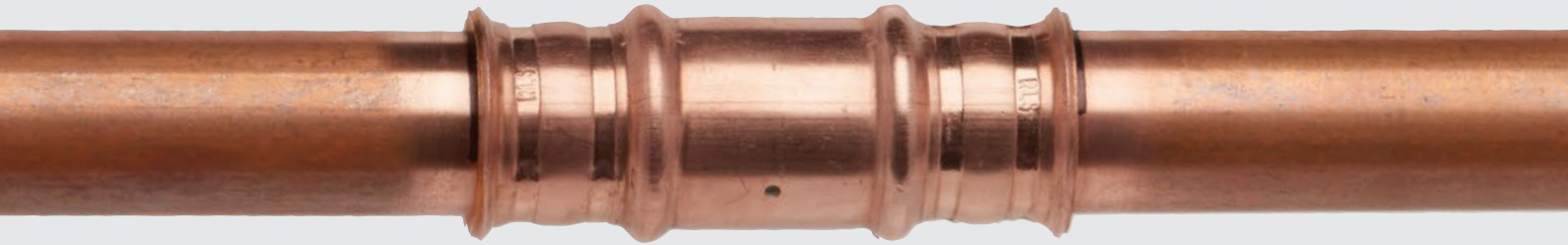
The Original Flame-Free
Refrigerant Press Fittings



⚠ WARNING

Failing to follow the instructions, guidelines and warnings contained in this booklet can lead to property damage, serious injury or death.

SAFETY INSTRUCTIONS

The installer/user must make every effort to read and understand this booklet in its entirety before beginning installation.

Installation Instructions

For 1-5/8" and 2-1/8" Fittings

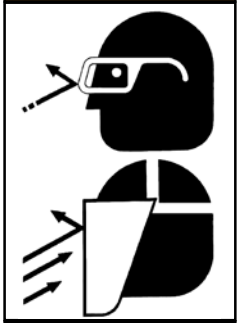
SAFETY INSTRUCTIONS

RLS fittings are only to be installed with RLS approved press tools, actuator jaws and collars. These are commercial and industrial tools – read the tool manuals in complete detail. Proper training is required to operate.

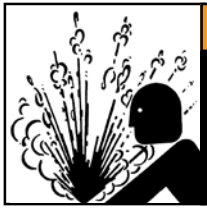
⚠ WARNING

- **Follow all instructions.**
- **Failure to follow all instructions may result in property damage, serious injury or death.**
- **Installation should only be done by a certified/qualified person.**
- **Do not perform any work on a pressurized system.**

⚠ WARNING



- **Users must use personal protection during the installation of RLS fittings.**
- **Wear safety glasses or face shield when installing RLS fittings.**
- **Failing to use safety glasses or face shield may result in serious personal injury or death.**



⚠ WARNING

- **Only use RLS fittings with compatible refrigerants.**
- **Using incompatible refrigerants may damage the system, and/or result in serious injury or death.**

Figure 1

Figure 2

Prepare Tool and Installation Aids

1. Assure that all the tools and installation aids are available prior to beginning installation. The following list is to be used as a reference:
   - RLS fitting (Figure 1)
   - RLS approved press tool, actuator jaw and collar – sized appropriately (Figure 2)
   - RLS installation aids (Figure 3)
     - – Depth/press gauge
     - – Abrasive pad
     - – Wire brush
     - – Permanent marker
     - – Tube cutter (not provided by RLS)
     - – Deburring tool (not provided by RLS)

Figure 3

Inspect Fitting and Tube

2. To ensure the integrity of the joint, visually determine if the O-rings are present and visually inspect the O-rings for obvious damage such as nicks or tears. Caution: If an O-ring appears to be damaged, is out of position, or is missing, DISCARD OLD FITTING AND USE A NEW ONE.
3. Perform a visual and tactile inspection of the tubing for surface imperfections referenced in ASTM B280, B88, or B1003 and the *Copper Tube Handbook* published by the Copper Development Association (CDA). Imperfections in and adjacent to the press or seal area could inhibit the joint integrity. These imperfections may include, but are not limited to:
   - Surface scratches
   - Incise marks (a required permanent mark of the tube manufacturer's name or logo)
   - Out of round (oval) on the cut ends
   - Production defects such as zippers
   - Dirt or debris
   - Items that may interfere with the O-Ring

Should any of the above situations be identified, select a different area of the tubing. If necessary, cut off the portion with the imperfections.

