Continental
The Future in Motion

Perma-Crimp™ Hydraulic Hose Crimpers

PC125RCD and PC125MRCD Operators Manual

PC125RCD / 125MRCD Safety Precautions

SAFETY PRECAUTIONS

- READ INSTRUCTIONS AND IDENTIFY ALL COMPONENT PARTS BEFORE USING CRIMPER.
- CRIMPER CAN PRODUCE 60 TONS OF FORCE. KEEP BOTH HANDS AWAY FROM PINCH POINTS.
- CONSULT THE CONTINENTAL CONTITECH CRIMP SPECIFICATION MANUAL FOR CORRECT CRIMPER SETTINGS AND CRIMP MEASUREMENTS.
- ALWAYS WEAR EYE PROTECTION.

MODELS COVERED

This manual is applicable to different variations of the PC125RCD Series and PC125MRCD Series Crimpers.

Crimping, calibration and repair procedures are similar for both models.

Equipment Warning

Proper assembly of Continental ContiTech hose and fittings

Continental ContiTech hose, fittings and crimping equipment work together to provide an efficient and reliable hose connection. Continental ContiTech hose and fittings are part of an engineered system and are to be used in accordance with Continental ContiTech specifications. Using non-Continental ContiTech components may produce an assembly that does not meet rated performance. **Continental ContiTech does not warrant, expressly or by implication, hose assemblies that do not incorporate Continental ContiTech hose and fittings, or are not crimped in accordance with Continental ContiTech process specifications.**

Buyers may elect to attach additional or non-standard parts or equipment, or to use different manufacturing specifications as necessary to meet the requirements of the buyer or the customer's application. In such cases, the buyer has sole responsibility to qualify the hose for the applications as necessary to ensure performance capability.

For guidance in the assembly of Continental ContiTech hose and couplings, please refer to the Continental ContiTech Crimp Specifications Manual. Information in this manual is believed to be accurate, but is not warranted and is subject to change without prior notice. For the most current product information, check the Continental ContiTech website at www.contitech.us.

For technical assistance, call customer service at **1-800-235-4632.**

Table Of Content

PC125RCD / PC125MRCD Specifications

Die Series----------PC125RCD Series

Maximum Cylinder Force----------60 Ton

Maximum Hose Diameter (2 Wire)----------1 1/4 Inch

Maximum Hose Diameter (4 Wire)----------1 1/4 Inch

Maximum Hose Diameter (6 Wire)----------1 Inch

Crimper Depth - PC125RCD Series----------22.5 Inches
- PC125MRCD Series----------17 Inches

Crimper Width - PC125RCD Series----------13 Inches
- PC125MRCD Series ----------10.25 Inches

Crimper Height - PC125RCD Series----------22.5 Inches
- PC125MRCD Series----------18.5 Inches

Weight - PC125RCD Series----------154 Lbs
- PC125MRCD Series----------85 Lbs

Pump - PC125RCD Series----------Electric
- PC125MRCD Series----------Pump Not included - Manual, Pneumatic, or Electric Available)

Pump HP- PC125RCD Series----------1 HP (110V)

Reservoir Capacity - PC125RCD Series----------1 Gallon

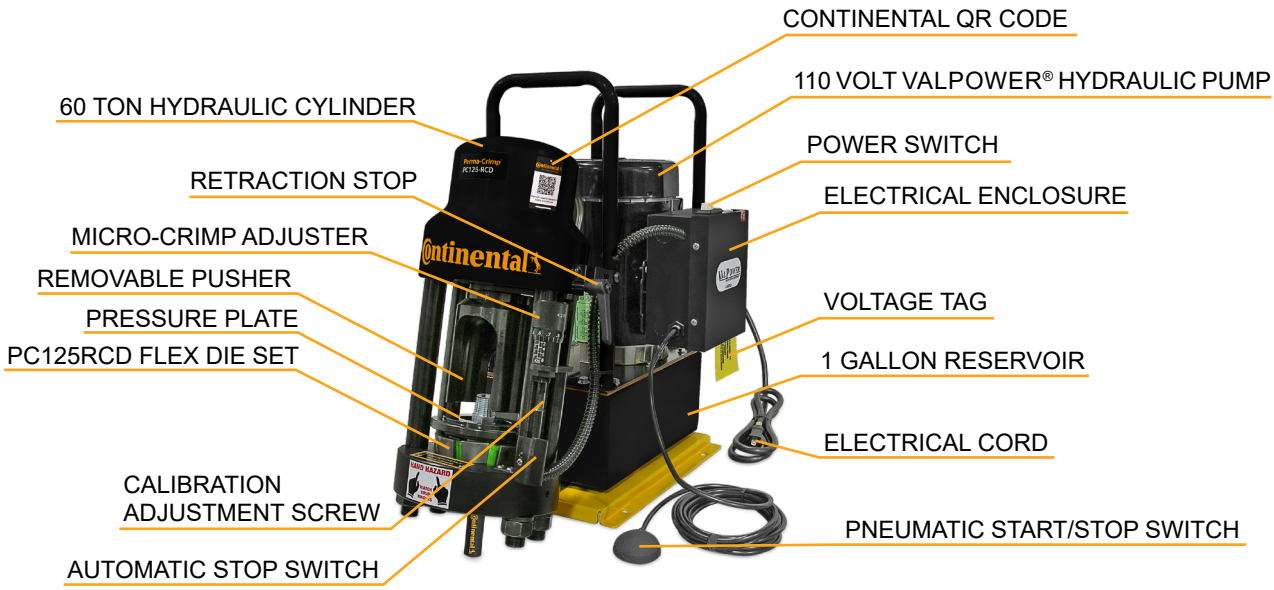
Oil Type----------ISO Viscosity Grade 46

