

INTEGRITY

Fusion Products, Inc.



INSTRUCTION MANUAL

Link Peeler for PE pipes 30" - 48" (800-1200 mm)

Extension link 48" - 54" (1200-1400mm)

Extension link 54" - 63" (1400-1600 mm)

for PE pipes 30" - 54" (800-1400 mm)

for PE pipes 30" - 63" (800-1600 mm)

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1. Safety

For safe handling and a hassle-free operation of this product, requires understanding and following fundamental safety guidelines and safety regulations. This instruction manual contains important information on how to handle the device safely. The safety guidelines must be acknowledged and observed by everyone working with the device.

1.1 General safety guidelines

Read all safety guidelines and instructions. Failure to follow the safety guidelines and instructions can lead to electric shock, fire and/or serious injury.

Keep these safety guidelines and instructions for future use.

Safety in the work area

- a) Keep your work area clean and well lit. Working in cluttered or dark areas can easily lead to accidents.

Personal safety

- a) Use personal protective equipment and always wear eye protection. The use of protective equipment such as a dust mask, non-skid safety shoes, a hard hat or hearing protection, depending on the tool and its use will reduce personal injuries.
- b) Avoid an unnatural posture. Always make sure that you have a safe foothold and stay in balance. This ensures optimum control of the tool in unexpected situations.
- c) Wear appropriate clothing. Do not wear loose clothing or jewelry. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry or long hair can get caught by moving parts.

Tool usage and care

- a) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp and clean blades do not get stuck as easily and are easier to handle during operation.
- b) Peeler blades are subject to wear. Keep the Link Peeler clean and dry in the suitcase.
- c) The thickness of the peeling must be checked with calipers on a regular basis.

Service

- a) Have your device repaired only by a qualified technician with identical replacement parts. This will ensure that the safety of the tool is maintained.

1.2 Specific safety guidelines for the Link Peeler

1) Personal safety

- a) The operator must have a safe foothold. Working overhead in areas not completely visible (e.g., under a pipe) is prohibited.
- b) During operation a steady pull must be applied, using the handles. Make sure that the Link Peeler is tightened securely and does not slip. The Link Peeler must be fastened securely using the biasing unit.
- c) Pipes and other workpieces must be firmly clamped or fixed. Poorly clamped or fixed workpieces may hurt you or affect your safe foothold.
- d) The Link Peeler blades have a very sharp edge. This poses a risk of injury.

2. Introduction

2.1 Scope of application

The Link Peeler 30" - 48" (800-1200 mm), 30" - 48" (800-1400 mm) and 30" - 63" (800-1600 mm) are solely meant for the removal of the oxide layer on polyethylene pipes as preparation for electrofusion (EF) fitting installation. The extension chains 48" - 54" (1200-1400 mm) as well as the extension chains 48" - 63" (1200-1600 mm) extend the dimension range of the respective Link Peeler and are meant exclusively for this purpose.

Link Peelers can universally be used to scrape pipe ends (for welding fittings) and to scrape spots on pipes (for welding saddles). In addition to scraping of pipes made of PE the usage on pipes made of PE- HD, PE-X and PP is also approved.

It is not allowed to use the device for any application not covered by the above stated terms.

ATTENTION

The manufacturer is not liable for the use of the device out of the scope of the intended use.

2.2 Maintenance and service

Should the device fail despite the great care taken in manufacturing and testing it, the necessary repairs should only be carried out by an after-sales service center authorized by the manufacturer.

For further information about our after-sales service centers please contact:

Integrity Fusion Products

270 Parkade Ct.

Peachtree City, GA 30269

PH: 770-632-7530

www.integrityfusion.com

2.3 Handling and maintenance

To achieve optimum work results the tool must be handled with care and maintained frequently. Pollution by sand and dirt must be avoided or, if necessary, removed with a soft cloth or a Q-tip. To maintain the ease of movement of the Link Peeler, all movable parts have to be covered by a thin film of lubricant or silicone oil. Any surplus oil must be removed with a cloth.

A regular check of the Link Peeler, depending on the frequency of application, should be performed every 6 to 12 months by an authorized service station.

2.4 Disposal

The Link Peeler must be disposed of in an environmentally friendly way, sorted by materials.