Cut Tube

4. Cut the copper tube using a tube cutter (Figure 4). Ensure tube section to be pressed is straight. Caution: Do not proceed if the tube is cut at any visible angle other than 90 degrees or if the tube is not straight. Do not use a worn or damaged tube cutter, which can damage the tube and compromise the installation. This may lead to injury, equipment damage or failure of the system.

Figure 4

Prepare Tube

5. Use a deburring tool to remove any residual burrs from the outside and inside of the tube (Figure 5). Note: it may be necessary to use a metal file to remove remaining burrs. Visual and tactile inspection should indicate no sharp edges or burrs remain. This is critical to avoid damaging the O-ring.
6. Use the included abrasive pad or adequate substitute (e.g. sand paper or sand cloth) to clean the end of the tubes to be joined (Figure 6). Tube ends should be free and clear of oxidation, dirt and debris. The surface should appear bright and shiny. Do not drop the tube, as this may cause damage and lead to improper installation. If the tube has been dropped, inspect it carefully and discard the tube if any damage is found.

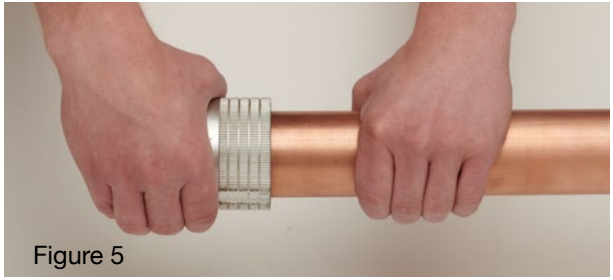


Figure 5

Figure 6

Connect Tube

7. Use the supplied depth/press gauge (Figure 7) or table below to mark inserted tube for insertion depth. Each tube must be marked to the correct insertion depth every time.

8. Push fitting onto tube and continue until the insertion marks are aligned with the end of the fitting. Make sure the tube is completely inserted into the fitting using the marks made in Step 7 (Figures 8 & 9).

Minimum Insertion Depth

Fitting Size	1-5/8"	2-1/8"
Depth (in)	1-3/4	2-1/8
Depth (mm)	44.5	54.0

Note: It is possible that the tube may be fully inserted and the marks may still be slightly visible as a result of the dimple or accuracy of marks.

Note: Fitting installation should be relatively easy with little resistance felt. If it seems overly difficult to install the fitting, remove from tube and check to make sure the O-ring hasn't been unseated. If this is the case, discard the fitting and use a new, replacement fitting.

⚠WARNING

- **Only RLS approved tools, actuator jaws and collars should be used to install RLS fittings.**
- **Failing to use the RLS approved jaws may result in property damage, serious injury or death.**

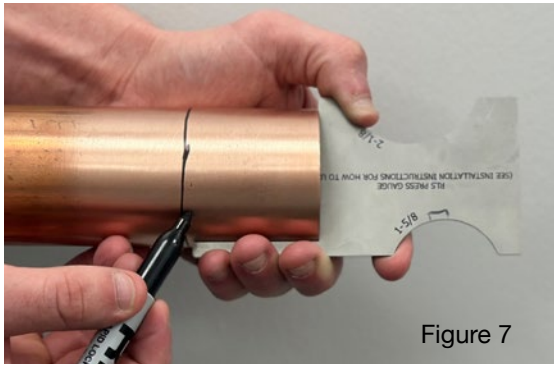


Figure 7

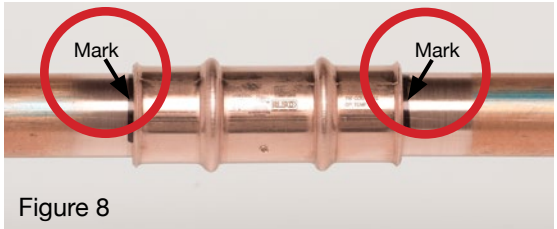


Figure 8

Figure 9

9. Press the tool locking pin and rotate 45° to release. Then slide the actuator jaw in to the press tool head (Figure 10) and depress the locking pin until it clicks (Figure 11).

10. Slide the charged battery onto the base of the tool (Figures 12 and 13). Press and hold the trigger on the tool until the cycle is completed to calibrate. Calibration is recommended every time a jaw is changed, prior to use.

⚠WARNING

COPPER TUBE ENDS SHOULD BE INSPECTED AND ANY SHARP EDGES SHOULD BE REMOVED. SHARP EDGES MAY CAUSE DAMAGE TO THE O-RING.