Electric Power Requirement - PC125RCD Series----------110V-15 Amp

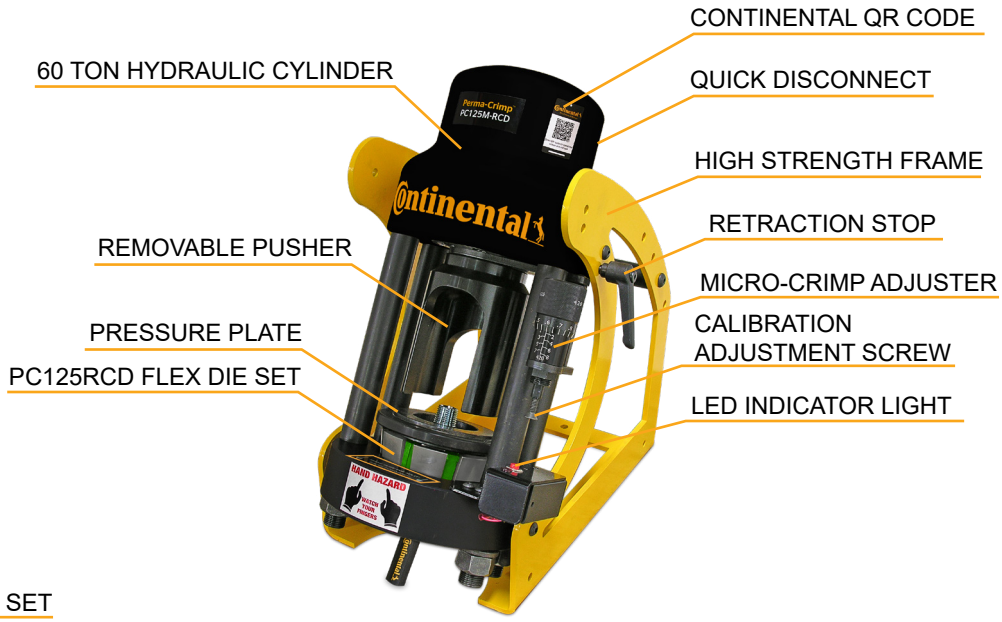
PC125RCD Crimper Series

PC125MRCD Crimper Series

PC125RCD / PC125MRCD Component Identification



PC125RCD CRIMPER SERIES



PC125MRCD CRIMPER SERIES

Available Accessories For PC125RCD/125MRCD Crimpers Series

Removeable Pusher
(Included)

Pressure Plate
(Included)

Notched Pressure Plate
(Included)

Coupling Stop
(Included only with
PC125RCD)

CRIMPX Die Lubricant Oil:
4 oz bottle with dauber cap
(Included)

Die Removal Magnet
(Included)

Vent Plug
(Included)

T420 Micrometer
(Included)

Pneumatic Pendent Switch
(Included)

PC125 Drawer/Stand
(Included only with PC125RCD-Skits
Series Crimpers)

Available PC125RCD Flex
Die Sets & Flex Die Cages

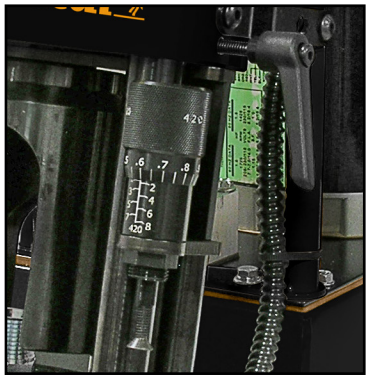
ValPower® Hand Pump
10,000 psi (Optional)

