

**WBM MODEL**  
Portable Plate Edge Milling Machine

**MADE IN CHINA**  
High Efficiency & Energy Saving



**WBM.80X**

MANUAL OPERATION

必须认真阅读本操作手册，否则将造成不必要的损伤！  
DON'T OPERATE THE MACHINE BEFORE READING THE MANUAL!

**CE** **sira**  
CERTIFICATION  
ISO 9001:2008



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			1.Statement		
			✧ Please read this operation manual carefully before operation. We will not bear the lost and responsibility due to any unreasonable operation.		
			✧ Please use the accessories supplied by our company, Without the consent of our company, all the loss cause by unauthorized demolition and replace the accessories not belongs to ours , we will not responsible for it.		
			✧ Don't let the machine work morn than 2 hours continuously in full load, its working time is 8 hours one day(reduce the time to 4 hours one day at 30 °C).		
			✧ We'll not responsible for any loss and damage cause by overload of machine.		
			✧ We'll not responsible for any loss cause by working on the others out of its designed performance.		
			✧ Please keep this book properly. In case requested for spare parts replacement.		
			3.Preface		
			Thank you for choosing our "Wenbach GmbH" Brand machine, Hope it helps you on improving efficiency and saving more cost.WBM Series plate beveling machine mainly for plate edge beveling on weld preparation. It helps a lot to enhance the welding strength with a bevel.		
			For your benefit, Please read this operation manual and related instructions & symbols carefully before machine operation. We will not take the responsibility while defective machine or physical Injury caused by any operation under required. If you have any questions or problems on our machine or files, Please do not hesitate to		

### 3. After-Sales Service

#### Wenbach Industrial Technology Wuxi Co., Ltd

ADD: 12nd Building, No.9 Xingyang Road Wuxi-214082, China

Tel : +86 510 85809585 Fax : +86 510 85808563

E-mail: Contact@Wenbach.Com Web: [www.Wenbach.com](http://www.Wenbach.com)

### 1.Statement

- ✧ Please read this operation manual carefully before operation. We will not bear the lost and responsibility due to any unreasonable operation.
- ✧ Please use the accessories supplied by our company, Without the consent of our company, all the loss cause by unauthorized demolition and replace the accessories not belongs to ours , we will not responsible for it.
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### 3.Preface

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- We have the right to the final interpretation of this information, We will not give further notice with any alteration.
- We have the copyright for this file, Please do not copy or amend without our approval.



## WBM Edge milling machine

### 4. Summary

**4.1 Introduction:** automatic walking type plate beveling machine, and can support plate milling automatically to reduce the operation cost and save labours. It is kind of cold cutting process to avoid any plate surface oxidation during beveling. Surface performance could reach Ra 3.2-6.3 and fully enough for welding requirements in any industry.

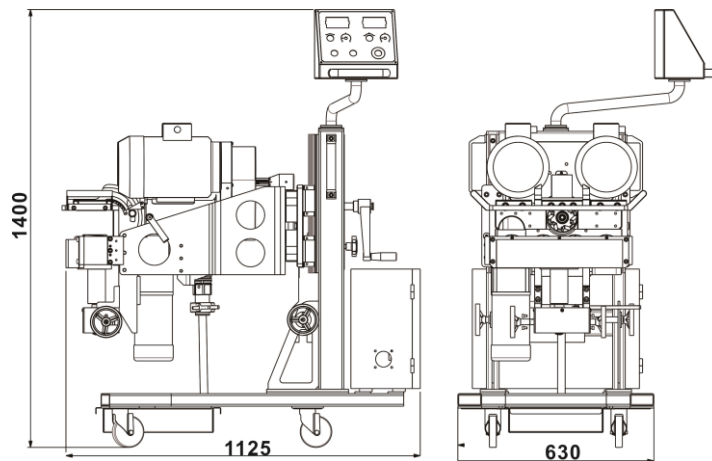
### 4.2 Application

- ✧ It is widely used on material like steel, Iron, grained steel, alu alloy, copper and so on.
- ✧ Widly used for Engineering machinery, steel construction, pressure Vessels, shipbuilding, Aerospace Industry etc

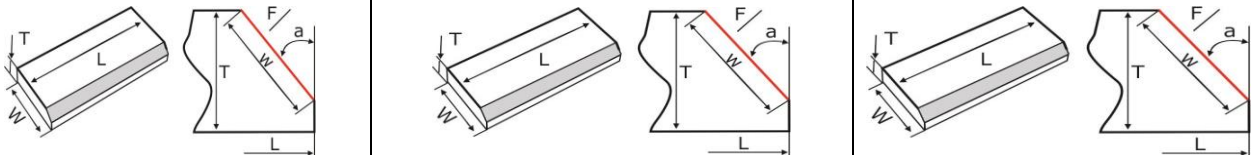
### 4.3 Technical Parameters

Motor Power : AC415V 60HZ	Total Power : 4920W
Milling Power : 2*2200W	Feeding Power : 400W
Milling Speed : 0~1500mm/min (Adjustable)	Bevel Angel : $0^{\circ} \sim \pm 60^{\circ}$ (Adjustable)
Single Bevel Width : 0~20mm (Q235 As testing)	Clamp Thickness : 6-80mm (Customized option)
Max Bevel Width : 70mm (When 37.5 degree)	Inserts on Cutter head : 6pcs
Min Plate Width : $\geq 200$ mm	Machine Weight : 310kg

### 4.4 Machine Diagram






**4.5 Models Option :** For more information, Pls refer to our newest catalog and website: [www.Wenbach.com](http://www.Wenbach.com)