Note: *Refer to the manufacturer's instructions for specific tool and jaw operation.*

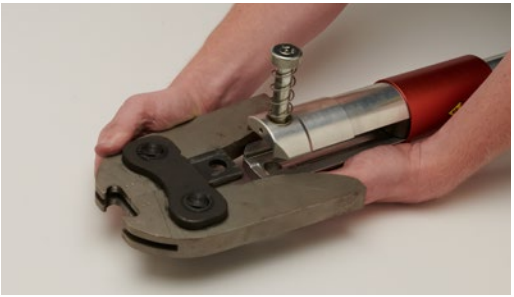


Figure 10

Figure 11

Figure 12

Figure 13

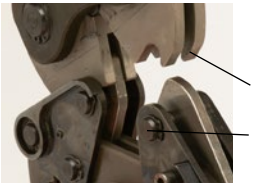
11. Choose the appropriate size collar and unlock the collar by pulling out the locking pin. Wrap the collar around the fitting to be pressed, lining up the grooves in the collar with the O-ring groove and the flare on the end of the fitting (Figures 14 and 15). Then push the locking pin back into place until is clicks (Figure 16).

12. Hook the bottom prongs of the actuator jaw onto the bottom connection pins of the collar, then lean the tool forward and hook the top prongs onto the top connection pins (Figures 17-19). Before proceeding, assure that both actuator jaw prongs are fully over both connection pins.

⚠ WARNING

- **Keep hands and fingers away from jaws during use.**
- **Failing to keep hands and fingers away from jaws may lead to serious personal injury.**

Note: *Refer to the manufacturer's instructions for specific tool and jaw operation.*



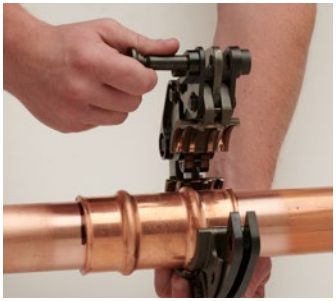


Figure 14

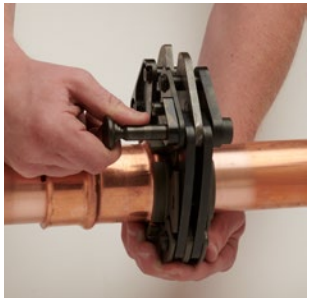


Figure 15

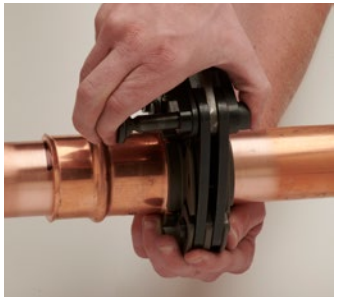


Figure 16

Figure 17

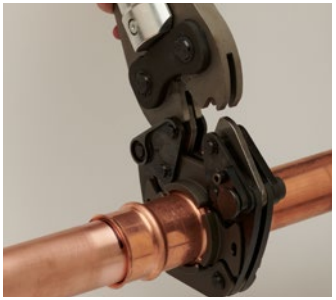


Figure 18

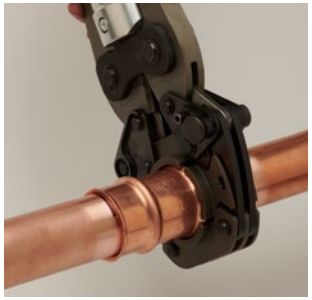


Figure 19

13. Press and hold the trigger on the tool to begin the pressing process. Continue to hold the trigger until the tool completes its cycle (Figure 20). The actuator jaw will not open until the cycle is completed without manual override. Repeat the process for the remaining fitting ends where appropriate.
14. Squeeze the base of the actuator jaw to release it from the collar
15. Pull out the locking pin on the collar and remove the collar from the fitting.

Figure 20

Verify Connection

16. To verify the press cycle was completed properly, a witness mark (RLS) will appear within the press bands (Figure 21). Failure to create the witness mark means the fitting is pressed incorrectly. If the witness mark cannot be seen, the fitting must be removed and the procedure must be restarted with a new fitting.

Figure 21

17. The RLS depth/press gauge will confirm the finished press band diameter. The gauge is marked to align with the proper size fitting and press required. When the fitting is properly pressed, the RLS press gauge allows the marked slot to fit snug on the press band (Figure 22). If the press band is unable to fit within the marked slot on the gauge, it is under-pressed and will need to be re-pressed starting with Step 11.

Note: Flashing may be left over from the pressing process on hard tube. If so, rotate the gauge so that the flashing is in line with the size marking when placed over the press bands. This will allow the diameter to be checked without interference from the flashing.

