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# MiniKrimp™

Crimping Machine Technical Manual



ENGINEERING YOUR SUCCESS.



When operating this machine, always exercise basic safety precautions to minimize the possibility of injury, including the following:

1. When using a power unit, use only Parker recommended power units to hydraulically operate Parker crimpers.
2. When using a power unit, connect the power unit to a grounded, properly rated, protected and sized power-supply circuit to prevent electrical shock and to avoid electrical overload.
3. DO NOT OPERATE MINIKRIMP™ OVER MAXIMUM RATED WORKING PRESSURE OF 10,000 PSI.
4. Wear safety glasses. Make sure that the valve connecting the hose or tube assembly and other components are protected from any external source of damage, such as: excessive heat, flame, moving machine parts, sharp edges, falling objects, corrosive chemicals, dropping the crimper and other hazards.



### **WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND / OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

Before selecting or using any Parker hose or fittings or related accessories, it is important that you read and follow Parker Safety Guide for Selecting and Using Hose, Fittings, and Related Accessories (Parker Publication No. 4400-B.1)

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and subsidiaries at any time without notice.

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## Help us help you . . .

Read this guide carefully before using.

This Technical Manual is designed to help you operate and maintain your MiniKrimp. If you need more information or further assistance, please contact us:

**Call: Technical Services Department**  
**Parker Hannifin Corporation**  
**Parflex Division**  
**Phone: 330.296.2871**  
**Fax: 330.296-8433**

## Receiving Instructions:

**UNPACKING** — Carefully remove all documents and components from shipping containers.

**INSPECTION**— Visually inspect all components for shipping damage. If any shipping damage is found, notify the carrier at once. The carrier is responsible for all repair and replacement costs resulting from such damage. Shipping damage is not covered by the Parker warranty.

# MiniKrimp™

## Hand Pump and Air Over Hydraulic

Weighing in at a light 42 pounds, the strongest portable crimper on the market.



### Features

- Lightweight, portable, compact all-in-one unit
- Hand unit with pump weighs only 42 pounds; Air unit weighs 45 pounds
- 10,000 psi and 30+ tons of force
- No gauges to set - exclusive Parkalign™ feature positions the fitting correctly every time
- Removable pusher design for easy die change
- Hand pump easily removed for use with jumper hose for bench-mounted units (Part No. 015309)
- Air pump utilizes a rugged activation and release lever for greater durability with no additional power source required for operation and can operate with as little as 60 psi air pressure (60-100 psi, 9 CFM recommended)
- Capable of crimping a majority of thermoplastic, rubber, PTFE and specialty hoses up to 3/4" I.D.
- For use with 56, 91, 91N, 92, 93N, CG, CY, MS, SF, 43 and HY Series fittings
- Do not use this machine to assemble any size 56, CG, 93N or 43 series Stainless Steel fitting. Use a minimum of a 60 ton crimp machine such as the KarryKrimp II

#### Hand Pump Specifications PN 94C-001-PFD

- Dimensions: 6" Deep, 13" Wide, 15" High
- Weight: 42 lbs with hand pump
- Rating: 30 tons force@10,000 psi maximum
- Full Cycle Time: Approximately 30 seconds

Note: Hydraulic Fluid - Enerpac HF oil only

#### Air/Hydraulic Pump Specifications PN 94C-002-PFD

- Dimensions: 6" Deep, 12" Wide, 15" High
- Weight: 45 lbs with air/hydraulic pump
- Rating: 30 tons force@10,000 psi maximum
- Full Cycle Time: Approximately 30 seconds

Note: Hydraulic Fluid - Enerpac HF oil only

### Notes

- Reference CrimpSource on-line for detailed crimp specifications - [www.parker.com/crimpsource](http://www.parker.com/crimpsource)

### Minikrimp Standard Equipment

Part Number		Description	Individual Part Number
94C-001-PFD	94C-002-PFD		
●	●	Base unit	94C-080-PFD
●		Hand pump	015301
	●	Air over hydraulic pump	025399
●	●	Silver die ring	82C-R01-PFD