3. Scope of delivery

3.1 Link Peeler 30" - 48" (800-1200 mm)

4_4200_012	Link Peeler 30" • 48" (800-1200 mm)		Enclosed
	1 x	Instruction manual	GB272
	1 x	Biasing and scraping unit	2_4200_011
	7x	Roller wagon 200 mm	2_4200_001/1
	7x	Link piece 150 mm	2_2400_005
	5x	Link piece 200 mm	2_2400_006
	1 x	Spare blade	2_4201_003
	1 x	Hex key screwdriver	1_2904_003
	1 x	Hex screwdriver (long)	1_2904_004
	1 x	Plastic suitcase	1_2800_035

3.1.1 Extension 48" - 54" (1200-1400 mm) for Link Peeler 30" - 48" (800-1200 mm)

4_4200_012/2	Extension 48" • 54" (1200-1400 mm) for Link Peeler 30" • 48" (800-1200 mm)		Enclosed
	2x	Roller wagon 200 mm	2_4200_001/1
	1 x	Link piece 150 mm	2_2400_005
	1 x	Link piece 250 mm	2_2400_008/1
	1 x	Plastic toolbox	1_2800_007

3.1.2 Extension 48" – 63" (1200-1600 mm) for Link Peeler 30" – 48" (800-1200 mm)

4_4200_012/3	Extension 48" • 63" (1200-1600 mm) for Link Peeler 30" • 48" (800-1200 mm)		Enclosed
	3x	Roller wagon 200 mm	2_4200_001/1
	1 x	Link piece 150 mm	2_2400_005
	1 x	Link piece 250 mm	2_2400_008/1
	1 x	Plastic toolbox	1_2800_007

3.2 Link Peeler 30" - 54" (800-1400 mm)

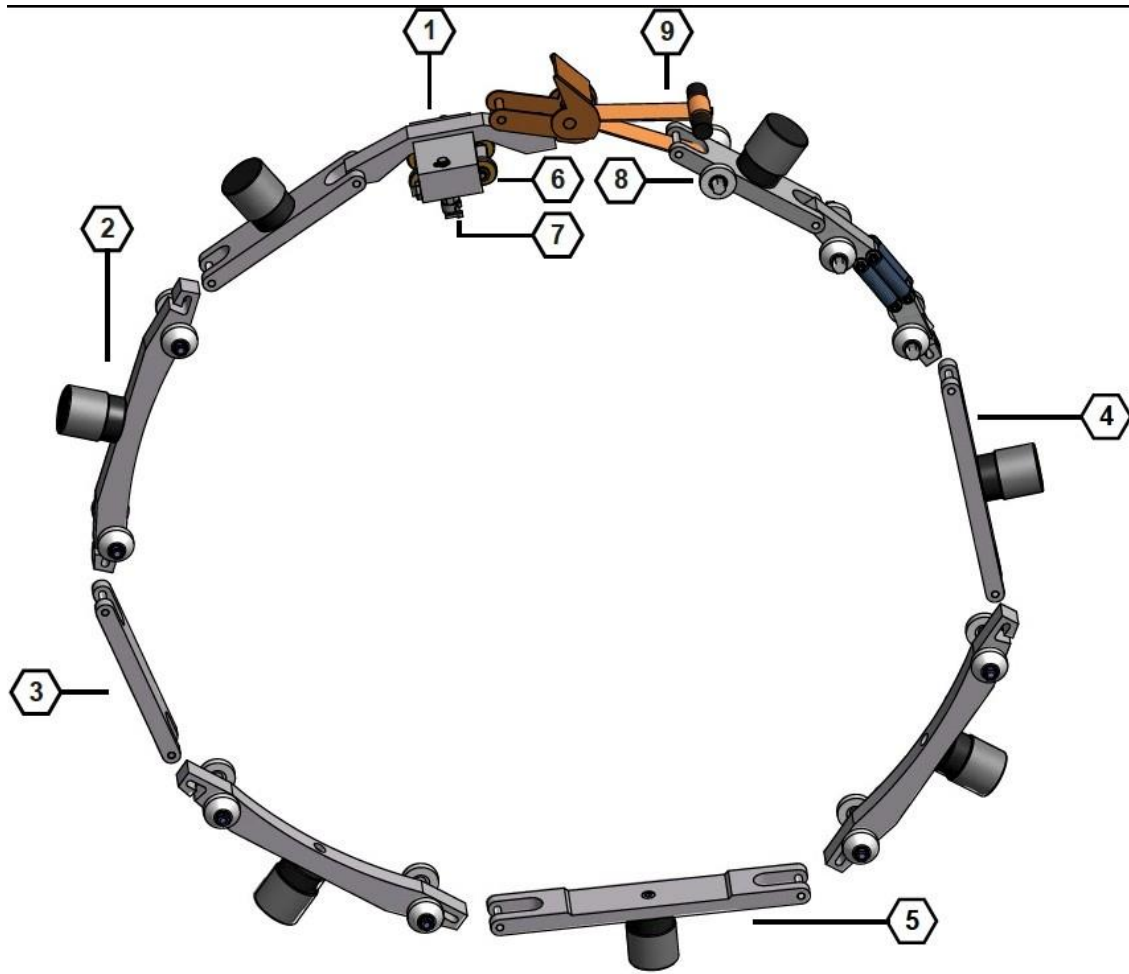
4_4200_012/1	Link Peeler 30" • 54" (800-1400 mm)		Enclosed
	1 x	Instruction manual	GB272
	1 x	Biasing and scraping unit	2_4200_011
	9x	Roller wagon 200 mm	2_4200_001/1
	8x	Link piece 150 mm	2_2400_005
	5x	Link piece 200 mm	2_2400_006
	1 x	Link piece 250 mm	2_2400_008/1
	1 x	Spare blade	2_4201_003
	1 x	Hex key screwdriver	1_2904_003
	1 x	Hex screwdriver (long)	1_2904_004
	1 x	Plastic suitcase	1_2800_035