Use caution – flashing may be sharp.

Minimum Distance From Braze to Nearest Fitting End

Tube Diameter	1-5/8"	2-1/8"
Distance (in)	16-1/4	21-1/4
Distance (mm)	413	540

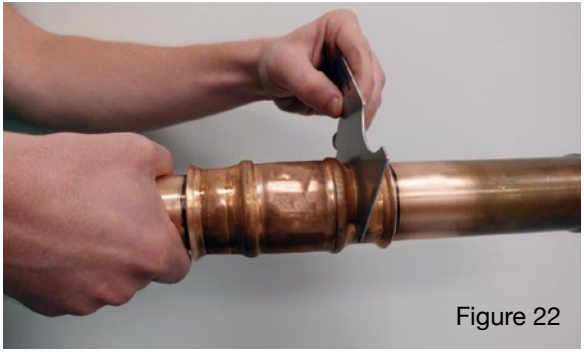


Figure 22

SAFETY INSTRUCTIONS

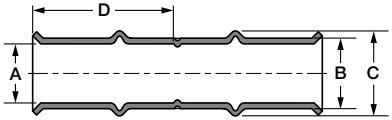
- **Do not rest the weight of the tool on the tube or fitting.**
- **Periodically check to ensure the collars are meeting and aligned.**
- **Do not leave battery on charger unattended or overnight.**
- **Ensure actuator jaws and collars are debris free.**
- **Do not braze or solder within distance indicated in the chart to the left.**

Note: *For specific tool care and maintenance, refer to the manufacturer's instructions.*

Couplings

Size (Inch)	Part Number	Dimensions (Inches)				Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D			
1/4	3011040400111	0.26	0.34	0.45	0.95	10	100	2.3 lbs.
5/16	3011050500111	0.32	0.40	0.52	0.93	10	100	2.9 lbs.
3/8	3011060600111	0.39	0.47	0.59	0.98	10	100	3.5 lbs.
1/2	3011080800111	0.51	0.59	0.73	1.25	10	100	6.1 lbs.
5/8	3011101000111	0.64	0.74	0.89	1.24	10	100	9.5 lbs.
3/4	3011121200111	0.76	0.88	1.07	1.29	10	40	5.5 lbs.
7/8	3011141400111	0.89	1.02	1.19	1.31	10	40	7.0 lbs.
1	3011161600111	1.01	1.16	1.36	1.31	10	40	9.5 lbs.
1-1/8	3011181800111	1.14	1.29	1.45	1.29	10	40	10.3 lbs.
1-1/4	3011202000111	1.26	1.41	1.62	1.30	12	24	7.4 lbs.
1-3/8	3011222200111	1.39	1.54	1.75	1.57	12	24	9.0 lbs.
1-5/8	3011262600111	1.64	1.88	2.18	1.85	4	4	3.4 lbs.
2-1/8	3011343400111	2.14	2.38	2.68	2.34	4	4	5.5 lbs.

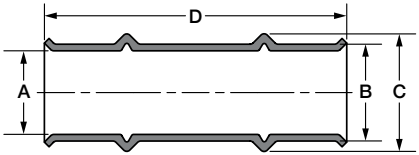
DIMENSIONS



Slip Couplings

Size (Inch)	Part Number	Dimensions (Inches)				Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D			
1/4	3021040400111	0.26	0.34	0.45	2.00	10	100	2.3 lbs.
5/16	3021050500111	0.32	0.40	0.52	2.01	10	100	2.9 lbs.
3/8	3021060600111	0.39	0.47	0.59	2.05	10	100	3.5 lbs.
1/2	3021080800111	0.51	0.59	0.73	2.74	10	100	6.1 lbs.
5/8	3021101000111	0.64	0.74	0.89	2.75	10	100	9.5 lbs.
3/4	3021121200111	0.76	0.88	1.07	2.75	10	40	5.5 lbs.
7/8	3021141400111	0.89	1.02	1.19	2.74	10	40	7.0 lbs.
1-1/8	3021181800111	1.14	1.29	1.45	2.77	10	40	10.3 lbs.
1-3/8	3021222200111	1.39	1.54	1.75	3.15	12	24	9.0 lbs.

