

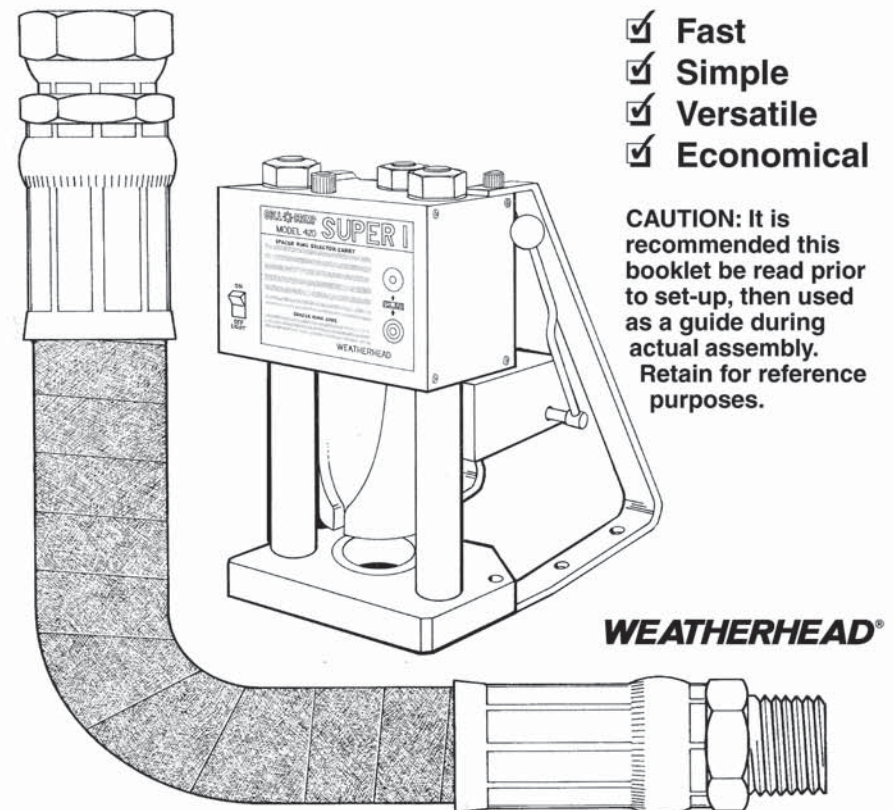
EAT•N**Weatherhead**

SUPER 1 COLL-O-CRIMP® I Model T-420-1
Set up and operating instructions

COLL-O-CRIMP®

- ✓ **Fast**
- ✓ **Simple**
- ✓ **Versatile**
- ✓ **Economical**

CAUTION: It is recommended this booklet be read prior to set-up, then used as a guide during actual assembly. Retain for reference purposes.



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Specifications and Equipment

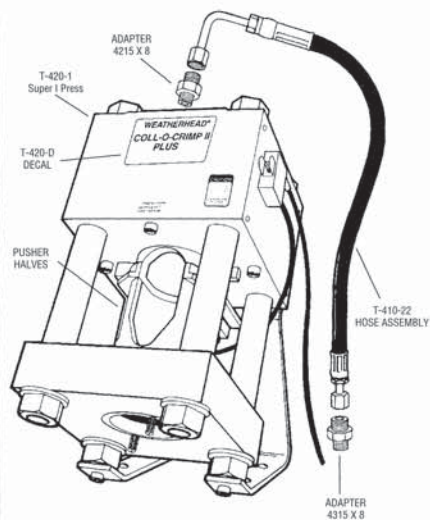
T-420-1 Coll-O-Crimp® Super I

The Coll-O-Crimp® Super I is a versatile machine ideal for your shop, factory, construction and mine locations. Either bench or cabinet mounted, the T-420-1 Coll-O-Crimp Super I press offers capabilities of 3/16" one fiber braid through 1- 1/4" I.D. six-spiral H470 hose. For cabinet see page 14.

Weight: 260 lbs.

T-420 Coll-O-Crimp® Super I Press with tooling includes one each of the following:

T-420-1	Coll-O-Crimp® Super I Press
T-421U	Electric Pump
T-400-2C	'U' Series Collet - 1/4"
T-400-3C	'U' Series Collet - 3/8"
T-400-4C	'U' Series Collet - 1/2"
T-400-5C	'U' Series Collet - 3/4"
T-400-6C	'U' Series Collet - 1"
T-400-10	Spacer Ring (black)
T-400-11	Spacer Ring (silver)
T-400-62	Spacer Ring (yellow)
T-410-22	Hose Assembly with Adapters
T-420-4C	1/2" Collet
T-420-5C	430 'E' Series Collet - 3/4"
T-420-6C	430 'E' Series Collet - 1"
T-420-7C	430 'E' Series Collet - 1-1/4"
T-420-25	Adapter Ring for T-400 Series Collets
T-420-M	Instruction kit



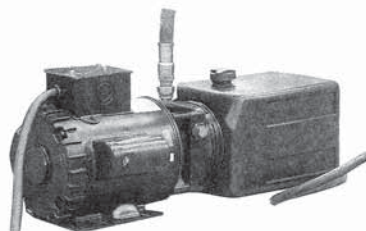
T-421U Electric Pump

Dimensions 7-1/2" high, 10" wide, 22" long
Weight 75 lbs.
Pressure 4000-4200 psi
Reservoir Size 6 quarts
Outlet Port Size 3/4-16 Straight Thread
Motor 1 H.P., 3450 RPM, 220 volts 60 cycle, single phase
Hydraulic Oil Automatic Transmission Fluid (ATF) or equivalent** SAE 10 Grade, ISO 32
Reservoir Capacity 6 quarts
Flow 2.5 GPM @ 900 psi .6 GPM Above 900 psi

** Use only if operating temp. below 0°F or above 160°F

Note: The electric pump must be on an individual 15 amp fused circuit.

CAUTION: The Coll-O-Crimp power source has the pressure relief valve set at 4000 to 4,200 psi. Damage to the press will result and the warranty may be voided if higher pressures are used.



Notes

Notes

Optional Coll-O-Crimp® Tooling and Kits

430 'E' Series Collets - (For Four Spiral hose H430)

T-420-4C Collet - 1/2"	T-420-6C Collet - 1/2"
T-420-5C Collet - 3/4"	T-420-7C Collet - 1-1/4"

T-420-60 Kit includes 1 each of the above.

470 'E' Series Collets - (For Six Spiral hose H470)

T-420-8C Collet - 1/2"	T-420-10C Collet - 1"
T-420-9C Collet - 3/4"	T-420-11 Collet - 1-1/4"

T-420-70 Kit includes 1 each of the above.

Conversion Tooling

If you desire to crimp hose other than four or six spiral hose, you will need the T-420-25 Adapter Die Ring. This ring allows the use of standard Coll-O-Crimp® I tooling, listed below, in the T-420-1 Coll-O-Crimp® Super I. Also listed are the proper spacer rings to use when converting your Super I. Order items individually by catalog number.

Note: See Hose End and Tool Selector Chart for proper spacer ring selection for hose style and size desired.

T-420-25 Adapter Die Ring for T-400 Collets
T-420-28 Spacer Ring Locator Bracket
T-400-10 Spacer Ring — Black
T-400-11 Spacer Ring — Silver
T-400-37 Spacer Ring — Green
T-400-38 Spacer Ring — Red
T-400-62 Spacer Ring — Yellow
T-400-92 Spacer Ring — Blue
T-420-D Spacer Ring Selector Decal
T-400-112 Spacer Ring — Tan

Additional Tooling Sets

'U' Series Collets - (For Rubber Hose H017, H039, H104, H105, H114, H115, H145, H146, H245, H300, H324, H338 & H425).