3.3 Link Peeler 30" - 63" (800-1600 mm)

4_4200_012/4	Link Peeler 30" • 63" (800-1600 mm)		Enclosed
	1 x	Instruction manual	GB272
	1 x	Biasing and scraping unit	2_4200_011
	10 x	Roller wagon 200 mm	2_4200_001/1
	8x	Link piece 150 mm	2_2400_005
	5x	Link piece 200 mm	2_2400_006
	1 x	Link piece 250 mm	2_2400_008/1
	1 x	Spare blade	2_4201_003
	1 x	Hex key screwdriver	1_2904_003
	1 x	Hex screwdriver (long)	1_2904_004
	1 x	Plastic suitcase	1_2800_035

4. Overview and spare parts

Orderable spare parts are listed with a code.



Object in graphic	Description	Code
1	Biasing and scraping unit	2_4200_011
2	Roller wagon 200 mm	2_4200_001/1
3	Link piece 150 mm	2_2400_005
4	Link piece 200 mm	2_2400_006
5	Link piece 250 mm	2_2400_008/1
6	Feeding wheel, large	2_2502_006/2
7	Peeler blade, large	2_4201_003
8	Running wheel	2_2502_005/3
9	Ratchet strap 25 mm incl. handle	2_2300_007
Not depicted	Hex key screwdriver	1_2904_003
Not depicted	Hex screwdriver (long)	1_2904_004

5. Technical data

5.1 Link Peeler 30" - 48" (800-1200 mm)

4_4200_012		Link Peeler 30" • 48" (800-1200 mm)
General		
Suitable for pipes made of		PE, PE-HD, PE-X, PP
For pipe dimensions	[in./mm]	30" - 48" (800 to 1200)
Scraping depth	[mm]	0.3 (0.25 to 0.35)
Dimensions, Weights, and Packaging		
Product dimensions L x W x H	[in./mm]	Depending on pipe dimension x 4" x 3.4" 1100 • 85)
Product weight	[lbs./kg]	20 lbs. 15,1 oz (9.5 kg)
Packaging dimensions L x W x H	[in./mm]	22.8"x10.4"x18.5" 1 _{SSO} • 265 • 470)
Packaging material		Plastic
Packaging type		Toolbox
Packaging weight	[lbs./kg]	11 lbs. (5 kg)
Transport weight	[lbs./kg]	31 lbs. 15,5 oz. (14.5 kg)