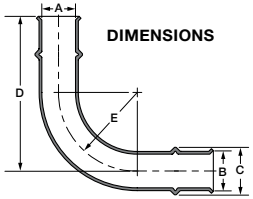
DIMENSIONS



90° Elbows

Size (Inch)	Part Number	Dimensions (Inches)					Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D	E			
1/4	3031040400111	0.26	0.34	0.45	2.01	0.68	10	100	4.4 lbs.
5/16	3031050500111	0.32	0.40	0.52	2.13	0.81	10	100	5.8 lbs.
3/8	3031060600111	0.39	0.47	0.59	2.27	0.93	10	100	7.4 lbs.
1/2	3031080800111	0.51	0.59	0.73	2.88	1.18	10	100	11.6 lbs.
5/8	3031101000111	0.64	0.74	0.89	3.21	1.47	10	100	20.0 lbs.
3/4	3031121200111	0.76	0.88	1.07	3.47	1.76	10	40	12.3 lbs.
7/8	3031141400111	0.89	1.02	1.19	3.75	2.03	10	40	16.6 lbs.
1	3031161600111	1.01	1.16	1.36	4.04	2.33	10	40	22.2 lbs.
1-1/8	3031181800111	1.14	1.29	1.45	4.29	2.54	10	40	27.8 lbs.
1-1/4	3031202000111	1.26	1.41	1.62	4.30	2.53	5	5	3.7 lbs.
1-3/8	3031222200111	1.39	1.54	1.75	4.54	2.75	5	5	4.9 lbs.
1-5/8	3031262600111	1.64	1.88	2.18	5.49	3.25	2	2	4.6 lbs.
2-1/8	3031343400111	2.14	2.38	2.68	6.83	4.25	2	2	7.3 lbs.

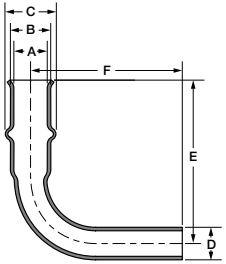
DIMENSIONS



90° Street Elbows

Size (Inch)	Part Number	Dimensions (Inches)						Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D	E	F			
3/8	3501060600111	0.39	0.47	0.59	0.38	1.75	1.89	10	100	4.8 lbs.
1/2	3501080800111	0.51	0.59	0.73	0.50	2.56	2.65	10	100	9.2 lbs.
5/8	3501101000111	0.64	0.74	0.89	0.63	2.64	2.81	10	100	15.1 lbs.
3/4	3501121200111	0.76	0.88	1.07	0.75	3.00	3.15	10	40	9.2 lbs.
7/8	3501141400111	0.89	1.02	1.19	0.88	3.25	3.40	10	40	12.7 lbs.
1-1/8	3501181800111	1.14	1.29	1.45	1.13	3.80	3.93	10	40	22.1 lbs.
1-3/8	3501222200111	1.39	1.54	1.75	1.38	4.38	4.51	5	5	3.8 lbs.

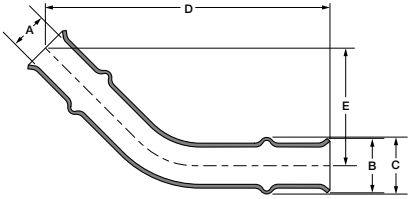
DIMENSIONS



45° Elbows

Size (Inch)	Part Number	Dimensions (Inches)					Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D	E			
3/8	3081060600111	0.39	0.56	0.59	2.94	1.21	10	100	5.8 lbs.
1/2	3081080800111	0.51	0.71	0.73	3.72	1.54	10	100	9.6 lbs.
5/8	3081101000111	0.64	0.86	0.88	3.97	1.64	10	100	15.9 lbs.
3/4	3081121200111	0.76	1.02	1.07	4.12	1.70	10	40	9.4 lbs.
7/8	3081141400111	0.89	1.13	1.19	4.49	1.86	10	40	12.7 lbs.
1-1/8	3081181800111	1.14	1.41	1.45	4.84	2.00	10	40	20.2 lbs.
1-3/8	3081222200111	1.39	1.68	1.75	5.11	2.11	5	5	3.8 lbs.
1-5/8	3081262600111	1.64	2.00	2.18	6.22	2.58	2	2	3.1 lbs.
2-1/8	3081343400111	2.14	2.57	2.68	7.44	3.08	2	2	4.7 lbs.