Product Type		WBM Series	100VJ	60R	60VJ	60V	80V
Plate Size	Work Piece Length L ( mm )	>300mm					
	Work Piece Width W ( mm )	>100mm					
	Clamping ThicknessT ( mm )	8~100	6~60		6~60	6~80	
Working Capacity	Bevel Angel a ( ° )	0~90	10~60	0~90	10~60	0~60	
	Bevel Width W ( mm )	0~100	0~55	0~56	0~45	0~70	
	Bevel Depth d ( mm )	20		0~15	No	0~15	
	Bevel Width e ( mm )	100	No	0~45	No	No	
	Feeding Depth f ( mm )	30	No	0~15	No	0~15	
	0° milling Width B mm	100	No	56	No	60	
Single Beve Width (mm)		30	15			20	
Milling Speed (r/min)		750-1050	1050			750-1050	
Feeding Speed (mm/min)		0~1500					
Total Power ( w )		6400	3400			4800	
Machine Net weight ( kg )		440	225	225	225	245	
							

## 5. Safety & Warning

### 5.1 Safety Instruction

	The parts of electrical and rotation may cause serious personal injury or property damage. This machine is powered by 415Volts. PLEASE carefully read this manual operation to identify the different parts of this machine before installing, wiring, starting up, running or making any adjustments. Electrical wiring installation and maintenance personnel MUST be qualified with regulations and professional skills to ensure to avoid the life of injury and and the loss of property.
	<b>WARNING</b> Improper operation could cause danger or serious injury
	<b>WARNING</b> Improper operation could cause danger or serious injury

### 5.2 Safety ware and protective equipment



#### Caution

Pls do check your wares before operation ;  
Work wares should fit confortably and long-sleeved clothes suggested  
Sandals, high heels, loose shoelaces, and smooth soles are all dangerous  
Pls do ware helmet during operation and do ware protective glasses during operation

### 5.3 Protective Device







#### Warning

Please do not remove any protective cover on the equipments  
Please do not do any changes without permit to avoid any argements



### 5.4 Operation Cautions

- ✧ Before operation, Please ensure the safe site around. Please operate machine at 0~40°C.
- ✧ Before operation, Please do not touch rotation parts of machine by hands.
- ✧ After operation, Please do cut off the power and reset machine.
- ✧ Inflammable and explosive articles shall not be placed around the machine.

### 5.5 Safety Caution

 <b>DANGER</b>	<ul style="list-style-type: none"> <li>✧ We have the final right to interpret and modify all relevant information of this machine!</li> <li>✧ We DO NOT bear the responsibility for accessories not from our factory used on our machine!</li> <li>✧ Please DO cut off the power before maintenance the machine!</li> <li>✧ Do check whether any damages on plug, wire, and machine before use every time!</li> </ul>
 <b>WARNING</b>	<ul style="list-style-type: none"> <li>✧ DO NOT move the machine by power cord !</li> <li>✧ Please use trip circuit breaker to protect machine when out door operation!</li> <li>✧ Please let only skilled person for machine inspection and maintenance!</li> </ul>
 <b>CAUTION</b>	<ul style="list-style-type: none"> <li>✧ Please do stop machine and wear gloves for iron cleaning to avoid any hurts by hot sharp iron pin.</li> <li>✧ Please place the power cord on machine or behind, do not put it on sharp objects.</li> </ul>
 <b>NOTICE</b>	Please refuse the receipt and obtain the signature of the forwarder if the equipment is damaged, which will facilitate your insurance claim. Our factory will promptly assist you to replace the missing or damaged parts.

### 5.6 Security Identify

	<b>Beware of burns</b> After plate beveling, The Iron pins and Inserts are in hot and sharp, please do not touch by hands.
	<b>Electric Shock Risk</b> It happens on the electric box, Means request professional electrician for inspection and pay attention on the electric shock risk..



## WBM Edge milling machine

	<b>Hoisting Prompt</b> During hoisting, Please DO NOT stand under machine to avoid any casualties.
	<b>Watch Your Hands</b> It marks on the plate feeding side, means dangerous for hands and please keep distance with machine.
	<b>Be careful of prick on hands</b> It markets on the plate feeding side, means dangerous for prick on hands, please do not touch the iron pins or plate by hands after beveling.

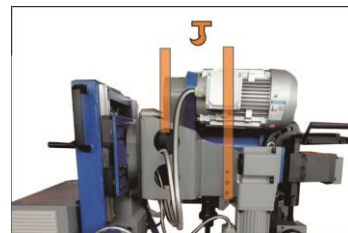
### 6 . Machine Inspection

#### 6.1 Hoisting

Step 1 : Cut off the belt on equipment

Step 2: Set machine bevel angel in ragne 0-10 degree, Lifting machines up as per hoisting location. The machine is hoisted slowly based on its hoisting position and the height should not rise more 10cm while hanging up, Except crossing obstacles.

**NOTE:** Please use good quality hoisting belt and available lifting weight should be > 500KGS.



#### 6.2 Wheel Installation

Someone must support the machine while installing the wheels after the machine is hoisted 200-250mm from the ground.

**Take out "1" screw.**

**NOTE:** Please keep hoisting safety for machine stable to ensure person safety.



#### 6.3 Name Plate: Detailed Parameters On The Nameplate

# WBM.80X 型自动平板铣边机

WBM.80X Self-propelled Plate Edge Milling Machine

平形刨边机，代换式铣削刀片铣边系统

型号 Model	WBM.80X	电压 Voltage	AC 380V	频率 Frequency	50Hz
额定功率 Rated Power	4720W	工作速度 Machine Speed	700-800mm	额定重量 Net Weight	1-14T
额定重量 Net Weight	4-800kg	额定重量 Net Weight	300kg		

采用进口名牌电动机，性能稳定，使用寿命长

板厚 Plate Thickness	5	10	15	20	25	30	35	40	45	50
1	11.1	4.9	3.7	2.7	1.3	0.4				
4	11.5	6.4	5.7	5.0	4.1	3.9				
8	11.8	8.3	7.7	7.3	6.9	7.4				
12	12.2	10.0	9.7	9.4	9.7	10.8				
16	12.5	11.7	11.7	11.9	12.6	14.7				
20	12.9	13.6	13.7	14.7	15.4	17.6				
24	13.2	15.1	15.7	16.5	16.9	19.2				
28	13.6	16.8	17.7	18.5	18.9	21.5				
32	13.9	18.4	19.7	21.1						
36	14.3	20.7	21.7	23.4						
40	14.6	21.8	23.7	25.7						
44	15.0	22.5	25.7	28.2						
48	15.3	23.2	25.7	30.3						
52	15.7	24.9		32.6						
56	16.1		31.7							
60	16.4									

