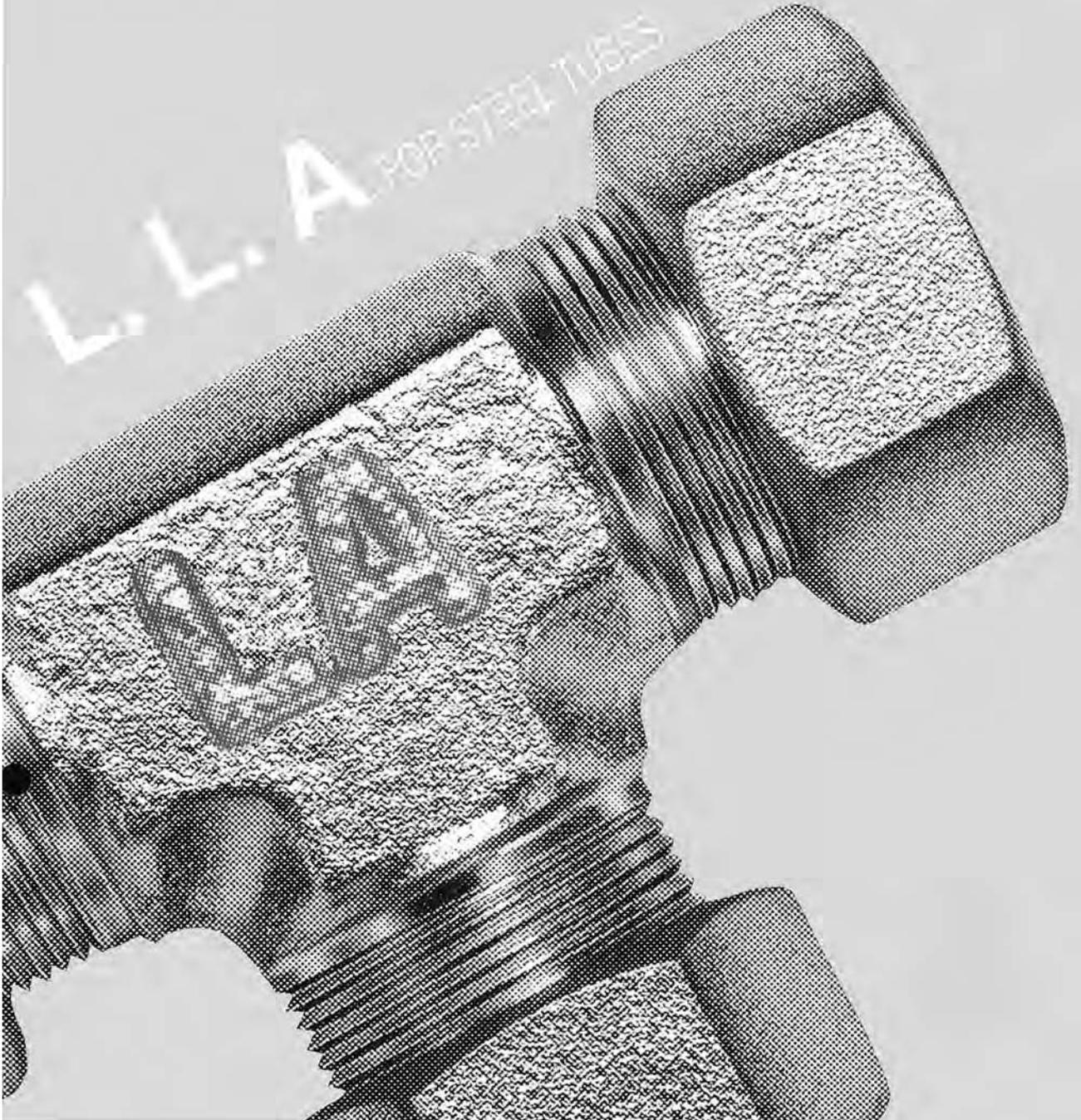


L. L. Joints

"BITE" type



鋼管用



JAPAN A.M.C.LTD.

