

# Application Data

## Important Safety Information

### Read this page before using any of the information in this catalog.

This catalog is designed to be used as a guide in selecting the proper hose for the applications listed herein. It contains many cautions, warnings, guidelines, and directions for the safe and proper use of Boston hose. All these directions and footnotes should be read and understood before specifying or using any of these hoses.

Throughout this catalog, potentially harmful situations are highlighted with the following symbols.

 This symbol is used to indicate imminently hazardous situations which, if not avoided, will result in serious injury or death.

 This symbol is used to indicate potentially hazardous situations which, if not avoided, could result in serious injury or death.

 This symbol is used to indicate potentially hazardous situations which, if not avoided, may result in property or equipment damage.

Some of the most common problems in the chemical hose industry result from improper hose and coupling

selection, improper assembly techniques, failure to correctly inspect and test hose assemblies, and improper cleaning practices and hose assembly storage techniques.

In turn, these situations can lead to material leakage, spraying, spattering, end blow-offs, explosions, and other situations that may result in serious personal injury and property damage.

Personal injuries caused by improper hose assembly specification, installation, and usage could include cuts and abrasions, serious burns, irreparable eye damage, or even death.

Therefore, for your safety and the safety of others working around you, Eaton strongly urges you to read and comply with all safety information printed in this publication.

 **WARNING:** Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose may result in its failure to perform in the manner intended and may result in serious injury, death, and damage to property.

 **WARNING:** Testing can be dangerous and should be done only by trained personnel using proper tools and procedures. Failure to follow such procedures might result in serious injury, death, or damage to property.

**Consult the coupling manufacturer to make sure you choose the correct coupling and proper assembly for the application, or contact Eaton Technical Support.**

**Before using any hoses in this catalog, consult the safety section in this catalog, and Chemical Compatibility Chart on page 21 or Boston Hose Chemical Resistance Guidelines. If you do not have the most recent copy, contact Eaton Customer Support at 1-888-258-0222.**

### Selection of Hose

Selection of the proper Boston hose for an application is essential to the proper operation and safe use of the hose and related equipment. Inappropriate hose selection may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying

fluids or flying projectiles. To avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog. Some of the factors to consider in proper hose selection are:

- hose size
- hose length
- hose ends
- fluid conveyed
- bends
- temperature
- hose pressure
- static head pressure
- installation design

These factors and the supplemental information contained in this catalog should be considered in selecting the proper hose for your application. If you have any questions regarding the proper hose for your application, please contact Eaton at 1-888-258-0222.

# Application Data

## Important Safety Information

### Proper Selection of Hose Ends

Selection of the proper Boston hose end or coupling is essential to the proper operation and safe use of hose assemblies and related equipment. Inadequate attention to the selection of the end fittings may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of an incompatible hose end or coupling, you should carefully review the information in this catalog. Some of the factors which are involved in the selection of the proper hose couplings are:

- fluid compatibility
- temperature
- installation design
- hose size
- corrosion requirements
- fluid conveyed

The given hose and hose end selection factors and the other information contained in this catalog should be considered by you in selecting the proper hose end fitting for your application.

If you have any questions regarding the use of hose/hose ends, please contact Eaton Technical Support at 1-888-258-0222.

### Hose Installation

Proper installation is essential to the proper operation and safe use of the hose assembly and related equipment.

Improper hose assembly installation may result in serious injury or property damage caused by spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from improper hose assembly installation carefully review the information in this catalog. Some of the factors to be considered when installing a hose assembly are:

- hose elongation or contraction
- proper bend radius/hose routing under pressure
- elbows and adapters to relieve strain
- protection from rubbing or abrasion high temperature sources
- protection against excessive movement
- twisting from pressure spikes/surges

These hose assembly installation factors and the other information in this catalog should be considered by you before installing the hose assembly. If you have any questions regarding proper hose installation, please contact Eaton Technical Support at 1-888-258-0222.

