

# **WOOD SEASONING**

#### ABOUT OUR WOOD SEASONING

A large quantity of timber used in India is not properly dried or seasoned & treated resulting into development of defects like warping, cracking, splitting or decay and insect attack in the products.

In Western countries Timber is not allowed to come out from saw mill unless it is seasoned and treated. It is compulsory to season and treat.

A scientific study of wood seasoning process is important, as a large number of commercially important timber species is very problematic to seasoning. Climatic conditions also are very exacting for various wood works such as joinery, furniture, handicraft products etc. During recent years the need of seasoning in timber has become imperative due to the compulsion of use of timber from short rotation plantations. The Wood Seasoning branch undertakes research work related to the drying behavior of wood, study of shrinkage and wood-water relation ship and evaluation of kiln drying schedules. Other priorities include investigation for suitability of Indian timber for industrial uses such as pencil making, wooden accessories used in cotton & jute mills, and shoe lasts as well as investigation of bending behavior of different timber species for making bent wood articles.

Wood, a renewable material. occupies a prime position as a raw material, Its versatile Nature has made it unique in many applications. In most of the uses of wood, longevity of wood is very important.







# **OUR COMPANY PROFILE**

WE ARE EXPERT SINCE 1987. We wish to introduce ourselves as one of the leading manufacturers of Tripti Wood Seasoning since year 1987 under the blissful headship of the honorable CEO Mr. Amit Khanna We have vast experience in this field and have grown to be a leading manufacturer.



#### **QUALITY ASSURANCE**

Owing to the priority to serve flawless quality products, various stringent quality tests are conducted on the manufactured as well as procured in wood seasoning plant. The tests are conducted on various levels starting from the initial stage of procurement to the final stage of dispatch of end products. For fuller assurance, the tests are performed under the supervision of our quality control executives.



#### **WAREHOUSE**

We have a spacious warehouse facility that is loaded with all the essential facilities that are required for the safe & sound storage of the wood seasoning plant. The internal segmentation of the warehouse as per the category of the products ensures timely delivery as the chaos is eliminated.



#### **INFRASTRUCTURE**

Our state-of-the-art infrastructure unit is backed with technologically advanced tools and machineries that assist in the quality and quantity production of the wood seasoning plant. The robust infrastructural base encompasses a processing unit, designing lab, R & D unit, quality control lab, etc., that help in the manufacturing of the wood seasoning plants to comply with the national as well as international quality norms.

# **OUR PROJECT**

#### WHY SEASONING REQUIRED

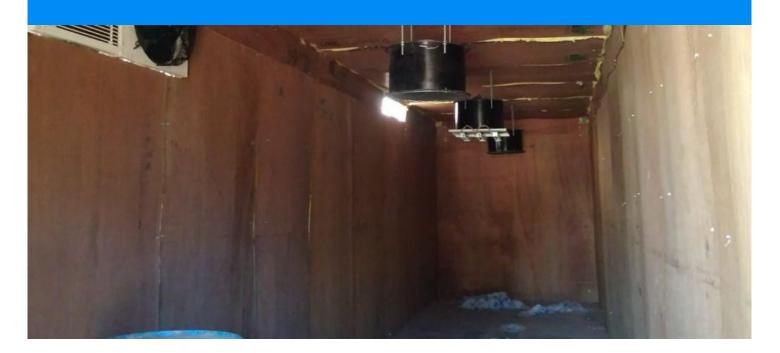
Green Wood in growing trees contains considerable quantities of water/moisture. Most of this moisture has to be removed in order to obtain satisfactory performance from the wood in use. Freshly felled wood contains moisture roughly 100 percent based on the oven dry weight of wood. A well seasoned piece of wood should on other hand contain only 10 to 12 percent moisture. An important object of seasoning is to dry the timber to the equilibrium moisture content before use. so that gross dimensional changes through shrinkage, which inevitably occurs in green wood as it tends to attain equilibrium with the surrounding atmosphere, are eliminated.





# BENEFITS OF SEASONING

India is a tropical country and has more than 80 species of wood. Following are a few varieties of timbers commonly used for producing handcrafted wooden products: Pine (Abies Pindrow), Sheesham (Dalbergia Sissoo), Haldu (Adina Cordifolia), Rubberwood (Hevea Brasiliensis), Kadam (Anthocephalus Chinensis), Kanju (Holoptelea Integrifolia), Gamari (Gmelina Arborea), and Mango (Mangifera Indica). The use of mango and rubber woods is increasing as these are plantation woods. Moisture content in wood also plays a critical role in the quality and finish of the product.



