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# Crimper Preventative Maintenance Guide

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ENGINEERING YOUR SUCCESS.

## When it comes to hose assemblies, no one puts it all together like Parker.

From high-volume productivity to portable on-site assembly, we offer a variety of crimping machines, No-Skive hoses and No-Skive fittings to meet your needs.

With Parkrimp equipment, anyone can make factory-quality hose assemblies quickly, easily and cost effectively. Parkrimp machines are simple to operate, and they're built to provide years of dependable service. Seven Parkrimp models - an entire family of crimpers - are available to meet your bench-mounted or portable needs, crimping straight or bent-stem fittings from ¼" to 2" in diameter.

The complete system from one source: No-Skive hose, No-Skive fittings and crimping machines with worldwide availability and service.



## Selecting the right die

Once the proper Parker hose and fitting is selected that meets your application requirements, be sure to select the proper die to assemble them together.

Based on the hose size and approved fitting, select the proper color coded die, as called out in this chart.

### Example:

Hose	451TC-8
Fitting	43 Series
Die Body Color	Silver
Die Cavity Color	Blue

Based on the Parkrimp machine being used to assemble the hose and fitting, individual die part numbers and tooling selection for your assembly can be found on your crimper decal or on Crimpsource online ([www.parker.com/crimpsource](http://www.parker.com/crimpsource)).



## MiniKrimp™

### Specifications

Dimensions.....6" wide, 13" deep, 15" high  
Weight.....42 lbs (with hand pump)  
Rating .....30 ton force @ 10,000 psi maximum  
Full Cycle Time.....30 seconds



### Important:

The MiniKrimp was developed by Parker Hannifin's Parflex Division, but is compatible with Parker Hannifin's Hose Products Division products. Refer to Crimpsource™ at [www.parker.com/crimpsource](http://www.parker.com/crimpsource) – the online resource for hose crimp specifications for the complete line of Parker crimping machines. Any engineering and crimper performance issues pertaining to the MiniKrimp should be directed to the Parflex Division, Technical Services Department, at (330) 296-2871.

## Karrykrimp

### Specifications

Dimensions.....15" wide, 12" deep, 27" high  
Weight.....54 lbs (without power unit)  
Rating .....30 ton force @ 10,000 psi maximum  
Full Cycle Time.....30 seconds with electric pump



## Karrykrimp 2

### Specifications

Dimensions.....14" wide, 15" deep, 30" high  
Weight.....100 lbs (without power unit)  
Rating .....60 ton force @ 10,000 psi maximum  
Full Cycle Time.....20 seconds with electric pump



## MiniKrimp, Karrykrimp, Karrykrimp 2 Preventative Maintenance

- 1) Check hydraulic oil level every 40 hours of operation.
  - Always check the oil level with the crimper cylinder in the fully retracted position. If the cylinder is advanced when the pump is filled, the reservoir will be over-filled when retracted.
  - The oil level should be within ½" to 1" below the fill opening.
  - If it is necessary to add oil, use Enerpac oil only.
  - If oil temperature rises to 140° F, turn off machine and let cool to 120° F.

\*Note: Vehicle Battery Powered Pump – 12 volt unit uses AW-46 hydraulic oil
- 2) Drain and refill reservoir every 1,000 hours of operation.
- 3) Check the crimp bowl weekly for signs of wear.
- 4) Clean the crimp bowl of old grease on a weekly basis.  
Re-grease the crimp bowl after the bowl has been cleaned.
- 5) Apply approved lithium grease to the dies and crimp bowl each time the dies are changed. If dies are not changed through a day's operation, grease should be applied at least twice a day.
- 6) For crimp diameters that are out of specification, refer to the attached Crimp Diameter Troubleshooting Guide.

## Power Units: for MiniKrimp, Karrykrimp and Karrykrimp 2

### Hand Pump

Part No. 82C-0HP

Ease of operation – hand pump delivers 10,000 psi

Length ..... 23"

Width ..... 4"

Height..... 5"

Port Size..... 3/8" NPTF

Weight ..... 9 lbs

Hydraulic Fluid .... Enerpac oil



### Electric Pump

Part No. 82C-0EP

Ease of operation – hand pump delivers 10,000 psi

Length ..... 13"

Width ..... 13"

Height..... 15"

Port Size..... 3/8" NPTF

Weight ..... 31 lbs

Hydraulic Fluid .... Enerpac oil

115 volt, 1 phase, 50/60 Hz, 9 amp



### Electric Pump

Part No. 85C-0EP

Heavy duty electric pump delivers 10,000 psi at a faster cycle time

Length ..... 19"