板厚  
Plate Thickness

板厚 Plate Thickness	5	10	15	20	25	30	35	40	45	50
1	11.1	4.9	3.7	2.7	1.3	0.4				
4	11.5	6.4	5.7	5.0	4.1	3.9				
8	11.8	8.3	7.7	7.3	6.9	7.4				
12	12.2	10.0	9.7	9.4	9.7	10.8				
16	12.5	11.7	11.7	11.9	12.6	14.7				
20	12.9	13.6	13.7	14.7	15.4	17.6				
24	13.2	15.1	15.7	16.5	16.9	19.2				
28	13.6	16.8	17.7	18.5	18.9	21.5				
32	13.9	18.4	19.7	21.1						
36	14.3	20.7	21.7	23.4						
40	14.6	21.8	23.7	25.7						
44	15.0	22.5	25.7	28.2						
48	15.3	23.2	25.7	30.3						
52	15.7	24.9		32.6						
56	16.1		31.7							
60	16.4									

注意事项：设备出厂时附件及备件不齐全  
-Note: Items listed in the manual is missing-

⚠ 产品危险电压  
Warning: High Voltage

注意：铣削速度，以额定120m/min

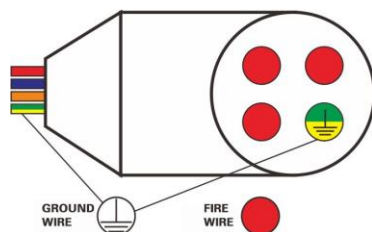
**6.4 Anti-Fake :** Please visit our website: [www.Wenbach.com](http://www.Wenbach.com)

**6.5 Packaging Checking :** Please check the packaging as per the list on operation manual, any questions, Please do not hesitate to contact us: [Contact@Wenbach.Com](mailto:Contact@Wenbach.Com)

### 7 . Installation & Diagram

<b>CE Certified Requirements</b>	External Ground Wire request wire size (Copper Conductor)	Phase Line Diameter S (mm <sup>2</sup> )	Ground Wire Diameter Sd (mm <sup>2</sup> )
		S ≤ 16	S
		16 < S ≤ 35	16
		S > 35	S/2

#### 7.1 Electrical Installation :



#### Wire Installation

✧ For safety, This machine is using 3 fire wire and 1 ground wire (Null line will affect the inverter)

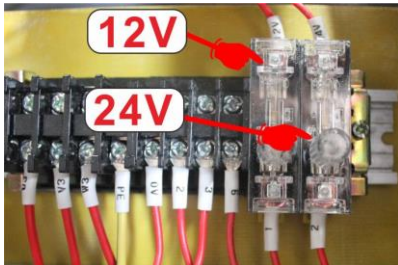
✧ Electric wire size should be diameter 1.5mm<sup>2</sup> for 3 phase.

**Power AC380V 50HZ, electric connection should follow local rules**



## Cutter Head Rotation

Check the cutter head rotation if it is correct direction, if not, can change the rotation by changing any 2 of the fire wire location.



## No data on digital display

If no data on digital display when power is on, Check the 12V fuse if blowout, or contact with us directly.

If no power in electric box when power is on, Check the 24V fuse if blowout.

