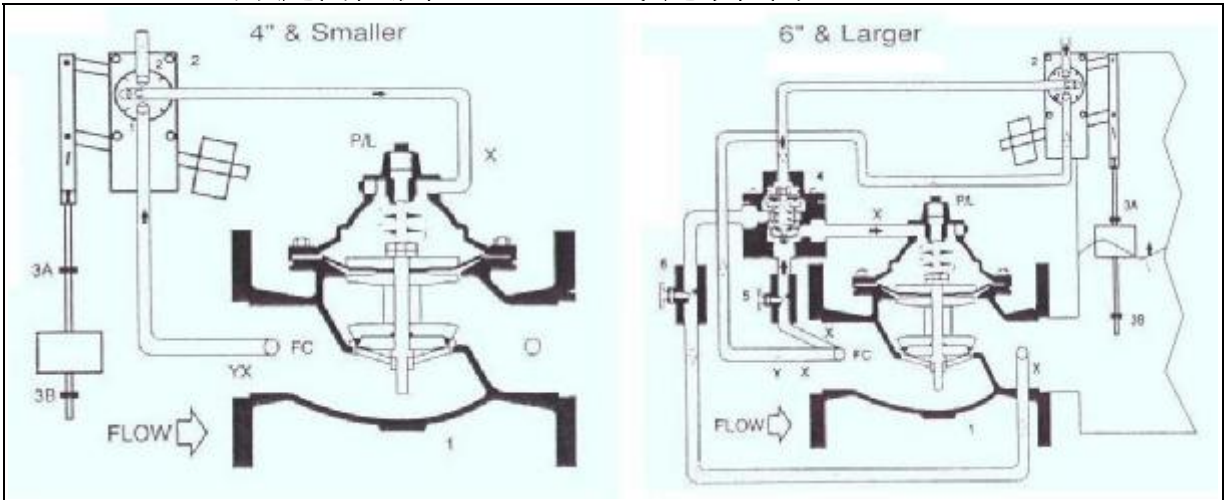


# WATTS / AMES 美國第一大 水系統閥類製造廠

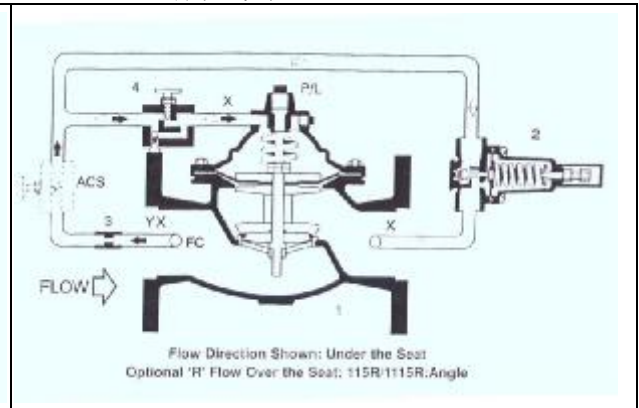
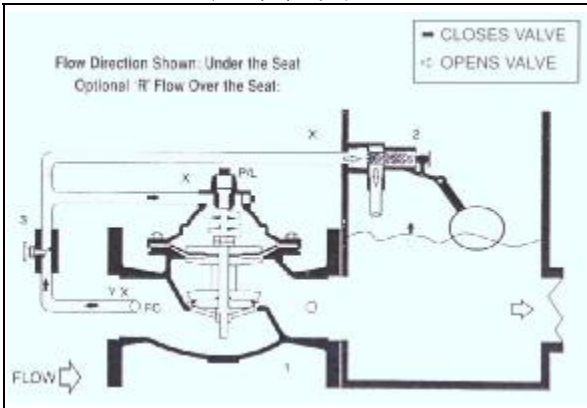
各式嚮導自動控制閥系列：

