

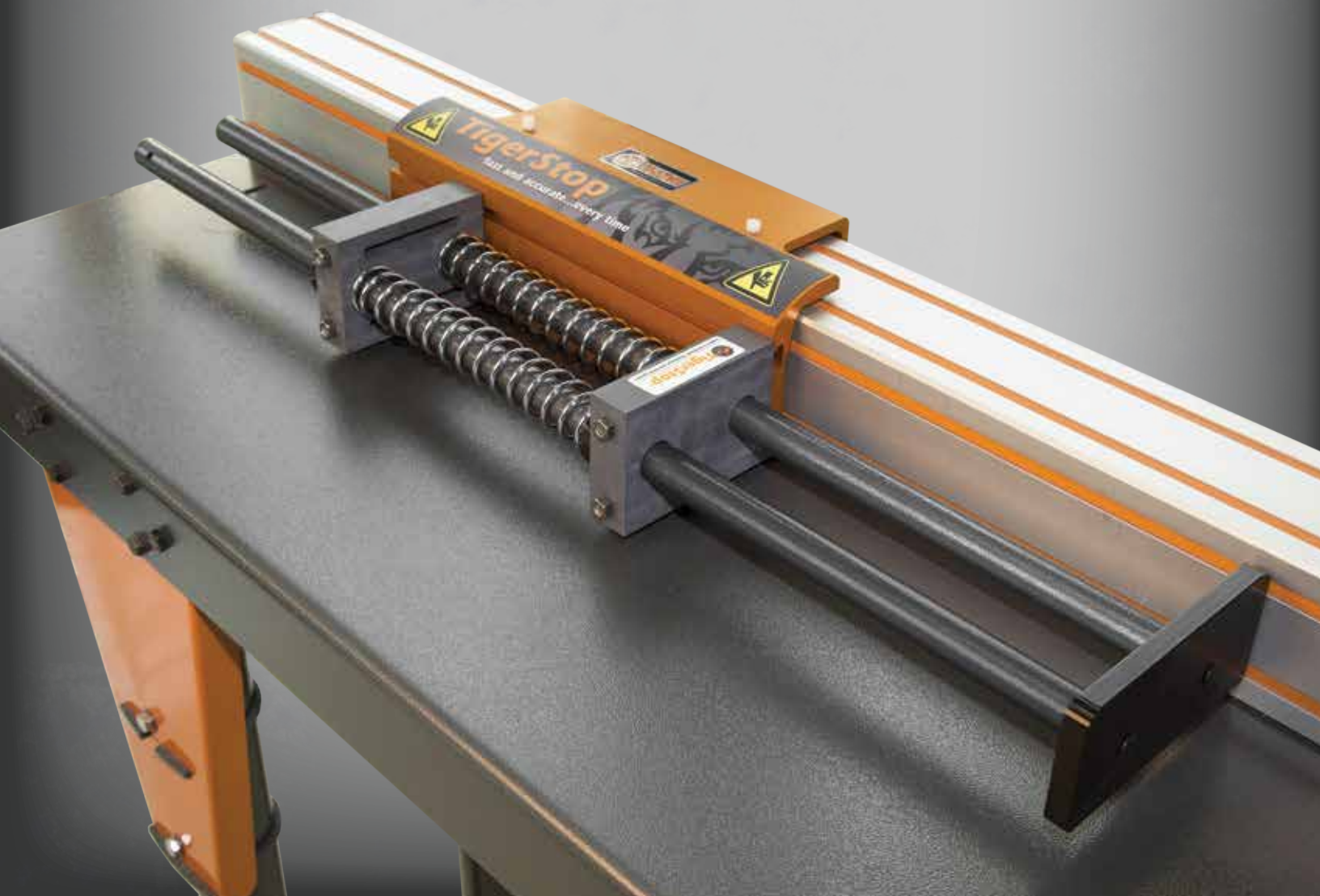
TigerStop®

fast and accurate...every time

July 2016 Mk1

WOODWORKING EQUIPMENT

ADD ON AUTOMATION
AND SAW SYSTEMS



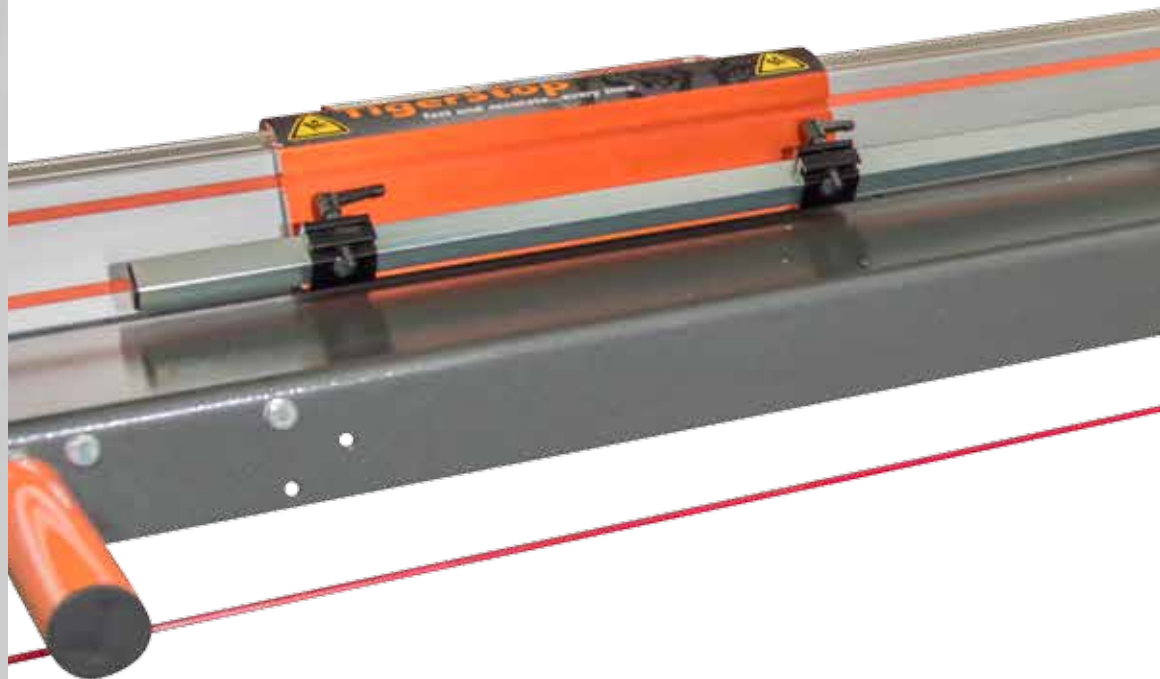
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Push it,



Pull it, Position it

WHY TIGERSTOP?

The 5 ways TigerStop makes you money.

No one likes making capital expenditures. It's sometimes hard to tell if a tool is worth its price tag. You may need a fast, accurate pusher for your saw, but what is the tool doing for your bottom line? This is the real power of TigerStop.

TigerStop gives you a quick Return On Investment (ROI). This is the ultimate payback. The quicker you can realize the ROI, the quicker the benefits start dropping to the bottom line. That's called real money, which is the reason you are in business.

There are five ways that TigerStop gives you an immediate ROI.

0 Set up Time

With TigerStop's simple controls, stop set up time goes to 0. No more checking and re-checking to make sure your manual stop is accurate. TigerStop is repeatable every time without the need to make test cuts or use a tape measure for checking parts.

Maximum Accuracy

TigerStop is an automated stop and pusher system. This means that it will position to $\pm .004$ inch every single time. The part you cut today will be the same size as the one you cut a week from now.

Increased Productivity

A by-product of 0 set up time and maximum accuracy is greatly increased productivity. You're going to get more cuts everyday and every operator is going to cut the same size parts no matter who is working the station.

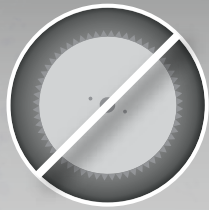


No Rework

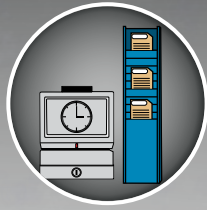
Now that you're cutting accurate parts, you no longer need to rework inaccurate parts. Every part will be easier to work with in later operations.

Improved Yield

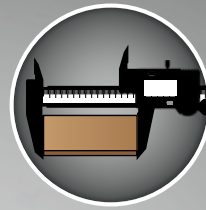
Cutting accurate parts means that you have less bad parts to scrap, but that's just the beginning of the yield improvements. When TigerStop is equipped with Dynamic Optimization™ software, TigerStop will mathematically find the best use of your material for each job. On average, users see a 30% increase in material yield when using Dynamic Optimization.



**NO
REWORK**



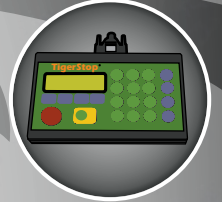
**INCREASED
PRODUCTIVITY**



**MAXIMUM
ACCURACY**



IMPROVED YIELD



0 SET UP TIME

5 TIGERSTOP BENEFITS



TIGERSTOP

Automated fence for material positioning for your industrial machinery

The Product That Started it All.

TigerStop®'s flagship product with over 30,000 in the field.

Its easy-to-use interface and mechanical design make it suited to any application where you need speed, accuracy and precision.

Push it, Pull it, Position it:
TigerStop standard software lets you do it all.

Every TigerStop product uses the same control system, so if your guys have used a TigerStop (most of them have!), they will be able to use any product in the TigerStop family.



Keeps Operators in the Zone

When operators are busy setting and resetting stops, they aren't cutting and they aren't making you money. TigerStop keeps the operator at the saw and in the money making zone.

Δ Shown without guarding. See Terms for details.



Not Your Saw?

TigerStop can be fitted to any machine tool where accuracy and repeatability are required.



Eliminate Rework

With TigerStop you can say, "Goodbye" to rework! Your cutoff station can make your newest operator look like a seasoned sawyer.

Fast and Accurate...Every time

TigerStop quickly positions to your desired length and cuts within +/- .004 in (.1 mm) every time. The part you cut today will be the same as the part you cut tomorrow.

Fast Payback and Exceptional ROI

Most users find that their new TigerStop pays for itself in a matter of months.

SPECS

Power Requirement

110 VAC @ 15 Amps, Isolated Circuit
208 VAC @ 20 Amps, Isolated Circuit
240 VAC @ 20 Amps, Isolated Circuit

Repeatable Accuracy

+/- .004 in (.1 mm)

Motor Type

DC servo w/ optical encoder

Pushing Capacity

120 lbs (54 kg) w/ rollers
90 lbs (40 kg) w/o rollers

Drive Type

32 mm steel reinforced belt

Working Lengths

4 - 30 Feet (1.2 - 9.1 Meters)

Warranty

1 Year

ACCURACY:

+/- .004 IN
.1 MM

CAPACITY:

Up to:
120 LBS
54 KG

MAX LENGTH:

30 FT
9 METERS

* Part tolerance may vary based on system.

SAWGEAR

Portable automated length measuring system

Power Up Your Jobsite or Workshop

SawGear® is a simple and intuitive automated stop. No more using a tape measure or setting manual stops, which means you can produce more parts with increased accuracy. SawGear easily attaches to your existing saw, drill, or punch

If you need a stop that is simple to use and rugged, SawGear is your answer.

Any operator is your best operator with SawGear!



SawGears optional table system makes it perfect for use in the field. SawGear is designed for portability.



Double Miter Pro provides an easy way to integrate your SawGear with your double miter saw.



SawGear's Remote Keypad lets you mount SawGear controls anywhere you need, even on a vertical panel saw.

Easily Cut and Install Crown Molding

SawGear has Crown+MiterPro™ software that calculates part angles and lengths so the user doesn't have to do complicated math. This makes it easy for anyone to install crown molding with minimal training.



SPECS

Power Requirement
110 VAC @ 10 Amps, Isolated Circuit

Repeatable Accuracy
+/- .008 in (.2 mm)

Motor Type
DC servo w/ optical encoder

Pushing Capacity
Stop Only

Drive Type
32 mm steel reinforced belt

Working Lengths
8, 12 & 16 Feet (2.4, 3.6 & 4.8 Meters)
Custom lengths are available

Warranty
1 Year

Simple to Use

SawGear has been designed to be simple to use. Why spend weeks training operators when they can be cutting accurate parts with SawGear today?

Ahead of Schedule

Not only do you get a better quality job, your guys get more done in the same hours... every day.

Value That Can't be Beat!

With SawGear you can forget inaccurate parts and rework. You get it right the first time!

Δ Shown without guarding. See Terms for details.



