tipped cutters with optimized chip removal.
With automatic pendulum sensor for perfect copying results. Fully automatic pendulum sensor copies ends without material protrusion and leaves the optimum edge protrusion for the longitudinal edge for subsequent machining

Machine adjustments on linear guides with central lubrication.
With standard blast nozzles in front of sensing rollers to blow away chips in front of sensing areas.

Including shelf program for optimum processing of shelves with rounded edges.

Revolving Tool Changer

Multifunction cutting technique at highest level:
Fully automatic tool revolving tool magazine with four positions;
diamond tipped version.

Applications / tool profiles:

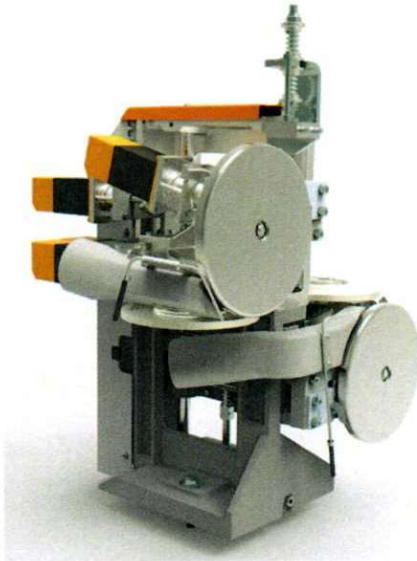
- Radius 1.3 mm / 2 mm for all common commercial plastic edging
- For thin edges, each radius can also be set as desired at the discharge as well with the NC servo-axes
- Chamfer 45° for HPL, aluminum, thin edging, etc.



Automatic Multi-Profile Tooling

- 1.3 mm radius
- 2 mm radius
- 3 mm radius
- 10 degree bevel

PROFILE SCRAPING UNIT (ZK-701)



100% repetition accuracy at the touch of a button based on zero-clearance mechanisms and 6 high precision NC servo-axes. With 8 NC servo-axes for fully automatic version with revolving tool magazine

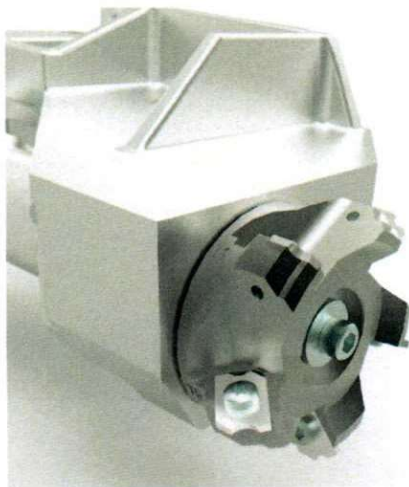
Standard

Heavy duty floor-mounted machine with shock-absorbing mounts and large sensing rollers for perfect results even at high feed rates.

Machine adjustments on linear guides with central lubrication.
With standard blast nozzles in front of sensing rollers to blow away chips in front of sensing areas.

Including high gloss package for exact adjustment of tool depth when using high gloss panels with protective foil as well as sensing rollers with chemical nickel plating.

Revolving Tool Changer



Multifunction cutting technique at highest level: Fully automatic revolving scraper magazine with five positions for holding standard HW scraper blades.

Applications / tool profiles:

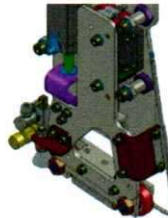
- Radius 1 mm / 1.3 mm / 2 mm (double) for all common commercial plastic edging
- For thin edges, each radius can also be set as desired at the discharge as well with the NC servo-axes
- Chamfer 45° for HPL, aluminum, thin edging, etc.

Automatic Multi-Profile Tooling

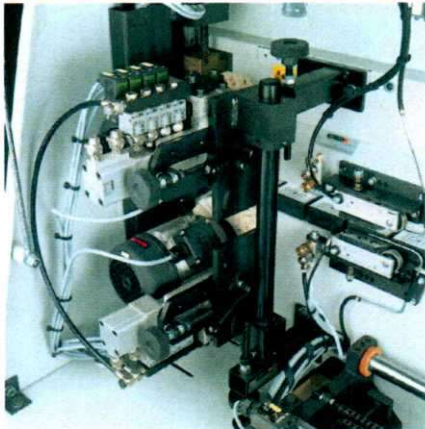
- 1.3 mm radius
- 2 mm radius
- 3 mm radius
- 10 degree bevel

