



Turb-O-Web™ Frequently Asked Questions

What exactly is the “Turb-O-Web”™ System?

The Turb-O-Web System can best be described as the **Ultimate Batch Cutting System**.

It is a system of standardized webs with standard end cuts, and, in most cases standard ends and standard lengths reducing web cutting labor, truss assembly time and web lumber

What type of cost savings and increased profits can I expect when using the Turb-O-Web System?

Typical web lumber savings of up to 15% and assembly productivity increases of up to 40% are being reported by users of the system.

A study recently completed indicates a \$109,960 yearly NET cost saving and profit increase in a \$5 million plant.

Can Turb-O-Webs be used in the same joint in a truss as an angle cut web?

Absolutely.

What is a MiTek Elipsaw?

The MiTek Elipsaw is a 10 bladed purpose built component saw for cutting Turb-O-Webs.

What proportion of Turb-O-Webs are able to be used with the system?

Using the MiTek Elipsaw to cut the Turb-O-Webs, almost 100% of all webs can be Turb-O-Webs with between $\frac{2}{3}$ and $\frac{3}{4}$ of these being standard length Turb-O-Webs.

How can I achieve almost 100% Turb-O-Web usage?

Using the MiTek Elipsaw, the standard length webs are pre-cut in batches in incremental lengths with 6” steps and held for future use.

When designing using MiTek’s 20/20 software, with the Turb-O-Web features turned “ON”, all webs are designed as Turb-O-Webs and those that can be are automatically modified to the standard length by the software.

The only webs remaining to be cut for any particular job, then, are the non-standard length Turb-O-Webs.

How long has the system been used in the United States?

Turb-O-Web trusses have been used in the United States since 1999.



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How do I cut these special length Turb-O-webs?

Easily and efficiently on the MiTek Elipsaw.

Consider how fast a job can be cut now:-

- 1) There are no angulation changes to be made to the saw. The 10 blades remain fixed in position permanently.
- 2) Length adjustment is motorized, quick and easy, and
- 3) In the majority of cases, we only need to cut $\frac{1}{4}$ to $\frac{1}{3}$ of the webs on a job basis anyway.

How can I save up to 15% of web lumber simply by using Turb-O-Webs?

Firstly, savings in lumber costs are achieved through managing cutting in full bunks, and secondly through more efficient optimization. A 7' bunk, for example, can be cut into, say 2'5" and 4'5" Turb-O-Webs.

These webs will be costed a 3' and 5' respectively, whether we are using Turb-O-Webs or angle cut webs.

We have effectively added 1' of lumber to the bunk.

We bought and paid for 7' of lumber: we sold and got paid for 8' of lumber.

Secondly, every standard length Turb-O-Web is an optimized web, and having been optimized to 6" increments increases the value of optimization significantly.

Further details of these savings are specified in the accompanying "Report on Lumber Optimization Using the Turb-O-Web System" prepared by Project X solutions.

I do cut-up jobs- Will the Turb-O-Web System still work for me?

Yes- with perhaps with even better results.

Cut up jobs usually have a higher number of webs than simpler roofs, thereby increasing the opportunities for savings.

The percentage of standard length Turb-O-Webs to special length Turb-O-Webs may be lower in a cut up roof, but the benefits may be greater.

For example, replacing, say only 65% of all webs with standard length Turb-O-Webs in a cut-up job (and cutting the remaining 35% as special Turb-O-Webs) may be of more net benefit to a plant than simply converting 100% all webs to Turb-O-Webs in a very basic, simple job.



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Why would I cut special length Turb-O-Webs rather than cutting angle cut webs ?

Basically, with only a few exceptions all webs can be Turb-O-Webs, and geometry determines which ones of these can have a standard length.

With the MiTek Elipsaw, cutting the standard length Turb-O-Webs in batches in advance ties up the machine for a very short amount of time. Typically a \$ 5 million plant will require less than 1 shift per week to cut all the standard length Turb-O-Webs needed for a week.

This leaves a very powerful web cutting machine requiring no angulation set-ups at all available for web cutting for the rest of the week. The Elipsaw requires only length adjustment which is motorized and its simple operation requires very little operator training.

This process in turn frees up the other equipment in the plant to be available for chord cutting which also aids total productivity.

The most efficient process is therefore to only angle cut those webs that absolutely need to be angle cut, and the chords.

OK, I want to cut standard length and special length Turb-O-Webs on my Elipsaw- can I cut 100% of my webs this way?

Almost !

There are a few that the plant may prefer to angle cut, and a few webs that still could not be Turb-O-Webs, but this percentage is very, very low.

For example, a highly loaded cantilever web may be required to be angle cut, dependant upon the particular case. A plant may decide, for example, to only cut 2x4 webs as Turb-O's to maximize throughput. Any 2x6 web would therefore be angle cut.

Some plants may prefer to angle cut particular vertical webs (at the haunch in a hip truss, for example) where they feel that it will help with setting the truss on the table. They may still use Turb-O-Webs for the remainder of the verticals.