# Assembling the MiniKrimp Air Over Hydraulic Pump Upgrade Kit, Part #025411



1. (IF APPLICABLE) Relieve pressure from attached pump. Remove the hand pump and bent tube assembly from the body of the crimper. Do not remove the adapter (6-6 CTX-S) from the cylinder. This adapter will be used, with an orientation change, with the Air Over Hydraulic Pump.
2. Screw (or reorient) the 6-6 CTX-S adapter into the cylinder port and tighten until the fitting is facing in the upward direction. Do not loosen the adapter to reach the correct orientation as this may cause leakage.
3. Apply appropriate thread sealant to taper pipe thread of 6-2 CTX-S adapter and screw into pump (2-3 turns) so that the fitting (male JIC connection) is facing the direction of the fill cap.
4. Mount the pump 025399 to the right side of the crimper as shown in the image to the left using two 1/4" bolt holes on the top of the crimper. Note that only the top two bolt holes are used.
5. Attach the 025349 bent tube assembly to the two adapters. The longer of the two ends of the tube will attach to the pump. Tighten the nuts of bent tube to a minimum of 20 ft.-lbs or 2-1/2 Flats from Wrench Resistance.
6. MiniKrimp is ready for operation. Reference the Enerpac pump manual for operating instructions.

## Minikrimp Air Over Hydraulic Pump Upgrade Kit 025411

Description	Individual Part Number
Air over Hydraulic Pump	25399
Stainless Steel Tube Connector	25349
Adapter	6-6 CTXS-PFD
Adapter	6-2 CTXS-PFD

**Refer to Catalog 4300 of the Parker Tube Fittings Division for Detail Assembly Instructions for the CTX Port Adapters referenced in Steps 2 and 3.**

# Accessories

## MiniKrimp



### Upright Vise Mount Part No. 015307

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- Material - High Strength Steel
- Mount connects to the bottom of the MiniKrimp using (4) 3/8-16 18-8 SS SHCS 2.5" long bolts (not included)
- Once connected, the MiniKrimp can be clamped into a vise for operation



### Side Vise Mount Part No. 015736

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- Material - High Strength Steel
- Mount connects to the side of the MiniKrimp using (4) 1/4-20 18-8 SS SHCS 1" long bolts (not included)
- Once connected, the MiniKrimp can be clamped into a vise for operation



### Table Mount Part No. 015306

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Material - High Strength Steel

- Mount connects to the bottom of the MiniKrimp using (4) 3/8-16 18-8 SS SHCS 2.5" long bolts (not included)
- Once connected, the MiniKrimp can be mounted to a table using the (4) 3/8" clearance holes on the opposite side of the plate (bolts not included)



### High Pressure Hose Assembly Part No. 045234

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- Parker 10,000 psi, 1/4" ID hose assembly with bend restrictors and 3000 series quick disconnects (PN - 2022N0101060404-36BR with 3050-2/3010-2 coupler and nipple)
- Designed to be used when mounting a hand pump (015301) to the MiniKrimp stand (94C-MKS) base



### High Pressure Hose Assembly Part No. 015309

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- Parker 10,000 psi, 1/4" I.D. hose assembly with 3/8" female JIC connections and bend restrictors on both ends (PN - 2022N06060604-72BR)
- Used when a flexible connection is required between the MiniKrimp and a hydraulic pressure source



### Folding Stand Part No. 94C-MKS (compatible with all models)

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- Lightweight folding stand designed exclusively for the MiniKrimp portable crimper
- Fold up design is easy to store
- Mounting hardware and safety instructions are included
- Patented design

# Accessories

## MiniKrimp



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### Hand Pump Replacement Connector Part No. 015308

- Replacement stainless-steel bent tube rigid connector
- For use with 94C-001-PFD (MiniKrimp Hand Pump Model)



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### Air Over Hydraulic Replacement Connector Part No. 025349

- Replacement stainless-steel bent tube rigid connector
- For use with 94C-002-PFD (MiniKrimp Air Over Hydraulic Model)



**MiniKrimp with Hand Pump**



**Hand Pump MiniKrimp**

Note: The hydraulic connectors shown on these pages are designed exclusively for use with the MiniKrimp. No other connectors are approved for use with the MiniKrimp without expressed written consent from Parker Parflex Division's technical support. Any worn connectors should be replaced immediately.



