# Translation of the original operating instructions

## Chipping hammer – FK 3

**English version D12 · 08.10.2026 · Translation of the original operating instructions**

Four variants with different shanks



**Read in full before use. Keep available at the workplace and pass on with the tool.**

| Item | Shank | Retainer |
|---|---|---|
| 052-59091 | RS 17.5 | Screw cap |
| 052-59092 | R 17.5 × 60 | Screw cap |
| 052-59093 | RS 20 | Screw cap |
| 052-59094 | R 20 × 60 | Screw cap |

**These instructions apply to the FK 3 chipping hammer, articles 052-59091, 052-59092, 052-59093 and 052-59094. The article number and shank must match.**

# Contents

The chapters in the contents are clickable. Blue, underlined part numbers open the corresponding item in the shop.

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# Explanation of symbols

The safety signs help you recognise important information quickly. Always also follow the accompanying text: it describes the hazard and the protective measures required.

| Sign | Meaning | What must be observed? |
|---|---|---|
|  | General warning sign | Warns of a hazard. The accompanying warning describes the possible injury and how to avoid it. |
|  | Hot surface | The inserted tool or workpiece may be hot. Do not touch without protection; allow to cool before changing the tool. |
|  | Read the instructions | Read the instructions in full before first use and keep them available at the workplace. |
|  | Wear eye protection | Wear suitable eye protection with side shields when working. Use any required face protection in addition. |
|  | Wear hearing protection | Wear suitable hearing protection during operation. Also protect people in the affected work area. |
|  | Wear safety footwear | Wear safety footwear when working to protect your feet, particularly against falling parts. |
|  | Wear protective gloves | Choose protective gloves suitable for the task, particularly when handling sharp-edged, hot or cold parts. Do not reach into moving parts. |
|  | Wear respiratory protection | Use respiratory protection appropriate to the material and risk assessment if engineering measures are insufficient. This sign does not specify a particular filter type or protection class. |

## Signal words in the text

**⚠WARNING: The hazard described can result in serious or fatal injury.**

**⚠CAUTION: The hazard described can result in minor or moderate injury.**

**NOTICE: This information concerns possible property damage.**

Yellow triangles warn of hazards. Blue circles indicate required actions or protective measures. For measures that depend on the task, the conditions described in the text apply; respiratory protection and gloves in particular must be selected to suit the task.

# FK 3 variants

These instructions cover the four FK 3 variants listed on the cover.

## Drawing and spare parts

The general drawing and corresponding spare-parts list are in Chapters 9 and 10.

## Recommended connection accessories

The hammer is supplied without a hose coupling. Frölich & Klüpfel recommends an optional Variacor swivel joint of the appropriate type for all tool types. It facilitates hose routing and can reduce twisting, coiling and kinking of the hose and ease the strain on the operator. A large unobstructed flow area supports the compressed-air supply.

For FK 3 with G 3/8 female thread: Variacor G 3/8 female × G 3/8 male, swivels through 90° and rotates through 360° – 306-DV11MFG38

Optional at the hose end away from the hammer, for a 13 mm internal hose diameter: SKG 13 claw coupling – 306-0304. Provide a matching mating coupling and secure hose attachment.

Use a compatible coupling system with sufficient flow capacity at the end of the hose away from the hammer. Connection threads and hose dimensions must match.

Connection sequence: hammer → short hose with threaded connection → quick-release coupling. Optional: threaded Variacor between hammer and hose. Do not fit a quick-release coupling directly to the tool inlet. Use threaded fittings made of hardened steel or similarly impact-resistant material. Coupling and plug nipple must match. Size the air supply for 0.62 Nm³/min and no more than 6 bar at the tool. Fit and disconnect components according to their manufacturers’ instructions; blue underlined article numbers open the shop.

## Design and assembly

Chapter 6 describes fitting the screw cap and both impact rings. The corresponding parts are listed in Chapter 10.

# 1 Use and limitations

The FK 3 is a hand-held pneumatic chipping hammer for professional chiselling, cutting, demolition and plaster removal on suitable materials. The trigger controls the percussion mechanism; the screw cap retains the matching inserted tool.

## Intended use

- Fettling grey iron, steel and malleable iron castings; deburring steel sheet edges and working on weld seams.
- Fettling and chipping boiler, vessel and ship walls.
- Light chiselling, deburring, fettling and chipping work on suitable materials and components. The material, inserted tool and working method must be compatible.
- Riveting small-diameter rivet shanks using suitable riveting tools that match the tool holder.

Select the inserted tool to suit the material, task and tool holder. The hammer may only be operated with an effective tool retainer and with feed pressure against the workpiece. A different chisel shank or an arbitrary accessory does not extend the permitted range of applications.

Riveting with small rivets is an intended application. Before starting work, the operator must check that the hammer, riveting tool and backing tool are suitable for the rivet material, rivet dimensions and specific task. Secure the workpiece firmly.

