

**CE-Confirmation
for
DISC SANDER
Type HSM 300**

This machine corresponds to the following standards.

- EC-regulations 98/37/EEC (machine standards), latest alteration by EC-standards 93/68
- EC-regulations 98/79/EEC (low voltage standards), latest alteration by EC-standards 93/68
- EC-regulations 89/336/EEC (electromagnetic compatibility), latest alteration by EC standard 93/68

The following rules were applied to when constructing and building the machine:

Harmonised standards:

- EN 12100-1
- EN 12100-2
- EN 294
- EN 349
- EN DIN 61000
- EN 60529
- EN 954
- EN 60204-1

The above machine was tested according to paragraph 3 of GSG (safety security law) and a "GS Certificate" with the **number 071152** was issued by:

Fachausschuss Holz
Prüf- und Zertifizierungsstelle im BG-PRÜFZERT
Vollmoellerstraße 11
70563 Stuttgart

Schwenningen, 12th December 2007


Werner Broghammer
Manager

Operating Instructions HSM 300

**Manufacturer: Hegner Präzisionsmaschinen GmbH
Postfach 3250
D-78021 VS-Schwenningen**

**Description of machine: Disc Sander HSM 300
Type: HSM 300**

Explanation of symbols:

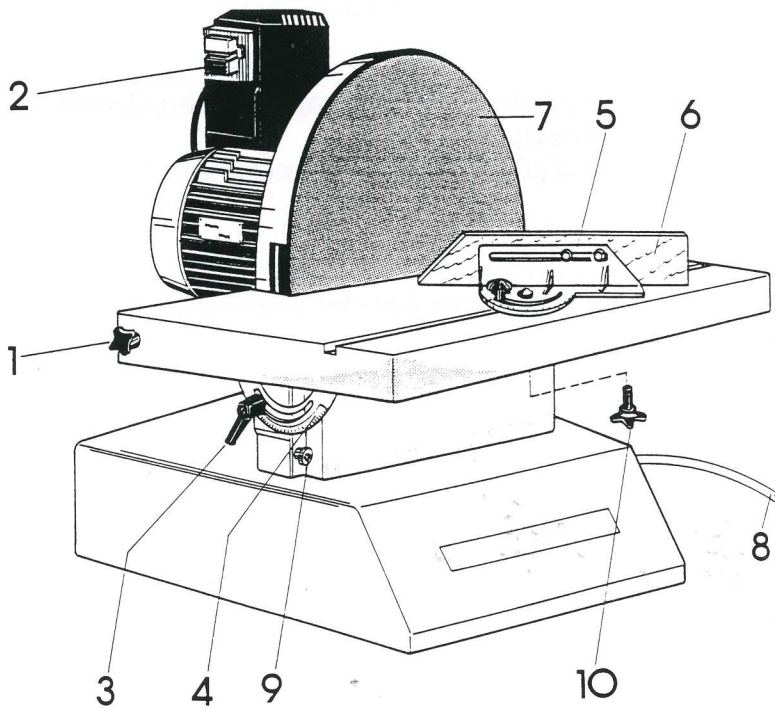


Read this passage carefully



Wear safety spectacles

In the following description the name "machine" is identical with designation "Disc Sander HSM 300"



Explanations of the most important details on the machine

- 1 Table clamping
- 2 ON/OFF switch
- 3 Clamping lever for grinding table
- 4 Scale
- 5 Mitre fence
- 6 Fence stop
- 7 Grinding table with loop mat
- 8 Connection cable
- 9 Hexagon screw for metal cover sheet
- 10 Cross handle to lock mitre fence

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1. Technical Data:

Disc-Ø	300 mm
Table size	520 x 260 mm
Grinding inclination	45°
Discharge capacity of motor	750 Watt
Rotation speed	1400 r.p.m.
Voltage	230 V / 50 Hz
Mains fuse	10 A
Grinding height	180 mm
Inner-Ø of extractor port	58 mm
Outer-Ø of extractor port	100 mm
Weight of machine, net	25 kg

2. Values for the suction connection:

Exhaust volume with extraction port Ø 58	205 m ³
Existent depression with an air speed of 20 m/s	1120 Pa

2.1 Emission of Noise

Measurement Conditions:

- prEN 31202 for the workpost-related emission values.
- With the following supplements determined by TC 142 in order to obtain an exactness class better than 3 dB.
- The environmental correction factors K2A respectively K3A are < 4dB.
- The difference between extraneous noise sound level and noise sound intensity level is < 6 dB each metering point.
- K3A is calculated according to annex A, prEN 31204.
- An ashlar-type enveloping surface with 9 metering points is utilised in a distance of 1 m from the reference surface.

