



SL-500

單液高壓灌注機

台灣盛隆建材股份有限公司

Taiwan Shenglong Architecture Material Co., Ltd



www.shenglong.com.tw



灌注機系列

INJECTION MACHINE SERIES

『特點』 Characters

SL-500壓力灌注機由盛隆自行研發成功設備，精密設計，人性化使用考量攜帶方便與輕巧性，以特殊堅韌耐磨耗材質打造堅實耐用，排除以往小型灌注機雖輕巧，損壞率極高，維修困難，小毛病多的缺點，本公司以快速拆裝維修容易為訴求而設計出的結構灌注止水、裂縫補強專業機種，有超高負荷壓力，高壓灌注機身零件不變型，重量輕，可以解決施工者攜帶笨重機械的不便，是專業止水，裂縫補強施工者最佳利器。

SL-500 pressure injection pump is developed by Sheng-Long . Some of the components are supplied by the foreign manufacturer. It is human oriented and portable. The wearable material make it strong and durable. The departed small injection is easy to be carried. However, it has high repair rate and difficulties in repairing. Our injection pump is designed for structure injection leakage stoppage, crack strengthening with view to dismounting easily. It can stand high pressure. Its component won't be out of shape even working in a high pressure condition. It can solve the difficulty of carrying because of heavy weight. It is the best choice for the professional leakage stoppage and crack strengthening constructors.

『施工快速』 Quick construction

可在數秒內提升至0~10000spi工作壓力，灌注時間較其他機種快。

The working pressure can be raised from 0 to 10000PSI. the injection time is much shorter than other injection pump.

●重量輕 Light weight

機身本體重量僅7KG，攜帶省力移動方便。

The weight of the pump is 7kg only. It is portable and easy to carried.

●耐用 Durable

最高壓力10000PSI時機身零件不變型。

The components of the injection pump won't be out of shape when the pressure reach 10000PSI.

●簡易修理 Simple repair

施工現場即可維修，免除因機械故障送廠維修而停工。

Can be repaired to avoid stopping working caused by the repair can be avoided.

●持續增壓 Sustained pressure

藥劑可有效灌至深處細微裂縫及蜂巢，確實有效填補結構體裂縫與蜂巢。

The medicament can effectively fill in the small crack and comb to get an good structure strengthening effect.

●適用材料 Suitable material

PU發泡止漏劑、環氧樹脂、無顆粒狀低黏度液體。

PU foaming leakage stoppage agent, EPOXY, low viscosity liquid without granule.



『適用場所』 Application area

- 結構裂縫、小蜂巢、二次施工縫滲水止漏。

Structure crack, small comb, second construction joint leakage stoppage.

- 結構細小裂縫、小蜂巢、二次施工縫補強。

Structure crack hairline crack, small comb and second construction cracks strengthening.

- 如地下鐵、連續壁、結構等滲水止漏，地下室外牆湧水入口處地質改良。

Such as subway, diaphragm wall, structure seepage stoppage, basement outside wall leaking area ground improving.

『操作使用說明』 Operation Instruction

灌注機電鑽插電前確認開關處於切(關閉)位置，新機剛使用時，請先以潤滑油倒入機器料杯內開啟電源迴圈一遍。機身及週邊配備用軟布沾潤滑油擦拭一遍。將PU發泡劑或環氧樹脂攪拌均勻倒入杯內，蓋緊杯蓋。灌注開關閥扳到OPEN開啟狀態，灌注牛油嘴對準垃圾桶，開啟電源開關，將管內剩餘潤滑油擠出到藥劑噴出為止，先關閉電源開關，再關閉灌注開關閥。將灌注牛油嘴對準灌注頭用利插緊扶正，先開灌注開關，再開啟電源開關，將藥劑持續增壓注入結構體內，藥劑表面溢出為止，先開關電源開關，再關閉灌注開關，開關閥上下左右轉動鬆脫拔出。施工完畢後必須馬上以專用清洗劑倒入本機料杯內，將管內剩餘藥劑擠出到清洗劑噴出為止，灌注開關插入杯內，開關閥連續開關數次，使管內壁產生壓力，容易清洗乾淨，清洗約3~5分鐘後，將機器內清洗劑噴於垃圾桶內，噴完後，再用潤滑機油倒於灌注機杯內迴圈、保養，避免藥劑殘留機器管壁內，導致堵塞。

