



# ***Instruction Manual***

## ***Turbolap***

*Hand-filing machines*

*TLL 03 + 07 + 12 · TLS 03 + 07 + 12*

*Order No: 0 750 700-704 · 0 750 709*

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### Tips on using the manual

Congratulation on the purchase of this device. Please pay attention to the operating instructions, to be able to use the handpiece effectively - about all - safety.

The symbols used in the manual have the following meaning:



**Working and operating processes which must be observed to the letter to exclude any risk to persons.**



**Working and operating processes which must be observed to the letter to avoid any damage to the device.**



*Technical information to which the device operator must give special attention.*

The illustrations and diagrams are numbered in sequence within each chapter. Some of these illustrations have keys. References to illustrations within the text e. g. (5.1/2) have the following meaning:

5.1 = Figure 5.1

2 = Position 2 in the key to the figure.

Please feel free to call our customer service department at any time should you encounter technical problems which are not dealt with in this manual:

Telephone: 0 22 04 / 8 39 - 0

Telefax: 0 22 04 / 8 39 - 60

Internet: [www.joke.de](http://www.joke.de)

## Safety instructions

This device has been built according to the latest technical standards and generally accepted safety regulations. Nevertheless, it can constitute a hazard to the device itself or other equipment during use.

1. Only use the device if in perfect working order and for its intended purpose. You must always pay attention to the instruction manual and safety instructions therein and be aware of the risks! Repair any faults which could affect the device's safety immediately by yourself or have these repaired.

The unit is designed exclusively for grinding, milling and polishing with the tools listed and approved in the joke catalogue. Any other use will be deemed to be contrary to its intended purpose. The manufacturer cannot be held liable for any resulting damages. The risk is borne solely by the user.

Correct use also includes compliance with the instruction manual and an observation of the care and maintenance conditions.

2. Keep the instruction manual handy at the device's place of use.
3. Pay attention to and observe generally applicable statutory and otherwise binding regulations relating to accident prevention and environmental protection in addition to the information provided in the instruction manual!
4. All personnel commissioned to work on or with the device must have read this instruction manual, and particularly the safety instructions chapter, before starting work. This applies especially for personnel who only work with the device occasionally.
5. Stop the device immediately should you notice changes to the device or its operating behaviour that are relevant to its safety. Have these remedied before restarting work.
6. Do not carry out any modifications, additions or conversions to the device! This also applies to the installation and adjustment of safety equipment.
7. Spare parts must meet the technical requirements specified by the manufacturer. This can only be guaranteed with original joke spare parts.
8. Any work on/with the device may only be carried out by qualified, appropriately trained and authorised personnel. Pay attention to minimum statutory age limits!
9. Wear safety goggles when working with the handpiece.
10. Personnel undergoing training or in a general apprenticeship should only be allowed to work with the machine under the constant supervision of an experienced operator!
11. Restrain from any type of work that could jeopardise your safety.
12. The device may only be used if all protective and safety equipment is in place and in proper working order.

13. Do not leave the device unattended when switched on!
14. Stop and secure the device immediately in the event of malfunctions! Faults must be remedied at once.
15. The construction of the filing handpiece is designed for an air pressure of 6 bars. If the device is operated with a higher air pressure, undesirable vibrations may occur that do not necessarily damage the device, but place stress on the user. The air pressure should not exceed 6 bars; otherwise damage can no longer be ruled out.
16. Use a pressure control valve that can be adjusted to 6 bars.
17. Check all lines for condensation and contamination before starting work. The compressed air should be dry, clean and non-oiled. It is advisable to install a filter upstream.
18. The compressed air filing machine is generally not earthed. Take care in case of contact with other current sources.
19. The compressed air filing machine is not to be used near explosive substances/gases.
20. Accumulated compressed air may result in damage to the filing machine.
21. Long hair or loose clothing may become entangled or drawn into the filing machine.
22. Beware of the beating air hose.

## Warranty

joke Technology GmbH warrant the correct manufacture of every joke product which is delivered in accordance with the terms of contract and supply.

This warranty does not cover damages caused by normal wear and tear, incorrect handling, negligent use, the fitting of non-original spare parts, inadequate care and/or a failure to comply with this technical manual. .



