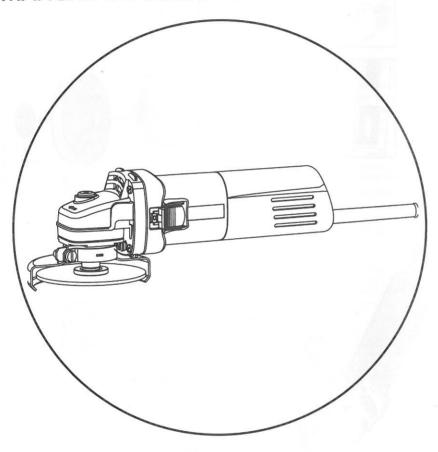


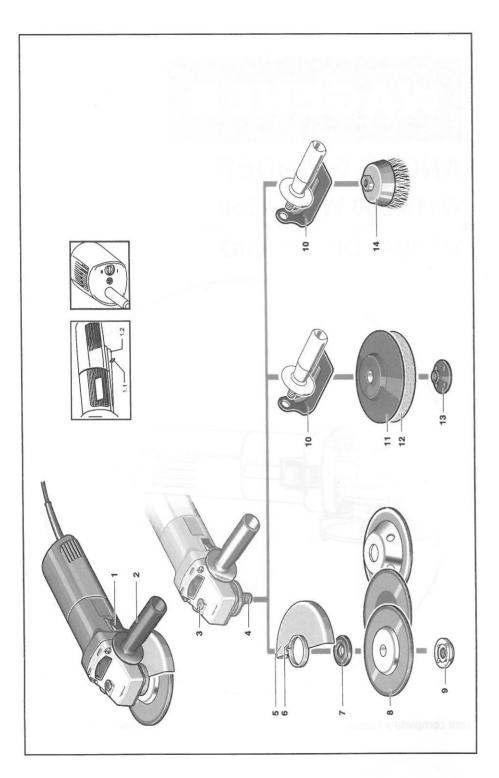
# **ANGLE GRINDER**

W115-900 W115-1250

MANUAL DE USUARIO



Leer completa y cuidadosamente y comprender las instrucciones antes de su uso



# **Tool Specifications**

Angle Grinder	W115-900	W115-1250
Rated input power* [W]	900	1250
No-load speed [/min]	0-11000	0-11000
Grinding disc dia., max. [mm]	115	115
Grinder spindle thread	M14	M14
Weight without cable, approx. [kg]	1.5	1.8
Protection class	□ / II	□ / II

#### **Machine Elements**

The numbering of the device elements refers to the illustration of the machine on the graphics page.

While reading the operating instructions, unfold the graphics page for the device and leave it open.

- 1 On/Off switch
- 2 Auxiliary handle
- 3 Spindle lock button
- 4 Grinder spindle
- 5 Protection guard
- 6 Screw
- 7 Mounting flange with O-ring
- 8 Grinding-/cutting disc\*
- 9 Clamping nut
- 10 Hand quard\*
- 11 Rubber sanding plate\*
- 12 Sanding sheet\*
- 13 Round nut\*
- 14 Cup brush\*
- \* Not all of the accessories illustrated or described are included as standard delivery.

#### **Intended Use**

The machine is intended for cutting, roughing and brushing metal and stone materials without using water. For cutting stone, a cutting guide is required.

#### Information on Structures

Slots in structural walls are subject to the Staridard DIN 1053, Part 1 or country-specific regulations.

These regulations are to be observed under all circumstances. Before beginning work, consult the responsible structural engineer, architects or the construction supervisor.



### **For Your Safety**



Working safely with this machine is possible only when the operating and safety information are read completely and the instructions contained therein are strictly followed. In addition, the

general safety notes in the enclosed booklet must be observed. Before using for the first time, ask for a practical demonstration.

- Wear protective glasses and hearing protection.
- Wear additional protection equipment for your safety, such as protective gloves, sturdy shoes, hard hat and apron.
- The dust that is produced while working can be detrimental to health, inflammable or explosive. Suitable safety measures are required. Examples: Some dusts are regarded as carcinogenic. Use suitable dust/chip extraction and wear a dust respirator.
- Dust from light alloys can burn or explode. Always keep the workplace clean, as blends of materials are particularly dangerous.