**Air Over Hydraulic MiniKrimp and Folding Stand**

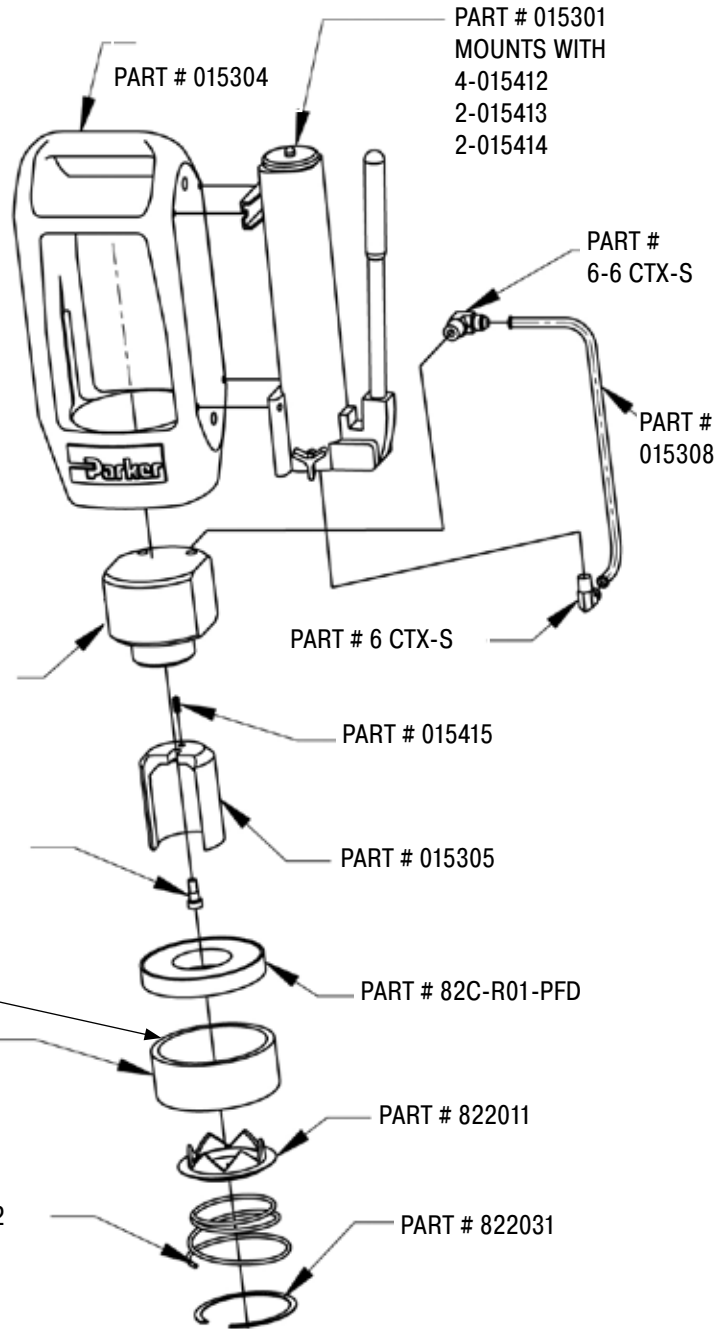
# Minikrimp Model Details

## MiniKrimp Hand Pump



### Hand Pump Model Details & Part List

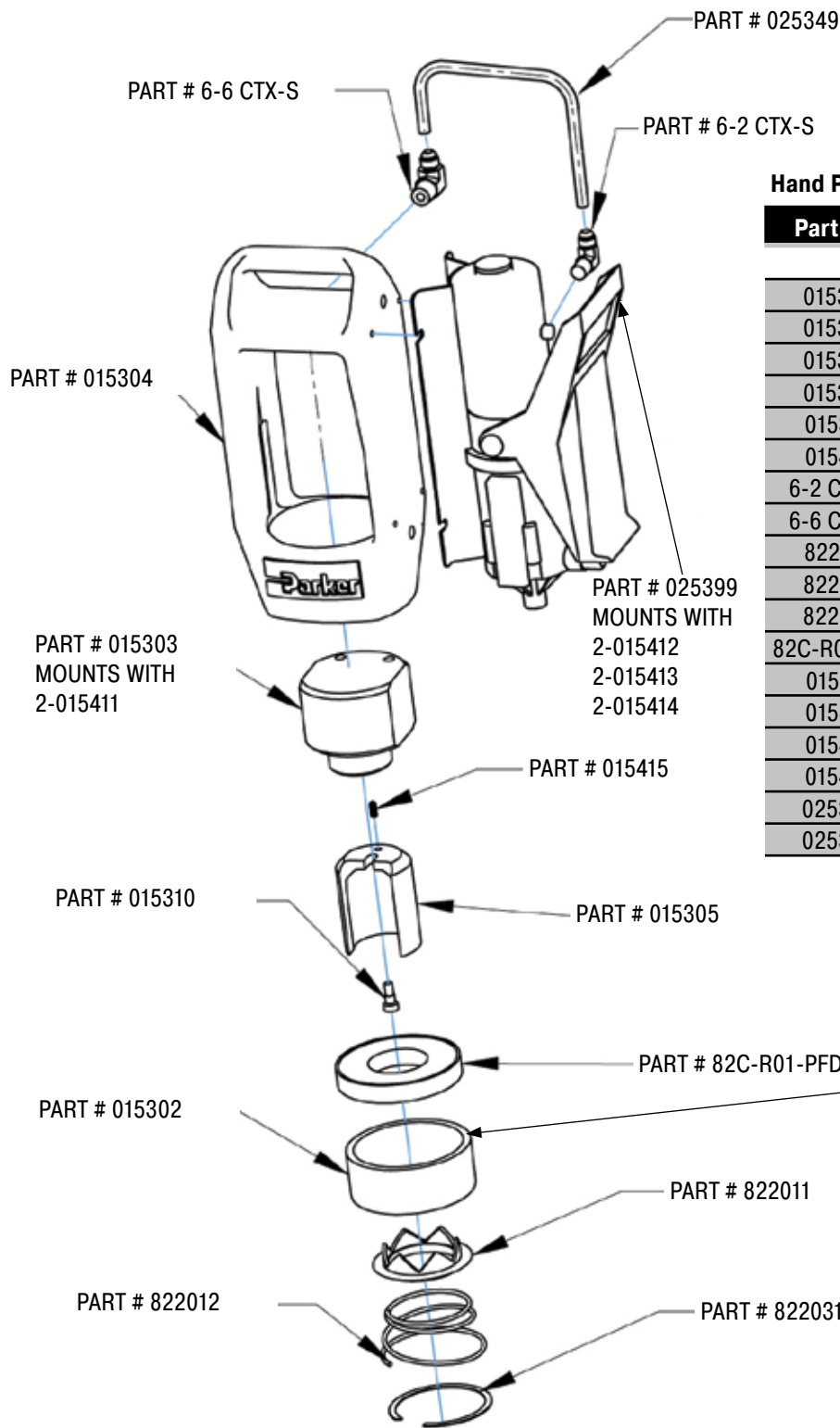
Part No.	Description	Qty.
015301	2 Speed Light Weight Hand Pump	1
015302	Hardened Steel Sleeve	1
015303	Custom Cylinder	1
015304	Aluminum Frame	1
015305	Cup Pusher	1
015306	Bent Tube Assembly	1
015310	3/8" x 3/8" Shoulder Bolt	1
015415	Spring Plunger	1
6 CTX-S	3/8" 37° to 1/4" NPT Elbow	1
6-6 CTX-S	3/8" 37° to 3/8" NPT Elbow	1
822011	Die Separator	1
822012	Spring	1
822031	Retention Ring	1
82C-R01-PFD	Silver Die Ring	1
015411	3/8-16 18-8 SS SHCS 2.5" Long	2
015413	1/4-20 18-8 SS Lock Washer	2
015414	1/4-20 18-8 SS Flat Washer	2
015412	1/4-20 18-8 SS SHCS .75" Long	4



