

Vacuum Lumber Drying

Presented by,
Jim Parker



Bring your Cash Flow out of the woods

SPEED

QUALITY

EFFICIENCY



This is what your calendar looks like now



APRIL 2014

SUN

MON

TUES

WED

THURS

FRI

SAT

	GET ORDER	SAW LOG	DRY	DRY	DRY	DRY
DRY	DRY	DRY	DRY	DRY	DRY	DRY
DRY	DRY	DRY	DRY	DRY	DRY	DRY
DRY	DRY	SHIP ORDER				

EFFICIENCY

QUALITY

SPEED



This is what the Vacutherm Calendar
looks like



APRIL 2014

SUN

MON

TUES

WED

THURS

FRI

SAT

Go fishing	GET ORDER	SAW LOG	DRY	DRY	SHIP ORDER	Go fishing
Go fishing	GET ORDER	SAW LOG	DRY	DRY	SHIP ORDER	Go fishing
Go fishing	GET ORDER	SAW LOG	DRY	DRY	SHIP ORDER	Go fishing
Go fishing	GET ORDER	SAW LOG	DRY	DRY	SHIP ORDER	Go fishing

EFFICIENCY

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VACUPRESS®
10x Faster

AIRVAC®
3x Faster

DH KILN®
Slow Drying

TOUCHDRY®
KILN CONTROL

INFLATE-A-FORK®
Lumber Lifting