- If the mains cable is damaged or cut through while working, do not touch the cable but immediately pull the mains plug. Never use the machine with a damaged cable.
- Connect machines that are used in the open via a residual current device (RCD) with an actuating current of 30 mA maximum. Do not operate the machine in rain or moisture.
- When working with the machine, always hold it firmly with both hands and provide for a secure
- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- Always direct the cable to the rear away from the machine.
- Always switch the machine off and wait until it has come to a standstill before placing it down.
- For power outage or when the mains plug is pulled, unlock the On/Off switch immediately and turn it to the off position. This prevents uncontrolled restarting.
- The machine must be used only for dry cutting/ grinding.
- For all work with the machine, the auxiliary handle must be mounted.
- Hold the power tool only by the insulated gripping surfaces, when performing an operation where the cutting tool may run into hidden wiring or its own cord.

Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

- Use appropriate detectors to determine if utility lines are hidden in the work area or call the local utility company for assist-
- Contact with electric lines can lead to fire and electric shock. Damaging a gas line can lead to explosion. Penetrating a water line causes property damage or may cause an electric
- For work with grinding or cutting discs, the protection guard 5 must be mounted. For work with the rubber sanding plate 11 or with the cup brush 14/disc brush/flap disc, the hand guard 10 (accessory) is to be mounted.

- Use dust extraction when working with stone. The vacuum cleaner must be approved for masonry dust. When cutting stone, use the cutting guide.
- Do not work with materials containing asbes-
- Use only grinding tools with a permissible speed at least as high as the no-load speed of the machine.
- Check grinding tools before use. The grinding tool must be properly mounted and turn freely. Perform a test run for at least 30 seconds without load. Do not use damaged, out-of-round or vibrating grinding tools.
- Protect the grinding tool from impact, shock and grease.
- Apply the machine to the workpiece only when switched on.
- Keep hands away from rotating grinding tools.
- Pay attention to the direction of rotation. Always hold the machine so that sparks and grinding dust fly away from the body.
- When grinding metal, flying sparks are produced. Take care that no persons are endangered. Due to danger of fire, no combustible materials should be located in the vicinity (spark flight zone).
- Be careful when cutting grooves, e. g. in structural walls: See Information on Structures.
- Blocking the cutting disc leads to jerking reaction forces on the machine. In this case switch off the machine immediately.
- Pay attention to the dimensions of the grinding disc. The mounting hole diameter must fit the mounting flange 7 without play. Do not use reducers or adapters.
- Never use cutting discs for rough grinding. Do not exert any lateral pressure on the cutting discs.
- Observe the manufacturer's instructions for mounting and using grinding tools.
- Caution! The grinding tool runs on after the machine is switched off.
- Do not clamp the machine in a vice.
- Never allow children to use the machine.



#### Mounting the **Protective Devices**

Before any work on the machine itself, pull the mains plug.

#### **Protection Guard**

For work with grinding or cutting discs, the protection guard 5 must be mounted.

Place the protection guard 5 on the spindle collar. Adjust the position of the protection guard 5 to the requirements of the work process. Clamp with the screw 6.

The closed side of the protection guard 5 must always point to the operator.

#### **Auxiliary Handle**

For all work with the machine, the auxiliary handle must be mounted.

Screw the auxiliary handle 2 on the right or left of the machine head depending on the working method.

#### **Hand Guard**

For work with the rubber sanding plate 11 or with the cup brush 14/disc brush/flap disc, the hand guard 10 (accessory) is to be mounted. The hand guard 10 is fastened with the auxiliary handle 2.

## **Mounting the Grinding Tools**

■ Before any work on the machine itself, pull the mains plug.



Use only grinding tools with a permissible speed at least as high as the no-load For mounting, see the illustration page. speed of the machine.

Grinding and cutting discs become very two-pin spanner. hot while working; do not touch until they have cooled.

mounted. For clamping and loosening the grinding tools, lock the grinder spindle 4 with the spindle lock button 3.

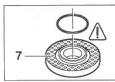
the grinder spindle is at a standstill!

#### Grinding-/Cutting Disc

Pay attention to the dimensions of the grind ing disc. The mounting hole diameter must f the mounting flange 7 without play. Do no use reducers or adapters.

For mounting, see the illustration page.

Screw on the clamping nut 9 and tighten with th two-pin spanner (see Section "Quick Clampir Nut").



An O-ring (plast part) is inserted the mountir flange 7 around th spigot.

If the O-ring is missing or is damaged, it mu in all cases be replaced before the mounting flange 7 is mounted.



After mounting the grinding tool and b fore switching on, check that the grin ing tool is correctly mounted and that can turn freely.

#### Flap Disc

Depending on the application, remove the prote tion guard 5 and mount the hand guard 10. Place the special mounting flange 7 and the flap disc the grinder spindle 4. Screw on the clamping no and tighten with the two-pin spanner.