**ACV-110-14** 可設定高低液位 ON-OFF 式 定水位閥



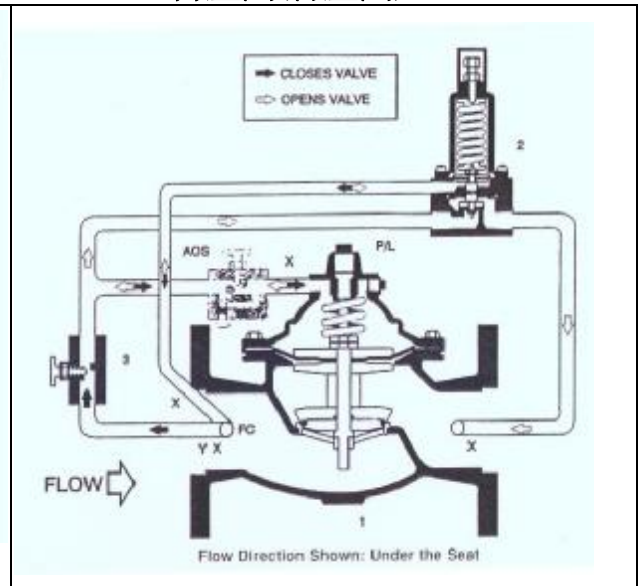
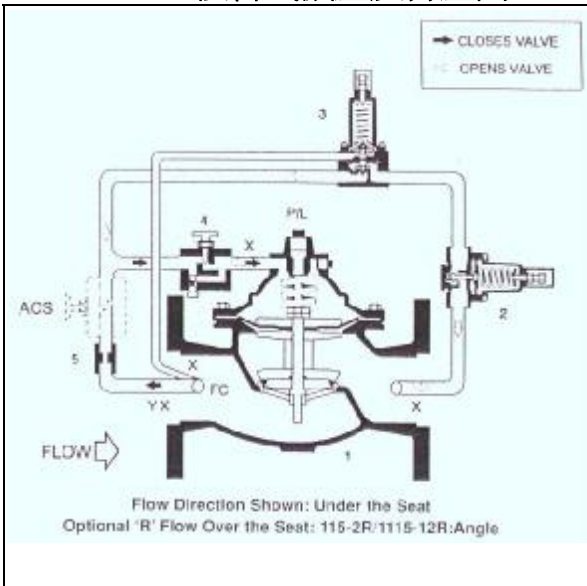
**ACV-110-10** 定水位閥