The design capability of MiTek 20/20 design software can produce "Turb-O-Friendly" designs. As a guide, around 95% of all webs could be expected to be Turb-O-Webs.



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Can I purchase pre-cut webs in North America?

Relying on a vendor is not recommended if it is the sole source of Turb-O-Webs for the plant.

If available, they would be available only in standard lengths, effectively limiting the potential of the system to the user. The supplier would be unlikely to provide a cut-to-length service in the time frame required.

Consistency of supply and quality have been the main problems to date, and, predictably these problems occur in the busiest time of the year. Not recommended.

Perhaps the only circumstances where this could be successful would be where:-

- 1) a suitable relationship with the supplier already exists such that the plant is confident of the supply outcome, or
- 2) The plant has an adequate in-house Turb-O-Web cutting capacity which can be put into action to supplement the outside vendor.

Can I use only standard length Turb-O-Webs and angle cut the rest ?

Yes, you can, but with a MiTek Elipsaw the most efficient method is

to cut the standard length Turb-O-Webs in batches in advance and then the special length Turb-O's may then be batched or cut in job lots as required.

Why will my assembly time reduce?

Yes, and for several reasons. These webs have no right or wrong end, no up or down or left or right- they cannot be put in the wrong way!!

With the labor challenges of today this is a real plus!! Training of new hires is a simple job, and experienced hands will find the going easier as well.

Re-cuts are a thing of the past as any web with a defect is simply replaced by another out of stock without needing to disrupt the sawyer, or lose time at the jig.

Various support tasks are simplified as well. Marking of webs, for example, is unnecessary in the case of standard length Turb-O-Webs.

Materials handling, is similarly simplified. Turb-O-Webs can be handled in bulk, e.g. all 3'11" webs can be kept together until they are used at the table.



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Why is it easier to build better quality trusses using Turb-O-Webs than with angle cut webs?

We all know that a Turb-O-Web joint has a “void” in the joint which is taken into account in order to produce a joint sufficient for the loads of the truss being designed.

Once we have done that, however, building a better truss using Turb-O-Webs is easier and more efficient than with angle webs.

Considering that a good quality truss will maintain an accurate profile, and have tight joints in accordance with the truss design the Turb-O-Web truss can obviously achieve this dual goal more easily than trusses with angle cut webs which tend to “open” with variations in lumber straightness/ dimension.

Sometimes the truss profile is compromised in order to bring these joints back into “tolerance”.

In assembly of Turb-O-Web trusses, the chords are forced outwards against the stops as the Turb-O-Webs are pushed tightly into position, ensuring at the one time that the joints are tight, and that the profile is accurate.

What do I do to be licensed to use Turb-O-Webs?

The Turb-O-Web System is protected in the United States of America by US Patents #6,170,060; #6,249,972; #6,415,511; #6,688,067 and #6,842,981 with further applications pending. These patents are held by Turb-O-Web International Pty Limited, and the use of the system requires a license from Turb-O-Web USA, Inc.

Simply phone 1 888 turboweb (1 888 887 2693) to arrange this.

What does a license cost?

Usually license fees are \$650 per month, but a lower rate of \$480 per month is available to plants with sales less than \$4 million per year.

Can I do a no-cost trial of this system?

Yes, we have 60 day trial licenses available at no cost.

We'll help you get set up and even show you a highly innovated method of cutting enough standard length Turb-O-Webs on your *existing component saw* for use in the trial.

Simply phone 1 888 turboweb (1 888 887 2693) to arrange this



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Do these Turb-O-Web racks actually save materials handling costs compared to angle webs?

The answer is yes, they do.

In effect, the materials handling labor to provide stocked racks of Turb-O-Webs at the assembly area is at least “fully funded” by the materials handling costs avoided by not having to handle an equivalent amount of angle webs through the plant.

It is true that when Storage racks are used with the Turb-O-Web system we introduce a step not included in the angle cut system and this will probably not suggest a reduction in materials handling costs.

However, we also eliminate all the sorting issues involved with the replaced angle webs that would have been required to get these webs in from the yard, through the saw efficiently and then to the assembly area in the right sequence.

In effect, angle webs are treated as unique pieces or groups from the time the board is pulled for the saw from the bunk and must be handled as a unique piece as it progresses through the plant, saw and finally into the assembly area.

Turb-O-Webs, however, are never unique and are never handled uniquely. A bunk of lumber goes through the Elipsaw, is converted to Turb-O-Webs, stays together, is racked by size together and pulled from the rack to go directly into a truss during assembly.

Are the Turb-O-Web Storage Racks really space efficient?

We can store 10,000 bd. ft of standard length Turb-O-Webs in a rack occupying only 154 sq. feet of floor space.

That is 2200 Turb-O-Webs in sizes from 1’5” to 11’11”, ready to go with no further sorting required.

This works out to be over 14 Turb-O-Webs per square foot of floor space! Compare this for floor space use with the angle cut system.