ACCURACY*:

+/- .008 IN
.2 MM

SPEED:

125 FT/MIN
38 M/m

MAX LENGTH:

16 FT
4.8 METERS

* Part tolerance may vary based on system.

TIGERCROSSCUT

Automated crosscut fence for your table saw and sliding table saw

Cut More, Walk Less.

How much time are you losing walking around your sliding table saw, setting and resetting manual fences? TigerFence™ and TigerCrossCut™ lets operators change dimensions without having to walk a step.

Most users see up to 30% more productivity out of their saw every day.



Fast and Accurate...Every Time

TigerFence and TigerCrossCut have a repeatable accuracy of $\pm .003"$ (.07 mm). This means that tomorrow's parts will be the same size as yesterday's parts.



No More Set up Time

With TigerCrossCut and TigerFence, you don't have to manually adjust fences or jigs. Just enter your length and cut. TigerCrossCut and TigerFence will take care of the accuracy so you can focus on making a quality product.

Adaptable

If you need more production, don't buy a new saw. Turbocharge your existing table saw with TigerFence and TigerCrossCut.



Δ Shown without guarding. See Terms for details.

TIGERFENCE

Automated ripping fence for your table saw and sliding table saw

SPECS

Power Requirement

110 VAC @ 15 Amps, Isolated Circuit
208 VAC @ 20 Amps, Isolated Circuit
240 VAC @ 20 Amps, Isolated Circuit

Repeatable Accuracy

+/- .003 in (.07 mm)

Motor Type

DC servo w/ optical encoder

Pushing Capacity

Stop Only

Drive Type

3/4 in Hi-Lead Screw

Working Lengths

51 - 70 in (1.2 - 1.7 Meters) - TigerFence
120 in (3 Meters) - TigerCrossCut

Warranty

1 Year

ACCURACY*

+/- .003 IN
.07 MM

MACHINE TYPE:

STOP
ONLY

MAX LENGTH:

70 IN
1.7 METERS
(TigerFence)

* Part tolerance may vary based on system.

TIGER RACK

Automated fence for positioning material up to 720 lbs (326 kg)

Accuracy and Precision for Heavier Loads.

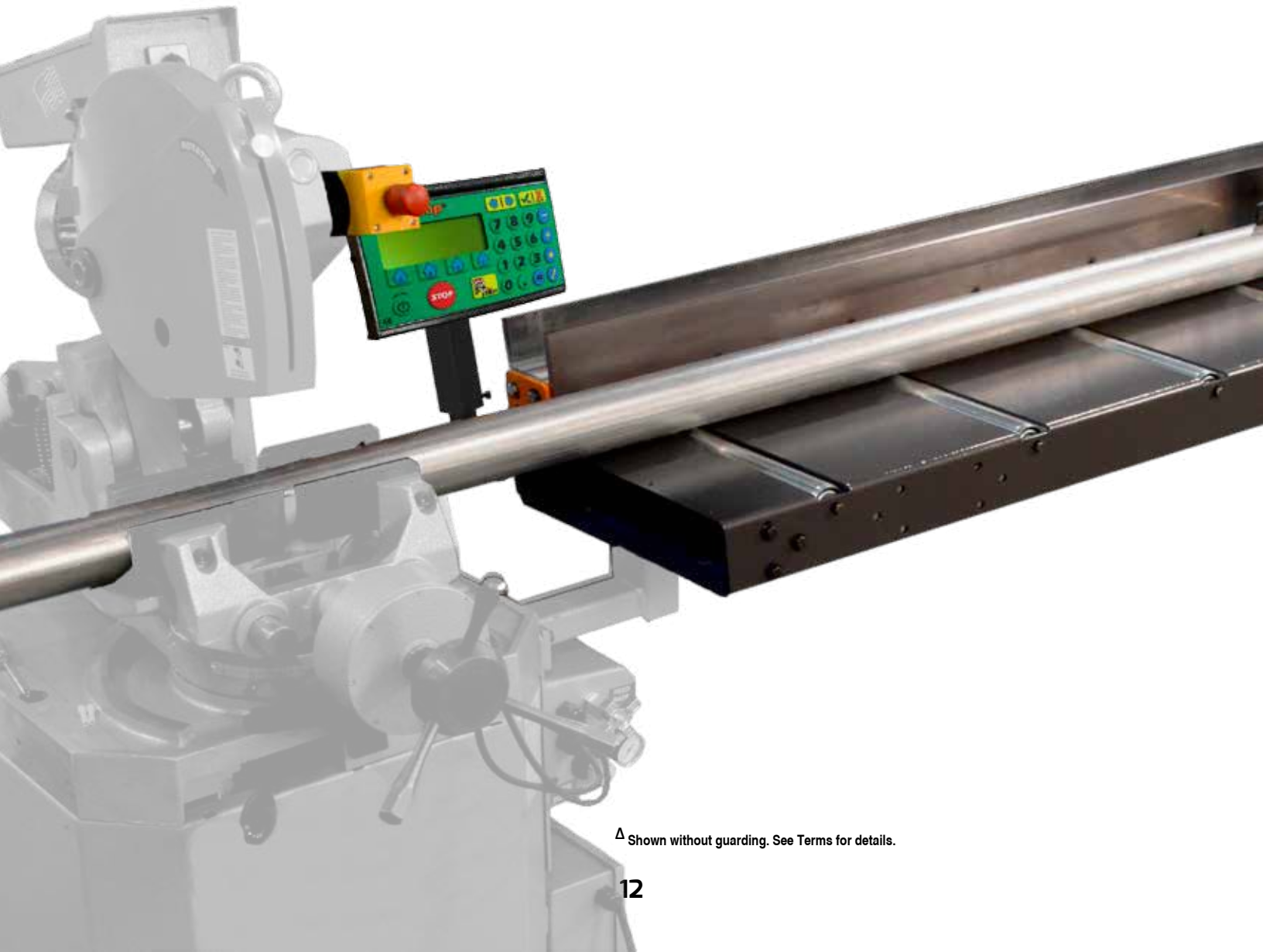
TigerRack™ is an automated fence for positioning material up to 720 lbs (326 kg).

TigerRack's precision rack and pinion drive system will keep your production humming.

Designed for processing tube, bar stock and heavier materials.

Have a rough application? TigerRack's brake system helps guarantee that you don't end up miscutting parts.

Push it, Pull it, Position it.
TigerRack gets the job done!



Δ Shown without guarding. See Terms for details.



Options



Brakes



Pneumatic Flip Away



SPECS

Power Requirement
208 VAC @ 20 Amps, Isolated Circuit
240 VAC @ 20 Amps, Isolated Circuit

Repeatable Accuracy
+/- .008 in (.2 mm)

Motor Type
AC servo w/ optical encoder

Pushing Capacity
720 lbs (326 kg) w/ rollers
300 lbs (136 kg) w/o rollers

Drive Type
Rack & Pinion

Working Lengths
8 - 108 Feet (2.4 - 32.9 Meters)

Warranty
1 Year

ACCURACY:*

+/- .008 IN
.2 MM

CAPACITY:

Up to:
720 LBS
326 KG

MAX LENGTH:

108 FT
32.9 METERS

* Part tolerance may vary based on system.

TIGERTURBO

High speed automated feeder for positioning material up to 840 lbs (381 kg)

High Speed and Heavy Loads

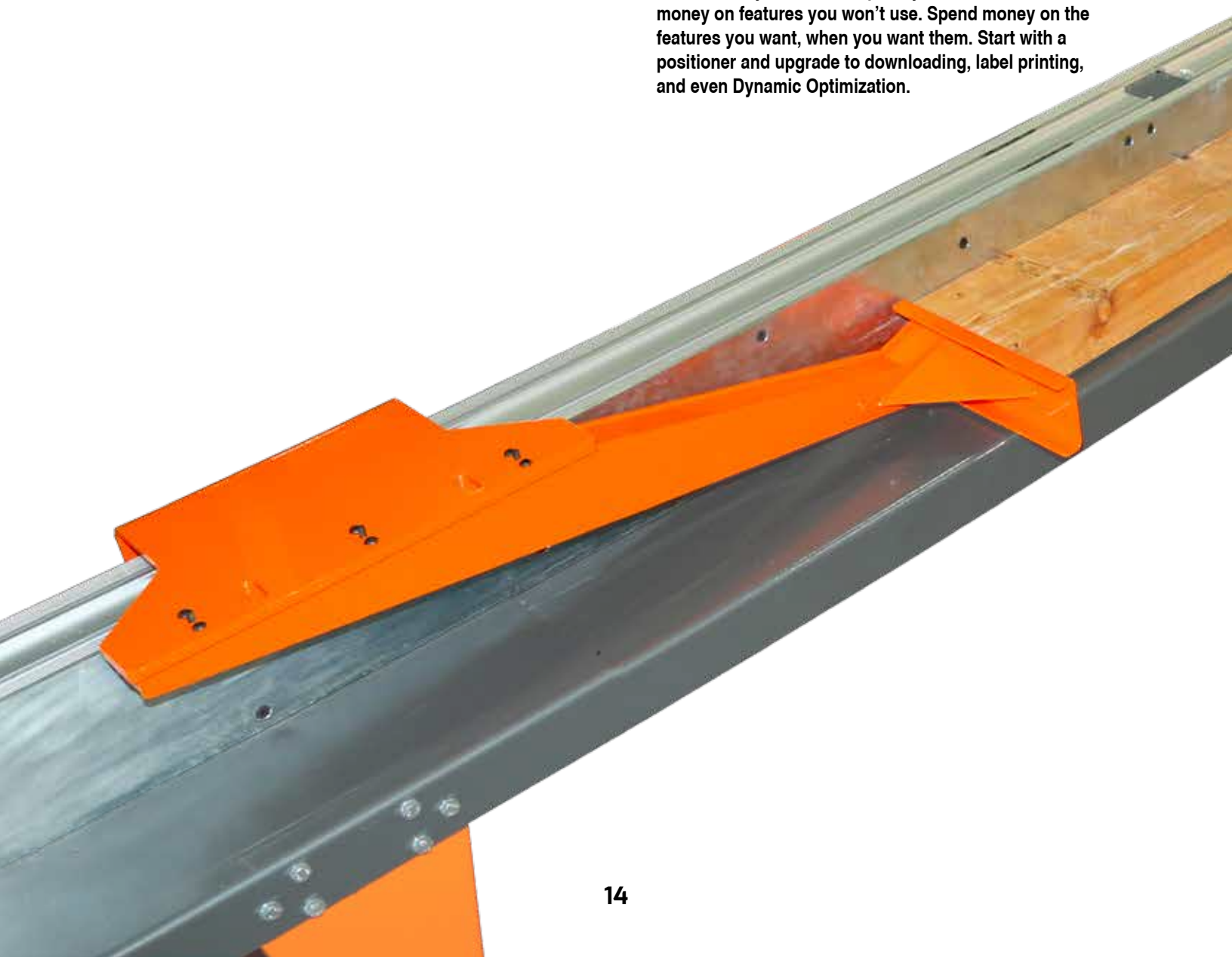
TigerTurbo™, big brother to the TigerStop, offers higher speeds and increased load capacity.

If you need speed, TigerTurbo can operate at up to 180 feet per minute with its steel reinforced belt. If pushing capacity is your game, TigerTurbo can push 350 lbs (158 kg) without rollers or 840 lbs (381 kg) with roller tables.

When no other machine can push it, pull it, or position it, TigerTurbo gets the job done.

As Much Machine as you Want

TigerStop gives you the freedom to add on any software feature at any time. Don't spend your hard earned money on features you won't use. Spend money on the features you want, when you want them. Start with a positioner and upgrade to downloading, label printing, and even Dynamic Optimization.





High Speed Accuracy

We know what it's like to set and reset manual stops. If you're making one or two parts, that's fine. For those of us who need the 1st part to be the same as the 1,000th, we use TigerTurbo. Fast and accurate...every time.



Δ Shown without guarding. See Terms for details.

Too Much Work?

Do you have to decide between hiring new employees or turning down work? There is a third option. Get a TigerTurbo and watch one employee do the work of 3. Couple that with one of the best ROI's for any machine tool, and the decision is a no brainer.

SPECS

Power Requirement
208 VAC @ 20 Amps, Isolated Circuit
240 VAC @ 20 Amps, Isolated Circuit

Repeatable Accuracy
+/- .008 in (.2 mm)

Motor Type
AC servo w/ optical encoder

Pushing Capacity
840 lbs (381 kg) w/ rollers
350 lbs (158 kg) w/o rollers

Drive Type
75 mm Steel Reinforced Belt

Working Lengths
12 - 42 Feet (3.6 - 12.8 Meters)

Warranty
1 Year

ACCURACY:

+/- .008 IN
.2 MM

CAPACITY:

Up to:
840 LBS
381 KG

MAX LENGTH:

42 FT
12.8 METERS

* Part tolerance may vary based on system.