T-400-2C Collet - 1/4"	T-400-5C Collet - 3/4"
T-400-3C Collet - 3/8"	T-400-6C Collet - 1"
T-400-4C Collet - 1/2"	T-400-12 Collet - 1-1/4"
T-400-64C Collet - 5/8"	

T-400-67 Kit includes 1 each of the above.
FS-1100 Label Set/Layout Guide

NOTE: Black, Green or Silver Spacer Ring required for Rubber Hose. Spacer Rings not included in T-400-67 kit.

069 'E' Series Collets

(For Truck Hose H066, H069, H166, H169 & H369).

T-400-54C Collet - 3/16"	T-400-59C Collet - 5/8"
T-400-55C Collet - 1/4"	T-400-60C Collet - 7/8"
T-400-56C Collet - 5/16"	T-400-61C Collet - 1-1/8"
T-400-57C Collet - 13/32"	*T-400-70 Collet - 1-3/8"
T-400-58C Collet - 1/2"	(Not Included in T-400-66 Kit)

T-400-66 Kit includes 1 each of the above.

FS-1500 Label Set/Layout Guide

NOTE: Black, Silver or Yellow Spacer Rings required for Truck Hose. Spacer Rings not included in T-400-66.

S' Series Collets

(For Rubber Hose H039, H104, H14516, H425, H245).

T-400-2C Collet - 1/4"	T-400-5C Collet - 3/4"
T-400-3C Collet - 3/8"	T-400-6C Collet - 1"
T-400-4C Collet - 1/2"	T-400-12 Collet - 1-1/4"

NOTE: Black, Silver or Yellow Spacer Ring Required for Rubber Hose.

E' Series Collets

(For Nylon & Teflon Hose H009, H243, H435 & H436).

T-400-113C Collet - 3/16"	T-400-34C Collet - 1/2"
T-400-31C Collet - 1/4"	T-400-35C Collet - 3/4"
T-400-32C Collet - 5/16"	T-400-36C Collet - 1"
T-400-33C Collet - 3/8"	

T-400-30C Kit includes 1 ea. of the above.
FS-1200 Label Set/Layout guide

NOTE: Black Spacer Ring required for Nylon Hose. Green or Red Spacer Ring required for Teflon Hose. Spacer Rings not included in T-400-30 kit.

265 'P' Series Collets

(For Thermoplastic Hose H265, H275, H285).

T-400-2C Collet - 1/4"	T-400-64C Collet - 3/4"
T-400-3C Collet - 1/2"	

NOTE: Black, Green or Silver Spacer Ring Required for Thermoplastic Hose.

757 'E' Series Collets - (For Refrigerant Hose H757).

T-400-105C Collet - 5/16"	T-400-107C Collet - 1/2"
T-400-106C Collet - 13/32"	T-400-108C Collet - 5/8"

T-400-114 Kit includes 1 ea. of the above.
FS-3200 Label Set/Layout guide

NOTE: Black Spacer Ring Required. Spacer Ring not included in T-400-10 kit.

229 'P' Series Collets - (For Truck Hose H229).

T-400-80C Collet - 3/16"	T-400-82C Collet - 13/32"
T-400-81C Collet - 5/16"	T-400-83C Collet - 1/2"

NOTE: Black Spacer Ring Required for Truck Hose.

'M' Series Collets - (For Pressure Washer Hose H345).

T-400-109C Collet - 1/4"	T-400-111C Collet - 1/2"
T-400-110C Collet - 3/8"	

NOTE: Yellow Spacer Ring Required for Pressure Washer Hose.

Cabinet Mounting Instructions

The C-40X Stock Cabinet is designed specifically for your Coll-O-Crimp hose service program. The Coll-O-Crimp® Super I press T-420-1 and T-421U electric pump mount conveniently on top of the cabinet.

The C-40X cabinet has 40 heavy duty plastic drawers which divide into two, three or four compartments providing ample space for a large selection of Coll-O-Crimp Hose Ends and Adapters.

CAUTION: It is recommended these instructions be read thoroughly prior to set-up, then used as a guide during actual assembly.

STEP 1: Remove shipping carton from C-40X cabinet, then label cabinet using layout guide (BE-3) provided.

STEP 2: Remove shipping carton from T-420-1 press. There are two 1/2"-13 tapped holes in top of plate which may be used for lifting purposes (figure 1).

STEP 3: Using an adequate lifting device, raise the press to the left side of cabinet. Align holes in press support brackets with predrilled holes in cabinet. Insert bolts (found in cabinet) through top of cabinet. Washers and nuts are installed from underneath. Tighten.

STEP 4: T-421U Electric Pump mounts on right side of cabinet. Predrilled holes align the pump. Insert bolts through top of cabinet. Washers and nuts are installed from underneath. Tighten.

STEP 5: Remove plug from outlet port in pump.

STEP 6: Locate press/pump connecting hose assembly (T-410-22) and remove 4315X8 For-Seal adapter. Thread adapter into outlet port in pump (step 5).

STEP 7: Connect Hose assembly (T-410-22) to For-Seal adapter on press and pump. Tighten.

STEP 8: Before the electric pump (T-421U) can be activated, the male and female electrical disconnects must be mated. The female half and wire harness is shipped with the T-421U pump. Both male and female halves are keyed so that they can be connected in only the correct position. After the connection is made, tighten the knurled nut.

STEP 9: Plug electric cord into a grounded 220 volt, 60 cycle, single phase outlet. THE PUMP MUST BE ON A 15 AMP FUSED ELECTRICAL CIRCUIT.

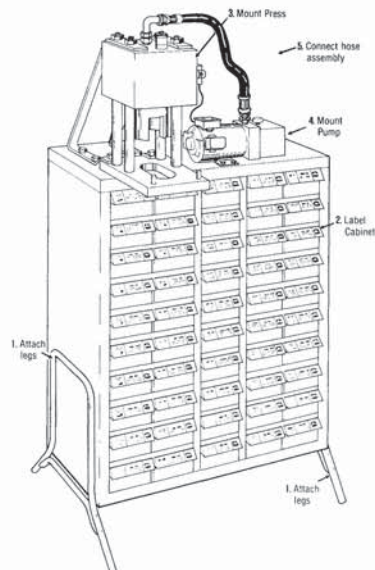
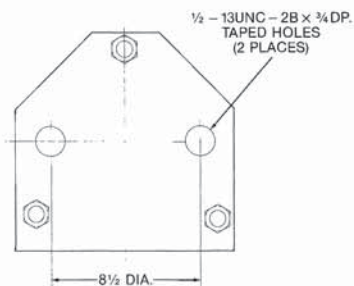


Figure 1 - Lifting hole Layout on Top Plate



Notes

Hose End and Tool Selector Chart

Nominal crimp diameters are for Weatherhead hose and end fittings when crimped with Weatherhead Coll-O-Crimp® tooling.

