

VILLIAMS & WHITE EQUIPMENT





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About Us

+ As a leading industrial technology company, Williams and White harnesses its 60 years of experience as a third generation family business to develop optimized solutions to the tool production and saw mill industries.

With a niche focus in cutting tool production and saw filing activities, Williams and White is continuously developing specific technology for our customer's ever changing needs. We bring industrial automation to the most demanding requirements of filing rooms, tool rooms and grinding facilities.



CIRCULAR SAW SOLUTIONS SHARPENING

// RoboSharp



SHARPEN ANY SAW WITH THE MOST VERSATILE MACHINE IN THE WORLD!

The RoboSharp-AX10L2 is a highly advanced, multi-function circular saw sharpening center. With top & face, dual side and plunge grinding capabilities, the RoboSharp is the most functional and flexible machine in the industry. The dual-bay robotic loader and patented automated tool changer system allow this sharpening center to run completely lights out.

Top, face & side grinding in one grind center		reduces floor space requirements and maximizes sharpening efficiency
Dual blade capacity	→	two independent 5-axis grinding heads allow two blades to be top/face ground simultaneously, addressing a common bottleneck in service/repair environments
Robotic loading	\rightarrow	enables complete automation
Automated tool changing	\rightarrow	for full lights-out manufacturing
✓ 19" touch screen and user friendly software	\rightarrow	for intuitive operation

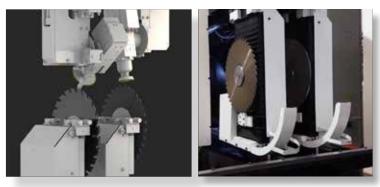
Why is dual head an advantage?

The RoboSharp dual head grinder consists of 2 top and face grinders or 1 dual side grinder within the machine.

- A saw sharpening operation's average work load is heavily skewed to top δ face grinding. The RoboSharp's independent spindle operation and two saw blade capacity results in double the grinding production in topping and facing mode.
- The machine re-configures itself to dual side
 grinding mode when working on a re-tipped tooth
 or saw.
- + Your side grinder is never sitting idle!

SAW SHOP IN A BOX





Key Features

Front loading carts

- This enables the machine to be positioned against a wall.
 Competitive grinding centers have rear loading carts, requiring space behind the machine which results in a larger and inefficient footprint.
- Allows for efficient operation by enabling the operator to load_and view the carts from the operator station.





Tool Changer

The tool changer enables saws of different materials and tips to be processed in a single cart. Carbide, stellite and cermet saws can all be stacked on a single cart. The tool changer will automatically select the correct grinding wheel for the specified material.

True lights out operation

 The RoboSharp can detect broken or worn grinding wheels and replace them from the tool bay, resulting in true lights out operation.

5



CIRCULAR SAW SOLUTIONS SHARPENING

Saw capacity

 The Robosharp has a grinding capacity of 8" (200mm) - 34" (865mm) diameter.

Renishaw probe

Haps teeth with extreme precision.



High capacity tool cart

- Each cart holds more than twice +
 the number of saws as the
 competition.
- <u>Competitors tool cart capacity:</u>
 <u>12.7"(322mm).</u>
- + Our tool car capacity: 28" (711mm).





Remote monitoring

Enables off-site updates and alerts sent to email and mobile phone.



Dual gripper

 The RoboSharp robotic loader has a dual gripper, which enables two saw blades to be handled at once.



User friendly control panel

- + 19" touch screen.
- Simple design and seamless navigation.



X2 HIGHER SAW LOAD CAPACITY THAN OUR COMPETITORS!

Additional features

- + Two 7.5Hp, 24000 RPM spindles
- + Large sub-plate for clamp mount
- + Auto gullet detect
- + Air cooled spindle

Fire suppression system

Integrated fire suppression for oil grinding.



Auto saw cleaning

Reduces oil contaminationthroughout your facility.





Stand-alone mist extraction/

filtration for improved air

quality and safe grinding

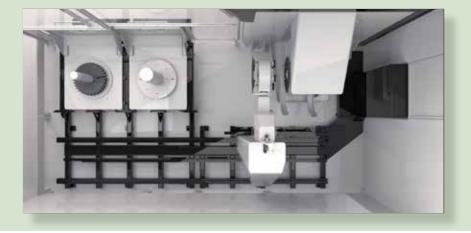
Mist extraction

environment.

+

- Water or oil based coolant
- Flexibility to suit any shopenvironment.





Specifications

Circle saw size	8" to 34"	200mm to 865mm
Plate size	.04" to .750" Plates	1mm to 19mm Plates
Saw kerf	.04" to .850"	1mm to 21mm
Radial angles	0° to 5°	0° to 5°
Hook angles	(-) 10° to (+) 35°	(-) 10° to (+) 35°
Tangential angle	0° to 5°	0° to 5°
Tooth spacing	.5" to 3"	13mm to 76mm
Shipping weight	8000lb	3600kg
Dimensions	L240" × H122" × W180"	L6100mm x H3100mm W4500mm
Voltage	480VAC, 60Hz 3 ph	400VAC, 50Hz, 3ph
Spindle motor	7.5Hp	1.5kW

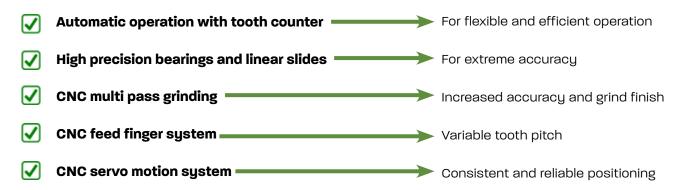
Custom specifications and engineering available on request



CNC Top & Face /// Grinder TFX



The Accusharp TFX Is a fully enclosed automatic top and face grinding machine for circular saw blades up to 36" (Optional 42") diameter. The automatic CNC operation allows the operator to continue his/her work as the machine sharpens the saws. Multi pass grinding and program saving make the TFx the ideal machine for any production or repair facility.



Key Features

Variable pitch

+ CNC axis for variable pitch saws.



CNC controlled

+ Full programmability of complex tooth shapes.

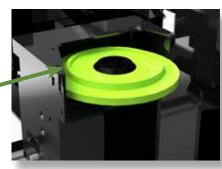


Grinding feed adjustment

- + Allows you to adjust your feed rate regulating your grinding speed.
- H and out feeds are independently adjustable.

Back to back facing and topping grinding wheels

- Switch from facing to topping without doing a wheel change saving you time in your operations.
- H Wheel lift-off



Tooth Styles

- Straight facing
- Straight topping
- Alternate facing
- Alternate topping
- Triple chip (single pass)
- High/low topping



Heavy duty construction

 Williams and White machines are known for extreme durability and reliability.

Oth	ner Features /
	Adjustable saw clamps
	Opertrolized lubrication

- Centralized lubrication (manual)
- 1 HP grinding motor
- CE/CSA/UL Standard

Standard Specifications /

Saw Diameter
Clearance Angle
Plate Thickness
Back bevel grinding at tooth top
Saw Kerf
Bevel grinding at tooth face
Grinding Path
Power Requirements
Face Grinding Wheel
Top Grinding Wheel
Footprint
Coolant Capacity
Shipping Weight

-10° - +40° Up to .400" To 45° .040"400" To 45° To .250" 380V 3ph 6.3" dia. x 1-1/4" bore 4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal 2,500 lbs		3.5" – 36" (Optional 42")
To 45° .040"400" To 45° To .250" 380V 3ph 6.3" dia. x 1-1/4" bore 4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal		-100 - +400
.040"400" To 45° To .250" 380V 3ph 6.3" dia. x 1-1/4" bore 4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal		Up to .400"
To 45° To .250" 380V 3ph 6.3" dia. x 1-1/4" bore 4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal		To 45°
To .250" 380V 3ph 6.3" dia. x 1-1/4" bore 4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal		.040"400"
380V 3ph 6.3" dia. x 1-1/4" bore 4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal		To 45°
6.3" dia. x 1-1/4" bore 4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal		To .250"
4" dia. x 1-1/4" bore 80" x 44" x 80H" 21 Gal		380V 3ph
80" x 44" x 80H" 21 Gal		6.3" dia. x 1-1/4" bore
21 Gal		4" dia. x 1-1/4" bore
		80" x 44" x 80H"
2,500 lbs		21 Gal
		2,500 lbs
	_	

80 mm - 920 mm (Optional 1,060 mm)
-10º - +40º
Up to 10 mm
To 450
<u>1 mm - 10 mm</u>
To 45º
To 6 mm
380V 3ph
160 mm dia x 32 mm bore
101 mm dia x 32 mm bore
203 cm x 112 cm x 203H cm
80 lt
1,150 kg

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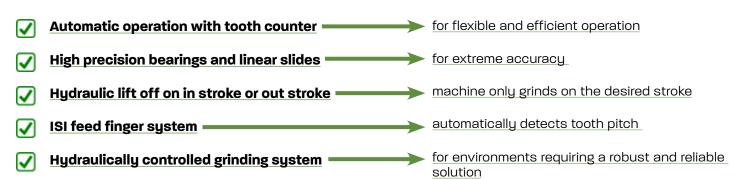


Top & Face Grinder TFH-CS2///

SHARPENING



The Accusharp TFH-CS2 Is a fully enclosed automatic top and face grinding machine for circular saw blades up to 42" (1060mm) diameter



Variable speed control

Adjustable grinding speed and adjustable feed finger speed.



Hydraulically controlled

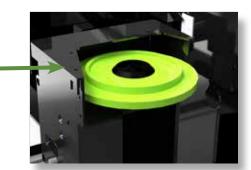
+ Hydraulic control is ideal for the rugged environment of a saw shop or saw mill.

Grinding feed adjustment

- + Allows you to adjust your feed rate regulating your grinding speed.
- H and out feeds are independently adjustable.
 ■

Back to back facing and topping grinding wheels

Switch from facing to topping without doing a wheel change saving you time in your operations.