SPEED

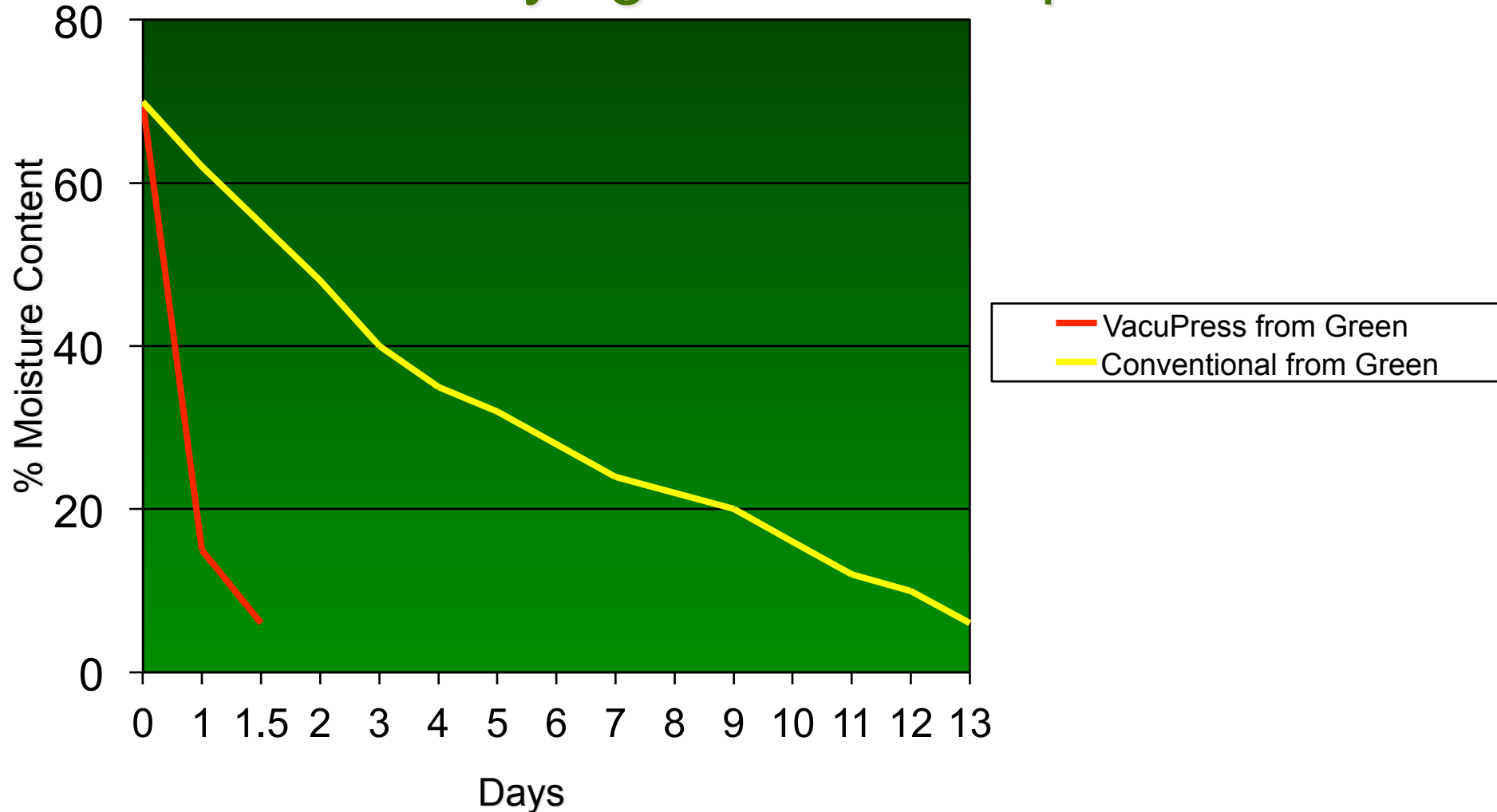
QUALITY

EFFICIENCY



Drying Time Comparison

Drying 4/4 Hard Maple



EFFICIENCY

QUALITY

SPEED



Drying Times

Drying time (hours)						
Species	4/4	5/4	6/4	8/4	10/4	12/4
Maple	30	35	42	48	96	140
Birch	40	48	55	70	120	192
Red Oak (40%)	24	36	48	96	168	240
Walnut (40%)	45	50	58	65	115	168
White Pine	24	30	38	48	55	96



Production Comparison



VS



	Conventional Steam Kiln	VacuPress 4000
Capacity	50,000 bf	4,000 bf
Drying Time (4/4 Hard Maple)	15 days	30 Hours
Annual Throughput (350 days)	1,166,666 bf	1,120,000 bf

EFFICIENCY

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Cash Flow Demonstration
click here

EFFICIENCY

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Production Throughput



- Eliminates the 'bottleneck'
- Increases responsiveness to market
- Just-in-Time Inventory/production
- Cash flow Machine

