



# Haller

Efficient Solutions

**High Frequency  
Brushless Power Tools**







### ► About Us :

We are the experts in providing servicing and rewinding of AC, DC motors, induction motors, DC motors, Servo motors, HF spindles, Linear motors and power tools. Our specialization is also in the field of manufacturing import substitute stator, rotor, DC armature, servo motor armature, Magnet stator, and Magnet rotor. While working with power tools of renowned makes we found continuous and repetitive problems in conventional tools, of carbon brush failure, armature failure, and field coil failure.

Our years of experience in working with all makes of power tools has given us an insight of what is required to make efficient and consistent performing power tools. So we set about an objective of our research and product development activities to solve the problems and have created Haller Brushless power tools.

### ► Introduction to Brushless Power Tools (High Frequency):

Many areas of industries demand consistent performance from their power tools, generally conventional angle grinders fail to meet the high performance requirement, since it has inherent losses of power due to its design, which has a universal motor consisting of field coil, armatures, carbon brush, holders etc. These types of motors have generally a speed drop of 30 to 40% (i.e. if the grinder is rated for 8500 rpm on no load, at full load it drops to almost 5000 to 5100 rpm) which results in less material cutting and more consumption of cutting wheels and energy, hence heavy maintenance costs. To overcome this entire problem a technology of high frequency brush less power tools proves to be an outstanding solution. The solution is the perfect answer that meets the demand of high productivity, lowest maintenance, overall top performance for the demanding heavy grinding applications.

Working:- It works on energy conversion system where a MG set with conventional 415V, 50Hz, 3ph input, and a output of 200V, 300Hz is achieved. This output is fed to the hand held power tool.

### ► Salient Feature:-

1. Virtually no loss of rated power during full load grinding
2. High efficient output
3. Continuously constant torque
4. More simpler and stronger construction of the motor
5. No armatures, field coil, carbon brushes and no maintenance
6. Low operating and energy cost
7. Motor consist of stator and rotor, rotor is squirrel cage and stator has winding which is stationary so no rotating winding in the motor
8. Speed drop is between 3 to 5% so higher cutting speed and 30% more productivity
9. No fear for theft as it cannot run without suitable convertor

### ► Safety : as per IS 325

Additional Safety :

- 1) Abs Plastic Switch handle & Side handle.
- 2) Switching is in panel, very low potential switch provided in handle.  
Hence power throughout the cable is switched off when hand tool is not working.
- 3) Stator is separately glass fibre insulated, winding coated with abrasive resistant epoxy, stator wound in class H insulation duly vacuum impregnated in UP resin.

## ▶ ANGLE GRINDERS



**Disc Size:** 100 mm  
**Power Wattage :** 600 Watts  
**Speed :** 11500 Rpm  
**Weight:** 2 kg (4.4 lbs)  
**Rating:** continuous



**Disc Size:** 125 mm  
**Power Wattage :** 1000 Watts  
**Speed :** 9000 Rpm  
**Weight:** 3.5 kg (7.7 lbs)  
**Rating:** continuous



**Disc Size:** 180 mm  
**Power Wattage :** 2.8 KW  
**Speed :** 8500 Rpm  
**Weight:** 6.5 kg (14.33 lbs)  
**Rating:** continuous



**Disc Size:** 230 mm  
**Power Wattage :** 3.2 KW  
**Speed :** 6200 Rpm  
**Weight:** 7.2 kg (15.83 lbs)  
**Rating:** continuous

## ▶ STRAIGHT GRINDERS



**Straight Die Grinder with 6 mm Collet**  
**Disc Size:** 230 mm  
**Power Wattage :** 800 Watts  
**Speed :** 18000 Rpm  
**Weight:** 3 kg (6.6 lbs)  
**Rating:** continuous



**Disc Size:** 100 mm  
**Power Wattage :** 1.8 KW  
**Speed :** 5800 Rpm  
**Weight:** 6 kg (13.22 lbs)  
**Rating:** continuous



**Disc Size:** 150 mm  
**Power Wattage :** 2.4 KW  
**Speed :** 6500 Rpm  
**Weight:** 6 kg (13.22 lbs)  
**Rating:** continuous

## ▶ SPECIAL MACHINES



**Long Spindle Straight Grinder with 6mm collet**  
**Spindle Length:** 500 mm  
**Power Wattage :** 1 KW  
**Speed :** 18000 Rpm  
**Weight:** 4.5 kg (9.9 lbs)  
**Rating:** continuous

► HF GENERATOR

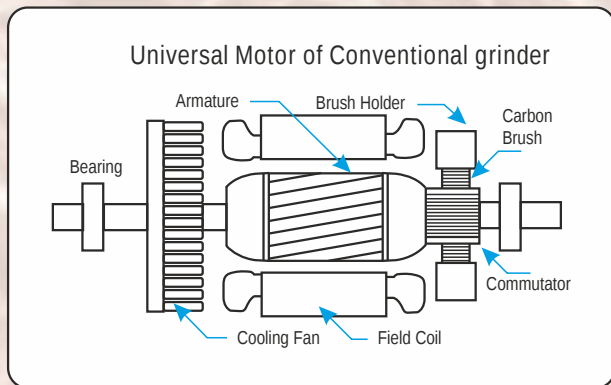
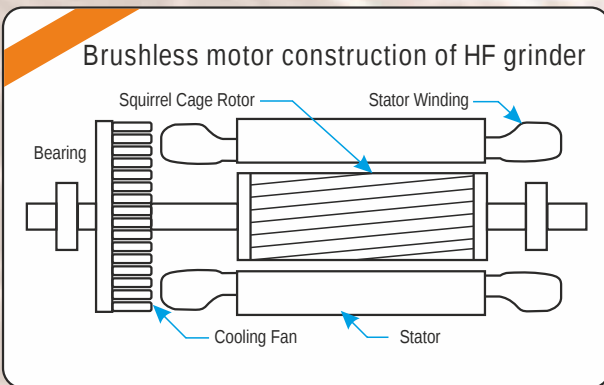


► Available in the following ratings

Power of Genetor: 5.5 KVA, 7.5 KVA, 10.5 KVA, 15 KVA, 20 KVA, 25 KVA

Input: 415V / 50Hz

Out Put: 200V / 300Hz



Comparison Chart			
S. No.		Haller	Conventional
1	Armature	✗	✓
2	Field Coil	✗	✓
3	Carbon Brush	✗	✓
4	Speed Drop	5%	30%
5	Torque	Constant	Drop with Load
6	Maintenance	Lowest Maintenance Confined to Bearing Only	High Maintenance Since more Frictional Parts
7	Input Power	3ph. 300 Hz 200 V From Special Power Source	Ac 50 Hz 220 V General Power Source

Note : All the power tools & converter are made to order, pictures shown are for indication purpose, actual models may vary.

Sales & Service :

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Mfg. by-

**Haller**  
Efficient Solutions

**HIGH FREQUENCY  
BRUSHLESS POWER TOOLS INDIA**