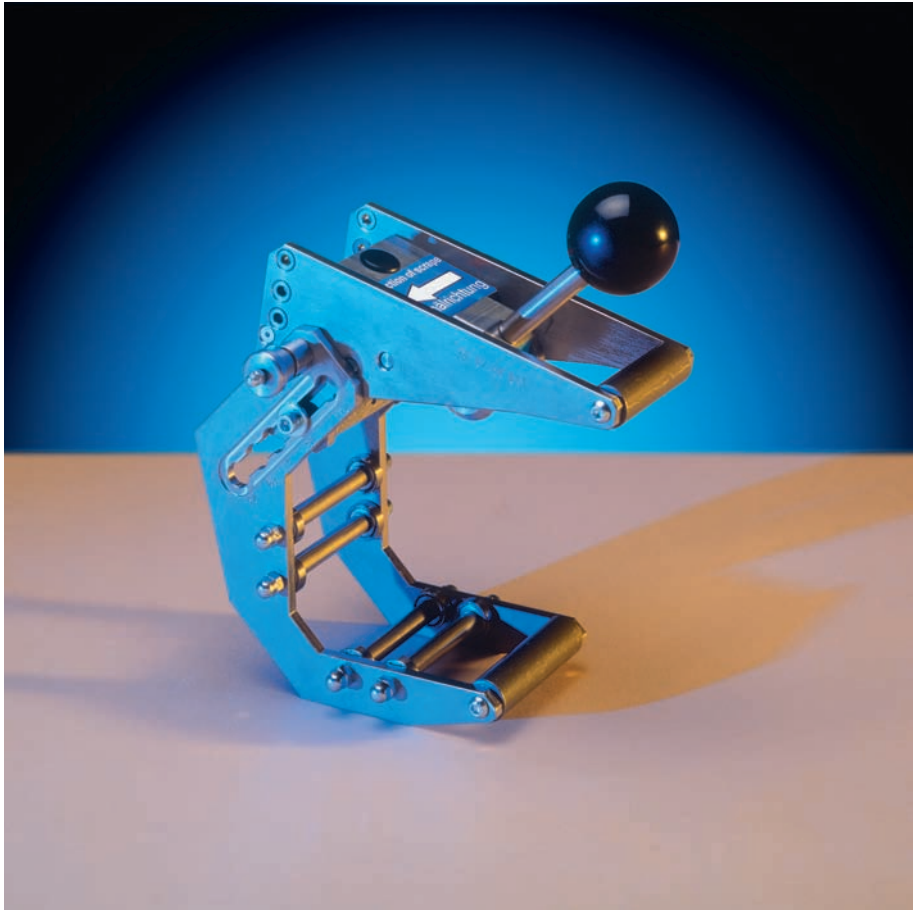


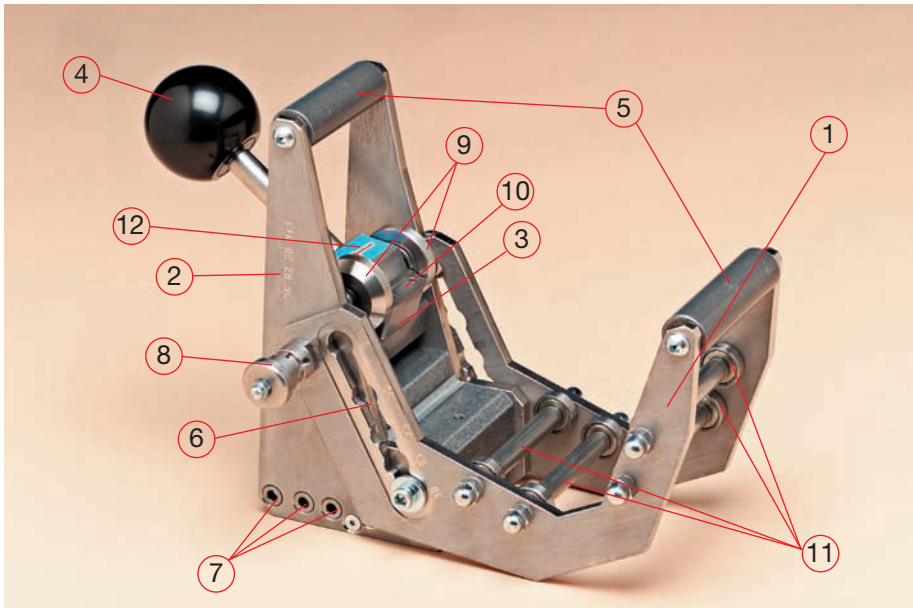
FRIATOOLS®

Operating Instructions

FWSGS 110 saddle scraper tool

FRIATOOLS®





- 1. Lower part
- 2. Upper part
- 3. Blade mount
- 4. Operation lever
- 5. Handles
- 6. Dimension adjustment
- 7. Locking positions of dimension adjustment
- 8. Lock pin
- 9. Guide rollers
- 10. HM scraper blade
- 11. Rollers
- 12. Swiveling head

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1. Purpose

Your FWSGS 110 saddle scraper tool is a precision tool and serves to remove the oxidic layer which is generated on the PE pipe surface during storage.



WARNING!

The proper, uninterrupted and uniform scraping of the pipe surface is absolute necessary to prepare for heating coil fusion. Any deviations may result in the joint becoming untight. Please observe the FRIALEN® assembly instructions for fittings and further manufacturer-specific instructions, if any.



WARNING!

Only trained personnel may work with your scraper tool. The user is responsible to third parties in the working area. The operator must make available to the user the operating instructions and ensure that the user has read and understood them.



WARNING!

Scraper blades are consumables and must be regularly checked for proper function or replaced, if needed.

The FWSGS 110 saddle scraper tool is particularly suited for scraping the bearing area of FRIALEN® saddle parts on the pipe.

As an all round scraping procedure is not required, the pipe is not unnecessarily weakened.

2. Area of application