## Intended users and working conditions

Operation is restricted to instructed persons who understand these instructions and can assess the hazards of their task. Repairs and work on internal components must be carried out by qualified personnel. Work with secure footing, adequate space to move and a safely supported or secured workpiece. These operating instructions must accompany the hammer whenever it is passed on, including when loaned or hired out. The operator must be instructed in its safe use.

Check the material, coatings, service lines and ambient conditions before starting. Work inside vessels or confined spaces requires workplace authorisation, safe ventilation and the necessary protective measures. Do not work on vessels that are closed, pressurised or have not been safely cleaned.

## Avoid foreseeable misuse

- Do not operate without a secured inserted tool, without feed pressure or with a damaged retainer.
- Do not use as a lever or strike the housing with a hammer. Do not free a jammed chisel by continuing to hammer or by forcing it sideways.
- Do not lock the trigger in the operating position or remove or modify safety components. Do not point at people or animals.
- Do not use in potentially explosive atmospheres or on live electrical components. Electrical insulation and suitability for potentially explosive areas have not been established.

**These instructions apply exclusively to the four listed FK 3 articles. FK 3.3, FK 3 G and other designs are not covered.**

# 2 Mechanical safety

WARNING indicates a hazard that can result in serious or fatal injury. CAUTION indicates a hazard that can result in minor or moderate injury. NOTICE concerns possible property damage.

### ⚠WARNING Compressed air and unintended starting

Unexpected blows and whipping hoses can cause serious injuries. A pressurised hose can whip if disconnected or torn off. Before changing the tool, cleaning or servicing, shut off the air supply and disconnect the hammer. No separate venting step is required at the tool. When disconnecting, follow the instructions for the hose coupling used. The full procedure is in chapter 5.

- Before use, check hoses, couplings and connections for damage and secure fitting. Have defective connections replaced.
- Use only suitable compressed-air components rated for the supply pressure. Maximum 6 bar at the tool. Do not use other compressed gases.
- Never direct compressed air at the body. Do not grab a whipping hose; shut off the supply at a safely accessible point.
- Protect hoses against being driven over, sharp edges and hot surfaces; route them to avoid trip hazards and tensile loads on the hammer.

### ⚠WARNING Ejected tools and fragments

Ejected parts can seriously injure operators and bystanders. A damaged chisel, worn holder or incompletely fitted screw cap can cause parts to be ejected. Use only suitable, undamaged insert tools with an appropriate retainer. Check that the threads are complete, the screw cap is secure and both required impact rings (21) are present.

Wear eye protection with side shields; also wear face protection where the task requires it. Screen the work area against flying fragments and keep bystanders away. A face shield does not replace the required eye protection. Keep body parts out of the direction of impact and ejection.

### ⚠WARNING Unloaded blows, loss of control and crushing

Uncontrolled movement and pinch points can cause serious hand and foot injuries. Place the insert tool firmly against the workpiece before pressing the trigger. Guide the hammer by the handle; the second hand may support it at the silencer or screw cap. Do not touch the chisel or reach between moving parts. Blows without load can damage the hammer and stress the tool retainer, hands and arms.

Wear safety footwear and suitable protective clothing. Keep the handle clean and free of oil. Secure small workpieces with a suitable clamping device. Do not hold them with your free hand close to the inserted tool. Maintain secure footing even when breaking through the material.

**Do not continue using blunt, broken or deformed tools. The striking face must be flat and undamaged. Do not quench heated tools in water; damage to the material creates a risk of fracture.**

# 3 Health and working environment

**⚠WARNING Dust and harmful substances**

Inhaling hazardous dust or fumes can cause serious respiratory disease. Working on castings, masonry, mortar, plaster and coated components can release harmful dust or fumes. Check the material, including any coatings, before starting work. If substances are unknown or particularly hazardous, stop work until the situation has been clarified.

Reduce emissions as close as possible to their source using suitable workplace extraction installed independently of the hammer. Direct exhaust air and dust away from the breathing zone. Avoid raising dust during cleaning; do not blow it off with compressed air. Use the respiratory protection selected through the risk assessment if engineering measures are insufficient. The filter type and protection class depend on the substance present.

**⚠WARNING Noise**

High sound levels can permanently damage hearing. The hammer produces high noise levels. Wear suitable hearing protection and also protect people nearby. Operate only with the silencer fully fitted and functioning. If the noise becomes noticeably louder, stop the hammer and have it checked. Arrange work procedures, screening and time spent in the area to reduce noise exposure.

### ⚠WARNING Hand-arm vibration and repetitive strain

Vibration can damage nerves, blood vessels and joints. Guide the hammer with the force needed for safe control and effective feed pressure; avoid unnecessarily high gripping forces. Use suitable, sharp tools and remedy wear promptly. Limit exposure time according to the workplace risk assessment and alternate tasks wherever possible.

