

# Brought to you by WoodworkProjects.co.uk



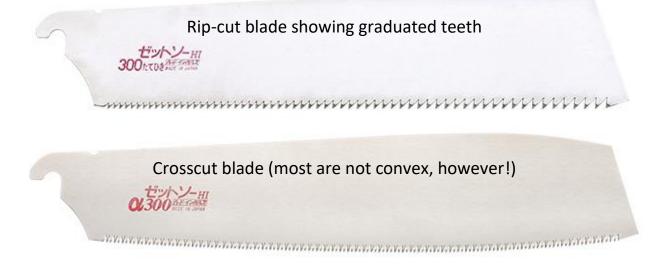
# 2024 catalogue



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There is an excellent introduction to Japanese saws at <a href="https://youtu.be/ZnR -Lbflgg">https://youtu.be/ZnR -Lbflgg</a>



# **About Z-Saw (or Zetsaw)**

Okada Hardware Manufacturing Company Ltd is one of the leading pioneers in the Japanese handsaw manufacturing industry, and is located in Miki, the renowned heartland of the Japanese hardware industry. It was established as a local tool manufacturing company in 1943, and naturally followed the great handsaw manufacturing tradition while simultaneously introducing extensive modern technology into the whole saw manufacturing process.

Z-Saw has developed hundreds of models of handsaw together with auxiliary tools such as Saw Guides to meet the changing demands of the times and the needs of our customers.

It was the first company in Japan to introduce Hard Impulse-heating treatment, which is known as one of the great innovations for maximising saw tooth hardness. We pride ourselves on developing inhouse our own automatic saw manufacturing system, and many other firsts in the handsaw manufacturing industry.

Z-Saw has approximately one quarter of the domestic handsaw market with about 5 million units of annual shipment, and exports to more than 20 different countries.





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Originator of Japanese Blade-Interchangeable Handsaw

# **About Woodwork Projects**

Who or what is Woodwork Projects, you may ask. The business is run as a hobby by retired civil servant Jim Morrison, a keen DIY-er who bought a few saws from Z-Saw nearly 20 years ago for his own use before deciding to try selling them online. The business has grown gradually over the years. Purchases can be made online at **www.woodworkprojects.co.uk** or by post. Since the business started it has attracted well over 3500 customers, many of whom have placed one or more repeat orders. Orders have come from more than 200 customers outside the UK, including from these countries: Australia, Belgium, Bermuda, Brazil, Brunei, China, Czech Republic, Denmark, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Ireland, Israel, Italy, Latvia, Netherlands, Norway, Portugal, Russia, Serbia, Singapore, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine and United States.

Because Z-Saw manufactures almost exclusively replaceable blade saws, Woodwork Projects prices and sells many blades and handles separately.

You can contact Woodwork Projects as follows:

Online at www.woodworkprojects.co.uk.

By post to 15 Lakeside, Irthlingborough, Northants NN9 5SW

By voicemail on **0845 862 1410** 

# Blade selection for woodworking

When choosing a saw for cutting wood it is important to consider direction and speed or fineness of cut. The picture below shows the 3 different types of cut:



A crosscut saw is designed for cutting across the grain of the timber, will be OK on slant cuts and will struggle with rip cuts. A ripsaw is great for cutting with the grain, but very poor in the other directions. Universal blades are designed to cope with all 3 types of cut, but do not do quite as well as the specialist blades.

### **Blade** care

Proper saw blade care will improve working efficiency and extend the life of the saw blade.

Always brush off all residue from the saw blade and particularly the teeth after use.

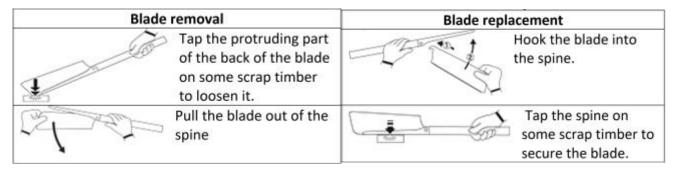
Oil the blade, particularly if it will not be used for some time.

Wrap the blade in VCI (volatile corrosion inhibitor) paper or newspaper for storage.

# **Z-Saw blade replacement**

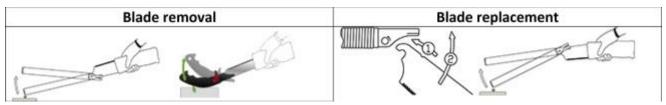
Since the saw teeth are very sharp, we recommend that you wear gloves or wrap the blade with something (a cloth or towel or its cardboard sleeve) when replacing the blade.