### Hose Maintenance


Proper maintenance of the hose is essential to the safe use of the hose and related equipment. Hose should be stored in a dry place. Hose should also be visually inspected. Any hose that has a cut or gouge in the cover that exposes the reinforcement should be retired from service. Hoses should also be inspected for kinking or broken reinforcement. If the outside diameter of the hose is reduced by 20% or more, the hose should be repaired or removed from service. Inadequate attention to hose maintenance may result in hose leakage, bursting, or other failure which may cause serious bodily injury or property damage from spraying fluids, flying projectiles, or other substances.

### Coll-O-Crimp Hose, Hose Ends and Assembly Equipment Compatibility

The Coll-O-Crimp Equipment Package, Coll-O-Crimp Hose Ends and Coll-O-Crimp Hose have been engineered and designed as a complete hose assembly system. Each component of the Coll-O-Crimp hose assembly system is compatible with other Coll-O-Crimp components to which it relates. Component compatibility, along with the use of quality components, insures the production of reliable hose assemblies when assembled properly. The use or intermixing of fittings and hose not specifically engineered and designed for use with each other and Coll-O-Crimp equipment is not recommended and may result in the production of unsafe or unreliable hose assemblies. This can result in hose assembly leakage, hose separation or other failures which can cause serious bodily injury or property damage from spraying fluids, flying projectiles, or other substances.

# Equipment

## Coll-O-Crimp Portable T-480

 Refer to safety information regarding Coll-O-Crimp hose, hose fittings and assembly equipment compatibility on pages 3-4.

### T-480-HP



Refer to pages 170 through 178 for Coll-O-Crimp tooling, tooling packages and pumps.

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 158.

Make factory-type hose assemblies anywhere-anytime! Versatile and portable, this package offers the ease of use you are looking for in a Coll-O-Crimp hose assembly system. The T-480 Coll-O-Crimp Press packages are offered in four options. Listed below are press/power unit packages.

For cabinets see pages 183-184 (not included).

#### T-480-HP • Portable Coll-O-Crimp Press & Hand Pump Package

**Capacity:** 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose-

**Mounting:** Free Standing Base

**Size:** 22-1/2" high, 14" long, 10-1/2" wide

**Total Weight:** 112 lbs.

#### Pump Specifications:

**Dimensions:** 7-3/16" high, 22" long, 4-3/4" wide

**Pressure:** 0-10,000 psi

**Outlet Port Size:** 3/8" NPT

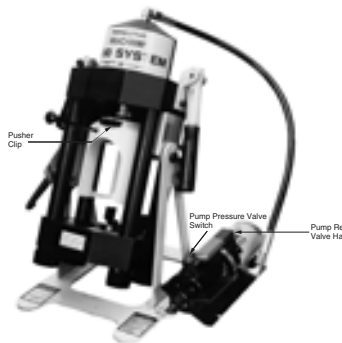
**Hydraulic Oil:** Enerpac

**Reservoir Capacity:** 55 cu. in.

Includes T-480-68 blue pusher extension ring. Refer to page 158 for instructions on the use of this ring.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

### T-480-AH



O-Crimp tooling, tooling packages and pumps

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 159.

#### T-480-AH • Portable Coll-O-Crimp Press & Air/Hydraulic Pump Package

**Capacity:** 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose

**Mounting:** Free Standing Base

**Size:** 22-1/2" high, 14" long, 10-1/2" wide

**Total Weight:** 124 lbs.

#### Pump Specifications:

**Dimensions:** 5" high, 15-1/2" long, 5-5/8" wide

**Pressure:** 0-10,000 psi

**Outlet Port Size:** 3/8" NPT

**Inlet Port:** 1/4" NPT

**Air Pressure:** 60-100 psi

**Hydraulic Oil:** Enerpac

**Reservoir Capacity:** 36 cu. in.


Includes T-480-68 blue pusher extension ring. Refer to page 159 for instructions on the use of this ring.

