IWG News

The Newsletter of the Island Woodturners Guild June 2023

About the IWG:

The Island Woodturners Guild meets from 1:00 - 4:00 PM on the 4th Saturday of each month (except for July/Aug) at the Central Saanich Senior Citizens' Centre, 1229 Clarke Road, Brentwood Bay, BC.

Visitors are welcome.

Executive Committee

President:
Don Costello

Vice President:
Don Robinson

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Bonnie Hallas

Secretary:
Michael McEwan

Members at Large:
Hovan Baghdassarian
John Kilcoyne
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Past President:
Tim Karpiak

Newsletter Editor:
John Kilcoyne

The IWG gratefully acknowledges the support of the following companies:
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William Wood-Write

THE PRESIDENT'S TURN

Well hello IWG! This is my first *President's Turn*, and as many of you don't know that much about me, I thought I would share a bit of background.

I have been turning on a regular basis for about 7 years. My interest was sparked during a trip to New Zealand to visit friends. It turned out that their uncle was the President of the *North Shore Woodturners Guild* in Auckland, and he invited me to his workshop to do some turning. A couple of pens and a bowl later I was hooked! On my return to Victoria, I realised that I needed to upgrade my tools and find a source for information and advice.

As for the former, I contacted a few friends that I knew did some turning and was convinced that I needed a new lathe. Luckily, Don Robinson was looking for a new home for his older lathe and a deal was struck! My turning career had officially begun. As for the latter, I found the Guild and was fortunate to be able to participate in the 101 Course. I learned a tonne and my turning improved substantially. I remain thankful to the generous instructors who invited us into their shops to share their knowledge.

Shortly thereafter, Tim Soutar convinced me that, yet another new lathe was required, this time for "safety reasons", and I am now a member of the Laguna Revo family. (I have been very impressed at how good members are at convincing each other that new tools are required!)

I am still contributing to your pensions. You are welcome! I do this at the provincial government where I am a director of IT security. I've been at government for nearly 20 years and love what I do. I am married to a wonderful and understanding woman (Lori) who supports my turning habit which allows me to slip into the workshop for a few hours most Saturdays and Sundays.

I am community driven, which is why I volunteered for the President's role when I heard no one else had. I am hoping that there is interest amongst the membership to do some "community turning" such as wig stands for the B.C. Cancer Agency or similar endeavours. I am open to ideas. I am still working on my turning skills and continue to learn a great deal from the Guild's programmes. Thank you and I look forward to seeing you at the Saturday meeting.

Don Costello

NEXT MEETING: JUNE 24th 1:00 p.m.

This meeting will feature an Interactive Remote Demonstration by Emiliano Achival. It can be viewed in person at our meeting place or on-line.

He will offer a brief history of calabash bowls before demonstrating the turning of a *palewa*, a round bottom short calabash.

A resident of Hawaii, Emiliano has been turning for over 20 years. He is an expert in turning Hawaiian calabash bowls and has delivered innumerable presentations, in person and on-line, at a wide range of symposia and clubs. He also contributed a number of articles to the magazine *Woodturning UK*.

You can find out more about his work at: https://www.hawaiiankoaturner.com/

PLANNING FOR NEXT YEAR

This is the last meeting before our summer break. The Executive will be meeting in July to begin planning for next year's activities. While we have already begun to make plans for the September meeting which will feature different tools and techniques for turning hollow forms, the balance of the year is open.

If you are willing to do a demonstration, please contact Don C (don@teamwhoswho.com) or John K (jrk@uvic.ca).

We also anticipate continuing to offer remote demonstrations. If you know of a turner who offers these and think the person would be a good candidate, please let us know.

MAY RECAP

Under the heading of "*a turning for a demonstration never goes as smoothly it does at home*", Graeme Evans provided a unique demonstration of turning and exploding a live edge bowl. Only the highlights of the former are discussed here and they include tips that he provided for a note in 2022.