Plan task changes and recovery periods according to the workplace risk assessment. Keep hands warm and dry. If you experience tingling, numbness, pain or unusual discolouration of the fingers, stop work, inform the responsible person and seek medical assessment. Emission values alone cannot be used to determine a safe daily operating time.

### ⚠WARNING Hot and cold surfaces

The insert tool and workpiece may become hot; expanding compressed air can strongly cool parts of the handle. Skin contact can cause burns or cold injuries. Allow hot parts to cool before changing the tool and wear suitable gloves. Select gloves according to cut, heat and cold hazards; they must permit a secure grip. Gloves are not a substitute for vibration reduction.

### ⚠WARNING Electric shock, fire and explosion

Damaged electrical cables or gas pipes and sparks near flammable materials can cause serious or fatal injuries. Before working on walls or components, locate electrical cables and gas, water and other supply lines. Have affected energy sources safely isolated. Remove or secure flammable materials and observe required work permits. The hammer is not electrically insulated.

## Residual risks

Even when used correctly, risks remain from flying fragments, noise, vibration, dust, hot or cold surfaces and unintended movements when breaking through. Adapt protective measures to the specific task before starting work.

# 4 Technical data and emissions

| Characteristic | Value |
|---|---|
| Maximum operating pressure | 6 bar |
| Weight | 4.48 kg |
| Length | 374 mm |
| Air consumption | 0.62 $Nm^3$/min |
| Air connection | G 3/8 female |
| Impact rate | 2,100 $min^{-1}$ |
| Piston stroke | 83 mm |
| Piston diameter | 23 mm |
| Piston weight | 138 g |

## Controls

- Trigger on the handle: starts the percussion movement when pressed; release to stop.
- Air connection on the handle: connection to a supply regulated to a maximum of 6 bar.
- Screw cap at the front end of the cylinder: retains the matching inserted tool.
- Silencer on the cylinder: check condition and completeness regularly.

## Vibration and noise emission values

| Measured quantity | Value | Measurement method and uncertainty |
|---|---|---|
| Vibration total value | 8.2 $m/s^2$; K = 3.4 $m/s^2$ | DIN EN ISO 28927-10; three axes at the handle |
| Sound pressure level | 100.0 dB(A) | DIN EN ISO 15744; measurement uncertainty ±3.0 dB(A) |

**Vibration measured according to DIN EN ISO 28927-10: frequency-weighted total vibration value from three measurement directions at the handle. Noise measured according to DIN EN ISO 15744. Operating pressure during measurement: 6.0 bar.**

# Notes on measured values and workplace exposure

The stated emission values were measured under specified laboratory conditions. Comparison with other tools requires the same measurement standards and comparable test conditions. The stated measurement uncertainties must be taken into account.

These measured values do not describe actual exposure at every workplace and are not sufficient on their own for the workplace risk assessment. Exposure during work may be higher. It depends, among other things, on the working method, inserted tool, workpiece, condition of the hammer, workplace layout and exposure duration. A person’s physical condition also influences the health risk.

The employer must assess the actual conditions of use and exposure times and specify suitable protective measures. Workplace measurements are required if the available data are insufficient. The stated measured values cannot be used to derive a universally safe daily operating time.

Prolonged or high exposure to hand-arm vibration can damage blood vessels, nerves and joints. Follow the protective measures in Chapter 3. If you experience tingling, numbness, pain or unusual discolouration of the fingers, stop work, inform the responsible person and seek medical assessment.

Frölich & Klüpfel recommends involving the occupational physician in the assessment and ensuring the necessary occupational health surveillance. Symptoms should be identified early and work procedures and protective measures adjusted accordingly.

# 5 Connection and safe shutdown

## Before each start-up

1. Check tool type and shank against these instructions. Check the condition and completeness of hammer, handle, trigger, silencer, screw cap, inserted tool and lines. Do not start if damaged.
2. Check the workplace, material and surroundings. Secure the workpiece, arrange protection against flying fragments and dust reduction, keep people away and put on personal protective equipment.
3. Check that the screw cap (20) is fully fitted and securely retains the chisel. Both impact rings (21) must be present and undamaged.
4. To start the FK 3, hold it with the chisel tip downwards or only slightly inclined. Once running, the hammer can operate in all working positions. Maintain secure footing and controlled guidance. Start only with the tool against the workpiece and with feed pressure; no idle blows.

## Connection

**⚠WARNING Unintended starting and whipping hose**

When the air supply is opened, unintended starting or a loose hose connection can cause serious injuries. Do not press or lock the trigger. Check tool retention and connections before opening the supply; secure hammer and hose. Admit air slowly and shut it off immediately if anything is abnormal.

