



CREATIVE AUTOMATION, INC.

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March 27, 2006

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

Dear Chuck:

I am pleased to quote a Conveying System that will take tops from your Laminating Line and distribute them to your 3 Miter Saws. It will also include a scrap conveyor.

The conveying system will handle tops 16-36 inches wide and 6-12 feet long. The build downs will all be $\frac{1}{2}$ - $\frac{3}{4}$ inch thick. Backsplashes will be from 3 to 6 inches high from the top of the top to the top of the backslash.

The laminating line will be producing 2 tops per minute.

There will be a powered steel roller conveyor at the infeed end of the system to take tops in. The conveyor will be powered with a variable frequency AC drive. Integrated into the roller conveyor will be a pusher which moves each top over against a backstop to reference the top properly for pickup by the vacuum feeder. The pusher is powered with an air motor. Tops can also be introduced into the system on the other end of the conveyor by pushing them onto the powered conveyor from customer supplied gravity conveyor.

(Creative Automation) *[Signature]*
There will be 3 gravity steel roller conveyors with integrated powered jump rollers, one in front of each miter saw. The vacuum feeder sets a top down onto a conveyor and the powered jump section goes up to move the top toward the miter saw. The top will be positioned so that approximately 12 inches of it sticks out. The jump section will go down and the top will be sitting on the gravity rollers. The miter saw operator can then grab the end of the top and pull it towards him when he needs another top. The jump section rollers will be powered by a fixed AC drive.

In between the conveyors there will be supports to store tops on. These 3 queue areas will have a total of 17 zones, each zone approximately 31 inches wide. At each zone there will be sensors to positively identify if a zone has a top in it or if there is a wide top present that covers 2 zones.

[Handwritten mark]

Over the top of the conveyors and the queue areas there will be an automatic vacuum cup feeder to automatically distribute tops to the miter saw and queue locations. It will lift the top just high enough to convey it crosswise over other tops. The vacuum cups will be mounted on 2 tubes. Venturies will provide the vacuum. The vacuum cups will be moved vertically with a large air cylinder. The vacuum cup carriage will move horizontally with a variable frequency AC drive and will have an encoder for position feedback. There will be an air loaded chain auto tensioner on the horizontal. The horizontal homing sequence will be such that the chain can stretch over time and the accuracy of top placement will not be affected.

There will be switches to activate any or all of the miter saw locations. The software will be written to balance the flow of tops conveyed to the miter saws that are activated. The system will approximate a first in/first out flow.

There will be a 40 inch wide belt scrap conveyor approximately 39 feet long. It will run at approximately 10 feet per minute. This conveyor will be located just above the conveyors and queue areas and will be convenient for the miter saw operators to place scrap on. The scrap can be conveyed into a customer supplied dumpster or hog.

Safety fence will be provided around the area that the vacuum cup feeder travels.

The electrical control system will include:

- NEMA 12 enclosure
- Fused disconnect for 460V, 3 phase
- Appropriate variable frequency AC drives and magnetic starters
- Emergency stop safety module and master control relays
- 120 VAC control transformer
- 24 VDC power supply
- 24 VDC inputs and outputs
- Allen-Bradley 5/03 programmable controller
- Modem (Customer to provide a clean telephone line)
- Appropriate switches for automatic and manual operation
- We will interlock the conveying system with the laminating line

Also we will provide a 19 foot long powered steel roller conveyor to fill the space that is designated for a future end trim saw. This conveyor will be powered with a variable frequency AC drive.

Price: \$201,980.00 fob Seattle, WA

This quotation includes our company providing two people for 3 - 9 hour days of supervision for the installation and training of personnel at your plant.

Terms: 25% with order
75% to be negotiated

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. Streckert
President

TES/mts



<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIP PRICE EACH</u>
5	313-2	Littelfuse glass fuse 1.08
5	313-3	Littelfuse glass fuse 5.40
5	313-5	Littelfuse glass fuse 5.40
5	313-10	Littelfuse glass fuse 5.40
5	326-10	Littelfuse glass fuse 8.10
10	CCMR-6	Littelfuse class CCMR fuse 68.00
10	CCMR-8	Littelfuse class CCMR fuse 72.80
10	CCMR-12	Littelfuse class CCMR fuse 72.80
10	CCMR-15	Littelfuse class CCMR fuse 72.80
10	CCMR-20	Littelfuse class CCMR fuse 72.80
10	CCMR-25	Littelfuse class CCMR fuse 72.80
3	FRS-R-150	Bussman restrictive fuses 48.09
3	FRS-R-200	Bussman restrictive fuses 48.09
1	RY4SUL-AC120V	Idec relay, 120 VAC 14.94
1	RY42SUL-AC120V	Idec relay-bifurcated, 120 VAC 14.94
1	RY4SUL-DC24V	Idec relay, 24vdc 14.94
1	RY42SUL-DC24V	Idec relay-bifurcated, 24vdc 14.94
1	SY4S-05	Idec relay base 6.93
2	539159	Festo VTSA Air Valve, single Sol 126.96
2	539156	Festo VTSA Air Valve, Dbl Sol 171.02
2	540152	Festo VTSA Regulator 194.08
2	540168	Festo VTSA Regulator 334.12
2	543488	Festo VTSA Pressure Gauge 14.42

