



華晶精密工業有限公司

FLY GIN CO., LTD.



機械軸封 & 迴轉接頭 & 疏水閥

Mechanical Seals & Rotary Joints & Steam Traps

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INVERTED BUCKET STEAM TRAPS





蒸汽疏水閥功能

昂貴的燃油已迫使工廠經營、管理及保全維護人員，不得不重視整個蒸汽系統的效率問題，為了節約能源，必須研究各種方法使蒸汽能有效的利用，檢討是否會有蒸汽從管路或機器中洩漏，浪費了價昂的熱能。首先值得檢討的，毫無疑問即是蒸汽疏水閥。雖然蒸汽疏水閥在整個蒸汽系統中所佔的金額少，體積小，但它能否適當及正確的操作，往往會影響整個蒸汽系統的效率，直接影響成本。提高蒸汽效率，正確地選用及維護蒸汽疏水閥乃是一個重要的關鍵。

FUNCTIONS OF STEAM TRAPS

Increasing expensive fuels have already caught the attention of the factory management and maintenance personnel on re-evaluate the efficiency of steam system utilization. For saving energy, various possible methods or means of using steam more efficiently and more productively shall be researched, such as checking intensely for screening out the leakage or possible leaking of steam from the pipes or machine joints to prevent from wasting high cost thermoenergy.

Among items to be checked, what shall be checked with the first priority are the Steam Traps undoubtedly. Although costwise a Steam Trap costs very limited in comparison with that of the whole Steam System, besides dimensionwise. It is compact; however the correct and proper installation and operations of steam traps do improve the efficiency of the whole steam system significantly and therefore they are directly cost effective. When it comes to enhance the Steam Efficiency, optioning smartly and correctly the Steam Traps and properly maintaining them play vitally important roles.

蒸汽疏水閥略述

FGC筒式蒸汽疏水閥（溜水器）外殼採用鑄鐵（CAST IRON）內部零件由不鏽鋼及合金鋼組成機械動作式疏水閥，氣來關水來排，性能優越，決不洩漏蒸汽，容量大，排水量高，開關動作靈敏，節省能源，鑄鐵上蓋可拆卸保養，易於更換零件，不必拆卸管路，內部合金鋼組件經熱處理後硬度可達HRC58° ~ 61° 不易磨損，使用年限長，合乎國際水準，深獲國內外使用者之好評。

本產品適用於發電廠、石化廠、紡織染整、食品工業、造紙業、冷凍乾燥機、合板業、醫院、飯店…等，本公司創立於1974年專業生產疏水閥工廠，規格齊全，品質保證，合理價格、交貨迅速，歡迎各界參觀、洽詢。

SUMMARY ON STEAM TRAPS

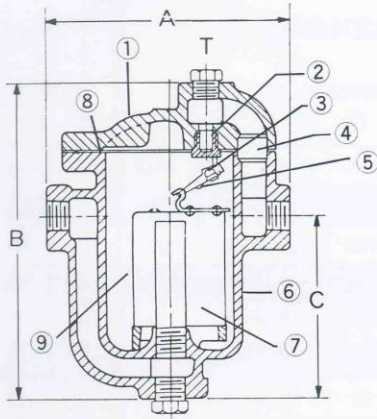
A FLYGIN Inverted Bucket Type Steam Trap comes with a cast iron casing, the internal components and parts made of stainless steel and alloy steel ideally configured as a mechanical function steam trap. It shuts automatically when senses air and discharges when senses condensate water, and functions, extraordinarily. It never leaks, offers a large capacity, high discharge volume, high sensitivity switches, therefore proves to be amazingly energy-saving. The cast iron top cover is easy to remove for maintenance, replacing parts without troubles of removing the pipes. The alloy steely components treated with heat-treatment has a the hardness up to HRC 58° ~ 61° , resistant from wearing, and enjoys long lifetime.

FLYGIN steam traps have been proven to be up to the world class quality and have been noticed and admired by the users through out the world. This series is excellent for Electricity generators, Petroleum Refinery Plants, Textile Mills. Dyeing & Finishing Factories, Food industry, Paper industry, Freezing & Drying Machines, Plywood Manufacturing, hospitals, hotels, etc. FLYGIN was founded in 1974 and has been one of the leading expertized steam trap manufacturers in Taiwan. We have been noticed for offering full ranges of steam traps in guaranteed quality at reasonable prices, and efficient delivery. Your enquiry and visit are always sincerely invited.



FIG A-1 LEFT SIDE INLET/RIGHT SIDE OUTLET

圖A-1 左進 / 右出 牙口型

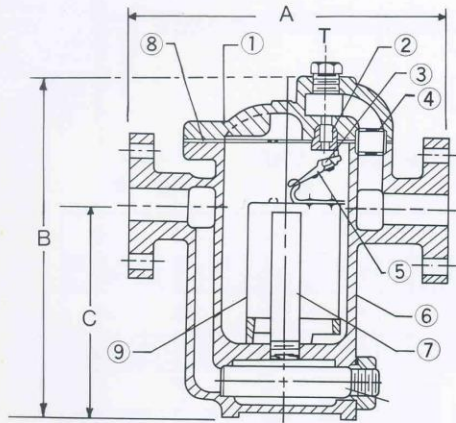


圖A-1疏水閥型號 011~014
FIG. A-1 TRAP MODEL NO. 011~014

OUTSIDE 外形	DIMENSION 尺寸	UNIT 單位	:mm 厘米			
TRAP NO.	011	012	013	014		
(A)INLET TO OUTLET	127	165	197	229		
(B)HEIGHT	175	230	299	346		
(C)BOTTOM TO C/L	108	136	178	198		
(T)TEST PLUG	$\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"		
CONNECTING PIPE	$\frac{1}{2}$ " , $\frac{3}{4}$ " , 1"	$\frac{3}{4}$ " , 1"	1"	$1\frac{1}{4}$ " , $1\frac{1}{2}$ "		
MOP DG/CM ²	17	17	17	17		
WEIGHT/KG	2.7	7.2	12.8	21		

★此型疏水閥能裝配汽水分離器及逆止閥，特別適用於圓筒烘乾機能節約能源。

This steam trap can be equipped internally with the differential condensate controller (DC) and check valve. It is specially for energy saving in the cylinder dryer.