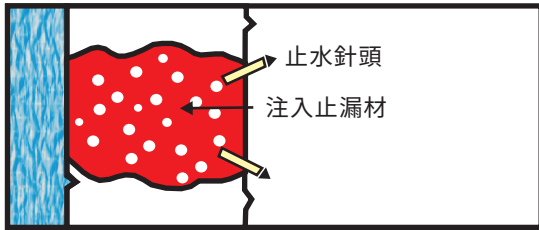
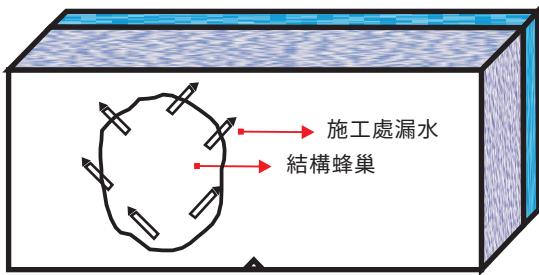
Make sure the switch of the electrical driving drill is of off position. The new injection pump should be lubricated by the lubricant before using. The body and the accessories should be mopped with a lubricant saturated cloth. Pour the even polyurethane or epoxy into the material cup and cover the lid. Turn on the switch to OPEN and the injector to the dust bin. Turn on the power switch. Expel the lubricant from the hose until the medicament come out. Turn off the power and then the switch value. Connect the injection nozzle with the packer, turn on the switch value and then the power. Inject the medicament to the structure until overflow. Turn off the power and then the switch. Take off the switch value. After construction, clean up the injection pump immediately with special cleanser. Pour the cleanser into the material cup and expel it from the hose. Put the injector into the material cup, turn on and off the switch value for several times to create pressure in the hose. It helps clean. After 3 to 5 minutes, expel the cleanser from the pump to the dust bin. After that, lubricant is necessary for

Note: 如果只是灌注單液PU發泡劑，隔天繼續施工，杯內留一些或一半藥劑，蓋緊杯蓋，牛油嘴用針頭插緊，隔天使用時，將料杯內表面硬化薄膜清除乾淨即可使用，如果連續幾天不用時，必須要清洗乾淨，保養。

Single liquid PU foaming agent is ok to use next day. If there's leftover in the material cup, cover the lid and connect the injection nozzle with the packer. Clean the hardening surface next day, then start to use again. But if it has to wait for several days to start use again, cleaning and maintaining is necessary.



『蜂巢止水』 Comb leakage stoppage



- 施工處漏水 Water leakage on construction place
- 結構蜂巢 Structure comb
- 止水針頭 Water stoppage needle head
- 注入止漏材 Inject leakage stoppage material

1. 在蜂巢範圍處，每隔25CM30CM鑽一孔，深度為結構體厚度之一半為宜，再埋設止水針頭並加以旋緊固定。

Drill holes every 25~30CM within the comb till a half of the structure, and set the packers.

2. 止水針頭設置完成後，先以高壓灌注機注入單液型疏水性止漏劑至發現止漏劑於結構體表面滲出，再以高壓灌注機注入單液型親水性止漏材，即可完全解決漏水問題。

After that, inject the single liquid hydrophobic type polyurethane first and then single liquid hydrophilic type polyurethane with high pressure injection pump.

3. 如果蜂巢包土時，請將外部敲開用清水將包土部分清洗，再用快乾止水粉，將敲打部分塞封，埋入紙水針頭再灌注親水性止漏材，即可解決漏水問題。

When sealing the comb, knock out the outside part and clear it with clean water, then seal the knocked out part the quick solidifying leakage stoppage cement. Set the packers and inject hydrophilic type polyurethane.

