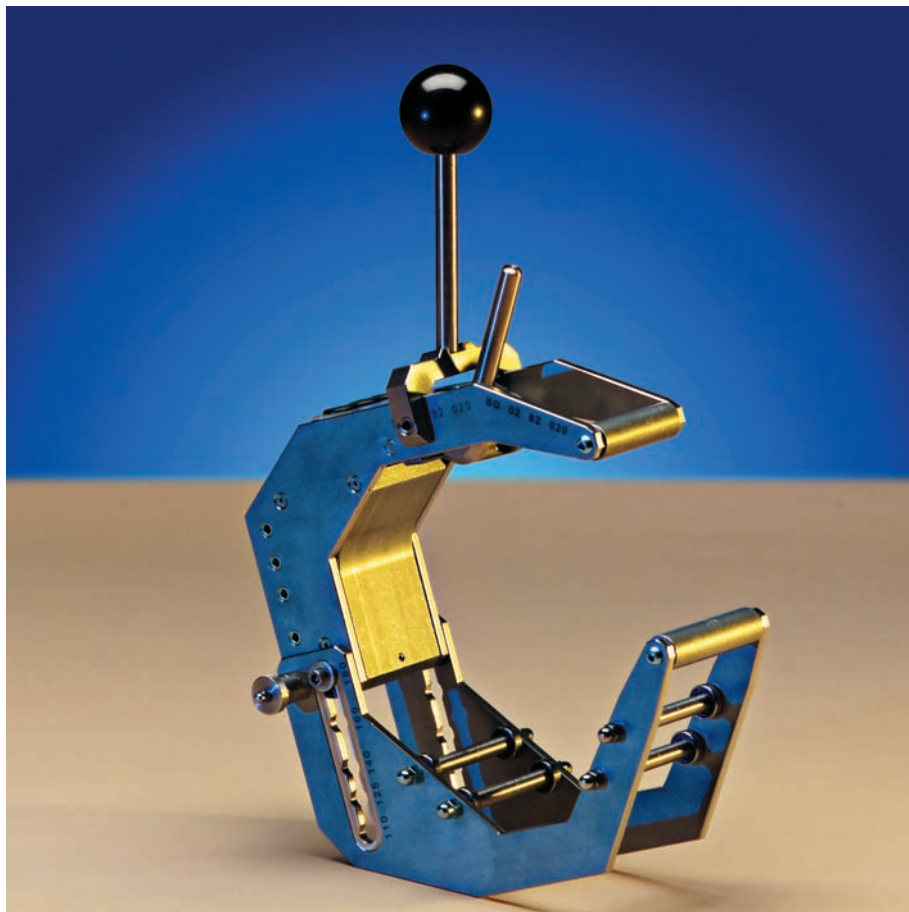


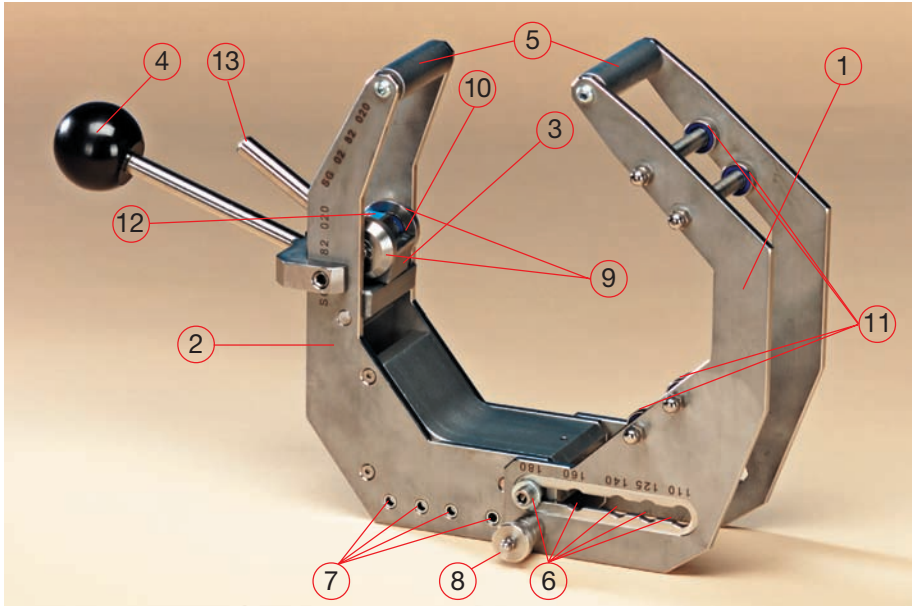
FRIATOOLS®

Operating Instructions

Saddle Scraper Tool FWSGS 180

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. Swivelling head
13. Blade mount relieving handle

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1. Purpose

Your FWSGS 180 saddle scraper tool is a precision tool and serves to remove the oxidic layer which is generated on the PE pipe surface during storage.

Scraping is essential as incomplete removal of the oxidic layer can lead to an imperfect fusion joint.



NB!

Scraping a pipe before fusion must always take place.

The FWSGS 180 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.



NB!

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 user has read and understood them.

2. Area of application

The FWSGS 180 saddle scraper tool is suitable for processing stick and coiled goods for pipe dimensions 110/125/140/160/180 mm.

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

3. Preparation

- Remove all dirt such as sand and soil from the pipe surface to be scraped e.g. 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 determine on scraping whether pipe has been scraped evenly).

4. Adjusting equipment

- Set pipe dimension.
- Loosen lock pins (8) attached laterally to the side of the tool and rotate by 90° to prevent them from locking (see illustration 1). Now set the pipe dimension to be scraped.



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



NB!

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



NB!

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.



Fig. 4

- In order to carry out the next stroke, the tool must be shifted manually sideways in the scraping direction (see arrow on FWSGS 180). At the same time push the relieving handle (13) in the direction of the operation level (4) (see illustration 5).



Fig. 5



NB!

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 0.15mm and not exceed 0.40mm at the last scraping stroke).
- Before fusion takes place, the pipe must be cleaned using a PE cleaning agent and paper which is absorbent, non fibrous and undyed.