Spacer Ring								Spacer Ring							
Hose Type	Hose I.D.	Skive Tool	Hose End Prefix	Collet Number	Color	Flat Side	Nominal Crimp Dia.	Hose Type	Hose I.D.	Skive Tool	Hose End Prefix	Collet Number	Color	Flat Side	Nominal Crimp Dia.
H16912	5/8	N/R	06912E	T-400-59C	Silver	Up	1.080	H42504	1/4	N/R	*04U	T-400-2C	Black	Up	.620
H16916	7/8	N/R	06916E	T-400-60C	Black	Up	1.275	H42506	3/8	N/R	*06U	T-400-3C	Black	Up	.795
H16920	1-1/8	N/R	06920E	T-400-61C	Yellow	Up	1.520	H42508	1/2	N/R	*08U	T-400-4C	Black	Up	.925
H16924	1-3/8	N/R	06924E	T-400-70	Black	Up	1.730	H42510	5/8	N/R	*10U	T-400-64C	Black	Up	1.050
H20904	1/4	N/R	04E	T-400-31C	Black	Dn	.455	H42512	3/4	N/R	*12U	T-400-5C	Black	Up	1.215
H20905	5/16	N/R	05E	T-400-32C	Black	Dn	.555	H42516	1	N/R	*16U	T-400-6C	Black	Up	1.525
H20906	3/8	N/R	06E	T-400-33C	Black	Dn	.615	H42520	1-1/4	N/R	*20U	T-400-12	Black	Up	1.845
H24303	3/16	N/R	03E	T-400-113C	Tan	Dn	.355	H42512	3/4	Brush	43012E	T-420-5C	N/R	1.255	
H24304	1/4	N/R	04E	T-400-31C	Green	Up	.405	H42516	1	Brush	43016E	T-420-6C	N/R	1.545	
H24305	5/16	N/R	05E	T-400-32C	Red	Up	.475	H42520	1-1/4	Brush	43020E	T-420-7C	N/R	1.960	
H24306	3/8	N/R	06E	T-400-33C	Red	Up	.545	H42512	3/4	Brush	43012E	T-410-5C	N/R	1.235	
H24308	1/2	N/R	08E	T-400-34C	Red	Up	.695	H42516	1	Brush	43016E	T-410-6C	N/R	1.540	
H24312	3/4	N/R	12E	T-400-35C	Red	Up	.978	H42520	1-1/4	Brush	43020E	T-410-7C	N/R	1.860	
H24316	1	N/R	16E	T-400-36C	Red	Up	1.225	H42524	1-1/2	Brush	43024E	T-410-8C	N/R	2.115	
H24504	1/4	N/R	*04U	T-400-2C	Yellow	Dn	.560	H42528	2	Brush	43028E	T-410-9	N/R	2.690	
H24506	3/8	N/R	*06U	T-400-3C	Yellow	Dn	.740	H43008	1/2	T-410-30	43008E	T-420-4C	N/R	.950	
H24508	1/2	N/R	*08U	T-400-4C	Yellow	Dn	.865	H43012	3/4	T-410-31	43012E	T-420-5C	N/R	1.255	
H24510	5/8	N/R	*10U	T-400-64C	Yellow	Up	1.010	H43016	1	T-410-32	43016E	T-420-6C	N/R	1.545	
H24512	3/4	N/R	*12U	T-400-5C	Yellow	Up	1.160	H43020	1-1/4	T-410-33	43020E	T-420-7C	N/R	1.860	
H24516	1	N/R	*16U	T-400-6C	Yellow	Up	1.365	H43012	3/4	N/R	43012U	T-420-50N	N/R	1.406	
H24520	1-1/4	N/R	*20U	T-400-12	Yellow	Up	1.795	H43016	1	N/R	43016U	T-420-60N	N/R	1.705	
H26506	3/8	N/R	06E	T-400-33C	Black	Up	.660	H43020	1-1/4	N/R	43020U	T-420-70N	N/R	2.035	
H26508	1/2	N/R	08E	T-400-34C	Black	Up	.810	H43008	1/2	T-410-30	43008E	T-410-4C	N/R	.950	
H26512	3/4	N/R	12E	T-400-35C	Black	Up	1.090	H43012	3/4	T-410-31	43012E	T-410-5C	N/R	1.255	
H26516	1	N/R	16E	T-400-36C	Black	Up	1.340	H43016	1	T-410-32	43016E	T-410-6C	N/R	1.545	
H26504	1/4	N/R	26504P	T-400-2C	Green	Up	.520	H43020	1-1/4	T-410-33	43020E	T-410-7C	N/R	1.860	
H26506	3/8	N/R	26506P	T-400-2C	Silver	Up	.640	H43032	2	T-410-35	43032E	T-410-9	N/R	2.690	
H26508	1/2	N/R	26508P	T-400-3C	Black	Up	.788	H43012	3/4	N/R	43012U	T-410-50N	N/R	1.406	
H26512	3/4	N/R	26512P	T-400-64C	Silver	Up	1.070	H43016	1	N/R	43016U	T-410-60N	N/R	1.705	
H27506	3/8	N/R	06E	T-400-33C	Black	Up	.660	H43020	1-1/4	N/R	43020U	T-410-70N	N/R	2.035	
H27508	1/2	N/R	08E	T-400-34C	Black	Up	.810	H43504	1/4	N/R	04E	T-400-31C	Black	Dn	.455
H27512	3/4	N/R	12E	T-400-35C	Black	Up	1.090	H43505	5/16	N/R	05E	T-400-32C	Black	Dn	.555
H27516	1	N/R	16E	T-400-36C	Black	Up	1.340	H43506	3/8	N/R	06E	T-400-33C	Black	Dn	.615
H27504	1/4	N/R	26504P	T-400-2C	Green	Up	.520	H43508	1/2	N/R	08E	T-400-34C	Black	Dn	.765
H27506	3/8	N/R	26506P	T-400-2C	Silver	Up	.640	H43512	3/4	N/R	12E	T-400-35C	Black	Dn	1.035
H27508	1/2	N/R	26508P	T-400-3C	Black	Up	.788	H43516	1	N/R	16E	T-400-36C	Black	Dn	1.295
H27512	3/4	N/R	26512P	T-400-64C	Silver	Up	1.070	H43604	1/4	N/R	04E	T-400-31C	Black	Dn	.455
H28504	1/4	N/R	04E	T-400-31C	Black	Up	.500	H43605	5/16	N/R	05E	T-400-32C	Black	Dn	.555
H28506	3/8	N/R	06E	T-400-33C	Black	Up	.660	H43606	3/8	N/R	06E	T-400-33C	Black	Dn	.615
H28508	1/2	N/R	08E	T-400-34C	Black	Up	.810	H43608	1/2	N/R	08E	T-400-34C	Black	Dn	.765
H28512	3/4	N/R	12E	T-400-35C	Black	Up	1.090	H43612	3/4	N/R	12E	T-400-35C	Black	Dn	1.035
H28516	1	N/R	16E	T-400-36C	Black	Up	1.340	H43616	1	N/R	16E	T-400-36C	Black	Dn	1.295
H28504	1/4	N/R	26504P	T-400-2C	Green	Up	.520	H43908	1/2	T-410-30	43008E	T-420-4C	N/R	.950	
H28506	3/8	N/R	26506P	T-400-2C	Silver	Up	.640	H43912	3/4	T-410-31	43012E	T-420-5C	N/R	1.255	
H28508	1/2	N/R	26508P	T-400-3C	Black	Up	.788	H43916	1	T-410-32	43016E	T-420-6C	N/R	1.545	
H28512	3/4	N/R	26512P	T-400-64C	Silver	Up	1.070	H43920	1-1/4	T-410-33	43020E	T-420-7C	N/R	1.860	
H28504 requires hose end assembly tool T-101.								H43912	3/4	N/R	43012U	T-420-50N	N/R	1.406	
H30004	1/4	N/R	04U	T-400-2C	Black	Dn	.560	H43916	1	N/R	43016U	T-420-60N	N/R	1.705	
H30006	3/8	N/R	06U	T-400-3C	Black	Dn	.740	H43920	1-1/4	N/R	43020U	T-420-70N	N/R	2.035	
H30008	1/2	N/R	08U	T-400-4C	Black	Dn	.925	H43908	1/2	T-410-30	43008E	T-410-4C	N/R	.950	
H30010	5/8	N/R	10U	T-400-64C	Black	Up	1.050	H43912	3/4	T-410-31	43012E	T-410-5C	N/R	1.255	
H30012	3/4	N/R	12U	T-400-5C	Black	Up	1.215	H43916	1	T-410-32	43016E	T-410-6C	N/R	1.545	
H32406	3/8	N/R	06U	T-400-3C	Black	Up	.785	H43920	1-1/4	T-410-33	43020E	T-410-7C	N/R	1.860	
H33806	3/8	N/R	33806P	T-400-102C	Black	Dn	.700	H43912	3/4	N/R	43012U	T-410-50N	N/R	1.406	
H33808	1/2	N/R	33808P	T-400-103C	Black	Dn	.795	H43916	1	N/R	43016U	T-410-60N	N/R	1.705	
H34504	1/4	N/R	04M	T-400-109C	Yellow	Up	.630	H43920	1-1/4	N/R	43020U	T-410-70N	N/R	2.035	
H34506	3/8	N/R	06M	T-400-110C	Yellow	Up	.765	H47008	1/2	T-410-50	47008E	T-420-8C	N/R	.980	
H34508	1/2	N/R	08M	T-400-111C	Yellow	Up	.915	H47012	3/4	T-410-52	47012E	T-420-9C	N/R	1.250	
H36606	5/16	N/R	06906E	T-400-56C	Black	Up	.680	H47016	1	T-410-53	47016E	T-420-10C	N/R	1.570	
H36608	13/32	N/R	06908E	T-400-57C	Black	Up	.765	H47020	1-1/4	T-410-54	47020E	T-420-11C	N/R	2.030	
H36904	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525	H47024	1-1/2	T-410-55	47024E	T-420-12C	N/R	2.300	
H36906	5/16	N/R	06906E	T-400-56C	Yellow	Up	.650	H47028	2	T-410-56	47028E	T-420-13C	N/R	3.050	
H36908	13/32	N/R	06908E	T-400-57C	Black	Dn	.735	H75706	5/16	N/R	75706E	T-400-105C	Black	Dn	.495
H36910	1/2	N/R	06910E	T-400-58C	Black	Dn	.865	H75708	13/32	N/R	75708E	T-400-106C	Black	Dn	.595
H36912	5/8	N/R	06912E	T-400-59C	Black	Up	1.045	H75710	1/2	N/R	75710E	T-400-107C	Black	Dn	.695
H36916	7/8	N/R	06916E	T-400-60C	Black	Dn	1.220	H75712	5/8	N/R	75712E	T-400-108C	Black	Dn	.850
H36920	1-1/8	N/R	06920E	T-400-61C	Black	Dn	1.500								
H36924	1-3/8	N/R	06924E	T-400-70	Black	Dn	1.690								