『環片隧道止水』 Loop tunnel leakage stoppage

1. 環片裂縫滲水：先於環片裂縫處直接鑽孔，鑽孔深度必須超過環片厚度，埋設止水針頭後注入單液型疏水性止漏劑，再於環片裂縫處左或右5CM~10CM處傾斜鑽孔至環片厚度之2/3深，埋設止水針頭，注入單液型親水性止漏材。

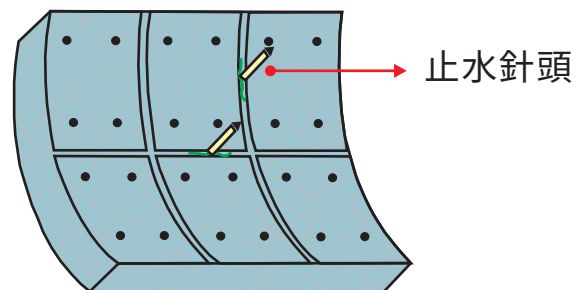
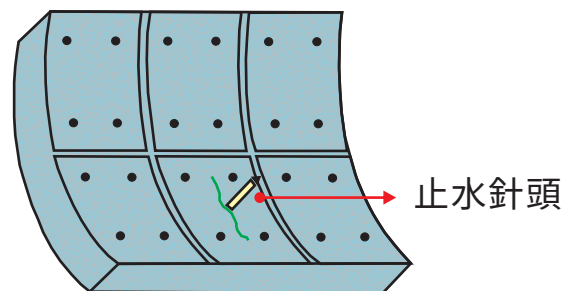
loop crack seepage: drill holes in the cracks of the loop, the depth of the holes must exceed the thickness of the loop. then set the packers and inject the single liquid hydrophobic type polyurethane. Then drill holes around the crack from lowest left or right 5~10CM position with slope 45 degree till a 2/3 depth of the loop and inject the single liquid hydrophilic type polyurethane.

2. 環片與環片之間滲水：先於環片與環片之間滲水處鑽孔，鑽孔深度必須超過環片內止水條厚度，埋設止水針頭後注入單液型疏水性止漏劑，灌注完成後再注入單液型親水性止漏材。

Seepage between loops: drill holes in the seepage area between the loops, the depth of the holes must exceed the thickness of the loop. Set the packers and inject the single liquid hydrophobic type polyurethane and then the single liquid hydrophilic type polyurethane.

3. 灌漿孔滲水：灌漿孔蓋鑽5MM孔，再攻牙6X1.0鎖上牛油頭注入單液型親水性止漏材。

Seepage in the injection holes: drill 5MM hole and tap 6X1.0 and lock the nozzle and inject the single liquid hydrophilic type polyurethane.



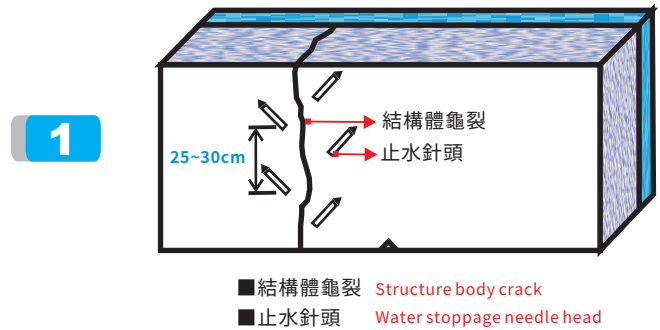
- 止水針頭 Water stoppage needle head



『結構體龜裂止水』 Structure body crack leakage stoppage

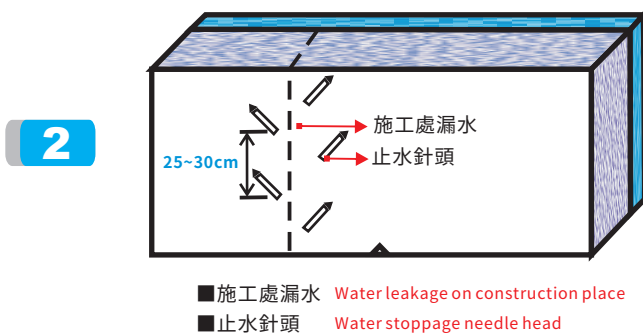
1. 於龜裂最低處左或右5CM~10CM處傾斜鑽孔至結構體厚度之2/3深，循序由低處往高處鑽，孔距為20CM~30CM為宜，鑽至最高處後在一次埋設止水針頭，由於一般結構體龜裂的屬不規則狀，故須特別注意鑽孔時須與龜裂面交叉，注射才會有效果。