1. Shut off the supply. Prepare the hose and coupling for safe connection according to their manufacturers’ instructions.
2. Connect a short, suitable hose to the hammer with a threaded connection, optionally via a threaded Variacor; position the quick-release coupling only at the hose end away from the hammer. Do not press the trigger. Route the hose so that the hammer can be guided freely.
3. Provide clean, dry, lubricated compressed air; check the filter and air preparation unit. The employer must limit the pressure at the tool to a maximum of 6 bar using an upstream pressure regulator. The hammer has no pressure limiter of its own. A flow control does not replace a pressure regulator.
4. Hold the hammer securely, point the tool away from people and admit air slowly. Watch for leaks or unexpected movement. Shut off the air immediately if anything unusual occurs.

# Safe shutdown and disconnection

**⚠WARNING Pressurised hose connection**

Disconnecting a pressurised connection can cause the hose to whip and inflict serious injury. Shut off the air supply and secure it against reopening. Secure the hose and coupling and disconnect them according to the coupling manufacturer’s instructions. Do not loosen a pressurised threaded connection.

1. Release the trigger and wait until movement stops. Secure the hammer and inserted tool against falling or uncontrolled movement.
2. Close the air supply at the designated shut-off device and secure it against unintended reopening.
3. Secure the hose and coupling against uncontrolled movement. Follow the disconnection sequence and protective measures specified by the coupling manufacturer; the supply line may be pressurised independently of the tool.
4. Release the coupling according to its instructions and disconnect the hammer completely from the compressed-air supply. Secure it against unintended reconnection.

**The tool does not require separate venting. This does not replace safe disconnection of the hose connection. Do not loosen a pressurised threaded connection.**

**Supplied without hose coupling. Connection sequence: hammer → short hose with threaded connection → quick-release coupling. Variacor is optional. Do not fit a quick-release coupling directly to the hammer. Accessory links are under ‘FK 3 variants’. Follow the component manufacturers’ instructions.**

# 6 Changing the inserted tool

## Selecting a suitable tool

Chisels complying with DIN 8530 may be used regardless of manufacturer. The shank, collar and dimensions must match the fitted bushing and screw cap: RS 17.5, R 17.5 × 60, RS 20 or R 20 × 60, depending on the variant. It must be possible to fit the screw cap and chisel in the specified order. Do not use unsuitable chisels or modify the retainer.

Check cutting edge, shank, collar and striking face. Reject tools with cracks, chips, severe deformation or wear. The screw cap must match the inserted tool and fitted bushing.

**⚠WARNING Unintended blows during tool changes**

Unintended blows can cause serious hand injuries. Disconnect the hammer completely from the compressed-air supply before removing the chisel. With no chisel fitted, the piston can be reached with a finger: never reach into the chisel holder. Do not operate without an inserted, secured chisel. Do not press the trigger during tool changes; allow hot parts to cool.

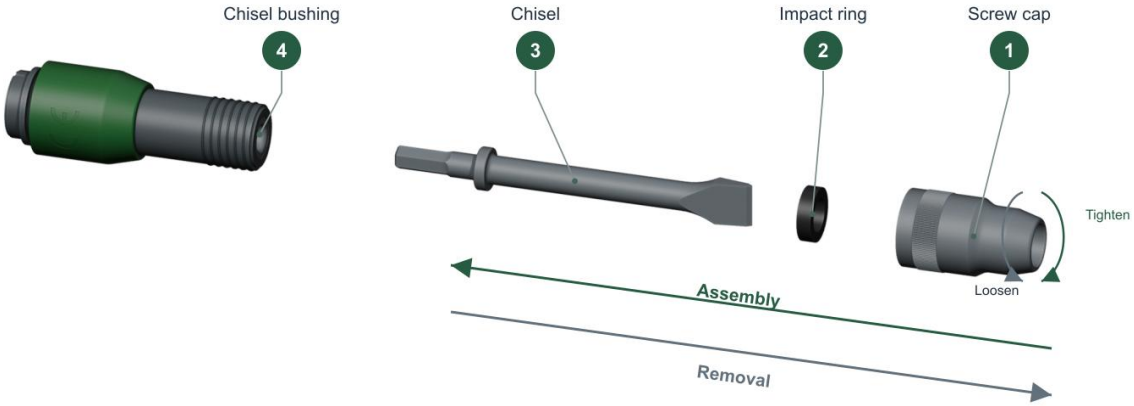



Illustration positions: 1 screw cap · 2 impact ring · 3 chisel · 4 chisel bush. The illustration shows one ring as an example; the FK 3 always requires two impact rings.

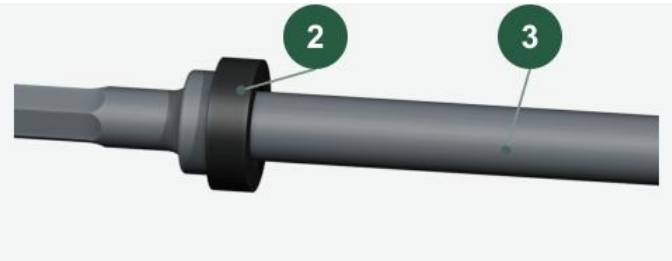
## Preparation and removal

Completely disconnect the hammer from the compressed-air supply and put it down securely. Unscrew the screw cap (figure 1) anticlockwise and remove it. Remove the chisel (figure 3) and both impact rings (figure 2). Check all parts for damage and wear.