**NOTE: This operation is ONLY available when the troubleshooting not solved.**

## 7.2 Electrical Symbols

QF : Power Switch

B : Transformer

SB1 : Emergency Stop

SB2 : Power Switch

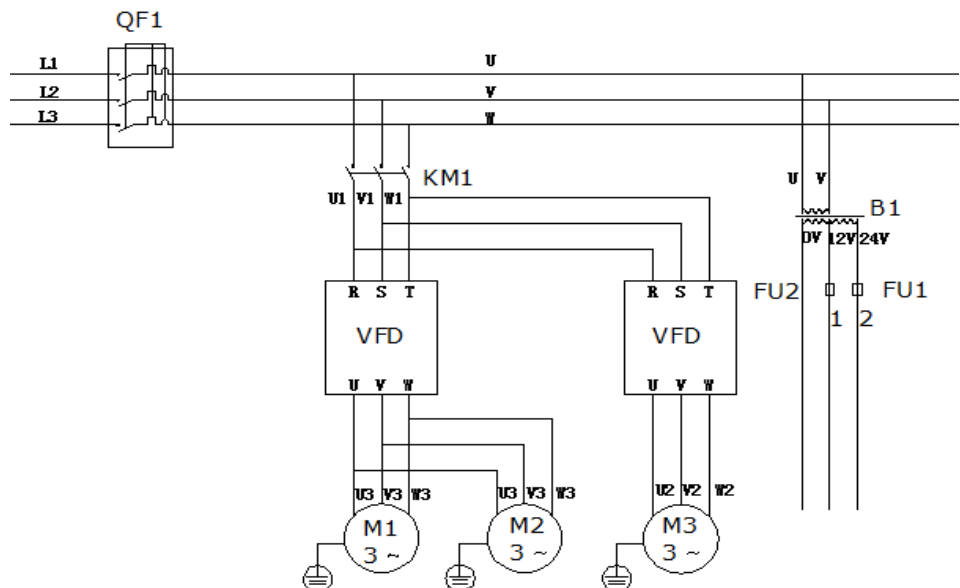
KM : AC Contractor

FU : Fuse

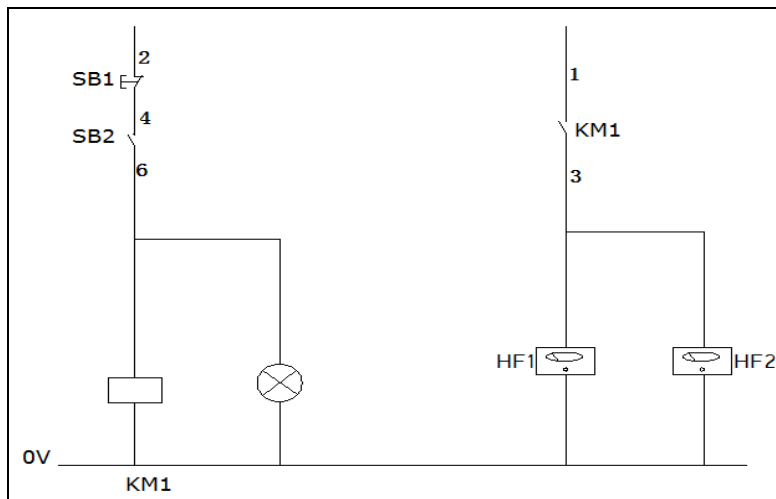
VFD : Converter

HF : Tachometer

## 7.3 Electric Box Diagram: Converter and digital parameters already settled, Please do not change anyhow to avoid any equipment troubles.



## 7.4 Control Box Diagram



## 7.5 Common Protection Measure:

- 1) Electric connection and protection should follow the local regulations;
- 2) Cable side for connecting aviation plug, another side for power;
- 3) DO NOT use the machine in humid environment to avoid causing danger.
- 4) Feeding plate as per instruction, Inserts touch the plate only after cutter rotating.

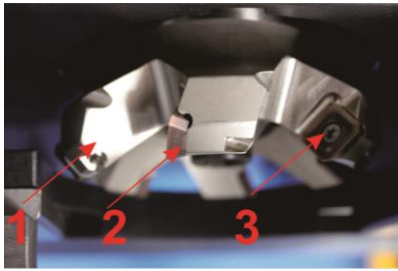
## 7.6 Cutter & Insert Replacement





**Ensure power off before replacing Cutter head or Inserts**

1) Please pay attention on the sharp edge of inserts and high temperature when replacing Inserts or cutters to avoid any dangers.

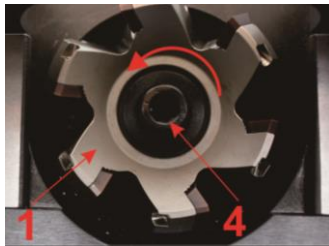


## Insert Replacement

1. Adjust the cutter head angle to a suitable one for replacing Inserts (Like photo "1" is cutter head, "2" is Inserts, "3" is Screws.



2. Using Tool "T15" screwdriver, Take off screws "3" to replace the Inserts



## Cutter Head Replacement

1. Adjust the cutter head angle to a suitable one, Stable cutter head "1" by stick to ensure it will not rotate.

2. Rotate screw "4" to take it off by inner hexagon socket as picture direction, Take off the whole cutter head

3. (If it can't take out, Can try to hit the head by stick slowly and take it off by hands)

## 8. Bevel Preparation

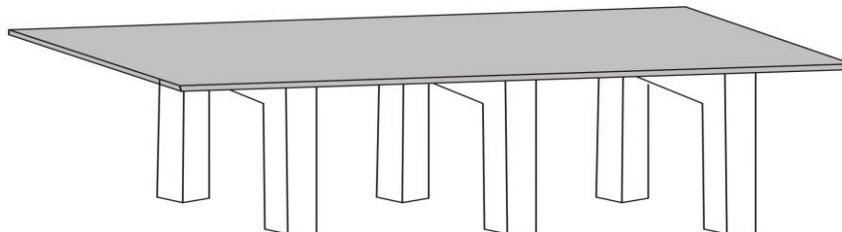


During operation, We must set up the first feeding depth as per different plate material, Coz any operation beyond the scope of native performance will lead to some series equipment troubles like gear wear, inserts collapse, main shaft break off and so on.

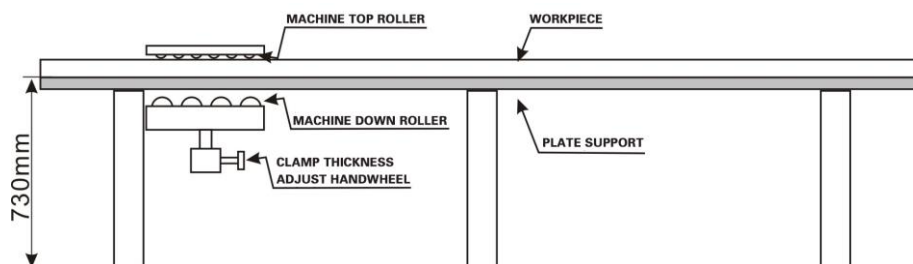
Request to considered with full plate factors when setting up the bevel parameters pecially plate hardness will be increase after oxygen cutting.

### 8.1 Placement

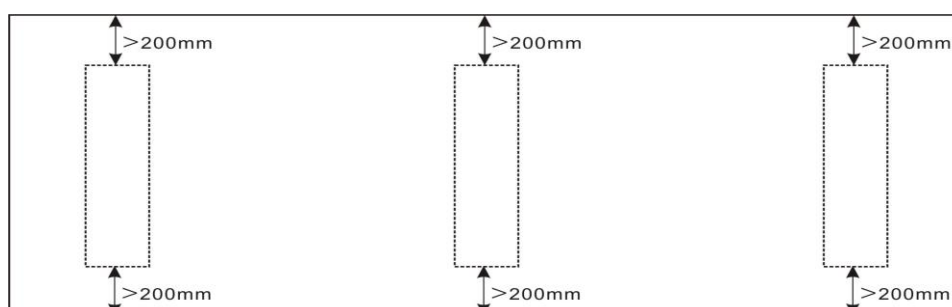
1) make a simple plate support as below picture.(Picture for reference only)



2) Suggested plate support height: When plate thickness in 20mm, We suggest to set height at 800mm, Set table height refer to your plate thickness, Max height at 810mm.