Drill holes from lowest left or right 5~10CM position with slope 45 degree till a 2/3 depth of the structure. The holes are better to be made from bottom to top, the distance of each hole is 20~30CM. while drilling to tope, cover injection packer again. The cracks are irregular. Drilling holes across the cracks face will get a better effect.



2. 止水針頭設置完成後，先檢視結構體龜裂處滲水情況；若龜裂處乾燥或為微量滲水時，以SL-500灌注機注入單液型疏水性聚胺脂止漏劑，至發現止漏劑於結構體表面滲出，若龜裂處滲水情況較多時，則以單液型親水性止漏材灌注。

After setting the packer, please check the structure crack seepage area. If the crack is dry or a little wet, the single liquid hydrophobic type polyurethane injection is ok. If the crack seepage is serious, single liquid hydrophilic type polyurethane injection is better. Both are need to be injected by SL-500 till overflow.



『施工縫止水』 Construction joint leakage stoppage

1. 於施工縫最低處左或右5CM~10CM處傾斜鑽孔至結構體厚度2/3深，循序由低處往高處鑽，孔距為20CM~30CM為宜，鑽至最高處後再一次埋設止水針頭，由於一般結構體龜裂的屬不規則狀，故須特別注意鑽孔時須與破裂面交叉，注射才會有效果。

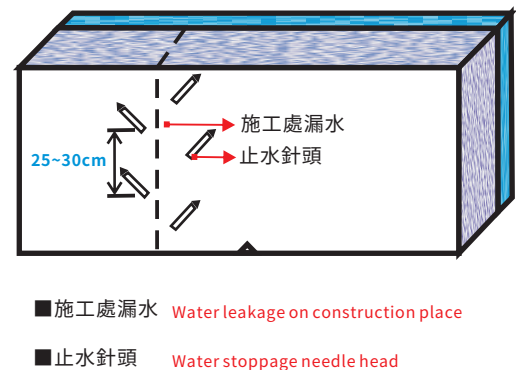
Drill holes from lowest left or right 5~10CM position with slope 45 degree till a 2/3 depth of the structure. The holes are better to be made from bottom to top, the distance of each hole is 20~30CM. while drilling to tope, cover injection packer again. The cracks are irregular. Drilling holes across the cracks face will get a better effect.

2. 止水針頭設置完成後，以高壓灌注機注入單液型疏水性止漏劑至發現止漏劑於結構體表面滲出。

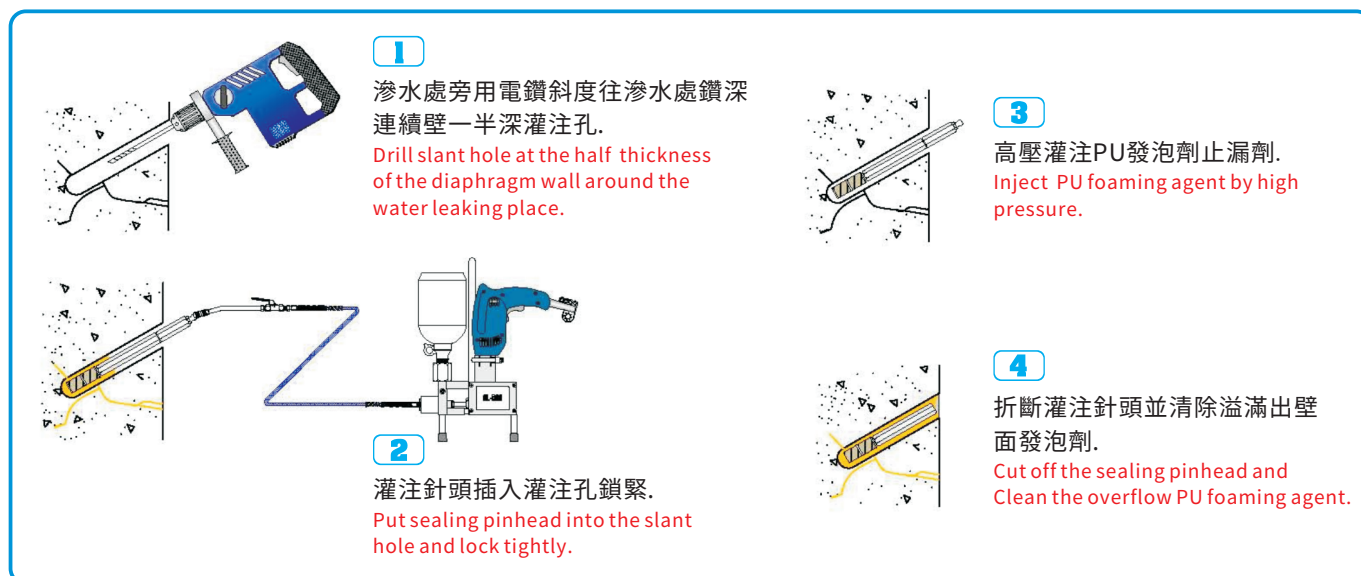
After setting the packer, inject single liquid type hydrophobic type polyurethane till overflow from the structure surface.

