

Conduit Sealing Fitting - C1D1&2 Groups C, D - C2D1&2 Groups F, G - Class III Instruction Manual

- The National Electrical Code in Article 501 Section 501.15 Class I, Division 1 and 2, requires that seals be installed in specific locations. This is to prevent the passage of gases, vapors or flames through the conduit from one portion of the electrical installation to another portion.
- Larson sealing unilets are C1D1 and C2D2 listed for use in hazardous locations with CHICO-SPS-6OZ compound. These compounds, when properly mixed and poured, hardens into a dense and strong mass which is insoluble in water, is not attacked by petroleum products and is not softened by heat.

WARNING:

Failure to follow safety instructions may cause ignition of hazardous atmosphere resulting in serious personal injury and / or property damage.

STEP 1.

Install unilet and pull conductors through.

- Remove plug(s) from sealing fitting and use fiber filler to make dam (s) in hub(s).

STEP 2.

DAMMING: Separate each conductor and pack fiber filler tightly into hub(s) behind conductors and around each conductor.

- These conductors **must not touch each other** nor the sealing fitting wall.
- Clean fiber shreds away from walls or conductors to prevent them from causing flame and / or leakage of gases. Finished dam must be flush with conduit hub bushing.

CAUTION

Refer to Table 1 to determine the maximum number and size of con-ductors allowed in a seal. (Page 4)

STEP 3.

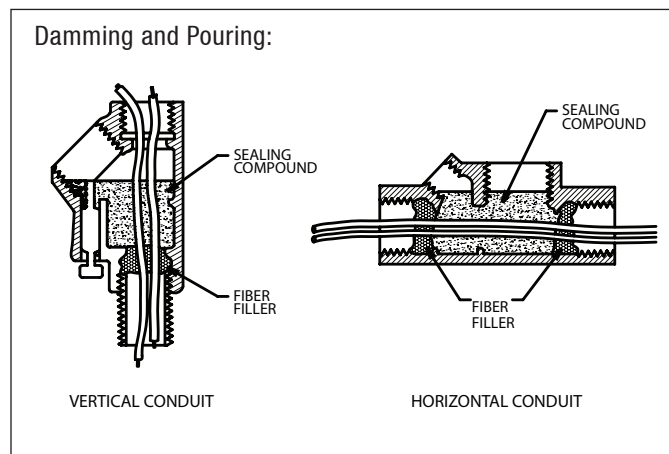
Mixing: Refer manual that comes with CHICO-SPS-6OZ compound for mixing instructions.

STEP 4

VERTICAL CONDUIT RUN. Pour sealing cement mixture into the small pipe opening until the cement is level with the last thread of the opening. Replace and tighten small pipe plug.

HORIZONTAL CONDUIT RUN. Pour sealing cement mixture into the unilet through the large opening until two (2) to three (3) threads are covered with the cement.

- Replace and tighten in sequence the large pipe plug or cover the small pipe plug into the unilet and the small pipe plug into the cover.

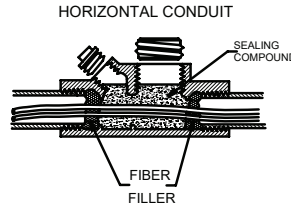
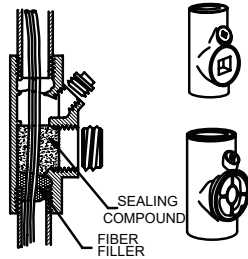


SEALING UNILETS EXPLOSION PROOF, DUST IGNITION PROOF FOR USE IN VERTICAL AND/OR HORIZONTAL CONDUIT RUNS

EYS, EYF AND EYM SERIES 1/2" TO 6"

EYD SERIES 1/2" TO 6"

VERTICAL CONDUIT



NOTE: On sizes 3-1/2" and 6" the cover should be tightened down with the small pipe plug removed from it. This will allow excess cement or air to escape out rather than seeping through or pushing the dam into the conduit. When the large cover has been tightened fully, replace pipe plug.

Vertical conduit

1. Install Unilet and pull conductors through.
2. Remove the pipe plug where the cement will be poured through and the large pipe plug or cover with the small pipe plug for size 3-1/2"-6" at the center of the Unilet.
3. Dam the lower hub with fiber filler. (Page 1, Steps 1 & 2.)
4. Replace the large pipe plug or cover with the small pipe plug for 3-1/2" thru 6" and tighten all threaded joints securely.
5. Mix Sealing Cement with the correct proportion of water per instructions provided with the cement. (Page 1, Step 3).
6. Pour Sealing Cement mixture into the small pipe plug opening until the cement is level with the last thread of the opening.
7. Replace and tighten small pipe plug.

