

# **BRL 721 VE**

**Instruction manual**

**Bedienungsanleitung**

**Manual de instrucciones**

**Manuel d'utilisation**

**Gebruikshandleiding**

**Bruksanvisning**

**Manuale delle istruzioni**



307.831

# **FLEX**

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# FLEX

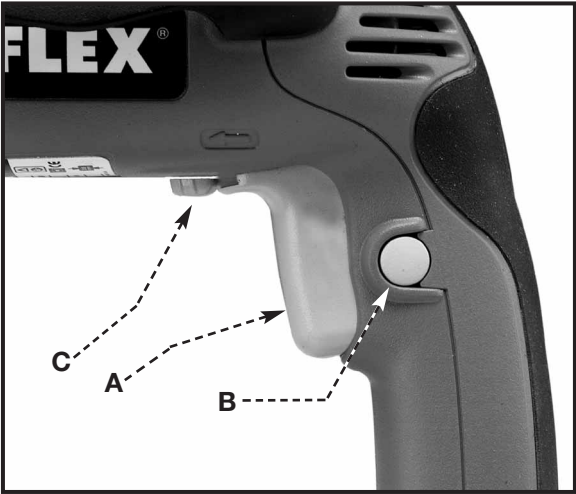
D-71711 Steinheim/Murr – Tel. (0 71 44) 8 28-0 – Fax (0 71 44) 2 58 99

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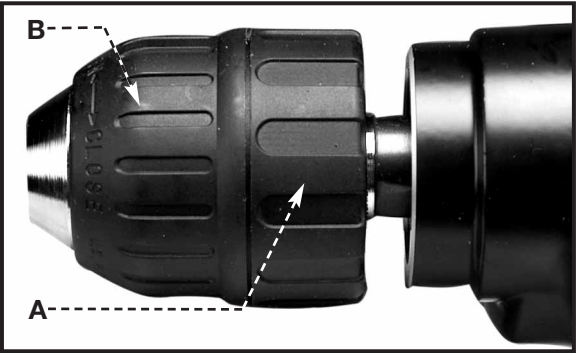
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## TECHNICAL SPECIFICATIONS

Type .....	BRL 721 VE	Max. clamp Ø .....	13 mm
Part number .....	307.831	Weight .....	2.0 kg
Rated speed (no load) .....	0–2500/min	Typical weighted acceleration: .....	<2.5 m/s <sup>2</sup>
Power consumption .....	765 W	A-weighted noise levels:	
Power output .....	420 W	Sound pressure level .....	84 dB(A)
Max. drill Ø in steel .....	8 mm	Sound power level .....	97 dB(A)
Max. drill Ø in wood .....	20 mm	<i>Wear ear protection!</i>	

## SAFETY RULES FOR SCREWDRIVERS

- ▲ WARNING** HOLD TOOL BY INSULATED GRIPPING SURFACES WHEN PERFORMING AN OPERATION WHERE THE CUTTING TOOL MAY CONTACT HIDDEN WIRING OR ITS OWN CORD. Contact with a “live” wire will also make exposed metal parts of the tool “live” and shock the operator.
- DO NOT** use bits larger than those recommended. Larger bits increase the chance of jamming, and will overload the drill, damaging the motor and gears.
- USE THE PROPER CHUCK KEY ONLY TO TIGHTEN OR LOOSEN THE CHUCK.** Do not use chuck if jaws or other parts are cracked or worn.
- VERIFY THE DRILL’S ROTATION BEFORE STARTING THE DRILL.**
- NEVER ATTEMPT TO CHANGE DIRECTION** of rotation while switch is “ON”. To do so, may damage interlock feature built into switch. Be sure switch is “OFF” and motor has completely stopped before changing direction of rotation.
- NEVER HOLD WORKPIECE IN YOUR HAND, LAP, OR AGAINST OTHER PARTS OF YOUR BODY** during operation.
- DO NOT USE DRILL AS A ROUTER**, or try to elongate or enlarge holes by twisting the drill. Drill bits can break and can cause injury.
- APPLY FORWARD FORCE ON THE PISTOL GRIP HANDLE ONLY, AND ONLY WITH YOUR HANDS.** When using an auxiliary handle, grasp it with one hand to resist rotational force.
- SOME WOOD CONTAINS PRESERVATIVES WHICH CAN BE TOXIC.** Take extra care to prevent inhalation and skin contact when working with these materials. Request, and follow, any safety information available from your material supplier.
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## REPLACEMENT PARTS

When servicing use only identical replacement parts.