**Note:** It is recommended that a filter, regulator, lubricator, and air pressure gauge be installed upstream from the pump. Filter, regulator and lubricator units are not included.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

# Equipment

## Coll-O-Crimp Portable T-480

 Refer to safety information regarding Coll-O-Crimp hose, hose fittings and assembly equipment compatibility on pages 3-4.

### T-480-TA



Refer to pages 170 through 178 for Coll-O-Crimp tooling, tooling packages and pumps.

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 160.

#### T-480-TA • Portable Coll-O-Crimp Press & Turbo Air/Hydraulic Pump Package

**Capacity:** 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose  
**Mounting:** Free Standing Base  
**Size:** 22-1/2" high, 14" long, 10-1/2" wide  
**Total Weight:** 116 lbs.

**Pump Specifications:**  
**Dimensions:** 8-1/4" high, 14" long, 6-1/4" wide  
**Pressure:** 0-10,000 psi  
**Outlet Port Size:** 3/8" NPT  
**Inlet Port:** 1/4" NPT  
**Air Pressure:** 40-150 psi  
**Hydraulic Oil:** Enerpac  
**Reservoir Capacity:** 150 cu. in.

Includes T-480-68 blue pusher extension ring. Refer to page 160 for instructions on the use of this ring.

**Note:** It is recommended that a filter, regulator, lubricator, and air pressure gauge be installed upstream from the pump. Filter, regulator and lubricator units are not included.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

### T-480-EP



Refer to pages 170 through 178 for Coll-O-Crimp tooling, tooling packages and pumps.

Refer to safety information regarding Coll-O-Crimp crimping procedures on page 161.

#### T-480-EP • Portable Coll-O-Crimp Press & 120v Electric Pump Package

**Capacity:** 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose  
**Mounting:** Free Standing Base  
**Size:** 22-1/2" high, 14" long, 10-1/2" wide  
**Total Weight:** 134 lbs.


**Pump Specifications:**  
**Electrical Power Source:** 15amp, 120v grounded 1Ph 50/60HZ  
**Dimensions:** 14-1/4" high, 9-5/8" long, 9-5/8" wide  
**Pressure:** 0-10,000 psi  
**Outlet Port Size:** 3/8" NPT  
**Hydraulic Oil:** Enerpac  
**Reservoir Capacity:** 115.5 cu. in.  
**Flow:** .5 to 1.0 gpm  
**Motor Rating:** 1/2" hp universal, 9 amps at 10,000 psi