Horizontal conduit

1. Install Unilet and pull conductors through.
2. Remove all pipe plugs and / or cover from the Unilet.
3. Dam both hubs with fiber filler. (Page 1, Steps 1 & 2)
4. Mix Sealing Cement with the correct proportion of water per instructions provided with the cement. (Page 1, Step 3).
5. Pour Sealing Cement mixture into the Unilet through the large opening until 2-3 threads are covered with the cement. Fill hole must be oriented in the upright position.
6. Replace and tighten in sequence the large pipe plug or cover, the small pipe plug into the Unilet and the small pipe plug into the cover.

These instructions may not cover all details or variations of this product for your equipment or installation requirements. Should further information not covered by these instructions be required, please contact Larson Electronics at 1-800-369-6671 for further assistance.

TABLE 1

THE MAXIMUM NUMBER OF CONDUCTORS THAT CAN BE SEALED IN A SEALING FITTING

Example On How To Use Table 1

- The maximum number of No. 4 Type THHN Conductors (Column B) in a 1-1/2" size sealing fitting is 6.
- The six (6) No. 4 THHN conductors represent the maximum wire fill of 25% or less for sealing fittings.
- Increasing the sealing fitting to a 2" trade size will provide space for the 40% wire fill, or nine (9) No. 4 conductors.

The Maximum number of wires that can be sealed in a fitting are as follows:

Trade Size	Conductor Size	Type	Max. No. Permitted For 25% Fill	Max. No. Permitted For 40% Fill/Trade Size Sealing Fitting Needed
1-1/2"	No.4	THHN (Coll.B)	6	(9/2")

Size AWG or Kcmil	1/2" Seal (O/N/PT Size)		3/4" Seal (O/N/PT Size)		1" Seal (O/N/PT Size)		1-1/4" Seal (O/N/PT Size)		1-1/2" Seal (O/N/PT Size)		2" Seal (O/N/PT Size)		2-1/2" Seal (O/N/PT Size)		3" Seal (O/N/PT Size)		3-1/2" Seal (O/N/PT Size)		4" Seal (O/N/PT Size)		5" Seal (O/N/PT Size)		6" Seal (O/N/PT Size)		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
18	7	11	12	20	33	58	49	80	131	115	187	176													
16	6	9	10	16	17	27	30	47	64	98	151	150													
14	3	8(13/4)	6	15(24/1)	10	24	18	43(69/2)	25	58(94/2)	41	96(154/3)	137	90											
12	3	6(10/4)	5	11(18/1)	18	15	32(51/2)	21	43(70/2)	50	102	76	103												
10	1(2-3/4)	4(6/4)	4	7(11/1)	7	11	20(32/2)	17(28/2)	27(44/2)	41	65	64	86	134	172	173									
8	1	2(3/4)	2	4(6/1)	4	6(9/1/4)	7	11(18/1)	16	26	35(57/4)	35	47	78(106/5)	60	100(136/5)	94	157	137						
6	1	1	1	2(4/1)	2	4(6/1/4)	3	4(7/2)	5	6(9/2)	8	9(16/3)	12	14	18	21(35/4)	24	29(47/5)	31	37(60/6)	40(50/6)	59	72	85	
4	1	1	1	1(2/1)	1	2(3/1-1/4)	3	3(6/2)	4	5(6/2)	7	8(13/3)	10	12	16	18(29/4)	21(22/4)	24	29(47/5)	28	31(51/6)	44	50	63	72
3	1	1	1	1	1	1(3/1-1/4)	3	3(6/2)	4	5(6/2)	6	7(11/3)	9	10	14	15(25/4)	19	20(30/5)	24	26(43/6)	38	42	55	61	
2	1	1	1	1	1	1	1	2(3/1-1/2)	3	3(6/2)	4	5(8/3)	7	7(12/3-1/2)	10	11(18/4)	14	15(25/5)	18	20(32/6)	29	31	42	45	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1/0	1	1	1	1	1	1	1	2(3/2)	2	2(4/2)	4	4(7/3)	6	6(10/3-1/2)	9	9(15/4)	12	13(21/5)	16	16(27/6)	25	26	37	38	
2/0	1	1	1	1	1	1	1	1(2/1-1/2)	1	2(3/2)	3	3(6/3)	5	5(8/3)	8	8(13/4)	11	11(17/5)	14	14(22/5)	22	22	32	32	
3/0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4/0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
250	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
300	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
350	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
400	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
500	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
600	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
700	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
900	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1250	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1500	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: For all other conductor sizes and types, wire fill is based on maximum 40% fill or less depending on conduit size and conductor type per the NEC Code.

- For all other conductor sizes and types, wire fill is based on maximum 25% fill or less.

* COL. A = Wire Types: RFH-2, RH, RHH, THW, TH, XHHW (AWG 14-6).

COL. B = FEP, THHN, THWN, TFN, PF, PGFF, XHHW (AWG4-2000 MCM), FEPBV (AWG 14-8).