3. 若滲水情況依然無法改善時，再以單液型親水性止漏劑修補即可。

After that, if it can't be fixed, then inject the single liquid hydrophilic type polyurethane.



『施工圖例及說明』 Illustration



※本範例僅供參考,實際施工方式以現場狀況及需求做適度變更※

This example is for reference, the construction method should be adusted according to the construction site and requirements

『注意事項』 Note

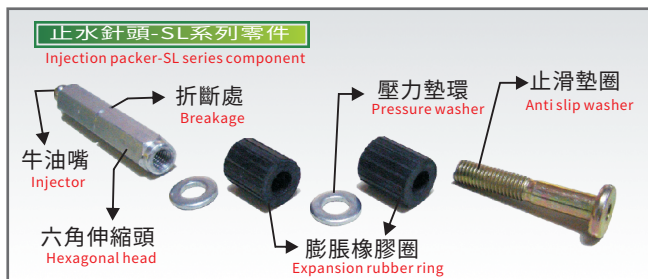
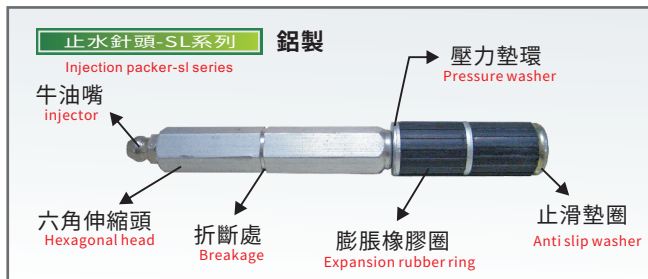
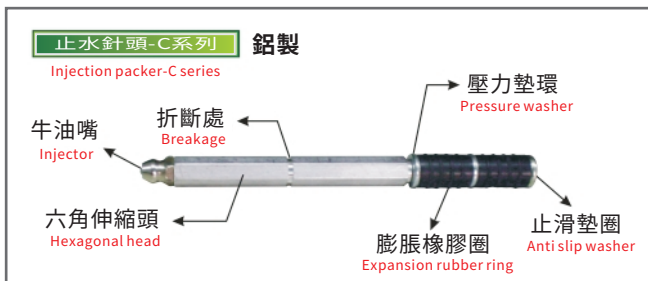
- ◎電鑽禁止以撞擊方式旋轉或反轉方式
The electrical driving drill is not allowed to use in the striking way.
- ◎檢查各部位螺絲是否脫落
Check the screws whether it is loosen.
- ◎高壓管兩端螺帽務必鎖緊，以免灌注時藥劑噴出
The screws on the hose must be tightly connected in case of leaking medicament.
- ◎電鑽轉速調整至最大值，電鑽手把處開關固定開啟，以線控開關控制操作
Adjust the rotating speed of the electrical driving drill to the maximum. Keep the switch of the electrical driving drill open. control the operation with the wire line.
- ◎活塞與泵浦有六角銅螺絲帽(17號特製板手)，內有加厚鐵氟龍防漏墊，此處功能在於防漏，如機器灌注時，此處有滲漏情況，請鎖緊銅螺絲帽至適當程度。
There is a between piston and pump(17spanner) and extra heavy Teflon leak-proof washer. Any leaking here occurs while injecting, adjust the screw to the right place.
- ◎本基最大瞬間壓力於10000PSI，灌注時務必考量其他廠牌止水針頭耐壓程度，降低危險性。
The maximum instant pressure of the pump is 10000PSI. The pressure resistance of the injection packer from other supplier should be taken consideration while using it.
- ◎灌注時請戴好護目鏡，以免藥劑噴到眼睛。
Please wear protective goggles while injecting in case of invasion to the eyes.
- ◎倒料時禁止將顆粒倒入料杯內(避免刮傷壓力泵浦)。
No granule in to material cup in case of scratching the pump.
- ◎本機禁止灌注含顆粒成分之液體，如樹脂砂漿。
No liquid contains granule in the pump, for example resin mortar.