EFFICIENCY

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VACUPRESS®

10x Faster



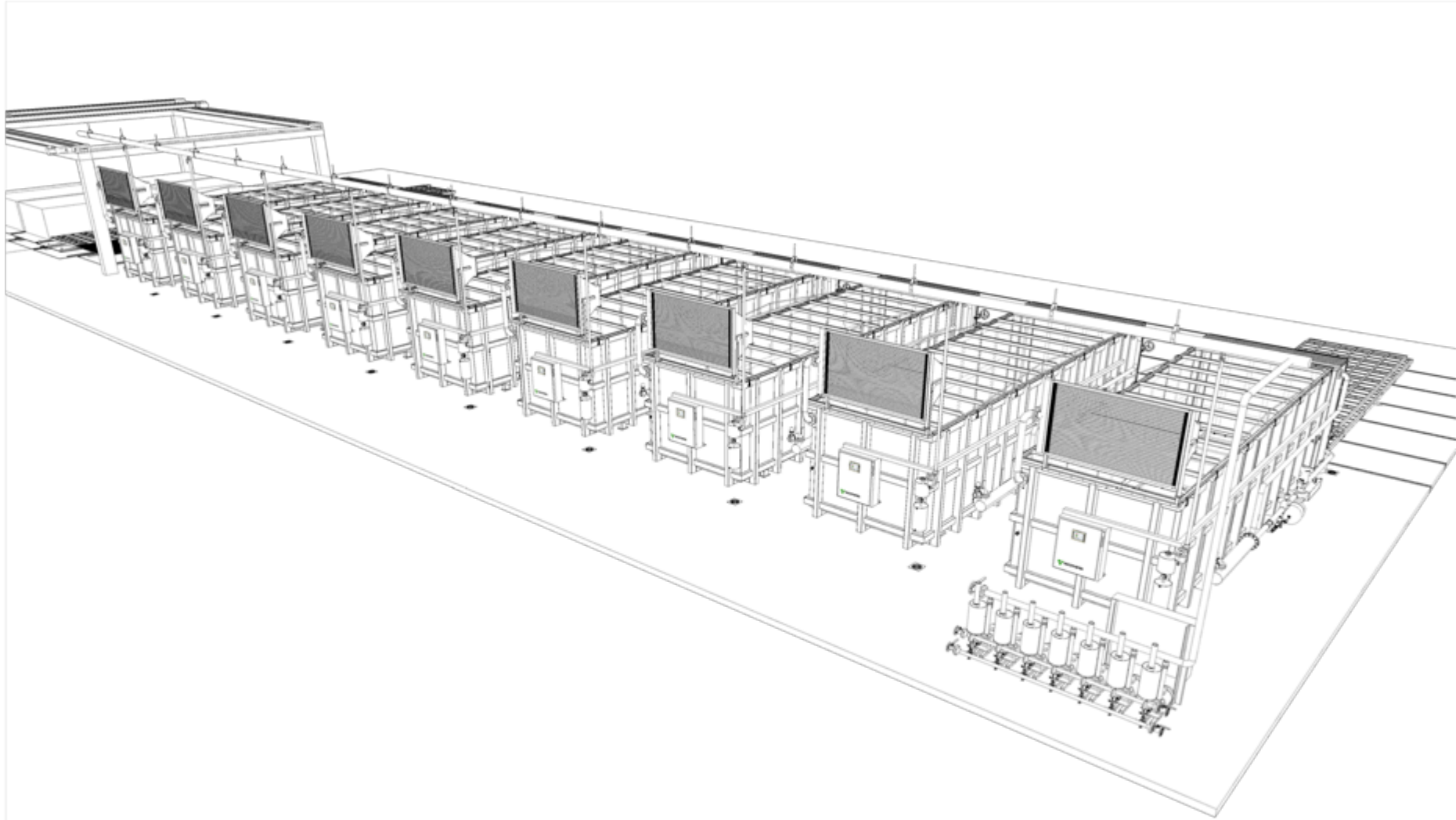
SPEED

QUALITY