Direction of rotation: viewed from the chisel tip towards the hammer.

## Fitting the chisel and screw cap

1. Slide both undamaged impact rings (figure 2) onto the chisel (figure 3) up to the collar. The rings sit directly against the collar on the chisel-tip side.




Detail: impact ring (illustration 2) on the chisel collar (illustration 3). One ring is shown as an example; fit both rings on the FK 3.

## Note on wide chisels

If the chisel is wider than the collar diameter, it is easier to slide the impact rings over the collar from the shank side. Otherwise, they can be slid from the chisel tip up to the collar.

2. Insert the chisel shank (figure 3) fully into the matching bushing (figure 4).
3. Pass the screw cap (figure 1) over the chisel, screw it on clockwise and tighten.
4. With the hammer still disconnected, check that both impact rings are present, the screw cap is fully tightened and the chisel is securely retained. Do not connect if retention is inadequate.

## Restarting

Reconnect only after completing all checks in Chapter 5. For the functional test, place the secured tool against a suitable workpiece and operate briefly with feed pressure. Do not test with the tool striking freely. Stop immediately if the seating is loose, the noise is unusual or operation is irregular.

The screw cap retains the inserted tool. Idle blows remain prohibited because they put strain on the retainer, hammer, hands and arms and can damage the hammer.

Parts-list reference: figure 1 = item 20; figure 2 = item 21 (2 pieces); figure 3 = chisel; figure 4 = item 1a–1d depending on the variant.

# 7 Operation and handling malfunctions

## Chiselling and chipping

**⚠WARNING Tool ejection and flying fragments**

An unsecured chisel or fragments can cause serious injuries. Work only with a suitable, fully secured chisel and both impact rings. Wear eye protection and face protection where necessary, secure the workpiece and keep bystanders away. Press the chisel against the workpiece before operating; no blows without load.

1. Choose the working position so that the material and tool can be controlled. Take account of the direction of material removal and possible breakthrough; nobody may be endangered behind the working area.
2. Guide the hammer by the handle. The second hand may support it at the silencer or screw cap. Do not reach for the chisel, into openings or between moving parts.
3. Press the trigger and work with sufficient feed pressure. Avoid unnecessarily high gripping forces, sideways levering and unloaded blows.
4. Release the trigger and wait until movement stops before withdrawing the chisel from the material or changing the working position. Do not drive the chisel in too deeply or force it sideways when withdrawing it.

## Interrupting work

Release the trigger (the only stopping function). Before putting the hammer down or leaving it, disconnect it as described in Chapter 5. Put it down securely; do not touch hot parts and keep them away from flammable materials. If the air supply fails, release the trigger and shut off the supply: if the trigger remains pressed, the hammer will start when pressure returns. Restart according to Chapter 5. With the hammer disconnected, check the retaining cap for secure seating at every chisel change and every interruption of work. If it loosens, stop immediately, disconnect and check or correctly fit the retainer.

## If the chisel jams

**⚠WARNING Sudden release of forces**

When freeing a jammed chisel, the hammer, chisel or workpiece can move suddenly and cause serious injuries. Before releasing it, let go of the trigger, secure hammer and workpiece, and shut off and disconnect the air supply as described in chapter 5. Release the blockage only in a controlled manner; consult qualified personnel if the stored forces are unclear.

1. Release the trigger immediately. Do not continue hammering, use the hammer as a lever or pull on the hose.
2. Secure the hammer and workpiece against uncontrolled movement. Shut off and disconnect the supply as described in Chapter 5.
3. Have an assessment made of how the jam can be removed without an uncontrolled release of forces. Do not release clamped or stressed parts in an uncontrolled manner. If safe release is not possible, consult qualified personnel.
4. After releasing the jam, check the inserted tool, holder and retainer for damage. Have damaged parts replaced before operating the hammer again.

## In the event of a dangerous malfunction

**⚠WARNING Uncontrolled movement and tool ejection**

A hammer that keeps running, a loose insert tool or a whipping hose can cause serious injuries. Stop work immediately. If the hammer does not stop, close the air supply at a safely accessible shut-off point. Keep your distance, do not reach into moving parts and do not attempt to restart while the fault is unexplained.

Stop immediately if there is unusual noise, increased vibration, a loose inserted tool, leakage or a trigger that does not return. If the hammer does not stop when the trigger is released, close the air supply at the safely accessible shut-off point. Stay out of the danger area and do not touch moving parts.

Once movement has stopped, disconnect the hammer from the compressed-air supply and label it to prevent reuse. Have qualified personnel rectify the cause of the fault; do not attempt to restart while the fault remains unexplained. If a hose is whipping, keep your distance and shut off the air supply.