圖A-3疏水閥型號 011F~016F
FIG. A-3 TRAP MODEL NO. 011F~016F

FIG A-3 LEFT SIDE INLET/RIGHT SIDE OUTLET

圖A-3 左進 / 右出 法蘭口型

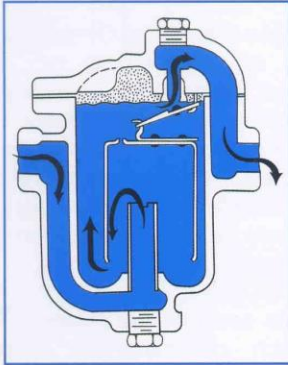
OUTSIDE 外形	DIMENSION 尺寸						UNIT 單位	:mm 厘米
	TRAP NO.	011F	012F	013F	014F	015F	016F	
(A) FLANGE TO FLANGE	160	210	257	286	315	356		
(B) HEIGHT	148	234	314	367	402	474		
(C) BOTTOM TO C/L	109	135	195	214	205	305		
(T) TEST PLUG	$\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"	1"	1"		
(F) JIS 10K	$\frac{1}{2}$ ", $\frac{3}{4}$ ", 1"	$\frac{3}{4}$ ", 1"	1"	$1\frac{1}{4}$ ", $1\frac{1}{2}$ "	$1\frac{1}{2}$ ", 2"	2"		
MOPDG/CM ²	10	17	17	17	17	17		
WEIGHT/KG	4	10	18.5	27	32	46		

★此型疏水閥連體法蘭，配管方便

This trap is equipped with integrated flanges, and is simple easy to do the piping

材質說明 PARTS/COMPONENTS

PARTS/COMPONENTS		MATERIAL		PARTS/COMPONENTS		MATERIAL	
1.	Top Cover 上蓋	Cast iron	鑄鐵	6.	Main Body 本體	Cast iron	鑄鐵
2.	Valve Seat 閥座	Heat-treated Chromed steel	合金	7.	Passage Tube 通水管	Carbon steel	碳鋼
3.	Valve 閥	Ditto	同上	8.	Packing 迫緊	Asbestos	石棉
4.	Passage Ring 通水環	Stainless steel	不鏽鋼	9.	Bucket 倒筒	Stainless steel	不鏽鋼
5.	Lever Control 連桿	Stainless steel	不鏽鋼	10.		Stainless steel	不鏽鋼
5-1	Valve Guide Plate 腰子片	Stainless steel	不鏽鋼				

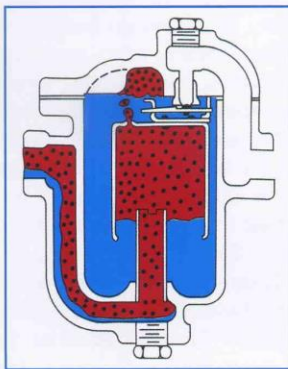


圖B-1

當最初的冷凝水進入疏水閥內時經由通水管及桶子的下緣而出，這時因桶子重往下沉落，控制閥閘因而也跟隨張開，然後冷凝水就經過張開的閥門口排放出。

FIG, B-1

In the beginning, the condensate flows internally from the bottom edge of the passage tube of the bucket. This cause the bucket to sink down due the heavy weight. As a result, the valve is widely opened. Therefore the condensate is discharged through the Widely-Opened valve.

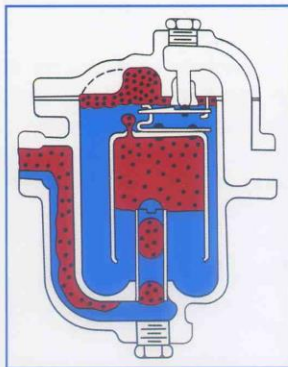


圖B-2

冷凝水排放過後，這時來的蒸汽將桶子往上推頂，連帶頂住控制閥，直到關閉為止。接著空氣及二次蒸汽由桶子上端的出汽孔排出，當任何蒸汽經過時都會凝結成冷凝水。

FIG, B-2

After a while. The condensate is completely discharged out and at the same time the incoming steam rises the bucket up to the top and force the valve to close. Then the air and secondary steam pass through the bucket outlet. When any steam passing through the bucket is condensed as condensate.

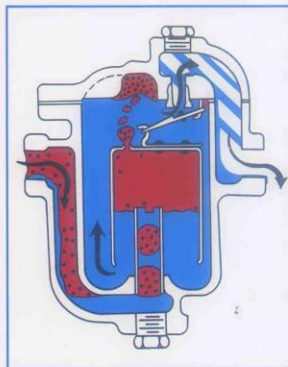


圖B-3

當冷凝水進入後，會使水位升高，在水平高於中線時，桶子會輕微的拉動連桿。然而控制閥尚未打開，直到冷凝水位到達打開線，這時蒸汽和冷凝水回收頭之間有壓差。

FIG, B-3

When the condensae enters the ductet. It causes the level to rise, Upwards. When the level rises above the middle line, it slightly pull on the lever but the valve is not opened yet. On the other hand, it opens the valve wten the level reaches the opening line due the pressure difference between the steam and the condensate return header.



圖B-4

當冷凝水位到達打開線時桶子的重量乘上槓桿率，就超過控制閥的壓力，桶子瞬間就下沈而拉開閥閘。隨後累積的空氣也會跟著冷凝水一起被排放掉。這個排放動作一直持續到更多的蒸汽進來，使桶子再度漂浮頂住，這樣一來，整個循環又重新開始。

FIG, B-4

If the condensate level reaches the opening line, then the product of the weight of the bucket times the leverage exceed the pressure of the valve. The bucket immediately sink down and cause the valve to open. The accumulated air is also discharged after the discharging of the condensate. The action will maintain until more and more incoming steam cause the bucket to float up As a sequence, the cycle begins to repeat.