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VACUPRESS 8000 INSTALLATION

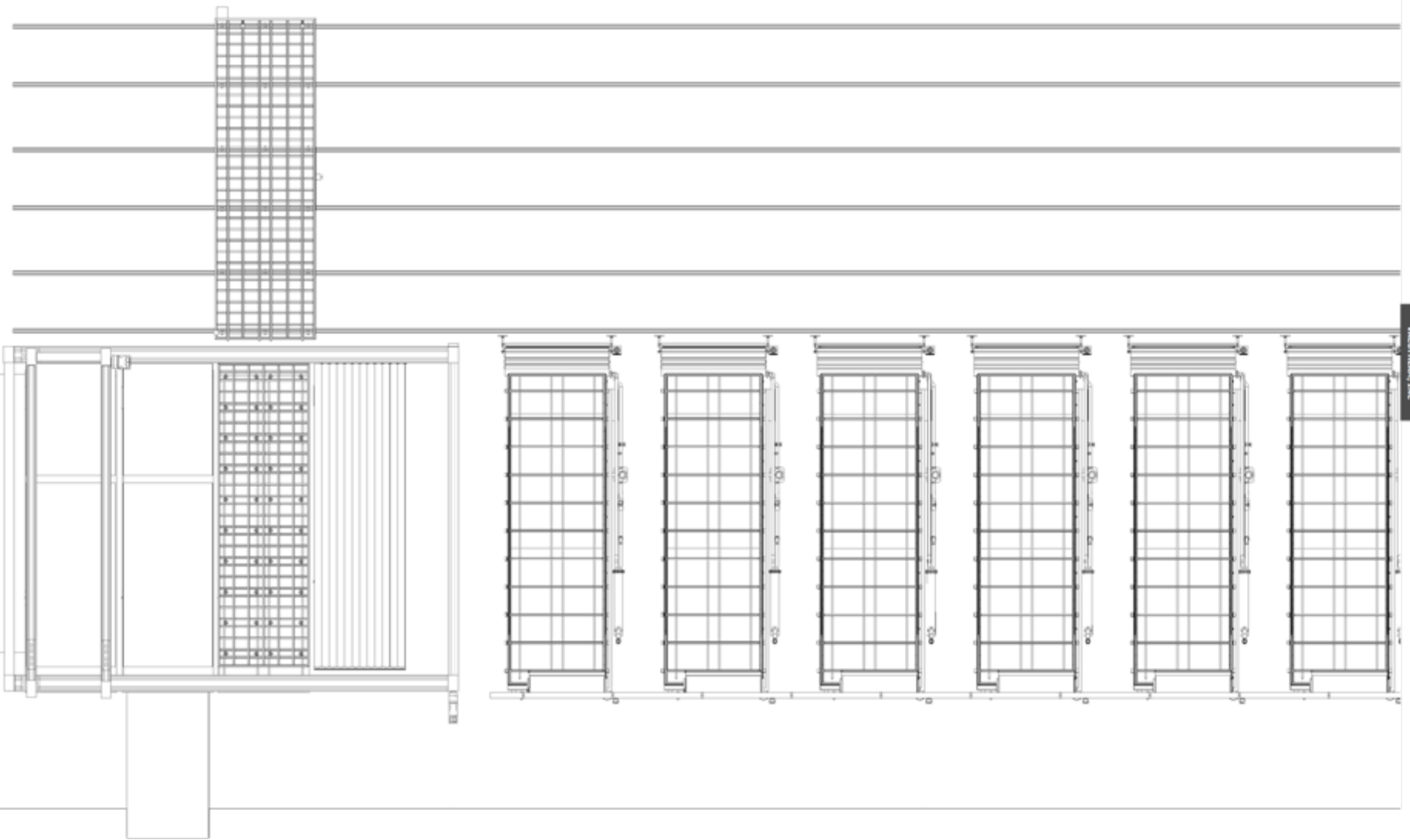


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VACUTHERM, INC.