5.1.1 Extension 48" - 54" (1200-1400 mm) for Link Peeler 30" - 54" (800-1400 mm)

4_4200_012/2		Extension 48" • 54" 11200-1400 mm) for Link Peeler 30" • 48" 1800-1200 mm)
General		
Suitable for pipes made of		PE, PE-HD, PE-X, PP
For pipe dimensions	[in./mm]	48" - 54" (1200 to 1400)
Scraping depth	[mm]	0.3 (0.25 to 0.35)
Dimensions, Weights, and Packaging		
Product dimensions L x W x H	[in./mm]	Depending on pipe dimension x 4"x3.4" (100 x 85)
Product weight	[lbs./kg]	3 lbs. 8.4 oz. (1.6 kg)
Packaging dimensions L x W x H	[in./mm]	20"x10"x9.5" (510 x 260 x 250)
Packaging material		Plastic
Packaging type		Toolbox
Packaging weight	[lbs./kg]	4 lbs. 3 oz. (1.9)
Transport weight	[lbs./kg]	7 lbs. 11.5 oz (3.5)

5.1.2 Extension 48" - 54" (1200.1600 mm) for Link Peeler 30" - 48" (800.1600 mm)

4_4200_012/3		Extension 48" • 54" (1200-1600 mm) for Link Peeler 30" • 48" (1800-1200 mm)	
General			
Suitable for pipes made of		PE, PE-HD, PE-X, PP	
For pipe dimensions	[in./mm]	48" to 54" (1200 to 1600)	
Scraping depth	[mm]	0.3 (0.25 to 0.35)	
Dimensions, Weights, and Packaging			
Product dimensions L x W x H	[in./mm]	Depending on pipe dimension x 4"x3.4" (1100 • 85)	
Product weight	[lbs./kg]	4 lbs. 10 oz (2.1 kg)	
Packaging dimensions L x W x H	[in./mm]	20" x 10" x 9.5" (510 x 260 x 250)	
Packaging material		Plastic	
Packaging type		Toolbox	
Packaging weight	[lbs./kg]	4 lbs. 3 oz. (1.9 kg)	
Transport weight	[lbs./kg]	8.8 lbs. (4 kg)	

5.2 Link Peeler 30" - 54" (800 -1400 mm)

4_4200_012/1		Link Peeler 30" • 54" (800-1400 mm)	
General			
Suitable for pipes made of		PE, PE-HD, PE-X, PP	
For pipe dimensions	[ins./mm]	30" to 54"(800 to 1400)	
Scraping depth	[mm]	0.3 (0.25 to 0.35)	
Dimensions, Weights, and Packaging			
Product dimensions L x W x H	[mm]	Depending on pipe dimension 4" x 3.4" (1100 • 85)	
Product weight	[lbs./kg]	23 lbs. 2.4 oz (10.5 kg)	
Packaging dimensions L x W x H	[in./mm]	22.8" x 10.4" x 18.5" (580 x 265 x 470)	
Packaging material		Plastic	
Packaging type		Suitcase	
Packaging weight	[lbs./kg]	11 lbs. .4 oz (5 kg)	
Transport weight	[lbs./kg]	33 lbs. 1.1 oz (15.5 kg)	

5.3 Link Peeler 30" – 63" (800-1600 mm)

4_4200_012/4		Link Peeler 30" – 63" (800-1600 mm)
General		
Suitable for pipes made of		PE, PE-HD, PE-X, PP
For pipe dimensions	[in./mm]	30" • 63" (800 to 1600)
Scraping depth	[mm]	0.3 (0.25 to 0.35)
Dimensions, Weights, and Packaging		
Product dimensions L x W x H	[ins./mm]	Depending on pipe dimension x 4" x 3.4" (100 x 85)
Product weight	[lbs./kg]	24 lbs. 4 oz. (11 kg)
Packaging dimensions L x W x H	[ins./mm]	22.8" x 10.4" x 18.5" (580 x 265 x 470)
Packaging material		Plastic
Packaging type		Suitcase
Packaging weight	[lbs./kg]	11 lbs. .4 oz (5 kg)
Transport weight	[lbs./kg]	35 lbs. 4.4 oz (1kg)6

6. Installation

ATTENTION

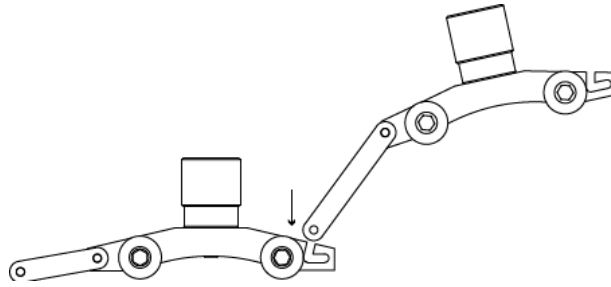
The Peeler blades have a very sharp edge. This poses a risk of injury.