3) Workpiece placement, Put the metal plate on support showed as below, make the beveling edge about 200-250mm.

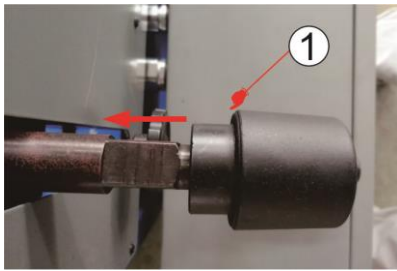




## WBM Edge milling machine

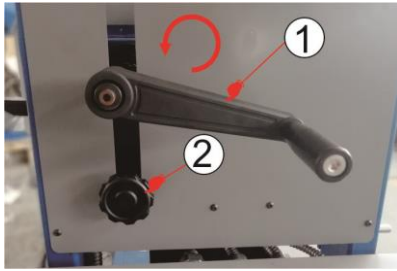
**8.2 Plate Clearance :** Clear up the plate surface to avoid any welding tumor and crater (Burrs,tumor and crater will affect the Inserts and machine life time)

### 8.3 Up and down Bevel Adjustment :



#### **Up and down bevel adjust /Rotate teh heads**

1. Specify the machine turnable lables
2. Push the handle "1" completely

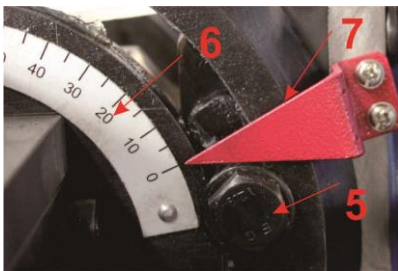


#### **Up and down bevel adjust/Rotate the machine head**

3. Rotate the handle "1" at 5~10° degree by one hand, Pull out the hanle "2" by another hand
4. Rotable "handle 1" , Same time loose "handle 2" will be fine

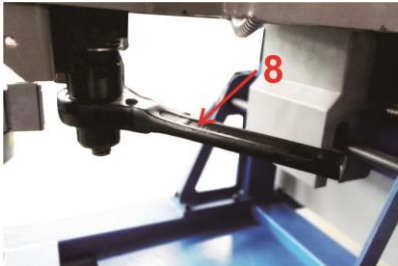
**Note:Pls send machine bevel angel at 0-10 degree when you rotate the machine for down bevel. Purpose to keep the machine weight in balance to avoid any dagerous happens,**

### 8.4 Bevel Angle & Bevel Depth Adjustment :



#### **Bevel Angle Adjustment**

- 1.Loose bolt "5"( Picture Refers "6" for Angle Ruler, "7" for Angle Indicator Arrow



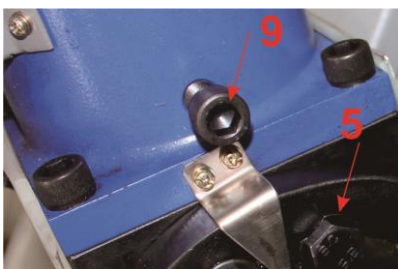
#### **Bevel Angle Adjustment**

- 2.Rotate the Ratchet Wrench "8" and adjust required angle. After that tighten the bolt "5".

**NOTE: Adjusting the "b" on the ratchet wrench can change the rotate direction of angle.**



**NOTE: For machine of tightening ratchet model, Hands should be put on the the position in GREEN mark, NOT in RED mark, which will damage the ratchet wrench.**



#### **Bevel Depth Adjustment**

- 1.Loose bolt "9"
3. Rotate hand wheel"11" and adjust corresponding scale on the dial" 10" according to required bevel width.





## WBM Edge milling machine



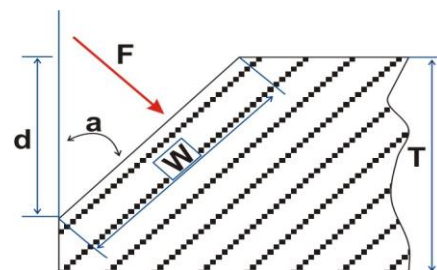
3.NOTE: Parameters for reference, Please refer to the actual bevel size after first testing.

( F: Hand Wheel Parameters)

d : Processing Depth、 T : Clamp Thickness、

w : Bevel Width、 a : Bevel Angle、 F : Spindle Feeding

NOTE: Different colors represent the areas that need to fed per cut, Pls adjust accordingly in small size when different materials of plates.