ValPower® Pneumatic Pump
10,000 psi (Optional)

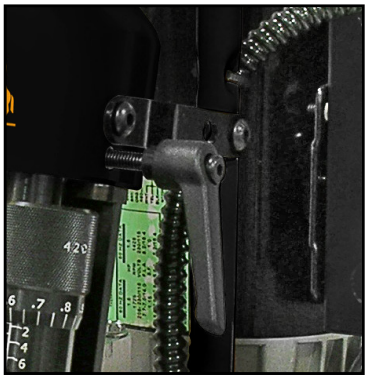
ValPower® Electric Pump (Optional)

MANUAL, PNEUMATIC, AND ELECTRIC POWER SOURCES ARE AVAILABLE FOR THE PC125MRCD CRIMPER SERIES

PC125RCD / PC125MRCD Features



Micrometer style adjustment permits crimping a wide variety of hose and fittings, and is fully adjustable for a precise crimp.



Adjustable Retraction Stop limits ram retraction to only the amount required to remove the hose and coupling saving time on multiple crimps.

An easily removable Coupling Stop makes repetitive crimps faster by not having to visually align the fitting before each crimp.

Automatic stop switch shuts the pump off when the crimp cycle is complete. (PC125RCD series only).

LED Indicator light will warn the operator when the crimp cycle is complete. (PC125MRCD series only).

PC125RCD / PC125MRCD Quick Start Guide

Follow these steps before using the crimper for the first time.

- Mount the crimper on a sturdy workbench in a well-lit area. Workbench should be able to support the crimper weight of 154 lbs for PC125RCD and 85 lbs for PC125MRCD.

Note: The PC125RCD series can be mounted on the PC125 Drawer/ Stand and bolted onto the workbench. (See detailed instructions included with PC125 drawer/stand).

- The crimper should be mounted close enough to the edge of the work surface so that hose will not contact the bench or work surface while crimping. There must be enough clearance for the hose to align perpendicular with the cone base, or the dies will not seat properly and the crimps will not be accurate.

- Always check oil level in the PC125RCD pump, should be 1-1/2 to 2 inches below the vent plug when the cylinder is in the retracted position and should be visible in the sight glass window of the pump reservoir.
- If oil needs to be added use ISO 46 weight hydraulic oil.
- Oil can be drained from the rear oil port of the reservoir.
- If using an optional power unit for the PC125MRCD, follow the manufacturer's recommendation for proper setup and use. A 10,000 psi hose and quick disconnect fitting has been included with the crimper to connect an optional power unit to the PC125MRCD cylinder port.

- Check to be certain that the shipping plug in the pump reservoir has been replaced with the vent plug shipped with the crimper.

- Check electrical circuit to be certain that it matches the crimper requirements shown on the voltage tag attached to the crimper cord.
- Plug the PC125RCD crimper directly into a 110 volt, 15 amp wall outlet.

CAUTION: DO NOT RUN THE CRIMPER ON AN EXTENSION CORD AS LOW VOLTAGE CAN DAMAGE THE MOTOR AND/OR ELECTRICAL COMPONENTS.

PC125RCD / PC125MRCD Lubrication Procedure

Grease Point # 1
Place a thin layer of CrimpX oil (supplied with crimper) or a high pressure molybdenum high pressure grease on the surface of the cone base (as shown in photo # 1).

Photo # 1

Grease Point # 2
Before sliding the PC125-RCD pressure plate over the correct dies, place a thin layer of CrimpX oil (supplied with crimper) or a high pressure molybdenum high pressure grease on the entire area that dies come in contact with (as shown in photo # 2).

Photo # 2

If Dies are sticking in the surface of the cone base: Continue to lubricate / grease as explained above in addition to lubricating each die finger individually (as shown in photo # 3).

Note: Lubrication is not required before each crimp.
Typical lubrication is after 100 crimps.

Note: The die fingers must be lubricated at both positions that come in contact with the PC125-RCD pressure plate and the cone base.