MiniKrimp™ Serial Number

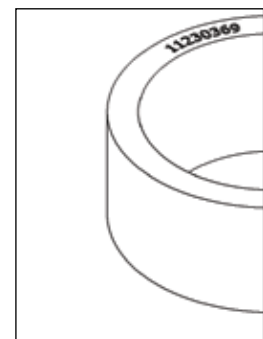


# Minikrimp Model Details MiniKrimp Air Over Hydraulic



## Hand Pump Model Details & Part List

Part No.	Description	Qty.
015302	Hardened Steel Sleeve	1
015303	Custom Cylinder	1
015304	Aluminum Frame	1
015305	Cup Pusher	1
015310	3/8" x 3/8" Shoulder Bolt	1
015415	Spring Plunger	1
6-2 CTX-S	3/8" 37° to 1/8" NPT Elbow	1
6-6 CTX-S	3/8" 37° to 3/8" NPT Elbow	1
822011	Die Separator	1
822012	Spring	1
822031	Retention Ring	1
82C-R01-PFD	Silver Die Ring	1
015411	3/8-16 18-8 SS SHCS 2.5" Long	2
015413	1/4-20 18-8 SS Lock Washer	2
015414	1/4-20 18-8 SS Flat Washer	2
015412	1/4-20 18-8 SS SHCS .75" Long	2
025349	Bent Tube Assembly	1
025399	Air Powered Pump	1



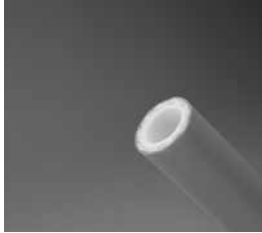
MiniKrimp™ Serial Number

# MiniKrimp Fitting Assembly Procedures

## Permanent Crimp Series 56

# 1

### Inspection



**Hose** – Visually inspect both ends of hose for square cut. Remove any burrs, loose fibers or wires.



**Fittings** – Verify fitting series corresponds to the selected hose. Visually inspect fitting(s) for a through-hole, threads and damage.

# 2

### Assembly Prep



**Insertion Depth** – Mark hose end with proper insertion depth line. Shown is a 56 Series fitting. See Hose Fitting Insertion Values, pg. E-10 for insertion depths of fitting series that do not incorporate an insertion depth.



**Lubrication (as required)** – Using an SAE 20 weight lubricating oil, lightly lubricate inside of hose end.

**Warning** Do not use lubricating oil when installing fittings on hose used in breathing air systems.

When installing fittings on hose used in breathing air systems, lubricate with a non-oil based soap solution as failure to do so may result in personal injury.

# 3

### Assembly



**Assemble Hose** – Push hose into fitting all the way to depth insertion mark.

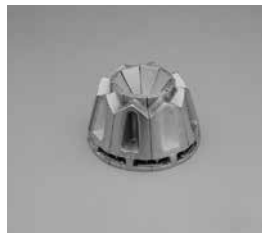
If fitting does not readily slide onto hose, perform the next step.



Using Parker VBS or VBL (vise blocks) and a rubber mallet, tap fitting onto hose until bottom of fitting shell is aligned with depth insertion mark.

# 4

### Die Selection



Select proper Parkrimp die set. Reference Crimp Die Selection at Crimpsource online. [www.parker.com/crimpsource](http://www.parker.com/crimpsource)

# 5

### Lubricate Bowl



Remove pusher from shoulder bolt.

Using a premium, quality, lithium-based grease, apply a thin layer of grease on bowl of crimper baseplate.

# MiniKrimp Fitting Assembly Procedures

## Permanent Crimp Series 56

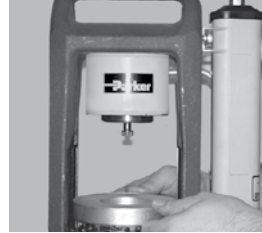
# 6

### Die and Spacer Ring



**Crimp Die** – Place die set into bowl.

Replace pusher onto shoulder bolt.



**Die Ring** – Place applicable die ring on top of crimp die. Position die ring so it is centered on the crimp die. Parflex utilizes the Silver die ring (8XC-R01) with limited exception.

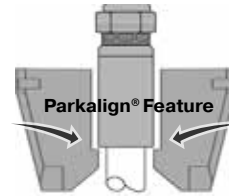
Reference proper tooling (crimp die and die ring) at Crimpsource on-line. [www.parker.com/crimpsource](http://www.parker.com/crimpsource)

# 7

### Crimp



**Assemble Hose** – Insert hose and fitting from bottom of crimper and up through die set. Position fitting so bottom of fitting skirt rests on die step (PARKALIGN® feature).