**ACV-115** 減壓閥

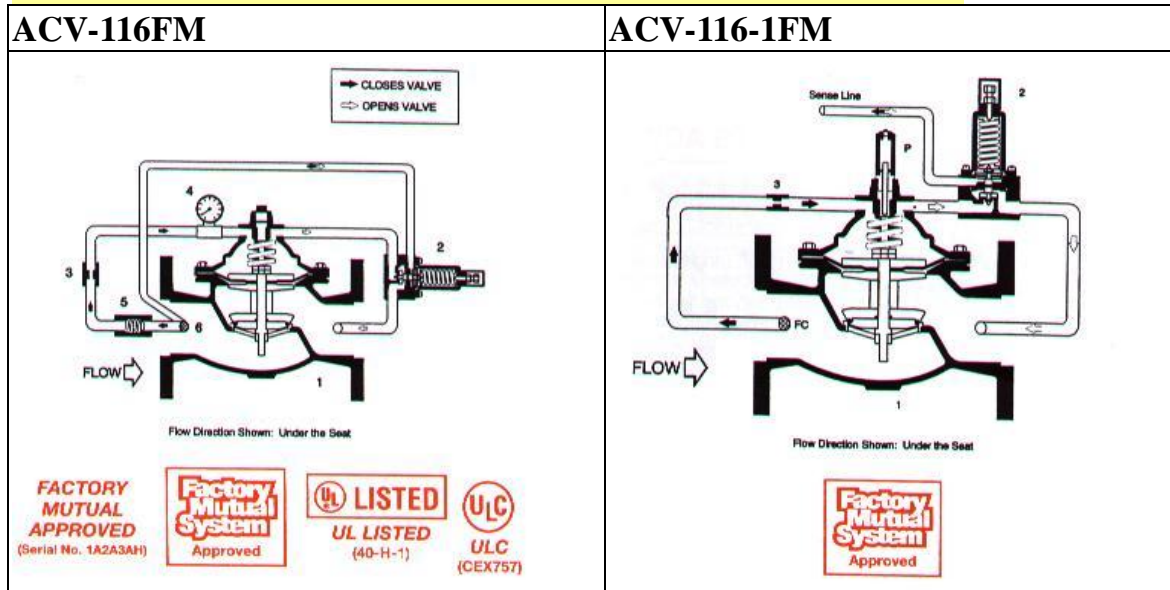


**ACV-115-2** 複合式減壓及持壓閥

**ACV-116** 持壓閥(背壓閥)



## WATTS / AMES 美國第一大 水系統閥類製造廠



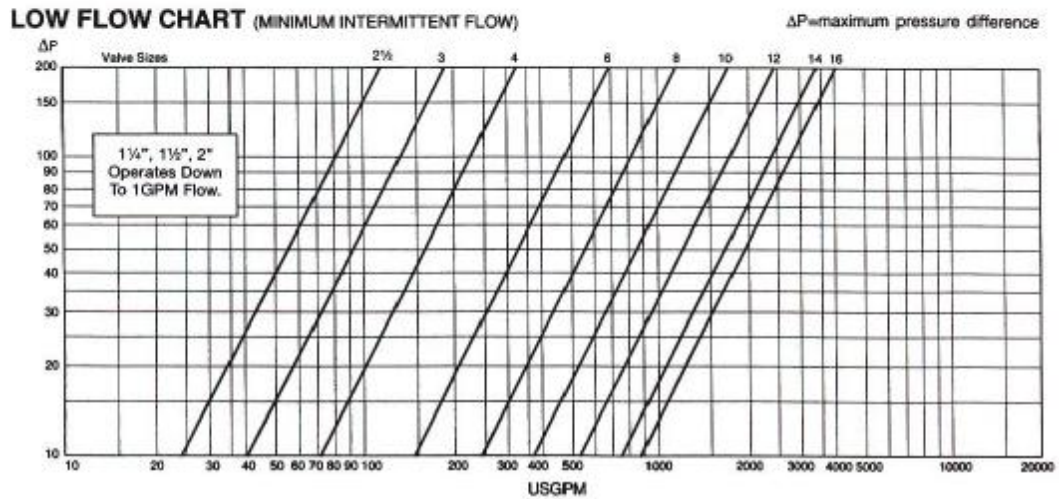
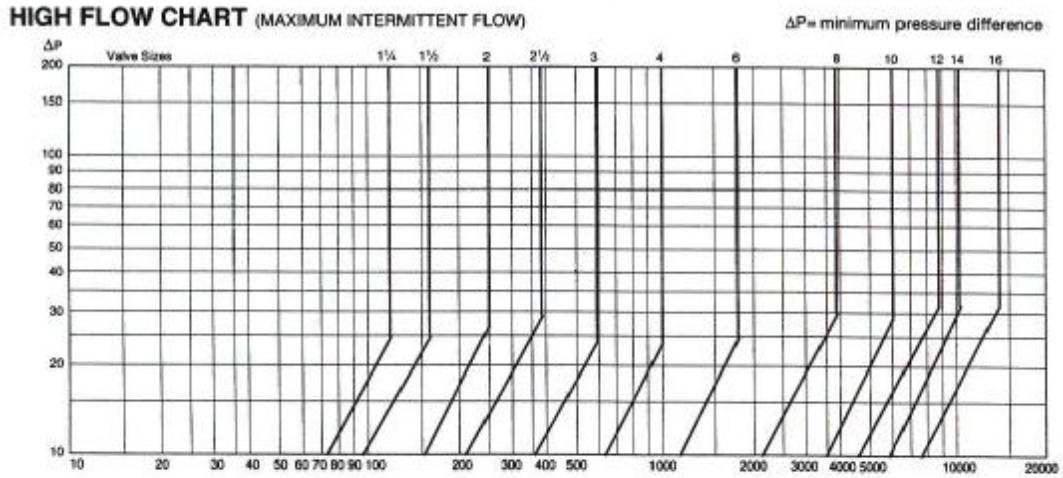
### 規格及技術參數：