Designates Hose End and Tooling Change (T-400)

Designates Hose End and Tooling Change (Alternate)

Designates Hose End and Tooling Change (T-420)

Designates Hose End and Tooling Change (T-410)

Designates Hose End and Tooling Change (T-400) Designates Hose End and Tooling Change (T-420)
Designates Hose End and Tooling Change (Alternate) Designates Hose End and Tooling Change (T-410)

Lubricate the tapered cone seat with Lubriplate grease or equivalent.
*Wire Brush - Method of hose cover removal.
*Stainless Steel Hose End and Tool Selector Chart on page 56 of 411g catalog.

Shop/Work Table Mounting Instructions

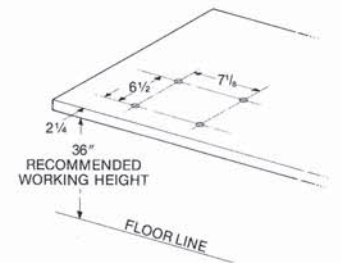
The following method of mounting your Coll-O-Crimp® Super I equipment package is offered as a guide and may be varied to suit your particular needs.

1. Prepare mounting surface for Coll-O-Crimp® Super I press and pump. Refer to figure 2 for bolt layout and optimum working height.

IMPORTANT: Care should be taken to insure the mounting surface is capable of supporting the weight of the press (260 lbs.) and power source (75 lbs.).

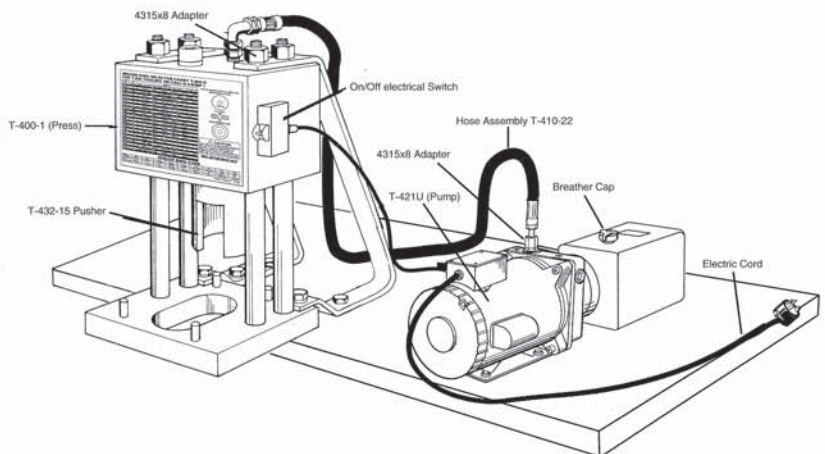
2. Remove shipping carton from T-420-1 press. There are two 1/2-13 tapped holes in top of plate which may be used for lifting purposes (see Figure 1, Page 4).
3. Using an adequate lifting device, raise the press to the mounting surface. Align holes in press support brackets with holes in mounting surface. Insert bolts through top of mounting surface. Washers and nuts are installed from underneath. Tighten.
4. Place the T-421U power unit on mounting surface to the right and slightly behind the T-420-1 press.
5. Mark mounting hole location for power unit and drill holes in mounting surface.
6. Replace power unit and align holes on mounting surface with base plate on power unit. Insert bolts through top of mounting surface. Washers and nuts are installed from underneath. Tighten.
7. Remove plug from outlet port in pump.

Figure 2 - Bench Layout for Coll-O-Crimp® Super I Equipment Set Up.



8. Locate the T-421U power unit on mounting surface to the right and slightly behind the T-420-1 press.
9. Connect Hose assembly (T-410-22) to 4315X8 For-Seal adapter on press and pump. Tighten.
10. Before the electric pump (T-421U) can be activated, the male and female electrical disconnects must be mated.
11. Plug electric cord into a grounded, 200 volt, 60 cycle, single phase outlet. THE PUMP MUST BE ON AN INDIVIDUAL 15 AMP FUSED ELECTRICAL CIRCUIT

Figure 3 - Typical Coll-O-Crimp® Super I Equipment Set Up on Shop/Work Table



Check-out Procedure

CAUTION: Throughout the Check-out Procedure check hose assembly/adaptor connections for any leaks. TIGHTEN if necessary.

CHECK oil level in power unit. The oil reservoir was filled at the factory; however, if oil is required use Automatic Transmission Fluid or equivalent.