HEAVYDUTY2

Heavy duty automated feed system for positioning material up to 2100 lbs (952 kg)

This is the Big Boy

HeavyDuty 2™, big brother to the TigerStop and TigerTurbo, offers higher load capacities than any other TigerStop system.

Built for your heaviest loads, the HeavyDuty 2 is a rugged yet powerful automated positioning system. It can push, pull, and position up to 2,100 pounds with repeatable accuracy shift after shift.

Material Handling Made Easy

If you are doing the back breaking work of loading heavy material onto your positioner and manually adjusting fences, think again. TigerStop knows that accuracy is most important when you're building big. HeavyDuty 2 gives you +/- .008 in (.2 mm) repeatable accuracy and does it quickly...every time.





Δ Shown without guarding. See Terms for details.

Greater Throughput

With a HeavyDuty 2 attached to your workstation you can increase your throughput threefold and push material up to 2,100 lbs. You can even stack multiple pieces of material on HeavyDuty 2 and process as a pack for increased throughput.

Processing Flexibility

Are you doing single piece flow? How about pack cutting? What about pulling material through a drill press? HeavyDuty 2 can do all three right out of the box. The only limit is your imagination.

SPECS

Power Requirement
208 VAC @ 20 Amps, Isolated Circuit
240 VAC @ 20 Amps, Isolated Circuit

Repeatable Accuracy
+/- .008 in (.2 mm)

Motor Type
AC servo w/ optical encoder

Pushing Capacity
2100 lbs (952 kg) w/ rollers
490 lbs (222 kg) w/o rollers

Drive Type
Rack & Pinion

Working Lengths
12 - 108 Feet (3.6 - 32.9 Meters)

Warranty
1 Year

ACCURACY:*

+/- .008 IN
.2 MM

CAPACITY:

Up to:
2100 LBS
952 KG

MAX LENGTH:

108 FT
32.9 METERS

* Part tolerance may vary based on system.

TIGERSPC

Statistical process control calipers

Introduction

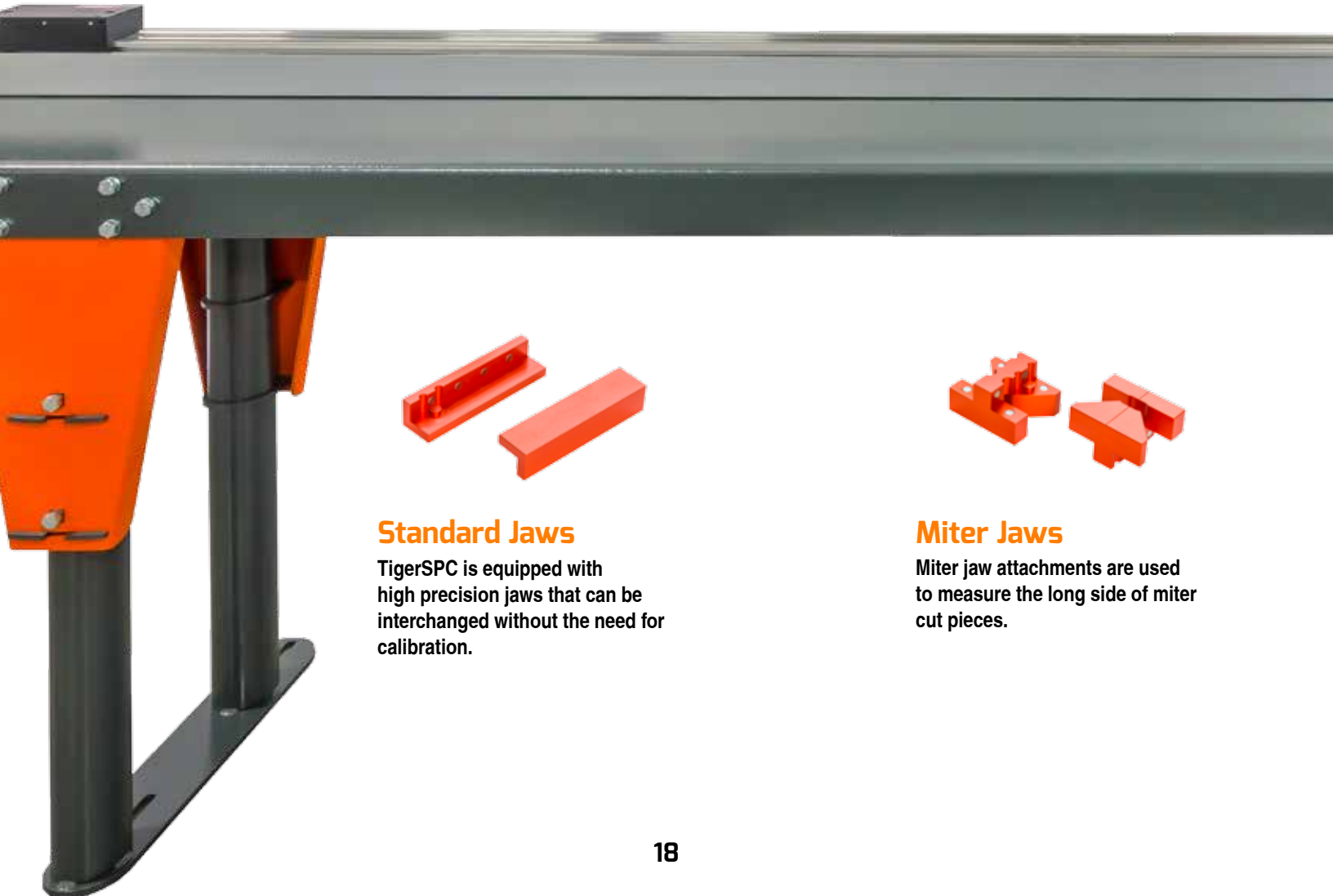
TigerSPC is a caliper set designed to easily make critical quality control measurements. Once attached to the TigerStop table system, the calipers can measure material up to 16 feet long to $\pm .006$ in (.15mm). TigerSPC can be equipped with a selection of both standard and custom attachments allowing it to be specifically configured for your set of critical quality control measurements.

Easily Measure Material Up to 16 Feet

TigerSPC is a statistical process control caliper set designed to be attached to the TigerStop table system with working lengths up to 16 feet and a repeatable accuracy of $\pm .006$ in (.15mm). The calipers can be equipped with a selection of both standard and custom attachments that allow it to be specifically configured for your set of critical quality control measurements.

Snap In Jaws

TigerSPC's easy-to-use snap in jaws allow the operator to change from holes, to miters, to overall measurements, in seconds without losing calibration. All TigerSPC jaws and appliances are machined to ensure the same zero point, so there is no need to recalibrate for different setups.



Standard Jaws

TigerSPC is equipped with high precision jaws that can be interchanged without the need for calibration.

Miter Jaws

Miter jaw attachments are used to measure the long side of miter cut pieces.



SPECS

Power Requirement
2 AA Batteries

Repeatable Accuracy
+/- .006 in (.15 mm)

Measurement
Inches & Fractions
Inches Decimal
Metric

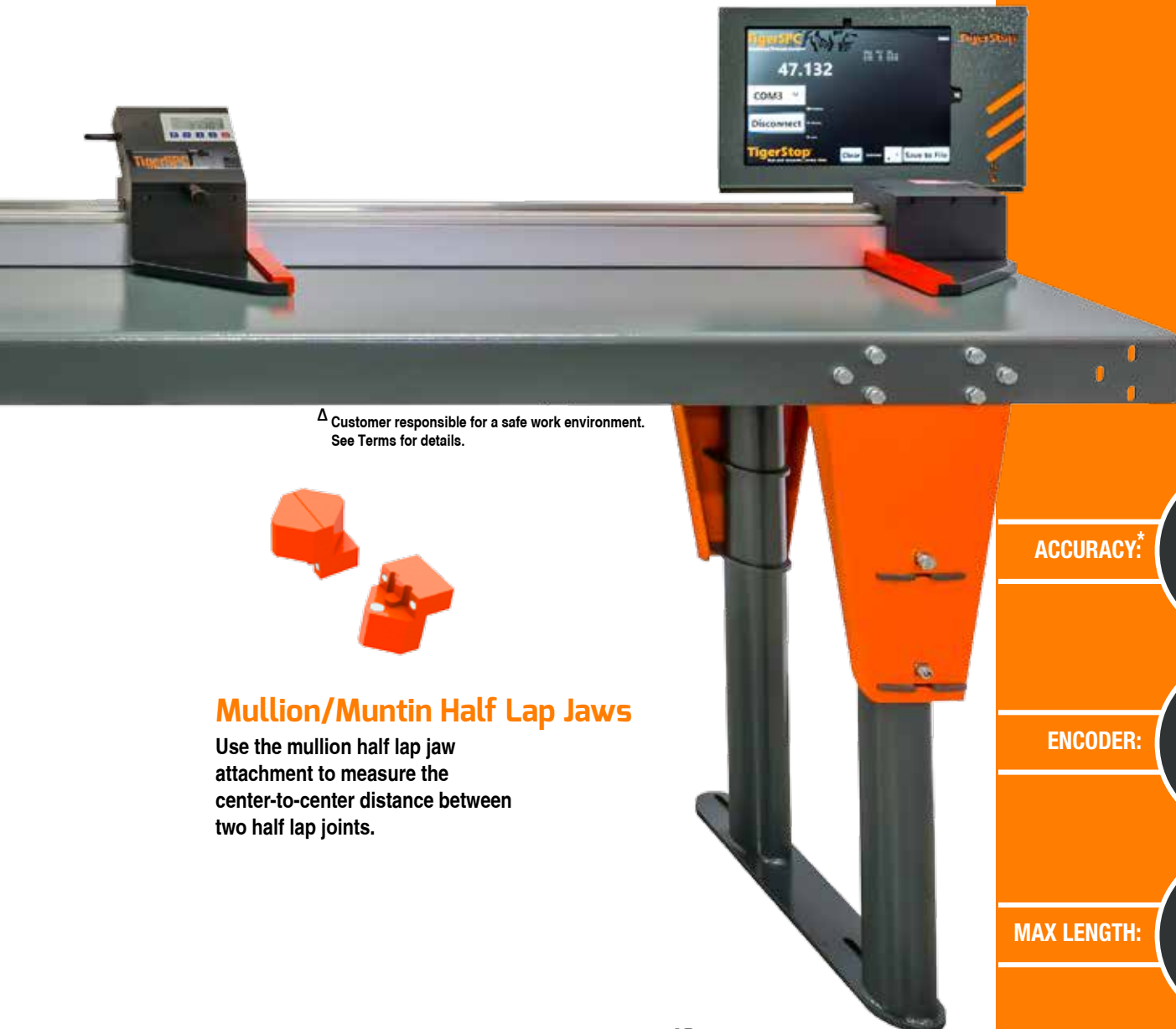
Construction
Anodized aluminum 6061-T6

Working Lengths
0 - 16 Feet (0 - 4.8 Meters)

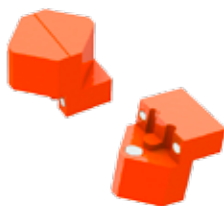
Warranty
1 Year

Swivel Block Attachment

The Swivel Block Attachment combines the ability to measure from hole-center to hole-center. It also swivels and allows the operator to attach additional jaw accessories without the need to recalibrate.



Δ Customer responsible for a safe work environment.
See Terms for details.



Mullion/Muntin Half Lap Jaws

Use the mullion half lap jaw attachment to measure the center-to-center distance between two half lap joints.

ACCURACY:

+/- .006 IN
.15 MM

ENCODER:

MAGNETIC
LINEAR

MAX LENGTH:

16 FT
4.8 METERS

* Part tolerance may vary based on system.

SAW SYSTEMS



TIGERSAW 1000

Automated defecting and optimizing saw station

Unparalleled Cut Quality

TigerSaw 1000™ is the perfect automated saw station for cutting faster and more accurately than manual methods. It increases yield, accuracy and productivity at the best value point in the industry.

