



# FLOOR GRINDER OPERATION MANUAL

Model: FG10Pro



**Please read these instructions carefully before using!**



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# Introduction and Description

This manual is intended to provide operation and service information necessary for the safe and efficient use of the Virginia Abrasives Floor Grinder. Operating or servicing the unit other than in accordance with the instructions given may subject the machine to conditions beyond its capability. This may result in the machine failure or personal injury.

## **IMPORTANT:**

Read the entire operating manual carefully before attempting to use the floor grinder. Special attention should be given to the section entitled "Safety Precautions".

The floor grinder is a sturdy, reliable and easy to use machine.

The floor grinder is fitted with a 1.5hp single phase motor. This motor offers a direct drive to the grinding plate by way of a flexible coupling between the motor and the plate.

The shroud system is unique in design by automatically adjusting to suit segment height and floor angle. This shroud system when used in conjunction with an appropriate industrial vacuum unit helps eliminate dust during grinding. The shroud has 2 removable sections to allow the operator to maneuver the grinder close to the wall. Please note that fugitive dust will likely occur when using the grinder with the two shroud sections removed.

The floor grinder comes complete with a water connection for wet grinding, if required. The water connection incorporates a ball valve that allows the operator to regulate the water supply to obtain the best grinding results.

The floor grinder has a foldable handle which enables it to be easily transported in the trunk of most vehicles. The rear wheels can be extended outward for added stability during use. The operator can raise or lower the height of the handle to maximize comfort.

The newly designed lifting handle system makes the machine easy to lift.

## **Technical Data**

<b>Motor HP</b>	1.5hp
<b>Motor KW Rating</b>	1.1kw
<b>Motor RPM</b>	1730 rpm
<b>Unit Weight</b>	132 lbs. /60kg
<b>Plate Type</b>	Plate Type Standard 10 inch grinding head
<b>Plate Bolt Types</b>	M12x25 countersunk socket head
<b>Main Construction</b>	Powder Coated Steel

## **Operation**

The floor grinder is designed to be used either wet or dry. If the application requires dry grinding, a suitable industrial vacuum is required.

Consult Safety Data Sheets for the materials being ground. Concrete dust and floor coatings contain materials that can be harmful. SEE SAFETY PRECAUTIONS FOR Silica Dust Warning.

Contact your industrial hygiene professional for detailed information on required personal protective equipment PPE. Always use appropriate personal protective equipment (Hearing, Eye, Respiratory and Hand Protection).

### **Operating the Grinder**

1. Make sure the diamond tooling is suitable for the material being ground and that the tooling is correctly balanced.
2. Ensure that the grinding plates are in good condition and properly mounted. Never use damaged tooling.
3. All countersunk bolts must be tightened to specifications and firmly in place. Take periodic breaks to ensure that bolts are properly tightened, as they can loosen during operation.
4. Check that the grinding plate is adjusted so that it sits level on the work

surface (use the bubble-level on the machine as a reference).

5. Check that all nuts and bolts on the folding handle latch are tight and secure.
6. Raise the grinding plates from the floor.
7. Start the motor by pressing the black switch on the starter box.
8. Lower the grinding plate and begin grinding. Keep the grinding head moving side to side on the work surface to create an evenly ground surface until the desired results are reached.

## Stopping the Grinder

Depress the red stop button on the start box.

### Note:

The position of the axle may be adjusted as needed for leveling.

1. Adjust the vertical grinding position by loosening the level adjustment fastener counter clockwise.
2. Lifting the level adjustment handle raises the back end of the grinder.
3. Lowering the level adjustment handle lowers the back end of the grinder.
4. Use "bubble-level", mounted on the machine as a reference.
5. Secure desired grinder position by tightening the level adjustment fastener Clockwise.



## **Safety Precautions**

The Bycon Floor Grinder has been designed to minimize noise, vibration levels and to provide maximum operator safety. However, incorrect use of the grinder may cause serious injury and therefore the following precautions must be taken:

1. Do not use the grinder for longer than prescribed in your local environmental working regulations, as the noise load from extensive daily use may result in hearing damage.
2. Always use hearing protection, goggles, gloves and appropriate footwear.
3. Do not modify the grinder in any manner. Do not use a machine that has been modified by anyone other than the manufacturer or authorized dealers.
4. Do not add weight to the machine. Use different grinding plates to achieve the desired grinding performance.
5. Do not operate the grinder with the grinding head raised any higher than necessary. i.e. tipped back on handle.
6. Always be sure that folding handle latch is secure and has not become loose during use.
7. During normal use the machine is exposed to vibration. Occasionally check machine for bolts/nuts which may have vibrated loose.
8. Do not allow water or flammable materials to enter the interior of the Motor.