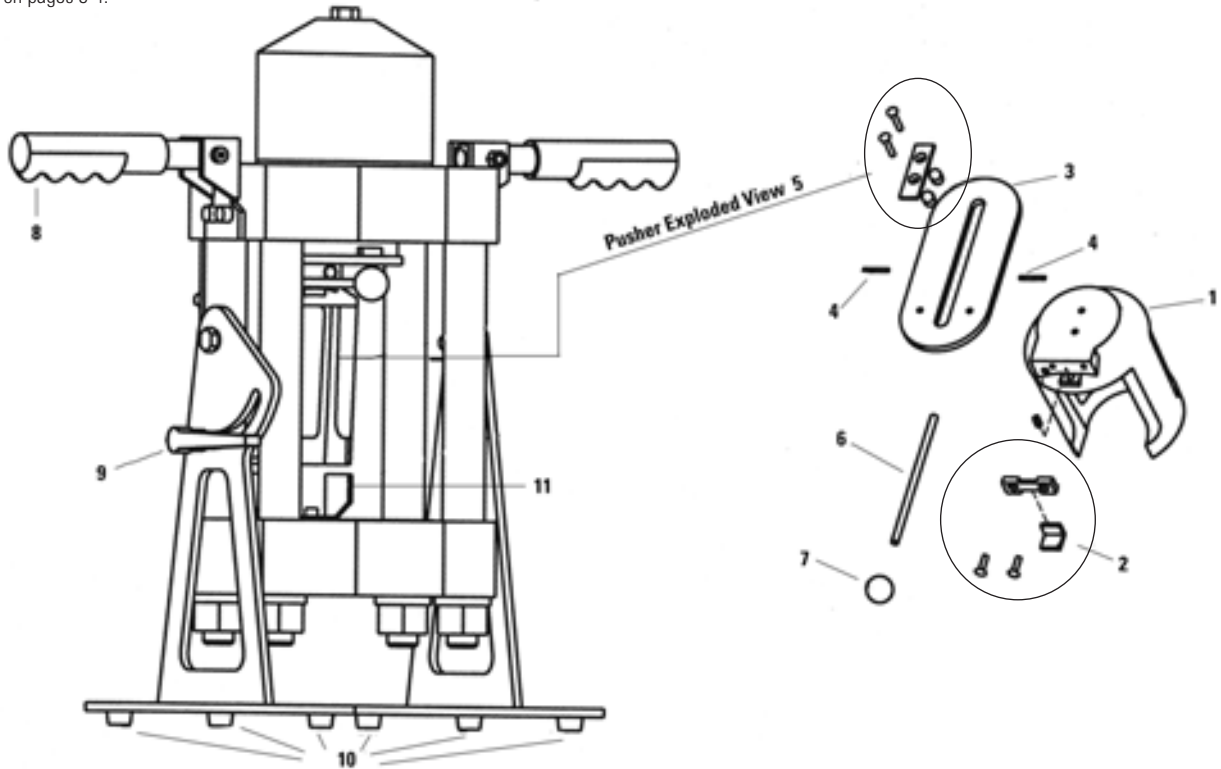
Includes T-480-68 blue pusher extension ring. Refer to page 161 for instructions on the use of this ring.

This ring is to be used with T-480 portable Coll-O-Crimp and the T-420 collets ONLY.

# Equipment

## Coll-O-Crimp Portable T-480

 Refer to safety information regarding Coll-O-Crimp hose, hose fittings and assembly equipment compatibility on pages 3-4.



### Repair & Replacement Items

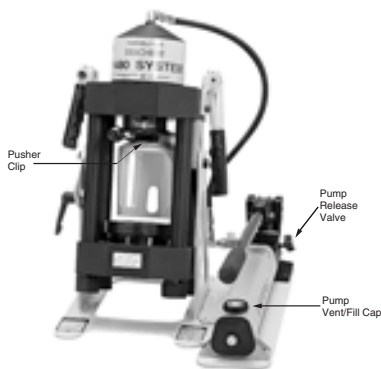
ITEM NUMBER	QTY.	PART NUMBER	DESCRIPTION	REMARKS
1	1	T-480-P	Pusher	
2	1	T-480-PSK	Pusher Stop Repair Kit	Includes pusher clip, 2 machine screws, pusher stop & spring
3	1	T-480-SP	Slider Plate	
4	2	140-05485-01*	Roll Pin	
5	1	T-480-SFK	Slide Flange Kit	Includes slide flange, 2 bushings & 2 machine screws
6	1	T-480-SPR	Slide Pull Rod	
7	1	T-480-SPK	Slide Pull Knob	
8	2	140-06601*	Vinyl Grip	
9	1	T-480-TBK	Tilt Bracket Knob	
10	6	140-06894*	Foot Pad	
11	1	T-480-69 Tool	Locator Bracket	
#	1	T-480-16	Hose Assembly	10,000 PSI replacement hose assembly for T-480-HP
#	1	T-480-17	Hose Assembly	10,000 PSI replacement hose assembly for T-480-TA and T-480-EP
#	1	T-480-18 Hose	Assembly	10,000 PSI replacement hose assembly for T-480-AH
#	1	140-06906*	Hydraulic Quick Coupler	Used with the T-480-TA and T-480-EP System
#	1	T-480-3	Turbo Air/Hydraulic Pump	Replacement pump for T-480-TA System
#	1	T-481-110	Electric Pump	Replacement pump for T-480-EP System
#	1	T-480-2	Hand Pump	Replacement pump for T-480-HP System
#	1	T-482-2	Air/Hydraulic Pump	Replacement pump for T-480-AH System
#	1	T-480-M	Set-up & Operating Guide	For T-480 System

