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Instructions Manual for

Rotational scraper tool 250mm-450mm
Extension chain 500mm-800mm
Rotational scraper tool 250mm-800mm
Extension chain 900-1000mm

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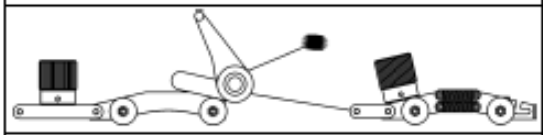
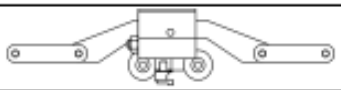
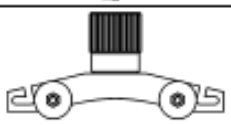
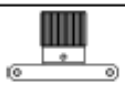
Contents

1. Scope of use

The rotational scraper tool 250-450mm and the rotational scraper tool 250-800mm are meant exclusively for the removal of the oxided skin on polyethylene pipes as a preparation for an Electro Fusion (EF) process. The scraper tool can be used for pipe end or saddle scraping in the middle of the pipes.

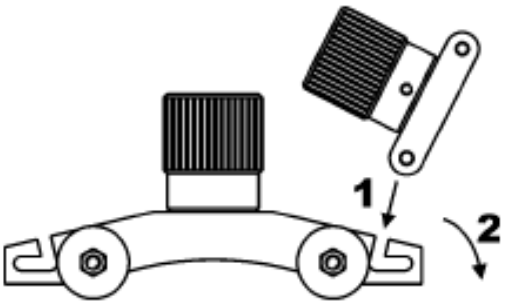
The extension chain 500-800mm as well as the extension chain 900-1000mm extend then dimension range of the referring rotational scraper tool and are exclusively used for this purpose.

2. Enclosed parts

		Rot. scraper tool 250-450mm	Extension chain 500-800mm	Rot. scraper tool 250-800mm	Extension chain 900-1000mm
	Biasing unit	1	-	1	-
	Scraper unit	1	-	1	-
	Roller wagon	4	4	8	4
	Link piece 85mm	1	5	6	2
	Link piece 55mm	1	-	1	-
	Link piece 35mm	3	3	6	2
	Transport suitcase	1	-	1	-
	Spare blade	1	-	1	-
	Allen key	1	-	1	-
	Spare screws	2	-	2	-
	Instructions manual	1	-	1	-

3. Dimension selection

In general the rotational scraper tool has to be adapted to the dimension of the pipe to be scraped. The length of the chain will be extended referring to the dimension of the pipe. Therefore link pieces and roller wagons can be connected in accordance to the following table.



For a complete scraper tool you need **one biasing unit** and **one scraper unit** and according to the wanted dimension the following parts:

Ø	Roller wagon	Link piece		
		85mm	55mm	35mm
250mm	1	-	-	-
280mm	1	-	-	-
315mm	2	-	-	1
355mm	2	1	-	-
400mm	3	1	1	-
450mm	4	-	-	3
500mm	4	3	-	-
560mm	5	3	1	-
630mm	7	-	-	6
710mm	8	-	1	6
800mm	8	6	-	1
900mm	9	8	-	-
1000mm	12	3	-	8

Note: At dimensions larger than 280mm it should be taken care that the biasing unit and the scraper unit are not directly linked to each other.

Caution! The blade is very sharp. Do not touch it.

4. Instruction manual

Preparation

1. Adapt the scraper tool to the right dimension as stated in the last paragraph.
2. Remove dirt and sand from the area to be scraped before any further action.
3. Mark the half length of the coupler or the contact surface of the saddle according to the directives of the manufacturer on the pipe.

Applying the Scraper Tool

4. Open the ratchet completely. The black rod will prevent the strap against gliding out of the ratchet.
5. *Scrape pipe ends:* Put the closed chain around the pipe end. The blade should lay about ¾ of its width on the pipe end.

   Saddle scraping: Open one link of the chain. Put the scraping tool around the pipe at the right place. And close the chain link. The blade should lie on the outer border of the marking (ref. Point 3).

   Note: The scraper tool is running away from the blade.