Live edge (LE) bowls, also referred to as natural edge bowls, are distinguished by their undulating rim with a bark cap. They offer an attractive "flowing" form coupled with a unique visual tension between the smoothness of the body and the rough texture of the bark. While they can be challenging to turn, the result is worth the effort.

1. Green or Dry Blank?

Graeme chose to turn a blank of green "Mountain Pine" – a hitherto unknown species!!!!

He has noted that a dry blank will be stiffer which means less flexing of the rim – an important consideration given the amount of air you will be turning at the rim - and it will be much easier to sand. However, these considerations are typically offset by the risk that the bond between the two bark layers (cork and phloem) and the cambium layer may have started to separate as the blank has dried (right)

Accordingly, he generally prefers to turn a green blank. He emphasized that when turning a green blank you must ensure that you have sufficient time to complete it in a "single go". If left overnight or even for a few hours, differential drying will jeopardize bark retention as well as raising the possibility that the form will move out of round.

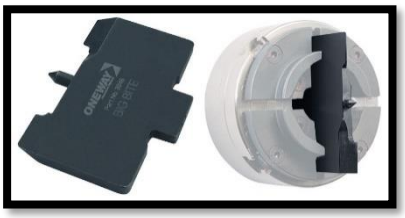
2. Mounting the Blank

The blank is initially mounted with the bark side facing the headstock. As the bark is normally too weak to support a drive centre, Graeme uses a Forstner bit to remove the bark from the centre of the blank so that the drive centre is secured in wood.

While he would normally use a 2-pronged drive, the Guild drive centre is 4-pronged which tends to act like a drill in green bark and sapwood.

***Note**: There are several more "exotic" drives that you could use all of which have "outboard" prongs as well as a centre spur.*

These include the Oneway Big Bite (KMS: $20) which fits all Oneway chucks. However, at just under 4", it requires a large and relatively flat surface.



A better, though more expensive alternative is the Elio drive. Available in 3 sizes (2", 2.5", 3.5"), all three spurs are adjustable with the outboard spurs having a 5/8" reach. However, they are only available from The Woodturning Store in the U.S. (US$60 – 70).

3. Alignment of the Blank

This a **crucial** step in turning a live-edge bowl. The two high spots and two low spots must be in alignment.

The first step is to mount the blank on the lathe and bring up the tail centre to that it **lightly** supports the wood. Too much force will create a divot which may make readjustment difficult.

Beginning with the low points, a pencil is held on the tool rest showing this point on one side and the blank is then rotated to compare the result on the other side. (While not necessary, a piece of masking tape on the rest may assist.) The tail centre is then relocated until the two low points are in alignment.

The same process is then carried out to align the two high points.

A very good video on how to align a live-edge blank can be found at:
https://www.google.com/search?client=firefox-b-d&q=woodturning+live+edge+bowl+alignment+of+high+and+low+rims#fpstate=ive&vld=cid:31de2834,vid:ZG6OZqz9YMs

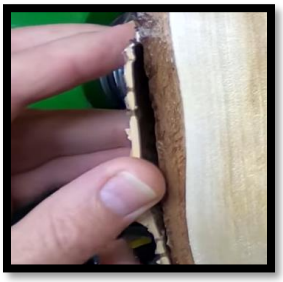
4. Bark Retention: CA Glue?

Graeme does not apply CA glue to the bark to enhance its retention. If it migrates into the sapwood, it will discolour the wood and prevent penetration of an oil finish. He finds that using green wood makes this risk unnecessary.

However, when using a dry blank, some turners do use this technique. They will apply shellac or wax to the surrounding sapwood to protect it from the glue. In addition, once a tenon is cut, you can rely on gravity by removing the turning from the lathe and placing it bark side down before applying light coats of thin CA glue.

5. Turning the Outside

The normal practice is to turn the outside of a bowl moving from the base to the rim. As the wood fibres will be supported, this will produce a smoother cut and less tear out.



However, Graeme noted that doing so raises the possibility that you may “lift” the bark off the rim.

Accordingly, at the rim you should always cut into the bark from the headstock end taking very light passes.

