

# reative automation, inc.

102 W. LINDEN STREET • P.O. BOX 505 • ABBOTSFORD, WISCONSIN 54405 •

715-223-6321

FAX: 715-223-4524 ca@creative-automation.com

INVOICE NO. 6225

6-27-06 DATE TERMS

Due upon receipt Seattle, WA

**FOB** 

SHIPPED VIA SHIPPING DATE

YOUR ORDER NO.

Our quote 93005

#### SOLD TO:

### SHIPPED TO:

CONTOUR COUNTERTOPS 5910 CORSON AVE S SEATTLE WA 98108

QUANTITY	NUMBER	DESCRIPTION	PRICE	AMOUNT	
	Per our quote 9	3005			
1 -	Automatic Core Feeder for the Corebuilder #11400				
1 -	Corebuilder #11400				
1 -	Laminator #11401				
7 -	Powered Rolle	Powered Roller Conveyors #11402			
1 -	Postformer Modification #11403				
1 -	Modify Existing Bending Machine #11404			\$915,900.00	
	Additions to the above equipment:				
1 -	Jump conveyor after corebuilder			9,000.00	
3 sets -	Safety mats			6,350.00	
		Equipment total		\$931,250.00	
	Last 25% due as equipment is installed				
		100% amount Less amount rec	eived	\$931,250.00 <u>698,437.50</u>	
,		Amount Due		\$232,812.50	





# creative automation, inc.

102 W. LINDEN STREET • P.O. BOX 505 • ABBOTSFORD, WISCONSIN 54405 • 715-223-6321 ca@creative-automation.com FAX: 715-223-4524

September 30, 2005

Chuck Maiwurm Contour Countertops 5910 Corson Ave. S. Seattle, WA 98108

Dear Chuck:

I am pleased to quote Automation for your new countertop line.

It is assumed that the build downs and no drip strips will be automatically cut out of the core and applied to that core as it goes thru the Corebuilder. If other build downs are required, they must be put on in your existing Corebuilder and then the cores can be run thru the new Corebuilder for profiling.

The laminator will be able to produce 2 tops per minute. Hot melt glue will be used to glue the core together and PVA adhesive will be used to glue the laminate to the core.

Our equipment will be fixed right to match your postformer. We agreed that the coving machine can be turned end for end.

Most cores will be  $\frac{3}{4}$  inch thick particleboard or plywood. However equipment may be adjusted from  $\frac{1}{2}$  to 2 inches thick. Build downs will be  $\frac{1}{2}$  to  $\frac{3}{4}$  inch thick and  $\frac{5}{8}$  to  $\frac{1}{4}$  inches wide. Laminate will be  $\frac{12}{2}$  to  $\frac{53}{4}$  inches wide and cores  $\frac{12}{2}$  to  $\frac{49}{4}$  inches. Cores will be  $\frac{7}{4}$  to  $\frac{12}{4}$  feet long. Backsplashes will be from 3 to 6 inches high from the top of the top to the top of the backsplash. A variety of core lengths may be run at random.

Contour Laminates to furnish the tooling for the Corebuilder and the laminate pallets.

The equipment is as follows:

1 - Automatic Core Feeder for the Corebuilder

The feeder will consist of 3 parts. The core will have to be placed on the feeder from the left side with a forklift.

There will be a heavy duty adjustable side guide for the load of particleboard. This guide will have 3 vertical steel posts that the forklift operator places the load against. There will be a rigid side guide attached that will keep cores straight as they transfer into the Corebuilder. This whole side guide assembly will move for setup on 2 sets of 4 flanged cam rollers with heavy duty jack screws. The jack screws will be connected together with a lineshaft. There will be a handwheel and a Siko readout. There will be approximately 4 inches of adjustment.

There will be an 8000 pound scissorslift that the forklift operator places the load on. The lift will automatically raise after each core is pushed forward into the Corebuilder.

There will be an automatic core pusher. It will have a lengthwise frame with linear ballbearing tracks. A carriage will move on these tracks. It will be powered with a variable frequency AC drive to start each panel into the Corebuilder. The carriage automatically sets up for the length of core placed on the scissorslift.

### 1 - Corebuilder

It will be approximately 20.5 feet long. It will be fixed right. The left beam will be mounted on linear ballbearing tracks. It will automatically setup for size using precision ballscrews, AC brakemotor, and AC inverter. There will be encoder feedback for accurate setup.

The feed chains will be quality chains. The feed speed will be controlled by a variable frequency AC drive. The holddown wheels will be urethane with ballbearings. They will adjust for thickness with handwheels and mechanical readouts.