華晶 自動差壓冷凝水控制閥疏水閥簡稱(DC)係設計應用於冷凝水排放點低必須上揚或快速排放的機器，由於排放點低須將冷凝水提昇上揚通常稱為虹吸。

當冷凝水上揚時造成了壓力降低時會引起部份的蒸汽及二次蒸汽被吸入虹吸管中。因疏水閥它不會分辨蒸汽、空氣，只要是氣體它就關閉造成空氣閉鎖(AIR BINDING)，阻礙了後面來的冷凝水排放。

水的抗阻為鋼板60倍，空氣的抗阻是鋼板的160倍。DC將有助於快速時二次蒸汽及空氣引至冷凝水控制室經旁通(BY PASS)排放出的蒸汽可導至冷凝水回收管或收集筒作為其他低壓低溫使用。(圖C-1)

DC 特別適用於滾筒烘乾機(圖C-2)可將②、③、④、⑤、⑥滾筒內經旁通(BY PASS)所排放出的二次蒸汽銀①滾筒，可達到節省能源的目的地。

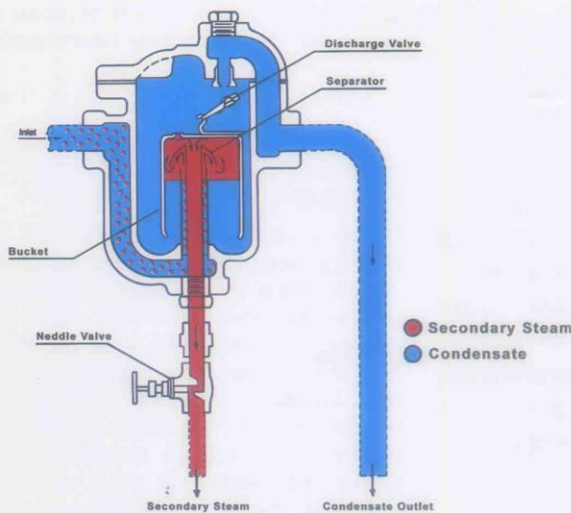


FIG C-1
C-1

FLYGIN Automatic Differential Condensate Control Valve Trap, also known as DC, is especially designed for the applications in which either the low discharging location level of condensate has to be highered or the water has to be discharged rapidly. Usually the discharging location level is low, therefore, it is necessary to elevate the condensate, and such elevation is usually know as "siphon"

When condensate ascends the pressure is lowered, under such circumstances some portion of steam is in taken into the siphon tube. However, a typical trap shuts automatically whenever it senses any air or steam because a trap is unable to differ steam from air, such unwanted shutting causes Air Binding which stops any further condensate following from being discharged. As we are aware, Water REsistance is about 60 times of that of steel, while Air Resistance is about 160 times of that of steel, A DC fa cilitates the system with rapidly guiding the Secondary Steam and Air into the Condensate Control Chamber. The steam being discharged through the by-Pass is guided to the Condensate Recollection Tube or Strainer for applications under low pressure and low temperature sir-cumstances.(As shown in Fig. C-1)

A FLYGIN DC is especially excellent for the energy saving design for Cylindrical Dryers(as shown in Fig. C-2). The Secondary Steam being discharged from Roller 2, 3, 4, 5 and 6 through the respective (By-Pass) can be led into Roller 1 so as to save energy substantially

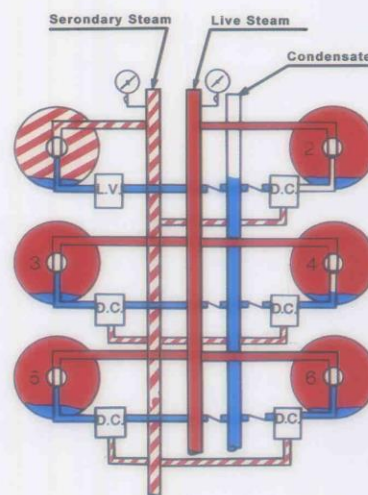


FIG C-2
C-2



疏水閥裝配要點

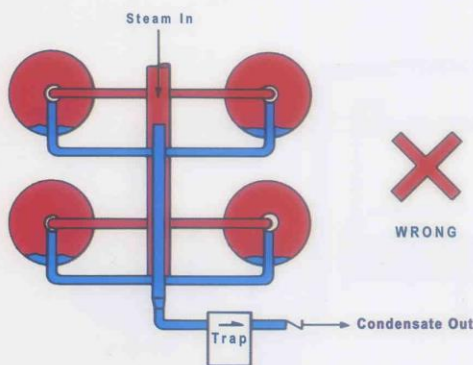
- 配置於容易維修的地方
- 應配置低於熱交換器及管線最低點
- 儘量靠近蒸汽加熱器的位置
- 倒筒式疏水閥裝置要注意平行及垂直

如何選擇疏水閥

- 使用機器種類
- 冷凝水排水量 / 每小時
- 最高操作壓力及背壓
- 使用牙口或法蘭口的管徑大小

避免二組機台用一組蒸汽疏水閥

利用蒸汽加熱的機器切勿為節省幾個疏水閥而共同使用一個疏水閥(圖D-1)因為不同的機器、蒸汽冷凝後的壓降差不同導致出口壓力高的機器阻礙了另一台出口壓力低的機台不能順利排出冷凝水結果降低效益造成熱能浪費，且加長了加工的時間使成本增高。疏水閥正確的裝置法(圖D-2)是每一個熱交換器裝置一個疏水閥，排放到共同的回收管。



圖D-1 (FIG D-1)

KEY POINTS FOR INSTALLING YOUR STEAM TRAP

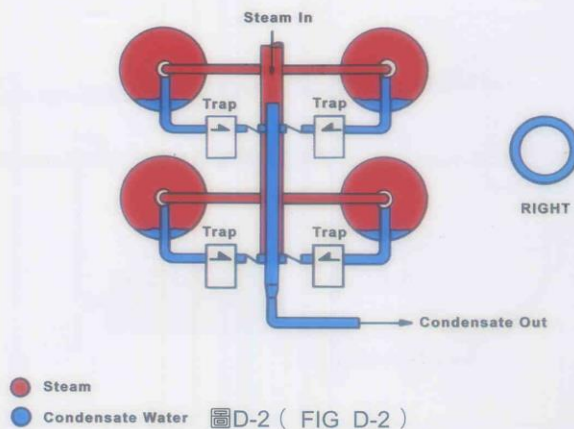
- Install it in a readily accessible location to ease maintenance.
- Install it at the lowest possible level of the Heat Exchanger and Piping.
- Keep it as close as possible to the Steam Heater.
- Install your inverted Bucket Type Steam Trap with full attention on keeping it right vertical and paralleled.