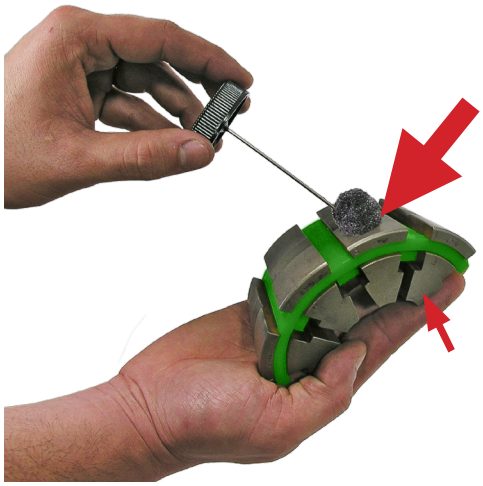


Photo # 3

PC125RCD / PC125MRCD Crimping Procedure

• Follow lubrication procedure prior to crimping procedure.

NOTE: FAILURE TO LUBRICATE THE DIE SET AND COMPRESSION CONE COULD RESULT IN THE DIE SET SEIZING IN THE BASE FLANGE.

Step 1: Make certain that the cone base is clean and lubricated prior to inserting the die set.

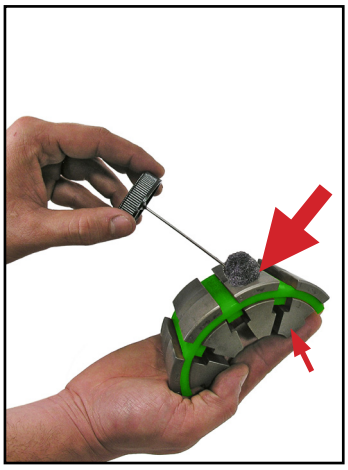
Step 2: Select the correct die set for the combination of hose and fitting being crimped. The correct die set can be found in the Continental ContiTech Crimp Specification Manual. Note that the number etched on the OD of the die ring represents the fully closed diameter of the die set in millimeters. In addition, die rubber cages are color-coded for easier identification.

PC125RCD Dies

ContiTech Part #	Description	Color	ID	ContiTech Part #	Description	Color	ID
20809576	PC125RCD-16MM	Blue	16MM	20809761	PC125RCD-34MM	Purple	34MM
20809577	PC125RCD-19MM	Green	19MM	20809762	PC125RCD-41MM	Orange	41MM
20809578	PC125RCD-23MM	Yellow	23MM	20899115	PC125RCD-43MM	Red	43MM
20809579	PC125RCD-27MM	Brown	27MM	20833014	PC125RCD-50MM	Black	50MM
20809760	PC125RCD-31MM	Silver	31MM				

Step 3: Lubricate the contact surfaces, both top and outside edges of the die fingers, with CrimpX oil provided with the crimper. Only use a molybdenum/graphite high-pressure grease applied sparingly to the contact surfaces. Die lubricant can be obtained from customer service using part numbers PC900-grease-3 oz or PC900-grease-1lb. An aerosol lubricant, PC900-aerosol lube, can also be used.

Failure to lubricate the contact surfaces with the correct lubricant will cause the dies to seize in the compression cone, causing damage to the die set as well as possibly damaging the crimper.



Step 4: Place the lubricated die set squarely in the cone base as shown.

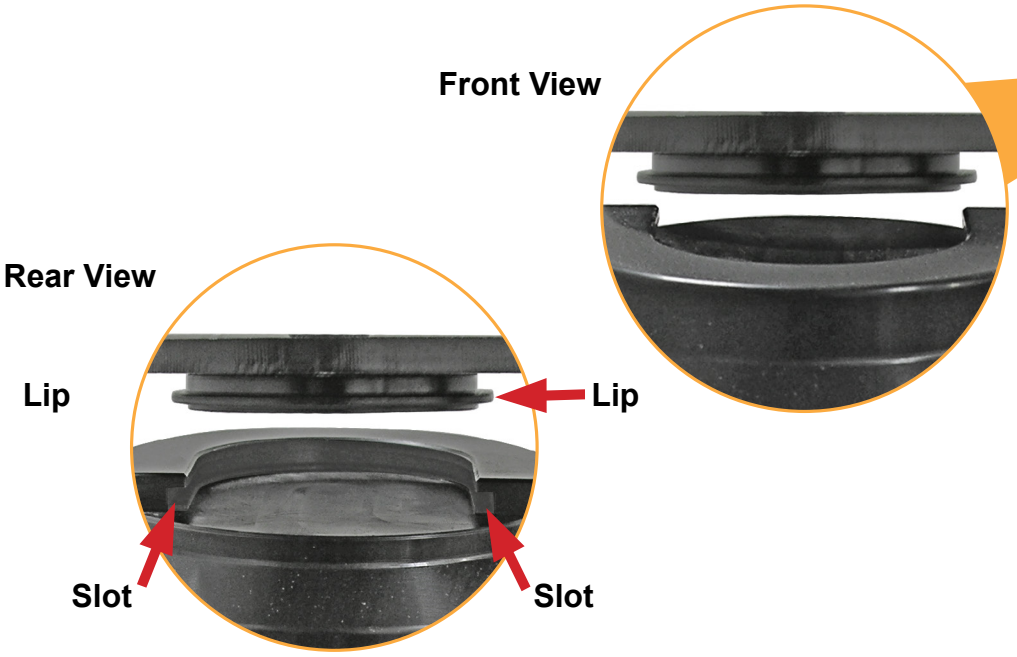
Note: Make sure the split of the die cages is facing the operator (as shown).