There will be 6 – 10 hp and 4 – 7.5 hp 3600 rpm arbor motors, each controlled with a magnetic starter. Each motor will be on vertical and horizontal dovetail slides. There will be 3 horizontal motors on each side at the infeed. At the outfeed, there will be 1 horizontal and 1 vertical motor on each side. All axes will be adjusted manually. There will be Siko mechanical readouts on the vertical and horizontal axes on the first 3 arbor motors on each side. The last 2 arbor motors on each side will have accurate Proscale scales and readouts on the vertical and horizontal axes. Profile cutter setup is important and the Proscale systems help the operator do a more accurate setup. There will be an additional 3 hp arbor motor on the top right side of the machine to cut the relief groove for the backsplash.

I cannot predict the sound level during cutting as the material being cut and the cutter design are not in my control. We will put sound dampening material in each dusthood. There will be a Nordson hot melt system. It will include:

- 1 Durablue 25 Nordson melt unit with a gear pump for constant pressure
- 4 heated hoses
- 4 heated dispensing valves and nozzles

We will provide guides, guide wheels and compression wheels for applying the build downs and the no drip buildups.

The Corebuilder electrical system will include:

NEMA 12 enclosure Fused disconnect for 460V, 3 phase Transformer for hot melt unit Variable frequency AC drives for arbor motors Variable frequency AC drive for feed chains Emergency stop safety module and master control relays 120 VAC control transformer 24 VDC power supply 24 VDC inputs 120 VAC outputs Allen-Bradley 5/03 programmable controller Modem (Contour Countertops to provide a clean telephone line) Allen-Bradley gray scale PanelView operator interface for machine control We will interlock the Corebuilder with the rest of the equipment

#### 1 - Laminator

The laminator will be approximately 47 feet long. This machine will have the cores feed in at approximately a 38-inch passline and the laminate at approximately a 78-inch passline. The core will stay at the 38-inch passline and the laminate will be conveyed down to the core. The core infeed conveyor will be approximately 13 feet long. There will be 2 rows of 7 urethane covered wheels. The right set of wheels will be fixed. The left row of wheels will be on a beam that is moved on linear ballbearing tracks. There will be ballscrews, mechanical readout and handwheel for the operator to manually adjust this row of wheels for the width of the core. A servo can be added later for automatic setup. This row of wheels is infinitely adjustable for cores from 12 to 50 inches wide. These wheels will be driven with variable frequency AC drive. Over one pair of wheels there will be a powered crosswise cleaning brush and dust collection outlet.

Above the core conveyor, there will be the laminate feeder. Laminate will be staged on a pallet. The laminate pallet must be made of steel and per our drawing. The pallet of laminate will be placed on the gravity conveyor by a forklift on the left side. It will be manually moved crosswise to the feeding position on the gravity conveyor. The laminate will be automatically fed into the gluespreader. No operator is needed. There will be a vacuum cup carriage that moves vertically and horizontally on linear ballbearing tracks powered by air cylinders. There will be 2 rows of vacuum cups. The row closest to the end of the laminate is used to peel the end of the top laminate off of the load. The 2<sup>nd</sup> row of vacuum cups is used to make sure that the first part of the laminate is started into the powered pinch rolls straight. Just past the powered pinch rolls, there will be top & bottom UHMW slides to keep the laminate flat. At the end of these slides, there will be a bottom static brush and dusthood.

775 56 inch Black Brothers Single Top Glue Spreader for cores

Top Coating Roll:

1-7 3/4 OD, durometer to allow for no drip

or hump

Doctor Roll:

1-67/8 inch OD, 90 durometer,

Neoprene covered ground smooth, Single handwheel roll adjustment with digital

readout

Bottom Feed Roll:

It will be segmented to allow for builddowns. The right segment will be fixed and the others will be mounted on a slide tube that slides on the driveshaft. The rolls on the slide tube will be automatically moved with back to back air cylinders according to the

width of the top.

This allows for infinite width adjustment between 12 and 49 inches for panels with builddowns so that there is always proper

support of the core.

The feed will have a variable frequency AC drive.

Operating handwheels, electrical controls, and roll opening indicator will be on the right side.

Operating control bars on infeed and outfeed for safety.

Automatic roll cleaning arrangement with electrical interlocks.

Liquid level control.

Glue spreader will be on casters and tracks so it may be moved out of the line. Its passline will be approximately 38 inches.

775 56 inch Black Brothers Single Bottom Glue Spreader for laminate

Bottom Coating Roll:

1-7 ¾ inch OD, durometer and

grooving to be determined

Doctor Roll:

1 – 6 7/8 inch OD, 90 durometer, Neoprene covered ground smooth. Single handwheel roll adjustment

with digital readout

Top Feed Roll:

1 – 7 ¾ inch OD, 60 durometer, Neoprene covered ground smooth.

Full face 56 inch length

The feed will have a variable frequency AC drive.

Operating handwheels, electrical controls, and roll opening indicator on right side.