6. Hollowing: “Hard Entry”

Once the blank is mounted in a chuck, you can hollow the form. The first cut at the rim will be a hard entry as there is no bevel support. This will be particularly challenging since you will initially be turning almost exclusively air.

As reported in the February 2022 Newsletter, for a hard entry in a conventional bowl, Gord Kifiak recommended that the gouge should be completely closed (flute facing 3 o’clock), the wood engaged using only the tip and once a slight “ledge” is created, advancing the tool while rotating it to open the flute.

In the case of LE bowl, a slight modification is required. The tool should not be rotated until you are no longer turning air. It is only at this point that you will have a stable ledge for a bevel supported cut.

7. Hollow in Increments

Graeme recommends that you cut and sand the wings to completion in small increments (e.g., 1”). This will minimize flexing of the wings which would make it impossible to get a clean cut.

He added that once you have completed a section, you should not return to it. The flexing poses too much of a risk.

8. Sanding

If your blank is green, you may want to adopt Tim Soutar’s practice of using a hair dryer to dry portions of the bowl before sanding. As the residual moisture will tend to gum up the sandpaper, you might want to have a crepe block handy to clean it off. (LV: $15).

In any case, you need to take care when sanding near the bark edge as there is the danger that the bark dust will embed itself in the wood and permanently discolour it. To avoid this, you should consider sanding the bark edges by hand with the lathe off.

9. Finishing

If you plan on finishing your bowl with an oil finish, you should be aware that the oil will tend to dry on the surface of the bark rim producing a sheen that is much brighter than that on the rest of the bowl. While this is a personal decision, some turners find that differential sheens distract from the overall look of the turning. Others, prefer to apply oil but then use compressed air to remove any excess oil and thereby minimize a shiny effect.

DUST PROTECTION

This is the first of a two-part note on various forms of dust protection. This part offers an overview of the health risks posed by wood dust and considers a range of respirators that you can use to protect yourself from airborne dust. Part 2, which will appear in the next edition of the newsletter, will consider various tools that can be used to prevent dust becoming airborne by collecting it at source.

(This is an updated version of a note which appeared in the October 2016 Newsletter.)

*One of the primary sources of information for this note is Bill Pentz's website at https://billpentz.com/woodworking/cyclone/index.php. Bill created the site in the late 1990's after experiencing a very serious allergic reaction to toxic wood dust. Since then, he has assembled a **vast** amount of information on the best practices for dust protection. While some claim that his recommendations are excessive, there is no disputing that the information which he has assembled is invaluable in understanding the dynamics of dust protection.*

HEALTH RISKS

While the following section offers an overview of the health risks posed by wood dust, it is not intended to be yet another scare article on this topic. While I am hardly an expert, it appears that the likelihood of a hobbyist woodturner developing sinonasal cancer or experiencing serious nerve or heart problems solely as a result of inhaling wood dust from turning is very remote. However, it is indisputable that wood dust does pose health risks which, at a minimum, may lead to discomfort, and, in combination with other health conditions, may lead to respiratory problems. As is the case with other aspects of woodturning, knowledge of potential dangers is essential to making an informed decision on how much risk you are willing to assume and what steps you are prepared to take in order to protect yourself.

Wood dust poses two forms of health risks: chemical and particulate.

1. CHEMICAL RISKS

These risks arise from chemicals in the wood itself as well as biological organisms such as mould or fungi which grow on the wood. Depending upon the species of wood and the concentration and duration of exposure, the potential risks include skin irritation and inflammation, respiratory problems, sensitization (worsening allergic reactions), asthma and emphysema.

While all trees produce chemicals to provide protection from infections and/or insect infestation, allergic reactions will vary between individuals. However, some species pose a particular risk. The chart at right shows some of the more common species and their potential impacts.