**The device may only be used by appropriately trained and commissioned personnel. If it is not, all warranty claims will be forfeited according to the terms of delivery.**

Owing to its active vibration damping, the filing handpiece is an innovative device. Minute natural vibrations provide excellent properties for precision work that rule out fatigue even during prolonged working processes. If the following simple instructions for use of the device are followed, we guarantee a long service life under optimum working conditions.



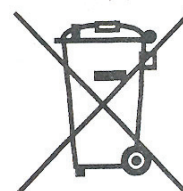
**Warranty claims shall be void if the filing handpiece is opened.**

## Device identification

The serial number is to be found on the grip sleeve.

## Waste disposal

Ensure that the device is properly disposed of and is on no account committed to the domestic waste.



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## Device overview

Scope of supply

Air hose, exhaust air hose with  
1/4" coupling sleeve incl. filter

Turbolap hand-  
filing machine

Tool holder


Collet

Tool

Figure 5.1

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## Technical Data

Turbolap	TLL 03	TLS 03	TLL 07	TLS 07	TLL 12	TLS 12
Stroke length/transverse stroke (elliptical), in mm	0.3		0.7		1.2	
Air consumption (l/min)	125	125	46	46	45	40
recommended air pressure (bar)	3	1-2	3	1,5-2,5	3	2-3
max. air pressure (bar)	5-6	5-6	5-6	5-6	5-6	5-6
max. linear stroke/ 6 bar	52,500	-	28,000	-	19,000	-
Linear stroke/ recommended air pressure	45,000- 50,000	-	22,000- 25,000	-	15,000- 18,000	-
max. transverse stroke/ 6 bar	-	56,000	-	20,000	-	14,000
Transverse stroke/ recommended air pressure	-	48,000- 53,000	-	16,000- 18,000	-	10,000- 12,000
Tool receptacle	Ø (round) 0 - 3.0 mm,  (rectangular) 0 - 4.0 mm high					
Noise level in dB (A)	72	73	64	63	63	59

#### Further technical data:

Air consumption: ¼" female thread (FT)

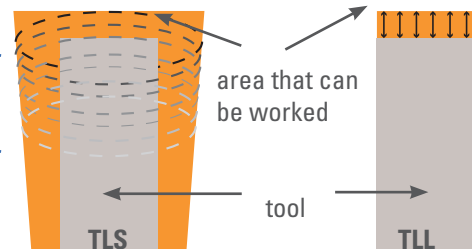
Dimensions in mm: Ø 28 x 218

Scope of supply:

tool holder, collet, supply air hose 1.5 m, exhaust air hose, connecting sleeve ¼" incl. filter

*Turbolap TLS: the tool operates elliptically  
(area marked in orange), depending on stroke length.*

*Turbolap TLL: the tool operates linearly  
(area marked in orange), depending on stroke length.*



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### Operation / Use / Care

Notes on operation

- The recommended air pressure for operating the filing handpiece is indicated in chapter 6. An increased air pressure may result in damage to the filing handpiece.
- The spindle must be treated particularly carefully during the working process and when at a standstill. Under no circumstances must the spindle be knocked, as the components vital to operation will be damaged as a result.
- Pay attention to the permitted cutting speeds and the tool manufacturer's guidelines before using the tools.
- Check that the tool is firmly seated and safely tighten.



*Check the maintenance unit regularly. If condensation water and dirt are present, drain off the condensation water and clean the filter (refer to care/maintenance section).*



**Wear goggles, protective gloves and hearing protection!**

Filing:

The filing handpiece is excellent in combination with a wide selection of tools for precision and deburring work on all steels and non-ferrous alloys. It offers the optimum prerequisites for use in mould building during deburring, grinding and polishing tasks. Tools with a shaft diameter of 3.1 mm and less can be easily clamped. This is possible up to a height of 4.0 mm with flat tools.



**Pay attention to proper handling of the device. Do not put any pressure on the tools. The tools should only be guided over the surfaces.**

**Correct clamping of the tools is indispensable. Do not use any distorted or worn files.**

## Connecting the filing handpiece

1. Connect the air supply hose of the pneumatic filing handpiece to the maintenance unit.



*Oiled compressed air must **NOT** be used in order to guarantee optimum function.*

2. Set a pressure of 6 bars on the maintenance unit.  
The hand-filing machine is ready for operation.
3. Insert the tool in the collet and tighten with the Allen key supplied.
4. The device is switched On and Off by operating the rotary knob.