6. Pull the strap by the black rod, so that the chain is tight on the pipe. Pay attention about a rectangular fit of the chain on the pipe.
7. Use the ratchet to secure the strap and to bias the chain.

   At the biasing unit (spring wagon) is placed an indicator. The chain has the right biasing, when the indicator is starting to disappear in the hole (ref. Right pictures).

Caution: If you are closing the ratchet too much, you may damage the tool.

Scraping

8. Begin scraping by turning the scraper unit around the pipe. The scraper tool has its own feeding. Do not tilt the chain!

   After the first turn, check that the peel width is maximum ¾ of the blade width. If the scraping width is larger, the feeding should be re-adjusted.
9. Move the scraper tool around the pipe until the end of the marking is reached.

Take off the scraper tool

10. For taking the tool off the pipe you have to open the ratchet.

Caution: Since the chain is biased by the spring wagon, the chain can relax abrupt.

Additional Notes

If the result of the scraping was insufficient, the feeding has to be checked and re-adjusted or the blade has to be replaced. In consideration of the instructions of the fitting manufacturer and the allowed tolerances (max. gap between pipe and fitting) the already scraped area may be scraped a second time.

Caution! The Blade is very sharp. Do not touch.

The scraping blade is exposed to wear and tear. Clean the pipes before scraping. Keep the tool clean and dry. Store it in the transport suitcase. The peel thickness has to be checked frequently with appropriate means.

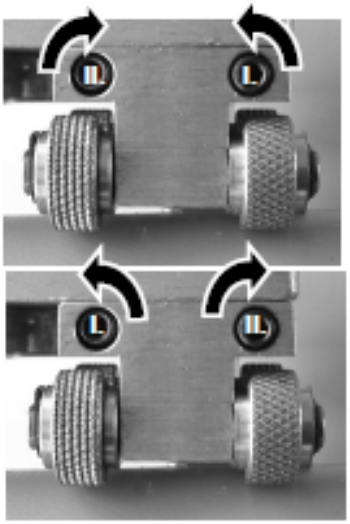
5. Handling and maintenance

Like every tool it has to be handled with care and maintained frequently, in order to get always and optimum result. Pollution by sand and dirt has to be avoided or, if necessary, removed with and soft cloth or a Q-tip. In order to keep the parts movable, all moving parts have to be provided with a lubricant film of Silicon-oil. Surplus oil has to be removed with a cloth.

After 6 to 12 month, due to the frequency and manner of use, the tool should be checked and serviced by an authorised service station.

6. Adjusting the feeding

If necessary the feeding (peel width) can be re-adjusted. The peel width should be maximum ¾ of the blade width at the maximum pipe diameter used. The axis of the feeding wheels is turned slightly in relation to the pipe axis, which causes the feeding of the scraper tool on the pipe. By using the adjusting screws (Allen key 2.5mm) the feeding will be adjusted. **For adjusting you have to put the scraper tool on the pipe with the maximum diameter used.**



Increase feeding / widen peel:

I. Open right adjusting screw by ¼ - turn.

II. Close left adjusting screw by ¼ - turn.

Move the scraper tool around the pipe and check the feeding and peel width. Ensure that the feeding block is fixed.

Decrease feeding / reduce peel width:

I. Open left adjusting screw by ¼ - turn.

II. Close right adjusting screw by ¼ - turn.

Move the scraper tool around the pipe and check the feeding and peel width. Ensure that the feeding block is fixed.

7. Changing scraper blade

Open the screw that fixes the blade on the blade holder (Allen key 2.5mm) and remove the old blade. Put the new blade on the blade holder. Insert and lock the screw. By closing the screw the blade should be pressed against the stop at the blade holder.

Caution! The Blade is very sharp. Wear gloves!

8. Spare Parts

4_4201_003	Scraper Tool Blade (cemented carbide), 13mm for Rotational Scraper Tools
1_2904_003	Allen Key (2.5mm and 4mm)
1_2502_025	Running Wheel incl. washer and nut, large
1_2502_006	Brass Feeding Wheel incl. securing ring, large
1_2502_003	Axis for Feeding Wheels, large
	Others on demand

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