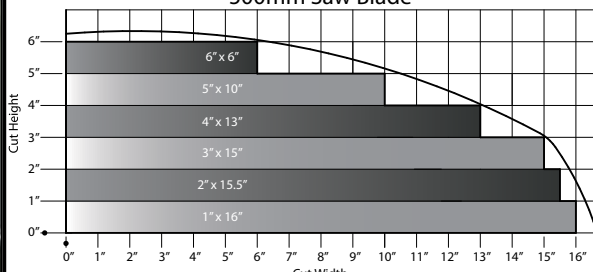
It comes with an adjustable cutting envelope so you can set the system for the material you cut, whether pack or single piece. TigerSaw 1000 can handle large pack loads up to 2100 lbs. using the HeavyDuty 2 pusher.

Dynamic Optimization software gives you the best yield from your cut list by determining the optimal cutting order of material, and when combined with Crayon Defect Marking, can defect material for even greater savings.



Δ Customer is responsible for a safe work environment. See Terms for details.

TigerSaw 1000 - Cutting Envelope
500mm Saw Blade



*Note: The saw blade must be repositioned to reach each maximum cut

TigerSaw Cutting Envelope



Mix and Match Clamping

TigerSaw 1000 offers 3 clamping styles that can be used separately or together to deliver the exact clamping solution you need.

5 Piece Door Panel Optimization

Processing random width lumber for seamless panel glue-up is difficult and time consuming. Using TigerSaw 1000's Dynamic Optimization you can process panel lists optimized for width.

Software to Increase Productivity

A high volume machine needs high volume software solutions. TigerSaw 1000 connects to almost any design software to quickly load your parts lists. Then print custom information right on each part for easy identification. Don't feel like going back to your desk to load parts lists? Use the TigerTouch™ touch screen interface and take full command.

Crayon Defect Marking

Many shops buy higher quality material to avoid defecting because defecting is hard – TigerSaw 1000 makes it easy. Operators use UV crayons to mark defects in the material. TigerSaw 1000 will cut around those defects and optimize the clear material while cutting parts. When defecting and optimizing, shops can downgrade to cheaper lumber and defect themselves, saving a lot of money on material.

BASIC SPECS

Power Requirement

208 VAC @ 30 Amps FLA
240 VAC @ 30 Amps FLA
460 VAC @ 20 Amps FLA
480 VAC @ 20 Amps FLA

Repeatable Accuracy

+/- .012 in (.3 mm)

Saw Blade Diameter

350 , 450 mm or 500 mm

Saw Motor Type

10 HP AC Saw Motor, CTEFC

Positioner Motor Type

DC servo w/ optical encoder (TigerStop)
AC servo w/ optical encoder
(TigerTurbo, HeavyDuty 2)

Pushing Capacity

2100 lbs (952 kg) w/ rollers
490 lbs (222 kg) w/o rollers

Drive Type

32 mm steel reinforced belt (TigerStop)
75 mm steel reinforced belt (TigerTurbo)
Rack & Pinion (HeavyDuty 2)

Working Lengths

4 - 108 Feet (1.2 - 32.9 Meters)

Warranty

1 Year

ACCURACY:

+/- .012 IN
.3 MM

CAPACITY:

Up to:
2100 LBS
952 KG

MAX LENGTH:

108 FT
32.9 METERS

* Part tolerance may vary based on system.

SPECS

General Specifications

Spec	Value
In-feed Length	
TigerStop	4 - 26 Feet (1.2 - 7.9 Meters)
TigerTurbo	4 - 38 Feet (1.2 - 11.5 Meters)
HeavyDuty 2	4 - 104 Feet (1.2 - 31.6 Meters)
In-feed Max. Weight	
TigerStop	90 lbs (40 Kg) w/o rollers, 120 lbs (54 Kg) w/ rollers
TigerTurbo	350 lbs (158 Kg) w/o rollers, 840 lbs (381 Kg) w/ rollers
HeavyDuty 2	490 lbs (222 Kg) w/o rollers, 2100 lbs (952 Kg) w/ rollers
Max. Pusher Speeds	
TigerStop	Up to 150 fpm
TigerTurbo	Up to 180 fpm
HeavyDuty 2	Up to 125 fpm
Positioning Accuracy	
TigerStop	+/- .012 In (.3 mm)
TigerTurbo	+/- .016 In (.4 mm)
HeavyDuty 2	+/- .016 In (.4 mm)

Mechanical Features

Saw Blade Diameter / Adjustable Cutting Envelope

- 300 mm Saw Blade
 - 3" X 5.5" to 1" X 10.5"
- 450 mm Saw Blade
 - 5" X 6" to 1" X 15"
- 500 mm Saw Blade
 - 6" X 6" to 1" X 16"

An Adjustable cutting envelope allows for the cutting of thicker, wider profiles. Cutting envelope can be adjusted to accommodate blade diameters. Saw arbor can be adjusted forward and backwards. Saw stroke cylinder can be adjusted according to saw blade diameter.

System Overview

TigerStop In Feed/Out Feed Table

- Back fence on out feed
- Fully adjustable height
- 10 degree tilt
- Material loading station on in feed

Scanning Head with Length and Defect Detection

- Automatically detects material length
- Infrared sensor automatically detects marked defects
- Minimum material width is 1 inch
- Minimum material thickness is .25 inch

Defecting While Cutting Multiple Grades

- Marked defects are cut automatically and parts are optimized at the same time. TigerSaw 1000 can be configured to use multiple grades and can cut defects, optimize parts and cut multiple grades, all within the same stock length if necessary.

In Feed, Out Feed and Top Clamping

- Adjustable in feed and out feed spring clamps hold the material against the back fence during pushing and throughout the cut cycle
- Adjustable top clamp holds material during the cut
- All 3 clamps ensure parts do not move during processing, ensuring maximum accuracy

Inkjet Printing on Finished Parts

- Print customizable part information on each cut part
- Ensures easy sorting of parts
- Uses easy-to-change ink cartridges

Electrical

Main System Control Box	208/240/460/480 VAC @ 30/30/20/20 A
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Pneumatic

Air Pressure	80 PSI (5.5 bar)
Dust Extraction Port	1 @ Ø 4 in (101.6 mm)
Dust Extraction Speed	4500 - 5000 Lf/min
Dust Extraction Flow	600 cfm
Minimum Air Velocity	4500 Lf/min (1371 M/min)
Recommended Air Velocity	4500 Lf/min - 5000 Lf/min (1371 M/min - 1524 M/min)

TIGERRIP 1000

Defect cutting straight line rip saw system

Dynamic Optimization at the Rough Mill.

TigerRip 1000™ is the perfect solution for optimizing your rip yield in a lean production environment. Cut all your lineal footage requirements, including square footage for panel, while watching your yield soar. No more over cutting and wasted materials. TigerRip 1000 is perfect for your precision rough mill needs.



TigerRip 1000 Complete System

Δ Customer is responsible for a safe work environment. See Terms for details.

TigerRip 1000 - In feed only



TigerRip 1000 - In feed with saw





SPECS

Power Requirement

120 VAC @ 8 Amps, FLA
208 VAC @ 5 Amps, FLA
240 VAC @ 5 Amps FLA

Repeatable Accuracy

+/- .008 in (.2 mm)
Parallel cut over 8 feet (2.43 M)

Working Lengths

12 or 18 feet (3.6 or 5.4 Meters)

Saw Motor Type

15 HP AC Saw Motor, CTEFC

Positioner Motor Type

DC Servo w/ optical encoder

Feed Speed

50 Ft/Min (Positioning)
(15.2 M/Min)

30 - 110 Ft/Min (Saw)
(9.1 - 33.5 M/Min)

Warranty^Δ

1 Year

Accuracy

TigerRip 1000 positions quickly and accurately....every time. This means your first rip is as accurate as your last. No more missed edges or over sized waste strips. TigerRip 1000's fence is accurate within +/- .008 in (.2 mm).

Printing

TigerRip 1000 can automatically inkjet print on each strip as it is ripped. This allows you to easily sort strips on the back end of the rip saw, even if you are batching like-jobs, to increase yield. No more counting or sorting ripped strips ever again.



RIP CAPACITY:

1 - 15 IN
25.4 - 381 MM

FEED SPEED:

30 - 100 Ft/Mi
9.- 33 M/Min

THROUGHPUT:^{***}

2500-5000
Feet per Shift

* Part tolerance may vary based on system.

Δ See Terms for details

SPECS

System Capacity

Blade Diameter	12 inches
Arbor Diameter	1 inch
Blade Speed	4500 rpm
Max. In-feed Length	16 Ft (4.8 M))
Max. In-feed Width	15 In (381 mm)
Max. In-feed Thickness	3.25 inches
TigerRip 1000 Repeatable Accuracy	+/- .008 in (.2 mm)
Material Type	Wood

System Specs

Speed of TigerRip 1000 Fence (Inbound)	50 Ft/Min (15.2 M/Min)
Speed of TigerRip 1000 Fence (Outbound)	50 Ft/Min (15.2 M/Min)
Saw Motor	15 HP
Max. Scan Width	15 In (381 mm)

System Overview

Wide In Feed Table

- Back fence on out feed
- Fully adjustable height
- Material loading station

Scanning Head with Length and Defect Detection

- Automatically detects material length
- Infrared sensor automatically detects marked defects
- Minimum material width is 1 inch
- Minimum material thickness is .25 inch
- Minimum material length is 4 feet

Ink jet Printing on Finished Parts

- Print customizable part information on each cut part
- Ensures easy sorting of parts
- Uses easy-to-change ink cartridges

Optional Out Feed Return Conveyor

- Returns ripped material to operator station

Electrical

Main System Control Box	208/480V @ 30/20 Amps
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Pneumatic

Air Pressure	80 PSI
Dust Extraction Port	1 @ 5 inches
Dust Extraction Speed	4000 Lf/sec
Dust Extraction Flow	750 cfm
Minimum Air Velocity	4000 Lf/sec
Recommended Air Velocity	4500 - 5000 Lf/sec



TIGERANGLE

Automated compound miter saw system for optimizing angled parts



Automatic Positioning with
TigerStop Pusher



Cover All the Angles.

Cutting compound miter angles, setting and resetting fences, and checking cut parts for accuracy, is a difficult and thankless job. Why waste precious time doing multiple steps when you could simply be using TigerAngle™.

TigerAngle, together with BeamWorks™ software, makes it easy to design and cut custom compound miters and bevels. Just enter your parts and angles into BeamWorks, and let TigerStop's powerful Dynamic Optimization nest the parts so that you will receive the maximum possible yield!

BeamWorks can easily handle your data, even BIM files can be imported with ease.

TigerAngle can be configured with one or two angled axes for either simple or compound miters.



Automatic Retractable Guarding

Δ Customer is responsible for
environment. See Terms for



Let TigerStop Dynamic Optimization find
the best yield



SPECS

Power Requirement
208 VAC @ 27 Amps, Isolated Circuit
230 VAC @ 24 Amps, Isolated Circuit

Repeatable Accuracy
.012 in (.3 mm)

Motor Type
DC servo w/ optical encoder

Pushing Capacity
120 lbs (54 kg) w/ rollers
90 lbs (40 kg) w/o rollers

Drive Type
32 mm steel reinforced belt

Working Lengths
4 - 30 Feet (1.2 - 9.1 Meters)

Warranty^Δ
1 Year

ACCURACY:^{*}

+/- .012 IN
.3 MM

CAPACITY:

Up to:
120LBS
54 KG

MAX LENGTH:

30 FT
9.1 METERS

^{*} Part tolerance may vary based on system.

^Δ See Terms for details

SPECS

System Capacity

	Model ZS 170N	Model ZS 200N
Blade Diameter	420 mm	520 mm
Arbor Diameter	40 mm	50 mm
Blade Speed	3500 U/min	2800 U/Min
Length of Cut	410 mm @ 90°	420 mm @ 90°
Depth of Cut	170mm @ 90°	200mm @ 90°
Horizontal Miter Range	45°-90°-25°	45°-90°-22°
Vertical Miter Range	45°-90°-60°	60°-90°-30°
Max. In-feed Length	30 ft (9.1 M)	30 ft (9.1 M)
Min. In-feed Width	1 Inch (25.4 mm)	1 Inch (25.4 mm)
Max. In-feed Thickness	170 mm @90° 290 mm @290°	200 mm @ 90° 140 mm @ 45°
TigerAngle Repeatable Accuracy	+/- .012 in (.3 mm)	+/- .012 in (.3 mm)
Max. Material Weight	120 lbs (54 kg)	120 lbs (54 kg)
Material Type	Wood, Plastic, Non Ferrous Metals	Wood, Plastic, Non Ferrous Metals

System Specs

	Model ZS 170N	Model ZS 200N
Speed of TigerAngle Fence (Inbound)	Up to 150 fpm	Up to 150 fpm
Speed of TigerAngle Fence (Outbound)	Up to 150 fpm	Up to 150 fpm
Saw Motor	400 v, 2 kW	400 v, 5 kW
System Noise Levels (Idle)	100.3 dB	
System Noise Levels (Processing)	98.6 dB	

System Overview

TigerStop In-feed/Out-feed table

- Back fence on out feed
- Fully adjustable height
- Roller or flat table options

Automatic Miter and Bevel

- Automated miter and bevel adjustment
- Fully controlled by BeamWorks touchscreen software

Integrated Guarding

- Hood enclosure retracts to give full access to saw when not cutting
- Large front window gives full view during material processing

Vertical and Horizontal Pneumatic Clamping

- Automatic double horizontal clamping
- Single automatic vertical clamp

Electrical

Main System Control Box	208/230 @ 27/24 amps
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Pneumatic

Air Pressure	
Dust Extraction Port	1 @ 95 mm
Dust Extraction Speed	
Dust Extraction Flow	
Minimum Air Velocity	
Recommended Air Velocity	



TIGERSTOP TABLES

Only as Good as its Foundation.