Watch List

Species	Symptoms/Risks			
Beech	D			
Birch	D			
Blackwood, African	D			
Brazilian "cherry", jatoba		A	M	
Bubinga	D			
Cedar, western red	D	A	M	
Cedar, Spanish	D			
Cocobolo	D			
Ebony	D		M	
Ipe, Brazilian "walnut"	D	A		G
Iroko, African "teak"	D	A	M	
Mahogany, African	D		M	
Mahogany, American	D			
Makore, African "cherry"	D		M	
Mansonia, African "walnut"	D	A	M	G
Olivewood	D	A	M	
Padauk	D	A		
Pine, many species	D	A		
Purpleheart	D	A		
Rosewoods	D			
Rosewood substitutes	D			
Sapele	D			
Satinwood (Ceylon)	D			
Satinwood (West Indian & African)	D			
Teak (true teak)	D			
Walnut	D	A		
Wenge	D	A		
Zebrawood		A		

Key: D = Dermatitis A = Asthma & Respiratory
M = Mucosal Irritation, Eyes & Nose G = General Symptoms

Pacific (Western) Yew

As it is available locally, this wood warrants special mention. (*The following comments apply equally to all 10 sub-species of yew.*)

For well over 2,000 years, yew has been used to create a compound used for suicide as well as a chemical weapon for hunting and warfare. The toxic component, taxine, is found in virtually every part of the tree which obviously means it is present in the dust.

There are many reports of farm animals and pets dying as a result of chewing on the branches. In humans, exposure to yew dust can cause headaches, aching joints and skin irritation, asthmatic attack and, in rare cases, adverse cardiac events.

Yew should not be used for toys or food items, and you should take special precautions to avoid inhaling the dust when turning this wood.

Spalted Wood?

". all it takes is ten minutes on the Internet to develop fungus paranoia. Unfortunately, it takes far less time to find fiction, conjecture and hearsay that to fact check and find, well, the facts." (Prof. Sari Robinson)

Conventional spalting is caused by white-rot fungi which is not pathogenic (harmful to humans). However, similar to some wood species (e.g., western red cedar), animals (especially cats) and work (all forms), it may prompt an allergic reaction in some people. If so, you should use a quality mask and a dust collection system.

There **may** be some pathogenic moulds **on** wood. As Professor Robinson notes:

They can grow on the surface of wood just they can grow on hay, on walls and in food. Spores are airborne: you're going to inhale them sooner of later, regardless of how careful you are.

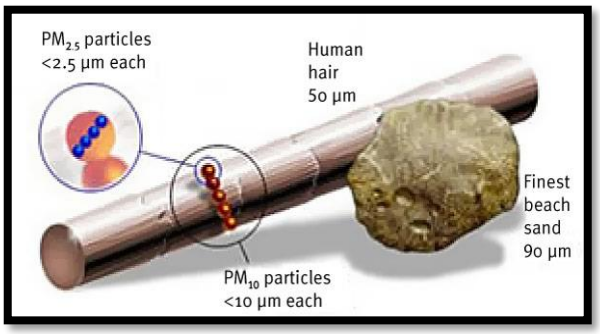
For those with weakened immune systems or lung illnesses, you can kill these molds by first spraying the surface with a mix of 10% household bleach and 90% water, followed by a spray of isopropyl alcohol (91% or 99%).

Other Species?

If you are turning a "rare" or "exotic" wood that you are not familiar with, you may wish to consult the extensive list of wood allergies and toxicity on the Wood Database site at: https://www.wood-database.com/wood-articles/wood-allergies-and-toxicity/

2. PARTICULATE RISKS

The second and more serious risk arises from dust particles. While all aspects of turning will generate wood dust, it is the smaller particles produced by sanding which pose the greatest risk of harm to the respiratory system (nasal cavities, sinuses and lungs).



The greatest risk is posed by particulates which are PM-10 (under 10 microns) and especially PM-2.5 (under 2.5 microns). (For reference, the period at the end of this sentence is approximately 300 microns.)

Their small size means that the body's natural defence mechanisms (nasal hair, mucus, and lung filaments) are not able to capture all of these particles which means that they will enter deep into the lungs. In addition to plugging the lungs, their sharp edges produce small "wounds" inside the lungs and the resulting scars cause a measurable and irreversible loss of respiratory capacity.