<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE EACH</u>	<u>Total</u>
1	716-500-HV-IND12-6-S-K-N	EPC encoder	273.00	273.00
1	LSA1A	Micro Switch limit switch	104.90	104.90
1	LSZ52K	Micro Switch actuator arm	22.44	22.44
1	Bi5-M18E-AP6X-H1141	Turck shielded proximity sensor	48.06	48.06
1	Bi5-M18E-RP6X-H1143	Turck shielded proximity sensor	48.06	48.06
1	BiM-IKM-AP6X2-H1141/S34	Turck cylinder sensor	78.50	78.50
1	RK4.4T-10	Turck shielded cord assembly	19.22	19.22
1	WK4.4T-10	Turck shielded cord assembly	19.22	19.22
1	RKC8T-18/S618	Turck Cordset (for Encoder)	52.70	52.70
1	FS4.5-0.5/14.5	Turck Adaptor	15.00	15.00
1	SM312DQD	Banner mini beam scanner	87.48	87.48
1	SM312CVQD	Banner mini beam scanner	93.96	93.96
1	SM312CV2QD	Banner mini beam scanner	93.96	93.96
1	SM312LVQD	Banner mini beam scanner	93.96	93.96
1	SM312FPQD	Banner mini beam scanner	93.96	93.96
1	PIT 46 U	Banner Fiber Optic Leads	37.00	37.00
1	ES-FA-9AA	Banner E-stop safety relay	159.63	159.63
1	100-C12ZJ10	A-B contactor	88.69	88.69
1	193-EA1CB	A-B overload relay	58.18	58.18
1	193-EA1DB	A-B overload relay	58.18	58.18
1	700-CF310D	A-B control relay	52.25	52.25
1	1746-IB16	A-B SLC input module	146.86	146.86
1	1746-OB16	A-B SLC output module	181.46	181.46
1	1746-NO4V	A-B SLC Analog Output	549.40	549.40
1	1746-OW16	A-B SLC output module	203.30	203.30

DESCRIP PRICE EACH

<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIP</u>	<u>PRICE EACH</u>
10	AX60YE1008W/B	Axiom urethane roller 70mm dia	200.70
1	KCS 72.24-2D	Perske Arbor Motor, 10hp, 40mm x 3"lg shaft w/ screws(SQ-NJ0500458)	2,178.00
1	KCS 72.24-2D	Perske Arbor Motor, 10hp, 40mm x10"lg shaft w/ screws(SQ-NJ0500458)	2,322.00
1	KCS 71.20-2D	Perske Arbor Motor, 7-1/2hp, 40mm x 3"lg shaft shaft w/ screws(SQ-NJ0500458)	2,010.00
1	CRAU-XDV01	Finzer Roller-drive roller(11401-185)	1,218.00
1	CRAU-X1D01	Finzer Roller-Idler roller(11401-186)	1,176.00
2	CRAU-XOF01	Finzer Roller-press outfeed roller, cover material FZR-Heat 55(11401-440)	4,608.00
1	CRAU-XWH01	Finzer Roller (11401-251)	150.00
3	GHT564103	Fannon bulb, 64-5/8, 5000w,480v	585.00
3	GHT544108	Fannon bulb, 44" lg, 3650w,480v	465.00
1	Model 775	Black Bros model 775 applicator roller, 5.000 x 7.750 x 56.437-A2050 thread, Dual Durometer coverin	3,744.00
1	Model 775	Black Bros model 775 applicator roller, 6.625 x 7.750 x 56.437-A2172 thread, Single 60 durometer covering	2,748.00
10	797231	IMA complete track pad	292.50
10	707555	IMA bow clip for track pad	20.90
2	AG2318-S	Aetna idler sprocket, 18 tooth	27.24
2	AG-2416	Aetna idler Sprocket, 18 tooth	28.84
10	1510-3134-GG	Frantz bearing for 2-1/4 x 16ga rollers	30.00
16	B1.5-43 SIT	Anver Vacuum Cup, 43mm Silicone	160.00
16	HS-6	Anver Hollow Screw, M6	35.04
2	VC57-CR	Anver 5 1/2" Cup	109.92