FINISH SCRAPER (FK-701)

- Flat knives scraping along board/banding joint
- Cleans up any glue squeeze out
- Pneumatic engage/disengage via controller
- Plunge-in controlled top and bottom separately
- Includes: 2 blow nozzles, 2 insert carbide knives



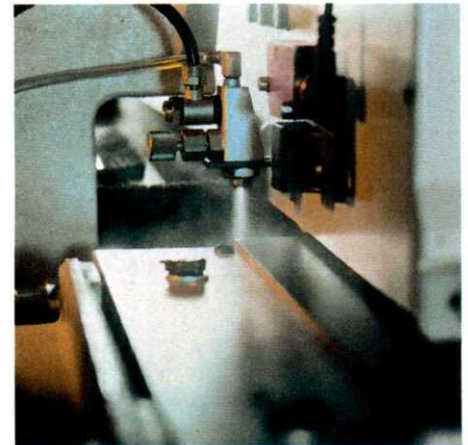
OSCILLATING PLUNGE BUFFING UNIT (1851)



- Incorporates "plunge control" to avoid rounding-over the leading and trailing edges, and ensure tight corners
- Cloth buffing wheels for smoothing the sharp edges of thin PVC band after trimming.
- Can be equipped with optional fine sanding wheels for finishing wood and laminate edges.
- Motor Speed = 1440 RPM.
- Pneumatic controlled position adjustment

SPRAY DEVICES

- Sprayer 1856 for the in- and outfeed area
 - This is useful when using PUR adhesives.
 - For the infeed area:
 - Electronically controlled release agent sprayer with release agent
 - The pre-milling unit removes and release agent on the panel edge
 - For the outfeed area:
 - Electronically controlled cleaning agent sprayer with cleaning agent
- Spraying unit (Antistatic coolant) after pressure unit
 - Reduces static and particles sticking to the panel
 - Also cools PUR glue, prior to machining
- Sprayer unit (parting agent) at the end trim unit
 - To sprinkle the edge with lubricant, to prevent scratching.
 - This is useful when using high gloss edgeband.



TECHNICAL DATA:

Machine Dimensions:

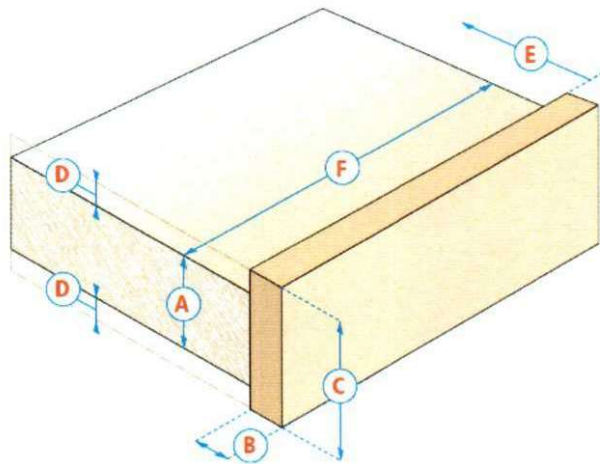
Length: (with air flotation infeed table) 8990 mm / 292 in. (29.5 ft)
 Width: 1368 mm / 54 in.
 Height: 2223 mm / 87.5 in.

Working Dimensions:

A - Workpiece Thickness: 6 - 60mm / .23 - 2.36 in.
 B - Edging Thickness: 0.4 - 8 mm (15) / .02 - .3 in.
 C - Edging Height (max): 65 mm / 2.56 in
 D - Edging Overhang 2.5 mm / .118 in.
 E - Workpiece Width: Min. 60 mm / 2.36 in

Edging Strip Length (laminated strips, etc.) Min. 350 mm (13.78 in) - Unlimited
 Feed Speed: Variable 10 - 25 mpm
 Air Requirement: 6 bar

Working dimensions (in mm)		
A	6 - 60	max.
B	0,4 - 15	max.
C	65	max.
D	2,5	per side
E	60	min.
F	180	



Terms And Conditions Of Sale, Delivery, Payment And Use

All present and future sales, deliveries, operations, claims and liabilities concerning the Products are subject exclusively to the following limiting provisions:

1. **Acceptance.** The Purchaser, Broker, Sales Representative, Customer, subsequent purchaser, user or end user of the Products, (hereinafter sometimes referred to as the "Purchaser") by its acceptance or use of any products, goods, parts, attachments, software, processes, services or systems (herein sometimes referred to as the "Products") hereafter furnished by the Company, agrees to be bound contractually by all of these Terms And Conditions in addition to those that may be contained in any other applicable document such as a Purchase Order, Invoice, Service Report, Safety Alert, warnings, manuals or instructions. All orders once accepted by Company shall be irrevocable unless the Purchaser's written notice of revocation is expressly accepted in writing by the Company and upon terms that will indemnify Company against any loss. Any errors may be corrected by Company at any time. The term "Seller" or "Company", as used in these Terms And Conditions, shall specifically include Holz-Her USA, Inc. and/or any member of Holz-Her or any related parent, sister, subsidiary or affiliate corporation, supplier or business entity and the producers, manufacturers, sellers or distributors of the Products or their agents, successors or assigns.

2. **Price.** The price does not include any sales, use, personal property, excise, transfer or other tax, duties or assessment related to the Products or their purchase and sale which may be imposed by any governmental authority, all of which shall be the obligation of, and paid by, Purchaser. In the event that Seller pays any such tax or assessment, Purchaser shall reimburse Seller in accordance with the Terms of Payment but no discount shall apply to such tax or assessment. Purchaser is responsible for obtaining and providing to Seller any certificate of exemption or similar document required to exempt any sale from sales, use or similar tax liability.

3. **Deliveries.** Unless otherwise stated in Seller's order confirmation, all deliveries of Products are F.O.B. Seller's warehouse. All risks of loss or claims for damages to Products sold shall pass to Purchaser upon delivery by Company of such Products to a common carrier. Seller shall not be responsible for any damage to the Products caused by a carrier and Purchaser's sole recourse for such damage shall be against the carrier. Delivery of title is conditional on the timely receipt by Company of all documents necessary for the completion of the order, the required payment(s), and Purchaser's compliance with these Terms And Conditions. Delivery schedules represent Company estimates only, and Company will not be liable for any delay in shipment, delivery, installation, set-up, operation or performance of Products, or for any damages suffered by Purchaser by reason of such delays or claims. Purchaser shall carefully inspect and examine the packaging and the Products at the time of delivery and immediately report any damages, defects, deficiencies, nonconformity or problems to the common carrier and to the Company.

4. **Terms of Payment.** If Purchaser fails to make any payments when due, then (i) interest shall accrue from the date the payment was due until payment is received in full at the lower of 1.5% per month or the maximum amount allowed by applicable law, (ii) Purchaser shall pay Seller's reasonable attorneys' fees and other costs of collection of any past due amounts, and (iii) Seller may, at its sole discretion, take any of the following actions: suspend performance; terminate the Contract for default; require Purchaser to pay the full Contract price; and take any other actions or pursue any other remedies under applicable law. Failure by Seller to charge interest on late payments or to exercise its right to suspend its performance shall not be construed as a waiver of any other legal or equitable remedies. Purchaser shall not hold back, off-set or set-off any amounts owed to Company regardless of the basis for same.

5. **Software.** Title to all software and firmware will remain with Company or its applicable licensor(s). The programs and accompanying documentation and subsequent supplements confer upon the Purchaser a non-exclusive and non-transferable right to use them internally with the Products for which the programs are supplied. All other rights attaching to the programs and documentation, including copies and subsequent supplements are and shall remain the exclusive property of the Company. The Purchaser shall ensure that the Product, programs and documentation are not made available to third parties without the written permission of the Company. Purchaser acknowledges and agrees that portions of the firmware, including, without limitation, the source code and the specific design and structure of individual modules or programs, constitute trade secrets of Company and its licensors. Accordingly, you shall not disassemble, reverse engineer, copy or modify the firmware, in whole or in part, nor permit or authorize any third party to do so (except to the extent that such a prohibition would violate applicable law). In addition, you shall not disassemble, reverse engineer, copy or modify the Company hardware, in whole or in part, nor permit or authorize any third party to do so (except to the extent that such a prohibition would violate applicable law).