The danger is compounded by two factors. First, they are invisible. If you see dust in the sunlight in your shop, you are looking at particles that are 30 – 40 microns which is the limit of the human eye. Smaller particles, which pose the greatest danger, cannot be seen which means you will not even be aware of exposure.

Secondly, these small dust particles can remain suspended in the air for some time. **Assuming no air movement in a shop,** particles under 10 microns can take up to 3 minutes to settle, 8 minutes for those under 5 microns and up to 4 hours for 1 micron or smaller particles. If you do not have an effective dust collection system and cannot sand outside, do not immediately remove your mask when you have completed sanding. Better yet, if possible, leave the sanding to the last task of the day before exiting your shop.

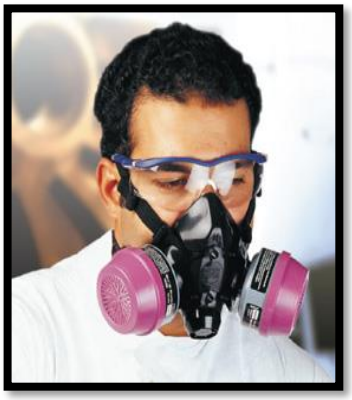
3. PROTECTIVE DEVICES

It is widely recognized that the best way to protect yourself from airborne dust particles is to capture them at the source. Various methods of doing so are discussed in Part 2 of this note. However, none of these will remove all sanding dust and you need to also use an effective respirator.

DISPOSABLE DUST MASKS: NOT!

While NIOSH approved disposable masks are rated to collect 95% (N95) or 99% (N99) of particles down to 0.3 micron, this performance requires an airtight seal on the face which is practically impossible, with a mask made of non-woven polypropylene fiber with lightweight rubber straps. A package of 5 disposable dust masks (N95) costs approximately $36. For $10 - $15 dollars more, you can buy a half face respirator which will provide far greater protection and, with basic care, last your turning lifetime.

A. HALF-FACE RESPIRATOR



Most half-face respirators are made of flexible silicone or rubber compounds, which provides a superior seal and thus increased protection. Most manufacturers offer at least 2 sizes which also means a better seal and a more comfortable fit. And all major brands offer a range of replaceable dust filters including those which are rated N100/P100 which means that when properly fitted, they will capture 99.97% of all dust particles down to 0.3 micron. (The P designation simply means that in addition to wood dust, they will also collect oil particles.)

There are two types of half-face respirators. One is designed to collect only dust (particulate) while the other will collect dust and, with various secondary cartridge filters, also provide protection from a range of harmful vapours and compounds such as those found in lacquer.

In selecting a respirator, the first and most important factor is fit which means a tight seal. In order to test the fit, you should block the exhalation vent and inhale. The face piece should "suck" into your face, and you should not feel any air leaks. If you do, readjust straps and re-check.

Note: For health reasons, respirators cannot be returned after purchase. Accordingly, before wasting your money on an ill-fitting unit, you may want to ask Guild members who have your preferred product if you can try out their respirator.

Other important factors include selecting a respirator with a low profile which will fit under a face shield, if you wear glasses the location of the air exhale valve to minimize fogging, and head straps (e.g., robust, multiples, easily adjusted).

While there are many good respirators, the following are a few that are popular with members.

Ellipse Low Profile Dust Respirator. It is made of a flexible polymer for a good fit, uses HEPA filters (NIOSH N/P100), and is available in two sizes: regular and large. It costs $46.50 and replacement filters (P100) cost $21.50. (LV).

(The unit is for particulates only)

North 7700 Half Mask. It is made of silicone and is available in 3 sizes: S, M or L. It costs $45 (KMS) and two low profile pancake replacement filters (P100) cost $11.00. It will also accept cartridges for organic vapours.

3M 6000 or **3M 7500 series**. ($22/$50/KMS). While both come in 3 sizes and are rated highly by reviewers, the 7500 series has an improved valve system making it easier to breathe and an all-silicone body which, for some, makes it more comfortable. Both series accept cartridges for organic vapours.