The FWSGS 110 saddle scraper tool is suitable for processing stick and coiled goods for pipe dimensions 50/63/75/90/110.

PE 80, PE 100 and PE-X pipes can be processed.

3. Preparation

- Remove all dirt e.g. sand and soil from the pipe surface to be scraped using a clean, grease free cloth.
- Determine the area to be scraped (place FRIALEN® saddle on pipe and outline area using FRIALEN® marker pen).
- Mark area to be scraped using wavy lines (this is for you to determine on scraping whether pipe has been scraped evenly).

4. Adjusting equipment

- Set pipe dimension.
- Loosen lock pin (8) attached laterally to the side of the tool in order to adjust the pipe dimension to be scraped (see illustration 1).

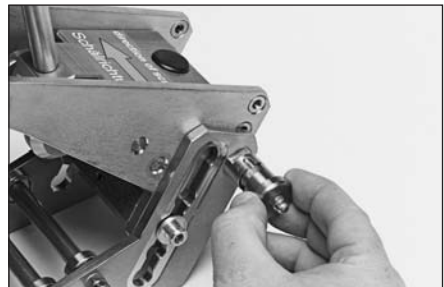


Fig. 1

- The upper part (2) and lower part (1) can now be opened out and shifted towards each other until the desired pipe dimension is reached.
- Mount saddle scraper tool.
- Apply tool to PE pipe in such a way that the four rollers (11) and the scraper blade (10) rest on pipe surface to be scraped (see illustration 2).

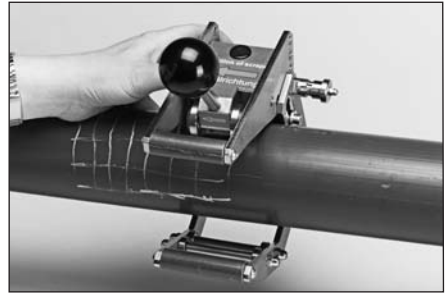


Fig. 2



WARNING!

Rotate the lock pins once more by 90° (in locking position). Now compress the handles (5) so the lock pins (8) lock into position at the dimension setting (see illustration 3).

- Scrape pipe surface.
- To loosen the pipe pull operation lever (4) in a radial direction (see illustration 4).



Fig. 3



WARNING!

Please ensure that during each scraping stroke pressure is always applied on the operation lever (4) and is directed towards the centre of the pipe.

