

GMM-10 type Operation Manual



Read the manual carefully before use!

Shanghai GIRET Machinery and Equipment Co., Ltd.

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Preface

Dear customer, we are appreciating that your support for our products (GIRET)! Read the manual carefully to avoid unnecessary losses.

1. Note

- ✧ Read the manual and notes carefully, follow the technical specification.
- ✧ Carry out related technical specification provided by country and DIN, VDE, CEE, AFNOR.

Danger!!!



- ✧ Turn off the power before maintenance!
- ✧ Check the socket, electric wire and machine before using.
- ✧ Keep the machine dry, not in the humid environment.
- ✧ Please use the thermocutout, 30mA ultimate trip current, to protect the machine in outdoor.

Warning!!!



- ✧ Do not use the machine beyond the performance
- ✧ Unusual use will cause damage!
- ✧ Put on the protective goggles, ear protector, gloves and protective footwear!
- ✧ Plug in the socket in switch-off state, and pull out the power wire after use

Notice!!!



- ✧ Incorrect method will cause machine damage!
- ✧ Do not lift the machine by the power cord!
- ✧ Do not put the power wire behind the machine all the time or on sharp objects!
- ✧ Testing and maintenance personnel must be professional!
- ✧ Please use the original accessories!

2. Technical Parameters

2.1 Application Scope

- ✧ Can be use to process iron, chromium iron, fine-grained steel, aluminum product, aluminum alloy, copper and plastics.
- ✧ Can be used on industrial equipment by proficient personnel.
- ✧ Can be processed into K, V, X or Y -shaped groove.
- ✧ Can process on the mechanical engineering.

2.2 Parameters

Type:GMM-10	Bevel Width: 0~15mm
Bore Dia.>50mm	Bevel Angle (Can customize the other angle)
Power: 2450W	Rotation speed (Adjustable)
Power Supply: AC 220V 50Hz	Cutter: 1 Set
Net Weight: 7.0kg	Original Place: Shanghai China

2.3 Cutting Parameters

Material Scope: 5~20 cm ³ /min	Plastics: 20 cm ³ /min
Aluminum/Cooper/Mg/Lead: 20 cm ³ /min	S235: 15 cm ³ /min
S355: 12 cm ³ /min	S690: 12 cm ³ /min
S960: 10 cm ³ /min	X 5 CrNi 18 10: 12 cm ³ /min
X 6 CrNiMoTi 17 12 2: 10 cm ³ /min	

2.4 Each Cutter Cutting Parameters

Material Scope: 6~4000 cm ³ /hd	Plastics: 4000 cm ³ /hd
Aluminum/Cooper/Mg/Lead: 1500 cm ³ /hd	S235: 1000 cm ³ /hd
S355: 1000 cm ³ /hd	S690: 1000 cm ³ /hd
S960: 750 cm ³ /hd	X 5 CrNi 18 10: 1000 cm ³ /hd
X 6 CrNiMoTi 17 12 2: 750 cm ³ /hd	


**Note: GIRET keep the right of changing the technical parameters.
Asbestos-contained materials can not be used on the machine.**

The data above the diagram based on the testing results of GMM-10 Beveling machine. All of above parameters are only for reference; we do not take any responsibility.


We are appreciate that more parameters can be provided by you!

3. Operation Instruction

3.1 Electric Voltage Detection


 Danger	<ul style="list-style-type: none"> ◇ Check the Voltage whether the same with the nameplate!
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3.2 Cutter Detection

 Notice	<ul style="list-style-type: none"> ◇ Blunt cutter will damage and overload the machine!
	<ul style="list-style-type: none"> ◇ Check the cutter regularly to avoid excessive wearing!
	<ul style="list-style-type: none"> ◇ Make sure the cutter sharp!
	<ul style="list-style-type: none"> ◇ Change the direction of cutter or replace indexable tool before blunt!


3.3 Bevel Height Adjustment

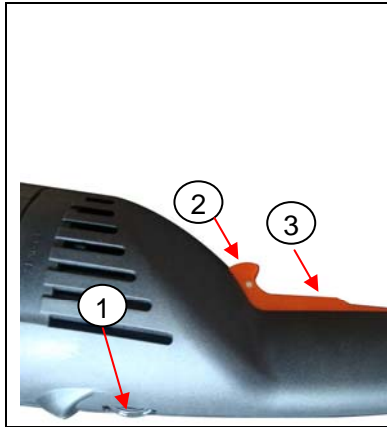
- 1) Rotate the check ring (2) Until the slide caliper(4) And the main scale (3) To the bevel height you wanted.
- 2) Use the check ring locking at the position.
- 3) Use the crescent wrench tightening the guide board device (1), not too tight.