#### **Hook-Fitting (long-backed handles only)**



#### All other hook-fitting blades

- To loosen the blade, protect your hand and hold the blade firmly with the teeth facing upwards
- Tap the top of the back of the handle on a firm surface until it is free of the holder
- Pull it out.
- To insert the blade, hook it into the spine
- Tap the bottom edge of the back of the handle on a firm surface.

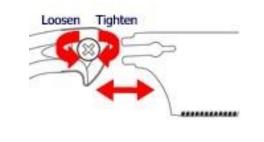


- Never detach a blade by knocking the back of the blade toe in the same way as with saws with the long-backed handles, as the blade may fly out and cause serious injury.
- If the handle has an angle adjustment (H-210/240/270 folding and H-150 wood pistol) ensure that the blade is locked in the fully extended position before removal.

#### **Screw-Fitting**

Loosen the screw with coin or screwdriver and pull the blade out from the handle.

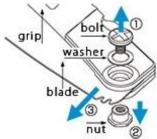
Insert the blade and tighten the screw to fix the blade firmly.



#### **Pin-Fitting**

Unfasten the bolt, taking care not to misplace the washer.

Pull out the nut and remove the blade.



Insert the replacement blade into the handle. Locate the nut into the handle through the hole in the blade.

Refit the bolt and washer and tighten according to taste.

#### The Z-Saw "user manual"

#### 1. Choosing the right saw for the job (see also page 4).

Teeth per inch (sometimes expressed inversely as pitch)

For a saw to work properly, it has to have a certain number of teeth within the material (especially wood) it is cutting. Too many, the teeth fill up with sawdust and no longer cut effectively. Too few, the saw gets too hard to pull through, leaves too rough a cut, and can tear out large chunks of wood with it.

o Length of blade

For efficient crosscut and universal cut sawing, the saw blade should be at least two but preferably three times as long as the workpiece (wood) to be cut. The more teeth used to sever the wood, the faster and easier sawing will be.

o Rake angle

The ideal rake angle, which means the attacking angle of the saw teeth to the wood, varies according to the density of the wood to be cut. For cutting wet or soft wood, the attacking angle of the teeth should be very sharp, so that the teeth can efficiently dig into the wood and not slip in the kerf. In contrast, for cutting denser wood, the rake angle should be more obtuse than the teeth for cutting softwood. A larger cutting angle on the teeth can alleviate quick wear-out of the teeth and make the saw easier to operate.

#### 2. Choosing the right handle for the work.

Long traditional rattan wrapped handle (or aluminium equivalent)

The Japanese traditional handle can be held with two hands for a long steady cut, or for small precise cuts by holding the blade end of the handle with the forefinger resting along the top of the spline.

Short straight handle

The short straight handle is ideal for use with relatively short saw blades for more balanced strokes.

Pistol grip

The short pistol grip can add strength behind the saw blade for relatively aggressive cutting and makes it easier to control the sawing direction. The screw-fit type of saw handle can also be reversed to make the cutting line more visible.

#### 3. Place the teeth flat on the workpiece.

Most saw blades have what is known as set, meaning that some teeth are bent slightly to the left and others to the right. It is important to try to equalize the numbers of right- and left-facing teeth in contact with the workpiece as if there is an imbalance, the saw blade is drawn toward the loaded teeth. The best way to do this is to ensure that, when starting a cut, the blade is at right angles to the surface of the workpiece with as many teeth as possible in contact.





Like the first picture above, rather than the second.

#### 4. Pull to cut

Z-saws are all traditional Japanese pull saws, which are ground to cut wood while pulling the saw blade towards the user. On the opposite stroke - pushing, the saw teeth on the kerf should be kept touching the base of the groove because on the push stroke, the saw teeth will shove saw dust away and clear the sawing groove. Pressure on the saw blade should be minimized to not more than blade weight on the push stroke.

#### 5. Straight sawing motion

Stroke the saw in a rhythm of 2-beats without stopping at the end of every stroke. Continual strokes are produced by a steady swing repeated close to your body. Try not to move the handle up and down (when sawing a horizontal workpiece) or from side to side: just towards your body to cut and then lightly away from the body. Using a Saw Guide can greatly assist in learning the proper sawing technique.