6.1 Dimension selection

Depending on the dimensions of the pipe a different number of roller wagons and link pieces must be used. A complete Link Peeler consists of a biasing and scraping unit and, depending on the ordered version (plus optional extension), a different number of roller wagons with link pieces. The table below gives an overview of the composition for different pipe diameters.

Pipe diameter			Biasing and Scraping unit	Roller Wagon 200mm	Link piece 150mm	Link piece 200mm	Link piece 250mm
mm	IPS	DIPS					
800	32"	30"	1	4	-	4	-
	34"		1	5	5	-	-
900	36"		1	5	2	3	-
		36"	1	5	-	5	-
1000			1	6	5	1	-
	42"		1	6	2	4	-
		42"	1	7	7	-	-
1200	48"		1	7	3	4	-
	52"	48"	1	8	6	2	-
	54"		1	8	2	5	1
1400			1	9	8	1	-
		54"	1	9	6	2	1
		60"	1	10	7	3	-
1600	63"		1	10	6	3	1

6.2 Assembly of the link Link



Like shown in the picture, the single roller wagons with link pieces can be easily attached to one another. Attaching the individual elements is only possible when inserting them at a certain angle. This prevents an unintentional falling apart of the assembled chain.

7. Scraping

7.1 Preparation

- Use a clean cloth free of dirt and grease to remove mud, sand, and dirt from the surface you want to scrape.
- Mark the insertion depth of the fitting resp. the area of contact of the saddle according to the processing guidelines of the fitting manufacturer with a marker. It is advisable to mark the area you want to scrape in wave-like manner.

7.2 Mounting the Link Peeler

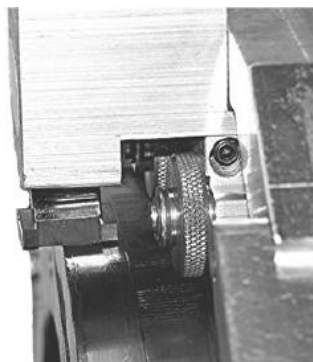
7.3 **ATTENTION**

The Link Peeler always runs ahead of the knife.

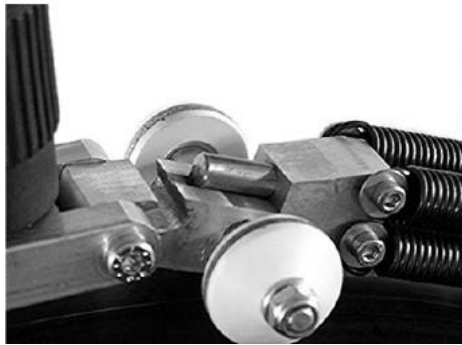
When scraping pipe ends which have a smaller diameter than the rest of the pipe it can be necessary to loosen the chain and tighten it again. Due to the increasing diameter of the pipe, the tension of the Peeler chain is sufficient for the smaller pipe end section, but it can be too tight when you leave the smaller pipe section during the process of scraping.

This results in a higher force needed for scraping. When you notice this, loosen the Peeler and re-tighten it.

- Open the ratchet completely. The black rod prevents the strap from slipping out of the ratchet.
- Pipe end scraping:** Put the assembled Peeler chain on the pipe end. The blade must rest about $\frac{3}{4}$ of its width on the pipe end.



- c) Saddle scraping: Open one link of the Peeler. Put the Peeler link at the appropriate point around the pipe and close the chain. The blade should be set on the middle of the outer limit of the marking on the area of contact.
- d) Pull the strap using the black rod, so that the chain is tightens around the pipe. Make sure that the chain is perpendicular to the pipe.
- e) Use the ratchet to tighten the Peeler around the pipe.
- f) An indicator pin is located on the spring wagon. The Link Peeler is tightened sufficiently when the indicator pin begins to disappear.