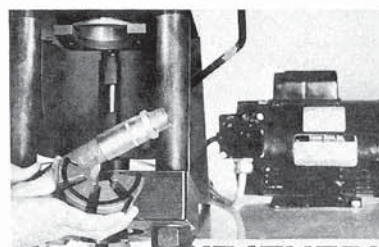
Check-out using electric pump (T-421U)

1. Remove pipe plug from fluid fill port on top of reservoir and replace with plastic breather cap.
2. Plug power cord into 220 volt, 60 cycle, single phase outlet. It is recommended that the pump be on an individual 15 amp fused electrical circuit.
3. To completely purge the hydraulic system, the ram return stops should be in the 'out' position to permit the ram to return to the full up position. (See page 7 Step 1 for procedure.
4. Pull activating lever down. Pusher halves will close. Continue to pull activating lever down until pump is activated. Hold down until pump bypasses.
5. Release activating lever. Pump will stop and pusher will retract.
6. Repeat Steps 4 and 5 approximately six times. This will purge the hydraulic system.

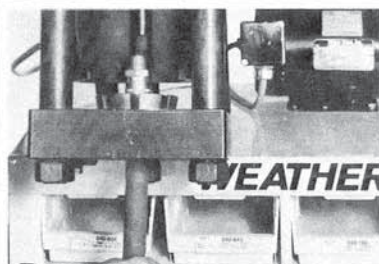
Operating Instructions



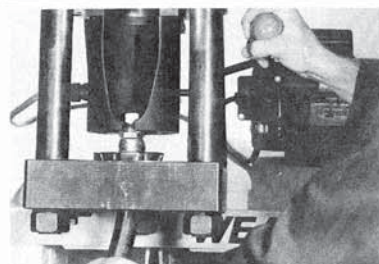
1. Place proper size Coll-O-Crimp hose end on skived hose (Reference page 10 for skiving procedures). Be sure hose is bottomed in hose end.



2. Select proper size collet for hose type and size being crimped. Insert collet in cavity of base plate.



3. Insert hose assembly from bottom between collet halves. Crimp locating knurl must align with top surface of collet.



4. Pull activating lever down. Pusher halves will close. Continue to pull activating lever down (pump will activate) until pusher contacts the base plate. The crimp is complete.

Hose End and Tool Selector Chart

WARNING – Proper Selection of Hose Ends: Selection of the proper end fittings for the hose end application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the end fittings for your application can result in leaking or the hose ends blowing off the hose, leading to serious bodily injury or property damage. In order to avoid serious bodily injury or property damage resulting from selection of the wrong end fitting, you should carefully review the information in this catalog.

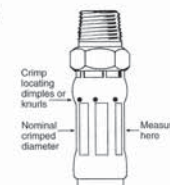
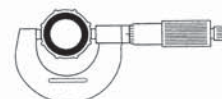
WARNING – Coll-O-Crimp® Hose, Hose Fittings and Assembly Equipment Compatibility: The Coll-O-Crimp® Equipment Package, Coll-O-Crimp® End Fittings, and Coll-O-Crimp® Hose have been engineered and designed as a complete hose assembly system. Each component of the Coll-O-Crimp® hose assembly system is compatible 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. The Weatherhead warranty is limited to apply only when Coll-O-Crimp® end fittings and compatible Coll-O-Crimp® hose are used with Coll-O-Crimp® assembly equipment.

Nominal Crimp Diameter Measurement

Measuring crimp diameters should be a part of the normal hose assembly procedure. To insure a proper crimp diameter reading, follow these steps.

1. Measure the diameter in the middle of crimped portion of the hose end.
2. Place the caliper in a position to allow a measurement across the pressed (flat) portion of the crimp.
3. See crimp diameters on following chart.

NOTE: In the larger sizes, calipers may be used; however, in the smaller sizes, and in the 'E' Series thermoplastic hose ends, a point micrometer will provide an accurate reading.



Nominal crimp diameters are for Weatherhead hose and end fittings when crimped with Weatherhead Coll-O-Crimp® tooling.

Hose Type	Hose I.D.	Skive Tool	Hose End Prefix	Collet Number	Spacer Ring			Hose Type	Hose I.D.	Skive Tool	Hose End Prefix	Collet Number	Spacer Ring		
					Color	Flat Side	Nominal Crimp Dia.						Color	Flat Side	Nominal Crimp Dia.
H00905	5/16	N/R	05E	T-400-32C	Black	Up	.585	H10512	3/4	N/R	11512H	T-400-5C	Black	Up	1.210
H00906	3/8	N/R	05E	T-400-33C	Black	Up	.655	H11404	1/4	N/R	04U	T-400-2C	Green	Up	.520
H00908	1/2	N/R	08E	T-400-34C	Black	Up	.805	H11406	3/8	N/R	06U	T-400-3C	Green	Up	.695
H01704	1/4	N/R	04U	T-400-2C	Yellow	Up	.580	H11408	1/2	N/R	08U	T-400-4C	Green	Up	.830
H01706	3/8	N/R	06U	T-400-3C	Black	Up	.785	H11504	1/4	N/R	04U	T-400-2C	Black	Up	.610
H01708	1/2	N/R	08U	T-400-4C	Silver	Up	.940	H11506	3/8	N/R	06U	T-400-3C	Black	Up	.790
H01712	3/4	N/R	12U	T-400-5C	Silver	Up	1.235	H11508	1/2	N/R	08U	T-400-4C	Silver	Up	.940
H01716	1	N/R	16U	T-400-6C	Silver	Up	1.525	H11512	3/4	N/R	12U	T-400-5C	Silver	Up	1.230
H01720	1-1/4	N/R	20U	T-400-12	Black	Up	1.785	H11516	1	N/R	16U	T-400-6C	Silver	Up	1.515
H03912	3/4	N/R	*12U	T-400-5C	Silver	Up	1.230	H11520	1-1/4	N/R	20U	T-400-12	Silver	Up	1.860
H03916	1	N/R	*16U	T-400-6C	Silver	Up	1.520	H11504	1/4	N/R	11504H	T-400-2C	Silver	Up	.645
H03920	1-1/4	N/R	*20U	T-400-12	Black	Dn	1.790	H11506	3/8	N/R	11506H	T-400-3C	Black	Dn	.740
H03924	1-1/2	N/R	*24U	T-400-12	Black	Dn	2.160	H11508	1/2	N/R	11508H	T-400-4C	Black	Dn	.865
H03928	2	N/R	*32U	T-400-12	Black	Dn	2.690	H11512	3/4	N/R	11512H	T-400-5C	Silver	Up	1.240
H06904	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525	H14504	1/4	N/R	04U	T-400-2C	Green	Up	.520
H06905	1/4	N/R	06905E	T-400-55C	Black	Up	.585	H14506	3/8	N/R	06U	T-400-3C	Green	Up	.695
H06906	5/16	N/R	06906E	T-400-56C	Black	Up	.680	H14508	1/2	N/R	08U	T-400-4C	Yellow	Dn	.870
H06908	13/32	N/R	06908E	T-400-57C	Yellow	Up	.765	H14510	5/8	N/R	10U	T-400-64C	Yellow	Up	1.010
H06910	1/2	N/R	06910E	T-400-58C	Black	Up	.910	H14512	3/4	N/R	12U	T-400-5C	Yellow	Dn	1.160
H06912	5/8	N/R	06912E	T-400-59C	Silver	Up	1.080	H14516	1	N/R	16S	T-400-6C	Yellow	Dn	1.445
H06916	7/8	N/R	06916E	T-400-60C	Black	Up	1.275	H14516	1	N/R	43016U	T-400-6C	Orange	Up	1.655
H06920	1-1/8	N/R	06920E	T-400-61C	Yellow	Up	1.520	H14516	1	N/R	43016U	T-400-6C	Orange	Up	1.655
H06924	1-3/8	N/R	06924E	T-400-70	Black	Up	1.730	H14604	1/4	N/R	04U	T-400-2C	Green	Up	.520
H10404	1/4	N/R	*04U	T-400-2C	Black	Dn	.560	H14606	3/8	N/R	06U	T-400-3C	Green	Up	.695
H10406	3/8	N/R	*06U	T-400-3C	Black	Dn	.740	H14608	1/2	N/R	08U	T-400-4C	Green	Up	.830
H10408	1/2	N/R	*08U	T-400-4C	Black	Dn	.865	H16604	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525
H10410	5/8	N/R	*10U	T-400-64C	Black	Dn	1.000	H16605	1/4	N/R	06905E	T-400-55C	Black	Up	.585
H10412	3/4	N/R	*12U	T-400-5C	Black	Dn	1.160	H16606	5/16	N/R	06906E	T-400-56C	Black	Up	.680
H10416	1	N/R	*16U	T-400-6C	Black	Dn	1.445	H16608	13/32	N/R	06908E	T-400-57C	Yellow	Up	.765
H10420	1-1/4	N/R	*20U	T-400-12	Black	Dn	1.785	H16610	1/2	N/R	06910E	T-400-58C	Black	Up	.910
H10504	1/4	N/R	04U	T-400-2C	Black	Up	.610	H16612	5/8	N/R	06912E	T-400-59C	Silver	Up	1.080
H10506	3/8	N/R	06U	T-400-3C	Black	Up	.730	H16616	7/8	N/R	06916E	T-400-60C	Black	Up	1.275
H10508	1/2	N/R	08U	T-400-4C	Silver	Up	.940	H16620	1-1/8	N/R	06920E	T-400-61C	Yellow	Up	1.520
H10512	3/4	N/R	12U	T-400-5C	Silver	Up	1.230	H16904	3/16	N/R	06904E	T-400-54C	Yellow	Up	.525
H10516	1	N/R	16U	T-400-6C	Silver	Up	1.515	H16905	1/4	N/R	06905E	T-400-55C	Black	Up	.585
H10504	1/4	N/R	11504H	T-400-2C	Black	Up	.612	H16906	5/16	N/R	06906E	T-400-56C	Black	Up	.680
H10506	3/8	N/R	11506H	T-400-3C	Green	Up	.698	H16908	13/32	N/R	06908E	T-400-57C	Yellow	Up	.765
H10508	1/2	N/R	11508H	T-400-4C	Green	Up	.825	H16910	1/2	N/R	06910E	T-400-58C	Black	Up	.910