#### 6. Saw with gentle pressure

Excessive pressure on the saw blade may lead to a loss of straightness in the saw cut. The saw's cutting ability is affected by density differences in wood, as well as by knots and growth rings, etc. When you encounter an uneven work piece, do not exert too much pressure on the saw blade and take your time over the cut. This should result in a straight and smooth finish. If you get a clean and straight cut initially, you save a lot of time finishing with files or chisels later.

The saw guides are good for maintaining stable strokes.

#### 7. Saw patiently

Cutting timber in a slant line, or vertically inclined, the saw blade receives thrusts from cutting. Start with slight pressure towards the cutting direction to leave enough time for the saw teeth to absorb the thrust.

#### 8. Solid grip

If you hold the work piece with a vice or clamp, sawing is much easier and both hands are available for more stable saw strokes. If you have to hold the work piece by hand, 70% of your force should be apportioned for holding and only 30% for sawing. Laying a rubber sheet under the wood to be cut can considerably reduce the force required to keep the workpiece steady.

#### 9. At the end of a cut

As you approach the end of the cut, the off-cut piece should be properly supported to avoid splitting and at the same time you should gradually reduce the force applied to the blade.

#### 10. Maintenance

#### Storage

After you have finished sawing, use a brush to clean out saw dust stuck in the gullet (between the teeth), and oil the blade if it will not be used for some time. Wrapping with VCI (Vapour Corrosion Inhibitor) paper or newspaper can very effectively prevent blade corrosion.

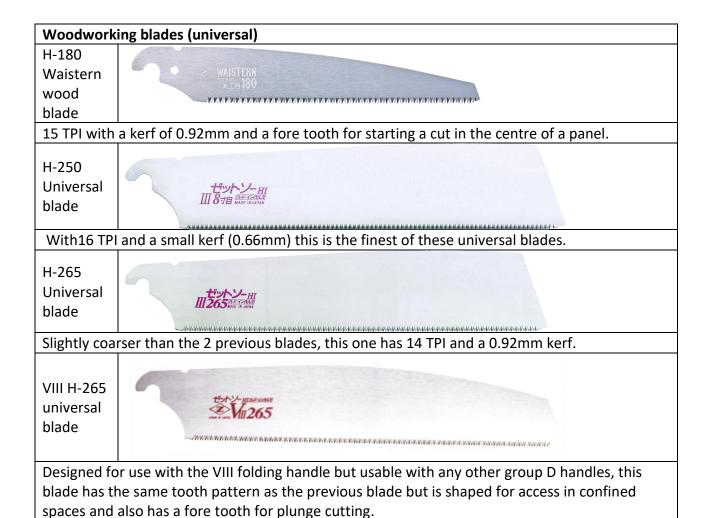
#### At the end of the blade's useful life

When a saw blade becomes dull, and can't meet its original standard, Z-saws cannot be re-sharpened since the hardness of the teeth is greater than the hardness of most conventional saw files. (Z-saw: HV 850 to 900, Conventional file: HV 700 to 800.) Nevertheless, the saw can still be used in many less critical tasks, such as demolishing furniture, pruning trees, and rough cutting of wood and man-made boards when exactness and smoothness of cut are less important.

# Group D saws – a blade for almost every purpose!

A range of 14 interchangeable hook-fitting blades and 8 different handles

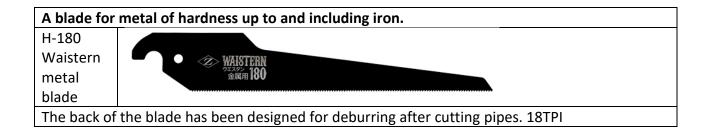
Utility blades for cutting wood, plastic and non-ferrous metals.			
H-180			
Waistern	• Z WAISTERN		
panel	等 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
blade			
16TPI and 0.9mm kerf			
H-200			
Handy	せかソールの上では		
blade	MAY IN MAY IN THE STATE OF THE		
Sidde			
14TPI and 0.8mm kerf. Designed for the V Handy folding handle			
H-200			
	A THAN- WIFE TABLE		
Handy	AND THE SECOND S		
fine blade	4744744444444		
	~*************************************		
17TPI and 0.66mm kerf. Designed for the V Handy folding handle			
All these bla	All these blades have a fore tooth for starting a cut in the centre of a panel.		



