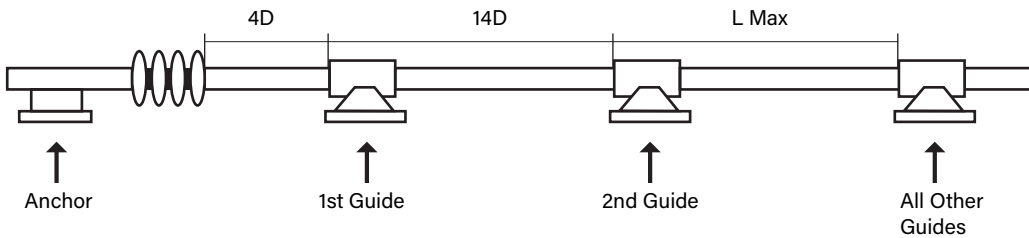


PIPE GUIDE SPACING AND INSTALLATION

Carbon Steel Guide and Bracket Installation

D = Pipe O.D.



Pipe Size	Expansion Joint to First Guide	First to Second Guide	Maximum Distance Between Intermediate Guide (ft.) For Pressures (PSIG) Shown Below				
			50	100	150	200	250
3"	1'	3.5'	33'	24'	21'	19'	17'
4"	1.25'	4.75'	45'	33'	27'	25'	23'
5"	1.75'	5.75'	53'	41'	34'	31'	27'
6"	2'	7'	60'	43'	37'	33'	31'
8"	2.75'	9.25'	75'	56'	47'	43'	39'
10"	3.25'	11.75'	94'	70'	60'	53'	47'
12"	4'	14'	104'	77'	65'	57'	53'

Copper Tube Guide Spacing

Tube Sheet	4 x D	14 x D	Maximum Spacing For Intermediate Guides For Copper Water Tube (ft.)		
			25 PSI	50 PSI	70 PSI
3/4"	3"	10 1/2"	7	6	5
1"	4"	1' 2"	9	8	6
1 1/4"	5"	1' 5 1/2"	14	11	9
1 1/2"	6"	1' 9"	14	11	9
2"	8"	2' 4"	19	14	12
2 1/2"	10"	2' 11"	23	17	15
3"	1'	3' 6"	27	20	18
4"	1'4"	4' 8"	31	23	21

Note : For type "M" tubing...For type "L" tubing spacing may be increased by 10%...For type "K" tubing spacing may be increased by 20%

PIPE GUIDE SPACING AND INSTALLATION

Copper Tube Nylon Guide and Bracket Installation Instructions

1. Guides should be positioned at recommended spacing.
2. The guide bracket must be mounted to a firm, solid surface.
3. Maximum service temperature should not exceed 270°F

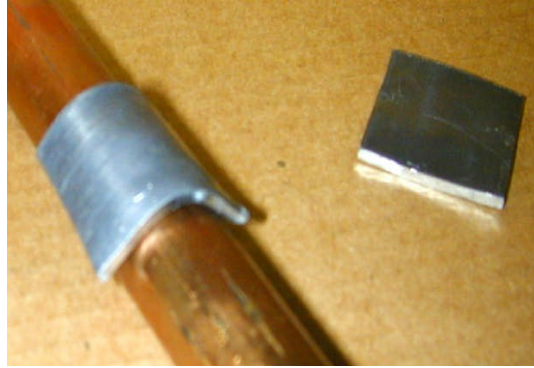
Copper Tube Anchor and Bracket Installation Instructions

1. Anchors should be located per the Expansion Joint Manufacturers Association (EJMA) Standards:
 - a. At the blind end of a pipe
 - b. At a change in direction of flow
 - c. Between two expansion joints of different sizes
 - d. At the entrance of a side ranch into the main line
 - e. Where a valve is installed in a pipe run between two expansion joints
2. The anchor bracket must be mounted to a firm, solid surface.
3. The copper anchor should be soldered to the copper tube for best results.

INSTALLATION OF DIELECTRIC SPACERS FOR COPPER PIPE



1. Copper tube and shims (lead spacers)



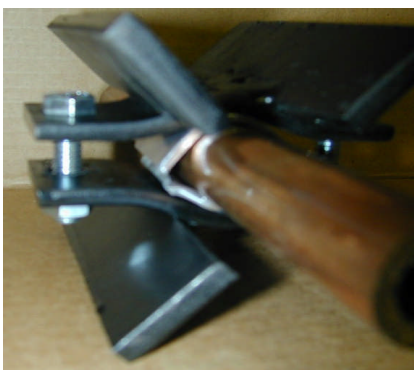
2. Apply shim to copper tube



3. Mold shim to pipe on upper half, lay shim on inside of spider clamp



4. Attach upper half of spider clamp as shown



5. Attach spider hardware



6. Complete unit shown for copper pipe and lead insert installed.