6. **Time Limitation on all Claims.** Purchaser shall thoroughly examine and test all Products promptly upon the completion of the set-up of same and before any part of the Products have been changed or modified from their original condition. Within forty-five (45) business days after set-up, Purchaser must give written notice to Company of any dissatisfaction, defect or claim relating to the condition, design, safety or operation of the Product, which notice must indicate the basis of Purchaser's dissatisfaction or claim in detail. The failure of Purchaser to comply with this paragraph shall constitute a waiver and release of any such claims and an irrevocable acceptance by Purchaser of the Products as delivered. Any action or proceeding by Purchaser arising out of or relating to this Contract or the Products will be forever barred unless it is commenced within the earlier of: (a) one year after the claim or cause of action has accrued; (b) one year from the date of delivery; or (c) the period prescribed by applicable statute of limitation or repose. Buyer must give Seller prompt written notice of any claim regarding this Contract or the Products.

7. **Exclusive Limited Warranty and Limited Liability and Waiver.** Company warrants to Purchaser that (a) Company will convey good title to the Products sold upon receipt of payment in full of all amounts due; and (b) at the time of delivery, the Products are free from any defect in material, design or workmanship. Company's liability and Purchaser's remedies are hereby limited to the removal of any defect in title or, at the election of Company, to the repair or replacement of the Products or any parts thereof which are defective in title, material, design or workmanship. Company hereby warrants only that it will undertake to repair or replace any defects in new Products for a period of twelve (12) months, in the case of single shift operation;

six (6) months in the case of a double shift operation; and three (3) months in the case of a more than double shift operation, insofar as it can be proved to the Company's satisfaction that said defects occurred as a result of faulty materials, design or workmanship. At Company's option, such faulty Products or parts thereof shall be repaired free of charge or replaced. Replacement shall include reasonable dismantling and reassembly costs. Expressly waived by Purchaser and excluded from any future claims for contribution, indemnification, strict liability, breach of warranty, express or implied, negligence or Company liability are problems relating to: normal wear and tear; damage caused by nature, force, fire, misuse or the use of unsuitable materials, parts, adhesives, lubricants, solvents, components, additions or other elements; non-compliance with prescribed machine care or instructions for use; incorrect assembly or putting into commission; incorrect or inadequate maintenance, repair or cleaning; problems relating to improper or unsafe set-up, adjustments, settings, training, supervision, the use of "push sticks", "reach-in" accidents, wearing gloves or the negligence or contributory negligence of others; unsuitable location, repairs, modifications or alterations; elemental influences or ambient conditions, e.g. extremely high humidity, abnormal fluctuations in the power supply or the use of parts, materials or elements not manufactured or approved by Company, whether the fault of Purchaser or third parties. Any specifications, descriptions, rates, speeds, numbers, proposals or quotes are merely estimates or approximations of what the Products are capable of doing under optimum conditions and there are no warranties whatsoever, express or implied, relating to the performance or production of the Products, Processes, Systems, Elements or Additions. Company provides this limited and non-transferable warranty directly to and only to the first Purchaser of the Products and only if it is the end user. Any Purchaser that is not the end user of the Products shall provide to its purchaser or customer these Terms And Conditions, all applicable operating instructions, manuals, safety instructions, warnings, labels, training recommendations, and other relevant information and said Purchaser, customer or subsequent user shall be bound by these Terms And Conditions. Company shall not be liable in any manner to any Purchaser who is not the first Purchaser purchasing directly from Company and as the end user under this warranty or for any other cause or claim or to any Purchaser that has not agreed to be or is not legally bound to these Terms And Conditions.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND ARE GIVEN AND ACCEPTED IN LIEU OF, AND SELLER DISCLAIMS, ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF "MERCHANTABILITY" OR "FITNESS FOR PURPOSE" OR "NON-INFRINGEMENT" OR WARRANTIES RELATING TO THE DESIGN, PRODUCTION, SALE, PERFORMANCE OR DURABILITY OF THE INDIVIDUAL PRODUCTS, PARTS, PROCESSES, SYSTEMS, ELEMENTS, SOFTWARE OR ADDITIONS.

Purchaser assumes the sole responsibility for determining whether the Products and any available processes, systems, software, scanning, technology, applications, materials, parts, brakes, antikick-back devices, hoods, covers, guards, switches, safety devices, adhesives, lubricants, exhaust systems, handling equipment or other components, elements or additions are satisfactory, necessary or appropriate for its contemplated use, whether or not such use is known to Company, and Purchaser assumes all risks and liabilities arising from the operation, performance or use of the Products or from the Purchaser's or the Product's failure or inability to achieve any particular performance, production or goal.