Step 5: Align the fitting in the die set according to the hose and fitting as explained in the ContiTech most current crimp specifications.

Step 6: Place the Compression Plate over the die set and compress the die set by hand to hold the hose and fitting in place.

Step 7: Slide the Pusher onto the pusher retaining ring on the hydraulic cylinder. Make sure slot in pusher goes over lip on pusher retaining pin.

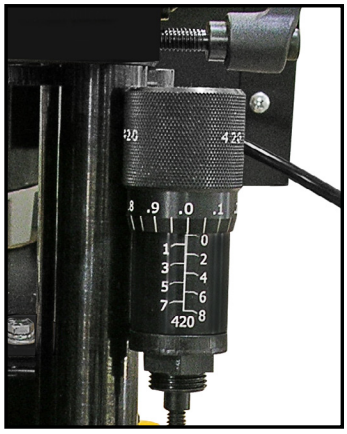
CAUTION: Damage to pusher and retaining pin can occur if misaligned.



Step 8: Set the micrometer to the setting as shown in the most current Continental ContiTech Crimp Specification Manual for the combination of hose and fitting being crimped.

Micrometer Setting Example: With a 23mm die and the micrometer set at 3.0mm, the final crimp diameter will be 26mm (23mm + 3mm).

Note: Each die set has a limited range of diameters for which a satisfactory crimp can be obtained. Always consult the most current Continental ContiTech Crimp Specification Manual for selecting the correct die set.



Step 9: Recheck the fitting for the correct alignment in the die set, pusher is positioned correctly and depress the start/stop switch. Hold the start/stop switch until the automatic stop switch shuts the pump off. Release the start/stop switch and allow the pusher to return to the retracted position.

Step 10: For the PC125MRCD with a hand or pneumatic pump, apply prssure to bring the pusher in contact with the pressure plate until the hose and fitting are held in position with very light pressure. Recheck the fitting for alignment.

Step 11: Continue to apply pressure as pusher travels downward, compressing the pressure plate onto the die set to crimp the coupling. As the micrometer moves down, it will touch the red button and the LED indicator light will turn on to indicate that the crimp is complete, release pressure to allow the pusher to return to the retracted position.

Step 12: Check the crimp diameter of the finished assembly with calipers or micrometers, to be certain that it is within the specifications as outlined in the Continental ContiTech Crimp Specification Manual.

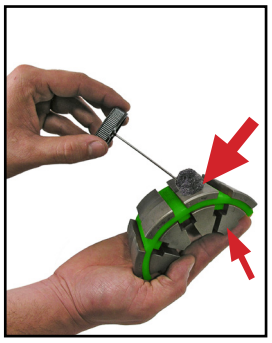
Hose Assembly Position

Position fitting into the die set for a “full” length crimp. Fitting hex must be positioned up to but clear of the die during crimp. When crimping T7 and T8 fittings, refer to the Continental ContiTech Crimp Specification Manual for proper positioning of the fitting into the die set.

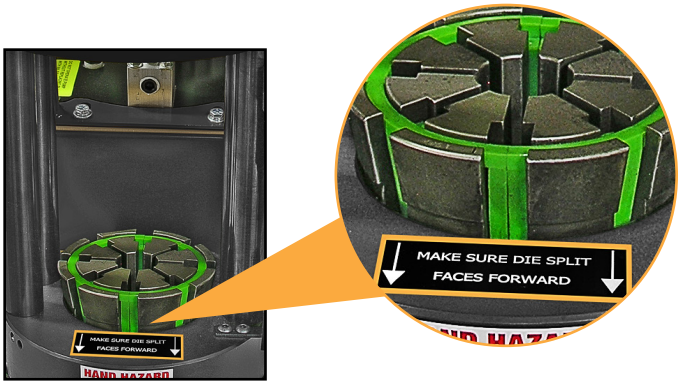
WHEN USING THE NOTCHED PRESSURE PLATE, FOR USE WITH 90 DEGREE FITTING ONLY, FOLLOW THESE PROCEDURES.