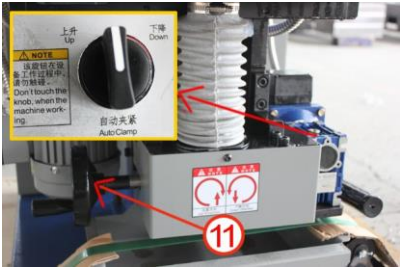

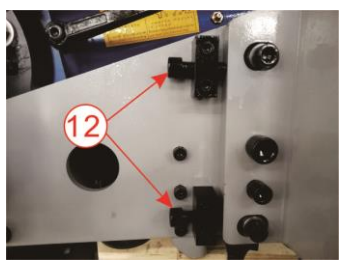

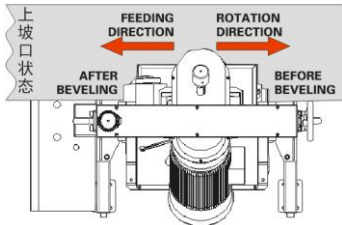



d \ F	a											
	5	10	15	20	25	30	35	40	45	50	55	60
0	11.1	9.4	7.8	6.3	4.9	3.7	2.7	1.9	1.3	0.8	0.5	0.4
4	11.5	10.1	8.8	7.6	6.6	5.7	5	4.5	4.1	3.9	3.8	3.9
6	11.7	10.4	9.3	8.3	7.5	6.7	6.2	5.8	5.5	5.4	5.4	5.6
8	11.8	10.8	9.8	9	8.3	7.7	7.3	7	6.9	6.9	7.1	7.4
10	12	11.1	10.3	9.7	9.1	8.7	8.5	8.3	8.3	8.5	8.7	9.1
12	12.2	11.5	10.9	10.4	10	9.7	9.6	9.6	9.7	10	10.3	10.8
14	12.4	11.8	11.4	11	10.8	10.7	10.8	10.9	11.1	11.5	12	12.6
16	12.5	12.2	11.9	11.7	11.7	11.7	11.9	12.2	12.6	13	13.6	14.3
18	12.7	12.5	12.4	12.4	12.5	12.7	13.1	13.5	14	14.6	15.3	16
20	12.9	12.9	12.9	13.1	13.4	13.7	14.2	14.8	15.4	16.1	16.9	17.8
22	13	13.2	13.4	13.8	14.2	14.7	15.3	16	16.8	17.6	18.5	19.5
24	13.2	13.5	14	14.5	15.1	15.7	16.5	17.3	18.2	19.2	20.2	21.2
26	13.4	13.9	14.5	15.2	15.9	16.7	17.6	18.6	19.6	20.7	21.8	23
28	13.6	14.2	15	15.8	16.8	17.7	18.8	19.9	21	22.2	23.5	
30	13.7	14.6	15.5	16.5	17.6	18.7	19.9	21.2	22.5	23.8	25.1	
32	13.9	14.9	16	17.2	18.4	19.7	21.1	22.5	23.9	25.3	26.7	
34	14.1	15.3	16.5	17.9	19.3	20.7	22.2	23.8	25.3	26.8		
36	14.3	15.6	17.1	18.6	20.1	21.7	23.4	25	26.7	28.4		
38	14.4	16	17.6	19.3	21	22.7	24.5	26.3	28.1	29.9		
40	14.6	16.3	18.1	19.9	21.8	23.7	25.7	27.6	29.5			
42	14.8	16.7	18.6	20.6	22.7	24.7	26.8	28.9	30.9			
44	15	17	19.1	21.3	23.5	25.7	28	30.2	32.4			
46	15.1	17.4	19.7	22	24.4	26.7	29.1	31.5	33.8			
48	15.3	17.7	20.2	22.7	25.2	27.7	30.3	32.8				
50	15.5	18.1	20.7	23.4	26.1	28.7	31.4	34				
52	15.7	18.4	21.2	24	26.9	29.7	32.6	35.3				
54	15.8	18.8	21.7	24.7	27.7							
56	16	19.1	22.2	25.4	28.6							
58	16.2	19.5	22.8									
60	16.4	19.8										



## WBM Edge milling machine

### 8.5 Clamp Thickness & Machine Height Adjustment :

		
<p><b>Clamp Thickness Adjustment</b></p> <p>Rotate hand wheel "11" to clamp the work piece</p>	<p><b>Machine Height Adjustment</b></p> <p>Rotate the hand wheel "12" to adjust the machine height</p>	<p>Adjust press-wheel with plate angle</p>
		
<p><b>8.6 Speed Adjustment :</b></p> <p><b>Spindle Speed and Feeding Speed Adjustment</b></p> <p>"1" for spindle Speed adjustment</p> <p>"2" for Feeding Speed adjustment</p>	<p><b>8.7 Feeding Route :</b></p> <p>1.Request flat floor, If not, can have a metal plate on floor for machine walking.</p> <p>2.Make Sure feeding in correct feeding direction.</p> <p><b>Note : Please ensure the right cutter rotate direction before feeding. Inserts can not touch the plate before feeding.</b></p>	

### 9. Basic Operation

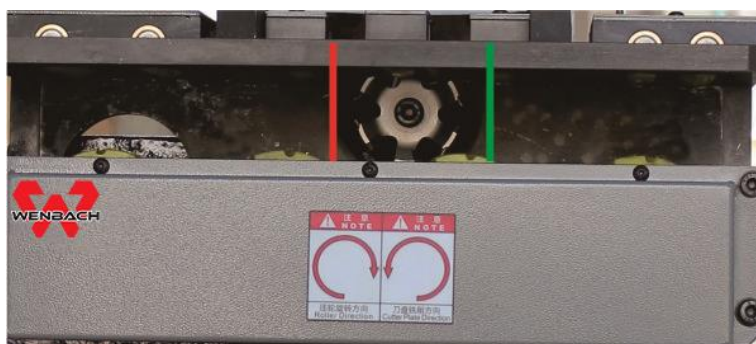


- ◆ Please DO NOT let machine work more than 4 hours continuously.
- ◆ After period working, Reducer temperature will increase, Boiling will helps on the machine heat dissipation to ensure the mechanism in thermal balance.

### 9.1 Speed Setting Reference Table (Parameters for reference only, Higher bevel width, lower speed, please refer to the actual situation)

Work piece can not locate over the red line, Distance between Red line and Green line is "Low speed Area" for starting, After green line (Cutter head) should be "speed up area", When plate end close to red line should be "Complete area".

Material	Low Speed Area	Speed Up Area	Complete Area
Q235	150-250	300-800	300-500
45#	150-250	300-700	300-500
16Mn	150-250	300-600	300-500
AL	150-250	300-1000	300-800
306	150-200	200-500	200-300
316L	150-250	200-400	200-300