# **Rubber Sanding Plate 11**

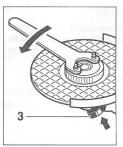
Depending on the application, remove the protection guard 5 and mount the hand guard 10.

Screw on the round nut 13 and tighten with the

# Cup Brush 14/Disc Brush

■ Clean the grinder spindle and all parts to be Depending on the application, remove the protection guard 5 and mount the hand guard 10.

The grinding tool must be able to be screwed onto the grinding spindle 4 until it rests firmly Actuate the spindle lock button 3 only when against the grinder spindle flange at the end of the grinder spindle threads. Tighten with an open-end spanner.



A properly tightened undamaged, guickclamping nut can be loosened by hand turning the knurled ring in anticlockwise direction.

Never loosen a tight quick-clamping nut with pliers but use a two-pin spanner. Insert the two-pin spanner as shown in the illustration.

## **Approved Grinding Tools**

All grinding tools mentioned in this operating manual instruction can be used.

The permissible speed [rpm] or the circumferential speed [m/s] of the grinding tools used must at least match the values given in the table.

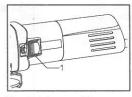
Therefore, always observe the permissible rotational/circumferential speed on the label of the grinding tool.

## **Starting Operation**

Observe correct mains voltage: The voltage of the power source must agree with the voltage specified on the nameplate of the machine. Equipment marked with 230 V can also be connected to 220 V.

## ACAUTION:

- · Before plugging in the tool, always check to see that the switch lever actuates properly and returns to the "OFF" position when released.
- · Do not pull the switch lever forcibly without pulling in the lock-off lever. This may cause switch breakage.



1. Front switch

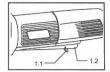
To start the machine, press the On/Off switch 1 forward.

To lock-on, press the On/Off switch 1 down at the front until it engages.

To switch off the machine, release the On/Off switch 1 or press the rear tip of it down.



To start the machine, push the On/Off switch to I position: To switch off the machine, push the On/Off switch to O position.



1.1 Lock-off lever

1.2 Switch lever

To prevent the switch lever from accidentally pulled, a lock-off lever is provided. To start the tool, pull the lockoff lever forward and then pull the switch lever. Release the switch lever to stop.



Check the grinding tool before use. The grinding tool must be properly mounted and rotate freely. Perform a test run of at least 30 seconds without load. Do not use damaged, out-of-round or vibrating grinding tools.

#### **Operating Instructions**

- Clamp the workpiece if it does not remain stationary due to its own weight.
- Do not strain the machine so heavily that it comes to a standstill.
- Grinding and cutting discs become very hot while working; do not touch until they have cooled.

## Rough Grinding



The best roughing results are achieved when setting the machine at an angle of 30° to 40°. Move the machine back and forth with moderate pressure. In this manner, the workpiece will not become too hot, does not discolour and no grooves are formed.

Never use a cutting disc for roughing.

# Flap Disc

With the flap disc (accessory), curved surfaces and profiles (contour sanding) can be worked.

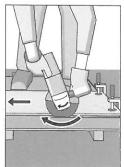
Flap discs have a considerably higher service life than sanding sheets, lower noise level and lower sanding temperatures.

#### Cutting



When cutting, do not press, iam or oscillate the machine. Work with moderate feed, adapted to the material being machined.

Do not reduce the speed of running down cutting discs by applying sideward pressure.



The direction in which the cutting is performed is important.

The machine must always work in an up-grinding motion. Therefore, never move the machine in the other direction! Otherwise, the danger exists of it being pushed uncontrolled out of the cut.

When cutting profiles and square pipes, it is best to start with the smallest cross section.

# **Rotating the Machine Head**

Before any work on the machine itself, pull the mains plug.



The machine head can be rotated with respect to the machine housing in 90° steps. In this manner, the On/Off switch can be brought to an advantageous handling position for special working situations, e. g., for cutting work with the cutting

quide/cutting grinder stand (accessory) or for left-handed persons.

Unscrew completely the four screws.

Rotate the machine head carefully and without removing from the housing to the new position.

Screw in the screws again and tighten.

#### Maintenance and Cleaning

■ Before any work on the machine itself, pull the mains plug.



For safe and proper working, always keep the machine and the ventilation slots clean.



In extreme working conditions, conductive dust can accumulate in the interior of the machine when working with metal. The protective insulation of the machine can be degraded. The use of a stationary extraction system is recommended in such cases as well as frequently blowing out the ventilation slots and installing a residual current device (RCD).