TigerStop made tables are the ideal foundation for your TigerStop system. Made from 3/16 in cold rolled steel, these tables can be adjusted from a height of 35 to 45 inches. Each table is designed to attach to most tool types.

Style and design meet durability to make these tables the perfect material handling solution for the lean shop.



Flat Topped Tables

TigerStop's flat topped tables are designed to easily integrate with every TigerStop positioning product. Flat topped tables are available in 14.4 in (365 mm), 24 in (609 mm) and 31 in (787 mm) widths and can be tilted to a 10° angle using TigerStop tilt brackets. Whether connected to your tool or made into free standing tables with a table leg kit, TigerStop flat topped tables will stand up to any job!



SPECS

Material
3/16 in (4.7 mm) cold rolled plate steel

Height Adjustability
35 - 45 in (889 - 1143 mm)
Legs can be cut for shorter lengths

Available Widths
14.4 in (365 mm)
24 in (609 mm)
31 in (787 mm)

Table Extras
Steel Rollers
Plastic Coated Rollers
10° Tilt

Optional Accessories
Table Back Fence
Saw Attachment Plate
Universal Brackets for Mounting
Chop Saw Support Stand



Safety Roller Tables

Safety matters. Roll conveyors are notorious for workshop injuries. TigerStop fills the space between rollers to improve safety. TigerStop Safety Roller Tables are available in all 3 standard TigerStop table widths and can be equipped with steel or plastic coated rollers. The table tops can be set up flat or tilted to 10° using TigerStop tilt brackets.

Ledge Stand

The Ledge Stand is a small 6.5 inch wide table ledge that is perfect for quickly removing parts after they are cut.

HEIGHT:

35 to 45 IN
889 to 1143 MM

WIDTHS:

14.4, 24, 31 IN
365, 609, 787 mm

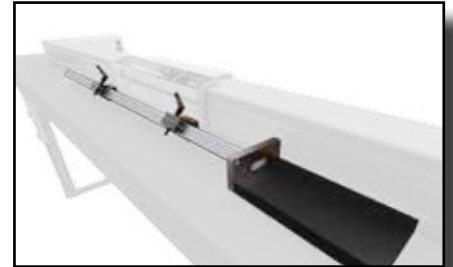
MATERIAL:

3/16 IN
4.7 MM
COLD ROLLED STEEL

ATTACHMENTS

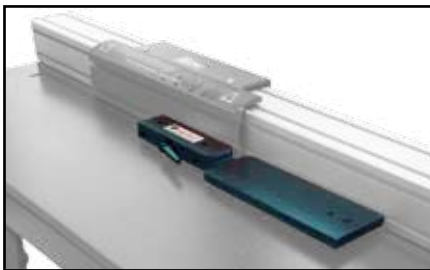
Find the Perfect Fit for your TigerStop®

If you have an application, you can bet that TigerStop has an accessory to help push, pull or position your material. It doesn't matter if you have a TigerStop, TigerTurbo or Heavy Duty 2... we have a solution for you!



Mini Gangstop

The Mini Gangstop is designed to fit as many applications as possible. It can accommodate thin material, can be configured for pack sawing and can be adjusted based on part width. Extends the reach of TigerStop by 6 - 24 inches (152 - 609 mm).



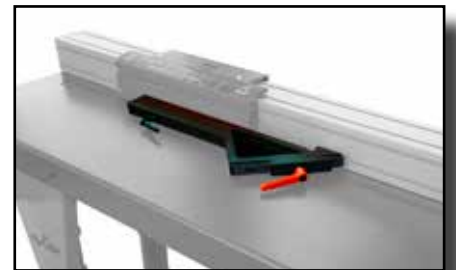
Pusher Foot

Extends reach of TigerStop by 7 - 11 inches (177 - 279 mm).



Extended Pusher Foot

Extends reach of TigerStop by 7 - 30 inches (177 - 762 mm).



Miter Gauge

For any application where you need a 45 degree angled surface. The unique miter retention clip snugly holds your mitered pieces. Extends reach of TigerStop by 1 - 13 inches (25 - 330 mm).



Spring Buffer

Use Spring Buffer when material being processed is heavy and damage may occur if an operator were to slam material against the stop. Spring Buffer will help extend belt life and cushion your TigerStop against accidental impacts. Extends reach of TigerStop by 3 - 16 inches (76 - 406 mm).



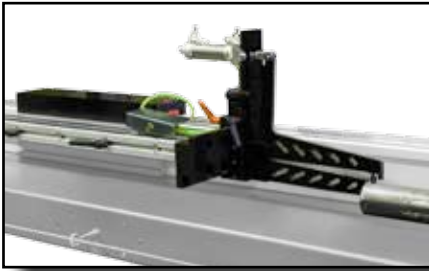
Gangstop

Want to process more than one piece at a time? The Gangstop will do the trick. This rugged unit has a built-in spring buffer to absorb reasonable loading shock and 4-way adjustment to guarantee perfectly aligned installation. Extends reach of TigerStop by 6 - 21 inches (152 - 533 mm).



Extended Miter Gauge

With all the features of the Miter Gauge, the Extended Miter Gauge extends the reach of the pusher into the saw envelope and specifically into the clamping fixture to ensure 100% use of material. Extends reach of TigerStop by 13 - 30 inches (330 - 762 mm).



Tube & Pipe Gripper

Extends the reach of the pusher into the saw envelope and specifically into the clamping fixture to ensure 100% use of material. Extends reach of TigerStop or TigerRack by 12 -22 Inches (304 - 558 mm).



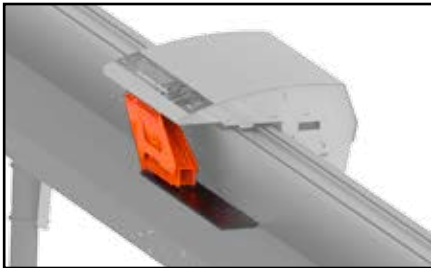
Pusher Miter Fence

Extends the reach of the pusher into double miter saws to ensure 100% use of material. Extends reach of TigerStop by 21 inches (533 mm).



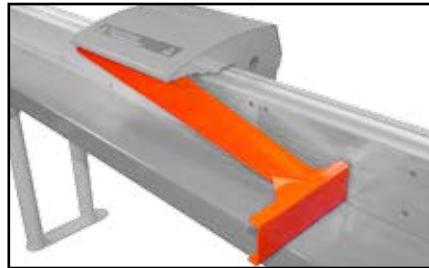
Center Pusher

Extends the reach of the pusher into the saw envelope and specifically into a self centering vice to ensure 100% use of material. Extends reach of TigerStop by 21 inches (533 mm).



TigerTurbo/Heavy Duty 2 Pusher Foot

This pusher foot is designed for single piece processing with TigerTurbo™ or HeavyDuty 2. This robust but lightweight attachment has the rigidity to ensure accurate parts while being easy to set up and adjust. Extends reach by 11 inches (279 mm).



TigerTurbo/Heavy Duty 2 Gangstop

Need to push more than one piece at a time? This Gangstop is your solution for TigerTurbo and HeavyDuty 2. Extends reach by 18 inches (457 mm).



Spring Buffer Heavy Duty

If your material is heavy, or you think your operator might be hitting the machine too hard during loading, then the Spring Buffer HeavyDuty protects your machine and allows for multiple piece processing. Extends reach of TigerTurbo and HeavyDuty 2 by 18 inches (457 mm).



TigerGauge

Easily measure doors, windows and picture frames, then send the data to TigerStop via wireless technology.



TigerMeasure

If you use TigerStop in pusher mode, use TigerMeasure to give TigerStop stock length data automatically instead of typing in the data manually.

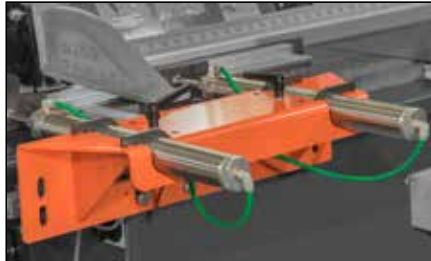


Back Rabbet Gauge

The TigerStop Back Rabbet Gauge allows operators to easily measure the back rabbet size when cutting angles with SawGear or TigerStop.

ACCESSORIES

TigerClamps



Spring Clamps



TigerStop Clamping Options

TigerStop has add-on manual and pneumatic clamping options to suit any application.

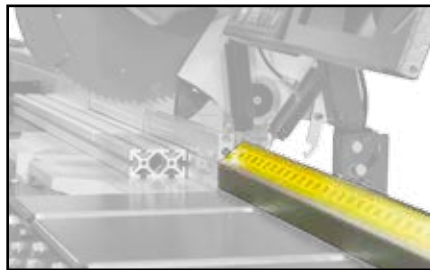
TigerClamps, combined with an Advanced Interconnect Kit, are an automatically controlled pneumatic horizontal clamping system that increases finished part accuracy and simplifies material handling. Clamps have a 12 inch (304 mm) stroke.

Spring Clamps are manual clamps that can attach to almost any tool and are adjustable from 4 to 18 inches (101 to 457 mm).



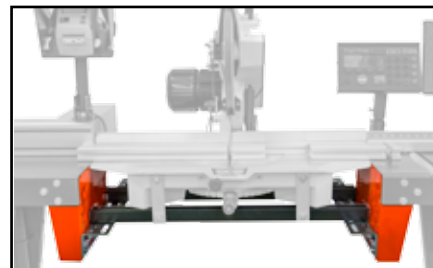
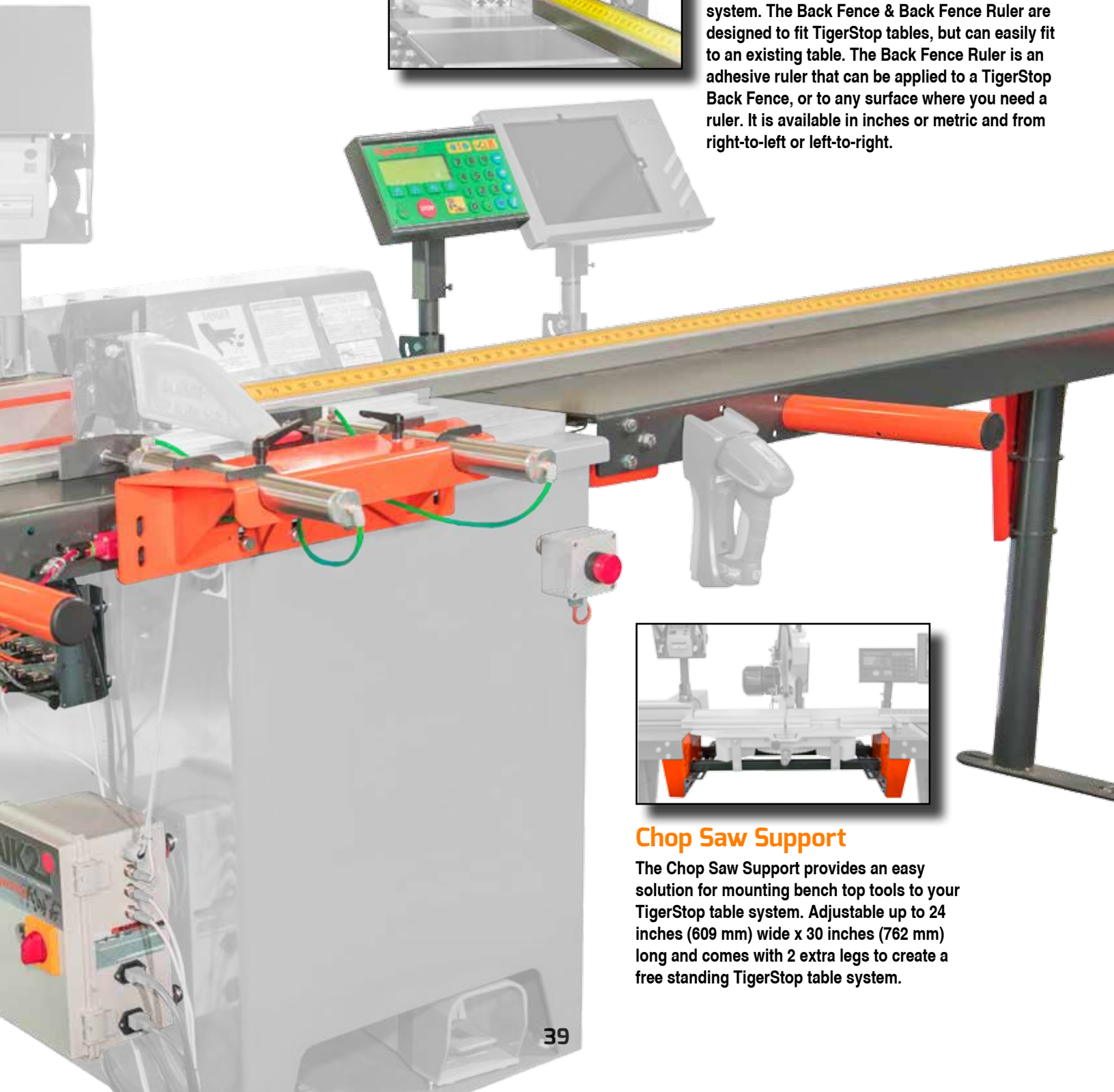
Advanced Interconnect Kit