Woodworking blades (crosscut)		
H-250 Cross blade		
With 18 TPI and a kerf of 0.66mm, this is the finest blade in this group		
H-265 Cross blade		
This blade has 14 TPI, so is slightly coarser and faster than the previous blade. Kerf 0.92mm		
H-265 Cross Convex blade		
This unusually shaped blade also has 14 TPI, but a slightly thinner kerf (0.88mm). There is an		
excellent video at <a href="https://www.youtube.com/watch?v=C7ZZA6JI1_4">https://www.youtube.com/watch?v=C7ZZA6JI1_4</a> showing this blade in use with the H-250 rip blade for rabetting.		
H-250 Hardwood blade  ***********************************		
Although this blade also has 14 TPI, the tooth pattern has been designed for cutting hardwood.		

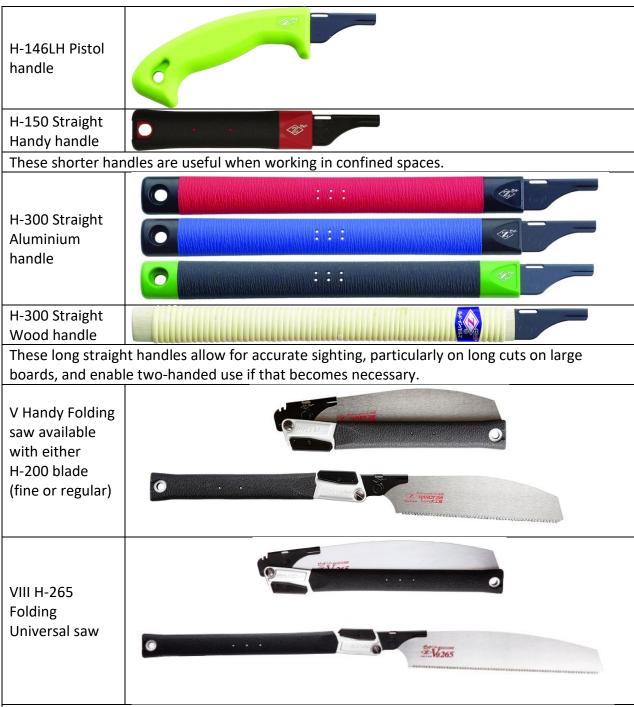
A woodworking blade (rip cut)		
H-250 Rip blade	たていき8ヶ日間では	
Graduated teeth, small at the handle end for starting the cut, getting larger along the blade.		

A flush-cutting blade		
H-160		
Utility	CONTRACTOR AND CONTRA	
flush	**************************************	
A new addition to the Group D range and a very useful blade for trimming dowels etc.		



See overleaf for the wide range of handles to fit any of these blades.

# **Handles for Group D hook-fitting blades**



Note that these 2 folding handles are not available separately, but only as complete saws with the appropriate blade. The folding handles offer protection for the enclosed blades.



### Some images of Group D saws in use.





The VIII universal saw.

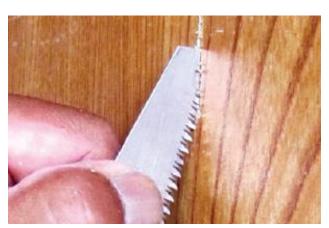


The H-200 Handy utility blade, with folding V handle, cross-cutting timber.



The shape of the H-265 convex crosscut blade means it can cut wood deeply without slipping in the kerf, and easily achieve a straight bottom line on half-lap joints in either softwood or hardwood. See a video at

https://www.youtube.com/watch?v=C7ZZA6JI1 4



Using the H-180 Waistern woodworking blade to start a cut in the centre of a panel.



Using the back of the H-180 Waistern metal blade for deburring.



# Saws with 0.3 mm thick blades (150mm long blades)

H-150 Dozuki blade



The finest (25 TPI) woodworking saw made by Z-Saw, this is a joy to use and leaves an incredibly smooth cut end. Ideal for very fine detail work.

H-150 Dozuki hardwood blade



With a slightly coarser tooth pattern at 21 TPI this blade is designed specifically for clean cutting in all hardwoods (even as heavy as ebony) and still leaves an exceptionally smooth cut.

H-150 Handy craft blade

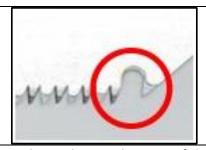


Intended for crafts like model-making, this little saw copes well with non-ferrous metal, plastic and wood (although at 28 TPI it is a little fine for protracted use in wood).