Make certain that the cone base is clean and lubricated prior to inserting the die set.

Select the correct die set for the hose-fitting combination from the ContiTech most current crimp specifications.

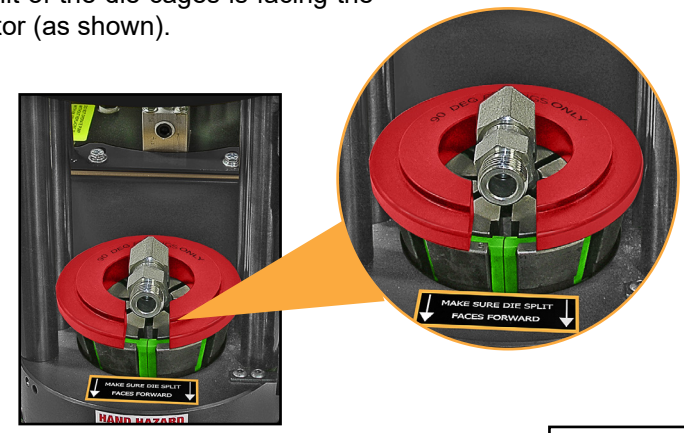


Lubricate the die fingers with the PC125 CrimpX Oil furnished with the crimper.



Place the lubricated die set squarely in the cone base as shown. Make sure the split of the die cages is facing the operator (as shown).

Align the fitting in the die set according to the hose and fitting as explained in the ContiTech most current crimp specifications.



Place the Notched Pressure Plate over the dies so that the notched compression plate is covering all 8 die fingers (as shown).

Place the pusher onto the retaining ring as shown. Once the correct micrometer setting is set press the start/stop switch. (Apply pressure on PC125MRCD series).

Check the final crimp diameter to confirm that it is within the ContiTech most current crimp specifications.

DO NOT MISALIGN NOTCHED PRESSURE PLATE OR DAMAGE WILL OCCUR.

1. Die split must face operator.
2. Notched Pressure Plate needs to cover all 8 die fingers
3. Damage can occur to die fingers if parts aren't aligned properly.

Wrong Alignment

Broken Die Finger

PC125RCD Calibration Check

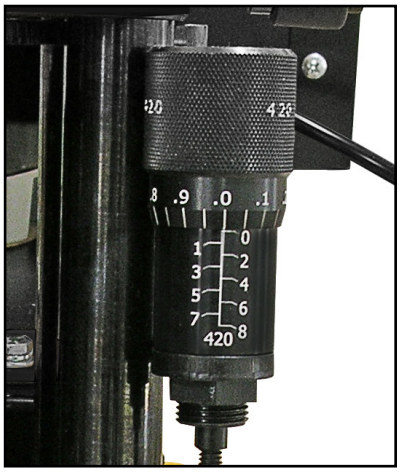
• Follow lubrication procedure prior to calibration check.

NOTE: FAILURE TO LUBRICATE THE DIE SET AND COMPRESSION CONE COULD RESULT IN THE DIE SET SEIZING IN THE BASE FLANGE.

• Place any **Die Set** and the **Pressure Plate** in the crimper bottom flange in the order shown.

(A hose and fitting are not required for a calibration check).

• Slide the **Pusher** onto the stud on the hydraulic cylinder.



• Set the Micrometer at “0”.

• Depress and hold the **Start/Stop** switch on the PC125RCD Series until the Die set is completely closed and oil pressure has built up in the hydraulic cylinder.

• If the ram extends, the dies are completely closed, the pump builds pressure (The sound of the pump will change) when the micrometer touched the electronic red button as shown, “count one mississippi” the motor will shut off, and the ram will retract the crimper is correctly calibrated.

• If the above conditions are not met, the crimper requires recalibration, hold the micrometer barrel with a 5/16 inch open end wrench and rotate the stem either in or out with a 5/32 inch hex key wrench.

Note: 1/4 turn of screw will change crimp diameter approximately 0.008"

• Rotating the stem out of the barrel decreases the time required for the pump to shut off.

• Recheck calibration.

PC125MRCD Calibration Check

• Follow lubrication procedure prior to calibration check.