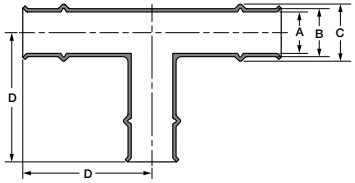
DIMENSIONS



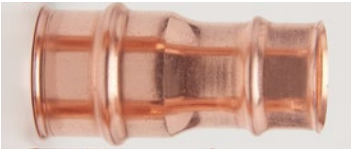
Tees

Size (Inch)	Part Number	Dimensions (Inches)				Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D			
3/8	3091060606111	0.39	0.47	0.59	1.63	10	100	8.4 lbs.
1/2	3091080808111	0.51	0.59	0.72	2.23	10	100	26.4 lbs.
5/8	3091101010111	0.64	0.74	0.87	2.30	10	100	26.8 lbs.
3/4	3091121212111	0.76	0.88	1.05	2.38	10	40	15.0 lbs.
7/8	3091141414111	0.89	1.02	1.19	2.43	10	40	20.3 lbs.
1	3091161616111	1.01	1.16	1.36	2.59	10	40	23.7 lbs.
1-1/8	3091181818111	1.14	1.29	1.45	2.56	10	40	30.4 lbs.
1-1/4	3091202020111	1.26	1.41	1.62	3.36	5	5	4.7 lbs.
1-3/8	3091222222111	1.39	1.54	1.75	3.36	5	5	5.3 lbs.
1-5/8	3091262626111	1.64	1.88	2.18	3.95	2	2	4.7 lbs
2-1/8	3091343434111	2.14	2.38	2.68	4.18	2	2	6.3 lbs.

DIMENSIONS

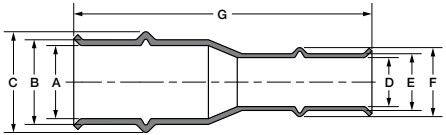


Reducers



Size (Inch)	Part Number	Dimensions (Inches)							Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D	E	F	G			
3/8 to 1/4	3051060400111	0.39	0.47	0.59	0.26	0.34	0.45	2.24	10	100	3.8 lbs.
1/2 to 1/4	3051080400111	0.51	0.59	0.73	0.26	0.34	0.45	2.71	10	100	5.0 lbs.
1/2 to 3/8	3051080600111	0.51	0.59	0.73	0.39	0.47	0.58	2.58	10	100	5.5 lbs.
5/8 to 1/4	3051100400111	0.64	0.74	0.89	0.26	0.34	0.45	2.70	10	100	7.9 lbs.
5/8 to 3/8	3051100600111	0.64	0.74	0.89	0.39	0.47	0.58	2.70	10	100	8.1 lbs.
5/8 to 1/2	3051100800111	0.64	0.74	0.87	0.51	0.59	0.72	3.10	10	100	8.7 lbs.
3/4 to 1/2	3051120800111	0.76	0.88	1.05	0.51	0.59	0.72	3.10	10	40	4.7 lbs.
3/4 to 5/8	3051121000111	0.76	0.88	1.05	0.64	0.74	0.87	3.00	10	40	5.2 lbs.
7/8 to 1/2	3051140800111	0.89	1.02	1.19	0.51	0.59	0.72	3.05	10	40	5.6 lbs.
7/8 to 5/8	3051141000111	0.89	1.02	1.19	0.64	0.74	0.87	3.05	10	40	6.6 lbs.
7/8 to 3/4	3051141200111	0.89	1.02	1.19	0.76	0.88	1.05	3.11	10	40	7.3 lbs.
1 to 7/8	3051161400111	1.01	1.16	1.37	0.89	1.02	1.19	3.09	10	40	9.1 lbs.
1-1/8 to 1/2	3051180800111	1.14	1.29	1.45	0.51	0.59	0.72	3.25	10	40	8.1 lbs.
1-1/8 to 5/8	3051181000111	1.14	1.29	1.45	0.64	0.74	0.87	3.25	10	40	9.0 lbs.
1-1/8 to 3/4	3051181200111	1.14	1.29	1.45	0.76	0.88	1.05	3.18	10	40	9.6 lbs.
1-1/8 to 7/8	3051181400111	1.14	1.29	1.45	0.89	1.02	1.19	3.10	10	40	9.9 lbs.
1-3/8 to 7/8	3051221400111	1.39	1.54	1.75	0.89	1.02	1.19	3.66	12	24	7.9 lbs.
1-3/8 to 1 1/8	3051221800111	1.39	1.54	1.75	1.14	1.29	1.45	3.34	12	24	8.2 lbs.
1-5/8 to 1-1/8	3051261800111	1.64	1.88	2.18	1.14	1.29	1.45	4.50	4	4	2.9 lbs.
1-5/8 to 1-3/8	3051262200111	1.64	1.88	2.18	1.39	1.54	1.75	4.30	4	4	3.0 lbs
2-1/8 to 1-3/8	3051342200111	2.14	2.38	2.68	1.39	1.54	1.75	5.20	4	4	4.3 lbs
2-1/8 to 1-5/8	3051342600111	2.14	2.38	2.68	1.64	1.88	2.18	5.05	4	4	5.2 lbs