## **Respirable Silica Dust Warning**

Grinding/cutting/drilling of masonry, concrete, metal and other materials can generate dust, mists and fumes containing chemicals known to cause serious or fatal injury or illness, such as respiratory disease, cancer, birth defects or other reproductive harm. If you are unfamiliar with the risks associated with the particular process and/or material being cut or the composition of the tool being used, review the Safety Data Sheets (SDS) and/or consult your employer, the manufacturers/suppliers, governmental agencies such as OSHA and NIOSH and other sources on hazardous materials.

Use engineering controls to control dust, mist and fumes at the source wherever possible. Use good work practices and follow the recommendations of the manufacturers/suppliers, OSHA/NIOSH, and occupational and trade associations. Water should be used for dust suppression when wet grinding/cutting/drilling is feasible. When the hazards from inhalation of dust, mists and fumes cannot be eliminated, the operator and any bystanders should always wear a respirator approved by NIOSH/MSHA for the material being used.

Grinding/cutting/drilling of masonry, concrete and other materials containing silica may generate dust or mists containing crystalline silica. Silica is a basic component of sand,

quartz, brick clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. The state of California and other authorities have listed respirable crystalline silica as a substance known to cause cancer. When grinding/cutting/drilling such materials, always follow the respiratory precautions mentioned above.

## Troubleshooting

Symptom	Possible Cause	Action
Grinder runs for short time then stops	The electrical power current limit screw is not adjusted properly	Adjust the current limit screw located in the Schneider housing to the appropriate setting.
Grinder runs but does not perform adequately.	Tooling is not matched to the application	Re-evaluate tooling selection.
Grinder vibrates during use	Grinding plates not correctly balanced	Replace grinding plates.
Grinding noise coming from grinding head under no-load operation.	Worn motor bearings or drive coupling	Have machine evaluated and serviced by authorized service professional

## Maintenance

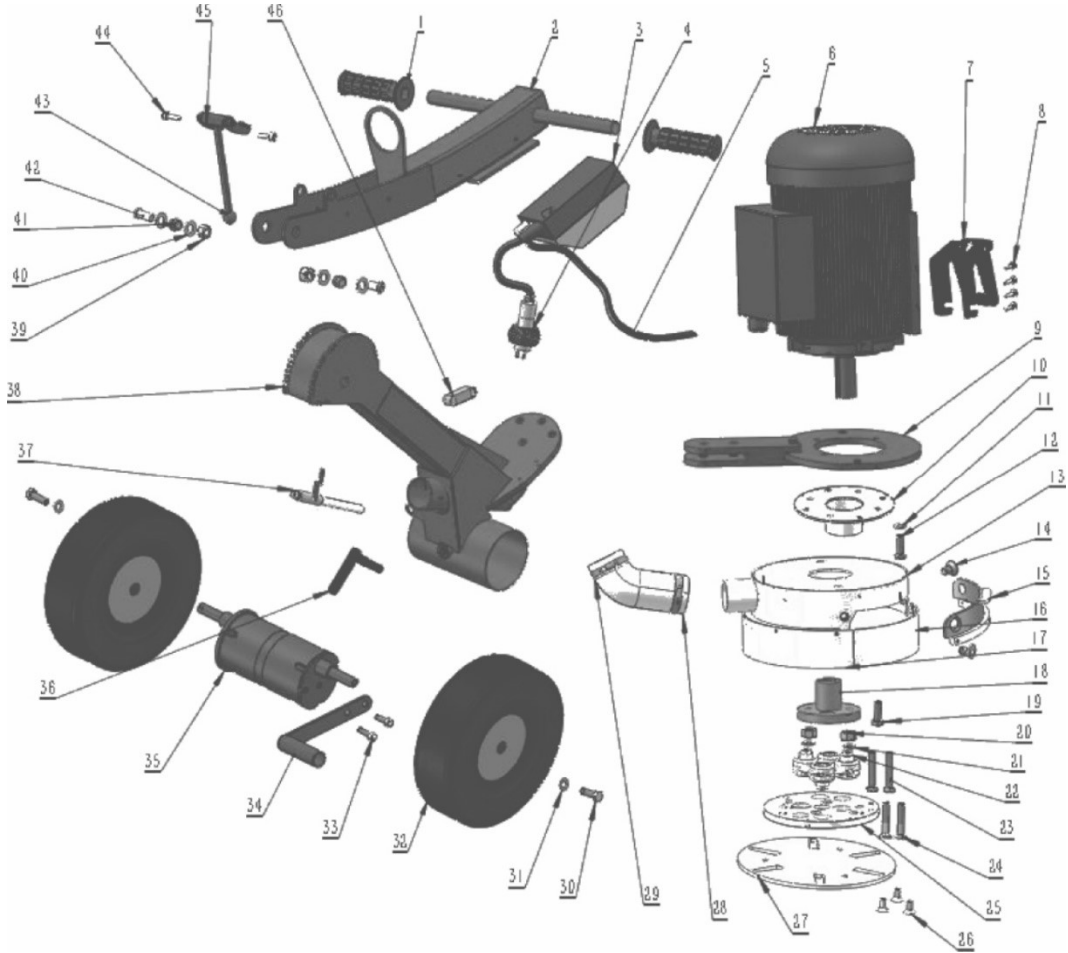
**Daily cleaning:** The motor should always be kept clean. No water, or foreign materials should be allowed to get into the interior of the motor.