H-150 Panel Piercing blade



With 17 TPI this is the coarsest of these blades but still leaves a smooth cut. See also below.





The images above show a close-up of the "Woodpecker" tooth at the front of the H-150 Panel Piercing blade, and a shot of the saw in use.

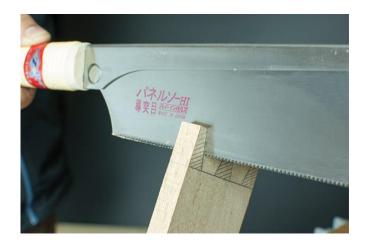


## Handles for these 150 mm blades



All the blades on page 12 will fit any of the handles above, but the short black handle at the top is only available complete with the H-150 Handy craft blade.

These 0.3mm woodworking blades are perfect for intricate joints.





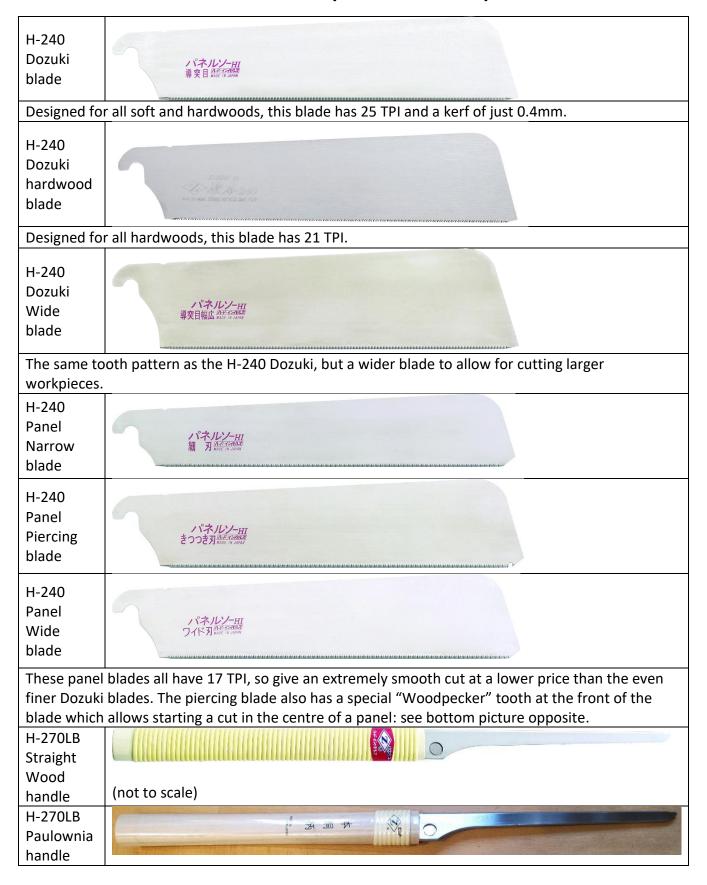
Types of material which can be cut with the Handy craft saw.





The hardwood Dozuki is ideal for all these timbers.

# Saws with 0.3 mm thick blades (240mm blades)





These 0.3mm woodworking blades are perfect for intricate joints.







the london\_furniture\_school We're testing the new hardwood Japanese saw blade from ZetSaws. I'd been using a general purpose blade to cut through some ebony when one of the teeth snagged and eventually broke off. Although that blade wasn't designed for working on dense timbers, it had handled oak without much of a problem.

The Z saw hardwood blade takes to ripping and crosscutting through ebony like a duck to water. Rather impressive. I'm going to put this one up against the Huntley oak blade to see how they compare.

#japanesesaw #woodwork #furnituremaking #handtoolsonly #zetsaw



The H-240 panel piercing blade allows a cut to be started in the centre of a panel.



# **Folding saws**



Remember also that there are 2 folding carpentry saws on page 10.



