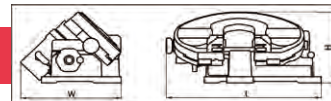


# MANTIS Series



For  
6"  
PIPE

## Lightest in its class! Two actions in one machine!

We've brought you safety, we've brought you ease of use, now we bring you a new type of machine in the MANTIS series. Just change the vice for double the action!



4751S1

### Chain Vice

CHAIN VICE UNIT  
475190

## MANTIS 180WS 8A-150A (1/4"-6")



Code No.	4751S1
Model	MANTIS XB180WS
Cutting capacity	90° ROUND PIPE Φ180/SQUARE PIPE 150/ ROUND BAR (MILD STEEL) Φ80
Motor	Single phase 220 V (50/60 Hz), Split-phase Induction motor 250W (Output), 380/350W (50/60Hz : Input) with overload protection
Pulley speed (rpm)	70 (50 Hz), 84 (60 Hz)
Dimensions (mm)	L865 x W355 x H415
Weight (kg)	37
Standard accessories	14-tooth HSS blade (x1)(475211), Hex key 5 mm



4751A1

### Flat Vice

FLAT VICE UNIT  
475192

## MANTIS 180WA 8A-150A (1/4"-6")



Code No.	4751A1
Model	MANTIS XB180WA
Cutting capacity	90° ROUND PIPE Φ180/SQUARE PIPE 150/ ROUND BAR (MILD STEEL) Φ80 45° ROUND PIPE Φ80/SQUARE PIPE 80
Motor	Single phase 220 V (50/60 Hz), Split-phase Induction motor 250W (Output), 380/350W (50/60Hz : Input) with overload protection
Pulley speed (rpm)	70 (50 Hz), 84 (60 Hz)
Dimensions (mm)	L865 x W355 x H415
Weight (kg)	44
Standard accessories	14-tooth HSS blade (x1)(475211), Hex key 5 mm, Hex socket wrench 17 mm

For sale in Japan only

For  
2"  
PIPE

Compact, Lightweight, and High-Quality Band Saw!

## MANTIS 65A / 65SU 8A-50A (1/4"-2") / 13-60SU

Weight :  
11 kg!



475165/475166



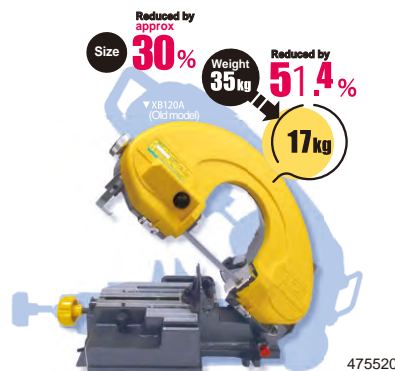
It weighs only 11 kg and is equipped with a portable handle.



For  
4"  
PIPE

### Flat Vice

## MANTIS 120A mini 8A-100A (1/4"-4")



For  
10"  
PIPE

## Among the lightest and most portable of large Band Saws! Does just about everything you need to do at site!

The latest model in the Mantis range adds a new dimension to your work.

Hydraulic cylinder inside base unit allows variable adjustment of the frame lowering speed.



4751C1

### Features

- Handles up to 10" pipe
- 4 wheels built in for great portability
- Lightest in its class
- Oil-free cutting
- Hydraulic damper and spring allows smooth adjustment of cutting speed
- Cuts at angles from 0° to 45°
- Lets you replace the blade from the front (same as Mantis 180W)
- Built-in brush for plastic waste (same as Mantis 180W)
- Reset switch for when overload protection kicks in
- Clamp to keep pipe in place

### MANTIS 270A 8A-250A (1/4"-10")



Code No.	4751C1
Model	MANTIS XB270A
Cutting capacity	90°ROUND PIPE Φ270/SQUARE PIPE250/ ROUND BAR (MILD STEEL) Φ40 45°ROUND PIPE Φ170/SQUARE PIPE150
Motor	Single phase 220 V (50/60 Hz), Split-phase Induction motor 250W (Output), 380/350W (50/60Hz : Input) with overload protection
Pulley speed (rpm)	70 (50 Hz), 84 (60 Hz)
Dimensions (mm)	L990 x W600 x H510
Weight (kg)	80
Standard accessories	14-tooth HSS blade (x1)(475270) Spanner for adjustment of vice angle, Wrench (19 mm) Hex key 8 mm

### Optional accessories

Flat Vice Only



Cutting-length guide (475196)

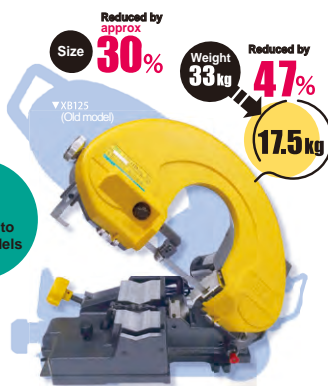


18-tooth HSS blade(475275)