- Once the first scraping stroke has been made, bring the tool back to the starting point of the scraping stroke.
- In order to carry out the next stroke, the tool must be shifted manually sideways in the scraping direction (see arrow on FWSG 110).

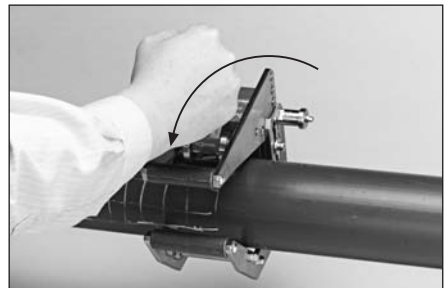


Fig. 4



WARNING!

Do not pull the operation lever when shifting the tool, but shift it by holding onto the sides (see illustration 5).

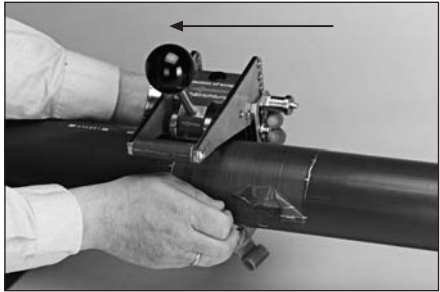


Fig. 5



WARNING!

Individual scraping strokes must overlap by 1-2 mm to ensure even removal of shavings.

- Dismantling the tool:
On completion of the saddle bearing surface being scraped completely you may remove the tool from the pipe.
- First compress the handles (5) in order to loosen the lock pins (8) (see illustration 6).
- Open out upper part (2) and lower part (1) completely in order to remove the tool from the pipe.



Fig. 6

5. Preparing fusion

- Remove shavings.
- Check scraper results (shavings on first scraping stroke must not be thinner than .15mm and must not exceed .40mm after the last scraping stroke).
- Before fusion takes place, the pipe must be cleaned using a PE cleaner and paper which is absorbent, non fibrous and undyed.
- Processing FRIALEN® products takes place according to the installation instructions.

6. Replacing scraper blade



WARNING! Risk of injury on blade!

- Loosen TORX screws using TORX wrench.

- Remove scraper blade.
- Remove dirt from surfaces bearing the blade.
- Insert new blade.
- Tighten TORX screws.

Article	Order no
FWSGE 6/ replacement scraper blade	613325

7. Maintenance and Service



WARNING!

Your FWSGS 110 is a precision tool. Please observe maintenance and service instructions.

The FWSGS 110 must be kept **clean** and **dry**. After use always store in **dry transport box**.

Rollers must be treated **regularly** using maintenance spray supplied in the transport box.

Those parts of the tool which come into contact with the pipe may **not** be treated using the maintenance spray. If this happens accidentally, these parts must be cleaned by using standard cold cleaning agents.



WARNING!

Spray may not come into contact with the pipe surface to be scraped.

* please observe safety and application instructions on agent container.

Article	Order no.
Maintenance spray*	613301



WARNING!

COST-SAVING!

Careful treatment of the tools prevents unnecessary repairs and faults.

Regular **annual safety checks** by FRIATEC AG (see chapter 10) are recommended.

8. Warranty

Warranty is for 12 months. **Scraper blade and parts which are affected by ambient wear and tear (sand, soil, etc.) are excluded.**

9. Operational Safety

The FWSGS 110 saddle scraper tool is subject to quality management according to DIN ISO 9000:2000 and will be checked for operational safety before delivery.

The tool may not be subjected to any alterations or conversions without the permission from the manufacturer.

Imperfect parts must be replaced immediately (please contact your FRIATEC service point).

Only FRIATEC spare parts may be used.

10. Authorised Service Points

FRIATEC AG
Steinzeugstraße 50
D- 68229 Mannheim
Tel.: +49 621 486-2335
Fax: +49 621 486-2030

Please request list of service points worldwide from our service hotline on +49 621 486 1533.

11. Updating of operating instructions

These technical statements are checked regularly in terms of up-to dateness. The date of the recent revision is specified on the document. On the internet, the direct link to FRIATOOLS®-Technical equipment is www.friatools.com, where you find the navigation bar with the option "Downloads". Here our operating instructions are available as latest issue for you as a pdf-file. We also would be pleased to send them to you.

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