While holding hose and fitting in position on die step, crimp fitting onto hose until die ring contacts base plate.

**Note** – Pump on crimper must not exceed the rated pressure of the crimper being used. Parker Hannifin will not accept responsibility for the operation of or provide warranty coverage for a crimper that is operated by a power unit other than equipment supplied by Parker Hannifin for the express purpose of operating

**Warning** Keep fingers and hands away from die-pusher area. Failure to do so may result in personal injury.

# 8

### Measure & Inspect



Measure and verify hose assembly length.

Inspect insertion depth mark at fitting ends. Insertion mark must be visible but not exceed 1/8" from end of crimped fitting shell.



Measure crimp diameter of each fitting at the top, middle and bottom of the crimp shell. Take measurements at a minimum of three (3) places around the shell circumference.

Crimp acceptance is based on the middle measurement average with a maximum taper of 0.010" between the top and bottom crimp averages. No single measurement outside the specification is permissible.

# Troubleshooting Parflex MiniKrimp

If you have a problem with your MiniKrimp Portable Crimping Machine:

First, check that the proper tooling, hose and fitting combinations are being used. Then check the following recommendations. If the following suggestions do not remedy the problem, call the Parflex Technical Service Department at 330.296.2871.

Symptoms	Possible Causes	What to Do
Incorrect fitting crimp diameter	Wrong fitting style being used.	Refer to Parker hose manufacturer's catalog and/or CrimpSource Online. <a href="http://www.parker.com/crimpsource">www.parker.com/crimpsource</a>
	Wrong die ring being used.	
	Pusher is not bottomed out on die ring and base plate completely.	Lubricate die cavity with Factran EP-2 lithium grease, Dow Corning GN assembly paste, or equivalent to prevent dies from sticking in bowl. Bottom out the pusher on the die ring completely. Also check for proper bottoming by placing a piece of paper between die ring and base plate. If properly bottomed, you should not be able to remove paper.
	Low on oil.	Refill oil reservoir to 1/2" from top of opening with ENERPAC recommended oil. Do not overfill.
	Crimp dies, die rings damaged, worn, or faulty.	Visually inspect all wear surfaces for raised metal dents or gouges. Replace damaged or worn die sets and die rings.  Lubricate the die cavity in the base plate frequently with Factran EP-2 lithium grease, Dow Corning GN assembly paste, or equivalent to prevent wear.
	Die cavity in base plate worn, or faulty.	If all crimp diameters are out of specification by the same amount, the die cavity in the base plate may be out of specification. Contact Parflex Technical Service Dept. at 330.296.2871 for repair.  Lubricate the die cavity in base plate frequently with Factran EP-2 lithium grease, Dow Corning GN assembly paste, or equivalent to prevent wear.
Insufficient air pressure Air inlet pressure at the pump must be 60–100 psi (9 CFM recommended)		If pump does not operate properly, it may have lost its prime. Follow the procedure below to prime your pump, if necessary.  <ol style="list-style-type: none"> <li>1. Fill pump with ENERPAC hydraulic oil, if necessary.</li> <li>2. Place pump on horizontal surface.</li> <li>3. Set air supply pressure to 30 – 40 psi (2.1 – 2.7 bar)</li> <li>4. Move pump treadle to RELEASE position.</li> <li>5. Depress the button under the treadle to activate the pump. Operate pump in RELEASE position momentarily several times to allow oil to flow back into pump and fill passage ways.</li> <li>6. To verify that pump is primed, operate as normal with cylinder attached. If cylinder does not advance, repeat step 5.</li> </ol> <p>If pump does not deliver oil, contact Parflex Technical Services Department.</p>
Hand pump, air/hydraulic pump, electric pump, pump hose assembly, quick disconnect problems		Contact: Technical Services Department, Parker Hannifin Corporation, Parflex Division at 330.296.2871 - Fax: 330.296.8433.