The Advanced Interconnect Kit is a component that can turn your TigerStop work cell into a fully automatic sawing system. The Advanced Interconnect Kit allows TigerStop to take control of your tool and monitor its safety circuit. Advanced Interconnect Kit also adds a safety kill line that is mounted across the TigerStop table for a quick and easy way to stop the system.



Back Fence & Back Fence Ruler

The Back Fence & Back Fence Ruler is an integral part of any TigerStop optimizing system. The Back Fence & Back Fence Ruler are designed to fit TigerStop tables, but can easily fit to an existing table. The Back Fence Ruler is an adhesive ruler that can be applied to a TigerStop Back Fence, or to any surface where you need a ruler. It is available in inches or metric and from right-to-left or left-to-right.



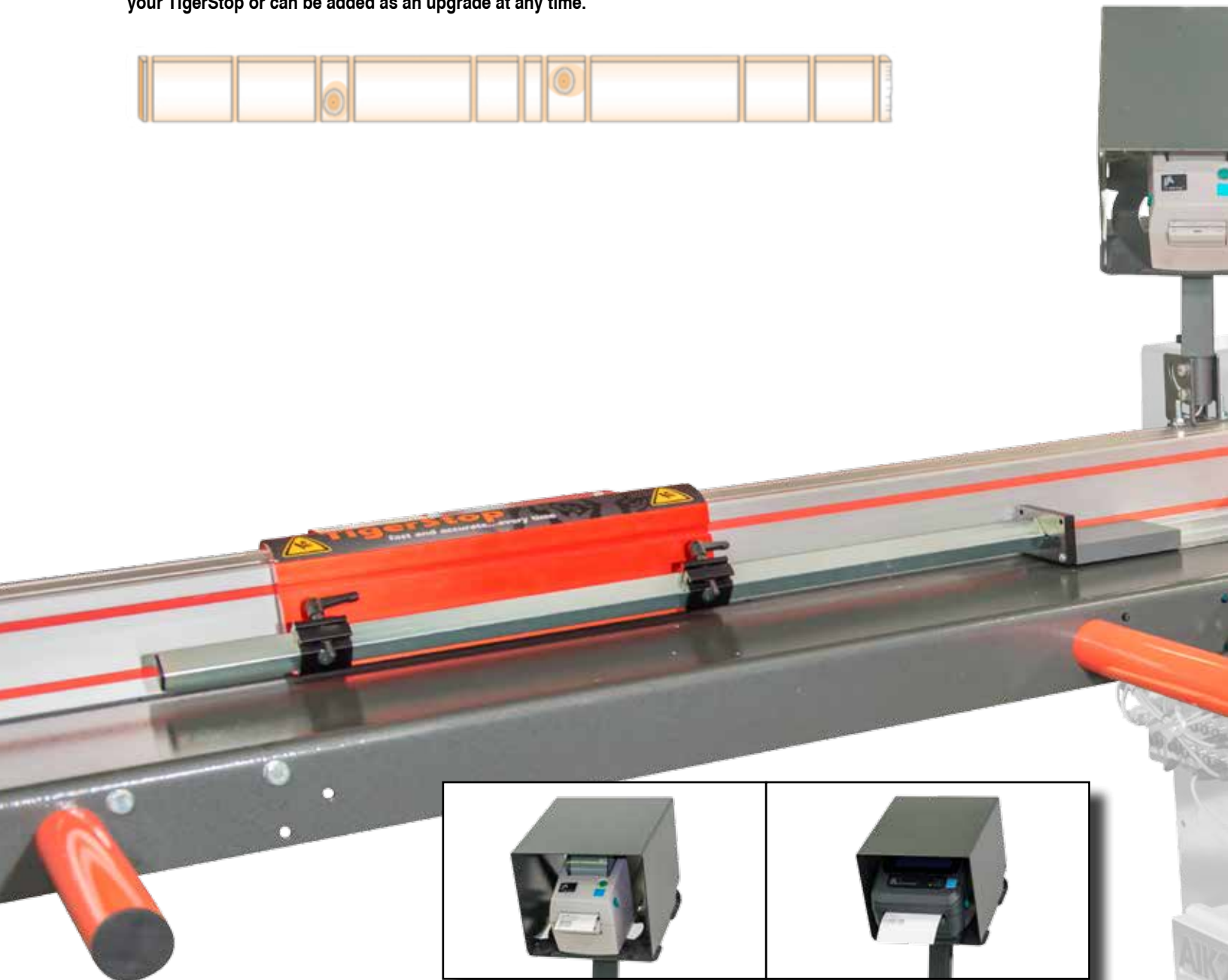
Chop Saw Support

The Chop Saw Support provides an easy solution for mounting bench top tools to your TigerStop table system. Adjustable up to 24 inches (609 mm) wide x 30 inches (762 mm) long and comes with 2 extra legs to create a free standing TigerStop table system.

SOFTWARE

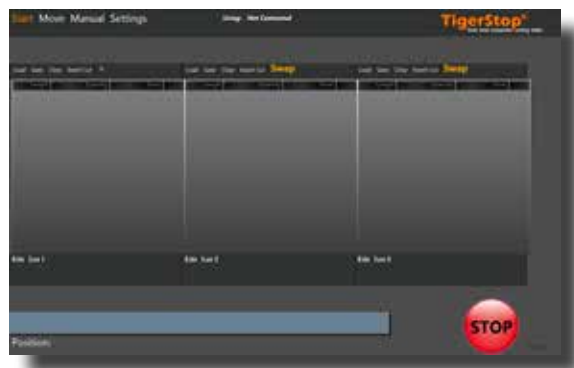
Dynamic Optimization

Our industry leading Dynamic Optimization software scans your part list and determines the best way to cut your parts giving you the maximum yield. Dynamic Optimization saves 40% on material costs, which go straight to your bottom line. Dynamic Optimization can be added to your TigerStop or can be added as an upgrade at any time.



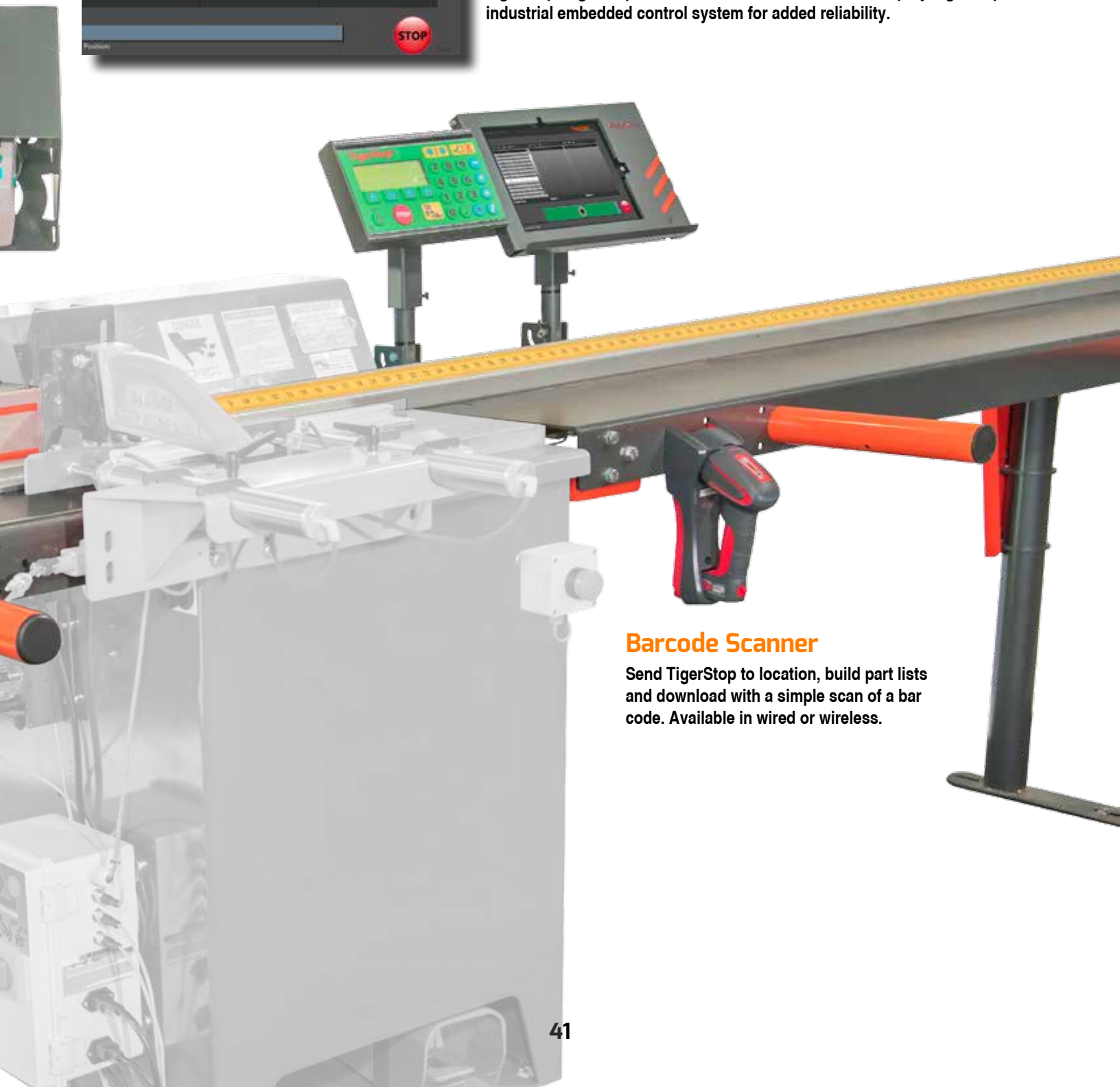
2 & 4 Inch Label Printing

TigerStop 2 inch and 4 inch label printers print length and quantity information for each processed part. You can also print custom part labels when used with TigerLink 6™ downloading software upgrade.



TigerTouch

Turn your TigerStop into a touch screen workstation. TigerStop's innovative new touch screen software, TigerTouch, which runs on a Microsoft Surface Pro series tablet, will give users a visual solution to the paper chase. Your operators can put away their paper-crammed clipboards and get a new level of productivity and visibility. Combined with TigerLink 6 downloading software, you can import job files from almost any design software straight to your TigerStop. TigerStop's touch screen interface is backed up by TigerStop's industrial embedded control system for added reliability.



Barcode Scanner

Send TigerStop to location, build part lists and download with a simple scan of a bar code. Available in wired or wireless.

DYNAMIC OPTIMIZATION

What Is Dynamic Optimization?

Dynamic Optimization from TigerStop is an instant and mathematically precise method of deciding what order to process parts to optimize material for yield.

Does Order Matter?

YES!