# Item not illustrated in parts breakdown.

\* Please contact Customer Support at 1-888-258-0222 for price and availability on these items.

# Equipment

## Portable T-480-HP Crimping Procedure



1. Turn vent/ fill cap to **VENT** position to vent pump reservoir.
2. Close release valve on pump.



**Note:** Periodically lubricate die cavity with Boston T-400-G lubricant.

3. Release the pusher clip and slide pusher back.
4. Select the proper Boston hose, end fittings, and tooling (refer to the Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in end fitting.



5. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.



6. Holding uncrimped hose assembly in place, position T-480-68 blue pusher extension ring on top of collet.
7. Slide pusher forward, making sure pusher clip has locked.



8. Operate pump handle until T-480-68 blue pusher extension ring contacts the base plate, indicating that the crimp is complete. Open the RELEASE valve to retract pusher. Release the pusher clip and slide the pusher back. Remove the blue pusher extension ring from top of collet and then the crimped hose assembly from below.

**Note:** Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

### FOR T-400 TOOLING

**Note:** The T-480-68 blue extension ring is NOT used with T-400 tooling.

9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
  - a. Insert the T-420-25 adapter die ring into the base plate die cavity.
  - b. Periodically lubricate the T-420-25 adapter die ring or base plate die cavity.
  - c. Use T-400 collets and spacer rings.
  - d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

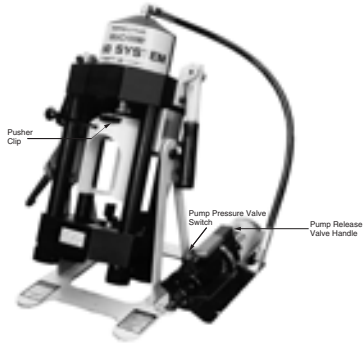


### WARNING

You must hold the hose assembly in place from below throughout the crimping operation. Do not place fingers or hands at the crimping point during operation. Failure to follow this procedure could result in serious injury to your hand or finger.

# Equipment

## Portable T-480-AH Crimping Procedure



1. Attach air supply to pump.



**Note:** Periodically lubricate the die ring with Boston T-400-G lubricant.

2. Release the pusher clip and slide pusher back.
3. Select the proper Boston hose, end fittings and tooling (refer to Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in fitting.



4. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.



5. Holding uncrimped hose assembly in place, position T-480-68 blue extension ring on top of collet.
6. Slide pusher forward, making sure pusher clip has locked.



**Note:** Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

7. Press ACTIVATION button and hold until T-480-68 blue pusher extension ring contacts the base plate, indicating that the crimp is complete. Depress PRESSURE valve to retract pusher. Release the pusher clip and slide the pusher back. Remove the blue pusher extension ring from top of collet and then crimped hose assembly from below.

### FOR T-400 TOOLING

**Note:** The T-480-68 blue extension ring is NOT used with T-400 tooling.

9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
  - a. Insert the T-420-25 adapter die ring into the base plate die cavity.
  - b. Periodically lubricate the T-420-25 adapter die ring or base plate die cavity.
  - c. Use T-400 collets and spacer rings.
  - d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.