Workpiece: uncoated chipboard; dimensions 200 x 120 x 19 mm

Tool: abrasive disc, grit 80, dimensions \varnothing 300 mm

The determined noise emission values are:

Acoustic capacity level [dB (A)]:

Idle running: 71.1	Idle running: 60.7
Machining: 93.1	Machining: 86.1

Statement to the noise emission levels:

The real noise emission can deviate from the given values in a range of 4 dB(A) due to specific influences of the workshop. The given values are emission levels and do not correspond in every case to the safe working place related values. Although there is a relation between emission and imission levels, it is perhaps necessary to take additional safety measures. Factors which have a certain influence to the actual imission level are the duration of the exposure, the kind of workshop and some other influences. The acceptable limits do also depend on the different countries. This information should give a better possibility to the user of the machine to classify the hazards and risks.

Source: EN292-Part 2

2.2 Information concerning the dust emission

The dust emission values measured according to the precepts for the testing of the dust emission (workpost-related dust concentration) of wood working machines of the professional committee for wood, are distinctly under the presently valid limit of 2.0 mg/m³.

Connection of the machine to dust extractor

The machine is equipped with an extraction port of \varnothing 58 mm. The machine is also supplied with an adapter port of \varnothing 100 mm which must be connected before commissioning in such a way that the dust extractor will automatically be switched on with the machine.

If the machine is connected to the dust extractor by means of flexible suction hoses, attention must be paid that the suction hoses are made of inflammable material and are earthed electrostatically.

To guarantee adherence to the limit value there must be a minimum air speed of 20 m/s at the extraction port of the machine.

The static negative pressure at the connection piece of \varnothing 58 mm of the machine is with 20 m/s about 1120 Pa. The required volume flux is 205 m³/h.

3. Delivery of machine

Check the following on receipt of machine

- packing for damage
- contents against the despatch note
- check the accessories when unpacking
- notify the freight forwarder and the dealer of any damage immediately
- When stocking several machines, these machines must be stored in their packing cartons, with maximum 4 packing cartons being stacked on top of each other.
- Carrying and lifting of the machine can be done by hand.
- The machine must only be transported in its packing carton.

4. Operating instructions

- Read the operating instructions carefully before using the machine.
- We do not accept liability for damage and accident arising from improper use.

5. Defined application

The Disc Sander HSM 300 is suitable only for sanding wood, synthetic materials non-ferrous metal or iron of square or rectangular shape.

The machine must not be used for wet sanding.

- Only workpieces, which are supported and can be guided safely, may be machined.
- Disc grinding may only be carried out by using the Circle Sanding Attachment RSF 300 (extra accessory).
- Do not use machine for any purpose other than that recommended by the manufacturer.
- The machine may only be used and handled by persons who are familiar with the machine and who have been informed of the safety regulations.
- In order to avoid accidents it is absolutely necessary that all safety regulations as well as other generally acknowledged safety rules are adhered to.
- Only original HEGNER spare parts may be used.
- For damage caused by using non-original HEGNER spare parts the manufacturer will not hold himself liable for any warranty.
- Any alterations or modifications to the machine exclude the manufacturer from any liability.

6. Safety hints

6.1 General Safety Regulations

Keep unauthorized people away from the machine. Children should be supervised when using the machine.

6.2 Operating the machine

Certain types of wood etc. produce unhealthy dust emission during the working process. For this reason the machine must be connected to an extractor system or vacuum cleaner (air speed at connecting sleeve 20 m/s). When using the machine frequently the user must ensure that the extractor system starts to work automatically when switching on the machine.

6.3 The operator

In order to minimise risk of accidents, study the operating instructions well before starting to work.

Never work under the influence of alcohol, drugs or medication.

Do not wear loose fitting clothing. Always use safety spectacles.