***Note**: Unlike the other respirators which come with particulate filters, these must be purchased separately ($11/2 KMS).*

Maintenance Tips

1. Remove and vacuum the filters and wash the respirator regularly.
2. Storing your respirator in a Ziploc bag will greatly increase the life of particulate filters.

B. FULL-FACE RESPIRATOR

There are very few references to turners using a full-face respirator which I assume is related to the following points. They are significantly heavier than half-face respirators (14 ounces vs 4.5-6.5), are more costly ($200 – $450) and you cannot wear eye glasses under most of the leading brands. Many users also report that they become uncomfortably warm with prolonged use. Perhaps most importantly, while many have a similar impact rating to face shields, their reduced size means that they provide less head protection than a face shield.

C. POWERED AIR PURIFYING RESPIRATOR (PAPR)

While there are various designs, the most common one encloses your entire face and has a small blower which pulls air through a filter and then blows the filtered air across the face area. While they are expensive, they represent the best option for those with beards, respiratory problems, or eye sensitivity to dust.

While there are many manufacturers, the following are a few of the more common ones.

1. TREND AIRSHIELD PRO

As the photo (right) shows, this unit consists of a face shield and an elasticized band hood which covers the face area. The battery, fan and filters are all located in the helmet. At a cost of $550 (KMS), it is one of the least expensive units available.

Air is drawn from the back of the unit and passes through two cloth filters (photo left) before blowing down across the face and exiting through perforations in the hood. The filters are rated to capture 98% of particles down to 0.3 micron. Power is provided by a Ni-MH battery and a charge will last for 8 hours. The unit has a low-battery warning buzzer. The face shield is Ansi Z87 approved (Eye and Face Protection).

ISSUES

Full Disclosure: I have used this unit for over 8 years and despite the following criticisms, would purchase it again.

1. Weight

This unit weighs approximately 2.6 lbs, and virtually all users report that the additional weight balanced on top of your head does take some getting used to. Most, including myself, found that this was accomplished within a matter of a few hours. Others, who perhaps do not share my "no-neck physique", report that they never could get used to it.

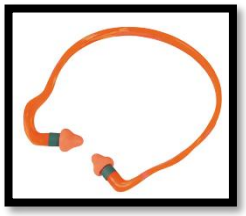
A Novel Idea: Read the Instructions: A number of on-line commentators emphasize the importance of reading the instructions on how to balance the unit for stability.

2. Headband

While the “original” grey headband was prone to breaking, the unit now comes with a black band which is much sturdier.

3. Ear Defenders

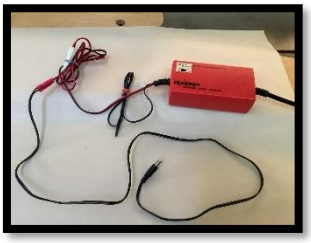
The optional clip-on hearing protectors have received many bad reviews. They are costly ($75/Amazon), difficult to adjust and pop off the helmet with minimal pressure.



Since conventional hearing protectors will not fit over the helmet, if you also run a dust collector when wearing this unit, ear plugs will be necessary.

4. Battery Charger

Historically, the battery charger provided with the Trend was not a “smart charger” meaning it would not shut off when the battery was fully charged nor was there a light indicating a full charge. Accordingly, there were a large number of “fried” batteries and unhappy owners. Apparently, the situation has been corrected and the unit now comes with a “semi-smart” charger that has a green light when fully charged at which point it changes to a “trickle” charge.



Note: If you purchase an older used model, I strongly recommend purchasing a 3-stage smart charger (US$30) and rewiring it to the Trend cable (right). In fact, some reviewers recommend that you do so even for a new unit.

The charger I purchased can be found at:
https://power.tenergy.com/tenergy-smart-universal-charger-for-nimh-battery-pack-2-4v-7-2v/

5. Replacement Battery

The unit uses a NiMH 3.6v, 3600 mah 3 cell battery and a replacement battery costs $120 (KMS).