(a) Company shall not be responsible for any direct, special, indirect or consequential damages arising out of or in connection with the installation, use, stoppage or unsatisfactory performance or production of the Products, nor shall it be liable for any property damage, personal injuries, economic loss, lost business or lost profits or for any other damages, claims or demands against the Company by Purchaser or any other party even if Company has been advised of the possibility of such claims or damages. The risk of loss or damage for all such claims shall be borne exclusively by the Purchaser and Purchaser hereby expressly waives any such claims. Should any court of law or arbitration determine that the Purchaser is entitled to monetary damages or any other form of relief, the Purchaser hereby stipulates and agrees that said damages or relief shall not exceed the cost or value of the Company's repair or replacement of any product or part thereof that has been determined to be defective in design, material or workmanship. Notwithstanding the foregoing, SELLER'S MAXIMUM AGGREGATE LIABILITY UNDER THE CONTRACT OR WITH RESPECT TO THE PRODUCTS OR THEIR USE, WHETHER IN WARRANTY, CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE AMOUNT BUYER PAID TO SELLER FOR THE PARTICULAR PRODUCTS AT ISSUE.

8. Warning and Acknowledgment. Purchaser acknowledges and agrees that many of the Products which include high-speed, rotating cutters, spindles, saws, grinders, moulders, rollers, gears, chains, belts and woodworking and metalworking operations can be extremely dangerous and can cause serious injuries or death if all safety precautions are not taken or if the Products are used improperly or are accessible to unqualified, untrained, unsupervised, inexperienced or careless personnel; that only fully and properly trained and alert personnel will be allowed to work with or near these Products; that all personnel shall be constantly alert to possible safety hazards on or around said Products; that all warnings, safety instructions and recommendations, and maintenance and operating instructions shall be thoroughly reviewed and followed by every employee working with the Products before and after any of the Products are put into operation; that all machinery shall be turned off at the first sign of any potential problem and all moving parts shall be allowed to come to a complete stop before any maintenance, cleaning, clearing, service or adjustment is attempted. Purchaser agrees to install, use and maintain all safety devices, to include brakes, anti-kickback devices, hoods, covers, guards, barriers, switches and lock-out/tag-out procedures, as its specific operation and safe use of the Products might require and/or as recommended by Company. Purchaser agrees to be solely responsible for the guarding of the Products and the safety of all personnel during the critical set-up phase of any operation acknowledging that potentially dangerous moving parts may be more exposed or accessible at that time. The Purchaser's employee doing the set-up shall be responsible for the safety of all employees in the area of the machine during the set-up phase. Employees shall not be allowed to wear gloves, loose clothing or use push sticks around the Products.

9. Indemnification. Purchaser acknowledges that the Company (to specifically include the producers, manufacturers, sellers or distributors of the Products) does not warrant against and shall not be responsible for any economic loss, property damage, product liability, personal injury or any other claim by Purchaser, its agents, employees, insurance carriers, subrogees, successors, assigns or third parties, arising out of the use of the Products except as expressly provided for herein. Purchaser shall have the sole responsibility for the proper and safe use, maintenance, operation, set-up and adjustment of the Products; for the use of all appropriate additions and available safety equipment and options; for the proper safety training and supervision of its employees; and for complying with all requirements or recommendations of the Company, OSHA, ANSI and of any other