HOW TO ORDER YOUR IDEAL STEAM TRAP PROMPERLY

- Clarify the kind of target machine to be equipped with a trap.
- Measure the possible Condensate Discharge Volume per hour.
- Measure the maximum operation pressure and rear pressure.
- Measure the diameters of the pipe for dentate.type flanged outlet.

ADVOIDING TWO STEAM HEATERS FROM FROM BEING DRAINED BY ONE STEAM TRAP

It is strongly warned not to have your single Steam Trap shared by two or more steam-heating machines (as shown in Fig. D1) for saving cost of necessary steam traps. The reason is that the pressure drop difference caused by condensate in each machine is different from that in another machine, the machine giving higher outlet pressure stops or interferes the machine giving lower pressure to discharge the condensate normally, the heating effect is badly lowered; and waste of energy, longer work time, ect. become unavoidable, cost is therefore increased heavily. The correct configuration for installing your Steam Traps is recommended follows (as shown in Fig. D-2): Install a Steam Trap for each Heatconfigured to be connected to a common recollection tube.



圖D-2 (FIG D-2)



為何蒸汽疏水閥是蒸汽系統中不可缺的？

在工場使用蒸汽系統中冷凝水是必然產生的物質，因為利用蒸汽加熱過程當中，經過熱移轉、蒸汽轉化成冷凝水滴，而這冷凝水滴必須快速在管路中排出以免影響蒸汽加熱的效益，也因為這理由蒸汽疏水閥自然成了蒸汽系統中的主件之一，若我們忽略了快速排出冷凝水將會導致無法昇溫讓蒸汽加熱系統失效。

為節約能源及提高熱能利用率一般我們都會考慮另外安裝冷凝水回收管路至蒸汽鍋爐。而這回收管路我們建議安裝於設備頂部空間作稍有斜度管路順流快速回至蓄水槽或集氣桶再經由幫浦，打入鍋爐提高熱能。如圖Figo如果回收管路走地面。因地板的不平而影響水流須等整支管至注滿水時才能流回蓄水槽或集氣桶其間熱能將會降低無法達到熱能快速回收的目的地。由於回收管路走地面妨礙作業人員及保養人員的通路降低工作效率影響整廠美觀。

WHY IS A STEAM TRAP AN UNNEGLECTABLE UNIT IN A STEAM SYSTEM?

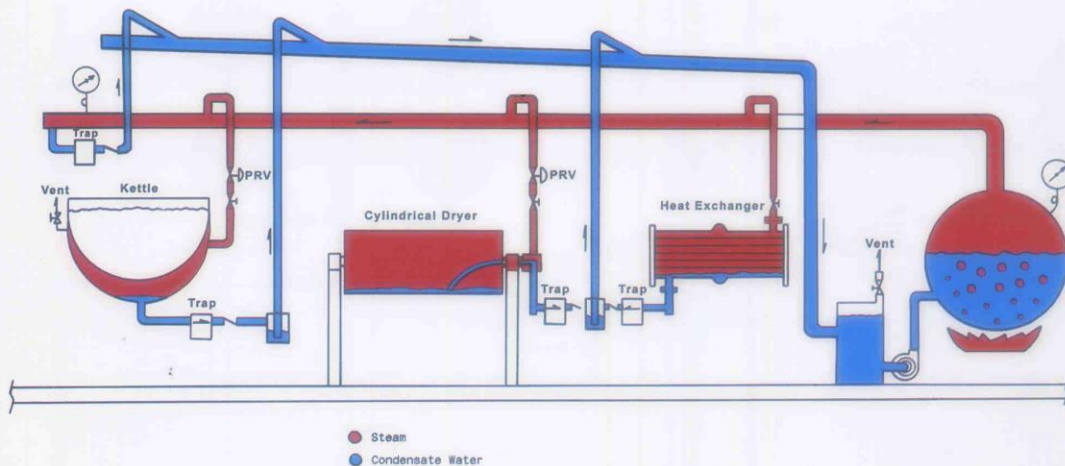
During the operations of a steam system in a plant condensate is generated without any exception. During heating with steam, the transferring of heat makes steam condense into condensate drops, and the condensate shall be discharged from the system through the piping for preventing from the steam heating efficiency. As a matter of the fact, this is why a Steam Trap is one of the essential units in steam system. Once we fail to take good care of discharging condensate rapidly from the system, the failure of being unable to bring up the temperature will ruin the steam heating system.

For energy saving and higher effective heat utilization rate, it is generally considered to equip the system, with condensate recollection pipe link to the steam boiler.

It is recommended to install the pipes in the top room in a slightly inclined direction to speed up the flow of the condensate into the Water Reservoir type steam collection bucket, then, through the help of the pump, the condensate is enforced into the Steam Boiler and enhances the thermo-energy there (as shown in Fig).