# OPERATING INSTRUCTIONS

## TO START AND STOP DRILL

1. Confirm that the trigger switch is "OFF". Make sure that the power circuit voltage is the same as that shown on the specification plate of the drill. Connect the drill to the power source.
2. Squeeze the trigger switch (A) Fig. 1 to start the motor. Release the trigger switch to stop the motor.
3. A switch-lock button (B) Fig. 1 is provided to keep the motor running without holding the trigger switch "ON".
  - A. To LOCK the tool in the "ON" position, squeeze the trigger switch, push in and hold the lock button while releasing the trigger switch.
  - B. To RELEASE the switch-lock button, squeeze the trigger switch and release.

**NOTE:** The switch-lock button can be engaged only when the drill is running at maximum speed.

**⚠ CAUTION** Never use the switch-lock button when the drill may have to be stopped suddenly.

4. This tool will operate in either the forward direction (clockwise rotation), or the reverse direction (counter-clockwise rotation). ALWAYS allow the motor to completely stop before reversing the direction. For CLOCKWISE rotation, depress the right end of the switch button (C) Fig. 1. For COUNTER-CLOCKWISE rotation, depress the left end of the switch button.
5. VARIABLE SPEED: As the trigger switch is squeezed, the drill speed increases.

## **⚠ WARNING** INSTALLING AND REMOVING DRILL BIT

### DISCONNECT TOOL FROM POWER SOURCE.

1. The three-jaw chuck is designed for self-centering of the bit. Open the jaws by turning the outer sleeve (B) Fig. 2 counterclockwise (when viewing the chuck from the bit end) so that the bit shank can be inserted easily.
2. Clean and insert the smooth end of the bit as far as it will go into the chuck, then withdraw the bit approximately 1/16", or up to the flutes for small bits.
3. While holding the bit with one hand, turn the outer sleeve (B) Fig. 2 clockwise until the chuck grips the bit.
4. Tighten the chuck by holding the chuck ring (A) Fig. 2 with one hand while turning the outer sleeve (B) clockwise with the other hand. Tighten securely.

**⚠ WARNING** Do not operate the drill motor while installing or removing bits. Operating the drill motor can cause a bit to be thrown from chuck causing personal injury.

5. To remove the bit, reverse the procedure.

## HOW TO HOLD THE DRILL

**⚠ WARNING** The front end of the drill may become live if the tool drills into live wiring. **TO PREVENT ACCIDENTAL ELECTRICAL SHOCK, hold the drill as shown in Fig. 3. Apply forward force on the pistol grip handle only, and only with your hands.**

# HOW TO USE THE DRILL

## GENERAL DRILLING

1. Verify that the drill bit is securely gripped in the chuck. (See “**INSTALLING AND REMOVING DRILL BIT**”).
2. Set the reversing switch (C) Fig. 1 for clockwise rotation.

**⚠ CAUTION** Hold the workpiece securely in a vise, or clamp it in place prior to starting the drilling operation. A loose workpiece may spin and cause bodily injury.

3. Locate the exact center of the space for the hole to be drilled. Use a center punch to make a small dent in the workpiece.
4. Place the tip of the drill bit in the dent made by center punch, hold the drill square with the workpiece, and start the motor. Apply steady, even pressure to keep the drill bit cutting. Too little pressure will keep the bit from cutting and dull the edges due to excessive friction.

**⚠ CAUTION** Too much pressure may cause the bit to break or overheat, resulting in bodily injury or damaged drill bits.

**⚠ CAUTION** If the drill stalls or becomes jammed in the workpiece, the torque can cause the tool to twist. BE ALERT and brace yourself against this twisting action.