#### Other pruning saws













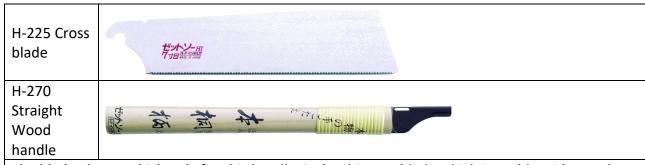
# **Heavier duty saws (Group F/G)**

H-300 Cross Convex blade 11TPI, 1.0mm kerf	**************************************		
H-300 Rip blade	300kros振行器 		
H-300 Universal blade 11TPI, 1.07mm kerf	##\>H 300##### 		
These are slightly larger and faster-cutting than their Group D equivalents.			
H-300 Utility blade	15イプソー <sub>田</sub> 300 世 で で かっこ		
A big saw for cutting wood or larger pieces of plastic but leaving a smooth edge with 17 TPI.			
H-333 Framing blade	TON - HI WESSSER		
At 333 mm long, this is the longest blade in the Z-Saw range. 9 TPI, 1.3mm kerf.			
H-146SH Pistol handle			
H-330 Straight Aluminium handle			
H-330 Straight Wood handle			
All these handles will t	fit any of the blades on this page.		



Video available at <a href="https://www.youtube.com/watch?v=Gd66ZGlkyhw">https://www.youtube.com/watch?v=Gd66ZGlkyhw</a>

# Fine detail saw



The blade above, which only fits this handle, is the thinnest blade which is usable without a long supporting back. 21TPI and 0.4mm thick (0.56mm kerf)

If you need an exceptionally fine cut in thick timber, where the long back of a Dozuki saw would make cutting difficult, then this is the ideal saw.

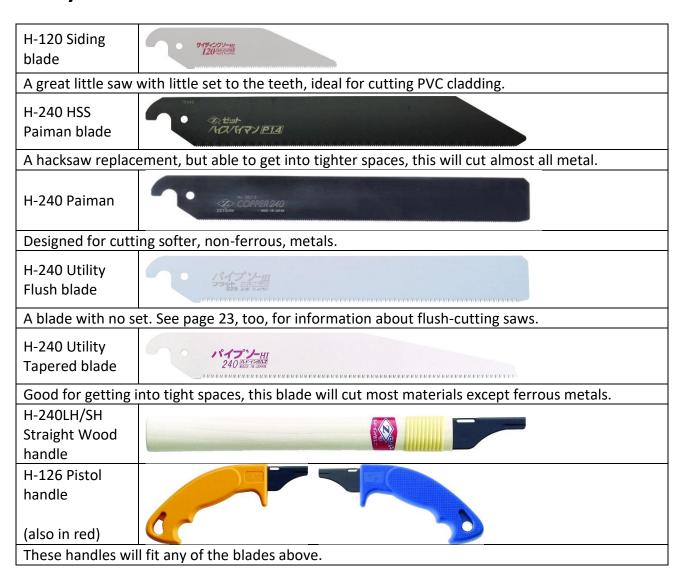


The cut made by the H-225 cross blade is only marginally wider than that left by the Dozuki blade in the image above, so still considerably less than that of a conventional saw.

"I find their very thin kerfs particularly useful. They also appear to cut faster than Western saws and retain their sharpness for longer."

Furniture And Cabinet Making Magazine (A range of Z-Saws reviewed in issue 147)

# **Utility saws**



Don't forget there are also a couple of utility blades on page 8 and one on page 20.







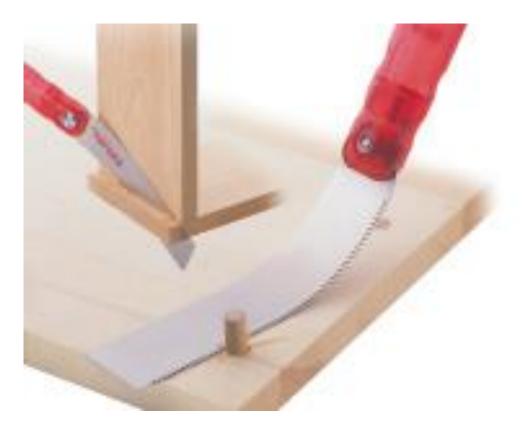


# **Flush-cutting saws**



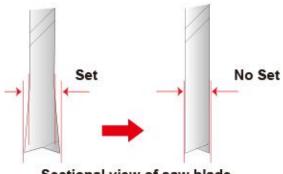
Flush-cutting saws have no set to the teeth and can be used for trimming dowels and other protuberances without damaging the face of the workpiece.

The H-240 Utility Flush blades on page 22 are also flush-cutting, as is the H-160 on page 9.