Note: 本灌注雙液環氧樹脂補強劑時，請於環氧樹脂可使用時間內灌注完成，如環氧樹脂使用時限超過，杯內溫度有發熱現象，務必馬上停止作業，迅速將杯內未用完環氧樹脂倒掉，用專用清洗劑倒入杯內清洗本機，並確實清洗乾淨。

Double liquid type epoxy must be used up within the service time. if the time out and the temperature of the epoxy is rising, stop injecting immediately and pour out the leftover and clean the pump with special cleanser.



『針頭分解圖』 Injection packer exploded view



灌注機標準配備 Standard equipped

機身一台 Body 1set
SL料杯一個 SL MATERIAL CUP BARREL 1PIECE
5M高壓管一條 5M high pressure hose 1piece
開關閥一支 Switch value 1piece
110~220V電鑽一台 110~220V electrical driving drill 1piece
維修工具包一套 Repair tools 1bag
濾網1個 Filtering net 1piece
高壓表1個 High-pressure watch 1 piece

SL-500



『零配件』 Accessories

電動壓力灌注機零配件 Electrical pressure injection pump accessories

		
開關閥附牛油頭	壓力泵浦組	三通
Switch value with nozzle	Pressure pump set	Tee
		
牛油頭(A)西德	牛油頭(B)台製	牛油頭橡皮嘴
Nozzle A German	Nozzle B Taiwan	Rubber nut
		
5M高壓管	高壓表	料杯桶
5Mhigh pressure hose	Pressure watch	Pressure watch
		
密封墊圈	過濾網.鐵氟龍	彈簧.鋼珠
Sealing washeer	Filtering net and Teflon	Spring and steel ball

鑽尾尺寸 Drill bit size

規格 Specification	C21	尺寸 SIZE	210X10mm	規格 Specification	A45	尺寸 SIZE	450X13mm
規格 Specification	A21	尺寸 SIZE	210X13mm	規格 Specification	A60	尺寸 SIZE	600X13mm
規格 Specification	A31	尺寸 SIZE	310X13mm				



『單液灌注針頭』 Single liquid injection packer

規格 Specification	長度 Length	使用鑽頭 Drill bit	適用區域 Application area
C-8	8.5CM	10MM	外牆、頂板 Walls, top board
C-10	10CM	10MM	外牆、頂板 Walls, top board
SL-10	10CM	13MM	外牆、連續壁、梁柱 Walls, Diaphragm wall, beam column
SL-15	15CM	13MM	外牆、連續壁、梁柱 Walls, Diaphragm wall, beam column
SL-20	20CM	13MM	外牆、連續壁、梁柱 Walls, Diaphragm wall, beam column
SL-25	25CM	13MM	外牆、連續壁、梁柱 Walls, Diaphragm wall, beam column

『機器故障排除』 Troubleshooting

原因：灌注時牛油嘴漏藥劑。Reason: Leaking in the nozzle while injecting

方法：牛油頭內橡膠墊磨損，牛油頭拆開，橡膠墊換新，完成後重組好裝回。
Method: The rubber nut wears out in the nozzle. Dismount the nozzle and replace it with a new one.