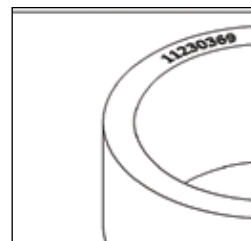
# Frequently Asked Questions

## Parflex MiniKrimp

### Where is the serial number located on my MiniKrimp machine?

The first place to look is on the top surface of the Hardened Steel Sleeve (Part # 015302).

No disassembly is required but you may need to remove the Die Ring and Die to read it.



MiniKrimp™ Serial Number

### Where do I purchase replacement parts and components for my MiniKrimp machine?

Not all MiniKrimp parts and components are sold by Parflex Division for field repair. All questions about replacement parts and components (excluding the Enerpac parts listed below) should be directed to the Technical Services Department of the Parflex Division. For details regarding Accessories, Trouble Shooting, Warranty Policy and Safety Guide refer to the MiniKrimp Technical Manual (Bul. 4660-MKD).

### Where do I purchase Enerpac Replacement Oil for my MiniKrimp machine?

The Parker Parflex Division does not offer Enerpac Replacement Oil as one of our products. Refer to the chart below for ordering options:

Supplier	1 Quart Part #	1 Gallon Part #	Contact Number	Website
Enerpac	HF-100	HF101	1-800-558-0530	www.enerpac.com
Grainger	3KD75	3KD76	1-888-361-8649	www.grainger.com

Note: In order to comply with the Enerpac warranty policy Enerpac Replacement Oil must be used in all Enerpac Products.

### Who do I contact for quality or warranty repairs?

For warranty or repairs on any of the components listed below, please contact A&A Hydraulics, the preferred authorized Enerpac Service Center, at (216)362-4000.

MiniKrimp Model	Component Description	Parflex Part #	Enerpac Part #
94C-001-PFD	Cylinder	015303	RSM301U001
	Hand Pump	015301	P142
94C-002-PFD	Cylinder	015303	RSM301U001
	Air/Hydraulic Pump	025399	025399

For warranty or repairs on any other MiniKrimp parts or components please contact the Quality Control Department of the Parker Parflex Division to request an Authorization to Return (ATR) number.

# ENERPAC Warranty Policy

For those ENERPAC items sold as part of the Parker Parflex Division product offering, the following warranty applies.

ENERPAC products are warranted to be free of defects in materials and workmanship under normal use for as long as they are owned by the original purchaser, subject to the exclusions and limitations described below. This warranty does not cover ordinary wear and tear, overloading, alterations, (including repairs or attempted repairs by parties other than ENERPAC or its authorized service representatives), improper fluid, use in a manner for which they are not intended or use which is contrary to instructions for the products.

THIS WARRANTY IS LIMITED TO NEW PRODUCTS SOLD THROUGH ENERPAC AUTHORIZED DISTRIBUTORS, ORIGINAL EQUIPMENT MANUFACTURERS OR OTHER DESIGNATED CHANNELS OF DISTRIBUTION. NO AGENT, EMPLOYEE, OR OTHER REPRESENTATIVE OF ENERPAC HAS THE AUTHORITY TO IN ANY WAY CHANGE OR AMEND THIS WARRANTY.

Electronic products and components are warranted against defects in material and workmanship for a period of two years from the date of purchase.

The following items supplied with ENERPAC products are excluded from this warranty:

Components not manufactured by ENERPAC, including air motors, electric motors, gasoline engines, and diesel engines. Such items are warranted to the extent of the warranty provided by the manufacturers of such items.

If the customer believes a product is defective, the product must be delivered, or shipped freight prepaid, to the nearest ENERPAC Authorized Service Center. The customer should contact ENERPAC to locate and Authorized Service Center in the customer's area.

Products that do not conform to this warranty will be returned by ground transportation, freight prepaid.

THE FOREGOING WARRANT IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy of repair, replacement or refund is customer's exclusive remedy in the event of breach of this warranty.

SELLER SHALL NOT BE SUBJECT TO AND DISCLAIMS:

- (a) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY,
- (b) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER THEORIES OR LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY SELLER OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND
- (c) ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER.

ENERPAC's liability in all cases is limited to, and shall not exceed, the purchase price paid.

For the nearest authorized ENERPAC SERVICE CENTER, please call ENERPAC at 1-800-558-0530 or visit the ENERPAC web site at [www.Enerpac.com](http://www.Enerpac.com).





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