Width ..... 11"

Height..... 17"

Port Size..... 3/8" NPTF

Weight ..... 59 lbs

Hydraulic Fluid .... Enerpac oil

115 volt, 1 phase, 50/60 Hz, 20 amp



### Hand Pump

Part No. 85C-0HP

Ease of operation – hand pump delivers 10,000 psi

Length ..... 29"

Width..... 13"

Height ..... 11"

Port Size ..... 3/8" NPTF

Weight ..... 61 lbs

Hydraulic Fluid .... Enerpac oil



### Air/Hydraulic Pump

Part No. 82C-0AP

Light-weight pump operates with 80 -150 psi shop air pressure and delivers 10,000 psi

Length ..... 15"

Width..... 6"

Height ..... 6"

Intake Port Size ... 1/4" NPTF

Output Port Size .. 3/8" NPTF

Weight..... 14 lbs

Hydraulic Fluid .... Enerpac oil



### Vehicle Battery-Powered Pump

Part No. 85C-12V

Ideal unit for Parker Mobile Hose Replacement Service, delivering 10,000 psi

Length ..... 12"

Width..... 8"

Height ..... 19.5"

Weight..... 67 lbs

Hydraulic Fluid .... AW-46



\*Note: Vehicle Battery Powered Pump – 12 volt unit uses AW-46 hydraulic oil

#### Enerpac Warranty Statement

Enerpac products are warranted to be free of defects in materials and workmanship. Any product that does not conform to specification will be repaired or replaced at Enerpac's expense, anywhere in the world; simple as that! This warranty does not cover ordinary wear and tear, abuse, misuse, alterations, or the use of improper fluids. Determination of the authenticity of a warranty claim will be made only by Enerpac or its Authorized Service Centers.

# Parkrimp 1

## Specifications

Dimensions .....26" wide, 20" deep, 25" high  
Weight .....275 lbs (with power unit)  
Rating .....30 ton force @ 3,000 psi maximum  
Cycle Time .....20 seconds  
Hydraulic Fluid .....AW32 oil

Note: Includes a 115/230 volt, 1 phase, 60 Hz power unit wired for 115 volts.

This unit comes with a 20 AMP male plug and must be run on a dedicated 20 AMP circuit.



## Parkrimp 1 Preventative Maintenance

- 1) Check hydraulic oil level every 40 hours of operation.
- 2) Always check the oil level with the crimper cylinder in the fully retracted position. If the cylinder is advanced when the pump is filled, the reservoir will be over-filled when retracted.
- 3) The oil level should be within 1" below the fill opening.
- 4) If it is necessary to add oil, use high grade AW-32 hydraulic oil.
- 5) If oil temperature rises to 140° F, turn off machine and let cool to 120° F.
- 6) Drain and refill reservoir every 1,000 hours of operation.
- 7) Check the crimp bowl weekly for signs of wear.
- 8) Clean the crimp bowl of old grease on a weekly basis. Re-grease the crimp bowl after the bowl has been cleaned.
- 9) Apply approved lithium grease to the dies and crimp bowl each time the dies are changed. If dies are not changed through a day's operation, grease should be applied at least twice a day.
- 10) For crimp diameters that are out of specification, refer to the attached Crimp Diameter Troubleshooting Guide.

# PHastkrimp

## Specifications

Dimensions .....24" wide, 33" deep, 38" high  
Weight .....550 lbs  
Rating .....60 ton force @ 4,200 psi maximum  
Cycle Time .....6 seconds  
Hydraulic Fluid .....AW 46 oil

Note: The 230VAC, 3 phase, 60 Hz power unit can be rewired to 460VAC by a qualified electrician.



## PHastkrimp Preventative Maintenance

- 1) Check hydraulic oil level every 40 hours of operation.
- 2) Always check the oil level with the crimper cylinder in the fully retracted position. If the cylinder is advanced when the pump is filled, the reservoir will be over-filled when retracted.
- 3) The oil level should be to the top of the sight glass on the back of the power unit.
- 4) If it is necessary to add oil, use AW-46 hydraulic oil only.
- 5) If oil temperature rises to 140° F, turn off machine and let cool to 120° F.
- 6) Drain and refill reservoir every 1,000 hours of operation.
- 7) Check the crimp bowl weekly for signs of wear.
- 8) Clean the crimp bowl of old grease on a weekly basis. Re-grease the crimp bowl after the bowl has been cleaned.
- 9) Apply approved lithium grease to the dies and crimp bowl each time the dies are changed. If dies are not changed through a day's operation, grease should be applied at least twice a day.
- 10) For crimp diameters that are out of specification, refer to the attached Crimp Diameter Troubleshooting Guide.