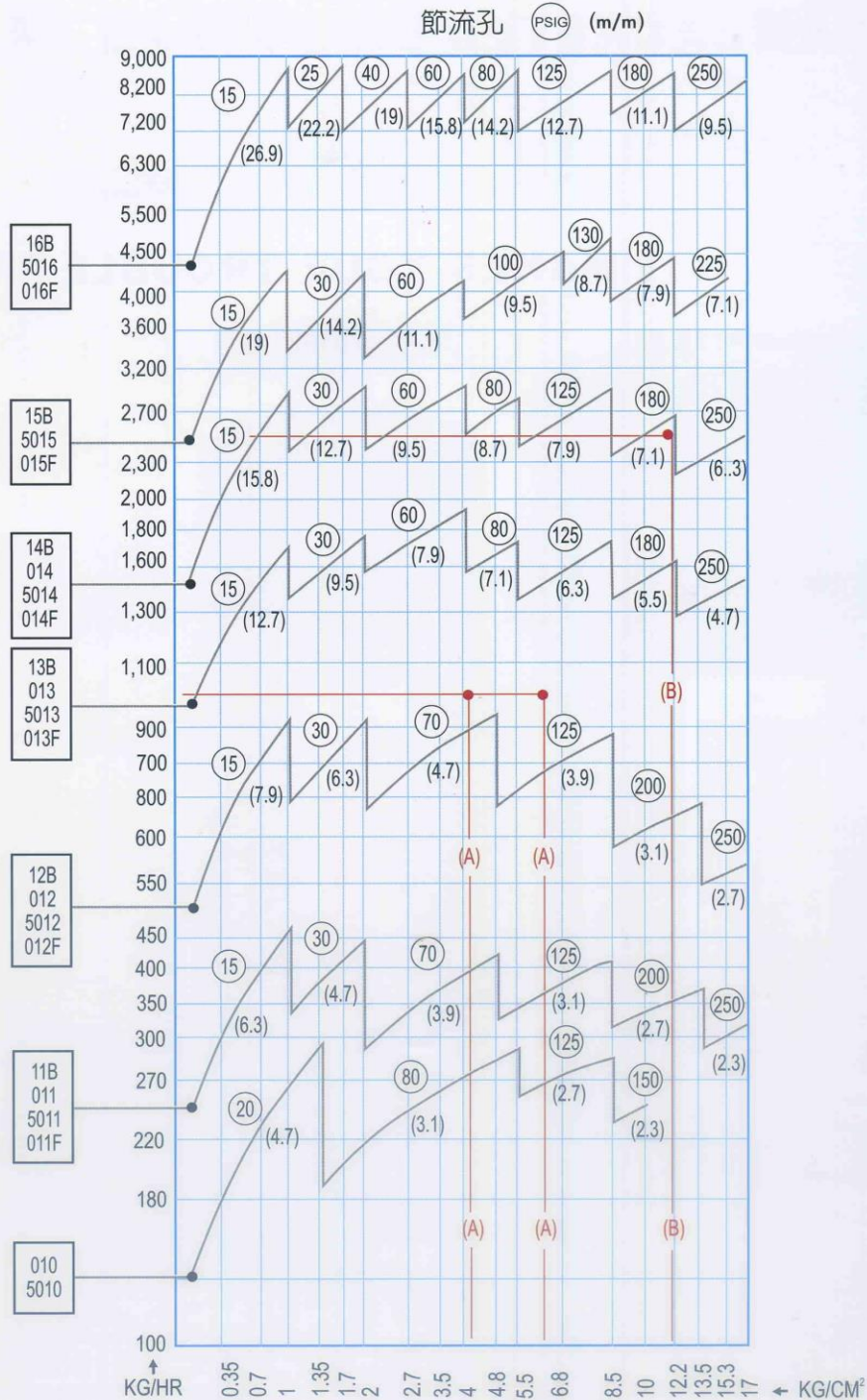
In case of the recollection pipe system is installed along the floor surface, the following disadvantages will be found:

- (1) The pipes climbing up and down along the floor surface can cause condensate water to be stopped in the pipe section at lower level until the whole pipe system is filled up with condensate, then, it can be sent to Water Reservoir or Steam collection bucket. Therefore, the heat is heavily lowered, and purpose of heat-recovery is not achieved.
- (2) The recollection pipe system can interfere the workers and maintenance personnel from walking smoothly and lower work efficiency Besides, it affects the out-look of the factory.