原因：灌注時牛油嘴與灌注頭鬆脫、無法接合。
Reason: The packer is loosen or can't be connected with nozzle.

方法：牛油嘴或四爪磨損，灌注牛油頭換新。
Method: 4 jaws in the nozzle wears out, change it with a new one.

原因：機器無法增壓。
Reason: The pressure of the pump cannot raise.

方法Method：

- 請將增壓筒四顆六角螺絲釘拆卸下，壓力泵浦口壁凹槽用硬刷(鋼刷)沾清潔劑刷洗乾淨，鋼珠清洗乾淨，彈簧及增壓桶沖洗乾淨，若鋼珠面不光滑不堪使用，鋼珠必須換新，完成後重組好再試壓。
Take of the four hexagonal screws in the pressure increasing cylinder, clean groove in the pressure pump with hard brush(steel brush) and steel ball, spring and pressure increasing cylinder. If the urface of the steel ball is not smooth enough, please replace it and assemble it.
- 調整銅帽使用中藥劑如果滲漏嚴重，請用專用鉸手鎖緊螺帽。如已調整到最底，請更換防漏墊，請將壓力泵浦座四顆六角螺絲釘拆卸下，泵浦基座拔出，調整銅帽拆下，防漏墊用尖刀挖出，換一片新防漏墊適當鎖緊。
Adjust the screw : if medicament leaking is serious while using, please lock screw nut tightly with specific spanner. If it is adjusted to the lowest position, please replace leakage proofingpad. Please unload 4 hexagon screws on pressure pump base, pull out pump base, adjust copper hat, dig out leakage proofing pad with sharp knife, and change a new leakage proofing pad and lock it tightly.

以上維修如無法使機器增壓，請寄送回本公司，有專業維修人員為您服務

If still can't increase the pressure after adapt the method above, please send it back to our company and our profession repairman will repair it.



作業中電鑽固定座鬆動、脫離：

Electrical drill fixing base loosening or separating during operation

原因：電鑽選轉方向相反、錯誤。Reason: Wrong working direction of the electrical drill.

方法：將電鑽調整至R(正轉)位置，重新將電鑽小新的安裝回電鑽固定座，確認電鑽與電鑽固定座內部齒輪接合是否恰當，適當鎖緊螺絲即可。

Method: Adjust the electrical driving drill to R direction, install the electrical drill to the holder carefully and fix the screw.

機器內藥劑無法噴出 No medicament come out

原因(1)：料外底硬塊阻塞。Reason (1):The bottom of the material cup is blocking with hard material.

方法：將料杯內藥劑倒出，清除料杯底阻塞物即可。
Method: Pour out the medicament and clear the blocking.

原因(2)：壓力泵浦口殘留髒物。Reason(2): Residue in the pressure pump.

方法：請將增壓桶四顆六角螺絲釘拆卸下，壓力泵浦口壁凹槽用清潔劑刷洗乾淨。
Method: Take off 4 hexagon screws. Clean up concave of pressure pump with cleaning brush.

原因(3)：增壓筒殘留物組塞。Reasons(3): Pressure increasing cylinder is blocked with residue.

方法：清除增壓筒內殘留髒物。Method: Clean the residue in the pressure increasing cylinder.

機器插電無法轉動 The pump is not working while connected with power

原因(1)：機身變速箱內藥劑硬化堵塞。

Reason(1): The medicament is hardening and blocking inside machine speed changing box.

方法：機身兩側蓋螺絲鬆開、拆下，清除變速箱內殘留物，換新固體潤滑油擠滿，完成後重組蓋緊。

Method: Take off the screws on the sides of the body, and clear up the residue in it. And fill with solid lubricant and assemble it.

原因(2)：活塞沾滿藥劑殘留硬塊。Reason(2): Piston is full of the residue.