## Superkrimp

### Specifications

Dimensions.....20" wide, 31" deep, 41" high  
Weight .....600 lbs  
Rating.....70 ton force @ 5,000 psi maximum  
Cycle Time .....20 seconds without adapter bowl  
                                  15 seconds with adapter bowl  
Hydraulic Fluid .....Enerpac oil



## Superkrimp and Parkrimp 2 Preventative Maintenance

- 1) Check hydraulic oil level every 40 hours of operation.
- 2) Always check the oil level with the crimper cylinder in the fully retracted position. If the cylinder is advanced when the pump is filled, the reservoir will be over-filled when retracted.
- 3) The oil level should be to the top of the sight glass on the side of the power unit.
- 4) If it is necessary to add oil, use Enerpac oil only.
- 5) If oil temperature rises to 140° F, turn off machine and let cool to 120° F.
- 6) Drain and refill reservoir every 1,000 hours of operation.
- 7) Check the crimp bowl weekly for signs of wear.
- 8) Clean the crimp bowl of old grease on a weekly basis. Re-grease the crimp bowl after the bowl has been cleaned.
- 9) Apply approved lithium grease to the dies and crimp bowl each time the dies are changed. If dies are not changed through a day's operation, grease should be applied at least twice a day.
- 10) For crimp diameters that are out of specification, refer to the attached Crimp Diameter Troubleshooting Guide.

## Parkrimp 2

### Specifications

Dimensions.....28" wide, 22" deep, 70" high  
Weight .....842 lbs (Head is 558 lbs and base is 284 lbs)  
Rating.....125 ton force @ 5,000 psi maximum  
Cycle Time .....30 seconds without adapter bowl  
                                  20 seconds with adapter bowl  
Hydraulic Fluid .....Enerpac oil





## Exhibit 1:

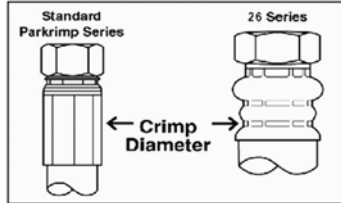
### How to measure your crimp diameter

On standard Parkrimp Series fittings:

Measure the crimp diameter on the flat surfaces in the middle of the crimped shell.

For 26 Series fittings:

Measure the crimp diameter on the flat of the last groove on the barrel crimp closest to the hose.



## Exhibit 2:

### Rules of thumb

If a fitting is crimping above (larger) specification:

- Example: spec calls for .955 crimp diameter and the actual measured diameter is .975, then the crimper bowl and/or dies are worn.

When a fitting is crimping below (smaller) specification and you are using a brand new die:

- Example: spec calls for a .955 crimp diameter and the actual measured diameter is .935, there is a good chance that the new die is out of specification.

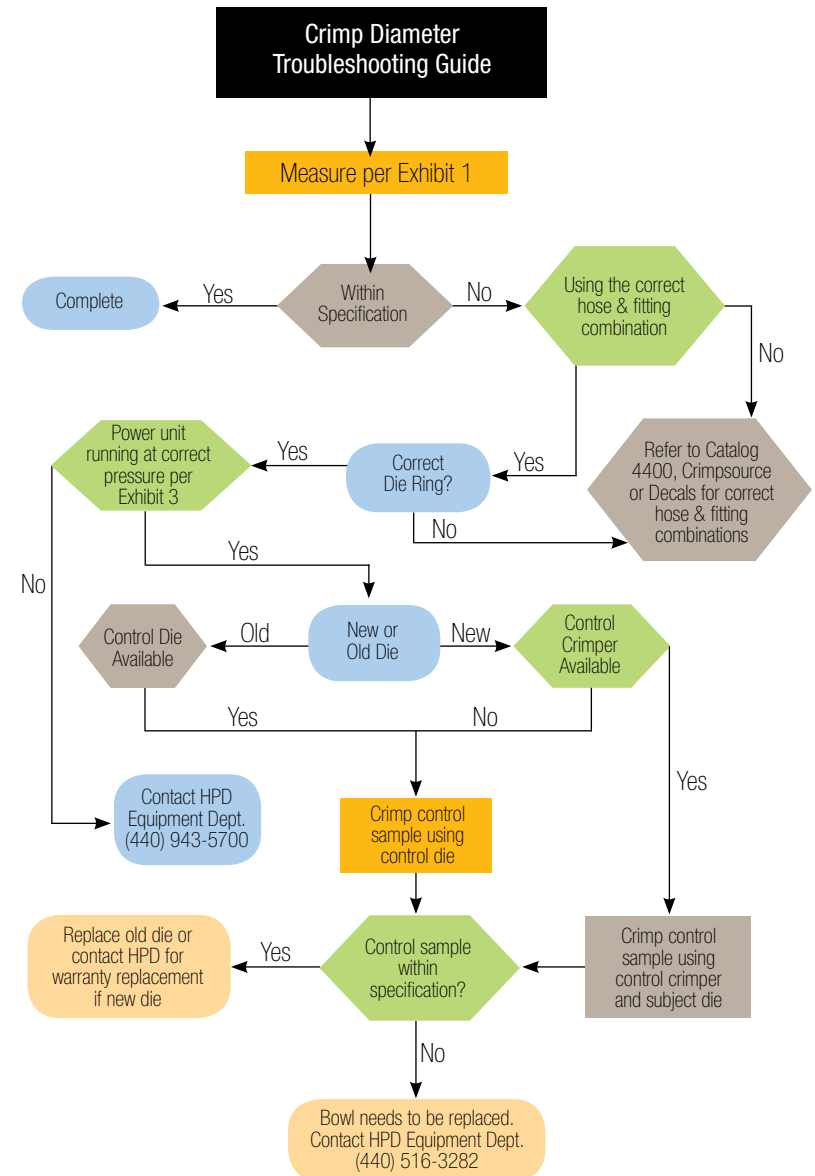
## Exhibit 3:

### Power Unit Operating Pressures:

Crimper	Pressure (PSI)
MiniKrimp	10,000
Karrykrimp	10,000
Karrykrimp 2	10,000
Parkrimp 1	3,000
PHastkrimp	4,200
Superkrimp	5,000
Parkrimp 2	5,000

## Are your crimp diameters out of spec?

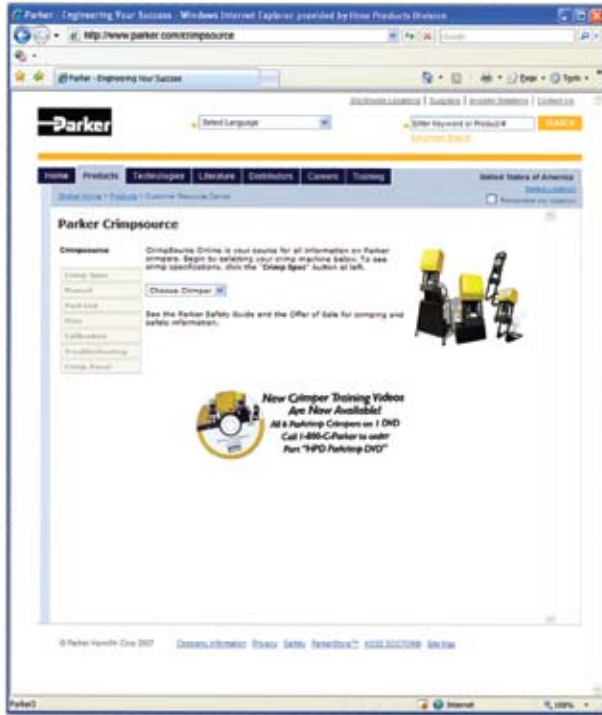
Follow this step-by-step crimp diameter troubleshooting guide to determine what is causing your crimps to be out of spec.



\*Control Die/Control Crimper: A control die and/or crimper is tooling that you know is crimping within specification.

## Crimpsource (www.parker.com/crimpsource)

Crimpsource is the industry's most complete resource for crimper technical information. It contains all of the crimp specifications approved for Parker crimpers, including Parker's rubber, industrial and thermoplastic hose.



*Crimpsource enables users to quickly find the information they need by following a series of drop down menus.*

*First, choose your crimper and then select the hose, fittings and current crimping specifications needed to make hose assemblies.*

### **Crimpsource provides:**

- Crimp specs
- PDFs of technical manuals for easy downloading
- Parts lists
- Troubleshooting advice
- PDFs of crimper decals

Because it's an online tool, users are ensured Crimpsource is providing the most up-to-date information.

## Accessories

Parker provides all the accessories you'll need to keep your operation running smoothly, including:

- Conversion kits
- Cabinets
- Cut off saws
- Push on tables
- Die racks
- Mandrel tool kits
- And more



Crimper training videos are now available by calling 1-800-C-Parker. Ask for the "HPD Parkrimp DVD"

These DVDs feature all six crimpers on one easy-to-follow training module.