#### TOTAL LOAD FOR TRIPTI WOOD SEASONING PLANT

Chamber Size SQ FT 10'HEIGHT	QTY OF WOOD (Cuft)	WATER REMOVAL (Nos)	WATER REMOVAL UNIT MODEL WRU	REMOV TOTA	ATER YAL UNIT L LOAD	Fans (Nos)	Fc Total		Heater S(Nos)		G LOAD W	Total Load per phase of complete plant	
				1 Phase	3 Phase		1 Phase	3 Phase		1 Phase	3 Phase	1 Phase	3 Phase
800	2,400	4	200	14	4.66	8	6	2	12	12	4	32	10.66
600	1,800	2	300	12	4	6	4.5	1.5	9	9	3	25.5	8.5
500	1,500	2	250	9	3	5	3.75	1.25	9	9	3	21.75	7.25
400	1,200	2	200	7	2.5	4	3	1	6	6	2	16	5.5
300	900	2	150	6	2	2	1.5	0.5	6	6	2	13.5	4.5
250	750	1	250	4.5	1.5	2	1.5	0.5	6	6	2	12	4
200	600	1	200	3.5	1.16	2	1.5	0.5	3	3	1	8	2.66
150	450	1	150	3	1	1	0.75	0.25	3	3	1	6.75	2.25
100	300	1	100	2.5	0.83	1	0.75	0.25	3	3	1	6.25	2.08

Please add 10% for safety factor

All electrical load in appx just to give an load estimation

### Room Size of 10' x10' x10' for 300cuft wood

Day	Fan N	/lotor		Hea	ter		Water Removal Unit			
Day	Watts 1HP=.75KW x 1 Nos	Working hours	Units	Watts 3x1000	Working hours	Units	Watts 1X2500	Working hours	Units	
1	750	24	18	3,000	24	72	2,500	20	50	
2	750	24	18	3,000	18	54	2,500	16	40	
3	750	24	18	3,000	14	42	2,500	12	30	
4	750	24	18	3,000	12	36	2,500	08	20	
5	750	24	18	3,000	08	24	2,500	06	15	
6	750	24	18	3,000	06	18	2,500	04	10	
7	750	24	18	3,000	04	12	2,500	03	7.5	
8	750	24	18	3,000	03	09	2,500	02	5	
9	750	24	18	3,000	02	06	2,500	01	2.5	
10	750	24	18	3,000	01	03	2,500	0.5	1.25	
			180			276			181.25	

### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = **637.25** 

Cost per unit in Rs. = 10

TOTAL LOAD 6.25kw

Total Cost of Electricity for 10 days = **6372.5** 

#### Room Size of 15' x10' x10' for 450cuft wood

Day	Fan N	Motor		Неа	ter		Water Removal Unit			
Day	Watts 1HP=.75KW x 1 Nos	Working hours	Units	Watts 3x1000	Working hours	Units	Watts 1X3000	Working hours	Units	
1	750	24	18	3,000	24	72	3,000	20	60	
2	750	24	18	3,000	18	54	3,000	16	48	
3	750	24	18	3,000	14	42	3,000	12	36	
4	750	24	18	3,000	12	36	3,000	08	24	
5	750	24	18	3,000	08	24	3,000	06	18	
6	750	24	18	3,000	06	18	3,000	04	12	
7	750	24	18	3,000	04	12	3,000	03	09	
8	750	24	18	3,000	03	09	3,000	02	06	
9	750	24	18	3,000	02	06	3,000	01	03	
10	750	24	18	3,000	01	03	3,000	0.5	1.5	
			180			276			217.5	

### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = 673.5

Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = 6,735

Total Load 6.75kw

#### Room Size of 15' x13.3' x10' for 600cuft wood

Day	Fan N	Motor		Hea	Heater			Water Removal Unit			
Duy	Watts 1HP=.75KW x 2 Nos	Working hours	Units	Watts 3x1000	Working hours	Units	Watts 1X3500	Working hours	Units		
1	1,500	24	36	3,000	24	72	3500	20	70		
2	1,500	24	36	3,000	18	54	3500	16	56		
3	1,500	24	36	3,000	14	42	3500	12	42		
4	1,500	24	36	3,000	12	36	3500	08	28		
5	1,500	24	36	3,000	08	24	3500	06	21		
6	1,500	24	36	3,000	06	18	3500	04	14		
7	1,500	24	36	3,000	04	12	3500	03	10.5		
8	1,500	24	36	3,000	03	09	3500	02	07		
9	1,500	24	36	3,000	02	06	3500	01	3.5		
10	1,500	24	36	3,000	01	03	3500	0.5	1.75		
			360			276			253.75		

#### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = **889.75** 

Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = 8,897.5

Total Load 8kw

#### Room Size of 20' x12.5' x10' for 750cuft wood

Day	Fan N	<b>Motor</b>		Неа	ter		Water Removal Unit			
Buy	Watts 1HP=.75KW x 2 Nos	Working hours	Units	Watts 6x1000	Working hours	Units	Watts 1X4500	Working hours	Units	
1	1,500	24	36	6,000	20	120	4,500	20	90	
2	1,500	24	36	6,000	18	108	4,500	16	72	
3	1,500	24	36	6,000	14	84	4,500	12	54	
4	1,500	24	36	6,000	12	72	4,500	08	36	
5	1,500	24	36	6,000	08	48	4,500	06	27	
6	1,500	24	36	6,000	06	36	4,500	04	18	
7	1,500	24	36	6,000	04	24	4,500	03	13.5	
8	1,500	24	36	6,000	03	18	4,500	02	09	
9	1,500	24	36	6,000	02	12	4,500	01	4.5	
10	1,500	24	36	6,000	01	06	4,500	0.5	2.25	
			360			528			326.25	

#### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = 1,214.25

Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = 12,142.5

TOTAL LOAD 12kw

#### Room Size of 20' x15' x10' for 900cuft wood

Day	Fan I	Motor		Hea	Heater			Water Removal Unit			
Day	Watts 1HP=.75KW x 2 Nos	Working hours	Units	Watts 6x1000	Working hours	Units	Watts 2X3000	Working hours	Units		
1	1,500	24	36	6,000	15	90	6,000	20	120		
2	1,500	24	36	6,000	13	78	6,000	16	96		
3	1,500	24	36	6,000	11	66	6,000	12	72		
4	1,500	24	36	6,000	09	56	6,000	08	48		
5	1,500	24	36	6,000	07	42	6,000	06	36		
6	1,500	24	36	6,000	06	36	6,000	04	24		
7	1,500	24	36	6,000	05	30	6,000	03	18		
8	1,500	24	36	6,000	04	24	6,000	02	12		
9	1,500	24	36	6,000	03	18	6,000	02	12		
10	1,500	24	36	6,000	02	12	6,000	02	12		
			360			450			450		

### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = 1,260

Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = 12,600

Total Load 13.5kw

#### Room Size of 20' x20' x10' for 1200cuft wood

Day	Fan N	/lotor		Неа	ter		Water Removal Unit			
Day	Watts 1HP=.75KW x4 Nos	Working hours	Units	Watts 6x1000	Working hours	Units	Watts 2X3500	Working hours	Units	
1	3,000	24	72	6,000	24	144	7,000	20	140	
2	3,000	24	72	6,000	18	108	7,000	16	112	
3	3,000	24	72	6,000	14	84	7,000	12	84	
4	3,000	24	72	6,000	12	72	7,000	08	56	
5	3,000	24	72	6,000	08	48	7,000	06	42	
6	3,000	24	72	6,000	06	36	7,000	04	28	
7	3,000	24	72	6,000	04	24	7,000	03	21	
8	3,000	24	72	6,000	03	18	7,000	02	14	
9	3,000	24	72	6,000	02	12	7,000	01	07	
10	3,000	24	72	6,000	01	06	7,000	0.5	3.5	
			720			552			507.5	

#### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = 1,779.5

Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = 17,795

TOTAL LOAD 16kw

### Room Size of 50' x10' x10' for 1500cuft wood

Day	Fan I	Motor		Hea	Heater			Water Removal Unit			
Day	Watts 1HP=.75KW x 5 Nos	Working hours	Units	Watts 9x1000	Working hours	Units	Watts 2X4500	Working hours	Units		
1	3,750	24	90	9,000	24	216	9,000	20	180		
2	3,750	24	90	9,000	18	162	9,000	16	144		
3	3,750	24	90	9,000	14	126	9,000	12	108		
4	3,750	24	90	9,000	12	108	9,000	08	72		
5	3,750	24	90	9,000	08	72	9,000	06	54		
6	3,750	24	90	9,000	06	54	9,000	04	36		
7	3,750	24	90	9,000	04	36	9,000	03	27		
8	3,750	24	90	9,000	03	27	9,000	02	18		
9	3,750	24	90	9,000	02	18	9,000	01	09		
10	3,750	24	90	9,000	01	09	9,000	0.5	4.5		
			900			828			652.5		

## Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = **2,380.5** 

Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = 23,805

TOTAL LOAD 21.75kw

#### Room Size of 40' x15' x10' for 1800cuft wood

Day	Fan N	<b>Motor</b>		Неа	ter		Water Removal Unit			
Day	Watts 1HP=.75KW x 6 Nos	Working hours	Units	Watts 9x1000	Working hours	Units	Watts 4x3000	Working hours	Units	
1	4,500	24	108	9,000	24	216	12,000	24	216	
2	4,500	24	108	9,000	18	162	12,000	18	162	
3	4,500	24	108	9,000	14	126	12,000	14	126	
4	4,500	24	108	9,000	12	108	12,000	12	108	
5	4,500	24	108	9,000	08	72	12,000	08	72	
6	4,500	24	108	9,000	06	54	12,000	06	54	
7	4,500	24	108	9,000	04	36	12,000	04	36	
8	4,500	24	108	9,000	03	27	12,000	03	27	
9	4,500	24	108	9,000	02	18	12,000	02	18	
10	4,500	24	108	9,000	01	09	12,000	01	09	
			1,080			828			870	

#### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = **2,778** 

Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = **27,780** 

TOTAL LOAD 25.5kw

#### Room Size of 40' x20' x10' for 2400cuft wood

Day	Fan N	Motor		Неа	ter		Water Removal Unit			
bay	Watts 1HP=.75KW x 8 Nos	Working hours	Units	Watts 12 X 1000	Working hours	Units	Watts 4 X 3500	Working hours	Units	
1	6,000	24	144	12,000	24	288	14,000	20	280	
2	6,000	24	144	12,000	18	216	14,000	16	224	
3	6,000	24	144	12,000	14	168	14,000	12	168	
4	6,000	24	144	12,000	12	144	14,000	08	112	
5	6,000	24	144	12,000	08	96	14,000	06	84	
6	6,000	24	144	12,000	06	72	14,000	04	56	
7	6,000	24	144	12,000	04	48	14,000	03	42	
8	6,000	24	144	12,000	03	36	14,000	02	28	
9	6,000	24	144	12,000	02	24	14,000	01	14	
10	6,000	24	144	12,000	01	12	14,000	0.5	07	
			1,440			1,104			1,015	

### Estimated Energy Consumption for 10 days working

Total units consumed for 10 days = **3559** 

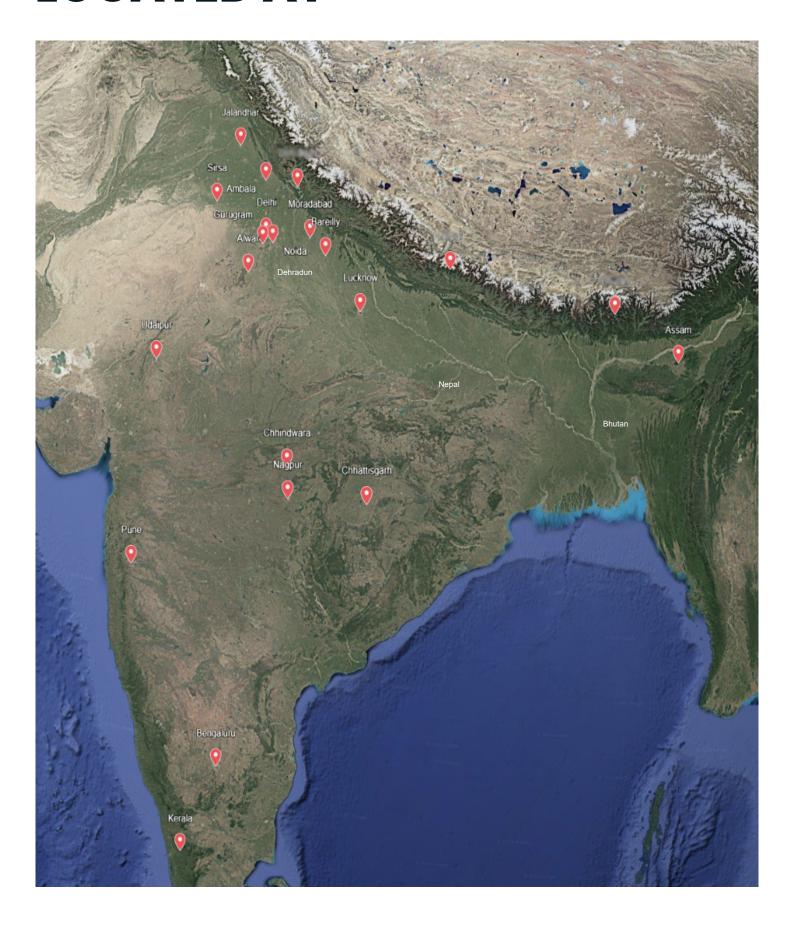
Cost per unit in Rs. = 10

Total Cost of Electricity for 10 days = **35,590** 

TOTAL LOAD 32kw

# **OUR PLANTS ARE**

# **LOCATED AT**



# **TRIPTI**

ISO 9001: 2015 CERTIFIED

**Perfect Airconditioning Trading Company** 

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