	<ul style="list-style-type: none"> ◇ 1. Guide Board Device ◇ 2. Check Ring ◇ 3. Main Scale ◇ 4. Slide Caliper
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Note: For not all milling cutter heads are the same length, so the data on the main scale not exactly accurate, and usually adjust the bevel height accurate to the millimeter!!!

3.4 Instruction

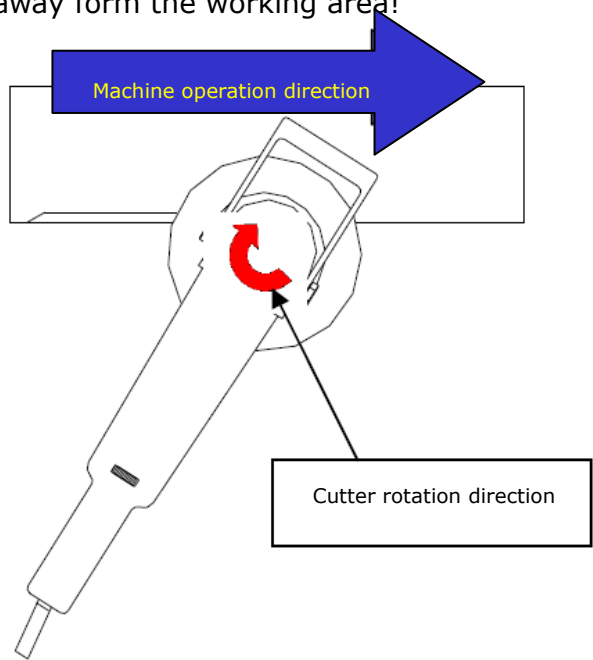
 Notice	<ul style="list-style-type: none"> ◇ Fix the machine and use it in a flat ground before using.
	<ul style="list-style-type: none"> ◇ Do not touch the milling cutter head while it is working.
	<ul style="list-style-type: none"> ◇ Keep a certain distance form the machine.
	<ul style="list-style-type: none"> ◇ Not allowed to use the machine lifting over the head.
	<ul style="list-style-type: none"> ◇ Do not touch the work pieces while the milling cutter head rotating.



- ✧ 1. Flywheel
- ✧ 2. Insurance
- ✧ 3. Power Switch

- a. Adjust "Flywheel 1" to a suitable rotation speed;
- b. Press "Insurance 2";
- c. Press "Power Switch 3"
- d. Push the machine from left to right while it is working;
- e. Only clockwise operation when beveling the circular arc;
- f. Press "Power Switch 3" when stop the work;
- g. The motor stop rotating and the milling working end.

Note: Control the machine by both hands when operates the machine!
 Please keep a distance form the cutting head!
 Unrelated person away form the working area!



Electromagnetic interference(230 V)	✧ Please turn off the machine, interfered a long time by the electromagnetism.
	✧ Can reuse the machine after the electromagnetic interference disappeared.
Engine overload protection(230 V)	✧ The electric generator shut down automatically when the temperature is too high.
	✧ When the above happens, let the machine cool down and use it.
	✧ Under the normal temperature, the machine will operate.

Notice: Advice bevel height better not beyond 2mm at the beginning, and operates the machine slowly in order to know the performance clearly!

4. Cutter Head Replacement

4.1 Conventional protective measures.

- ✧ Make sure the power turn off.
- ✧ Pull out the plugs form the socket.
- ✧ Can not operate the machine in those cases: Turn on the machine accidentally and unknown the machine's performance.

4.2 Dismantle Milling Cutter Head



- 1) Keep a certain distance when rotates the guide board components (guide board + guide board rack)
- 2) Twist the drive shaft by the 44-52mm wrench.
- 3) Then detach the guided shift head by the hexagonal wrench.
- 4) Detach the milling cutter head from the guided shift and the guided shift head by the hook-type wrench (include the bolts, directional bearing, guide bush, spacer and spacer ring).
- 5) Put the cutting head and guided shift head together.



Notice

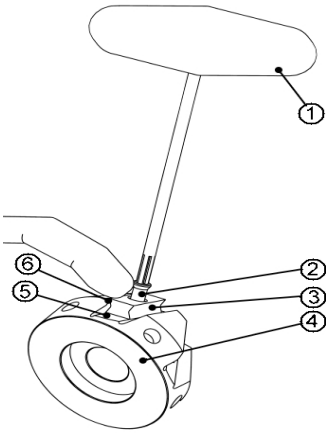
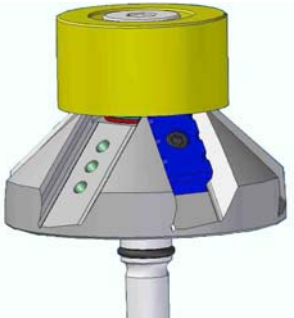
Avoid damaging the screw hole, so just tight the screw by the hand, not too tight!