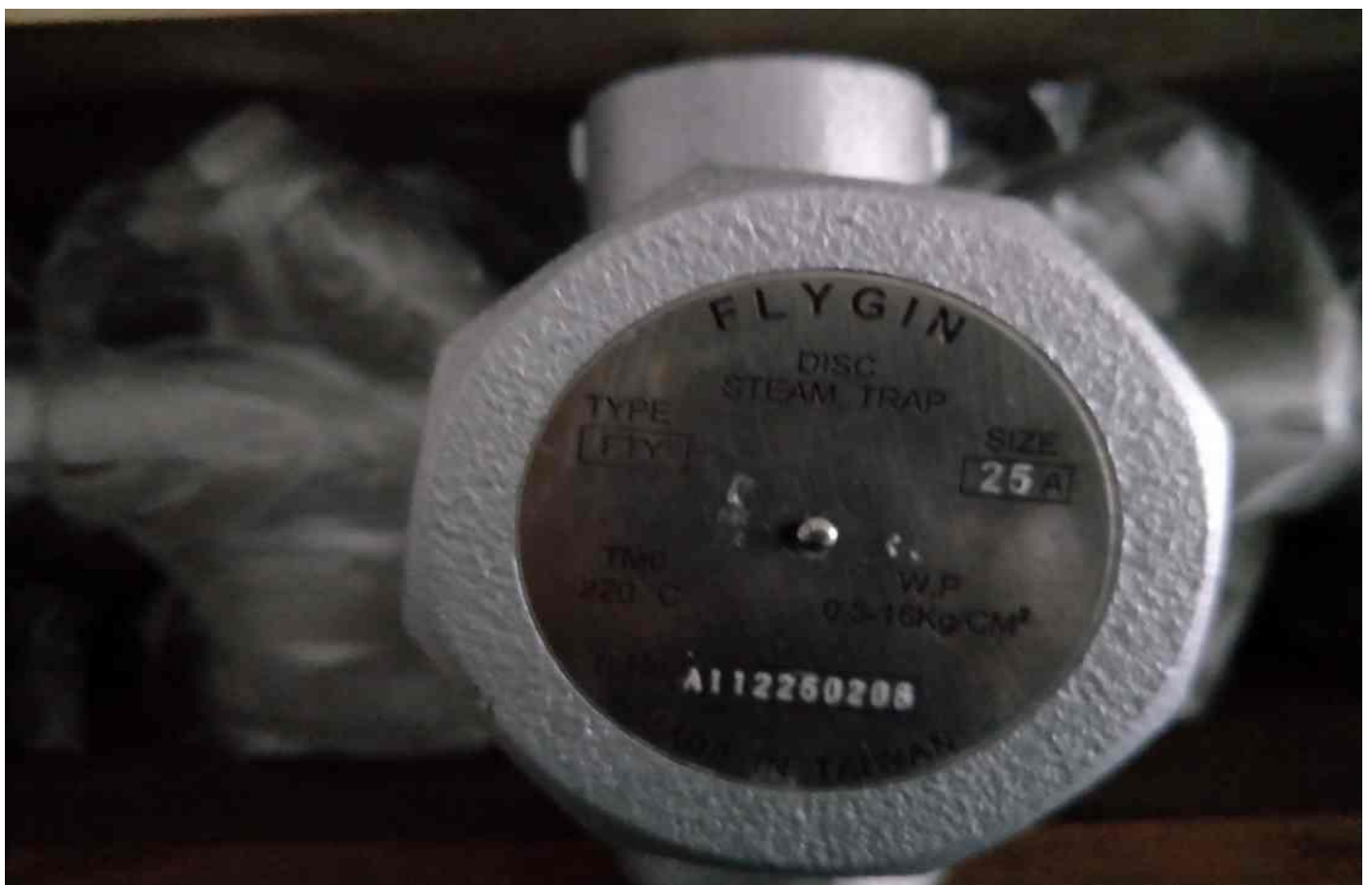




連續排水能量表 CAPACITY CHART



倒筒式蒸汽疏水閥





02-09-FTY-碟式疏水閥 1吋

蒸汽保温型碟式蒸汽疏水阀

STEAM JACKETED DISC STEAM TRAPS

IT MAKES YOUR TROUBLE FREE.



FLYGIN



蒸汽保溫型碟式蒸汽疏水閥

- 用於壓力0.7KG/cm²-42KG/cm²
- 排水量達1295KG /Hr

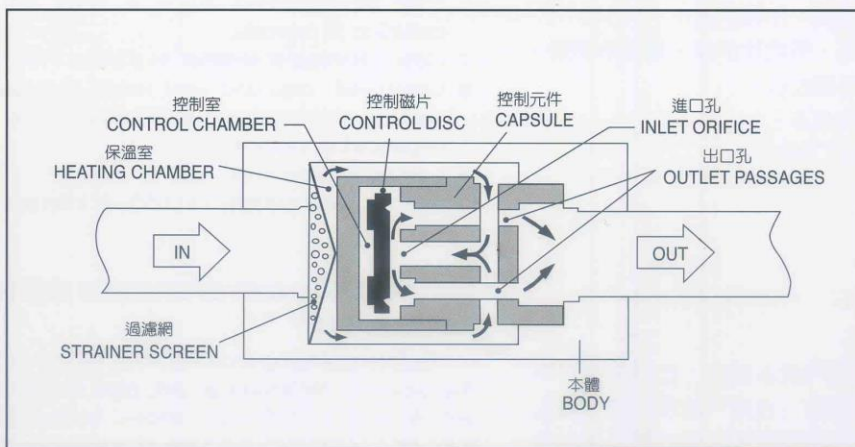
STEAM JACKETED DISC STEAM TRAP

- Pressure from 0.7kg/cm²- 42kg/cm²
- Capacities to 1,295kg/hr



- FD系列保溫型碟式蒸汽疏水閥體積小，空間狹小地方最為適用，結構簡單，只有碟片為活動部份。由於結構簡單，體積小，對抗水槌之能力特佳，同時急速開啓及間歇排放動作，可產生清洗作用。

- Series FD steam jacketed disc steam trap is very small and is consequently used on many applications where space is quite limited. Simply constructed, it contains only one moving part, the disc itself. Beside the disc trap's simplicity and small size, it also offers advantages such as resistance to water hammer, snap opening and intermittent operation for a steady purging action.



• 動作原理

冷凝水及空氣進入保溫室，經由控制元件進口達到蒸汽控制室，冷凝水及空氣推開控制碟片，從出口孔排出，冷凝水排完後，蒸汽來到控制室，使蒸汽控制室壓力增加，碟片開關，當控制室蒸汽冷凝壓力降低碟片開啓，如此周而復始操作。

• OPERATION

Condensate and air entering the trap pass through the heating chamber around the control chamber and through the inlet orifice. This flow lifts the DISC and condensate flows through to the outlet passages. When condensate has been discharged, then steam reaches the control chamber and increases pressures in the control chamber and the disc closes the orifice. When control chamber pressure reduced since condensation, cause the disc open. The trap recloses in the presence of steam and the cycle is repeated.



FD系列蒸汽保溫型碟式疏水閥能量和按裝法

FD STEAM JACKETED DISC STEAM TRAP CAPACITY AND INSTALLATIONS

• FD系列碟式疏水閥排水能量表KG/Hr

• CAPACITIES OF SERIES FD DISC TRAPS

口徑 CONNECTION		$\frac{3}{8}$ " , $\frac{1}{2}$ "	$\frac{3}{4}$ "	1"
DIFFERENTIAL PRESSURE 差壓 KG/CM ²	0.7	115	170	230
	1.75	140	205	280
	3.5	180	260	310
	5.25	205	310	415
	7	230	355	480
	10.5	280	430	585
	14	315	490	680
	21	385	590	845
	28	430	685	985
	42	540	875	1295

• 特點及效益

- 1 蒸汽保溫設計，蒸汽疏水閥操作不受大氣溫影響。
2. 蒸汽用量小之地方，排放效果特佳。
3. 正常冷凝水量時，無蒸汽洩漏，超少量冷凝水時，只有些微洩漏。
4. 蒸汽疏水閥開啓時，能完全排除冷凝水。
5. 體積小，容易按裝，且內部控制元件可替換。
6. 不靠輻射散熱操作，可外包保溫。
- 7 內可附不鏽鋼濾網，不易阻塞。
8. 控制碟片及閥座，熱處理鉻鋼，經精密研磨，使用壽命長，可靠性佳。
9. 價格低廉，節約成本。
10. 抗背壓能力達進口壓65%。