While I was unable to find a local source, if you happen to be on the lower Mainland, **Polar Battery** in Burnaby will make a replacement pack for a fraction of this cost. https://polarbattery.com/.

Better yet, you can make your own and upgrade to a lithium-ion batteries which are the current standard. You can find instructions at https://johnshortell.com/watch-and-learn/trend-airshield-pro-build-battery/.

Note: Trend has developed a new PAPR called the **AirPro Max**. While it is only available in the U.K. at the present time, it is possible that the price for the **Airshield** may continue to drop.

3M AIRSTREAM (AS-400LBC): USED

While this unit is no longer being produced but you may be able to find a used one. While the filter and fan are located in the helmet, the battery is secured on the waist.

This was a top-of-the-line unit and as of 2016 cost approximately $1,500 which did not include the battery charger!

This unit is NIOSH-approved and uses a double filter system (prefilter and HEPA) which will capture 99.94% of particles down to 0.3 microns. The battery is NiCd and will provide 8 hours of operating time. The visor is Ansi Z87 approved (Eye and Face Protection). The helmet weighs approximately 1.9 lb.

However, similar to the experience with the Trend Airshield Pro, a number of users have assembled their own battery and charger. These can be much lighter than the 3M battery, and if you wish, the battery can be secured to the top of the helmet with Velcro (removing the need for a battery on the waist.)

As for alternative smart chargers, they are only a fraction of the cost of the 3M charger. For more information, check out the video at: https://www.youtube.com/watch?v=T0m9n9Iog7w

SUNDSTRUM SR 500/570

If for health reasons you require a more "advanced" PAPR, this combination is rated very highly – with a price tag to match.

It is belt-mounted unit from Sweden which uses a lithium-ion battery with a charging time of approximately 2 hours and an operating time of up to 13 hours. It has a state-of-the-art charging system and offers automatic air flow adjustment for temperature and air pressure. The HEPA filters capture 99.97% of particles down to 0.3 microns. Vapour filters are also available. The unit weighs approximately 6 lb and comes with a mounting belt.

The air-hose connects to the 570 helmet which has a flip-up visor which is rated to Z87+ for impact protection.

The regular price is $1,890 but it is currently on sale at *Woodchuckers* for $1,700. (https://woodchuckers.com/products/sr-500-570-air-purifying-respirator

OTHERS: *CAVEAT EMPTOR*

Over the past few years, a number of inexpensive PAPRs have emerged, some costing as little as $250. Most of these are made in China, and while some receive relatively favourable reviews, these should be treated with a "pound of salt".

Before purchasing one of these, you should check out the following issues:

1. Has the visor been tested according to international safety standards concerning impact rating?

2. What is the particle collection rating for the filters?

Some use what are termed **40mm filters** which were originally designed for use in gas masks for protection from CBRN (chemical, biological, radiological, and nuclear) hazards. While you can purchase highly rated filters for particulates, most manufacturers state that they should be replaced within 6 months of being installed regardless of time used.

3. Do the claims of high air flow consider the limiting effect of the filters? Some purchasers report that they experienced difficulty breathing.

4. Are the masks made of silicone or another material which will conform to the face?

5. Check customer reviews to determine warranty conditions (e.g. some manufacturers limit refunds to defects, not poor performance) and whether the manufacturer responds to enquiries or complaints?

LAST WORD

As noted at the outset, virtually all reputable sources state that dust extraction is far more important than dust protection. In other words, you will get more safety "bang for your buck", it you invest in an effective dust extraction system coupled with a good quality half-mask respirator. Your choice!

CLEANING BANDSAW TIRES

Since turners frequently use a bandsaw to cut green wood, it is inevitable that pitch and sawdust will build up on the tires. Over time, this prevents the blade from tracking properly (gullet centred on the tire) and will lead to bad tracking and premature blade failure.

1. "Mechanical" Removal

The simplest and most popular method is to scrape the pitch off. First, unplug the saw and remove the blade. Then plug in the saw and turn it on until it comes up to speed. Then turn it off and use the edge of a steel ruler to scrape off the build up. Repeat if necessary.