**Check operating amperage draw:** While the motor is in operation, take care to keep the operating amperage below maximum level.

**Operational sounds:** During operation of the motor there must be no rubbing sounds, squeals or other random noises. Stop the motor immediately and restart after inspection and corrections have been made.

Check the security of the adjustable folding handle latch periodically. The wheel bearings use sealed bearings and require no regular greasing.

# Parts Diagram



NO.	Code	Description	Drawing No.	Qty
1	.FG10-001	Handle		2
2	.FG10-002	Upper arm	SHMDJ71501	1
3	.FG10-003	Switch assembly		1
4	.FG10-004	Plug wire		1
5	.FG10-005	Power wire		1
6	.FG10-006	Electric motor		1
7	.FG10-007	Motor carry Handle	SHMDJ71508	1
8	.FG10-008	M6X16 hexagon screws		4
9	.FG10-009	Motor fixed mount	SHMDJ71513	1
10	.FG10-010	Motor connection plate	SHMDJ71510	1



11	.FG10-011	Φ10 Flat washers		1
12	.FG10-012	M8X25 hex screw		4
13	.FG10-013	Dust shroud	SHMDJ71504	1
14	.FG10-014	M12X25 socket hexagon screw		2
15	.FG10-015	Detachable shroud	SHMDJ71505	1
16	.FG10-016	Shroud plastic wear strip set (long)		1
17	.FG10-017	Shroud plastic wear strip set (short)		1
18	.FG10-018	motor driving sleeve	SHMDJ71503	1
19	.FG10-019	M10X30 hex screw		1
20	.FG10-020	M10 nuts		2
21	.FG10-021	Φ10 Flat washers		2
22	.FG10-022	flex coupling-Morse	SHMDJ71509	1
23	.FG10-023	M10X55 hex screw		2
24	.FG10-024	M10X55 socket hexagon screw		2
25	.FG10-025	connection disc	SHMDJ71511	1
26	.FG10-026	M8X12 socket hexagon screw		3
	.FG10-026A	3/8"-24 x 3/4" socket hexagon screw	For G-Head	4
27	.FG10-027	Dowel disc	SHMDJ71514	1
28	.FG10-028	Flexible conduit	SHMDJ71515	1
29	.FG10-029	ClipΦ60		2
30	.FG10-030	M10X30 hex screw		2
31	.FG10-031	Φ10 Flat washers		2
32	.FG10-032	Wheel		2
33	.FG10-033	M8X12 hexagon screws		2
34	.FG10-034	Lift lever	SHMDJ71507	1
35	.FG10-035	Eccentric shaft	SHMDJ71506	1
36	.FG10-036	M12 locking screws		1
37	.FG10-037	cooling water pipe	SHMDJ71516	1
38	.FG10-038	Frame body part	SHMDJ71502	1
39	.FG10-039	M10 nuts		2
40	.FG10-040	Φ10 Flat washers		2

41	.FG10-041	Connection sets	SHMDJ71512	2
42	.FG10-042	M12X25 Round socket hexagon screw		2
43	.FG10-043	adjust handle		1
44	.FG10-044	M8X20 hexagon screws		2
45	.FG10-045	Positioning clamping claw buckle	SHMDJ71510	1
46	.FG10-046	Level bubble		1

\*Nouveau interrupteur assemblé comme original avec des modifications mineures\*

\*New Switch assembled as original with minor changes\*

### Étape 1 / Step 1

Le file d'extension isolé doit être dénudé, laissant 6 à 7 pouces au-dessus de la prise de courant (\*voir l'image)

Insulated power-in cord must be spliced, leaving 6" to 7" above plug (\*see image)



### Étape 2 / Step 2

Connectez le fil de mise à la terre au support de commutateur, enroulez-le à l'extérieur du support de commutateur (\*voir l'image)

Connect ground wire to switch holder, wrap around outside of switch holder (\*see image)