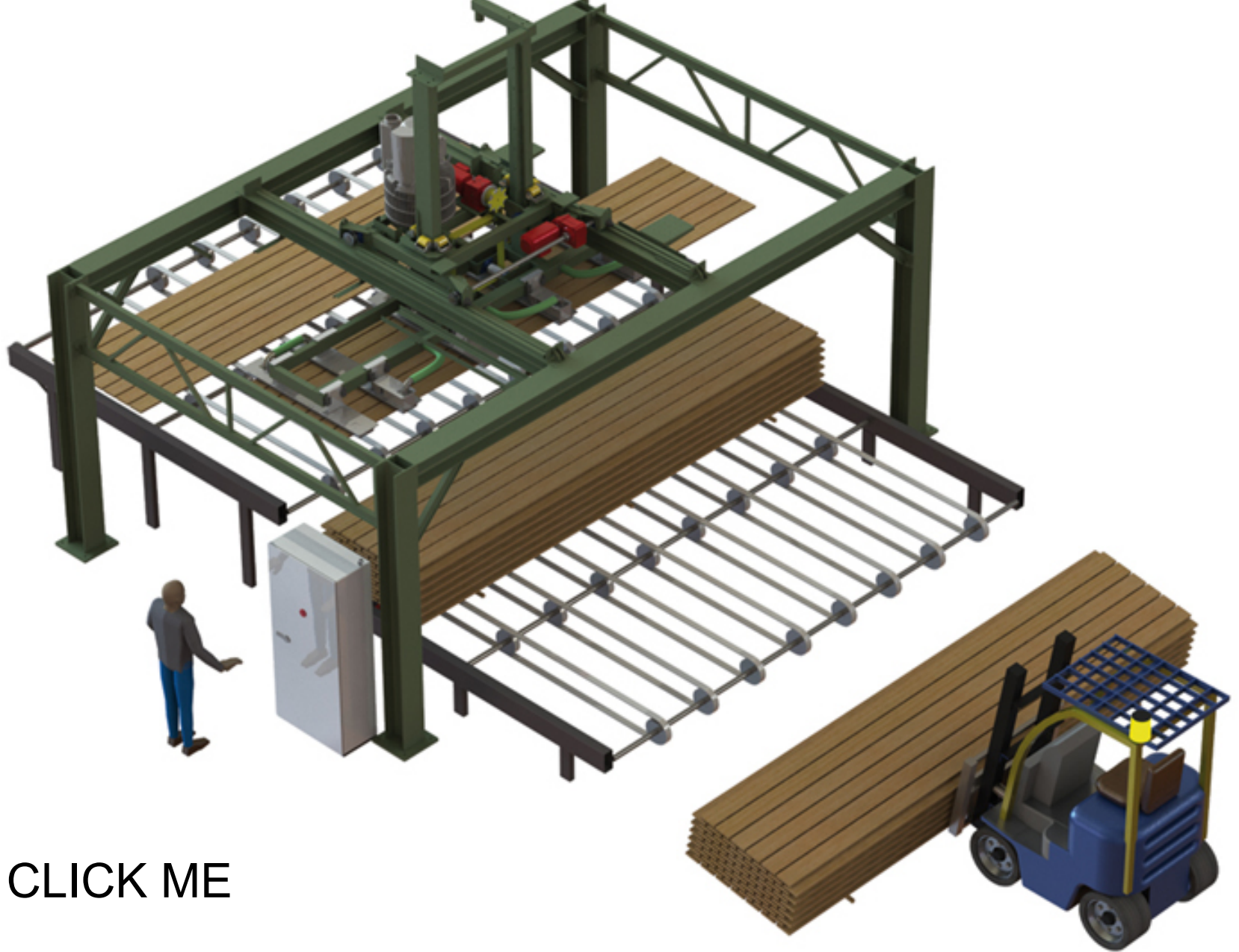




VACUPRESS 8000

4





CLICK ME

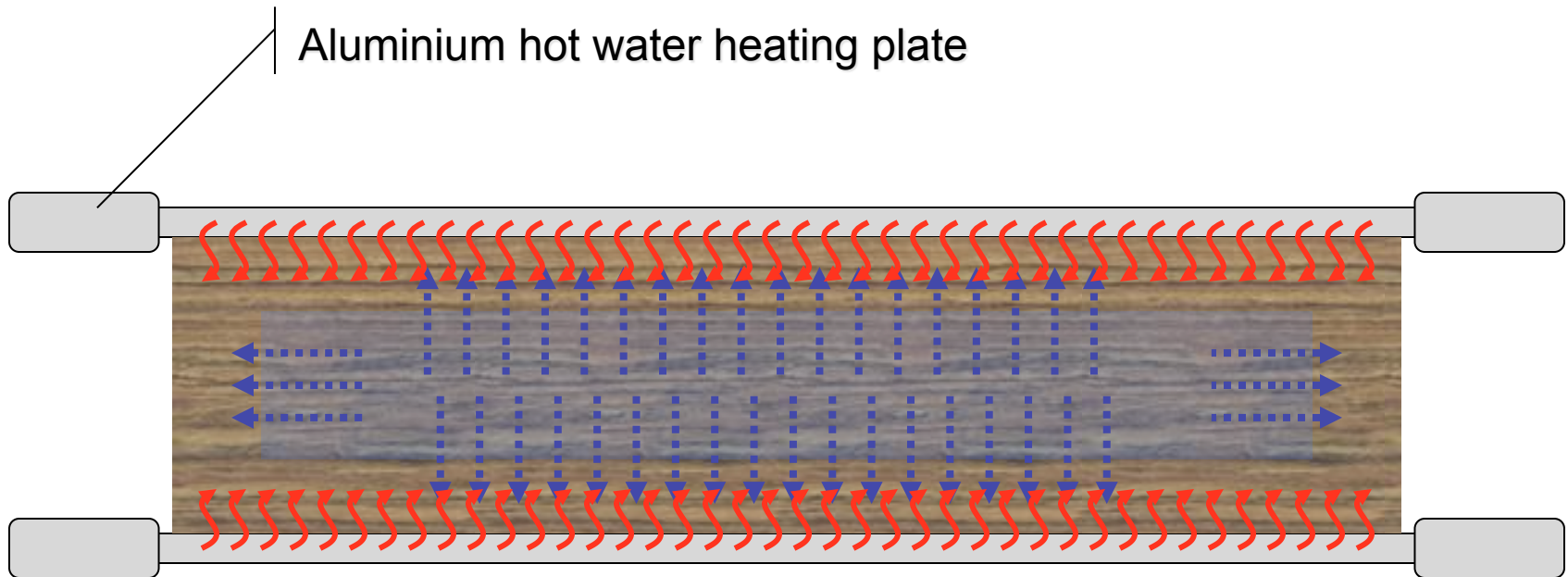
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Contact Heating



The hot water heating plates or heated air (for AirVac) heat the wood very efficiently and help drive the moisture out.