L.L. Joint is a dip-in type, developed by ERMETO Co in Germany, which of cutter (tooth) shape for the use of high pressure. L.L. joint with strong connecting function can dip in the front end of ferrule on the outside tube, and no worry about the fluid leaking from the tube. But "ERMETO" joint has shown some defects, in that they require precision of the tube's outer diameter, accuracy of the tube's right angle, and etc. So for the pressure resistance, tightening the joint is necessary for above defects.

L.L.接頭它是深(浸)入接頭是由德國ERMETO公司所開發出高壓流體用切削刀(齒)形之接頭、因此在管外周可深(浸)入墊套的先端，所以不用擔心流體從管中漏電，是一種特有強固接續機能的接頭。可是在ERMETO形的接頭上，若使用的管外徑的精密度，管切斷面的直角度之嚴密性...等有缺點時。這些許許多多的缺陷皆需注意，影響接頭的耐壓力，接頭上的鎖緊作業是必要的，也才能減低這些無必要的缺失。

Structure, function & material of L.L. Joint:

L.L.接頭的構造、機能、材質

Structure:

According to fig. 1, L.L. Joint consists of three parts-main body, screw nut, and ferrule.

構造 依圖-1上的本體，螺絲帽墊套的三種部品所構成。

Function:

As shown in Fig. 2, insert tube into the connecting place, and put on the bag screw nut. Press the pointed portion of joint main body in front of the ferrule and contract the ferrule's front end. Cutting edge dipped in on the outside tube as shown in Fig 3, on the other hand, the ferrule's back end contacts tightly onto the tube, which can prevent fluid leakage and separation from the connecting place of the tube. As shown in Fig. 4, ferrule is of the dip-in condition, and acts as a spring due to the elasticity on the inside. Therefore, press down the screw nut forcefully to avoid any loosening from vibration.

機能：

依圖-2，把管插入接口(縫)處，繫上袋螺絲帽，且在墊套的前方上壓住本體內尖尖的部份，收縮在內側上的墊套塵的前端，依圖-3的樣式裁斷邊緣是在管的外周浸入另一方面，從墊套的後端在管的外周上壓縮，所以從管的接縫處所流出的液體能阻止，同時也能防止管的脫離。

墊套是依圖-4上的浸入狀態，但因為在內部上尚有彈力性，所以會像彈簧般的動著，因此要強力的壓住螺絲帽，以防止其它的振動及螺絲帽的鬆弛。

Material:

The joint main body and the screw nut are made of S25C and S45C. The ferrule is made of low carbon steel.

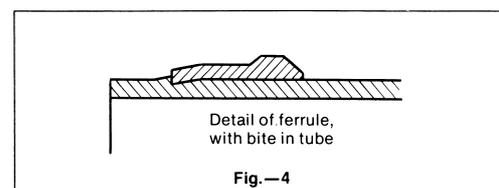
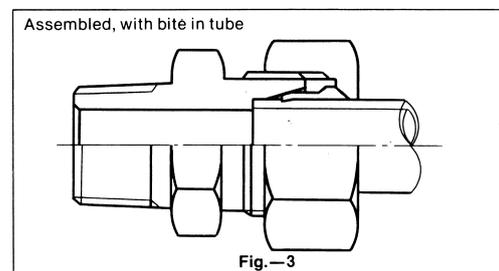
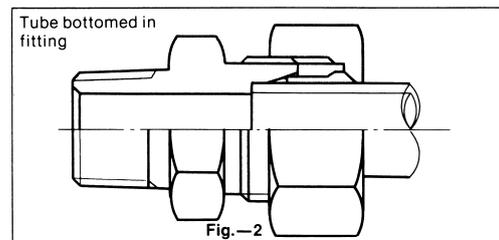
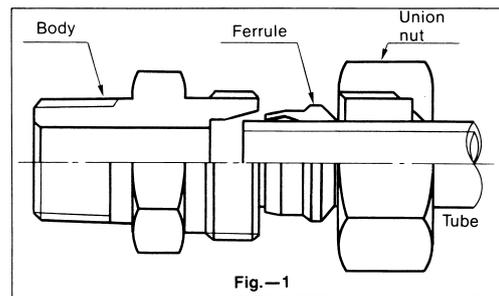
材質：