Heavy duty construction

 Williams and White machines are known for extreme durability and reliability.

Tooth Styles				
	Straight facing		Triple Chip	
	Straight topping		V-Top	
	Alternate facing		Triple chip (2 passes)	
	Alternate topping		High/low topping	

Specifications

Circle saw size
Plate size
Saw kerf
Hook angles
Top angle
Tooth pitch
Weight
Voltage
Power
Spindle motor
Bevel grinding at tooth face
Bevel grinding at tooth top
Tooth pitch
Grinding path
Dimensions

Т

<u>8" to 42"</u>	203mm to 1066mm
.04" to .25" Plates	1mm to 6.35mm Plates
.04" to .3"	1mm to 7.6mm
(-) 10° to (+) 45°	(-) 10° to (+) 45°
0-45°	0-45°
0.25" to 4.25 "	6.35mm to 107.9mm
2,976lb	1350kg
480v ac, 60Hz 3 ph	400v ac, 50Hz, 3ph
8kVA	8kVA
ІНр	.75kw
To 45°	To 45°
To 45°	To 45°
0.25" to 4.25"	6.35mm to 108mm
Up to 0.24"	Up to 7mm
W48" x L66" x H72"	W1220mm x L1675mm x H1830mm

Williams and White reserves the right to alter or amend specifications without prior notice

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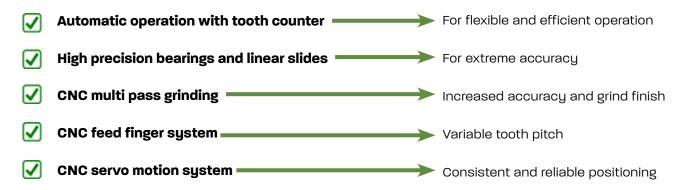


FOLIPMENT

CNC Dual Side Grinder DSX



The Accusharp DSX Is a fully enclosed automatic dual side grinding machine for circular saw blades up to 36" (Optional 42") diameter. The automatic CNC operation allows the operator to continue his/her work as the machine sharpens the saws. Multi pass grinding and program saving make the DSX the ideal machine for any production or repair facility.



Key Features

Variable pitch

+ CNC axis for variable pitch saws.



CNC controlled

+ Full programmability of complex tooth shapes.



Grinding feed adjustment

Peripheral grinding wheels

+ Wheel lift-off

- + Allows you to adjust your feed rate regulating your grinding speed.
- + In and out feeds are independently adjustable.



 Williams and White machines are known for extreme durability and reliability.

Other Features

- Adjustable saw clamps
 Centralized lubrication (manual)
 1 HP grinding motor
- CE/CSA/UL Standard

Standard Specifications /

Saw Diameter	3.5" – 36" (Optional 42")	80 mm - 920 mm (Optional 1,060 mm)
Clearance Angle	-10º - +40º	-100 - +400
Plate Thickness	Up to .400"	Up to 10 mm
Saw Kerf	.040"400"	1 mm - 10 mm
Grinding Path	To .250"	To 6 mm
Power Requirements	380V 3ph	380V 3ph
Side Grinding Wheels	4" dia. x 1-1/4" bore	101 mm dia x 32 mm bore
Footprint	80" x 60" x 80H"	203 cm x 152 cm x 203H cm
Coolant Capacity	21 Gal	80 lt
Shipping Weight	2.500 lbs	1,150 kg



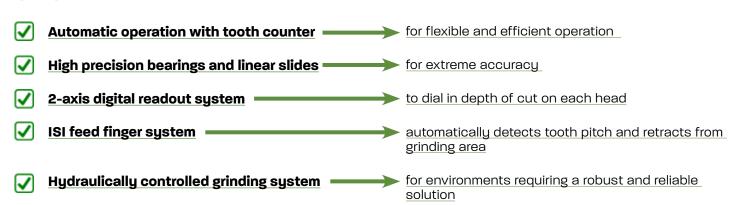
CIRCULAR SAW SOLUTIONS SHARPENING

WILLIAMS & WHITE EQUIPMENT

Dual Side Grinder /// DSG Series II



The Williams and White Dual Side Grinder is easy to use and will increase productivity in any sharpening application. The automatic operation allows the operator to continue his/her work as the machine sharpens the saws.



Digital readout system

- Allows the operator to monitor the grinding procedure and adjust the process with accuracy to within 0.0005"(.0127mm).
- H Simple operation allows for minimal downtime for training and easy saw setup.

Hydraulically controlled

Hydraulic control is ideal for the rugged environment of a saw shop or saw mill.



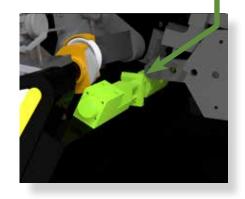
Heavy duty construction

 Williams and White machines are known for extreme durability and reliability.



Adjustable saw clamps

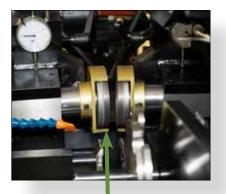
- + Solid 2" (50mm) thick saw clamp.
- The saw is held using heavy duty clamps insuring vibration free grinding.



Options

Cup Wheel Upgrade

 Side grinding with a cup wheel is the only way to maintain a constant and true grind angle. The alternative method uses the peripheral of the grinding wheel, resulting in a concave tooth profile.



Grinding feed adjustment

- Allows you to adjust your feed rate regulating your grinding speed.
- H and out feeds are independently adjustable.
 ■

Specifications

Circle saw size	
Plate size	
Saw kerf	
Radial angles	
Hook angles	
Tangential angle	
Tooth spacing	
Weight	
Voltage	
Power	
Spindle motor	
Dimensions	

Т

8" to 42"	200mm to 1066mm
.04" to .750" Plates	1mm to 19mm plates
.04" to .850"	Imm to 21mm
0° to 5°	0° to 5°
(-) 10° to (+) 45°	(-) 10° to (+) 45°
0° to 5°	0° to 5°
.5" to 3"	13mm to 76mm
3,306 lb	1,500kg
480VAC, 60Hz 3 ph	400VAC, 50Hz, 3ph
8kVA	8kVA
1Нр	.75kW
W52" x L66" x H72"	W1320mm x L1675mm x H1830mm

Т

Williams and White reserves the right to alter or amend specifications without prior notice

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CIRCULAR SAW SOLUTIONS

Highlights:

- H Modern design and unique way of working to your advantage.
- Haging of different saw tip shapes and sizes.
- No more conventional brazing special feature of the heating inductor.
- H Unique 90° flux dispensing system for cermet saw tips.
 Sa
- + Linear controlled loading and unloading system.
- H Integrated water cooling water tank drawer for easy cleaning.
- Program controlled for off-center brazing of the saw tips.
- H Intelligent fault indication with cause, place, date, time and duration of the disturbance.
 ■
- Database stores up to 75 parameters of different saw blades.



ana Commercial Co. Ltd

Highlights:

- + 5 Axis servo control.
- Smart camera for capturing different size and shape of saw tips.
- Precise dispensing flux in line or in small dots.
- + Engineered for quick change over to different materials by "one touch setting" in Software and mechanical settings.
- Eco drive mode turns off the electricity and the compressed air for saving electricity.
- Intelligent error display showing the reason, position, time and recovered time.
- + Remote maintenance via network interface.
- Fixed tip centering system of the saw body and the saw tip.
- Automatic annealing cycle with temperature control and choice of disabling annealing process.

Ultimate Brazer



CIRCULAR SAW SOLUTIONS TIPPING



The most cost effective brazer in the world!

Ultimate Brazer H50



Specifications

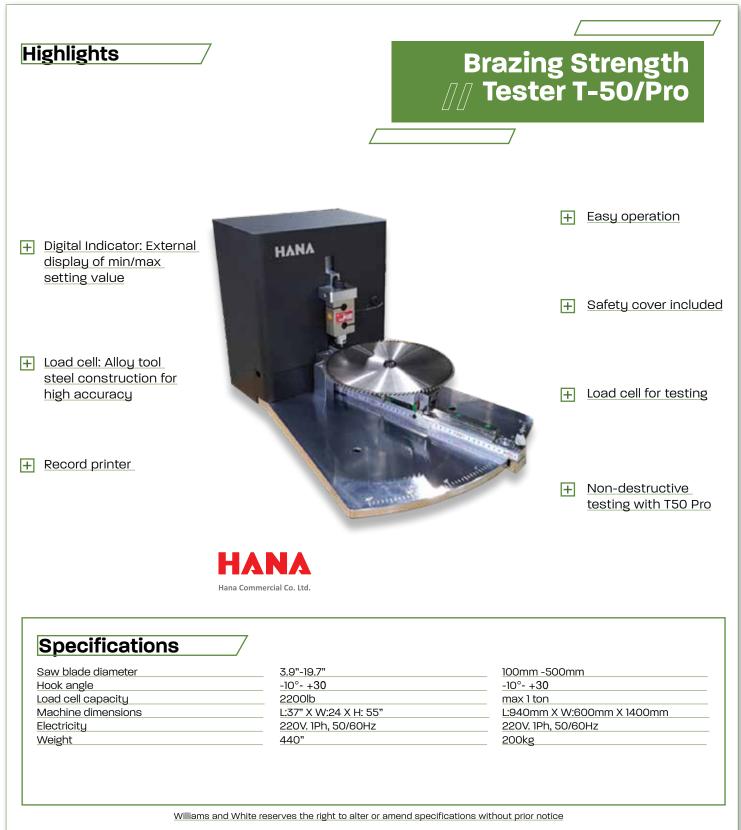
Saw blade diameter	3.9"-31"	100mm -800mm
TIp length	0.15"-0.47"	4mm-12mm
Tip width	0.06"-0.3"	1.6mm-8mm
Hook angle	_10 - +30	-10 - +30
Brazing time	5.5 -7 sec/Tip	5.5 -7 sec/Tip
HF generator	1.34hp/7.5hp	3.5kW/5.6kW
Air pressure	70psi	5kg/cm ²
Electricity	220V - 1ph 50/60hz, 7kW	220V - 1ph 50/60hz, 7kW
Dimension	L64" × W46" × H66"	L1650 x W1185 xH1680mm
Weight	1,984lb	900Kg