### 9.2 Machine Parts Introduction

#### 1) Control Panel

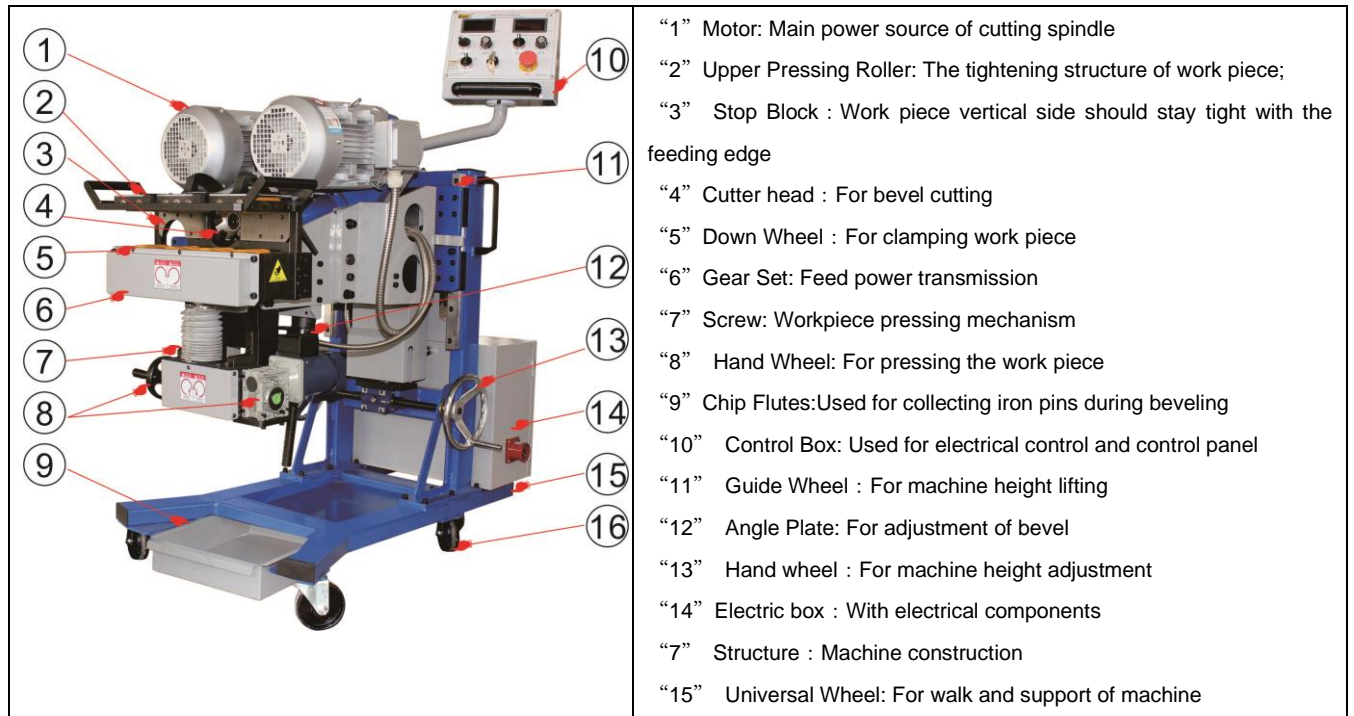


- "1" Showing Spindle Speed      "2" Showing Feeding Speed
- "3" Spindle Switch
- "4" Spindle speed at:500-1050r/min (refer to the actual speed) 。
- "5" Knob for direction control (Feeding Direction)
- "6" Speed control knob : Feeding Speed at 0-1500mm/min。
- "7" Auto claming knob
- "8" power key      "9" Emergency Stop:



## WBM Edge milling machine

### 2) Full Machine



### 9.3 Basic Operation

#### Small Plate Beveling:

As a manual operation to adjust the required bevel type, angle, depth, cutting speed and feeding speed, and then start to work.

#### Large Plate Beveling:

When bevel large size metal plate, which need to put it on the auxiliary support attachment, and then adjust the required bevel angle, bevel depth, feeding speed and cutting speed on the machine to complete work. ( ONLY WBM.80X)

### 9.4 Operation Steps :



- 1) Working Piece Location.....Workpiece should be stick along with the feeding limit block and Plate leading end should keep distance 10-15mm with cutter head.
- 2) Working Piece Clamping.....Please refer to operation 9 ;
- 3) Start to milling: Power On, Turn on Spindle 5-10 seconds to stable rotation speed and feeding speed.

**After Beveling:** Close the feed, close the spindle, and loosen the clamping wheel. Make feeding speed back to "0"

## 10. Components Drawing

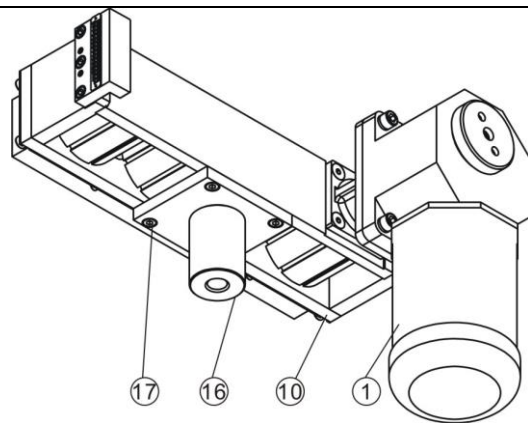
### Assembly Part One :

NO.	Description	Code No.	QTY	Diagram
1	Reducer	80V03-001	1	
2	Flange	80V03-002	1	
3	Main Shaft	80V03-003	1	
4	Bearing	80V03-004	8	
5	Driving Gear	80V03-005	3	
6	Rubber Wheel	80V03-006	4	
7	Backing Plate	80V03-007	1	
8	Sliding Block	80V03-008	2	
9	Juntion Plate	80V03-009	2	
10	Gear Plate	80V03-010	1	
11	Cover	80V03-011	1	



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12	Driven Gear	80V03-012	3
13	Driving Shaft	80V03-013	3
14	Driving Gear	80V03-014	4
15	Bearing	80V03-015	6
16	Adjustment Screws	80V03-016	1
17	Bolt	80V03-017	4