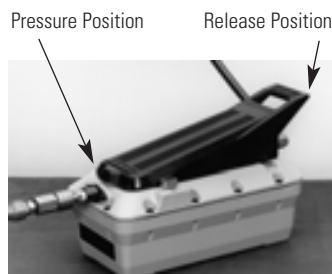


### WARNING

You must hold the hose assembly in place from below throughout the crimping operation. Do not place fingers or hands at the crimping point during operation. Failure to follow this procedure could result in serious injury to your hand or finger.

# Equipment

## Portable T-480-TA Crimping Procedure



1. Connect hose assembly to pump and crimper.
2. Attach air supply to pump.
3. Vent pump by opening vent screw 1-2 turns.



- Note:** Periodically lubricate the die ring with Boston T-400-G lubricant.
4. Release the pusher clip and slide pusher back.
  5. Select the proper Boston hose, end fittings and tooling (refer to the Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in fitting.



6. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.



7. Holding uncrimped hose assembly in place, position T-480-68 blue extension ring on top of collet.
8. Slide pusher forward, making sure pusher clip has locked.



- Note:** Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

9. Depress the PRESSURE end of treadle and hold until T-480-68 blue pusher extension ring contacts the base plate, indicating that the crimp is complete. Depress the RELEASE end of treadle to retract pusher. Release the pusher clip and slide the pusher back. Remove the blue pusher extension ring from top of collet and then the crimped hose assembly from below.

### FOR T-400 TOOLING

- Note:** The T-480-68 blue extension ring is NOT used with T-400 tooling.

9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
  - a. Insert the T-420-25 adapter die ring into the base plate die cavity.
  - b. Periodically lubricate the T-420-25 adapter die ring or base plate die cavity.
  - c. Use T-400 collets and spacer rings.
  - d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.



### WARNING

You must hold the hose assembly in place from below throughout the crimping operation. Do not place fingers or hands at the crimping point during operation. Failure to follow this procedure could result in serious injury to your hand or finger.



# Equipment

## Portable T-480-EP Crimping Procedure



1. Connect hose assembly to pump and crimper. Check all connections to be sure they are tight and leak free.
2. Open the pump vent plug by turning it 1-2 turns.



- Note: Periodically lubricate the die ring with Boston T-400-G lubricant.
3. Release the pusher clip and slide pusher back.
  4. Select the proper Boston hose, end fittings and tooling (refer to Hose End and Tool Selector Chart). Insert the hose into the end fitting, making sure that the hose is bottomed in end fitting.



5. Loosen knob and tilt press as necessary. Insert one end of hose assembly from below the base plate and between the collet halves. Align knurl on end fitting with top of collet, making sure that collet halves are evenly aligned.



6. Holding uncrimped hose assembly in place, position T-480-68 blue extension ring on top of collet.
7. Slide pusher forward, making sure pusher clip has locked.



8. Turn pump switch, located on side of shroud, to "ON" position. Press ADVANCE on pendant switch and hold until blue spacer extension ring contacts the base plate, indicating that the crimp is complete. Press RETRACT on the pendant switch and pusher will retract. Remove the blue pusher extension ring from top of collet and then the crimped hose assembly from below.

Note: Visually inspect the crimped end. Measure the nominal crimp diameter and verify that the crimp is within 1/16" from the locating knurl on the collar.

### FOR T-400 TOOLING

Note: The **T-480-68** blue extension ring is NOT used with T-400 tooling.

9. When crimping with Coll-O-Crimp I tooling the procedure is the same except;
  - a. Insert the **T-420-25** adapter die ring into the base plate die cavity.
  - b. Periodically lubricate the **T-420-25** adapter die ring or base plate die cavity.
  - c. Use **T-400** collets and spacer rings.
  - d. Align dimples on the end fitting with top of collet. When crimping 229 'P', 265 'P', 338 'P' and 757 'E' Series hose ends, align top of collar on hose end with top surface of collet.



### WARNING

You must hold the hose assembly in place from below throughout the crimping operation. Do not place fingers or hands at the crimping point during operation. Failure to follow this procedure could result in serious injury to your hand or finger.