CIRCULAR SAW SOLUTIONS TIPPING



0.15 -0.47	411111-1211111
0.06"-0.43"	1.6mm-11mm
-10 - +30	-10 - +30
5.5 -7 sec/Tip	5.5 -7 sec/Tip
1.34hp/7.5hp	3.5kW/5.6kW
70psi	5kg/cm ²
220V - 1ph 50/60hz, 7kW	220V - 1ph 50/60hz, 7kW
L64" × W46" × H63"	L1650 x W1185 xH1600mm
1,102lb	500Kg
	0.06"-0.43" -10 - +30 5.5 -7 sec/Tip 1.34hp/7.5hp 70psi 220V - 1ph 50/60hz, 7kW L64" x W46" x H63"





CIRCULAR SAW SOLUTIONS TENSIONING & LEVELING

CNC Automated
// Tension Roller 36X2



The Williams & White 36X2 is a CNC pattern tension roller designed for tension rolling circular saw blades. This new technology implements automation and added safety features to the highly renowned Williams & White Dish-O-Matic Stretcher Roll. The 36X2 allows the operator to program saw tension combinations and uses servo and hydraulic controls to deliver the most accurate and repeatable results in the industry.

Highlights

- Fully programmable touch screen
 Dynamic tension roll pressure
 Store up to 500 tension combinations
 Light curtain guarding in rolling area
 Servo-driven saw center
- 10" HMI on separate operator stations
 accurate to 10 PSI

 accurate to 10 PSI
 repeatable programs for every saw

 for increased safety
 for precise rolls every time

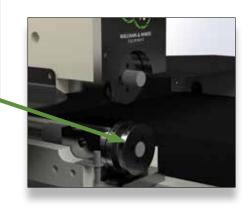
PERFECT FOR MEDIUM-HIGH PRODUCTION FACILITIES!

CNC roll pattern Saw tensioning

 H The 36X2 can be programmed to roll defined tension positions on the saw at any diameter and pressure. This feature allows the user to program all tension requirements beforehand, resulting in a highly efficient process with reduced repetitive labor requirements.

Smart roll pressure system

- H This means it can
 automatically compensate
 for inconsistent mechanical
 properties in the saw plate,
 resulting in highly accurate,
 highly repeatable tension
 bands.



Teach function

- Reduce tensioning time by up to

 50%

Integrated saw lift to avoid any scratches

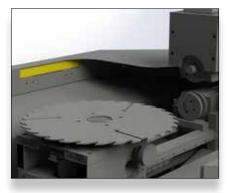
Options

+ Strobe sensor

The 36X2 strobe sensor automatically detects and avoids strobes.

Safety & ergonomics

 The 36X2 reduces repetitive motion strains and the injuries by eliminating manual tensioning.



Loader ready

The 36X2 can be used alongside the Williams and White Robotic Loader, transforming this machine into a fully automated tensioning station



Specifications

Circle saw capacity
Plate thickness
Dimensions
Standard roll radius
Shipping weight
Voltage
Power

Up to 36"
Up to 1/2" thick
H:62" L: 73" W:46"
6"
1200lb
480 Vac, 3 Ph, 60Hz,
5kVA

914mm
Up to 12.7mm thick
H:1570mm x L:1850mm W:1170mm
150mm
540kg
400 Vac, 3 Ph, 50Hz,
5kVA

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CIRCULAR SAW SOLUTIONS TENSIONING & LEVELING

Dish-O-Matic Round



The Williams & White Dish-O-Matic Stretcher Roll is essential in all saw production and maintenance facilities. The patented Dish-O-Matic system allows operator to tension and level saws in the most efficient and accurate manner. This machine is the most durable in the industry and is installed in thousands of filing rooms and saw shops worldwide.

Highlights

\checkmark	Heavy-duty C-frame construction	\rightarrow
✓	Smooth moving easy slide system	\rightarrow
✓	Patented Dish-O-Matic system	\longrightarrow
✓	Manual or hydraulic roll pressure	

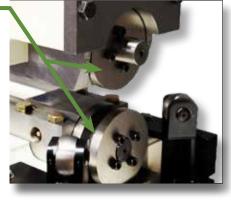
Foot pedal saw rotation

- robust design is built to last
- high-precision roll placement
- saw tensioning & leveling on one machine
- reduces heavy saw hammering
- for simple operation

1

Dish-O-Matic system

- + Patented Williams & White Dish-O-Matic Stretcher Roll allows the operator to tension and level the blade in one setup.
- + The system requires approximately 80% less hammering when compared to the leading competitors' manual circular saw stretchers.





NEW #36 de-kinker rolls

- + Simple bolt on upgrade for your stretcher roll (Armstrong or Williams and White).
- + Heavy duty
- + Hardened rolls
- Dial indicator adjustments

Models

#36 Stretcher #72 Stretcher #108 Stretcher #120 Stretcher





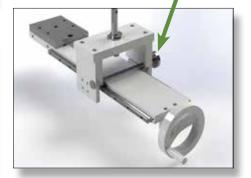
Up to 36" diameter Up to 72" diameter Up to 108" diameter Up to 120" diameter

Options

- F Digital pressure gauge
- F Hydraulic roll pressure
- + Strobe sensor
- + Variable speed rolls

NEW Easy-slide (#36 stretcher)

- +Conversions available for any stretcher roll.
- + Can be added to any Williams δ White #36 Stretcher.
- + The system allows the saw to move in and out of the rolls smoothly resulting in accurate and efficient saw positioning.
- The easy-slide is included on F all new #36 models and can be retrofitted to any existing Williams & White #36 Stretcher roll machine.
- + Heavy duty
- +Linear rail guides
- $\left| + \right|$ Linear precision brake



Specifications

Circle saw capacity
Plate size
Standard roll radius
Weight
Dimensions
Voltage
Power

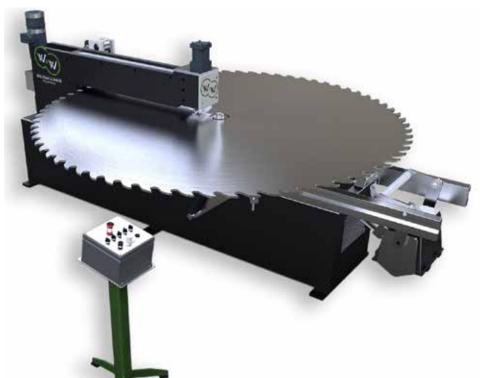
8"-120" (dependent on model)	203
0.25" -0.4"	6.35
6"	<u>150r</u>
850lb-1500lb	385
H: 52" W: 20" L:56"	<u>H:20</u>
480 Vac, 3 Ph, 60Hz	400
<u>3kVA</u>	3kV/

203mm-3,048mm (dependent on model)		
6.35mm-10mm		
150mm		
385kg -680kg		
H:20mm W:51mm L:1412mm		
400 Vac, 3 Ph, 50Hz		
3kVA		



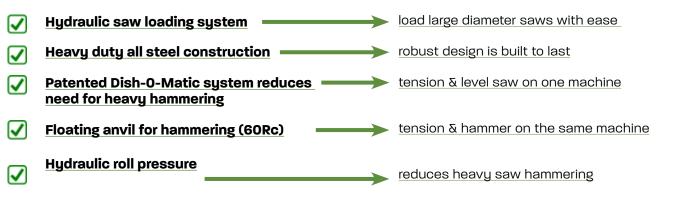
CIRCULAR SAW SOLUTIONS TENSIONING & LEVELING

Round Saw /// Center



The Williams & White Round Saw Center is the ultimate Stretcher roll, designed to load and repair large diameter saws in the safest way possible. Hydraulic loading allows for efficient saw handling while ensuring safety by eliminating heavy lifting and dangerous maneuvers

Highlights



Circular Saw Solutions - Tensioning & Leveling

Dish-O-Matic roll system

- For precise tensioning and leveling on one machine. The DOM II roll system allows the filer to tension and level the saw with one machine.
- + Off-set roll diameter for unobstructed tensioning.



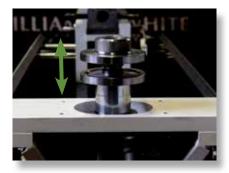


Models #72 RSC (manual, semi hydraulic, fully hydraulic options) #108 RSC (manual, semi hydraulic, fully hydraulic options) #120 RSC

(completely hydraulic

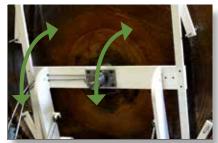
Hydraulic spindle lift

The hydraulic spindle lift (option) shuttles the spindle up and down to lower it from the saw eye. This enables filers to slide the saw further back to make repairs in close proximity to the saw eye.



Vertical loading system with hydraulic lift

For improved safety and easy loading of large diameter saws.

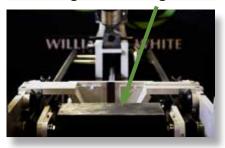




Up to 120" diameter saws

Floating saw anvil

The Williams & White Round Saw Center is the only large saw stretching machine with a floating anvil. This enables filers to hammer the saw without transferring to a benching station.



Options

Variable speed rolls

Customize roll speed for your operation.