- Processing FRIALEN® products takes place according to the installation instructions.

6. Replacing scraper blade



NB!

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



NB!

Your FWSGS 180 is a precision tool. Please observe maintenance and service instructions.

The FWSGS 180 must be kept **clean** and **dry**. After use always store in **dry transport box**.

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

Those parts which have come into contact with the pipe during use may not be treated using the FRIATEC maintenance spray. Should this accidentally occur, these parts must be cleaned using standard cold cleaning agents.



NB!

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

Article	Order No
FRIATEC maintenance spray*	613301

* Please observe safety and application instructions on agent container.



NB!

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 180 saddle scraper tool is subject to quality management according to DIN EN ISO 9001:2000 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 and/or wearing parts may be used.

10. Authorised Service Points

FRIATEC AG
Steinzeugstraße 50
D-68229 Mannheim
Tel.: +49 621 486-1533
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

If required you are welcome to order further Assembly and Operating Instructions from us:

- **FRIALEN**® Safety Fittings for house connections and distribution pipes up to d 225
- **FRIALEN**® Large pipe technique for laying large pipes and relining pipe
- **FRIAFIT**® Sewage System
- **FRIAMAT**® fusion units
- **FRIATOOLS**® scraper tools
- **FRIATOP** clamping unit
- **FWFIT** clamping and drilling tool
- **FRIASAFE**® compression fittings

- further assembling devices

On the Internet, searching for www.friatools.de you will directly arrive at page FRIATOOLS®-Technical equipment. Here you will find on the navigation bar the submenu "Downloads".

The contents are permanently updated and can be downloaded as pdf data file or printed.

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