1. 閥體材質：CI 鑄鐵，DI 球狀石墨鑄鐵，CS 鑄鋼，SS 不銹鋼。
2. 膜片：Buna-N 或 Viton。
3. 尺寸：1-1/4" ~ 24"。
4. CV 值：37 ~ 4210。
5. 可調範圍：標準 20~175 psi；選項 0~30 psi，100~300 psi。
6. 最小壓差：5 PSI。
7. 可外加內部及外表為 Epoxy 被覆。
8. 水平或直角型。
9. UL Listed &/or Factory Mutual System Approved。

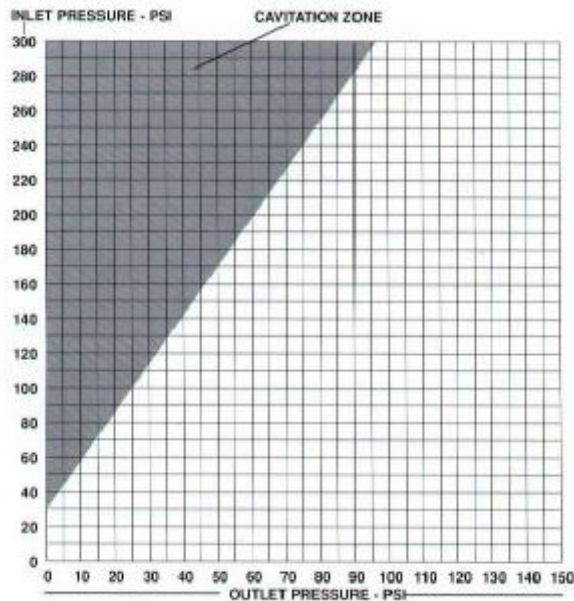
## WATTS Sizing 應用表

1. 選擇 WATTS 嚮導式自作動式控制閥，需提供下列資料：
  - l 最高及最低之入口壓力
  - l 出口壓力 (設定壓力)
  - l 最大流量
  - l 最小流量
2. 篩選方式：
  - l 參考最大流量曲線表，及最小流量曲線表。由已知之最大流量及最小流量查照曲線表下方之對應流量與縱軸壓差之交會點，再水平向右移動到碰上第一條較粗之斜線，即為所需之閥尺寸。
  - l 參考穴蝕曲線表(Cavitation Chart)，由縱軸出口壓力及橫軸入口壓力之交會點，看是否接近穴蝕區域(Cavitation Zone)。若操作點在穴蝕區域附近，建議使用不銹鋼製之零件。

## 最大流量曲線表(上圖) 及 最小流量曲線表(下圖)



## WATTS 穴蝕曲線表 (Cavitation Chart)



# WATTS 溫壓兩用安全閥

## water heater t&p safety relief valves

### ASME Rated Series 40, 140, 240, 340, 342 (3/4" - 2") Automatic Reseating T & P Relief Valves for hot water supply tanks and heaters.

- The combined two-in-one Temperature and Pressure relief valve provides the least expensive and most proven means for protection against both excessive temperature and pressure.
- Fully automatic temperature and pressure relief protection for hot water supply tanks and heaters based on the latest ANSI Z21.22 Listing Requirements for temperature discharge capacity.

#### Standards

AGA-ANSI Z21.22 and ASME Section IV Rated, CGA Listed, in addition to Military Spec. MIL-V-136-12D, Type I.

#### Specifications

- Temperature relief 210°F (98.9°C). Pressure range 75-150 psi (5.2-10.3 bars). Standard settings: 75 psi (517.1 kPa); 100 psi (6.9 bars); 125 psi (8.6 bars); and 150 psi (10.3 bars). See Dimensions/Wgts. chart on next page for inlet and outlet connection type and sizes.

#### Series 40/140 nominal size 3/4" (20mm)

- To protect gas, electric or oil-fired storage water heaters rated between 180,000 to 200,000 BTU/Hr. from excessive heat or pressure build up, choose the 3/4" (20 mm) model 40 or 140. Tested under ANSI Z21.22 with ratings as certified and listed by AGA and CGA.