Hydraulic tooth setter

Integrated into the machine to set kerf automatically

Heavy duty (HD) models are available for extra thick saws and heavy production

Specifications

Circle saw capacity	
Plate thickness	
Dimensions	
Standard roll radius	
Shipping weight	
Voltage	
Power	

Up to 120" (dependent on model)				
Up to 1/2" thick (standard model)				
H:59" L: 173" W:108"				
6"				
2,600lb-5,500lb				
480 Vac, 3 Ph, 60Hz,				
4kVA				

914mm (dependent on model)			
Up to 12.7mm thick (standard model)			
H:1498x L:4394mm W:2743mm			
150mm			
1,496kg-2,500kg			
400 Vac, 3 Ph, 50Hz,			
4kVA			
4kVA			

Williams and White reserves the right to alter or amend specifications without prior notice

25



+ Round saw attachment available

Specifications

touch screen

Saw blade diameter	1.2"-14.1"	30mm-360mm
Blade Thickness	0.02"-0.19"	0.6mm-5mm
Variable pitch	0.47"- 2.36"	12mm-60mm
Adjustable tooth height	0.16"-0.98"	4mm-25mm
Hook angle	<u>0° to 38°</u>	<u>0° to 38°</u>
Working speed adjustable	0-20 teeth/min	0-20 Teeth/min
Grinding wheel diameter	13.8"- 11"	350mm-280mm
Grinding wheel thickness	0.3"-0.6"	8mm-15mm
Grinding wheel motor	4kw	4kw
Pump cooling system	1601/min	1601/min
Machine dimensions	L:173" X W:78" X H:64"	L:4384mm X W1911mm X H:1615mm
Electricity	10kVA, 480VAC	10kVA, 400VAC

BAND SAW SOLUTIONS SHARPENING



Specifications

Band saw width
Blade thickness
Pitch adjustable
Tooth height min/max
Hook angle
Working speed
Grinding wheel diameter
Grinding wheel thickness
Pump cooling system
Electricity
-

L

1.2"-13"	
0.02"-0.08	
0.4"-2.36"	
0.15"- 1"	
8°-38°	
0-12 teeth/min	
11"-7.8"	
0.3"-0.6"	
101 I/min	
10kVA, 480VAC	

30mm-330mm
0.6mm-2mm
10mm-60mm
4mm-25mm
<u>8°-38°</u>
0-12 teeth/min
300mm-200mm
8mm-15mm
100 I/min
10kVA, 400VAC

WILLIAMS & WHITE EQUIPMENT

BAND SAW SOLUTIONS SHARPENING

/// Baracuda 750 Side Dressing Machine + Grinding heads are guided by pre Central electrical +loaded linear bearing blade height technology to adjustment assure optimum accuracy Saw blade + clamping system, CNC control +clamps the blade automatically when grinding Saw blade width $\left| + \right|$ capacity: 20-330mm 0.8"-12" Grinding wheel $\left| + \right|$ is direct driven, + Round saw eliminating vibrations attachment and enabling deep available pass (heavy removal operation is possible) Specifications Band saw width 0.8"-13" 20mm -330mm Blade thickness 0.02"-0.2" 0.6mm-5mm 0.4"- 4" Pitch adjustable 10mm-100mm Working speed 0-16 teeth/min 0-16 teeth/min

Williams and White reserves the right to alter or amend specifications without prior notice

2-2.5Hp with electronic speed regulation

5"

0.66Hp, 40 l/min

400VAC 3ph 50/60Hz

<u>125mm</u>

0.5kW, 40 l/min

400VAC 3ph 50/60Hz

2-1.8 kW with electronic speed regulation

Wheel diameter

Electricity

Grinding wheel motor

Pump cooling system

BAND SAW SOLUTIONS TIPPING -STELLITE/HSS



Specifications

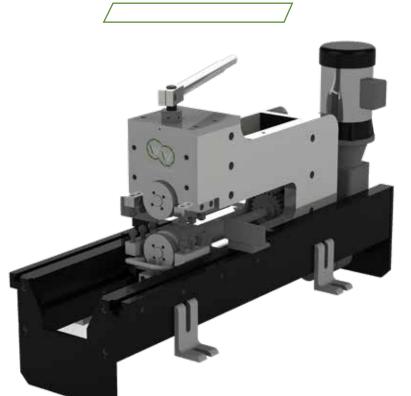
Band saw width	<u>1"-14"</u>	30mm -360mm	
Blade thickness	0.02"-0.15"	0.6mm-4mm	
Pitch adjustable	0.78"-4"	20mm-100mm	
Working speed	3-6min	3-6min	
Welding material	Stellite /HSS rod or wire	Stellite	
Dimension	L:161.2" X W:72.4" X H:72.8"	L:4094mm X W:1838mm X H:1850mm	
Weight	2,645lb	1,200kg	
Electricity	400VAC 3ph 50/60Hz	400VAC 3ph 50/60Hz	



BAND SAW SOLUTIONS

TENSIONING & LEVELING

Dish-O-Matic Band Saw /// Stretcher Roll



The Williams & White Disho-Matic Band Saw Stretcher ultimate Stretcher roll effortlessly tensions and level band saws with the one machine. Saving time and space in the shop floor.

	Heavy-duty C-frame construction		robust design is built to last
	High-precision roll placement with electric	>	for easy setup
\checkmark	Patented Dish-O-Matic II system		saw tensioning & leveling on one machine without flipping the saw
\checkmark	Manual or hydraulic roll pressure		reduces heavy saw hammering
\checkmark	Drum switch roll actuation		for simple operation
30			Band Saw Solutions - Tensioning & Leveling

Dish-O-Matic II roll system

- For precise tensioning and leveling on one machine. The DOM II roll system allows the filer to tension and level the saw with one machine.
- + Off-set roll diameter for unobstructed tensioning.

<u>NO NEED TO</u> <u>FLIP THE SAW</u> <u>WITH THE DOM II</u> <u>STRETCHER!</u>



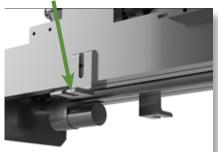


Specifications

Band saw capacity	
Plate thickness	
Dimensions	
Standard roll radius	
Shipping weight	
Voltage	
Power	

Electric actuator for cross saw roll movement

Easily change rolling position for precise tensioning.

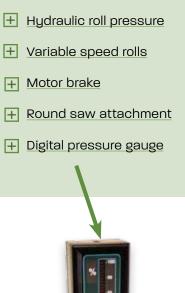


Both top and bottom rolls are driven

Ensures band saw properly feeds through roll system.



Options





Models

#10E	Tensioning up to 10" wide bands
#10 DOM2	Tensioning and leveling up to 10" wide bands
#17E	Tensioning up to 17" wide bands
#17 DOM2	Tensioning and leveling up to 17" wide bands

#10

Up to 10" (254mm)
Up to 1/4" (6.35mm) thick
H:18" (457mm) L:36"(914mm) W:30" (762mm)
6" (150mm)
325kg_717lb
480Vac, 3 Ph, 60Hz,
3kVA

#17

Up to 17"(432mm)
Up to 1/4" (6.35mm) thick
H:18" (457mm) x L:48"(1,219mm) x W:30"(762mm)
<u>6" (150mm)</u>
400kg 882lb
400 Vac, 3 Ph, 50Hz
3kVA

31



Trac Tru Band Saw Bench

NO NEED TO FLIP THE SAW WITH THE DOM II TRAC TRU BENCH



BAND SAW SOLUTIONS

The Williams & White Trac Tru band saw bench is a one-stop repair center for band saws. The rugged box beam, universal columns and our patented Dish-O-Matic system make the Trac Tru the best and most functional in the industry.

Highlights

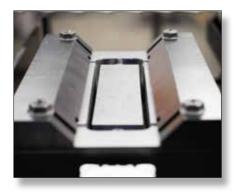
\checkmark	Box-frame construction	\rightarrow
✓	Air-strain cylinders	
	2 Nichrome anvils	\rightarrow
✓	Integrated lighting	\rightarrow
	Can handle saws from 28' - 60'	\rightarrow

makes this the most durable stable
bench in the industrytightens the saw and eliminates the
need for weightsfor top and bottom hammeringfor precision inspectionversatile for your shop

Band Saw Solutions - Tensioning & Leveling

Welding clamp

 The deluxe bench model is equipped with a welding clamp and welding slide. The welding slide enables you to easily move the clamp when it is not in use.



Inspection lift

 Standard on all deluxe models, the inspection lift allows the operator to raise the saw for further inspection.



Standard Nichrome leveling slabs

Nichrome slabs are extremely durable and wear resistant offering longer life span than traditional steel slabs.

Trac Tru #10

+ Up to 10" wide saw

Expansion	cylinder	δ	multi-
lenth			

- Multi-length option available, which is intended for benches that work on multiple band saws of different lengths. This addition enables you to expand or compress the bench from one to twelve feet.
- The ability to run multiple saws off of one bench reduces the amount of space required in your filing room or saw shop.



Williams and White Dish-O-Matic II System

- Patented Williams & White Dish- O-Matic II Stretcher Roll allows the operator to tension and level the blade in one setup.
- + Drastically reduces the amount of hammering required.



Options

- + Height control
- Electronically controlled wheel alignment
- Electronically controlled roll positions
- Integrated inspection lighting
- Option to have a welding clamp heater, which heats the welding clamp and creates higher-quality welds.

Trac Tru #17

+ Up to 17" wide saw

Specifications /		
Bandsaw length capacity	Up to 60'	<u>Up to 18.3m</u>
Bandsaw width capacity	<u>Up to 17"</u>	Up to 430mm
Standard roll radius	6"	150mm
Shipping weight (38' saw)	Approx 4500lb	Approx 2050kg
Electricity	480Vac,3ph, 60hz	480Vac,3ph, 60hz
Dimensions (36 wheel)	W:52" X H:58" X variable length	W:1320mm X H1470mm X variable length

WILLIAMS & WHITE EOUIPMENT

TENSIONING & LEVELING BAND SAW SOLUTIONS

Standard /// Bandsaw Bench



The Williams and White Standard Bandsaw Bench is designed to be a universal bandsaw maintenance station. This bench provides all the necessary features to maintain your bandsaws in a heavy duty package.