方法：將活塞藥劑殘留硬塊清除乾淨。Method: Clear up the residue on the piston.

原因(3)：電源接觸不良。Reason(3):poor contact.

方法：檢查插頭與線控開關及延長線是否短路，請接如短路點或更換延長線。

Method: Check the wire controlling line and the extended line whether it is short out.If it is short out, please connect the short circuit place or change a new extended line.

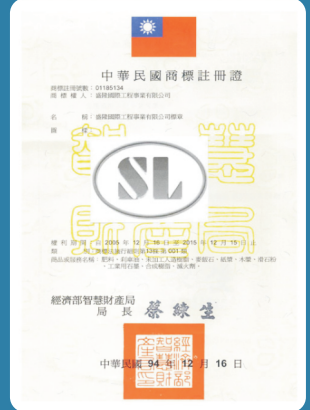
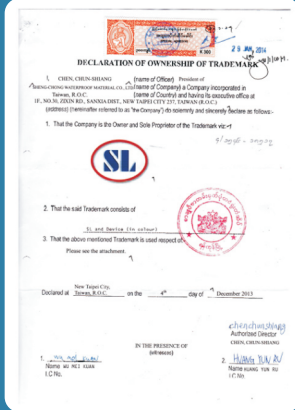
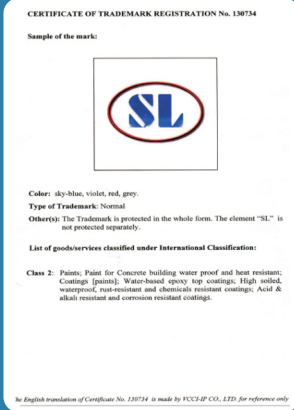
以上維修如無法使機器轉動，請寄送回本公司，有專業維修人員為您服務

If still can't increase the pressure after adapt the method above, please send it back to our company and our profession repairman will repair it.

Note: 本說明書的內容是建立在於真實準確的數據與理念上，供材料使用者參考，由於無法改變控制施作時天候所造成之材料質變等各種不確定因素，所以我們無法負責保證現場施作所得之結果。請詳閱我方所提供之產品說明，我方銷貨條件及有關聲明和建議，都不可用來違反法律規則或侵犯第三者利益。

The content of this manual is created on real and precise statistics and principles as a reference for material users. As some factors can not be made sure such as material qualitative change by different climates, we are not responsible for the result because of different construction conditions. Please read our product instructions, selling conditions and related statements and suggestions, which are not used to violate law rules or to invade the right and advantage of third party.





專業 · 品質 · 創新 · 服務

台灣盛隆 關係企業

台灣總公司(工程部)

台北市信義區基隆路二段115號11樓
 TEL:(02)8732-7555
 FAX:(02)8732-6677
 EM:SL@shenglong.com.tw
 www.shenglong.com.tw

上海分公司

上海松江區新橋鎮榮樂東路28號10號樓5樓
 TEL:86-21-5186-0079
 FAX:86-21-6806-0355
 EM:shengchong@shengchong.cc
 www.shenglong.cc

台灣三峽廠(建材部)

辦事處: 新北市三峽區大同路286巷26號之1
 工廠: 新北市三峽區紫新路30號
 TEL:(02)2668-1234
 FAX:(02)8672-6426
 EM:sheng.long8@shenglong.com.tw
 www.shenglong.com.tw

廣州分公司

廣州市天河區廣州大道北路649號之十A23舖
 TEL:86-02-8876-5876 / 86-20-8764-5870
 BP:137-2809-1795

北京直營店

北京市豐台區南苑路臨106號(和義五金機電城G區13號)
 BP:186 0072 2357

惠州直營店

廣東省惠州市河南岸馬庄金湖路134號
 BP:159 1942 1928

成都直營店

成都市金牛區九里堤中路41號
 BP:159 8282 2171 / 159 0236 5225

合肥直營店

合肥市瑤海區福海新居D樓114室
 BP:136 7551 6543

青島直營店

山東省青島市李滄區書院路226號
 BP:186 5321 9395

福州直營店

福州市晉安區珠寶路69號
 BP:186 5321 9395