Pipe support for 270A (4751Z9)

For  
4"  
PIPE

## Half the weight of the previous model! Smallest and lightest in the industry!



475525



### Easy to replace the saw blade

The cover can be opened and closed easily and the saw blade can be replaced from the front

### Chain Vice

### MANTIS 125 mini 8A-100A (1/4"-4")



**Load adjustment**  
Just set the load to suit the material



**Handle**  
Carry with just one hand



**Can be stored upright**



**Making contours**  
Easy to make angle cuts with small steel materials



# MANTIS Series

## Features

### Safety

- Motor equipped with overload protector to prevent burning. Motor stops automatically after cutting.

### Easy operation

- Handle, knob and switch are all located at the front for easy operation. (Fig. 1)
- Replacement of saw blade is easy; just detach the front cover. (Fig. 2)
- Large wheels provide easy movement. (Fig. 3)

### XB180WS/XB180WA

Contour function provides simple jigsaw or angled cutting. (Figs. 4-5)

### XB180WA

Flat vice has angle adjustment function for precise angled cutting. (Fig. 9)

Quick vice provides easy and fast clamping.

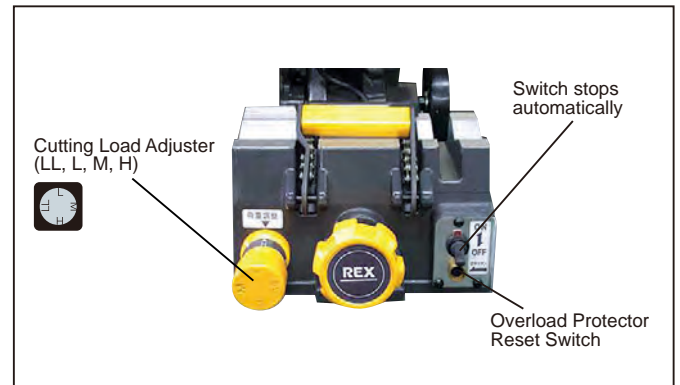


Fig. 1 All cutting operations located at the front



Fig. 2 Easy replacement of spare saw blade



Fig. 3 Large wheels make it easy to move

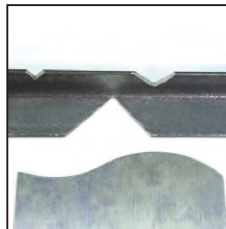


Fig. 4 Contour cutting

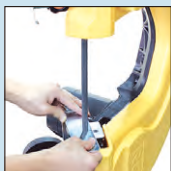


Fig. 5 Contour cutting for small steel material

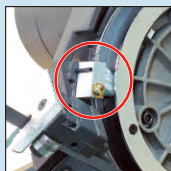


Fig. 6 Brush removes waste powder to reduce slippage of saw blade.



Fig. 7 Bundle cutting (Chain Vice)



Fig. 8 Cutting Load Adjuster (LL, L, M, H)

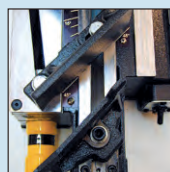


Fig. 9 Angled cutting (XB180WA / XB270A)



**Can be stored upright**  
Just needs an area the size of an A4 sheet of paper (approx. 200 x 300mm)

## Why Use a Band Saw?

With band saws:

- You can cut precise lengths easily.
- Cut right angles accurately; no problems with angled or stepped cutting.
- Cut plastic coated pipes smoothly. The XB-180W is equipped with a brush to clean off plastic waste. (Fig. 6)
- A change of blades allows you to cut from 2 mm thick stainless steel pipe to mild steel bars 80 mm in diameter. (Pg. 15)
- Different blades available for a variety of materials from steel and stainless steel to plastic, cast iron and mortar lined pipe. (Pg. 15)
- You can do bundle cutting (Fig. 7), angled cutting (Fig. 9), and contour cutting. (Figs. 4-5)