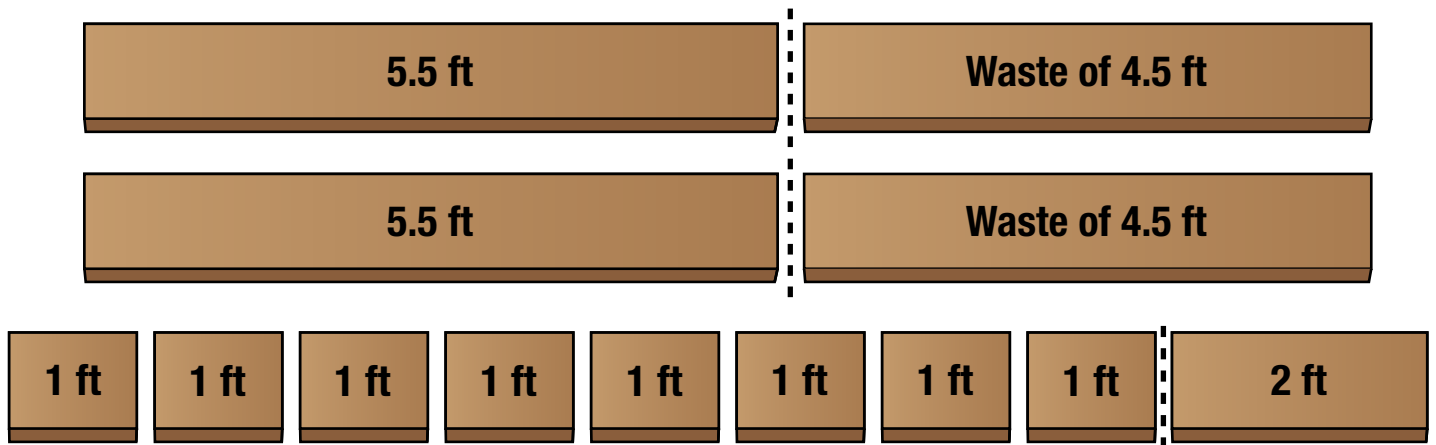
The order in which you cut your parts from your stock material can have a dramatic effect on your overall material yield.

Consider this example:

I am making a frame out of square stock, basically a rectangle box. I want to make it 5.5 ft. wide and 1 ft. high. So I need 4- 5.5 ft. pieces and 8- 1 ft. pieces to complete the frame. My stock comes in 10 ft. lengths. Let's look at the ways to lay this out.

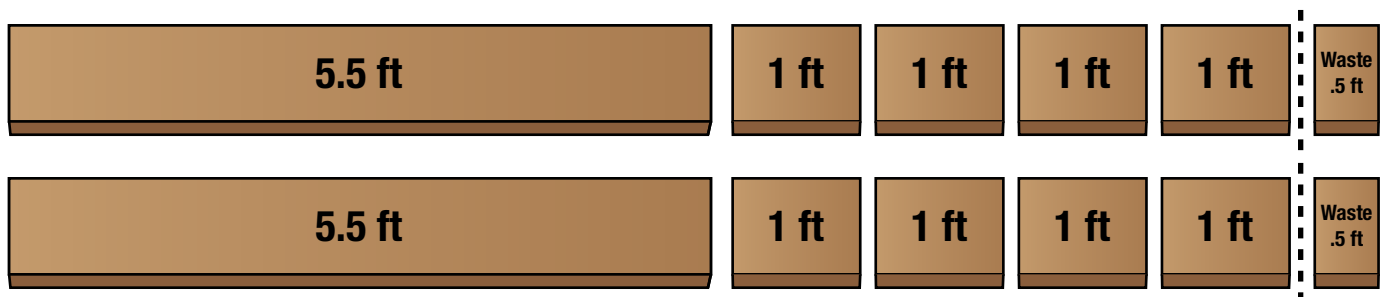
I could follow the list exactly.

That would leave me with 3- 10 ft. lengths of stock used and 11 ft. of waste.



Or I could optimize my material like this.

In this example, I use 2 pieces of stock and have only 1 ft. of waste.



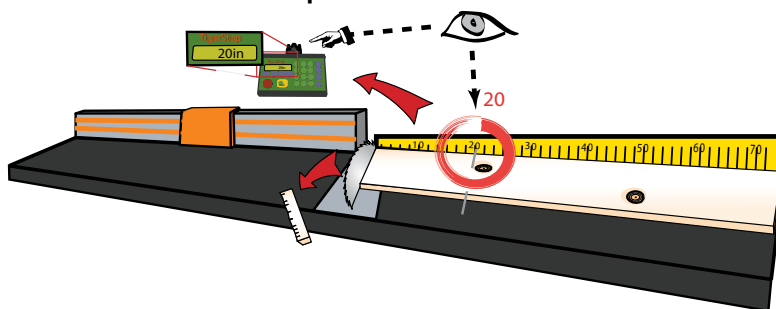
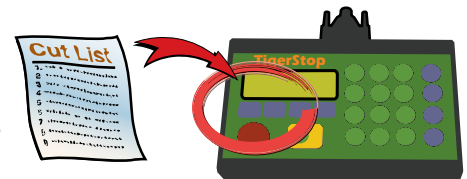
TigerStop's Dynamic Optimization will quickly figure out the best order to cut your parts so you always get the best material yield.

How Does This Help My Business?

- Dynamic Optimization determines the best use of material, so the operator (unskilled worker or pro sawyer) only has to focus on feeding parts and cutting.
- TigerStop moves to the correct position up to .004" so the operator never has to use a tape measure or set a manual stop ever again.
- TigerStop reduces station set up time between different cut lengths and allows the operator to optimize for material defects.
- TigerStop increases accuracy. The operator doesn't have to worry about cutting errors or the associated costs of rework. Quality control concerns are no longer a bottleneck.
- Dynamic Optimization reduces scrap waste and shelving costs. Purchase less raw footage while sending fewer pounds into the dumpster.
- A TigerStop Dynamic Optimization station can even be used by an unskilled worker. Top paid sawyers and skilled workers can better use their time managing the shop or doing work requiring greater expertise.

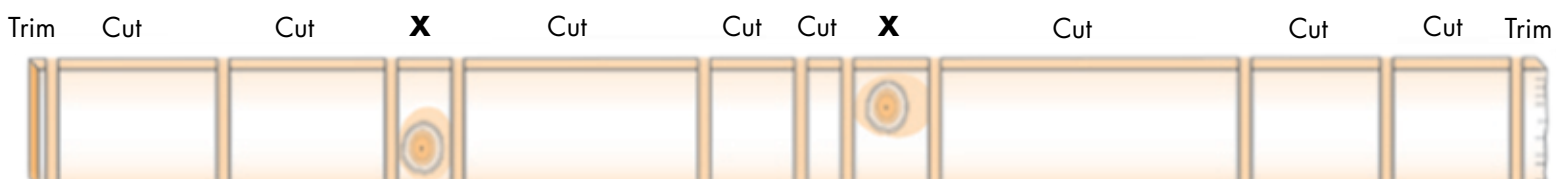
How Does it Work?

- First the operator enters his cutlist into the TigerStop. He can do this manually or using the TigerLink 6 downloading upgrade. Then he presses the done button.
- The operator grabs a piece of raw stock and makes a trim cut to square the edge. If there's a defect in his material he simply enters the distance from the trim cut to his first defect. TigerStop's Dynamic Optimization will use its proprietary algorithms to find the best yield of the material with the least amount of waste, and move to the correct position.








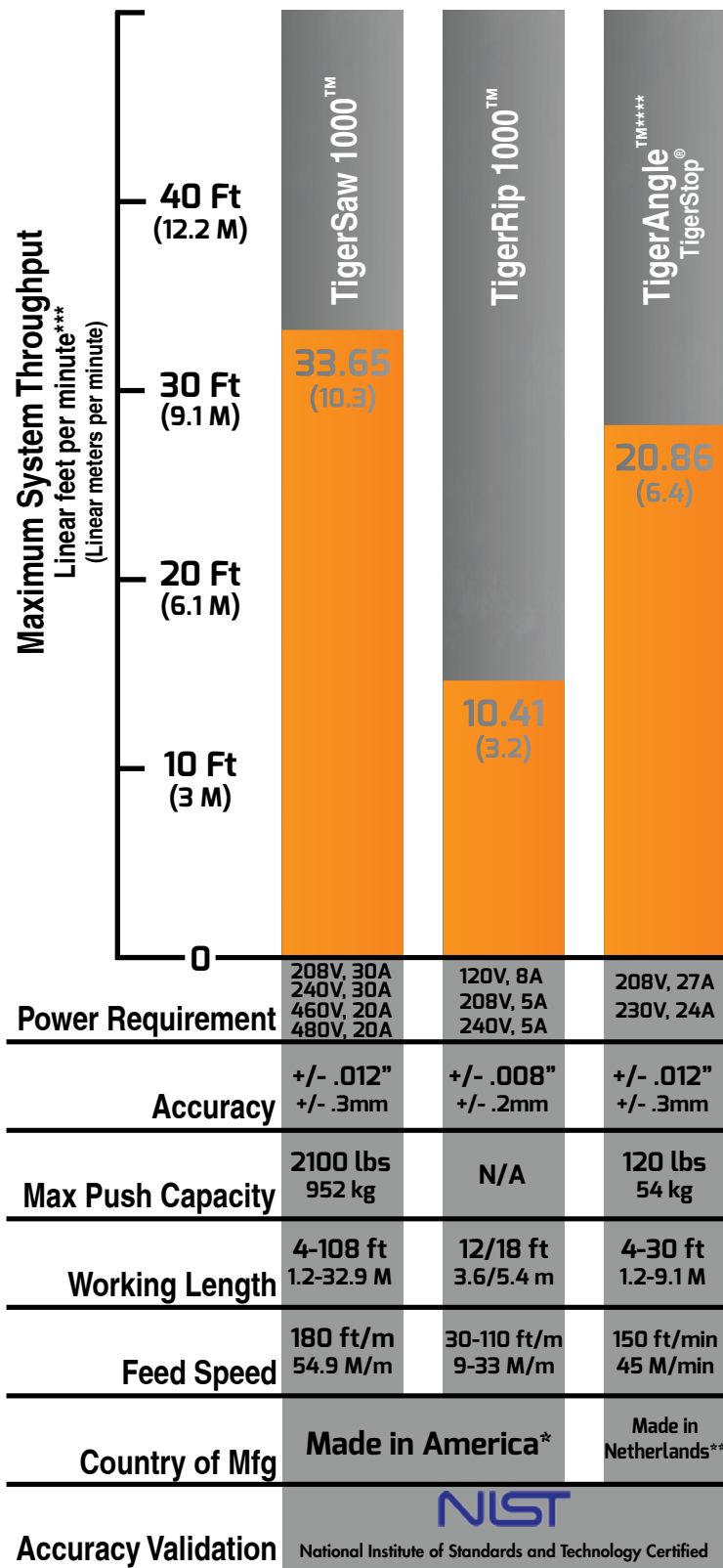
The operator feeds stock to the TigerStop. When he reaches the first defect he cuts it out and enters the next usable clear length. He continues to make cuts until stock completion, only moving material and cycling the saw. He repeats until TigerStop indicates the job is done.

A sample optimized board break-down using Dynamic Optimization.



COMPARISON

	Maximum Load Pushing Weight in Lbs.						
	TigerStop®	TigerRack™	TigerTurbo™	Heavy Duty 2™	SawGear™	TigerFence™	TigerCrossCut™
	120	720	840	2100	STOP ONLY	STOP ONLY	STOP ONLY
Power Requirement	110V, 15A 208V, 20A 240V, 20A	208V, 20A 240V, 20A	208V, 20A 240V, 20A	208V, 20A 240V, 20A	110Vac 8A	110V, 15A 208V, 20A 240V, 20A	110V, 15A 208V, 20A 240V, 20A
Drive Type	32mm Belt Steel Reinforced	Rack & Pinion	75mm Belt Steel Reinforced	Rack & Pinion	32mm Belt Steel Reinforced	3/4" Hi-Lead Screw	3/4" Hi-Lead Screw
Accuracy	+/- .004" +/- .1mm	+/- .008" +/- .2mm	+/- .008" +/- .2mm	+/- .008" +/- .2mm	+/- .008" +/- .2mm	+/- .003" +/- .07mm	+/- .003" +/- .07mm
Working Length	4-30 ft 1.2-9.1 m	8-108 ft 2.4-32.9 m	12-42 ft 3.6-12.8 m	12-108 ft 3.6-33 m	8-16 ft 2.4-4.8 m	51 / 71" 1.2 / 1.7 m	120" 3 m
Country of Mfg	Made in America*						
Accuracy Validation	 National Institute of Standards and Technology Certified						
Certifications	All TigerStop products have one or more of the following certifications <div>     </div>						



* Made in USA from domestic and foreign components.