Designates Hose End and Tooling Change (T-400)
Designates Hose End and Tooling Change (Alternate)

Designates Hose End and Tooling Change (T-420)
Designates Hose End and Tooling Change (T-410)

Lubricate the tapered cone seat with Lubriplate grease or equivalent.

*Stainless Steel Hose End and Tool Selector Chart on page 56 of 411g catalog.

N/R – Not required Dn – Down

WEATHERHEAD®

Stock Cabinets and Labels

C-40X • STOCK CABINET

The C-40X Stock Cabinet is designed specifically for your Coll-O-Crimp hose service program. The Coll-O-Crimp® Super I press T-420-1 and T-421U electric pump mount conveniently on top of the cabinet.

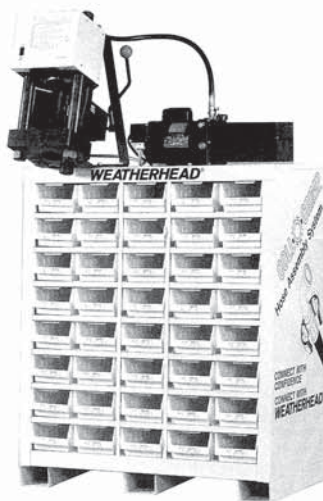
Ideal for use with T-400-1 Coll-O-Crimp® I or T-420-1 Coll-O-Crimp® Super I. The sturdy C-40X Cabinet contains 40 heavy-duty plastic drawers that can be divided into one, two, three or four compartments providing space for a large selection of Coll-O-Crimp® hose ends and adapters.

Drawers: PD-40

Dividers: PD-20

Size: 46-1/2" high, 40" wide, 26" deep at base, 18" deep at top

Weight: 228 lbs.

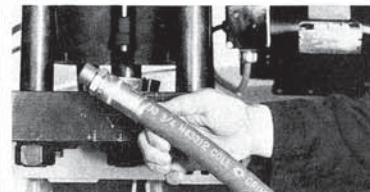


Self Adhesive Label Sets for C-40X

LABEL SET NUMBER	DESCRIPTION
FS-100	Swivel Adapters
FS-200	JIC Steel Adapters
FS-300	Split Flange Adapters
FS-500	Barb-Tite® Hose Ends
FS-600	Reusable Hose Ends - 069 'D' & 247 'N' Series
FS-700	Reusable Hose Ends - 425 'N' Series
FS-1100	Coll-O-Crimp® Hose Ends - 'U' Series
FS-1200	Coll-O-Crimp® Hose Ends - 'E' Series
FS-1300	Coll-O-Crimp® Hose Ends - 430 'E' Series
FS-1500	Coll-O-Crimp® Hose Ends - 069 'E' Series
FS-1700	Coll-O-Crimp® Hose Ends - 432 'E' Series
FS-1800	Coll-O-Crimp® Hose Ends - 470 'E' Series
FS-2000	Steel Pipe Adapters
FS-2200	Ready-Lok® Hose Ends & Adapters
FS-2300	Drain Cocks, Valves and Hose Ends
FS-2400	For-Seal Adapters
FS-2500	Metric Hose Ends
FS-2600	Metric Adapters
FS-3200	Coll-O-Crimp® Hose Ends - 757 'E' Series



Operating Instructions (Cont.)



5. Release activating lever. Pusher will automatically retract and pusher halves will open. Remove factory quality crimped hose assembly and visually inspect.
6. To insure a proper crimp has been completed, measure the nominal crimp diameter as shown in figure 4.

Figure 4 — The following are nominal crimp diameters for H425, H430, & H470 hose assemblies.

Hose I.D.	H425 & H430		H470
1/2"	.925	.950	.980
3/4"	1.050	1.255	1.250
1"	1.215	1.545	1.570
1-1/4"	1.525	1.860	2.030

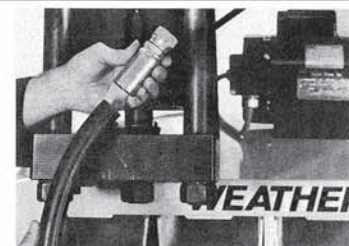
Crimp Procedures (Rubber, Nylon & Teflon® Hose)



1. Pull activating lever down. Pusher halves will close. Continue to pull activating lever down, pump will activate. As ram starts down rotate the ram return stops 'outward' from their 'inward' position. Release activating lever. Ram will return to the full up position allowing clearance for insertion of required tooling.

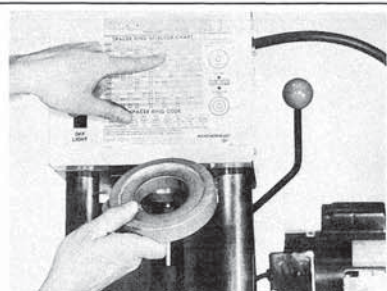


2. With pusher halves open, place T-420-25 adapter ring in the base plate cavity. Select proper size collet for hose type and size being crimped. Insert collet halves in adapter ring.