# Cut thin stainless steel pipe using a very light load.

**XB180WS/XB180WA**

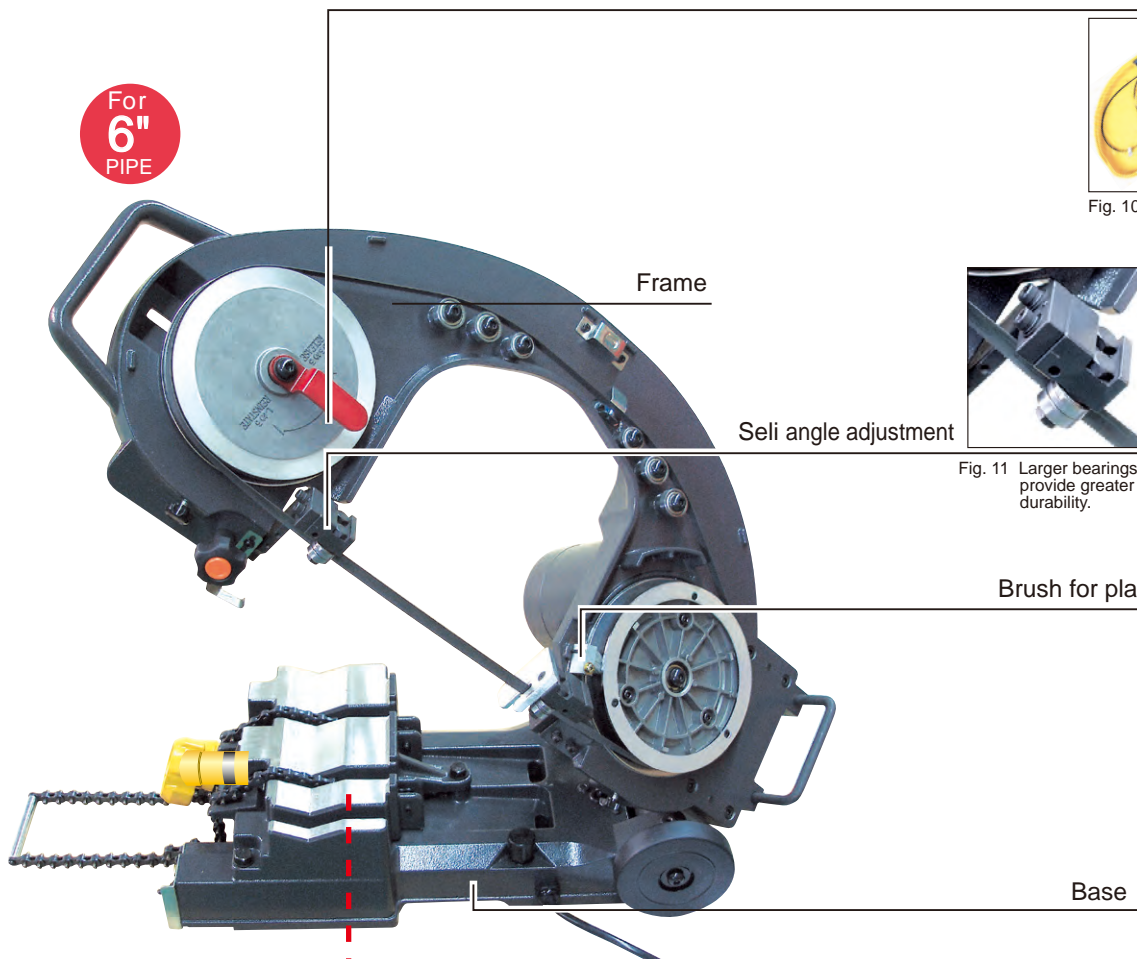
**Two machines in one!**

(Requires 24-tooth HSS saw blade)

Blade easily changed



Fig. 10 Spare blade can be stored inside the cover. (Extra blade : option)



For  
**6"**  
PIPE

Frame

Seli angle adjustment



Fig. 11 Larger bearings provide greater durability.

Brush for plastic waste



Fig. 6

Base

## Chain Vice Unit

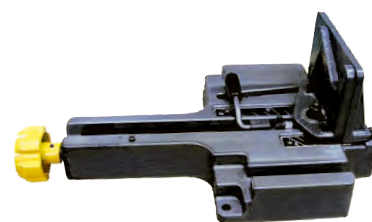
Chain Vice Unit  
475190



**Chain Vice**  
XB180WS  
4751S1

## Flat Vice Unit

Flat Vice Unit  
475192



**Flat Vice**  
XB180WA  
4751A1

Just three bolts  
needed to change  
the vice.

# MANTIS Series

## Mantis Saw Blades (Optional extras)

Be sure to use only recommended blades.

	Code No.	Material	No. of teeth (teeth / inch)	No. of blades included
XB180WS XB180WA	475200	Alloy	8	10
	475201		10	
	475202		14	
	475203		18	
	475204		24	
	475210	HSS (Bimetal)	10	5
	475211*		14	
	475212		18	
	475213		24	
	475220	Grid saw	-	
XB270A	475270*	HSS (Bimetal)	14	5
	475275		18	5
XB125 XB120A	475302	Alloy	14	10
	475303		18	
	475312*	HSS (Bimetal)	14	5
	475313		18	
	475314		24	

\* Standard accessory

### REX Bandsaw Blades

**High-speed Blades:** Made of HSS Cobalt for durability, plasticity and resistance to high temperatures. Suitable for stainless steel and other materials that are difficult to cut.

**Alloy blades:** Suitable for common steel materials such as alloy tool steel, and special steel.

Note: Allow new blades to run in by making a few cuts first.