Spring wagon not tightened



Spring wagon tightened sufficiently

ATTENTION

The indicator pin gives you information on the sufficient tightening of the chain. Depending on the pipe dimension it can be necessary to slightly increase the tension of the chain to the extent where the indicator pin begins to disappear.

Excessive tightening may damage the Peeler.

7.4 Scraping

- a) Begin scraping by pulling the Peeler links around the pipe. The Link Peeler has its own feeding. Do not tilt the chain.

ATTENTION

When scraping, position yourself directly in front of the Link Peeler and pull on the handles.

If you stand to the side of the chain and pull it, a reliable and precise feed cannot be guaranteed.

- b) After the first rotation, check if the peel width measures about $\frac{3}{4}$ of the blade width. If the peel width is greater, the feed must be readjusted (see following chapter).
- c) Pull the Link Peeler around the pipe until the blade reaches the end of the marked area.

ATTENTION

In case of insufficient scraping, the feed must be checked and readjusted, or the blade has to be replaced. In consideration of the processing guidelines of the fitting manufacturer and the tolerances specified therein (max. gap between pipe and fitting) the pipe may be peeled a second time.

Peeler blades are subject to wear. Use only on cleaned pipe surfaces.

Keep the Peeler chain clean and dry in the suitcase.

The thickness of the peel must be regularly checked with calipers.

7.5 Dismounting the Link Scraper

To dismount the Link Peeler from the pipe, the ratchet on the ratchet strap must be opened.

ATTENTION

Injury can occur if the ratchet is opened in an uncontrolled manner. Because of the peeler links being tightened around the pipe by the spring wagon it can relax abruptly after opening the ratchet.

8. Adjusting the feed

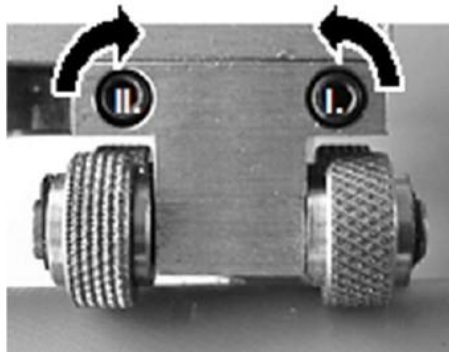
If necessary, the feed response of the peel width can be adjusted. The peel width should be about $\frac{1}{2}$ to $\frac{3}{4}$ of the blade width at the maximum pipe diameter used. The axle of the feeding wheels is slightly tilted in relation to the pipe axis, which causes the feed of the on chain on the pipe. By using the adjusting screws (hexagon socket head 2.5 mm) the degree of the feed can be set.

ATTENTION

To adjust the feed, the Link Peeler must be mounted on the pipe.

8.1 Increase the feed (widen peel width)

- I. Unscrew the right adjusting screw $\frac{1}{4}$ of a turn.
- II. Tighten the left adjusting screw $\frac{1}{4}$ of a turn.

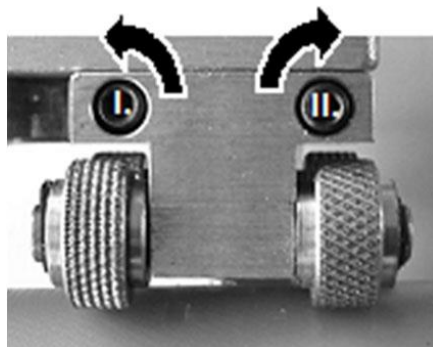


Check the feed (peel width). Make sure that the feeding block is fixed after the adjustment.

8.2 Decrease the feed (reduce peel width)

- I. Unscrew the left adjusting screw $\frac{1}{4}$ of a turn.
- II. Tighten the right adjusting screw $\frac{1}{4}$ of a turn.

Check the feed (peel width). Make sure that the feeding block is fixed after the adjustment.



9. Changing the Peeler blade

Loosen the hexagon socket head screw (2.5 mm) that fixes the blade on the blade holder and remove the old blade. Put the new blade on the blade holder and insert the hexagon socket head screw. While tightening