Do not wear watches, bracelets, finger rings, or ties.

6.4 Before operating the machine

- Check whether the chosen abrasive disc is suitable for the job to be done.
- Worn or torn abrasive discs must be replaced.
- Check whether the grinding disc is running smoothly without touching the mitre fence or any other part.
- Connect dust extraction system or vacuum cleaner

6.5 While working

- Always ensure the grinding disc is turning in the right direction. (Grinding disc must always be turning towards the workpiece)
- Keep fingers away from the grinding disc.
- The machine must only be cleaned when the machine has been switched off.

6.6 After operating

- Never leave the machine unattended while it is operating.
- Remain at the machine until the grinding disc has come to a complete standstill.
- Pull out mains plug.



Caution: Before making any mechanical or electrical adjustments or before exchanging abrasive disc pull out the mains plug.

7. Remaining risk

It is possible that the following remaining risk can still occur in spite of observing all relevant safety regulations due to the nature of the job the machine has been constructed for

- Touching the abrasive disc with your fingers.
- Touching live parts on a damaged terminal box, capacitor, or bare cable lead.
- Your sense of hearing can suffer due to continuous use of the machine without ear defenders.
- Inhalation of dusts which may be harmful to health.

8. Set up of machine

- Machine must be mounted firmly on a stable workbench or table.
- Loosen lateral clamping levers (3) and adjust grinding table to any angle using the scale.
- Tighten lateral clamping levers (3) again.

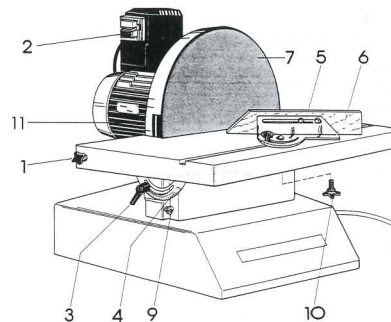
9. Mains connection

The machine is ready for operation and equipped with cable lead.

- Check whether the voltage on the type label of the motor corresponds with the source of current.

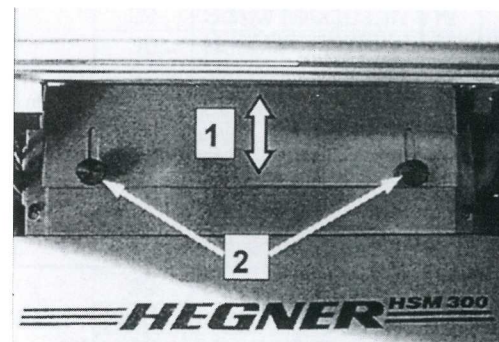
10. Changing abrasive disc

Remove the lower metal cover sheet by loosening the 2 Allen screws (9). Un-screw the left and the right cross handle (1) on the grinding table. Loosen slightly the grinding table clamping device (3). Lower grinding table gently downwards. Pull the abrasive disc from the loop mat and press on new abrasive disc centrally. Tilt grinding table up again and fix it with the cross handle (1). Check that the grinding table is firmly tightened. Screw on the lower metal cover sheet again.



11. Swivelling grinding table

Loosen lateral clamping levers (3) and adjust grinding table to any angle between 0–45° using the scale. Tighten lateral clamping levers (3) again.



When adjusting swivelling table the cover sheet (1) needs to be adjusted.

It should be positioned to cover the sanding disc exactly.

To adjust the cover sheet (1) loosen the knurled screws (2) and move the cover sheet up or down. Re-tighten the knurled screws (2).