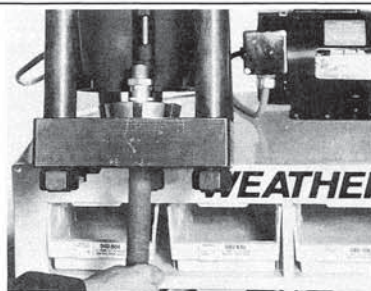


3. Place proper size Coll-O-Crimp® hose end on hose. Be sure the hose is bottomed in hose end. (Reference fig. A, page 9.)

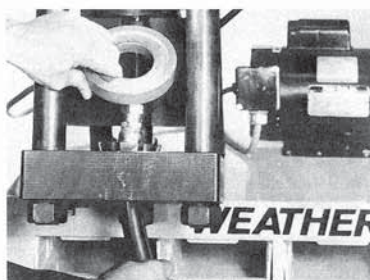
Crimp Procedures (Rubber, Nylon & Teflon[®] Hose) Cont.



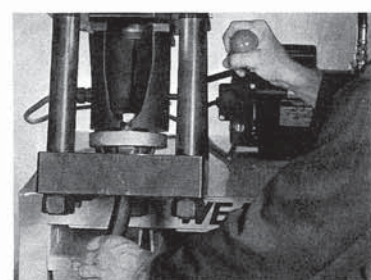
4. Select proper spacer ring. Reference spacer ring selector chart T-420-D located on front of T-420-1 Super I press, or hose end and tool selector chart on page 15.



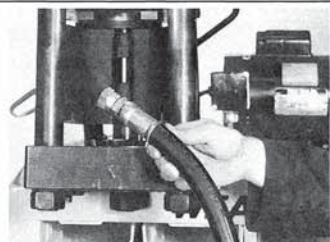
5. Insert hose assembly from bottom between collet halves. Align the dimples on the hose end collar with the top of the collet. When using the 757 series ends, the collar should be flush with the top of collet.



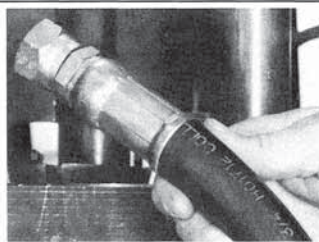
6. Place appropriate side of spacer ring on top of collet with uncrimped hose assembly held in place. (Reference figure B, page 9.)



7. Pull activating lever down. Pusher halves will close. Continue to pull activating lever down (pump will activate) until the spacer ring bottoms on adapter ring. The crimp is complete.



8. Release activating lever. Pusher halves will automatically retract and open. Remove factory crimped hose assembly and visually inspect the crimped end. The crimp on the collar should be located $\pm 1/16"$ from the dimples or ridges.



9. To insure a proper crimp has been completed, measure the nominal crimp diameter as shown on page 9 Figure C. Nominal crimp diameters are shown on page 15.

Troubleshooting Procedures

Troubleshooting Coll-O-Crimp T-421U Electric Pump

IMPORTANT: Pressure must be relieved from system before disconnecting hose, installing gauge or removing valves from pump.

Step 1: Check fuse, loose wire connections, switch malfunctions or damaged cord. Pump electric cord must be plugged into a grounded 220 volt, 60 cycle, single phase outlet on a 15 amp fused electrical circuit.

Step 2: Check oil level - after assembly and system has been purged of air the fluid level should be $1/2"$ from top of reservoir. Clean, anti-wear type, hydraulic oil having a (ISO 32) 300 SSU/100°F is recommended. Use only if operating temperature is below 0°F or above 160°. (See current 411 catalog for oil types.) Oil is needed to:

- 1) Transmit power easily through system
- 2) Lubricate moving parts
- 3) Provide seal clearances between parts
- 4) To cool or dissipate heat

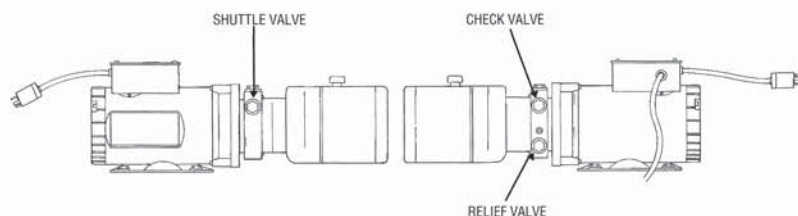
Step 3: Clean or Reset Relief Valve - A 6000 PSI pressure gauge, a $5/16"$ Allen wrench, a $1"$ socket and a screwdriver are required. Remove cap from relief valve. Remove adjustment screw, spring and ball. Ball should be attached to spring. Check ball and seat for possible scoring. Replace spring and ball in cavity. Insert a small punch through spring against ball. Give punch a moderate tap to seat ball. Return adjustment screw to original position making sure adjustment screw is at least one turn from bottoming. Remove $3/8"$ NPTF plug from port above check valve and install 6000 PSI pressure gauge. With 6000 PSI pressure gauge in place operate unit to full crimping position. Gauge should read 4000-4200 PSI. To raise setting, turn screw in (clockwise); to lower turn screw out (counterclockwise) in $1/4$ turn increments. After each adjustment recycle and read gauge for proper setting. Run a cycle of the crimping system for final gauge reading before removing gauge and reinstalling pipe plug.

Step 4: Shuttle Valve - If the shuttle valve is in a closed position and Coll-O-Crimp pusher will not retract it may be helpful to tap the shuttle valve cap several times to dislodge any silt that may be causing stem to bind. If this does not free valve and allow pusher to retract use extreme caution prior to proceeding with shuttle valve removal as the system is still under pressure. It may be advisable to relieve pressure at a hose connection to avoid an oil bath. After pressure is removed from system, remove cap and valve cartridge. Soak cartridge in a PETROLEUM BASED SOLVENT ONLY (clean Stoddard solvent). Do not use Triethylene, Gasoline or Paint Thinner as they will damage the O-Ring Seals. If cartridge disassembly is required, use care in removing stem as it has a .0005 metal seal fit. Rotate stem in solvent and push from seat end to remove from cartridge. Do not lose the loose ball. Wash parts in clean solvent and examine for any surface markings. If necessary, polish with a fine crocus cloth. After final cleaning reassemble cartridge. Shake cartridge and check for free movement of ball and stem. Replace cartridge if not functional at this point. Reassemble shuttle valve into its cavity and check crimping cycle prior to using system.

Troubleshooting Procedures

FRONT VIEW

BACK VIEW



Troubleshooting Coll-O-Crimp T-421U Electric Pump

PROBLEM	CAUSE	SOLUTIONS (Page 13)
Pump/motor does not start	Blown fuse; Improper electrical hookup (cut cord, loose wire, switch malfunctions)	Step #1
Motor starts but blows fuses	High Amps; Pusher doesn't advance; Pump binding or scored; Cold oil	Step #1 Replace Pump
Motor runs - Pusher does not advance	Shuttle stuck open; Pump coupling sheared; Pump unload valve stuck open	Step #4 Replace Pump
Motor runs - Pusher advances but doesn't develop final crimp pressure, blows fuse	Pump unload valve stuck shut	Replace Pump
Motor runs - Pusher advances but doesn't develop final crimp pressure.	Relief valve leaking; Shuttle valve leaking; Relief valve set low	Step #3 Step #4 Step #3
Pusher won't retract	Shuttle valve stuck closed	Step #4
Erratic Pusher movement	Low oil level Worn seal	Step #2 Replace Pump
Noisy Pump: On start up only (Continuous)	Low room temp. - oil too thick Air leaking - low oil level	Use lighter weight oil Step #2
Oil temperature hot	Having unit operate at crimping PSI too long Low oil level; Pump worn (longer cycle time) Leaking RV, shuttle valve	Operate for 3 seconds at crimp pressure Step #2 Replace Pump Step #3, #4

Crimp Procedures (Rubber, Nylon & Teflon[®] Hose) Cont.