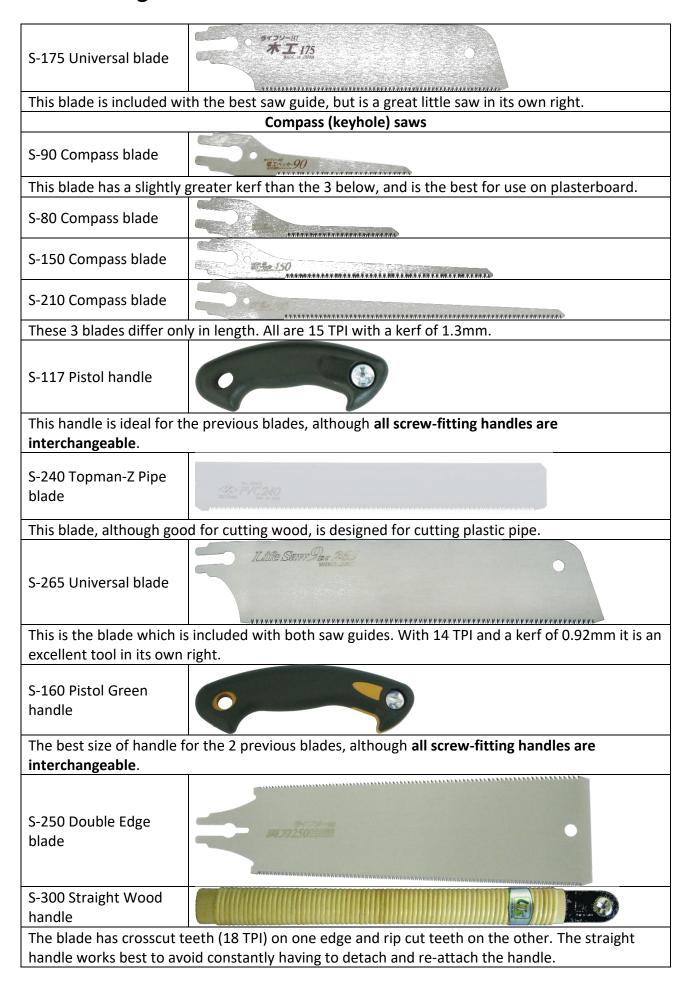
#### What is set?

Bending saw teeth alternately left and right to reduce friction between the blade and the workpiece.



Sectional view of saw blade

# **Screw-fitting blades**





A picture of the pipe blade (well actually a different, hook-fitting, blade but with the same tooth pattern) in use.





The video above can be found at https://www.youtube.com/watch?v=tkEwRhArfI8





Videos showing compass saws in use can be found at <a href="https://www.youtube.com/watch?v=QFdYYXVz9JI">https://www.youtube.com/watch?v=QFdYYXVz9JI</a> and <a href="https://www.youtube.com/watch?v=aRL3ynRYB6k">https://www.youtube.com/watch?v=aRL3ynRYB6k</a>



# Saw guides

# A replacement for mitre boxes, but <u>so</u> much better as the saw teeth never come into contact with (and never wear away) the sides.

Saw Guide Best (including S-265 and S-175 universal blades with S-160 pistol-grip handle). A new guide to replace both the less versatile Fixed Guide and the Saw Guide Mini. 2 blades for finer or faster cuts. Cuts at 45 and 90

degrees.





Saw Guide F (free angle) set including saw (S-265 universal saw with S-160 pistolgrip handle), gauge and dummy blade.

Freely adjustable in both planes between ±45°.

The ideal tool for compound mitres.



(see also the image at the foot of page 27)

See <a href="https://youtu.be/L1bGq5BLMsU">https://youtu.be/L1bGq5BLMsU</a> for a 3rd party video showing just how useful this guide can be.

# **Accessories**

Saw Guide Gauge. This is included with the free-angle guide set but can be useful with the other guide.



Saw Rolls (1 in canvas and 2 in suede) to protect and transport saws.

Not actually made by Z-Saw but made in Japan and sourced through them.



Replacement nut and bolt sets are available for some of the folding saws. This picture is of the set for the pinfitting P-210 and P-240 saws on page 10, but sets are also available for the V and VIII folding handles on page 4.





# **Pricing**

Prices depend on volatile international exchange rates as well as increases in factory prices and shipping costs, and are therefore liable to change at short notice. Current prices for all the saws in this catalogue can be found at:

# www.woodworkprojects.co.uk

where stock availability can also be checked.



# Brought to you by:

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