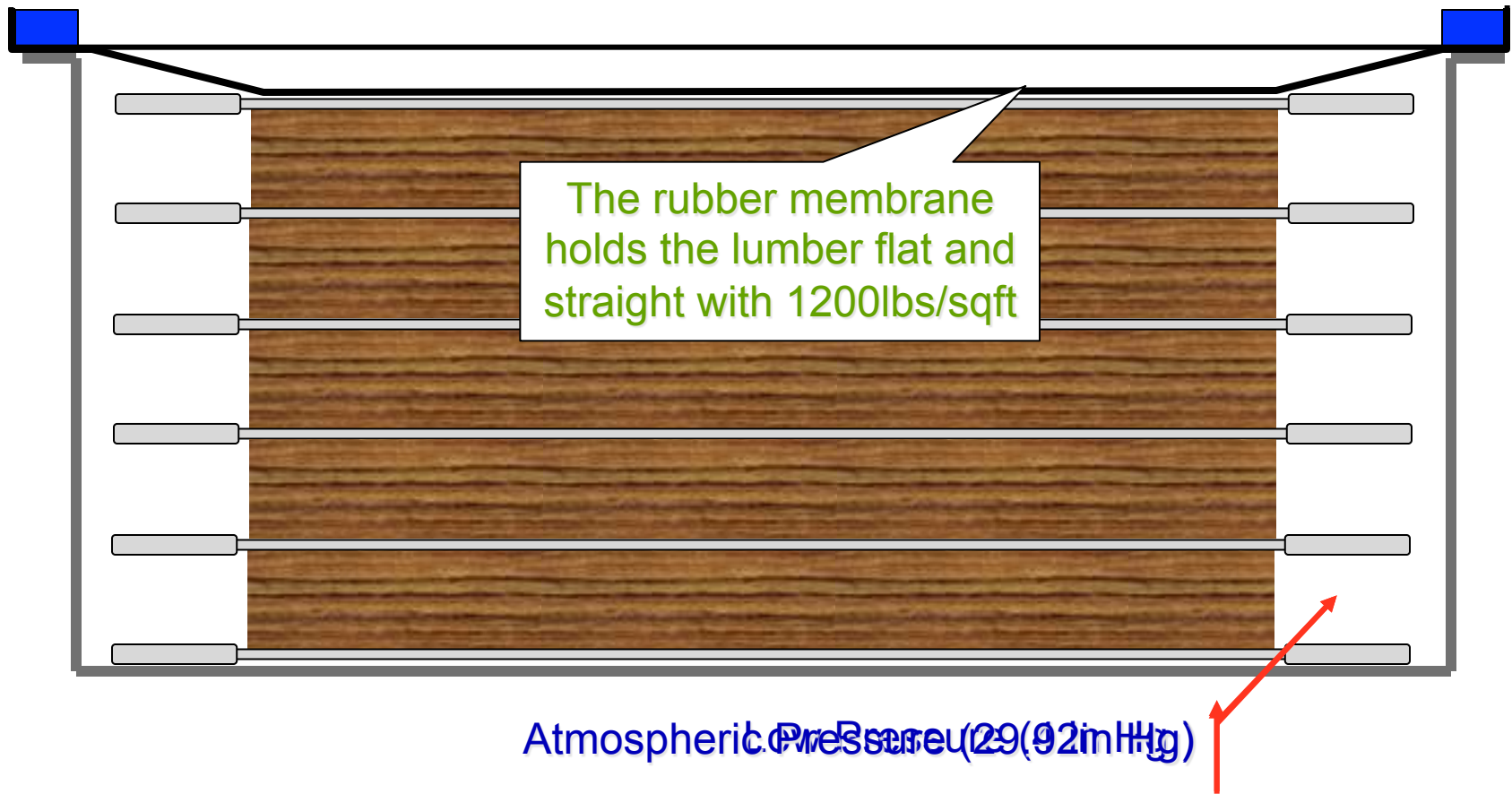
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The “Press” in VacuPress

Atmospheric Pressure (29.92 in Hg.)



Atmospheric Pressure (29.92 in Hg.)