• 按裝操作指導

按裝：

在按裝碟式蒸汽疏水閥前，必需清潔管線污垢、結垢，及雜物。在蒸汽疏水閥進口端也需按裝停止閥，才易於保養。碟式蒸汽疏水閥，任何方位皆可按裝，只要確認冷凝水之流向，並依蒸汽疏水閥名版上之箭頭按裝即可。

操作：

啓動時，徐徐開啓前端停止閥讓蒸汽疏水閥預熱，同時大量冷凝水會排出，當停止閥全開時，蒸汽疏水閥即能自動排出，空氣和冷凝水。任何輕微之撞擊聲，是正常的，是由於碟片迅速開啓時之動作聲。它所產生的震波，可破壞管內空氣及水膜，如此可達到清洗試管作

• SPECIFICATION AND ADVANTAGES

- 1 Steam Jacketed design assures controlled operation unaffected by atmospheric conditions.
2. Excellent capability for handling light loads.
3. No steam loss at normal condensate loads, negligible steam loss on extremely light loads.
4. Complete discharge of all condensate when trap opens.
5. Small size, ease to install. Easy capsulated renewal.
6. May be insulated since it does not rely on radiation to operate.
- 7 Optional integral strainer available. Free from dirt.
8. Controlled disc and seat made of heated treaed chrome steel, ground and lapped, long life and dependable service.
9. Low price. Low cost.
10. Against back pressure to 65% of inlet pressure.

• INSTALLATION AND OPERATING INSTRUCTIONS:
INSTALLATION:

Before installing the Disc trap, be sure to blow out the pipe line removing all dirt, pipe scale, pipe chips, etc. A hand shutoff valve should be installed on the inlet side of the trap for ease of maintenance.

The Disc Trap can be installed in any position. Be sure to install trap in the direction of condensate flow. Disc Traps are marked with arrow on nameplate.

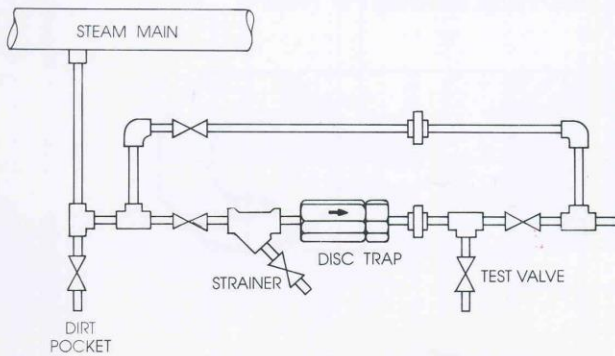
OPERATION:

On start up, open hand valve slowly allowing time for trap to warm up and large quantities of condensate to discharge. When the hand valve is fully open, the trap will operate automatically, discharging air and condensate. Any slight banging noise is nommal because the snap action of the disc on opening, produces a shock wave that helps break up air and water pockets thus purging the line.

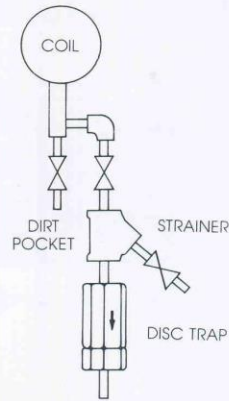


FD系列蒸汽保溫型碟式疏水閥能量安裝法

FD STEAM JACKETED DISC STEAM TRAP CAPACITY AND INSTALLATIONS



HORIZONTAL HOOKUP



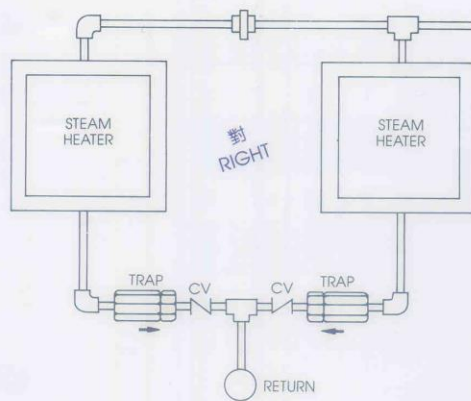
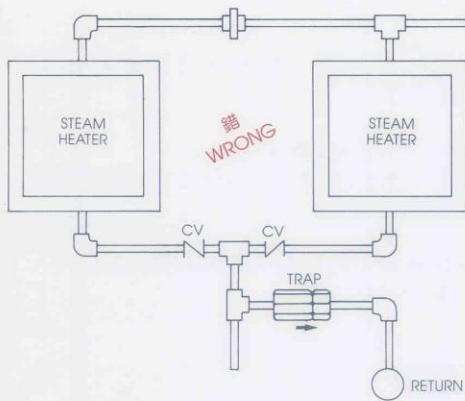
VERTICAL HOOKUP

• 避免二組機台共用一組蒸汽疏水閥

假如兩組以上機台共用壹組蒸汽疏水閥將使壹組或多組機台之冷凝水或空氣不易到達蒸汽疏水閥，因不同機台之不同，蒸汽冷凝率將導致不同之蒸汽壓降。蒸汽壓力錶不能分辨之壓降差，已足以使高壓機台之蒸汽阻礙低壓機台之冷凝水，空氣之排放。結果會降低排放量降低熱效益及浪費燃料。

• Avoid Two Steam Heater Drained By One Trap

If more than one drain point is connected to a single trap, condensate and air from one or more of the units may fail to reach the trap. Any difference in condensing rates will result in a difference in the steam pressure drop. A pressure drop difference too small to register on a pressure gauge is enough to let steam from the higher pressure drip point block the flow of air (or even condensate) from the lower pressure drip point. The net result is reduced heating, output and fuel waste.