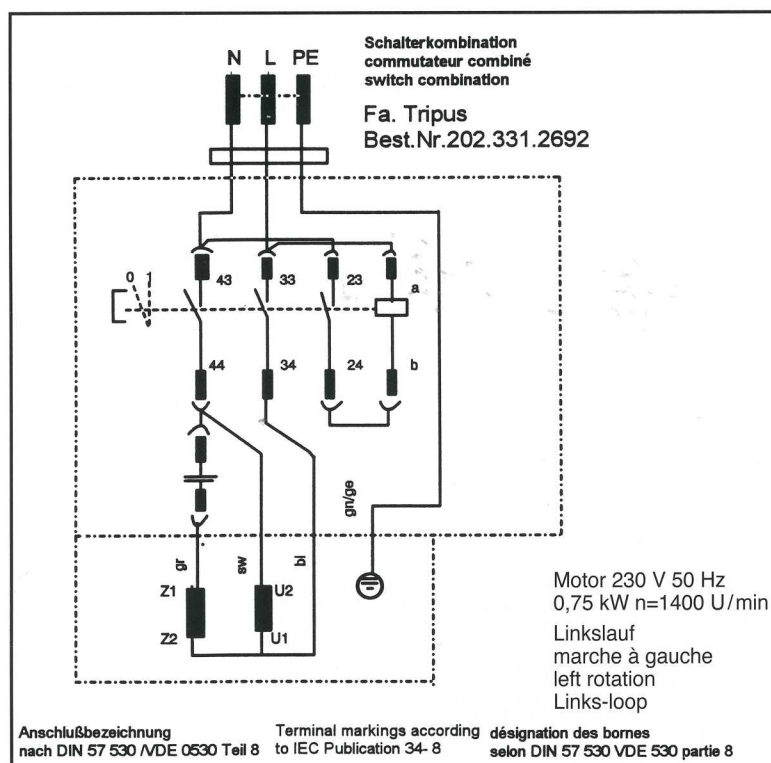
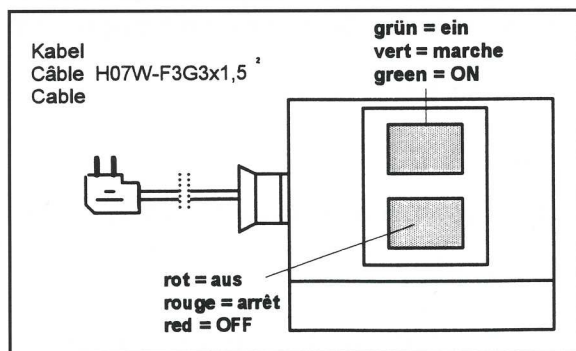
12. Locking the mitre fence

If the mitre fence on the grinding table is to be locked it must be tightened by means of the cross handle (10) from the underside of the grinding table.

13. Braking the machine

With the motor switched off the grinding disc will continue turning for about 6-8 seconds. In order to bring it to a quick halt, press the brake (11) on the rear side of the housing.

14. Elektrischer Schaltplan / Schéma de connexion électrique Circuit diagram / Electrisch schakelplan



Eingriff im elektrischen Bereich nur vom Fachmann ausführen lassen!
Only authorized electricians should carry out electrical work!
Les interventions dans le système électrique doivent être faites par un électricien agréé!
Reparaties aan het elektrische gedeelte alleen door vakmensen uit laten voeren!

15. Parts-List for Disc Sanding Machine HSM 300

Nr.	Description	pce
1	Base	1
2	Housing	1
3	Grinding table	1
4	Grinding disc	1
5	Connector flange	1
6	Holding flange	1
7	Washer	1
8	Scale, right	1
9	Scale, left	1
10	Extraction sheet + sliding sheet (49) with knurl screws (50)	1
11	Brake pressure piece	1
12	Guide bar cpl.	1
13	Hexagon socket screws M4x10 DIN 912	2
14	Fence stop (Aluminium profile)	1
15	Table clamping right	1
16	Table clamping left	1
17	Extractor port cpl.	1
18	Pressure spring	1
19	Side plate	2
20	Motor ATB 0,75 kW, 230 V or 400 V	1
21	Ball bearings and securing ring DIN 472	1
22	Adjustable locking lever M6x16	2
23	Cross handle M6x13	1
24	Cross handle M6x11	1
25	Screw M6x40 DIN 912	4
26	Screw M6x25 DIN 7984	6
27	Screw M6x30 DIN 912	4
28	Screw M5x25 DIN 912	1
29	Screw M4x10 DIN 912	8
30	Nut M6	6
31	Knurl screw M5x14 DIN 464	2
32	Screw, half-round M5x10	10
34	Mitre fence (cast part)	1
35	Loop mat Ø 300 mm	1
36	Guide bush	1
37	Ball button M6 DIN 319	1
38	Direction arrow	1
39	Vibration pads or stopper	4
40	Washer M4	8
41	Washer M6	2
42	Spacer B6	4
43	Washer M5	1