## After work

With the hammer disconnected from the compressed-air supply, check it for damage, clean it and lubricate it according to Chapter 8. Report defects. Allow the inserted tool to cool and store the tool and accessories safely.

# 8 Care and maintenance

**⚠WARNING Starting during maintenance**

Unexpected starting during maintenance can cause serious impact and crushing injuries. Shut off and disconnect as described in Chapter 5 before any work. Only qualified personnel may work on internal components. Item numbers refer to Chapters 9 and 10.

## Checks and care by instructed persons

| Time or occasion | Check and action |
|---|---|
| Before every use and after changing the tool | Check tool retention, screw cap, impact rings, chisel, trigger, handle and air connections. Do not start if defects are found. |
| After use and when dirty | Clean external surfaces gently. Do not push dirt into the holder or air connection; do not blow off dust. |
| During operation | Ensure lubrication and correct operation of the air preparation unit; watch for leakage and changes in sound, vibration and performance. |
| After damage, jamming or repair | Inspection by qualified personnel and documented release before returning to service. |

The hammer must be operated with lubricated compressed air. Use a suitable resin-free lubricating oil. Recommended product: compressed-air lubricating oil in the 10 ml Liquid bottle, part number 307-1654. The 10 ml refers to the container size, not the dosage. Adjust the oil supply to the conditions of use and operating duration. Avoid running dry. If excessive oil escapes, reduce the oil supply; adequate lubrication must still be ensured.

After approximately 120 operating hours or at least every six months, whichever occurs first: qualified personnel must dismantle and clean the hammer. Check the tool retainer, trigger, silencer, threads, threaded connections and air connections for wear, damage and secure seating. After assembly, inspect and release for service as described below. We recommend replacing all wear parts with part numbers beginning with 307- every twelve months. Replace them sooner if worn or damaged.

# Work by qualified personnel

Repairs may be carried out only by qualified personnel using spare parts obtained from F+K. Chisel bushes may be replaced only by F+K Service. The following steps do not replace complete repair instructions; work to a checked manufacturer’s drawing.

### ⚠WARNING Unintended starting during dismantling

Unintended starting can cause impact and crushing injuries. Before opening the hammer, fully disconnect the air supply as described in chapter 5 and secure it against reconnection.

1. Loosen clamping nut (18) with silencer (19); use a strap wrench if tight. Do not twist handle (8), because of centring pin (16).
2. Inspect components. Have valve parts inspected and repaired only by qualified personnel. Assess chisel bush, chisel shank and tool retainer for condition, play and secure retention.
3. Undamaged O-rings may be reused after inspection. Before fitting, coat with suitable silicone grease compatible with O-rings.
4. Insert piston (3) with the tapered end facing the direction of impact. Fit tubular slide valve (5), cylinder cover (4) and buffer (6). Always replace buffer (6) when replacing cylinder cover (4).
5. Insert pin (16) into its recess. Fit the handle so that the pin engages in the handle bore.

### ⚠WARNING Preloaded components and pinch points

When tensioning or releasing tension uncontrollably, components may move suddenly and cause injuries. Use a suitable clamping fixture, secure components against springing out and keep hands away from pinch points. Apply and release tension in a controlled manner.

6. Preload the assembly using a suitable clamping fixture. Tighten clamping nut (18) with ring (17) inserted to the stop. Continue assembly according to a checked manufacturer’s drawing; for ring assembly see chapter 6.