**Made from USA and foreign components

*** Estimate based on 8 hour day using 8-12 foot stock material with 7 - 90° cuts.

**** Output can vary based on type of angles. Contact TigerStop for a system throughput analysis.

TERMS

By submitting a Purchase Order for the purchase of TigerStop, LLC/Precision Automation, Inc. products, Buyer acknowledges and agrees to comply with and be bound by the following terms and conditions.

Governing Terms

All products and services offered for sale by TigerStop, LLC/Precision Automation, Inc. ("Seller") are sold subject to the terms and conditions stated herein. These terms and conditions shall apply to the sale of the products and/or services described in the Seller's Quoter, Order Acknowledgment, Invoice, or other contract documentation to which these terms and conditions are attached or incorporated by reference. Except as expressly agreed by an authorized representative of Seller in writing, no other terms and conditions, including any terms and conditions attached to, or contained within, Buyer's request for quotation, acknowledgment, purchase order or other contract documentation shall apply. Buyer's acceptance of the products or services delivered by Seller shall constitute an affirmation by Buyer that the terms and conditions set forth herein govern the purchase and sale of the goods or services. The terms of this contract shall supersede any additional, different or conflicting terms proposed by Buyer or contained on Buyer's purchase order or any document or instrument submitted by Buyer.

Prices, Taxes, Payment and Terms

All prices are firm unless otherwise agreed to in writing. Seller reserves the right to change the prices and specifications of its products at any time without notice. Any tax, duty, custom or other fee of any nature imposed upon this transaction by any federal, state or local governmental authority shall be paid by Buyer in addition to the price quoted or invoiced. In the event Seller is required to prepay any such tax, Buyer will reimburse Seller. All sales shall be 100% prepaid unless Buyer has credit terms with Seller. An interest charge equal to 1 1/2% per month (18% per year) will be added to invoices outstanding beyond thirty (30) days after shipment. In addition, Seller reserves the right to require pre-paid payment terms from any Buyer whose account is overdue or who has unsatisfactory credit. Seller may also refuse to sell to any person until overdue accounts are paid in full.

Delivery and Shipment

Seller will make a good faith effort to complete delivery of the products as indicated by Seller in writing, but Seller accepts no liability for any losses or for general, special or consequential damages arising out of delays in delivery. All shipment costs shall be paid by Buyer, and if prepaid by Seller, the amount thereof shall be reimbursed to Seller. All products are shipped F.O.B., Vancouver, Washington. Risk of loss shall transfer to the Buyer upon tender of goods to Buyer, Buyer's representative, or common carrier. The cost of any special packing or special

handling caused by Buyer's requirements or requests shall be added to the amount of the order. Notwithstanding the foregoing, title in and to all products shall remain in Seller until full payment is made by Buyer and received by Seller. Any claims for shortages and/or damage to delivered products must be made to the carrier in accordance with the carrier's claims policy, but not more than thirty (30) days after delivery of the product to the carrier.

Systems and Integrations

Buyers of systems or integrations must be trained at Seller's facility in Vancouver, WA prior to shipment. Buyer is responsible for all travel and living expenses associated with training at Seller's facility. Buyer agrees to sign off on the equipment certifying that the equipment meets their specifications prior to shipment. On-site installation and/or training at Buyer's facility are not included unless otherwise specifically stated. However, Buyer must have systems or integrations installed by certified technician prior to Seller providing direct technical support.

On-Site Installation & Training

On-site installation and training are not included with any TigerStop, LLC/Precision Automation, Inc. machine, system or integration unless otherwise specifically stated.

If on-site installation or training is specifically stated, this does not include network or IT installation, training or setup. Additionally, Buyer is responsible for all travel and living expenses associated with training at Buyer's facility.

It is the Buyer's sole responsibility to determine power and other facility requirements, to have work area fully prepared and machine available during normal business hours. If these conditions are not met, then any additional time for installation or training will be billed at additional Buyer's expense.

After Sale Support

If Buyer's account is past due, all direct support from Seller will be suspended.

Seller provides telephone and email support during TigerStop, LLC/Precision Automation, Inc. normal business hours: Monday – Friday 6:00 AM – 4:00 PM PST. Support provided outside of these hours may be available on a case-by-case basis at an additional cost.

Software support is only provided by the Seller for TigerStop, LLC/Precision Automation, Inc. proprietary software purchased from TigerStop, LLC/Precision Automation, Inc. and after certified training has been provided.

Inspection and Acceptance

All products delivered shall be examined by Buyer promptly upon receipt. Buyer shall be

deemed to have accepted the products unless a valid written notice of rejection, due to defect in the goods or non-conformance to the order, is received by Seller within ten (10) days of Buyer's receipt of goods. No such claims made after such period shall be considered by Seller.

Return Policy

Buyer must obtain a return goods authorization ("RGA") from Seller before returning any product eligible for return. No return of eligible products will be accepted by Seller without a RGA, which will be issued at Seller's sole discretion. Special order products may not be returned for any reason if non-defective. All authorized returned products must be unused and re-saleable, in factory-original shipping cartons and must be complete with all packing materials. If returned products are claimed to be defective, Buyer must notify Seller of the nature of the defect prior to returning the product. All items not eligible for return will be returned to Buyer, transportation costs collect. Product returned to Seller by Buyer for no fault of Seller may be subject to a restocking/handling fee.

Limited Warranty & Limitations of Liability & Damages

Each TigerStop, LLC/Precision Automation, Inc. product is warranted against defects in material and workmanship for a period of twelve (12) months from the date the product is enabled or the equivalent of 2080 hours of production use, whichever shall first occur. In the event that a product is not enabled within thirty six (36) months from shipment date the warranty shall lapse. If a product is enabled before thirty six months (36) and after thirty (30) months, the warranty shall be in effect until thirty six (36) months from shipment date. Seller's liability under this warranty shall be limited to repairing or replacing, at the discretion of Seller, defective parts or components. Consumables, such as wear on painted surfaces, window finish and condition, light bulbs, seals, chip removal system, etc. are not covered. Seller-specified maintenance procedures must be adhered to and recorded in order to maintain this warranty. The warranty is voided if the machine is subjected to mishandling, misuse, neglect, accident, improper installation poor or improper power conditions, improper maintenance, or improper operation or application, or if the machine was improperly repaired or serviced by the customer or by an unauthorized service technician. Shipping damage and non-functional cosmetic damage are non-warrantable.

TigerStop, LLC/Precision Automation, Inc. saw systems (limited to TigerSaw, TigerSaw Ferrous, TigerRip, and TigerAngle) are warranted for on-site labor during the warranty period. Buyer is responsible for all travel and living expenses associated with on-site labor. Only Seller may authorize and schedule any on-site labor.

With the exception of the foregoing warranty,

Seller makes no other warranty, express or implied with regard to any product or its components and hereby expressly disclaims any and all implied warranties of merchantability, suitability or fitness for any particular purpose or use, or non-infringement. Warranty is non-transferrable from the original registered owner to any other party. Optionally purchased one (1) year extended warranties are available and shall be subject to the same terms of duration as original warranty. Seller's liability under this agreement shall be limited to repairing or replacing, at the discretion of Seller, parts or components.

All spare part(s) are warranted for thirty (30) days from invoice date. For all non-warranty spare part(s), items will be invoiced in full at time of order and require full payment prior to shipment. All warranty spare part(s) will be invoiced in full at time of order and secured with buyer's authorized credit card. Payment will not be charged to buyer's credit card immediately. If warranty part(s) are not returned within thirty (30) days from invoice date, the buyer's authorized credit card will be processed for full invoice amount. Additionally, if warranty part(s) are returned and warranty is denied, the buyer's authorized credit card will be processed for full invoice amount. All other warranty terms apply.

No action, regardless of form, arising out of the purchase of Seller's product may be brought by Buyer more than one (1) year after the cause of action has accrued. Under no circumstances, and in no event, will Seller be liable for personal injury or property damage or any other loss, damage, cost of repairs or incidental, punitive, special, consequential, or liquidated damages of any kind, whether based upon warranty, contract, strict liability, negligence or any other cause of action arising in connection with the design, manufacture, sale, transportation, installation, use or repair of the products sold by Seller. Buyer hereby acknowledges and agrees that under no circumstances, and in no event, shall Seller's liability, if any, exceed the net sales price of the defective product(s); no additional allowance shall be made for the labor or expense of repairing or replacing defective products or workmanship or damage resulting from the same. Except as expressly set forth in this paragraph, peripherals and tools, including, but not limited to, power saws, computers, printers, communication devices, and touch screens integrated into TigerStop, LLC/Precision Automation, Inc. products are not warranted by Seller and are covered solely by the original equipment manufacturer's warranty. TigerStop, LLC/Precision Automation, Inc. shall not be responsible or liable for the condition or any such integrated product or for the duration, or extent of any warranty on an integrated product. All questions and inquiries about integrated product warranties or repairs should be directed to the original equipment manufacturer.

Seller is not liable to Buyer or any customer of buyer for loss of profits, lost data, lost products,

loss of revenue, loss of use, cost of downtime, business good will or any other incidental or consequential damage, wherein an action in contract or tort, arising out of or related to the machine or components.

Warning/Safety^A

TigerStop, LLC/Precision Automation, Inc. products are intended for use in conjunction with potentially dangerous machinery. The use of TigerStop, LLC's/Precision Automation, Inc.'s products does not make such dangerous machinery safe. TigerStop, LLC's/Precision Automation, Inc.'s products are not intended to substitute, in any manner, for safety requirements in general, or those applicable to such other machinery. TigerStop, LLC/Precision Automation, Inc. products must be incorporated into machinery by persons qualified to ensure the safe operation of the machinery and its compliance with all federal, state and local law with respect to safety requirements.

Indemnification

Buyer agrees to indemnify and hold harmless Seller from and against any and all claims, liabilities, damages, costs and expenses (including reasonable attorneys' fees and litigation expenses) arising from or related to (i) the purchase, use and/or distribution of products supplied by Seller in violation of the terms and conditions of this Agreement, (ii) the negligence or lack of due care by Buyer, Buyer's customers, agents, employees or invitees, in whole or in part, in the use of Seller's products or integrated products.

Exports

Buyer represents that it will not knowingly export, either directly or indirectly, any product or service to any country for which approval is required, without the prior written approval of the office of Export Administration of the U.S. Dept. of Commerce or any other applicable U.S. Government Agency.

Governing Law

These Terms and Conditions shall be governed by and construed in accordance with the laws (other than those relating to conflict of laws questions) of the State of Washington. Venue for any dispute shall be in Clark County, Washington.

Non-Waiver

Seller's failure to insist upon the strict performance of any term or condition herein shall not be deemed a waiver of any of Seller's rights or remedies hereunder, nor of its right to insist upon the strict performance of the same or any other term herein in the future. No waiver of any term or condition hereunder shall be valid unless in writing and signed by Seller.

Patent Rights & Used of Technical Information

Any specifications, drawings, reprints, technical information or data furnished by TigerStop, LLC/Precision Automation, Inc. or one of its suppliers shall remain property of TigerStop, LLC/Precision Automation, Inc. and shall be kept confidential and shall be returned to TigerStop, LLC/Precision Automation, Inc. upon request. Any exceptions must be approved by TigerStop, LLC/Precision Automation, Inc. in writing.

Force Majeure

Neither Seller nor Buyer shall be liable for delays in performance due to causes beyond the control and without the fault or negligence of the party whose performance is affected, including but not limited to acts of God, labor disputes or the government. Force majeure shall not relieve Buyer's payment obligations.

Limit of Liability

All rights reserved. The information contained in the TigerStop, LLC/Precision Automation, Inc. manual has been validated and reviewed for accuracy. No patent liability is assumed with respect to the use of the information contained herein. While every precaution has been taken in the preparation of this manual, the manufacturer assumes no responsibility for errors or omissions.

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Entire Agreement

This document constitutes the entire, complete, and exclusive agreement between the parties with respect to the subject matter hereof and contains all the agreements and conditions of sale; no course of dealing or usage of the trade shall be applicable unless expressly incorporated herein. The terms and conditions contained herein may not be added to, modified, superseded or otherwise altered except by a written modification signed by Seller. All transactions shall be governed solely by the terms and conditions contained herein. In the event that any portion of these Terms & Conditions is deemed to be unlawful, it is agreed that all other parts shall remain in full force and effect. These Terms & Conditions cover all products produced, distributed or sold by TigerStop, LLC/Precision Automation, Inc.

Acknowledgement

Buyer acknowledges receipt of this complete document titled, Terms & Conditions of Purchase and Sale.

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