NOTE: FAILURE TO LUBRICATE THE DIE SET AND COMPRESSION CONE COULD RESULT IN THE DIE SET SEIZING IN THE BASE FLANGE.

• Place any **Die Set** and the **Pressure Plate** in the crimper bottom flange in the order shown.

(A hose and fitting are not required for a calibration check).

• Slide the **Pusher** onto the stud on the hydraulic cylinder.

• Set the Micrometer at “0”.

• Apply pressure to the hand pump or pneumatic pump until the dies are completely closed and pressure has built up in the hydraulic cylinder.

• If the ram extends, the dies are completely closed, the micrometer touched the red button, and the LED indicator light is turned on as shown the crimper is correctly calibrated.

(Release pressure to retract the ram).

Note: If the LED Indicator light becomes faint, replace the (2) AA batteries as needed.

• If the above conditions are not met, the crimper requires recalibration, hold the micrometer barrel with a 5/16 inch open end wrench and rotate the stem either in or out with a 5/32 inch hex key wrench.

Note: 1/4 turn of screw will change crimp diameter approximately 0.008"

• Rotating the stem out of the barrel decreases the ram to retract.

• Recheck calibration.

PC125 Drawer / Stand Assembly

THIS INSTRUCTIONS CAN BE USED FOR

PC125RCD AND PC125 SERIES CRIMPERS.

1

Install (2) 3/8-16 x 1" carriage bolts in front two holes (as shown in picture # 1). Use 3/8" plastic retaining washer to hold bolt into place.

2

Slide the drawer slightly out to access two rear holes (as shown in picture # 2). Install (2) 3/8-16 x 1" carriage bolts in rear two holes (as shown in picture # 2). Use 3/8" plastic retaining washer to hold bolt into place.

3

Place the PC125 base plate over the 4 screws as shown in picture # 3.
Place 3/8" flat washer, 3/8" locking washer, and then the 3/8"- 16 nut over the bolt as shown.

4

Tighten each nut with a 9/16" wrench or socket until the nuts are tight as shown in picture # 4.

Note: Bolt the PC125 crimper stand/drawer assembly to work surface before use.

Troubleshooting

PROBLEM: CRIMPER WILL NOT RUN AT ALL

› The white rocker switch is also a circuit breaker. Check to see that the circuit breaker has not been tripped.

› Check the wall outlet. The crimper comes from the factory wired for a 115 volt single phase circuit. Use of extension cords or outlets with inadequate power can damage the motor. Do not run the crimper from a portable power source.

› Check the stop switch mounted to the switch bracket under the Micro-Crimp Adjuster. This is a normally closed switch and if it does not close the crimper will not operate.

CAUTION: Do not operate the crimper with this switch jumpered as the pump will not shut off and the brackets can be damaged.

› Check the pneumatically actuated switch in the electrical box mounted on the motor. This switch controls power to the motor and is actuated with air pressure from the pendant switch bulb.

PROBLEM: CRIMP DIAMETER TOO LARGE

› Incorrect setting of the Micro-Crimp Adjuster. Check crimp specifications.

(NOTE: All published machine settings are approximate. To correct for slight variances, the gauge settings may need to be adjusted for the specific hose, fitting and size combination).

› Incorrect die being used. Each die has a useable range of approximately 3mm (.120 in) above the closed diameter of the die. The closed diameter is the die size stamped on the die ring.

› Check crimper calibration and re-calibrate if required.

› Inadequate pump pressure. Check oil level in the pump. It should be 1-1/2 to 2 inches below the fill plug and should be showing in the sight glass window. Fill with ISO 46 weight hydraulic oil if required.

› Inadequate lubrication on the surface of the bottom flange, the dies and pressure plate causing the pump to work harder than normal to reach the required diameter. Use only CrimpX oil (supplied with crimper) or a high pressure molybdenum high pressure grease.

› Inadequate pressure being generated by the pump. This is most likely if the crimper can crimp the smaller size hoses and not the larger hoses. When correctly adjusted, the pump should generate approximately 10,000 psi.

Do Not adjust pump to produce in excess of 10,000 psi as damage to components or personal injury may result.

› No pressure being generated by the pump. There should be a definite change in pitch of the pump as it cycles into high pressure mode and begins to “work” harder.

PROBLEM: CRIMP DIAMETER TOO SMALL

› Incorrect setting of the Micro-Crimp Adjuster. Check crimp specifications.

(NOTE: All published machine settings are approximate. To correct for slight variances, the gauge settings may be adjusted for the specific hose, fitting and size combination.)