## Tool receptacles

- The linear and transverse stroke hand-filing machines are only intended for manual use.
- The tool receptacle is designed such as to accommodate tools with a round shaft Ø of up to 3.1 mm and flat tools of up to 4.0 mm high.

## Changing the tool

Use the Allen key. Insert tools depending on their dimensions and position as desired.  
Tighten the clamping claw and check that the tools are firmly seated.



*Usable, reliable tools can be found in the current joke catalogue.*

## Maintenance unit and air connection



**The compressed air needed to drive the compressed air filing machine must be supplied by means of a maintenance unit.**

The maintenance unit must consist of the following functional units:

- Water and dirt separator
- Pressure gauge



*Optimum function of the compressed air filing machine is guaranteed by using the joke Dryjet maintenance unit (order no. 0 004 060). Further accessories and the installation package can be found in the current joke catalogue.*



The joke Dryjet maintenance unit consists of:

- Manual water separator,
- Filter 25 µm
- Pressure reducer,
- Pressure gauge
- and wall mounting.

### Technical data joke Dryjet maintenance unit

max. volumetric flow: 1,200 l/min

max. inlet pressure: 16 bars

Adjustment range: 0 – 12 bars

Air connection: 1/4"



Fig. 7.1 joke Dryjet maintenance unit (Order no. 0 004 060)



*Further accessories and the installation package can be found in the current joke catalogue.*

### Setting up and connecting the maintenance unit

1. Check on the maintenance unit whether:
  - the condensation bleed screw is closed; turn clockwise to close.
  - the pressure regulator screw is open; open by turning anticlockwise.
2. Connect the hose of the external air supply to the maintenance unit.



**Ensure that the air flows through the housing in the direction indicated by the arrow.**

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### Troubleshootingu

Malfunction	Possible cause	Remedy
Tool does not operate.	Filing handpiece not switched on at the rotary knob.	Move the rotary knob.
	Hose line kinked.	Eliminate the kink.
	Air pressure controller not opened on the maintenance unit.	Set air pressure controller to 6 bars.
	Maintenance unit faulty.	Replace maintenance unit.

## Care

Clean the linear or transverse stroke hand-filing machine if required with a soft brush/paintbrush or a dry cloth.

## Maintenance

The linear or transverse stroke hand-filing machines are maintenance-free.  
Bleeding condensate from the air filter of the maintenance unit:

1. Render the maintenance unit free of pressure using a ¼" ball cock. We recommend a ball cock from the current joke catalogue, which is to be mounted laterally.
2. The condensation must be bled off through the drain valve before the maximum filling level is reached. The bleed screw is to be turned clockwise (~90°) and pushed upwards.
3. Screw out the air filter and replace or clean it.



**Take care that the filter socket and the loose seal are reinstalled with their position unchanged.**

4. Screw in the condensate reservoir and perform a functional test. After draining or replacing the filter, loosen the bleed screw and rotate the latter anticlockwise (~90°).
5. Supply the maintenance unit with pressure.

Filter

Condensate reservoir

Water separator with  
condensate bleed screw



Fig. 9.1 joke Dryjet maintenance unit (Order no. 0 004 060)

**To**

joke Technology GmbH  
Service-department  
Fax: 0 22 04 / 8 39 - 60

**Sender:**

Company

Name/Department

Customer-no.

Street

Post code/town

Please send us the spare parts drawing with parts list for the following devices:

- ☐ as a printout (see above for address,
- ☐ per fax,
- ☐ as a pdf file to my email address.

Turbolap TLL 03	Order no. 0 750 702	<input type="checkbox"/>
Turbolap TLL 07	Order no. 0 750 700	<input type="checkbox"/>
Turbolap TLL 12	Order no. 0 750 701	<input type="checkbox"/>
Turbolap TLS 03	Order no. 0 750 709	<input type="checkbox"/>
Turbolap TLS 07	Order no. 0 750 704	<input type="checkbox"/>
Turbolap TLS 12	Order no. 0 750 703	<input type="checkbox"/>
Maintenance unit joke Oiljet	Order no. 0 004 060	<input type="checkbox"/>



***Brilliant solutions for perfect surfaces***

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