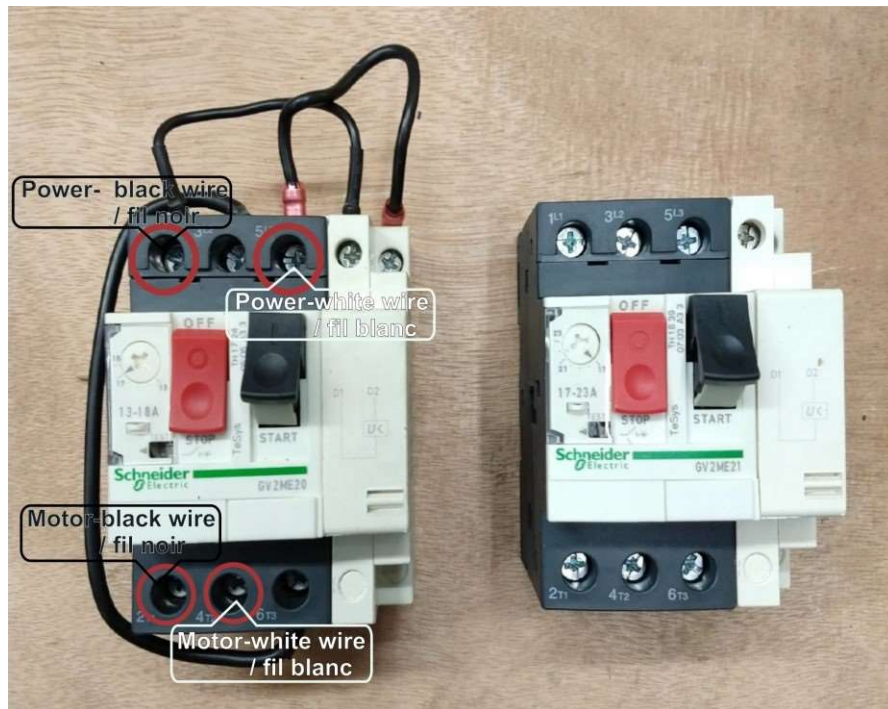


### Étape 3 / Step 3

Installez 4 vis avec la rondelle rectangulaire pour connecter le support de commutateur en place  
Install 4 screws with the rectangle washer to connect switch holder in place

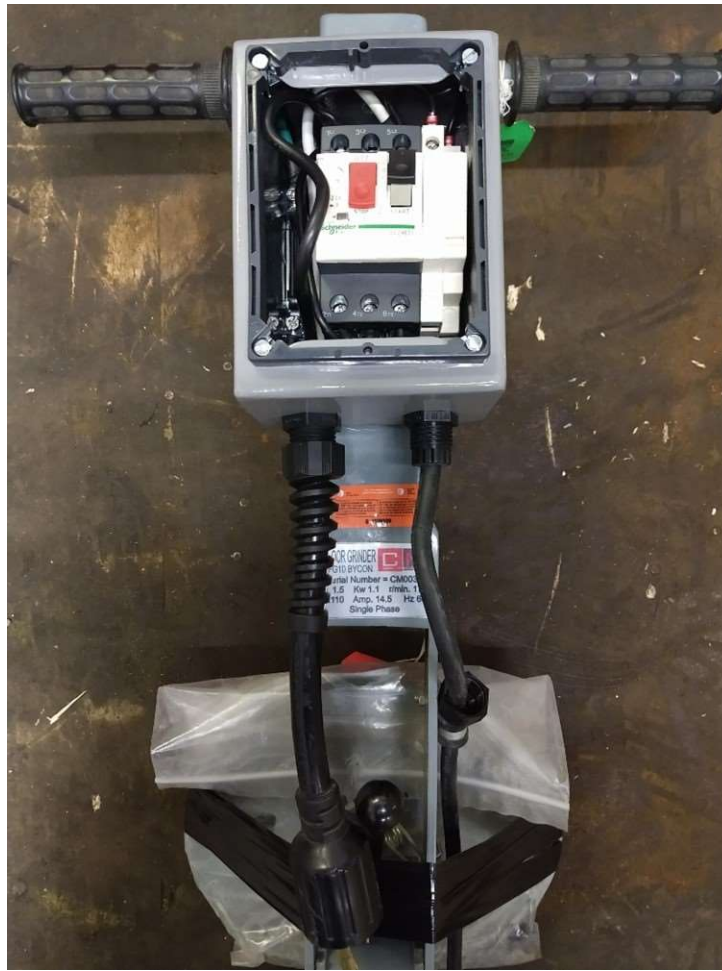
### Étape 4 / Step 4

Connectez les fils correspondants au nouveau commutateur, comme l'ancien (\*voir l'image)  
Connect corresponding wires to new switch, the same as the old switch (\*see image)



Étape 5 / Step 5

Installer l'interrupteur en poussant vers le haut, puis vers le bas pour verrouiller (\*voir l'image)  
Install switch by pushing in and up, then down to lock in (\*see image)



#### Étape 6 / Step 6

Bande élastique à placer à l'extérieur du porte-interrupteur. Agir comme un -vibraon  
Elastic band to be placed on the outside of the switch holder. To act as an -vibraon

#### Étape 7 / Step 7

Installer le couvercle Install  
cover