### Assembly Part One

NO.	Description	Code No.	QTY	Diagram
1	Rotation Part	80V04-001	1	
2	Spindle Housing	80V04-002	1	
3	Bearing	80V04-003	1	
4	Fixed Plate	80V04-004	1	
5	Belt Pulley	80V04-005	1	
6	Cover	80V04-006	4	
7	Spline Housing	80V04-007	1	
8	Tighting parts	80V04-008	1	
9	Feeding Wheel	80V04-009	1	
10	Belt	80V04-010	1	
11	Belt Wheel	80V04-011	2	
12	Motor	80V04-012	2	
13	Control Box	80V04-013	1	
14	Screw	80V04-014	6	
15	Inserts	80V04-015	6	
16	Cutter Head	80V04-016	1	
17	Bearing	80V04-017	2	
18	Jam Nut	80V04-018	1	
19	Spinle Sleeve	80V04-019	1	
20	Bearing	80V04-020	1	
21	Jam Nut	80V04-021	1	
22	O Ring	80V04-022	1	
23	Main Shaft	80V04-023	1	
24	Scale sleeve	80V04-024	1	
25	Feed Screw	80V04-025	1	
26	Bearing	80V04-026	2	
27	Jam Nut	80V04-027	1	

### 11. Lubrication & Cleaning

	Lubricating Method	Period
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## WBM Edge milling machine

Complete machine	Spray anti-corrosion oil, remove iron pin, and a dust-proof cover, straight in a dry place	3 months or a long time not to use
3 months or a long time not to use	Use a broom to clean up in time, so as to avoid excessive accumulation of equipment.	Clean up according to the actual situation
Reducer	Clean up the scraps by air compressor	While needed
	Add Gear oil	Life free maintenance
Control/Electric Box	Cover with dust and rain shield	When long time not to use
Inserts	Replace Inserts and screws in time when any broken found	As per manual point 7
Inserts Screw	If the knife is broken in the tray, please use the drill out	As per manual point 7
Main Shaft	Injet lubricating oil into the inlet on the side of spindle (Can not use grease instead)	Once every 3 months



### Lubricating Oil Injet and scraps cleaning

【“1”Lead Screw】 Adjust the thickness, Clean scraps, Spray anti-corrosion oil once a month;

【“2”Guide Rail】 Clean up the iron scraps every day, Spray lubricant if not use for a long time.

**NOTE: Anti-corrosion oil can use 【WD40】**

## 12 . Common Trouble Repair & Maintenance

NO.	Fault		Maintenance & Repair
1	No response from electrical equipment	No electricity	Check the wire of electricity
		Broken Line, Poor Connect	Check if anywhere broken line or poor connection
2	Electrical OK, Still no response	Emergency on	Rotate the emergency button
		Power lock not open	Move the key on the panel
3	Rotation Error	Spindle Rotate Error	Change the wire line sequence
		Feed motor rotate Error	Check the "Feed switch "" L or R" on panel"
4	Abnormal Noise	From Motor	Power supply shortage
		From Gea	Gear wear, inject with lubrication oi
5	Spindle not ru	Over loa	Power off and reset on the "Disconnector" (Refer to point 7
		Lock nut of	Lock up the Jam Nut (Overload
		Bearing Broken in main shaf	Replace the Bearin
6	The compression can't be tightene		Check if any scraps stick on the rollers or plate
7	Workpiece ejected or deflecte		Ensure if the feeding direction correct with reques
8	Serious Spark during operatio	Overload	Reduce the bevel depth or speed,can add coolant properly when process stainless steel plat
		The Inserts wear	Replace Insert
9	Inserts smashed with workpiec		Check if the inserts already contact with plate before feedin
10	Can't process with thin plate		Specified Working range for machine, Contact with supplie
11	Inserts cracks once start bevelin		Reduce feeding dept
12	Feed wheel not workin		Check if any problem on the feeding gea
13	Artifacts Ski	Low friction coefficient	Increase the friction of feed wheel and add force to the conveyor
		Feed speed doesn't match	Reduce feeding speed
14	Electric control Error or any other		Contact with supplier in tim
15	Difficult to rotate the ange		Ensure if already loosen jam nut or any scraps in the rotate





## WBM Edge milling machine

		holes
Cautions		
✧	Replace the direction of insert and fixing screws in time according to different factors of different processing materials, feeding depth, and cutting speed, etc.	
✧	Recommend to replace the angle of insert cutting between 30-100m to protect the insert.	
✧	Recommend to replace the screws of insert cutting between 30-100m to lower the risk of insert damage.	
<b>NOTE:</b> The professional worker will decide if that can be taken out or not based on different situation if the screws are broken out, otherwise that may cause cutter head cannot work normally.		

### 13. Packing List

NO.	Description	Model	Qty	Unit	Remark
1	Plate beveling machine	WBM.80X	1	Set	
2	Inserts	80X Use	2	set	Including the set on cutter head
3	Inserts Screws	M3.5*8	2	set	Including the set on cutter head
4	Socket Head Wrench		1	set	
5	Wrench	19	1	pc	For adjusting bevel angel
6	Wrench for Insert Screws	T15	1	pc	For inserts replacement
7	Socket	4075	1	set	On Electric box
8	Tool Box	4111	1	pc	
9	Universal Wheel	5001	4	pc	Walking Wheels
10	Screws	M8*16	16	pc	For Fixing the universal wheels
11	Cooling fluid Pot	Add Coolant	1	pc	
12	Oil Pot	Diluting Oil	1	pc	For spindle and guide rail
13	Operation Manual		1	pc	
14	Packing Wooden Case	Wooden Case	1	pc	For Exporting against Sea & Air shipment

### 14 . Vulnerable Parts List

No.	Order NO.	QTY in Set	Description	Remart
1	80VPCA300	6	Inserts PDER-G	Replacement refer to the operation Manual
2	80VM3508	6	Inserts Screw M3.5*8	
3	80V0063	1	Cutter Head	Can't take out when bolt broken
4	80V005	4	Top press roller long	Replace as per using situation
	80V006	3	Top press roller short	
5	80V007	4	Down roller	Replace as per using situation
6	16006Z	8	Bearing (Standard)	Replace as per using situation
7	A737	4	Belt	Replace as per using situation
8	80type	14	Cooper Bush	For top press roller
9	25A10.03	3	Driven Gear	
10	25A10.02	4	Driving Gear	

NOTE: Inserts and screws are regular wear and tear parts which can stock accordingly. For other parts may need to replace, Please check as per your needs.