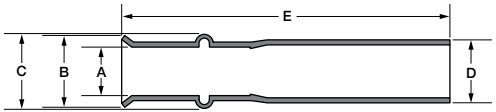
DIMENSIONS



Reducing Bushings

Size (Inch)	Part Number	Dimensions (Inches)					Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D	E			
1/2 to 3/8	3521080600111	0.39	0.56	0.59	0.50	2.50	10	100	4.6 lbs.
5/8 to 1/2	3521100800111	0.51	0.68	0.72	0.63	2.95	10	100	7.3 lbs.
3/4 to 5/8	3521121000111	0.64	0.84	0.87	0.75	2.98	10	40	4.4 lbs.
7/8 to 3/4	3521141200111	0.76	1.02	1.05	0.88	3.04	10	40	5.9 lbs.
1-1/8 to 7/8	3521181400111	0.89	1.10	1.19	1.13	3.06	10	40	8.5 lbs.
1-3/8 to 1-1/8	3521221800111	1.14	1.40	1.45	1.38	3.12	12	24	7.0 lbs.

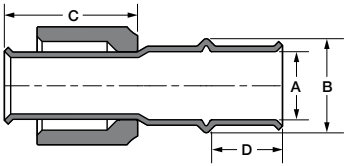
DIMENSIONS



SAE Euro Flares

Size (Inch)	Part Number	Dimensions (Inches)				Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D			
1/4	3291040000111	0.26	0.45	1.38	0.56	10	100	2.5 lbs.
3/8	3291060000111	0.39	0.59	1.38	0.58	10	100	3.7 lbs.
1/2	3291080000111	0.51	0.72	1.13	0.75	10	100	5.9 lbs.
5/8	3291100000111	0.64	0.87	1.48	0.75	10	40	3.6 lbs.
3/4	3291120000111	0.76	1.05	1.48	0.80	10	40	5.2 lbs.

DIMENSIONS



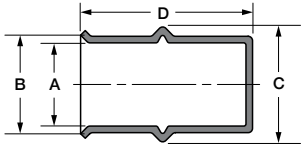
Per ARI Guideline M-97 45° Refrigeration Flare Fittings and Copper Tubing

Size	Torque, ft-lbs [N*m]	
	Minimum	Maximum
1/4"	8 [11]	10 [14]
3/8"	15 [20]	25 [34]
1/2"	25 [34]	35 [47]
5/8"	40 [54]	55 [75]
3/4"	50 [68]	60 [81]

Caps

Size (Inch)	Part Number	Dimensions (Inches)				Box Quantity	Carton Quantity	Carton Weight
		A	B	C	D			
1/4	3071040000111	0.26	0.34	0.45	1.45	10	100	1.8 lbs.
5/16	3071050000111	0.32	0.40	0.52	1.45	10	100	2.3 lbs.
3/8	3071060000111	0.39	0.47	0.59	1.45	10	100	2.6 lbs.
1/2	3071080000111	0.51	0.59	0.72	1.97	10	100	5.1 lbs.
5/8	3071100000111	0.64	0.74	0.87	1.98	10	100	6.9 lbs.
3/4	3071120000111	0.76	0.88	1.05	1.97	10	40	3.8 lbs.
7/8	3071140000111	0.89	1.02	1.19	1.90	10	40	4.9 lbs.
1	3071160000111	1.01	1.16	1.36	2.00	10	40	7.2 lbs.
1-1/8	3071180000111	1.14	1.29	1.45	1.99	10	40	7.8 lbs.
1-1/4	3071200000111	1.26	1.41	1.62	2.50	12	24	6.5 lbs.
1-3/8	3071220000111	1.39	1.54	1.75	2.49	12	24	7.2 lbs.