## Checks after repair

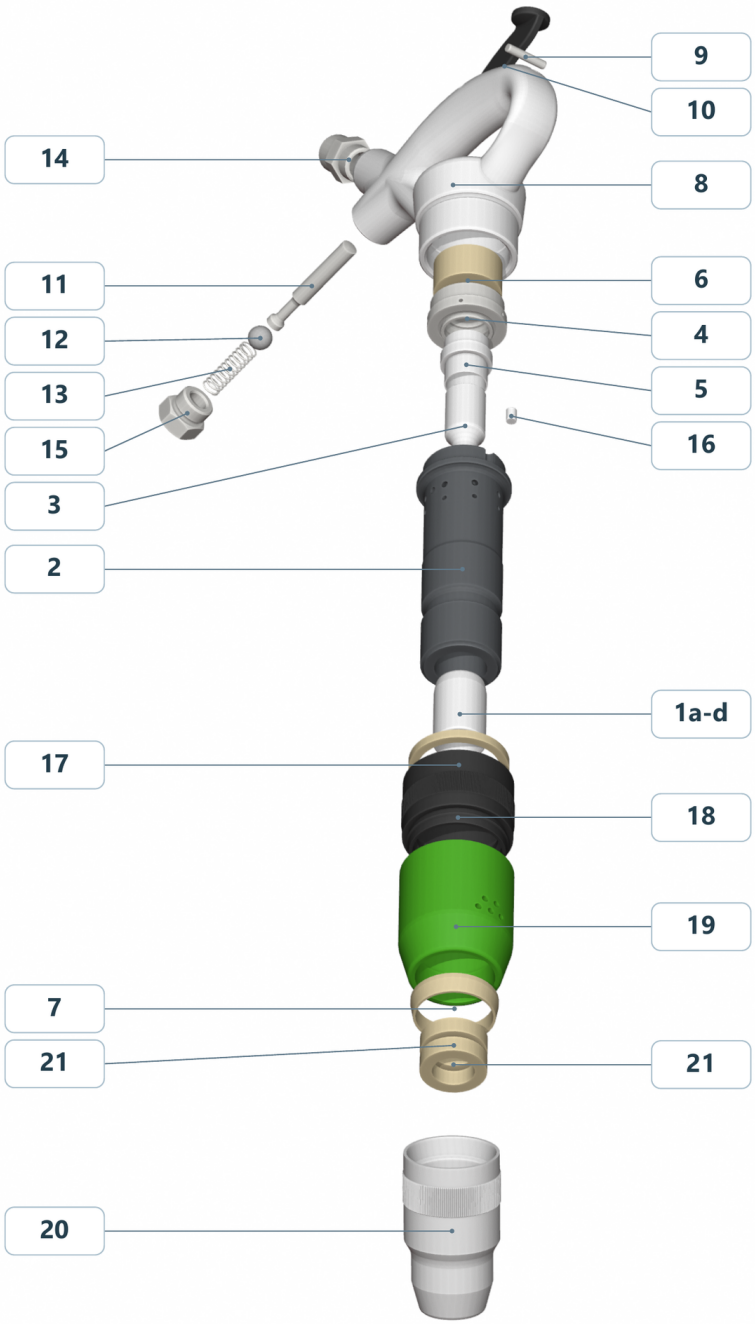
**⚠WARNING Incorrect assembly and inadequate tool retention during testing**

Incorrectly fitted components or an inadequately secured chisel can cause uncontrolled movement or tool ejection and serious injuries. Before connecting, check completeness, assembly and tool retention. Test only with the chisel fitted and secured and pressed against a suitable workpiece. No blows without load.

1. With the hammer disconnected, check completeness, assembly and secure tool retention.
2. Connect as described in chapter 5 and check for leaks. Carry out a test run with the chisel secured and pressed against the workpiece; check that the hammer stops automatically when the trigger is released. Stop and disconnect immediately if anything is abnormal.
3. Document test results, the person performing the test and release for use. Return to service only after a successful test.

# 9 Exploded view FK 3

FK 3: Shared schematic comparison view with FK 2 for identifying parts, not a scale drawing. The list specifies FK 3 parts. Blue links open the article in the shop.




## 10 Spare parts

| Item | Qty. | Description | Part number |
|---|---|---|---|
| 1a | 1 | Bushing | 052-0501 |
| 1b | 1 | Bushing | 052-0502 |
| 1c | 1 | Bushing | 052-0503 |
| 1d | 1 | Bushing | 052-0504 |
| 2 | 1 | Cylinder | 052-0560 |
| 3 | 1 | Piston | 052-0392 |
| 4 | 1 | Cylinder cover | 052-0383 |
| 5 | 1 | Valve sleeve | 052-0384 |
| 6 | 1 | Buffer | 307-2505 |
| 7 | 1 | Conical ring | 307-2115 |
| 8 | 1 | Complete handle | 052-0525 |
| 9 | 1 | Cylindrical pin | 304-3442 |
| 10 | 1 | Trigger | 052-0057 |
| 11 | 1 | Valve | 052-0116 |
| 12 | 1 | Ball | 307-1987 |
| 13 | 1 | Compression spring | 304-7018 |
| 14 | 1 | Nipple | 306-0223 |
| 15 | 1 | Plug | 306-0202 |
| 16 | 1 | Pin | 303-1282 |
| 17 | 1 | Ring | 307-2559 |
| 18 | 1 | Clamping nut | 052-0527 |
| 19 | 1 | Silencer | 307-2538 |
| 20 | 1 | Screw cap | 052-8403 |
| 21 | 2 | Impact ring | 307-2114 |

**NOTICE – Damage to the cylinder**
Incorrect removal or replacement of the chisel bushing can damage the cylinder. Have chisel bushings replaced exclusively by F+K Service. Do not remove or replace them yourself.

**NOTICE – Damage to the hammer**
Reusing the existing buffer when replacing the cylinder cover can damage the hammer. Always replace buffer 307-2505 during this work.

**Variants and spare-parts orders**
052-59091: bush 1a; 052-59092: bush 1b; 052-59093: bush 1c; 052-59094: bush 1d. Screw cap 20 and both impact rings 21 apply to all four versions. State the article number and shank when ordering.