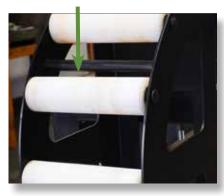
✓	Square beam design		for durability and stability
✓	Will fit all stretcher brands	\rightarrow	versatility for all environments
✓	Mild steel or Nichrome precision ground		for hammering (both sides)
	Manual extendable saw length adjustment		to fit multiple lengths of saws
	Manual saw lift		for saw inspection

Williams and White Dish-O-Matic II System

- Patented Williams & White Dish- O-Matic II Stretcher Roll allows the operator to tension and level the blade in one setup
- Drastically reduces the amount of hammering required
- Reduces the need to flip the saw

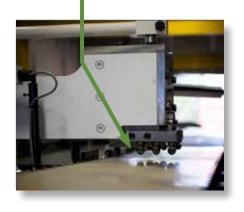
Extendable saw turn around

UHMW turn around tracks can
 extend and contract for varying
 saw lengths



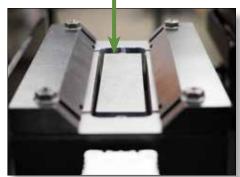
Hardened alignment bolts

Both top and bottom of saw for stability as the saw tracks through the rolls



Available Nichrome leveling slabs

 Nichrome slabs are extremely durable and wear resistant and offer a longer life span than traditional steel slabs.



Specifications

Wheel diameter
Leveling slabs
Stretcher roll
Saw length
Saws
Electricity
-

(2) 36 Inches
(2) 36" x 8" x 4" mild steel
Dish-O-Matic 10D
21' x 5"
Single cut
480Vac,3ph, 60hz
•

(2)914mm
(2) 914mm x 203mm x102mm mild steel
Dish-O-Matic 10D
6400mm x 127mm
Single cut
480Vac,3ph, 60hz

Williams and White reserves the right to alter or amend specifications without prior notice



Options

tension

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UHMW air inspection lift

Lifts the saw while in place

on the bench to efficiently

inspect band saw blade

Hydraulic roll pressure

Large anvil upgrade

Variable speed rolls

Additional floor tracks

Band saw welding clamp



WILLIAMS & WHITE FOUIPMENT

Auto Bench Hammerhead 3000



FULLY AUTOMATIC

The Hammerhead 3000 Auto-Bench is an all in one band saw processing center. Designed to automatically tension and level a band saw with ease, the Hammerhead3000 is a must have for any saw mill or band saw producer.

Fully automatic	 Leveling and tensioning of band saw blades
Carbide tungsten tensioning rolls	 For longer life
Touch screen control	 Simple and easy operation
High accuracy measuring system	 With 3 high precision sensors
Auto tracking system	 Lines up saw blade automatically in the machine
Saw blade Feeder	 Saw is driven with two feeder rolls
Double head system	 2 Independent tensioning+Leveling heads
Protected working area	<u>By an optic curtain</u>

Key Features

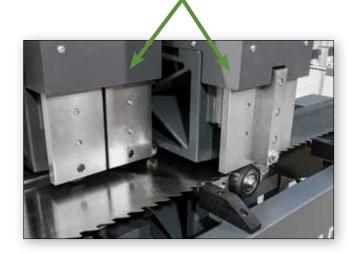
Auto tracking system

Lines up saw blade automatically in the machine



Double head system

+ Dual head tension + level independently



Touch screen control

E Simple and easy operation



Fully automatic band saw center

+ Auto tensioning and leveling on one bench



Specifications

3"-13"	80-330 mm
0.2"-0.55"	5-14 mm
0.03"-0.08"	0.7-2.0 mm
59'/Min	18 m/Min
0.0008"-0.0015"	0.02-0.04 mm
0.0015"-0.003"	0.04-0.08 mm
	0.2"-0.55" 0.03"-0.08" 59'/Min 0.0008"-0.0015"



KNIFE & SURFACE GRINDING

Knife Grinder

The LSGX magnetic flat bed knife grinder is known for its robust power and ability to produce fine finishes under heavy cutting. This machine increases production by utilizing automatic grinding, allowing the operator to focus on other tasks while the machine is operating.

Highlights

WW

	Stress relieved heavy duty steel base	minimizes vibration which results in precise surface finishes makes work piece clamping and removal easy
	Electromagnetic chuck with automatic demag	for efficient operation
\checkmark	CNC down feed and carriage travel	for precise machine movements
✓	Square rail linear bearings and turcite dovetail	for extreme machine accuracy
	Thru spindle coolant	for proper grinding temperature control

Knife & Surface Grinding

Precision linear bearings

Williams & White's knife grinders are built using precision squaretrack rails and bearings. These superior components allow the carriage to travel with accuracy and create stability in xyz axes.

Heavy duty frame

 Manufactured using heavy duty welded box frame construction to increase accuracy and minimize vibration.

Spark-out cycle to remove burrs at end of cycle.

Through spindle coolant

 Full thru -spindle coolant ensures the right amount of coolant reaches the parts/ knives. This increases the life of the grinding stones and creates a smooth finish on the parts/ knives.

Quick change spindle

Williams & White's quick-change spindle system enables the operator to change the grinding stone with minimal downtime.

Dovetail spindle slide

- He dovetail spindle slides found on Williams & White's knife grinder have larger contact areas than the leading competitors.
- + This provides higher stiffness and load-bearing capabilities, resulting in greater grinding consistency.



Options

Magnetic separator coolant tank with quick change fittings

- Quick disconnect system: allows the user to disconnect coolant hoses to remove the coolant tank for cleaning and refilling.
- A magnetic separator can also be added, which separates metal debris from contaminating the coolant.

Specifications

LSGX-P

Power requirements	480VAC, 3ph 60Hz, 30 KVA
Spindle motor	7.5HP/10HP/15HP (5.5kW/7.4kw/11kW)
Grinding wheel size	10" ring or 12" segmented wheel (254mm or 304mm)
Down feed Increments	.0005"003 (.01mm07mm)
Grinding wheel to surface clearance	5.25" (133mm)
Accuracy	.0005" per foot (.127mm per .304m)
Coolant capacity	160L
Weight	3,306lb (1,500kg) - 9,920lb (4,500kg) (depending on Lengths)
Magnetic surface area	6"(150mm) wide x grinder length
Frame plate thickness	3/4" (19mm)
Magnetic chuck	6" (152mm) magnetic chuck (+-90 rotation)
Way cleaners	(option)
Touch screen	
Program save function	
Downfeed	CNC downfeed
Speed Carriage	2 Speed carriage
	·

LSGX-D

430VAC, 301180H2, 30KVA 10HP/15HP/25HP (7.4kW/11kW/18kW) 10" ring or 12" segmented Wheel (254mm or 304mm) .0001"005" (.0025mm127mm) 5.25" (133mm) .0005" over 5 foot (.127mm over 1.524m) 160 L .53llb (2500kg) - 4,500lb (9920kg) (depending on Lengths) 8" (200mm) wide x grinder length 1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed Variable speed carriage	
10" ring or 12" segmented Wheel (254mm or 304mm) .0001"005" (.0025mm127mm) 5.25" (133mm) .0005" over 5 foot (.127mm over 1.524m) 160 L 5,51lb (2500kg) - 4,500lb (9920kg) (depending on Lengths) 8" (200mm) wide x grinder length 1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	480VAC, 3ph 60Hz, 30KVA
.0001"005" (.0025mm127mm) 5.25" (133mm) .0005" over 5 foot (.127mm over 1.524m) 160 L 5,511lb (2500kg) - 4,500lb (9920kg) (depending on Lengths) 8" (200mm) wide x grinder length 1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	10HP/15HP/25HP (7.4kW/11kW/18kW)
5.25" (133mm) .0005" over 5 foot (.127mm over 1.524m) 160 L 5,51lb (2500kg) - 4,500lb (9920kg) (depending on Lengths) 8" (200mm) wide x grinder length 1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	10" ring or 12" segmented Wheel (254mm or 304mm)
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160 L 5,511lb (2500kg) - 4,500lb (9920kg) (depending on Lengths) 8" (200mm) wide x grinder length 1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	5.25" (133mm)
5,5111b (2500kg) - 4,5001b (9920kg) (depending on Lengths) 8" (200mm) wide x grinder length 1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	.0005" over 5 foot (.127mm over 1.524m)
8" (200mm) wide x grinder length 1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	160 L
1" (25.4mm) 8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	5,511lb (2500kg) - 4,500lb (9920kg) (depending on Lengths)
8" (203mm) magnetic chuck (variable strength) Included 10" (254mm) touch screen Yes Servo CNC downfeed	<u>8" (200mm) wide x grinder length</u>
Included 10" (254mm) touch screen Yes Servo CNC downfeed	1" (25.4mm)
10" (254mm) touch screen Yes Servo CNC downfeed	8" (203mm) magnetic chuck (variable strength)
Yes Servo CNC downfeed	Included
Servo CNC downfeed	10" (254mm) touch screen
	Yes
Variable speed carriage	Servo CNC downfeed
	Variable speed carriage

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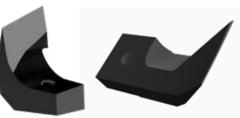


KNIFE & SURFACE GRINDING

Hewsaw /// Knife Grinder



The Williams & White CKG/ EKG Knife Grinder is designed specifically for Hewsaw small log lines. The innovative design allows 24-48 knives to be sharpened simultaneously depending on jig options.



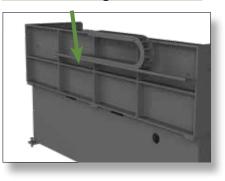
Highlights

- Heavy duty stress relieved frame
- Precision linear bearing design
- CNC carriage travel and down feed
- Multiple jig configurations
- Centralized lubrication system

- minimizes vibration which results in precise surface finishes
- for extreme machine accuracy
- for easy operation
 - to fit your sharpening requirements
 - for stress free maintenance

Heavy duty stress-relieved frame

The heavy duty, vertically reinforced frame reduces harmful vibrations, flexing and distortion.