• 兩組熱機共用壹組蒸汽疏水閥將產生短路現象。

• 每一組熱機，個別安裝壹組蒸汽疏水閥短路現象不會發生。可確保高效率。

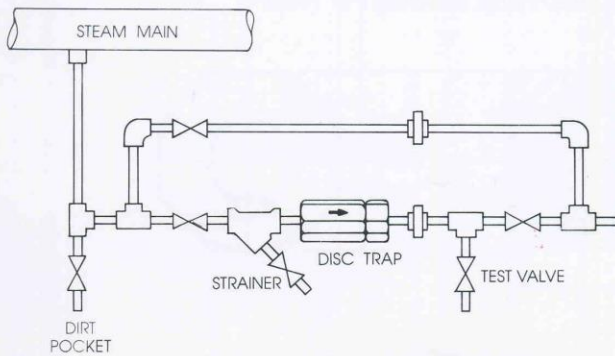
• Two steam heater drained by a single trap may result in short circuiting.

• Short circuiting is impossible when each unit is drained by its own trap. Higher efficiency is assured.

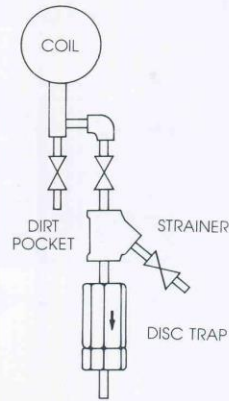


FD系列蒸汽保溫型碟式疏水閥能量安裝法

FD STEAM JACKETED DISC STEAM TRAP CAPACITY AND INSTALLATIONS



HORIZONTAL HOOKUP



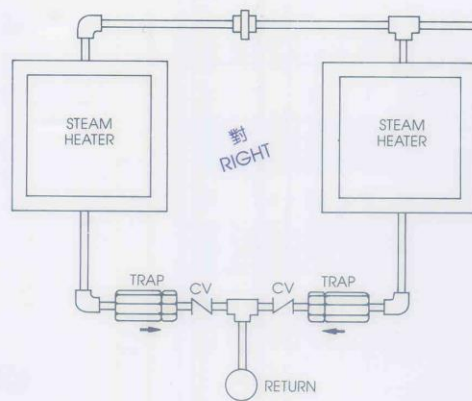
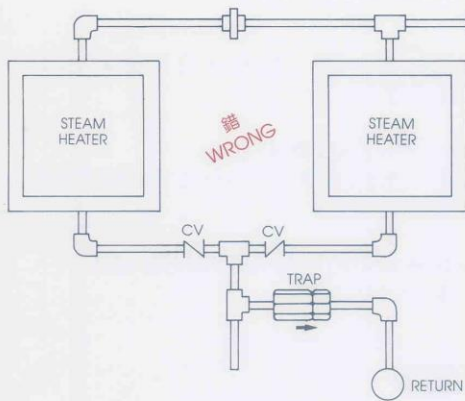
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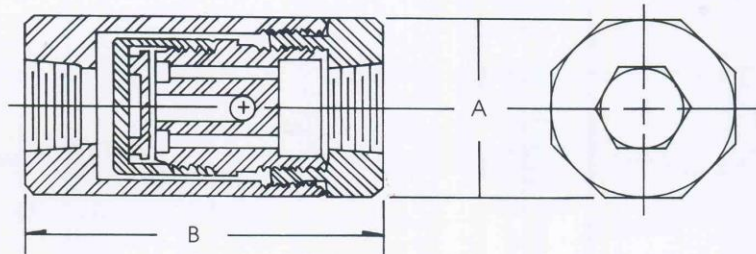
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FD系列碟式疏水閥外型圖、尺寸表

PHYSICAL DATA SERIES FD TRAPS

• FD 系列碟式疏水閥外型圖 SERIES FD TRAPS



• 材質表 LISSST OF MATERIAL

名稱 NAME OF PART	材質 MATERIAL
本體 BODY	高碳鋼 CARBON STEEL
過濾網 STRAINER SCREEN	不鏽鋼 SUS 304 STAINLESS STEEL
控制元件 CAPSULE	熱處理鉻鋼 HEAT TREATED CHROME STEEL
碟片、閥座 DISC AND SEAT	熱處理鉻鋼 HEAT TREATED CHROME STEEL

• FD系列碟式疏水閥尺寸表 PHYSICAL DATA SERIES FD TRAPS

TYPE	型式	FD-1A	FD-1	FD-2	FD-3
PIPE CONNECTIONS	口徑	3/8"	1/2"	3/4"	1"
"A"(DIAMETER)	外徑	32mm	32mm	41mm	32mm
"B"(LENGTH)	長度	76mm	87mm	100mm	117mm
WEIGHT KG	重量	0.34	0.34	0.80	1.36
MIN. P KG/CM ²	最低壓力	0.75	0.75	0.75	0.75
MAX P KG/CM ²	最高壓力	42	42	42	42

• 蒸汽洩漏表 STEAM LOSS TABLE KG/HR

孔徑 orifice m/m	壓力 KG/cm ²			
	2	5	7	10
1	1	2	3	4
2	4	9	12	17
3	9	10	27	38
4	16	35	48	67
5	25	55	76	105

例

蒸汽壓力7KG/cm²時，有3m/m 孔洩漏蒸汽全年浪費多少金錢？

(假設蒸汽每KG成本為NT\$0.5)

從左表蒸汽洩漏表可知每小時有27KG蒸汽洩漏，全年浪費金額為：

$$27\text{KG}/\text{Hr} \times 24 (\text{時}) \times 30 (\text{日}) \times 12 (\text{月}) \times 0.5 = \text{NT}\$116,640.00$$

EXAMPLE

How much wasted cost of 3 m/m orifice steam leaks at 7 kg/cm² steam pressure per year?

(Assuming steam costs NT\$0.5 per KG)

From steam, loss table left tells it has 27KG steam loss per hour The total wasted costs per year will be:

$$27 \text{ kg/hr} \times 24 (\text{hour}) \times 30 (\text{day}) \times 12 (\text{month}) \times 0.5 = \text{NT}\$116,640.00$$



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