接頭本體，螺絲帽是用S25C和S45C作為材料，而塵墊套是使用低炭素鋼作為材質。

Main specifications:

標準規格圖

| 使用管外徑 | | 最高使用壓力 | 最高使用溫度 |
|---------------------|----------|------------------|---------------------|
| Tube outer diameter | | Maximum pressure | Maximum temperature |
| mm | inch | kgf/cm | C |
| 6-15 | 1/8, 1/4 | 500 | 300 |
| 16-22 | 3/8, 1/2 | 400 | 300 |
| 25-28 | 3/4 | 350 | 300 |
| 30-35 | 1 | 250 | 300 |
| 42 | 1 1/4 | 210 | 300 |



■ Applicable fluid: water, air, oil, steam & powder

Suitable tube:

1. Carbon steel tubes for Japanese Industrial Standards (JIS B2351)
2. Carbon steel tubes & oil pressure piping for The Japan Oil Hydraulics Association (JOHS-102-1964)
3. Steel tube of STPG-38, STS-38, STPT-38 for Japanese Industrial Standard (JIS G3454, 3455, 3456)

適應的流體：水、空氣、油、蒸汽、粉體

適應的管：

這種接頭較適用的管如下列規格

各種日本工業規格JIS B2351浸入式管接頭用精密炭素鋼之鋼管。各種日本油壓工業會規格JOHS-102-1964之油壓配管用，精密炭素鋼鋼管。各種日本工業規格所規定的JIS G3454，3456之STPG-38 STPT-38的鋼管。

■ Assembly instruction:

1. Cut the tube to the required length (The cutting section does not necessarily need to be at a right angle to the axis). Then, use something like file to remove any trash remaining on the cutting area.
2. Insert the screw nut onto the tube, followed by the ferrule, and then insert the tube into the main body. Make sure the tube edge contacts tightly on the bottom wall of the main body, and apply lubricant to the outside of ferrule before rotation.
3. Continue to turn the nut until the tube stops moving and comes to a stop, which means the ferrule has begun to bite into the outer wall of the tube.

Be sure to turn the nut at least one more rotation after the tube has ceased to turn.

Pre-setting for assembly is not performed on the actual piping assembly place, but on the above mentioned operational stand by dipping in the ferrule. This assembly is done directly from the joint while at the actual piping and is better at the piping place.

At this time, do not use the effort of dipping in ferrule. If the torsion in creases suddenly while tightening the screw nut, tighten it again for 1/6 circle from that point. Then the assembly is finished.

We have tightening machine for labor-saving piping operation.

1. 切斷所定長度的管、對軸心、切斷面未必要直角，可是在切斷時會有鐵屑產生應以銼刀類將之修除。
2. 把鎖螺絲帽或墊套先放入管（注意方向），再把管插入本體。要注意本體的底有沒有接觸到管端，要在旋轉前預先在墊套外側塗上潤滑油。
3. 首先用手輕輕地按著管，再將管轉到不會旋轉後擊緊上袋螺絲帽。當管不旋轉時（夾子點，GD點）時接頭開始使浸入之後得再擊緊一次，才能讓墊套完全的浸入管。
預備組立以上的作業時，不是在實際的配管組立場所實行，而是依前面所說的作業台上浸入墊套之方法來實行。這個作業在實際配管時從頭上直接進行，可是在繫上多數同徑的管之情形時要用特別的治具。在實際的配管場所組立或分解上記所說的組立時，最好在配管場所上進行。此時，浸入墊套的力量不要，當擊緊上螺絲帽時，扭力有突然增大的話，（旋轉至定點再瞬間加扭力）就要在從那個點再擊緊1/6轉的程度，此時作業就完成了。
萬一在配管後有外洩的情形時，請再鎖緊螺絲帽。