Operating control bars on infeed and outfeed for safety.

Automatic roll cleaning arrangement with electrical interlocks.

Liquid level control.

Glue spreader will be on casters and tracks so it may be moved out of the line. Its passline will be approximately 78 inches.

The outfeed conveyor of the core gluespreader will be approximately 25.25 feet long. This conveyor will be of the same design as the core infeed conveyor with 2 rows of wheels and infinitely adjustable from 12 to 49 inches wide. The conveyor will be divided into 2 zones. Each zone will have its own variable frequency AC drive so that they can be individually controlled. This allows for more even and consistent through put. The first zone will have the heaters. At the end of the second zone, there will be air operated endstops. This is where the laminate meets the core. Just before the stops, there will be air operated pinch rollers. These rollers are used to make sure the laminate and core feed into the press properly.

The outfeed conveyor of the laminate gluespreader will be approximately 20 feet long. It will have 7 spiked roller chains. The spikes keep the glue from transferring to the chain. This conveyor will have 2 zones. Each zone will be powered with its own variable frequency AC drive so that they can be individually controlled. This allows for more even and consistent through put. The first zone will have the heaters. The second zone is for staging the laminate. At the outfeed end of this zone, there will be air operated stops. When the laminate is conveyed to these stops, 2 vacuum cups lower onto the laminate. These cups will then pull

the laminate crosswise to the proper position. This is accomplished with back to back air cylinders and linear ballbearing slides for each vacuum cup. There will be 6 positions. When the laminate is positioned crosswise, the endstops retract and the laminate is moved automatically to meet the core at its endstops. There is a powered pinch roller just before this endstop. The vacuum cup assemblies are mounted on a carriage that is moved lengthwise with a variable frequency AC drive.

The press section will be approximately 5 feet long. It will have 2 sets of pinch rollers. The bottom rollers of each set will be segmented and will setup with the same method as the core gluespreader bottom roll. The top roller of each set will be accurately adjusted for thickness on linear ballbearing tracks with screws, a handwheel and mechanical readout.

The Laminator Electrical System will include:

NEMA 12 enclosure
Fused disconnect for 460V, 3 phase
Variable frequency AC inverter drives on all conveyors,
resulting in smooth transfer of core and laminate
Emergency stop safety module and master control relays
120 VAC control transformer
24 VDC power supply
24 VDC inputs
120 VAC outputs
Allen Bradley 5/03 programmable controller
Allen Bradley gray scale PanelView operator interface for
machine control
We will interlock the laminator with the rest of the
equipment.

The following is a description of the core and laminate heaters. We are quoting T3 15,000 watt x 59 inch long short wave infrared heaters. There will be 1 core preheater (15,000 watts) before the gluespreader and 4 core heaters (60,000 watts) after the gluespreader. There will be 1 top laminate (15,000 watts) and 2 bottom laminate (30,000 watts) heaters after the gluespreader. Just before the first press roll there will be 2 top (30,000 watt) heaters. Between the first and second set of press rollers there will be 2 – T3 heaters approximately 36 inches long. They will be over the no drip area. The right heater will be fixed and the left heater will be automatically moved for the width of the core when the operator sets up the core conveyor wheels. Also between the press rolls there will be 2 bottom (30,000 watt) heaters. Each heating zone will be controlled by the programmable controller.

### 7 - Powered Roller Conveyors

Each will be approximately 14 feet long x 52 inches wide. Each will have powered steel rollers spaced approximately 6 inches apart. Each will be driven with a variable frequency AC drive.

## 1 - Postformer Modification

We will add 3 adhesive spray guns to each side at the infeed of your existing postformer. There will be 1 pressure tank on each side. Sensors will be added to turn on and off the guns.

Above the spray area there will be a powered silicone coated widebelt to collect the overspray. The belt can be periodically cleaned.

## 1 - Modify Existing Bending Machine

We will modify your existing machine to make it an automatic bending and stick placement machine. The operator will still need to feed the proper stick into the existing powered glue applicator roller.

Price: \$915,900.00 fob Seattle, WA

This quotation includes our company providing two people for 10 – 9 hour days of supervision for the installation and training of personnel at your plant.

Terms: 25% with order

50% when ready to ship

25% when installed or 30 days after shipment, whichever comes first

The purchase price does not include any federal, state, or local taxes which may apply to this purchase.

This quotation is valid for 30 days.

Yours truly,

CREATIVE AUTOMATION, INC.

Thomas E Stocker

Thomas E. Streckert

President

TES/kil

Enclosures: Company Profile brochure, Material Handling brochure

Pictures: 11201-900, 11201-926, 11201-906, 11201-909, 11201-901, 11201-903, 11201-911, 11121-003, 11121-004,

11095-003, 11095-001