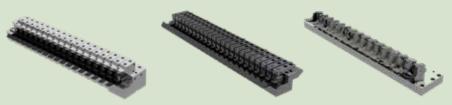


24-48 knife-jig

 The Williams & White EKG/CKG has a 24-36 knife capacity to maximize the efficiency of your operation. This feature is exclusive to Williams and White EKG/CKG grinders and cannot be found in the standard rotary grinders (which hold just 12 knives).

Fixture options

Standard jig with 48 knife capacity



CKG height adjustable CKG standard fixture EKG fixture fixture

CKG height adjustable Jig with 36 knife capacity

Our adjustable knife Jig allows each of the 36 knives to be individually positioned, eliminating the need to set the Jig to the most worn knife. This control significantly increases the lifespan of each knife, and is not available on standard rotary grinders.



SHARPENS KNIVES BACK TO FACTORY STANDARDS

Specifications

Knife Capacity
Sharpening Cycle
Spindle motor RPM
Ship weight
Coolant tank capacity
Voltage
Power
Power per spindle

CKG chipping knife

Up to 36 knives (adjustable)
2-3 hours
3600 RPM
4800lb, 2177kg
130L
480Vac, 3ph, 6Hz
8kVA
7.5Hp, 5.5kW

EKG Edging Knife

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WILLIAMS & WHITE EQUIPMENT

CNC Guide Dresser



Introducing the fully automated 3 Axis CNC GDX Guide Dresser. Accurate saw guides improve the performance of your saw mill by increasing lumber recovery and reducing saw deviation; resulting in higher profits.

Highlights:

Wsw

3 axis CNC control accurate within +/ .0002" (0.005mm)	Improved guide accuracy
✓ 10" touch screen and custom Williams & White → software	for intuitive operation
Fits all saw guides	one machine for all guide milling requirements
Multi indexable insert cutter heads	for unparalleled surface finish and grinding
<u>Reduced downtime/better mill performance</u>	speed
	more accurate lumber dimensions

CNC Milling heads

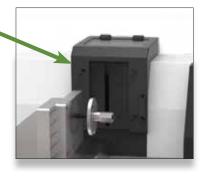
+ Variable RPM

 $\left| + \right|$

- + Cutter head lift off
- + <u>15 four-sided carbide</u> <u>cutters per head gives</u> <u>ultra smooth surface</u> <u>finish with high feed</u> <u>rate. (optional diamond</u> <u>inserts)</u>



- Guarding
- Electronic hood lock ensures operator safety



Precision machined granite base

7.5 HP spindle motors

- Vibration dampening
 temperature stability
 for unmatched
 accuracy
- Eliminates vibration during milling & isolated from environmental vibrations

Why choose the Williams and White GDX?



Guide post

- + Heavy duty
- + Universal bolting
- + <u>2" inch thickness</u>



Comparable Competition	GDX
Manual cutter head movement	Cutting axes CNC controlled — Less error prone
Stepper motor motion on guide feed	Feed axes CNC controlled
Cutter cover is loose during operation	Integrated safety system - machine door - Reduced injury risk interlocked during cutting operation
🔀 Guide feed rate not adjustable	Guide feed rate adjustable with touch> Fine surface finish screen
Not adjustable through user interface	RPM adjustable on touch screen
No cutter head lift off	Cutter head lift off
Exposed ways	Fully enclosed ways

Options

- + Guide measurement station
- + Error detection sensors
- + Remote monitoring
- + Diamond cutter upgrade

Specifications

Guide thickness	0.5"-4" standard (6")	12.7mm-101mm
<u>Cut depths</u>	0.002"-0.030"	0.05mm-0.76mm
Cycle times	As low as 14 sec	As low as 14 sec
Weight	4,500lbs	2,041kg
Dimensions	<u>L: 93"x W60" x H60"</u>	L: 2,360 xW:1524xH:1524m
Voltage	4800V 3ph 60Hz	400V 3ph 50Hz
Power	23kVA	20kVA
Power per spindle	7.5Hp	<u>5.5kW</u>

Williams and White reserves the right to alter or amend specifications without prior notice

WILLIAMS & WHITE FOUIPMENT

SAW GUIDE TECHNOLOGY

Circular & Band /// Saw Guides

Round Saw Guides /



Williams and White specializes in manufacturing industry leading steel & aluminum saw guides. We provide the engineering, manufacturing and quality control to provide you with a product that is second to none. Accurate saw guides will increase lumber recovery, resulting in maximized profits for your mill.

Key Features /

- CNC machined
- Extreme precision (+ / .0002", 0.005mm)
- 🗸 Super fine surface finishing

Quality Assurance

- Multiple inspection stages
- 🗸 Engineered drawings
- 🗸 Guide engraving
- Every guide cataloged and filed on record
- \checkmark Williams and White quality assured

- Engineered hard-coat (type 3) anodizing
- 🗸 🖌 Guaranteed flatness
- Engineered to meet your requirements
- Professional resurfacing and resizing

Saw Guide Repair

- 🗸 🛛 Damaged guide repair
- 🗸 Guide re-anodizing
- Guide resizing (approximately half the cost of purchasing new guides)
- 🗸 🛛 Guide straightening

Guide Design & Engineering /

Williams and White uses cutting edge technology when working with customers to design and engineer saw guides & babbitt pads to help optimize coolant flow & improve mill performance.

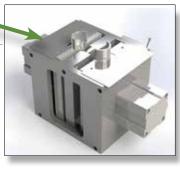
Teardrop orifice designs

<u>Babbitt mould</u>

- + Custom designed mould chamber
- + Double pocket mould
- + Pneumatic operation
- + Optimizing babbitt design can improve sawing

Splines and arbors

- Hanufactured to precision tolerances
- + Induction hardened
- + Alloy steel
- OEM replacements





Options

REDUCE OIL

Reduce guide and

saw wear based on FP innovations

research

CONSUMPTION!

- Heli-coil inserts or thread inserts: offer extra protection against thread damage
- Platinum series guides
- Nitriding available for steel guides
- Custom engraving

Band Saw Guides

Lightweight aluminum alloy cartridges with steel inserts are standard on most sizes

Lightweight precision made aluminum alloy Norguide adapter <u>A quick turn of the key</u> locks the insert into the adapter

The dovetail inserts slides into the adapter block quickly and easily in size from 6" – 15" wide (150mm-380mm). The guide blocks are 2" (50mm) in height and are 1 5/8" (41mm) deep. These guides can be resurfaced approximately 40 times. The A series has the option of an internally ducted top mounting bracket with a dual wide angle spray system.

Our A series band saw guides range



SawSense Temperature Monitoring System

Williams and White has partnered with the innovative scientific solutions provider, FPInnovations, to offer a new technology to the sawmill industry.

This PATENTED technology accurately measures, in real time, the performance of the saw when in the cut for both circular and band saws, using two contacted temperature sensors.

The SMARTGuide technology harnesses The Industrial Internet of Things (IIOT) to drive mill operations and efficiency to the forefront of the industry.

Rim & Eye Temperature Sensors +/-0.1 Degree Accuracy

Highlights:

Bolt On System

Reduces oil consumption up to 40%	> Reduces corrosion and pooling; less moisture in sawdust
Rechargeable batteries	→ Up to 40 hours of life between charges
✓ 0-80°C temperature range	+/- 0.1°C Accuracy
For both circle and band saw systems	->> Can be mounted on any saw guide
\checkmark Two sensors on the eye & rim of a saw ————	>> Ensures optimal saw performance
Contact Sensors	Non-contact systems are proven to be inaccurate in wet environments. Moisture absorbs IR radiation, affecting the signal

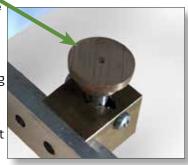
WIFI

Communication

System

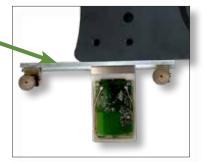
Bearing Bronze Contact sensor system

- Monitoring rim and eye + temperatures with 2 sensors
- + Moves to comply with the saw body, ensuring 100% contact/ increased accuracy
- + Accurate measurement +/- 0.1 degrees
- Excellent wear +resistance



Bolt on system 👞

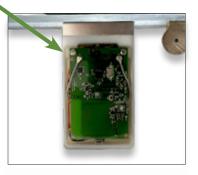
H Modify existing saw guides to mount measurement system



WIFI Wireless communication

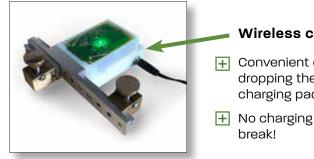
- + Continuous monitoring
- + Access data from nearly any convenient location within the primary networking environment

Proven in mill applications



- SawSense Monitoring
- + Measure and log temperature performance
- Real time analytics





Wireless charging

- + Convenient charging by dropping the unit on the charging pad.
- + No charging port to

Benefits to the sawmill

Decreases sawing deviation _____ Prevents wrecks/unscheduled saw change \checkmark \checkmark \checkmark → Higher value Higher chip quality — 1 Higher profits Increases mill speed - \checkmark Alarm notification system -Reduces saw and guide damage and downtime \checkmark Identifies performance issues in real time ------> Determine or eliminate potential problem areas

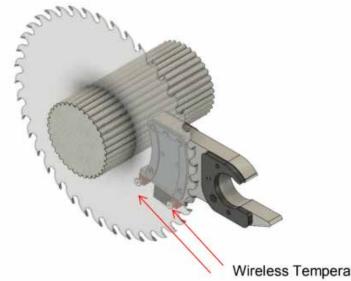
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Contact Sensors