DIMENSIONS



Troubleshooting

Recommended steps to ensure that a fitting doesn't leak after pressing

- Inspect tubing carefully and verify there are no scratches, incise marks, zippers or dents prior to tube cutting. Be careful when using a knife to cut off plastic shipping caps or insulation off copper tubes.
- Take time to cut the tubing properly by using a tubing cutter. Rushing through the cutting process may cause dents or oval tubing, which can create leaks.
- Verify proper deburring/sanding/cleaning of tube surface per instructions.
- Verify proper tube insertion depth using provided depth gauge. Refer to the "Minimum Insertion Depth" table on page 5 if you do not have a gauge.
- Verify the proper press diameter using the provided press gauge.
- Verify the correct jaw is installed for the fitting you are trying to press.
- If jaw is sticking during the press, try applying a light coating of spray lubricant such as WD-40 directly to the jaws.
- Let jaw and tool do the work. If the fitting is in a hard to reach place, it is important to let the tool body move freely.
- Avoid applying any sort of pulling or twisting of the tool during the pressing process.
- If the fitting was recently pressed (15-20 minutes) prior to pressurization, it is possible any bubbles are a result of trapped air in the double press area that can leak out over time, and IS NOT a fitting leak. This is more likely to occur on smaller fitings.

If a fitting does leak, do not braze it.

- Trying to braze the fitting will very likely melt the O-ring material and thus introduce contaminants into the system that could cause other system issues. **THE FITTINGS SHOULD NEVER BE BRAZED.**

Warnings

- Use only with approved refrigerants. Review product specifications for more details.
- Periodically check to ensure the jaws are meeting and aligned.
- Wear proper eye protection during installation.
- Keep hands and fingers away from the jaws during use.
- Use supplied brush to ensure jaws are debris free.
- If brazing or soldering nearby, ensure proper sealing of the fitting by maintaining a minimum braze distance from connections. Refer to the table on page 9 for minimum distance from a fitting to a braze joint per tube size. The installer should take the conventional precautions to keep the fitting cool by providing a heat sink (wet ragging, heat block, etc). This will ensure that the O-ring is not damaged during the brazing process.

Technical Data

Applications
High-pressure HVAC/R, ethylene glycol, non-potable water

Product Parameters
- Continuous Operating Temperature: 250°F / 121°C
- O-Ring Temperature Rating: -40°F to +300°F / -40°C to +149°C
- Maximum Allowable Working Pressure (MAWP): 700 psi / 48 bar
- Minimum Required Test Pressure (UL 207): 2,100 psi / 145 bar
- Vacuum Pressure Capability: <200 Microns
- External Helium Leak Rate: $<7.5 \times 10^{-7}$ Pa•m³/s per ISO 14903
- Vibration Resistance: Conforms to UL 207
- Pull Test: Compliant with UL 207 for A1 fluids
- Size Availability (Inches): 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/8, 1-1/4, 1-3/8, 1-5/8, 2-1/8

Fitting Materials
- Fitting Body: Refrigerant Grade Copper, per ASTM-B75 or ASTM-B743
- O-Ring: HNBR

Compatibility
- Approved Oils: Mineral Oil, POE, PVE, PAG
- Approved Tubing Materials: Copper-to-Copper Connections
- Approved Tubing Tolerance: ASTM B88/B280, EN 12735 & AS/NZS 1571
- Approved Copper Tubing Types for 32 kN Tool/Jaws
  - Hard/Drawn: 1/4" - 2-1/8" Type ACR, L, K
  - Soft/Annealed: 1/4" - 1-3/8" Type ACR, L, K
- Approved Copper Tubing Types for 19 kN and 24 kN Tool/Jaws
  - Hard/Drawn: 1/4" - 1-3/8" Type ACR, L, K
  - Soft/Annealed: 1/4" - 1-3/8" Type ACR, L, K
- Approved Copper Tubing Types for 15 kN Tool/Jaws
  - Hard/Drawn: 1/4" - 1-1/8" Type ACR, L; 1/4" - 7/8" Type K
  - Soft/Annealed: 1/4" - 1-1/8" Type ACR, L; 1/4" - 7/8" Type K

Agency Certifications and Approvals
- UL Listed: 207, SA#33958, SDTW (7) (Except where noted)
- UL Listed: Approved Use For Field & Factory Installations
- ISO 5149-2: Part 2 Compliant
- ASHRAE-15, ANSI 15, ASME B31.5 (504.7)
- ICC-ES, PMG-1296
- International Mechanical Code (IMC) 2021, 2018, 2015, 2012, 2009, 2006
- International Residential Code (IRC) 2021, 2018, 2015, 2012, 2009, 2006
- Uniform Mechanical Code (UMC) 2021, 2018, 2015, 2012, 2009, 2006
- CRN 0A22551 and 0A18303
- JCDA Certified

Approved Refrigerants
For a list of approved refrigerants, visit rapidlockingsystem.com.

For technical questions or replacement information for any of the RLS installation aids, send an email to **info@rapidlockingsystem.com.**

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