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state or federal safety laws or regulations as they may pertain to the operation of the Products. Purchaser acknowledges, warrants and agrees that it shall maintain adequate insurance against all risks and to cover its obligations herein and that Company shall be covered as named additional insured and shall not be liable in any manner for and that Purchaser shall defend, indemnify and hold Company harmless from and against any and all risks or claims relating to the Products or any additions thereto. Said risks shall specifically include all claims, causes of action, suits, proceedings, costs, fees, damages, penalties, losses, expenses, liabilities, stoppages, lost business or profits, physical damage, destruction, breakage, casualty loss, fire, theft and expenses (including attorney's fees); claims for breach of warranty (express or implied) or misrepresentation, personal injury, property damage, patent infringement, or breach of contract claim; or claims for any intentional or negligent act or omission, including without limitation: failure to warn; unsafe or defective product, design or manufacture; or product liability claim, in any form whatsoever by Purchaser or its agents, employees, insurance carriers, workers compensation insurance carrier, successors, assigns or third parties, whether such claim or cause of action is based upon tort, strict liability, negligence, comparative negligence, contribution, indemnification, common law or statutory basis, UCC, subrogation or any other theory of recovery, and whether or not the acts or omissions of the Company, its employees or agents are alleged to be negligent and regardless of whether or not the Company might otherwise be liable. The Purchaser further agrees that it shall be solely liable for and will hold harmless, defend and indemnify Company, as stated above, and if Purchaser, its agents, employees, successors, assigns or third parties have undertaken or authorized any alterations, interventions, modifications, additions or repairs of any kind to any part of the Products, or have been contributorily negligent or have failed to implement and abide by all applicable operating, safety and training instructions and recommendations, manuals, warnings, laws or regulations or any of these Terms And Conditions.

10. Governing Law. All claims between Seller and Purchaser shall be governed exclusively by the laws of the state of North Carolina, U.S.A., exactly as if all of the parties were sophisticated commercial entities located within said jurisdiction and that all of the Terms And Conditions relate entirely to the sale of the commercial equipment Products and the performance of services solely within that jurisdiction and do not relate to any design, planning, construction, alteration, repair, maintenance, installation, transportation or moving of any building, structure, appurtenance or appliance. Should a non-North Carolina court determine for any reason that attorney's fees are not recoverable from the Purchaser under North Carolina law then said court shall order that the Purchaser shall pay Company's attorney's fees to the fullest extent allowed by the law of that court's jurisdiction.

11. Consent to Forum, Venue, and Jurisdiction. Any and all claims or causes of action shall and must be filed by Purchaser only in the North Carolina General Court of Justice, Superior Court Division, Charlotte, Mecklenburg County, North Carolina. This includes all claims, including but not limited to all claims arising out of the contract and/or product(s) which is (are) the subject of the contract. Purchaser hereby expressly agrees, consents and stipulates to the exercise of personal jurisdiction over it and subject matter jurisdiction over any claims or causes being solely with such court (regardless of any conflict of laws); however, Company may in its sole discretion elect to bring an action to enforce or protect any right or obligation created hereunder against Purchaser in any competent court it might choose. Purchaser shall be liable to Company for all costs, including but not limited to reasonable attorney's fees, related to any actions brought by Purchaser or Company. If for any reason this stipulation of jurisdiction and venue shall be determined by a competent court of law to be invalid or unenforceable, then the parties hereby agree, consent and stipulate that all such claims or causes of action shall be submitted to and resolved by arbitration under the rules of the American Arbitration Association in Charlotte, North Carolina.

12. Entire Agreement. Purchaser and Company acknowledge that these Terms And Conditions constitute a material part of any contract, agreement or invoice which relates to the sale, delivery, payment, servicing or use of the Products and that the signed Contract and attachments constitute the entire and only agreement between the parties. Purchaser is not relying on any promise, agreement or representation which is not expressly stated in writing in the Contract and these Terms and Conditions. In no event shall Purchaser's terms apply to, nor shall Purchaser's proposed additional or different terms modify, the Contract. Seller hereby objects to and rejects any additional or different terms or conditions proposed by Purchaser or contained in any Purchase Order, commercial document or other correspondence from Purchaser, regardless of any knowledge Seller may have of such terms, and such terms shall not bind Seller. The Contract supersedes any commercial documents issued by Seller. The applicable terms of the latest Sales Documents shall control over such terms in any prior Sales Documents. No other terms or changes, modifications, amendments or waivers of any terms in the Contract shall apply to Seller unless in writing and signed by an authorized officer of Seller. Only the President of Seller is authorized to modify these Terms and Conditions or the Contract, and then, only in writing. No supplier, salesman, agent or person other than the President of the Seller is authorized to waive, modify, add to or alter any of these Terms and Conditions or the Contract or make any additional representations, promises or. The provisions of these Terms And Conditions are severable, and the invalidity or unenforceability of one provision shall not affect the validity or enforceability of any other provision.

*T & C-Form A- Revised 7/2014

Advantages of HOLZ-HER's "Patented" Glu Jet hybrid technology

- 1) Total control over the glue application:
 - a. Top and bottom of the glue line to match panel thickness exactly.
 - b. Starting and stopping of the glue line to match panel length exactly.
 - c. Total glue volume for perfect bond on all types of edgebanding. Fully automatic volume control, based on edgeband type and glue type.