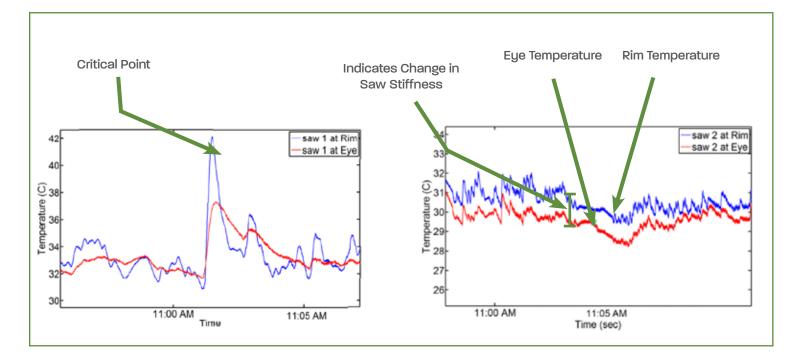
WILLIAMS & WHITE EQUIPMENT



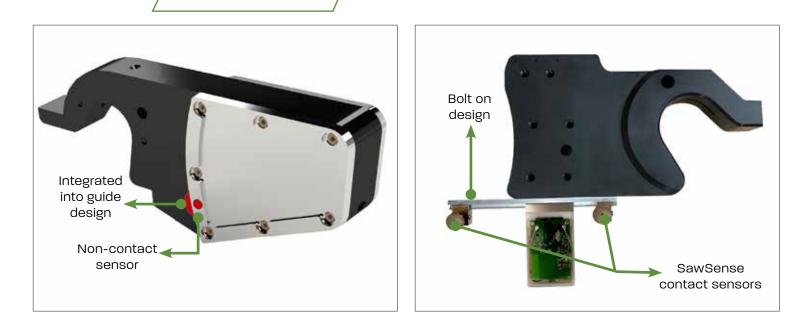
Rim and eye real time temperature measurement ensures optimal saw performance. By temperature monitoring at the rim and the eye of a saw blade, saw and guide damage can be prevented and deviation can be minimized.

Wireless Temperature Sensor

Eye & Rim Temperatures



Contact Vs. Non-contact Temperature Sensors



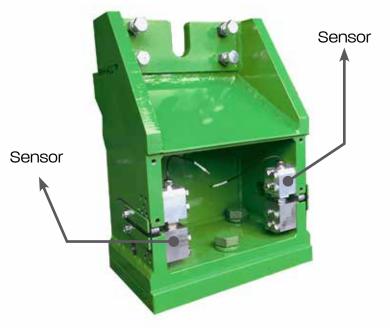
Why to choose Williams and White SawSense Temperature Sensor?

Non-contact Sensors	Contact SawSense Temperature Sensor
Naccurate;	✓ Accurate within 0.1°C
Saw dust, water, coolant and any external factors can block IR beam	
🔀 Single sensor;	✔ Rim and eye sensors;
Does not indicate temperature difference between eye and rim	Indicates saw blade stiffness. Difference in temperature at the eye and rim of a saw blade causes twisting and dishing. Resulting in saw plate damage and cut deviation.
Integrated in saw guide;	Modular bolt on attachment;
Requires re-machining into new saw guide in case of guide damage	Easy mounting and dismounting from different saw guides, enabling change over for target size or damaged guides.
High modification cost;	✓ Minimal modification cost;
Guides and babbitt molds require modification/ redesign to accommodate sensors	Minimal saw guide modification and adjustments is needed due to bolt on design
sales@williamsandwhite.com www.william	Isandwhiteequipment.com 1-888-293-2268 49



Saw-ADDtm The Smart Band Saw /// Solution





Williams and White is excited to offer Saw-ADDtm to the sawmill industry as part of the Smart Bandsaw Solution.

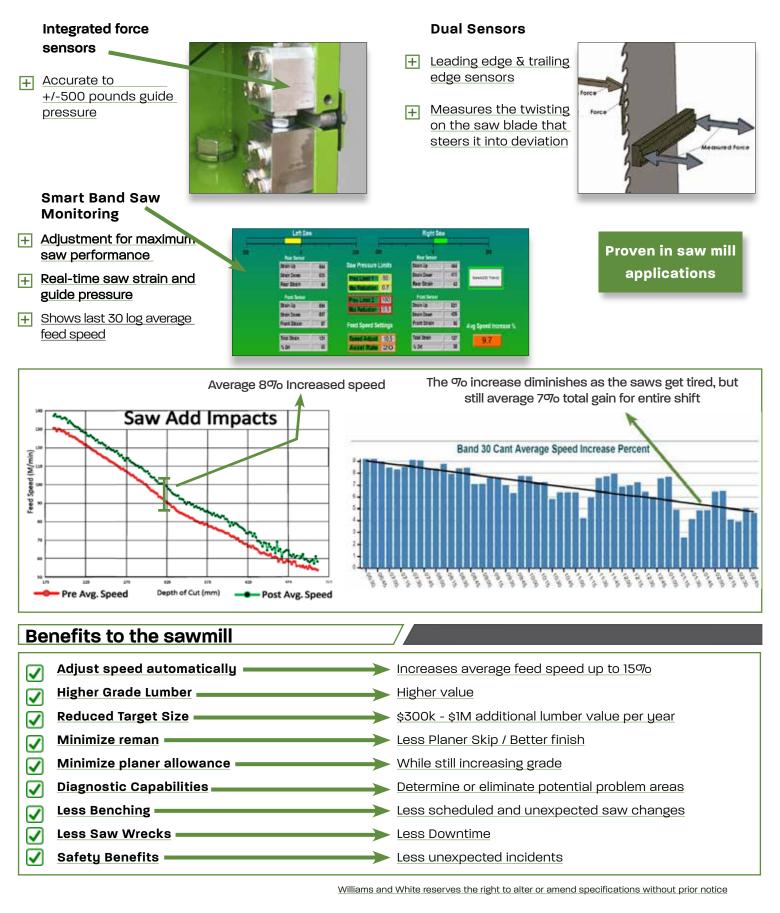
Band Saw-ADDtm integrates force sensors on the leading and trailing edge of the saw blade. This detects twisting forces on the saw blade that will steer it into deviation unless prevented by Saw-ADDtm.

This PATENTED technology, enables you to saw most logs 15% faster with less deviation and without wrecking a saw. It will automatically slow the feed-speed only for the tough ones

Highlights:

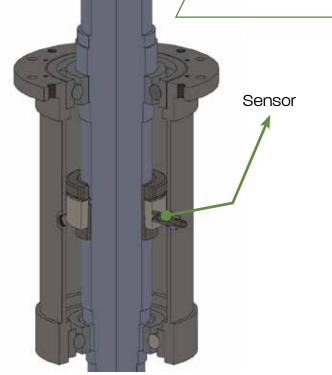
Custom made for your guide block	Knot
Lower guide holder; Top Guide systems can only measure deviation that has already occurred	(((5)))
The only anti-deviation system available	
Software slows feed speed to stop deviation then returns to optimum speed	Force Guide
Detects force before deviation occurs; Sensitive to millionths of an inch deflection	Tension
Enables reducing target size for higher lumber recovery	Bla
Analog signal provided by Saw-ADD tm ; Compatible with your PLC	V)
Measurement is zeroed between every log)
Extremely fast ROI	

Key Features









Williams and White is excited to offer Saw-ADDtm to the sawmill industry as part of the Smart Arbor Solution.

Round Saw-ADDtm is a patent pending integration of force sensors on the saw arbor, measuring the radial forces on the round saw blades from the tooth cut and the guide friction.

This enables average feed speed increases up to 18% while automatically slowing only when necessary to preemptively reduce deviation, saw damage and stuck cants.

Highlights:

- 🗸 Saw-ADDtm is The only anti-deviation system available
- \checkmark Software slows feed speed to stop deviation then returns to optimum speed
- Sensitive to radial forces half second before arbor current ; Slows feed speed to prevent deviation or damage
- Enables reducing target size for higher lumber recovery
- 🗸 Extremely fast ROI
- Analog signal provided by Saw-ADD; Compatible with your PLC
- Measurement is zeroed between every cant
- \checkmark HMI displays provide indication and adjustment for maximum saw and machine performance

Key Features Optimal 10 inch VDAG

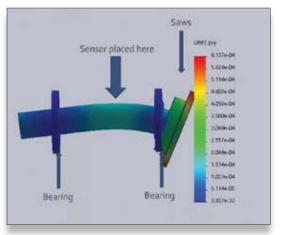
Arbor radial

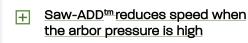
forces

 → A target ring is added to the arbor shaft, between the bearings, with a taper-lock (shown above). Four Boss O-Ring fitting holes for sensors and pipe fitting access holes are added at 90 degrees.

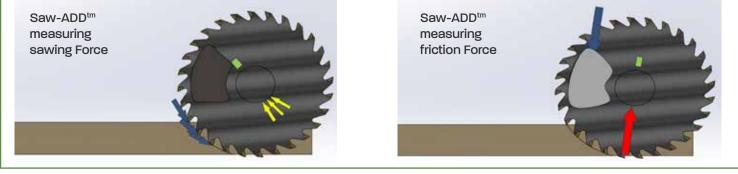
Saw-ADDtm speed

command





+ Saw-ADDtm increases speed when the arbor pressure is low Proven in saw mill applications



Benefits to the sawmill

	Closed loop speed control		Average feed speeds up to 18% higher
	Higher Grade Lumber	->	Higher value
	Reduced Target Size	->	\$300k - \$1M additional lumber value per year
	Minimizes Deviation	\rightarrow	Less Planer Skip / Better finish
	Minimize planer allowance	\rightarrow	While still increasing grade
	Diagnostic Capabilities	->	Determine or eliminate potential problem areas
	Less Benching		Less scheduled and unexpected saw changes
	Less Saw Wrecks	\rightarrow	Less Down Time
	Safety Benefits	\rightarrow	Less unexpected incidents

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WILLIAMS & WHITE EQUIPMENT

CA5 Tool Grinder

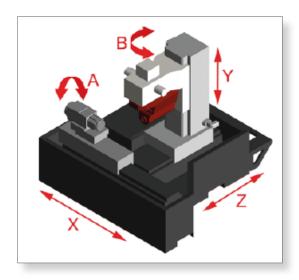


CA5 Tool Grinder is equipped with a long table of 720 mm, a wide range of accessories, a powerful electro spindle and EasyGrind multifunction software developed by SMP Technik, the CA5 EvoBoost is perfect for manufacturing all your tools of small and medium size.