Figure A

Insertion Depth

Place hose ends on hose until hose is bottomed in collar. To insure that hose is bottomed in collar, mark the insertion depth on the hose before inserting it into the hose end.



NOTE: The end, when properly crimped will show the mark made on the hose approximately 1/16" to 1/4" away from the end of collar.

Hose I.D.	"U" Series Rubber	"E" Series Nylon/Teflon	069 "E" Series Truck Hose	757 Series Refrigerant Hose
3/16	---	7/8	1	---
1/4	1-1/2	7/8	1	---
5/16	---	15/16	1-3/32	1
3/8	1-7/16	15/16	---	---
13/32	---	---	1-3/32	1-1/8
1/2	1-7/16	1-1/16	1-3/32	1-3/32
5/8	1-15/16	---	1-5/16	1-3/32
3/4	2-1/8	1-1/4	---	---
7/8	---	---	1-5/16	---
1	2-3/16	1-11/32	---	---
1-1/8	---	---	1-3/8	---
1-1/4	2-5/16	---	---	---

Figure B

COLL-O-CRIMP[®] Spacer Ring

Typical spacer ring illustrating both sides of ring.



FLAT SIDE



COUNTERBORE SIDE



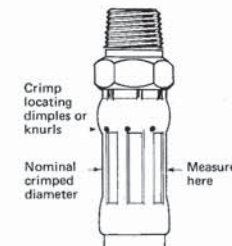
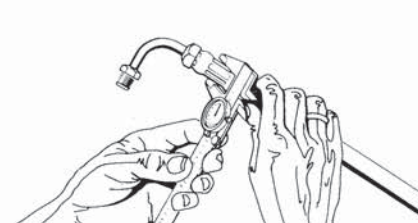
Figure C

Nominal Crimp Diameter Measurement

Measuring crimp diameters should be a part of the normal hose assembly procedure. To insure a proper crimp diameter reading, follow these steps:

1. Measure the diameter in the middle of crimped portion of the hose end.
2. Place the caliper in a position to allow for a measurement across the pressed (flat) portion of the crimp.
3. See crimp diameters on pages 15 and 16.

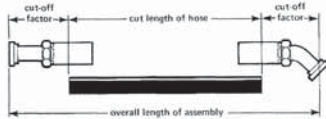
NOTE: In the larger sizes, calipers may be used; however, in the smaller sizes, and in the "E" Series thermoplastic hose ends, a point micrometer will provide an accurate reading.



Skiving Procedure

Hose Cut-Off Factor

Select the proper hose and ends and cut hose to length. The cut length of the hose is determined by subtracting the cut-off factor for each end from the overall length of the assembly. See individual catalog listings for hose cut-off factors.



SKIVING WEATHERHEAD HOSE

When using H195, H425, H430, & H439 Hoses with 430 'E' series hose ends and H470 hose with 470 'E' series hose ends

The outer protective covering of wire-wrapped hose must be carefully removed (skived) to allow for proper installation of crimped hose ends and to assure the best possible hose service.

There are two basic methods of skiving a hose ... hand-tool and wire-brush. Each method has specific advantages and should be used as shown below.

With either skiving method, it is advisable to skive a practice piece of hose to determine that covering is properly removed and that the hose wire-wrap reinforcements are not displaced, damaged or cut in the process. The hose should be checked for correct skive length and 100% cover removal.

HOSE		H425 #	H430 & H439	H470
Hose I.D.	Skive Length	Recommended Skiving Method	Skive Length	Cutting Head
1/2	1-3/8	Wire-Brush	1-3/8	T-410-30
3/4	1-11/16		11-11/16	T-410-31
1"	1-15/16		1-15/16	T-410-32
1-1/4	2-1/8		2-1/8	T-410-33
1-1/2	2-1/4		1-1/4	T-410-34
2"	2-9/16		2-9/16	T-410-35
T-410-36		Handle	# When used with 430 'E' series ends	
T-410-37		Replacement cutting blades	* Includes stop sleeve to insure proper skive length	

Wire-Brush Method

Position the end on a suitable mandrel and rotate the hose against a wire brush to remove the protective covering. See above for correct skive length. In some instances, with extreme caution, the hose may be hand-held while being skived. In either case, it is important that the covering be removed down to the wire wrap, and that the wire wrap not be disturbed or damaged.

Inspect skive for 100% cover removal.

Hand-Tool Method

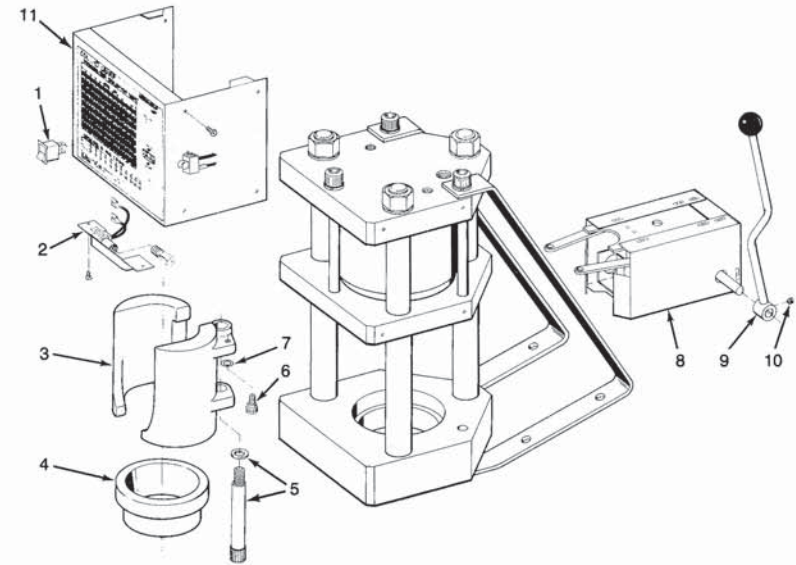
Skiving heads are shipped preset for proper skive length. Depending on hose cover thickness, the skiving blade may require adjustment. The directions are packed with the skiving tool.

1. Clamp hose in a vise or other suitable holding device. Be sure not to clamp so tight as to damage hose.
2. Lubricate hose I.D. and skiving-tool mandrel with oil or soap solution (use soap solution only for H195 hose).
3. Carefully align mandrel with hose I.D. Apply steady pressure and start mandrel into hose.
4. When cutting head contacts hose end, slowly rotate skiving tool clockwise. Cutting head will remove hose covering while threading itself to a preset skive length when bottomed against hose end. Continue to rotate skiving tool clockwise to remove excess rubber from wire wrap while slowly pulling tool from hose. (See illustration at right)
5. Wire brush hose end to remove any remaining cover from wire wrap.
6. Inspect skive for 100% cover removal.



IMPORTANT: Clean hose I.D. by brushing, blowing compressed air or by flushing.

Repair Parts



T-420-1 COLL-O-CRIMP® SUPER I PRESS (Repair Parts)

Item #	Part Number	Description	Remarks
1	T-420-LS*	Light Switch	
2	T-420-L*	Lamp Bulb	
3	T-420-P*	Pusher Halves	2 Per Set
4	T-420-25*	Adapter Ring	For T-400 Series Collets
5	T-420-B*	Pusher Bolt and Washer	
6	No Part Number	Socket HD Shoulder Screw	
7	No Part Number	Washer	
8	T-420-2K	Linkage Assembly	
9	No Part Number	Activating Lever	
11	T-420-S*	Press Shroud w/Decals	

*Reference current price list for price and availability.