› Incorrect die being used (See die range under Crimp Diameter too Large)

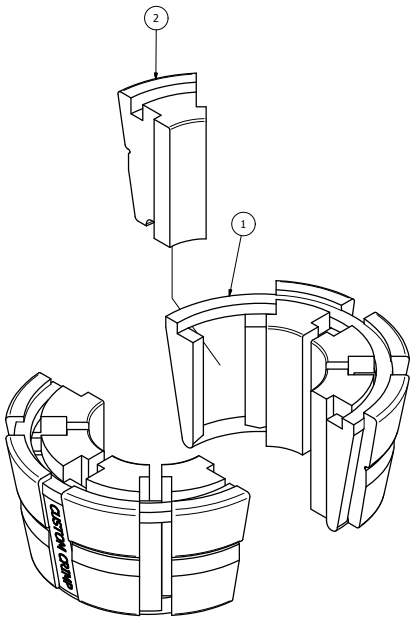
› Check crimp diameter and re-calibrate if necessary

PROBLEM: DIES STICKING IN THE SURFACE OF THE BOTTOM FLANGE

› Inadequate lubrication on the surface of the bottom flange, the pressure plate and die surfaces. Use only CrimpX oil (Supplied with crimper) or a high pressure molybdenum high pressure grease.

Part Numbers

PC125RCD Die Components	
Item	Description
1)	Flex Die cage (See below)
2)	8 Die fingers (See below)



PC125RCD Dies							
ContiTech Part #	Description	Color	ID	ContiTech Part #	Description	Color	ID
20809576	PC125RCD-16MM	Blue	16MM	20809761	PC125RCD-34MM	Purple	34MM
20809577	PC125RCD-19MM	Green	19MM	20809762	PC125RCD-41MM	Orange	41MM
20809578	PC125RCD-23MM	Yellow	23MM	20899115	PC125RCD-43MM	Red	43MM
20809579	PC125RCD-27MM	Brown	27MM	20833014	PC125RCD-50MM	Black	50MM
20809760	PC125RCD-31MM	Silver	31MM				

PC125RCD Die Cages	
ContiTech Part #	Description
20833018	Die Cage Half-Blue
20833020	Die Cage Half-Green
20833025	Die Cage Half-Yellow
20833019	Die Cage Half-Brown
20833024	Die Cage Half-Silver
20833022	Die Cage Half-Purple
20833021	Die Cage Half-Orange
20833023	Die Cage Half-Red
20833017	Die Cage Half-Black

Part Numbers

PC125RCD Options	
ContiTech Part #	Description
20244895	PC125 Drawer / Stand

PC125MRCD Pump Options	
ContiTech Part #	Description
20244931	Two Stage hand pump
20244932	Air/hydraulic pump
20244916	1/2 HP, 110V electric pump

Replacement Parts	
ContiTech Part #	Description
20551881	Die ring pusher for PC125RCD/PC125MRCD
103270	Pressure plate for PC125RCD/PC125MRCD
104662	Notched pressure plate for PC125RCD/PC125MRCD
20244945	Start/Stop switch for 1 HP pump
20244936	Adjustable coupling stop for PC125RCD/PC125MRCD
20370792	White breaker switch for PC125RCD/150
103085	T420 Micrometer for PC125RCD/PC125MRCD
20370790	Red limit switch for PC125RCD/150
20291768	Retaining ring for PC125RCD/PC125MRCD pusher
9847K13	Vent plug for PC125RCD
104679	Die removal magnet PC125RCD/PC125MRCD
20708983	CRIMPX die lubricant oil for PC125RCD/PC125MRCD

Industrial Fluid Solutions

Market segment
Hydraulic Hose

Contact
ContiTech
703 S. Cleveland Massillon Road
Fairlawn, OH 44333-3023 U.S.A.
1-800-235-4632
www.contitech.us

Your local contact
www.contitech.de/contactlocator

Canada
1-888-275-4397

Mexico
1-800-439-7373

Continental. Smart Solutions Beyond Rubber

The ContiTech division of the Continental Corporation is one of the world's leading industry specialists. As a technology partner, our name is synonymous with expertise in development and materials for components made of natural rubber and plastics and also in combination with other materials such as metal, fabrics or silicone. By integrating electronic components, we are also generating solutions for the future.

Beyond products, systems and services, we also provide holistic solutions and have a formative influence on the industrial infrastructure. We see digitalization and current trends as an opportunity to work with our customers to add sustainable value – for both sides and for good.

Rev: 02/27/2020

Continental
The Future in Motion