# 11 Troubleshooting, storage and disposal

**⚠WARNING Unintended starting during troubleshooting**

With compressed air connected, unexpected blows or a whipping hose can cause serious injuries. Before inspection, stop, shut off and fully disconnect as described in chapter 5; secure against reconnection. Do not attempt to start while the fault is unexplained. Internal components may be inspected and repaired only by qualified personnel.

The following table helps identify faults with the hammer stopped and disconnected. Have repairs carried out by qualified personnel.

| Fault | Possible cause | Action |
|---|---|---|
| Does not operate | Rust, dirt or wear in the valve mechanism, piston, piston bore or bushing | Inspection by qualified personnel; have the tool cleaned, lubricated or repaired. |
| Does not operate after assembly | Incorrect assembly or defective compression spring | Have qualified personnel check assembly and the spring. |
| Irregular operation | Valve sleeve mechanism or valve dirty or worn; excessive lubrication | Stop; have qualified personnel inspect, clean or repair the tool. |
| Low impact performance | Insufficient air supply or dirty strainer | Check the supply; do not raise pressure above 6 bar. Have the strainer cleaned correctly with the system depressurised. |
| Air blows through the hammer | Foreign matter in the piston bore | Have the tool professionally dismantled and cleaned. |
| Does not stop or retainer is loose | Fault in the operating control or retainer | Shut off the air supply; do not continue using the tool; contact Service. |

## Transport and storage

Disconnect the hammer from the compressed-air supply before transport. Carry it by the handle, never by the hose. Pack the inserted tool securely for transport; hot or sharp-edged parts must not endanger anyone. Secure the tool against sliding and falling.

Clean and lubricate before extended periods out of use. Store in a dry, clean place protected against unauthorised use; protect the air connection against dirt. Before using again, perform the checks in Chapter 5.

**⚠WARNING Fire hazard and harmful cleaning agents**

Kerosene and other cleaning agents can release flammable vapours and damage skin and eyes. Work only with the hammer fully disconnected from compressed air, keep ignition sources away and provide adequate ventilation. Follow the safety data sheet and apply the protective measures it requires. Do not flush using compressed air.

Internal cleaning and preservation must be carried out only by qualified personnel at the customer’s premises or by the manufacturer’s service department. Flush the assembled hammer with dearomatised kerosene only while disconnected from the compressed-air supply; do not operate it with compressed air during flushing. Allow the flushing agent to drain and immediately lubricate according to Chapter 8. Use degreasing cleaners that do not attack O-rings for individual parts; clean plastic parts only with suitable cleaners. Follow the safety data sheet, ventilate well and keep ignition sources away.

## Decommissioning and disposal

Disconnect the tool from the compressed-air supply. Collect lubricant residues and contaminated cleaning agents and dispose of them according to the safety data sheet and local requirements; do not allow them to enter the ground or wastewater system. Have the tool professionally dismantled and send the materials for appropriate recycling.

## Service

“F. u. K.” Frölich & Klüpfel Drucklufttechnik GmbH & Co. KG
Wernerstr. 32 · 42285 Wuppertal
Telephone +49 (0) 202 89002-0 · info@froelich-kluepfel.de

# 12 Conformity and documents

These instructions apply to the variants listed below. The signed EC declaration of conformity for the hammer variants specified in it is supplied separately with the tool in paper form.

## Associated EC declaration of conformity

Details of the EC declaration of conformity under Directive 2006/42/EC, Annex II, Part 1, Section A. The variant applicable to FK 3 is clearly identified in the enclosed joint declaration.

The manufacturer declares that the designated machine, in its design, construction and the version placed on the market by the manufacturer, complies with the relevant essential health and safety requirements of Directive 2006/42/EC. Any modification not agreed with the manufacturer invalidates the declaration.

| Field | Details |
|---|---|
| Manufacturer | „F. u. K.“ Frölich & Klüpfel Drucklufttechnik GmbH & Co. KG, Wernerstr. 32, 42285 Wuppertal |
| Product covered by these instructions | FK 3 chipping hammer; articles 052-59091, 052-59092, 052-59093 and 052-59094 |
| Directive | 2006/42/EC |
| Applied standards | DIN EN ISO 12100:2011-03 with Corrigendum 1:2013-08; DIN EN ISO 11148-4:2013-05 |
| Signatory | M. Aschhoff, Managing Director |
| Person authorised to compile the technical file | M. Aschhoff, Managing Director<br>Frölich & Klüpfel Drucklufttechnik GmbH & Co. KG<br>Wernerstr. 32, 42285 Wuppertal |
| Individual machine details | Type, item number, serial number and year of manufacture as stated in the enclosed paper declaration |

Place of issue: Wuppertal. The date of issue, specific machine details and signature are stated in the separately enclosed EC declaration of conformity.

## Document version and enquiries

Identification: BA FK 3 EN D12 · 08.10.2026. For enquiries, state tool type, article number and existing serial number. Agree spare parts, technical changes and other applications with the manufacturer’s service department.

Keep these instructions and the declaration of conformity with the tool and pass the documents on with it.