5. If the drill stalls or becomes jammed in the workpiece, release the trigger immediately.

**⚠ CAUTION** Do not squeeze the trigger “ON” and “OFF” in an attempt to free the drill bit. – This action will damage the motor.. Try reversing the direction of rotation.

6. Reset the direction before drilling.
7. Reduce the pressure on the drill just before the bit cuts through the work to avoid splintering the wooden workpiece or stalling in metal.
8. When the bit has completely penetrated the workpiece and is spinning freely, withdraw it from the work while the motor is still running, then turn the drill “OFF”.

## DRILLING WOOD

The following instructions apply In addition to the instructions listed under “**GENERAL DRILLING**”:

1. To prevent overheating of the bits and burning the workpiece, withdraw twist drills from wood frequently to clear the flutes of chips and debris.
2. If you use a backing block to keep the back of the workpiece from splintering, clamp it securely in place. If you do not use a backing block with spade or auger bits, ease up the pressure as soon as the bit point breaks through the workpiece, and complete drilling of the hole from the opposite side.

## DRILLING METAL

The following instructions apply in addition to the instructions listed under “**GENERAL DRILLING**”

**⚠ CAUTION** Jamming of a bit is more likely to occur when drilling into a metal workpiece than when drilling into any other material.

1. Use only good quality, sharp, high-speed, steel twist bits.
2. Start drilling slowly and gradually increase the speed as the drill cuts. The harder the material, the slower the speed required. The softer the material, the faster the speed.
3. When drilling a large hole, first drill a smaller hole and then enlarge it to size.
4. The use of a lubricant such as oil on the drill point helps keep the bit cool, increasing the drilling action and prolonging the drill bit life.

# MAINTENANCE

## KEEP TOOL CLEAN

Periodically blow out all air passages with dry compressed air. Remove buildup of grime resulting from working with green or sappy wood. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

**⚠ CAUTION** Wear safety glasses while using compressed air.

## FAILURE TO START

Should your tool fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

## CHUCK REPLACEMENT

**⚠ WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. Open the chuck jaws as wide as possible to gain access to the chuck retaining screw.
2. While holding the chuck securely with a wrench on the flats of the spindle shaft (A) Fig 6, remove the chuck retaining screw by turning the screw clockwise (left hand threads).
3. Place the short end of a large hex wrench (1/4" or larger) (A) Fig. 7 into the chuck. (B), and a 9/16" wrench (C) on the flats of the spindle shaft. Turn the chuck counterclockwise to remove.
4. **INSTALL THE CHUCK:** Open the jaws of the replacement chuck as wide as possible. Thread chuck onto spindle by turning chuck clockwise. Hand tighten. Place the hex wrench in the chuck (see Step 4), and a 9/16" wrench on the flats of the spindle. Tighten firmly by turning the chuck clockwise.
5. Remove the hex wrench from the chuck.
6. **INSTALL THE CHUCK RETAINING SCREW.** Turn the screw counterclockwise. Tighten securely.

## BRUSH INSPECTION AND LUBRICATION

**⚠ CAUTION** For your continued safety and electrical protection, brush inspection and replacement on this tool should ONLY be performed by an Authorized Service Agent for FLEX Power Tools.

At approximately 100 hours of use, take or send your tool to your nearest Authorized Service Agent for FLEX Power Tools to be thoroughly cleaned and inspected; worn parts replaced, when necessary; relubricated with fresh lubricant, if required; reassembled with new brushes; and performance tested.

Any loss of power before the above maintenance check may indicate the need for immediate servicing of your tool. DO NOT CONTINUE TO OPERATE TOOL UNDER THIS CONDITION. If proper operating voltage is present, return your tool to the Service Agent for immediate service.

## SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations, including brush inspection and replacement, should ONLY be performed by an Authorized Service Agent for FLEX Power Tools. All repairs made by these agencies are fully guaranteed against defective material and workmanship. We cannot guarantee repairs made or attempted by anyone other than these agencies.

Should you have any questions about your tool, feel free to write us at any time. In any communications, please give all information shown on the nameplate of your tool (model number, type, serial number, etc.).