No other glue system allows so much control of the glue!

- 2) Quickest heat up time available – less than 3 minutes along with quickest color change available – less than 10 minutes!
- 3) Patented closed heating system prevents smoke and odors.
- 4) Only standard system that accepts both EVA and PUR glues!
- 5) Lowest angle of approach – 3 degrees! Valuable for thicker edgebanding.
- 6) "Melt-on-Demand" system prevents scorching, discoloration and built up of glue resulting in no unnecessary waste and cost efficiency.
- 7) Only manufacturer offering a system that will process both glue cartridges and glue pellets.



GLUJET Peace of Mind® 3-Year Warranty

What Does the Peace of Mind® 3-Year Warranty Mean?

HOLZ-HER warrants to replace, at its discretion, any warranted part which fails due to an original manufacturing or material defect within three years from date of installation.

When Does the Warranty Begin?

The warranty is in effect from the date of installation and ends three years later. It is not retroactive to any machine delivered or installed before September 1, 2012.

Who and What Are Covered?

It covers the original purchaser of any new *GluJet* System. It is a non-transferable warranty.

Warranty Statement

HOLZ-HER (the "Company") Limited *GluJet* Warranty: Except as otherwise provided herein, the Company warrants that the *GluJet* system sold to the Original Purchaser will be free from defects in materials and workmanship for 3 years after the date of delivery to the original purchaser, normal wear and tear excepted. This warranty shall be in effect as of September 1, 2012, for systems placed in service after such date. The Company will repair or in its sole discretion, replace any *GluJet* system or part thereof found to be defective at the time of delivery, if such defect is covered by this warranty and the system or part returned (at the Purchaser's expense and risk) and received by the Company within 3 years after the date of delivery. This limited warranty is "parts only", and does not include labor for repair or replacement of warranted parts. Claims on the electronic or electric components, including cables and switches, are excluded from this warranty unless claims of defects with respect to these items are received by the Company within 6 months after the delivery date. Except for written statements expressly identified as product specifications, the descriptions, representations and other information concerning the Company's Product contained in the Company's catalogs, advertisements or other promotional materials and any statements or representations made by the Company's sales agents or representatives, shall not be binding upon the Company and shall not be covered by this limited warranty. All Company *GluJet* system shall be manufactured in accordance with the Company's standard practices and shall be subject to normal manufacturing tolerances.

This limited warranty does not cover maintenance required in the ordinary course, items or components consumed during normal operation, or damage or defects arising from use under unusual circumstances exceeding specifications, abuse unauthorized repair, alterations, moving of the machine, or lack of proper maintenance. In addition, this limited warranty does not cover damage caused by natural causes, acts of God or acts or occurrences unrelated to use of the saw in the ordinary course, such as fire storm, flood or riots. This limited warranty terminates if the purchaser defaults on making payments for the systems covered.

This limited warranty is the Purchaser's exclusive remedy against the Company. This limited warranty shall not be deemed to have failed of its essential purpose, so long as the Company is willing and able to repair or replace the defective Product or parts thereof in the manner specified. Except as herein expressly provided, the Company shall not be liable to the Purchaser in any manner with respect to the Products.

THE COMPANY MAKES TO PURCHASER NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH ABOVE AND NO IMPLIED WARRANTIES OF ANY TYPE WHETHER OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. THE COMPANY SHALL NOT IN ANY EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING, BUT NOT LIMITED TO LOST PROFITS, DAMAGES TO RAW MATERIALS OR FINISHED PRODUCTS OR LOSS OF USE OF THE PRODUCT OR RELATED EQUIPMENT, WHETHER ARISING FROM DEFECT IN THE PRODUCT SUBJECT TO THIS WARRANTY, ANY USE OF THE PRODUCT FROM PURCHASER'S INABILITY TO USE THE PRODUCT OR RELATED EQUIPMENT OR OTHERWISE ANYTHING HEREIN TO THE CONTRARY NOTWITHSTANDING, IN NO EVENT SHALL COMPANY'S LIABILITY TO PURCHASER EXCEED THE PURCHASE PRICE OF THE ALLEGEDLY DEFECTIVE PRODUCT.

9/1/2012