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QUALITY

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RESULTS

Red Oak
#2 COM
43%-6%
24hrs



EFFICIENCY

QUALITY

SPEED



SPEED

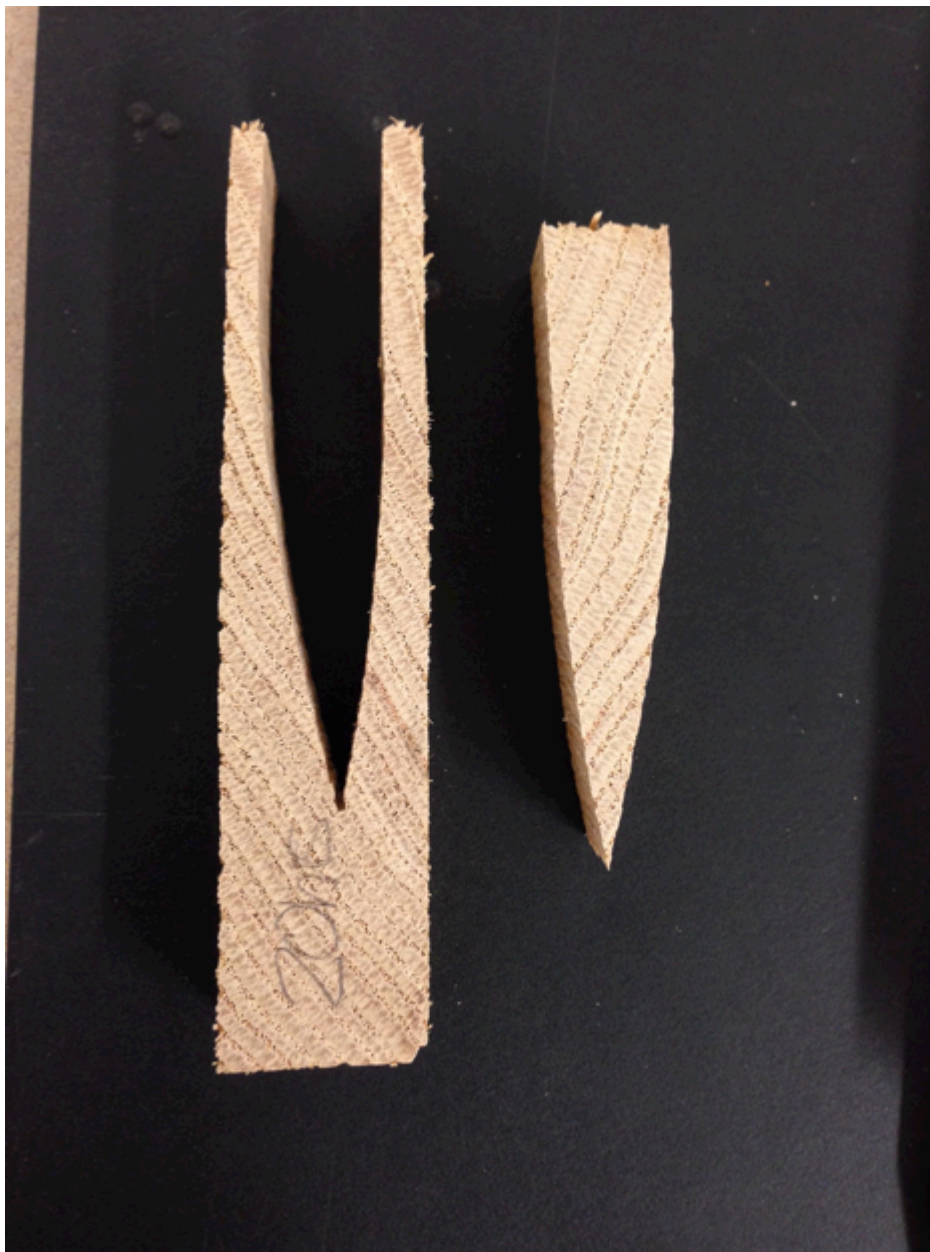
QUALITY

EFFICIENCY









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QUALITY

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The “Press” in VacuPress

- Appox. 1200 lbs per foot of pressure
- Does not affect dimension of wood
- Prevents:
 - Cup
 - Bow
 - Twist
 - Crook
- Can Eliminate cup, bow and twist already in lumber

EFFICIENCY

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VacuPress Equipment Costs

Drying 4/4 Hard Maple

Model	Cost per Bf of production (paid for over 5 years + interest)
VacuPress 500	\$0.09
VacuPress 1000	\$0.05
VacuPress 2500	\$0.04
VacuPress 4000	\$0.03
VacuPress 8000	\$0.02





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- Circulated Hot Air
- Stickered Pack of Lumber
- Track or Side Loaded
- Cold Water EMC Control





AIRVAC4







AIRVAC 4

AirVac 40 (40,000 Board Feet)



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AirVac Drying time (DAYS)			
Species	4/4	8/4	12/4
Maple	4	8	14
Birch	4	8	15
Red Oak	5	10	20
Walnut	5	10	20
White Pine	2	4	6



AirVac Equipment Costs

Drying 8/4 Hard Maple

Model	Cost per Bf of production (paid for over 5 years + interest)
AirVac2.5	\$0.20
AirVac4	\$0.17
AirVac8	\$0.15
AirVac20	\$0.08
AirVac40	\$0.07



Total Energy Cost

Wood Heat = \$0.03/BF

Propane Heat = \$0.08/BF

TOUCHDRY®

KILN CONTROL

Integrated Moisture Meter :: Remote Control :: Automatic or Manual Mode :: EMS



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QUESTIONS??

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