Highlights:

Axes X,Y, Z accurate within +/ .000004" (0.0001 mm)	Resulting in high precision tools
6 slots grinding wheels rack loader	Unload/load a wheel in less than 5 seconds
SA50 work piece holder	Developing a high speed of 650 rpm
✓ 19.7" (500mm) long table	Enough space to install necessary accessories
Mineral casting bed	Vibration proof. 10 times the classic iron bed rigidity
Ergonomics	Control desk with an easy replaceable 22" touch screen
Maintenance access panel	
<u>Rigid nozzle tools cooling system</u>	Additional cooling system controlled by a cylinder
HSK40, HSK50 or HSK63 Electro spindle	Adjustable speed . Including a self-cooling system
Renishaw tool probing	Tool detecting and measuring accessory

Technical Details



capacities

Maximum tool length (grinding)	20"	500 mm
Maximum tool length (sharpening)	→20"	→500 mm
Maximum tool diameter	10 to 12	250 to 300 mm
Maximum weight of the tool	<u>≈</u> 220 lbs	<u>≈</u> 100 kg
Maximum wheel diameter (with HSK50 attachment)	12"	300mm

Specifications

X axis course (horizontal)	20"	<u>500 mm</u>
Y axis course (vertical)	11.5"	290 mm
Z axis course (transverse)	12"	<u>300 mm</u>
X axis speed (horizontal)	<u>98'/min</u>	<u>30 m/min</u>
Y axis speed (vertical)	49'/min	<u>15 m/min</u>
Z axis speed (transverse)	49'/min	<u>15 m/min</u>
A axis speed (clamping tool)	650 Rpm	650 Rpm
B axis speed (electro spindle holder)	30 Rpm	<u>30 Rpm</u>
B axis course (electro spindle holder	-15 / +180 deg	<u>-15 / +180 deg</u>
Electro spindle power	<u>10 to 25 KW</u>	<u>10 to 25 KW</u>
Electro spindle maximum speed	12000 to 20000 Rpm	12000 to 20000 Rpm
Wheels attachment	<u>HSK40, HSK50, HSK63</u>	<u>HSK40, HSK50, HSK63</u>
Dimension with robot	<u>114" x 114" x 87"</u>	2900 x 2898 x 2200 mm
Dimension without robot		<u>2900 x 2150 x 2200 mm</u>
Total weight	14,330 lbs	6500 kg

Options

- + Wheel sensor
- + Manual Tail-stock
- + CNC control steady rest
- + Robot charger
- + <u>Retractable tool cooling</u>

Accuracy

Axes X, Y ,Z axis .0000039 Axes A, B axis .0001 deg

0,0001 mm ____ 0,0001 deg

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EOUIPMENT

CA7 EVO BOOST Broach Grinder

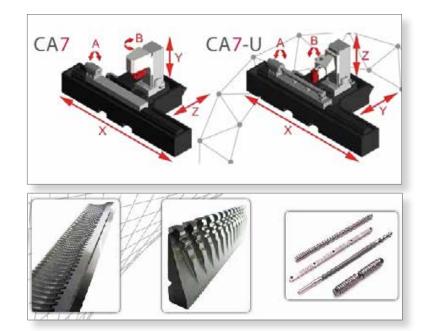


CA7 EvoBoost is the latest grinding machine stamped "Broach Expert" designed and manufactured by SMP TECHNIK. Equipped with a 1700 mm length table, with a large selection of accessories, a powerful electro-spindle and a «Full Option» software, it is perfect for manufacturing all of your tools regardless of their size. Moreover, its compact dimensions make it the perfect tool in workshops where every centimeter counts.

Highlights:

Axes X,Y, Z accurate within +/ .000004" (0.0001 mm)	Resulting in high precision tools
6 slots grinding wheels rack loader	Unload/load a wheel in less than 5 seconds
SA50 work piece holder	Developing a high speed of 650 rpm
✓ 67" (1700mm) long table	Enough space to install necessary accessories
Mineral casting bed	Vibration proof. 10 times the classic iron bed rigidity.
Ergonomics	Control desk with an easy replaceable 22" touch screen

Technical Details



capacities

Maximum tool length (grinding)	67"	1700 mm
Maximum tool diameter	9.8"	250 mm
Maximum tool weight	441lbs	200 kg
Maximum wheel diameter (with HSK50 attachment)	11.8"	300 mm

Specifications

X axis course (horizontal)	59"	<u>1500 mm</u>
Y axis course (vertical)	13.7"	350 mm
Z axis course (transverse)	15.7"	400 mm
X axis speed (horizontal)	147'/min	45 m/min
Y axis speed (vertical)	98'/min	30 m/min
Z axis speed (transverse)	98'/min	30 m/min
A axis speed (clamping tool)	1500 Rpm	1500 Rpm
B axis speed (electro spindle holder)	30 Rpm	30 Rpm
B axis course (electro spindle holder)	-45/+180 deg	-45/+180 deg
	-	-
Electro-spindle power	20 to 25 KW	20 to 25 KW
Electrospindle speed	12,000 to 20,000 Rpm	12,000 to 20,000 Rpm
Wheels attachment	HSK40, HSK50, HSK63	HSK40, HSK50, HSK63
Tool holder maximum speed (SA50)	Max. 650 Rpm	Max. 650 Rpm
Dimension	171" x 87" x 93"	4334 x 2205 x 2360 mm
Total weight	17,637 lbs	8000 kg

Options

- + Wheel sensor
- + Manual Tail-stock
- + <u>CNC control steady rest</u>
- + <u>Mechanized or magnetic cradle</u>
- + HSK40, HSK50 or HSK63 Electro-Spindle
- + Dressing-Rad
- + Magnetic Table

Accuracy

Axes X, Y ,Z axis	.0000039	0,0001 mm
Axes A, B axis	.0001 deg	0,0001 deg

CA7U Model

CA7U EVO BOOST has a different setup from the CA7 EVO boost which is dedicated to the broach grinding. Under this configuration, the electro-spindle is in a vertical position that gives a perfect vision of the grinding process by the operator during the cycle.

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Saw Working

Circle saw leveling station

- Easy height adjustable bench with hydraulic cylinder
- E Replaceable UHMW work surfaces
- + (2) 24" LED lights behind diffused screen
- Standard slab sizes up to 30" larger slabs available upon request
- Slabs available in both mild steel and WW Nichrome Options



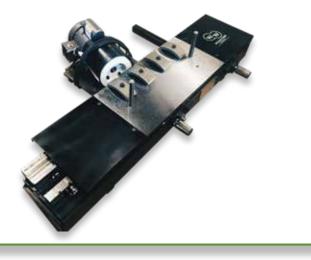
Tension gauge grinder

- + 18" (457mm) and 24"(609mm) models available
- + 0-20' (0-6,096mm) radii
- + Heavy duty design
- + Manual operation
- 🗄 Grinds: Tension Gauges & Straight edges
- Precision machined ways
- + Lubricated ways

Leveling & hammering anvils

- + Precision ground
- Anvils re-conditioning service available
- All sizes of band or circular anvils available
- + Hard hammering pyramid anvils
- + Lazy susan type turntables and floor stands







For a complete list of all of our saw working tools visit our website





Product list

Machines

- CNC Guide Dresser (GDX)
- RoboSharp saw sharpening center
- Dish-o-Matic circular saw stretcher roll
- 36X2 automated tension roller
- Round Saw Center (RSC)
- Top & Face Grinder (TFH-CS2 pro)
- Τοp & face Grinder (TFX)
- Dual Side Grinder (DFX-5)
- Dual side Grinder (DSG)
- H50 Ultimate Brazer (automatic brazing)
- H55 Ultimate Brazer (automatic brazing)
- H65 Ultimate Brazer (automatic brazing)
- HM Ultimate Brazer (manual brazing)
- T50 Pro Braze Tester
- Trac Tru band saw bench
- Standard bench
- Shark 3000 CNC profile grinder
- Shark 600 profile grinder
- Baracuda 750 side dresser
- Stingray (band saw tipper)
- Auto swage
- CA5 Tool Grinder
- CA7 Evo Boost Broach Geinder
- Sure Sharp HewSaw Knife grinder (CKG/EKG)
- LSGX magnetic flat bed knife/surface grinder
- Dish-O-Matic band saw stretcher roll

Saw Guides & Accessories

- Circular saw guides
- Band saw guides
- Babbitt mold machine
- Babbitt mold plates
- Babbitt
- Splines, arbors, Sleeves
- SawSense Temperature System
- 🔲 Saw-ADD Smart Band Saw & Arbor

Filing Equipment

- Replacement rolls (W&W, Armstrong, Hanchett, Proctor etc)
- Anvils and slabs
- Turn tables
- Tipping plate
- Strobe brazing fixture
- Hammers (cross face, twist face, combination & doghead 1-10lb)
- Tension gauges/straight edges
- Tension gauge/straight edge grinder
- Grinding wheels
- Bandsaw welding clamps
- Indicators & gauge kits
- Coolant
- Aluminum I beam straight edges
- Circle saw leveling station
- Band saw shear
- Round saw bench
- Mig welder
- Gullet crimper
- Gummer
- Post grinder

Services

- Stretcher roll regrinding/resurfacing
- Anvil rinding/resurfacing
- Saw guide repair
- Saw guide engineering/design
- Straight edge grinding
- Machine rebuild/repair
- General machining/parts inspection

Notes





WWW.WILLIAMSANDWHITEEQUIPMENT.COM 6307 LAUREL ST, BURNABY BC, V5B 3B3, CANADA 1.888.293.2268 604.2932268 SALES@WILLIAMSANDWHITE.COM