### Effect of running in the blade

If you use a new blade to suddenly cut a workpiece, it can result in the teeth getting chipped and initial wear.

Running in the blade can greatly affect the life of the blade. It is particularly important in the case of pipe, shaped steel, small articles etc.

### How to run in a new blade:

- Wipe off any oil or dirt before placing the blade in the unit.
- Set the cutting load adjustment dial to L, and cut some material once or twice.

**Running the machine for long periods of time without any material significantly shortens the life of saw blade.**



475211



475270



475312

### Use: Cutting Steel & Stainless Steel materials



Square pipe



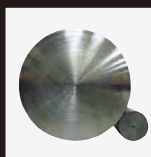
Round pipe



H - beam



Angled bar



Round bar



Angled cutting



Contour cutting



Fig. 12

### Grind Saws

- Produce dangerous sparks
- Are noisy
- Need your hand on the handle while cutting
- Blades limited to cutting 4" pipe



Fig. 13

### Band Saws

- No sparks
- Low level of noise
- Hands-free once set up
- Can cut pipe up to 6" in diameter

## Selecting the Cutting Load and Blade for XB-125 / 120A / 180WS / 180WA

Use the table below to select the blade and cutting load that are appropriate for the type, diameter, wall thickness etc. of the material to be cut.

Material				Alloy Blade					High-speed steel Blade				Grid saw		
			tooth	8	10	14	18	24	10	14	18	24			
Steel pipe			Nominal size	8A - 25A (¼"-1")			L	L		L	L				
				32A - 80A (1¼"-3")			M	M		M	M				
				90A - 150A (3½"-6")			H	H		H	H				
Stainless steel	Schedule 40	8A - 25A (¼"-1")							L	L					
		32A - 80A (1¼"-3")							M	M					
		90A - 150A (3½"- 6")							H	H					
	Thin wall stainless steel (SU pipe)	13 - 125Su									LL				
		150Su									LL	L*3			
Plastic pipe (Polyethylene pipe / Vinyl chloride pipe)							LL	LL			LL	LL			
Conduit				Thick steel				M				M			
			Thin steel				L	L			L	L			
Cast iron pipe							H			H					
Mortar-lined cast-iron pipe														H	
Steel	Section steel	Thickness	≤ 1.9 mm					LL				LL			
			2 - 3.4 mm			L*1	L*2			L*1	L*2				
			3.5 - 4.9 mm			M*1	M			M	M				
			5 - 7.9 mm		M	H			M	H					
			≥ 8 mm		H	H			H	H					
	Round bar		≤ 15 mm			M	M			M	M				
			16 - 50 mm*4			H				H					
			51 - 80 mm*1	H	H				H	H					

LL= ultra-light load L= light load M= medium load H= heavy load

**Notes:** · The figures in the table are examples only. Select the blade and cutting load to match the actual material to be cut.

· When selecting the proper number of teeth on the blade, use the following guideline: thickness of material = 2 teeth.

· Depending on their composition or hardness, some materials are not applicable to the above table.

· When cutting plastic pipes, even if LL (ultra-light load) is selected, the cutting load may be too heavy and the pipe may be cut at an angle.

To prevent this, hold the handle on the frame with your hand and lower it slowly as you cut the pipe.

\*1 XB180W only

\*2 XB125/120A : M

\*3 XB125/120A : LL

\*4 XB125/120A : 16 - 60mm

### No. of notches to set the valve lever at when cutting (for XB270A)

Material			High-speed steel Blade		
			14	18	
			Valve lever notches		
Steel pipe		Nominal size	20A - 50A (¾"-2")	1-2	1-3
			65A - 250A (2½"-10")	2-4	2-4
Stainless steel	Schedule 40		20A - 50A (¾"-2")	1-2	1-3
			65A - 250A (2½"-10")	2-4	2-4
	Thin wall stainless steel (SU pipe)		20 - 25Su		0.5
			30Su - 75Su		0.5-1
			80Su - 125Su		1-2
			150Su		1-3
Plastic pipe (Vinyl chloride / Polyethylene pipe)			1-2	1-2	
Cast iron pipe			2-4		
Steel	Section steel	Thickness	1 - 2 mm		0.5-1
			2 - 3 mm		1-3
			3 - 4 mm	1-2	1-3
			>= 4 mm	2-4	2-4
	Round bar		<= 15 mm	1-2	1-3
			16 - 40 mm	2-4	

### Saw blade essentials

#### Two types available

Alloy blade for steel pipe

HSS blade for stainless steel pipe

#### What is the difference between the 14-tooth and the 18-tooth blade?

14-T: Provides a sharper, faster cut

18-T: More precise for right angles

but slower than the 14-T

#### What does "tooth" mean?

14-tooth means there are 14 teeth per inch (25.4mm).