4.3 Milling Cutter Head Replacement

- ✧ Keep far away from the machine when rotates the guide board components (2) (guide board + guide board rack)
- ✧ As picture shows, assembly including bolts, directional bearing, guide bush, spacer, spacer ring and milling cutter head.
- ✧ Put the lock shaft(3015R / 3018R) or the 44-52 mm wrench on the drive shaft, and then tighten the cutting head on the drive shaft by the hook-type wrench.
- ✧ As the picture shows, fix the guided shift head on the drive shaft by the hexagonal wrench.
- ✧ If the guide shift head position is not yet fully aligned with the bevel cutter, adjust the spacer numbers or the adjustment guide bush to keep them in the best position.

5. Replace Cutter Blade

5.1 Diagram

	<ul style="list-style-type: none"> ✧ 1 Hexagonal wrench ✧ 2 Fix the screw ✧ 3 Indexable tool ✧ 4 The milling cutting head ✧ 5 The guide board rack surface ✧ 6 The back of guide board
	<ul style="list-style-type: none"> ✧ 1 Directional bearing ✧ 2 Tight the screw ✧ 3 Cutter ✧ 4 Interface/Groove ✧ 5 Milling cutter head

5.2 Steps:

- ✧ Turn off the power supply;
- ✧ Press the safe button;
- ✧ Loosen the screw and detach the cutter;
- ✧ Clean the cutter head (guide board rack and the back) and check whether exists damage;
- ✧ Rotate all the cutter head and replace them at the same time;
- ✧ Make sure all the replacement cutter heads are the same model;
- ✧ Put the replacement cutter heads on the dent of the guide board rack surface(5);
- ✧ Put the milling cutter heads on the homologous position and tight them by the hexagonal wrench;
- ✧ Check the cutter heads and make sure they are all tight.
- ✧ Check the cutter heads are the same model and fix them on the surface of guide board rack, and all the screws are very tight.
- ✧ Operate the machine slowly at the beginning, once it backward suddenly, please turn off the machine, check the model of the cutter heads and follows what we said above. If the phenomenon still exists, please change all the cutter heads.

Note: 1) Please turn off the power supply when replace the cutter blades!


2) Replace the cutter heads not timely will damage the machine!

3) The installed blades should be close to the directional bearing tightly, that is, the cutter head should be installed in the top slot of the directional bearing and the long blade should be in the middle of the slot.

6. Speed Governing Instruction

6.1 Speed Setting Table

Processing object	Speed setting	Arcing time factor
Aluminum, Copper, Plastics	approximately 5500–7500 rpm	60 %
Material intensity ≤ 400 N/mm ²	Speed 3–5 approximately 4500–6500 rpm	40 %
Material intensity > 400 N/mm ²	Speed 2–3 approximately 2500–4500 rpm	30 %
Chrome steel, Stainless steel, Fine-grained steel	Speed 2–3 approximately 2500–4500 rpm	20 %

 Notice	<ul style="list-style-type: none"> ◇ Arcing time factor means the working time of the machine under full load, this percentage was calculated on 100 minutes, such as: 60% represents the machine can only work 60 minutes every 100 minutes. ◇ Please pay attention to the arcing time factor!
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6.2 Speed Adjustment Notes:

- ◇ First adjust the speed to the mid-range('4');
- ◇ The bevel height should not too high at the beginning;
- ◇ Reduce the rotation speed if much sparkle appears.
- ◇ If there is no obvious sparkle appears, you can increase appropriate speed;
- ◇ The faster the rotation, the faster processing;
- ◇ More sparkle, the cutter damage more quickly;
- ◇ Professional indexable cutter blade can take higher temperature and more sparkle, can adapt to higher speeds as well;
- ◇ For fixed operation object, the speed can be set in the "1" in order to avoid overload operating; do not keep the machine at the same speed all the time.

7. Maintenance and Repair

Maintenance position	Maintenance method	Maintenance material	Maintenance time
Altitude controller	Clean and add the lubrication	Lubrication	Weekly
Vent	Clean	Air	Necessary
Gear	Replace gear lubrication		After 100 hours work
Carbon brush	Replace carbon brush (Carbon brush overload will cause the machine stop automatically)		Necessary

8. Packing List

No.	Project	Model	Qty	Unit	Remarks
1	Portable beveling machine	GMM-10	1	Pcs	
2	Cutting head	45°	1	Pcs	Has been installed on the machine
3	Cutting blade	45°used	1	Set	Has been installed on the cutting head
4	Professional wrench		1	Set	
5	Operation manual		1	Pcs	

9. After-sales Service

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