Note: Let the momentum of the wheel do the work and use a soft touch to avoid damaging the tires.

2. "Chemical" Removal

If any pitch remains, you may want to use a chemical to dissolve it.

Unplug the saw and remove the blade. Using a small paint brush, apply a small amount of chemical to dissolve the buildup and then use a soft bristle brush or a rag to remove it. Repeat as necessary.

Note: While some people use denatured alcohol or lacquer thinner, this is not recommended as it may harm the rubber or urethane tires. And replacing the tires can be an expensive and **very** frustrating experience.

A safer (and cheaper) solution is to use *Simple Green* which is a concentrated non-toxic and biodegradable cleaner. Let it sit for 10 minutes and then wipe off the wheel.

(This product also does an excellent job of removing buildup on table saw blades – at a fraction of the price of dedicated products.)

3. Prevention

a. Wax

Before reinstalling the blade, unplug the saw and apply a thin coat of paste wax to the tires and then buff them. This will minimize pitch build up.

2. Tire Brush

It's common for more pitch and saw dust to build up on the bottom wheel, since most of it goes straight down into the lower shroud and becomes compressed between the blade and the wheel.

If you have a 14" bandsaw, you might want to consider installing a tire brush (LV: $9.50). A polyester-bristle brush, it runs against the lower tire and significantly reduces build up.

DEREK WEIDMAN: EXTREME MULTI-AXIS TURNING

Derek Weidman is well known for his remarkable multi-axis turnings of animals and humanoid figures. Using the lathe as a "carving tool", he uses arcing and circular cuts in literally hundreds of different axes to create astounding figures.

The AAW recently sponsored a demonstration by him showing his methodology. The more than 6 hours of turning time was condensed to a 90-minute video. The following photos taken from this video represent my best (tho not entirely successful) effort to show the progression of his turning of a dragon from a blank of holly.

A. THE "FACE"

B. THE SNOUT

C. THE EYEBALLS

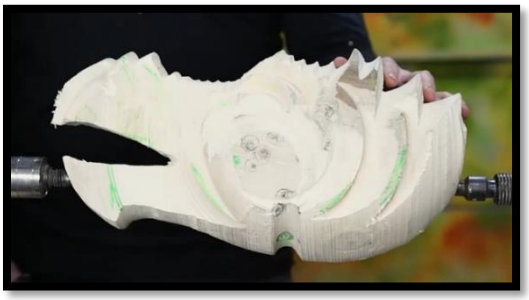
D. THE CHEEKS

E. BACK OF HEAD

F. THE NOSTRILS (YIKES: LOOK AT THE AXES!)

G. THE MOUTH AND JAW

H. TURNING COMPLETED

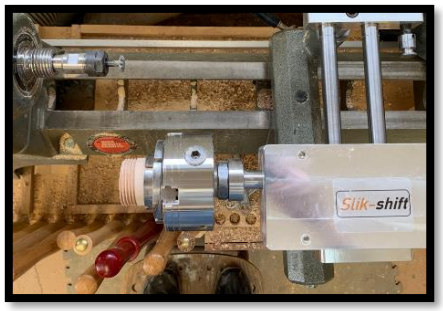


I. FINISHING

J. FINAL PIECE (AFTER COLOURING AND ADDING HORNS)

THREADING JIG

Turn-X Machining in Alberta, with the assistance of a member of the Edmonton Woodturner Guild, has developed the first made in Canada threading tool.



Called the *Slik-Shift*, it cuts 4 thread sizes (2, 2.5, 3, 3.5mm) which can be selected with just a turn of a dial. It also has a "pull-away" function which allows one to check the thread without losing the adjustments.

While the cost of $820 is high, it is comparable with the highly rated *Baxter's Thread Master* (US$700). You can see a video of the unit in operation at: https://www.youtube.com/watch?v=94jeLadQMfc

PARTING OFF

Thanks to Graeme for his demonstration and help with this edition. And a special thanks to those who volunteered to serve on the Executive. No Executive…no Guild!

CONCLUDING THOT