#### Series 40/140 and 240 nominal size 1" (25mm)

- For gas or oil-fired storage water heaters rated between 450,000 and 730,000 BTU/Hr., choose the

#### Features

- Bronze body construction
- Tamper-resistant bonnet screws
- Series 40 and 140 feature a unique thermostat with a special thermo-bonded coating.
- 1" (25 mm) and above sizes Model M2, M4 and M14 are standardly furnished with stainless steel thermostat tube.
- Accurate and proven thermostat, exclusively designed and manufactured by Watts



For additional information, request ES-40,140,240,340 or F-TP/ASME.

1" (25 mm) model 40, 140 or 240. Tested under ANSI Z21.22 with ratings as certified and listed by AGA and CGA.

#### Series 340/342 nominal sizes 1 1/2" x 2" (40 x 50mm)

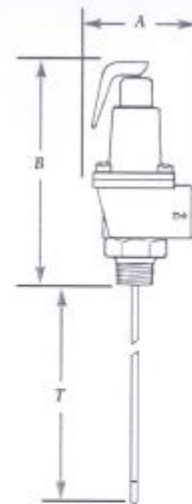
- For gas or oil-fired hot water supply boilers rated over 730,000 BTU/Hr. output heating for water and for steam coil storage water heaters, choose the Model 340 or 342. Tested under ANSI Z21.22 with ratings as certified and listed by AGA and CGA.

#### Special Model

Special Model 340X-8 M4Z available in 1 1/2" (40 mm) size only. Pressure setting is 175 psi (12.1 bars). Temperature relief at 210°F (98.9°C); Certified by AGA only.

# WATTS 溫壓兩用安全閥

## Dimensions/Wgts.



Model	Order No. §	Size (DN) M = Male F = Female Inlet x Outlet		T Thermostat Length (below inlet)		B less thermostat		Weight lbs. kg.	AGA-CGA Temp. Steam Rating BTU/hr.	ASME Pressure Steam Rating BTU/hr.** @75 psi set pressure	ASME Pressure Steam Rating BTU/hr.** @150 psi set pressure
		in. x in.	mm x mm	in.	mm	in.	mm				
40L-3	153614	¾M x ¾F	20 x 20	3	76	2¾	67 5¾	1¼ .79	180,000	777,600	1,437,600
40XL-5	156731	¾M x ¾F	20 x 20	5	127	2¾	67 5¾	1¼ .79	200,000	777,600	1,437,600
40XL-8	158774	¾M x ¾F	20 x 20	8	200	2¾	67 5¾	1¼ .79	200,000	777,600	1,437,600
140S-3	254702	¾F x ¾F	20 x 20	3	76	2¾	67 5¾	1¼ .79	180,000	777,600	1,437,600
140X-5	257564	¾F x ¾F	20 x 20	5	127	2¾	67 5¾	1¼ .79	200,000	777,600	1,437,600
140X-8	259850	¾F x ¾F	20 x 20	8	200	2¾	67 5¾	1¼ .79	200,000	777,600	1,437,600
40L-2	154830	1M x 1F	25 x 25	2	50	2¾	70 6¼	2¼ 1	450,000	1,155,000	2,134,000
40XL-4	163725	1M x 1F	25 x 25	4	100	2¾	70 6¼	2¼ 1	500,000	1,555,000	2,134,000
40XL-7	163765	1M x 1F	25 x 25	7	178	2¾	70 6¼	2¼ 1	500,000	1,555,000	2,134,000
* 140S-3	256661	1F x 1F	25 x 25	3	76	3	76 5½	2¼ 1	570,000	1,670,000	3,085,000
* 140X-6	259705	1F x 1F	25 x 25	6	150	3	76 5½	2¼ 1	670,000	1,670,000	3,085,000
* 140 X-9	259930	1F x 1F	25 x 25	9	229	3	76 5½	2¼ 1	670,000	1,670,000	3,085,000
* N240X-6	315130	1F x 1F	25 x 25	6	150	3¾	86 6¾	2¾ 1.2	730,000	2,195,000	4,059,000
* N240X-9	315180	1F x 1F	25 x 25	9	229	3¾	86 6¾	2¾ 1.2	730,000	2,195,000	4,059,000
* N241X-5	318825	1¼M x 1F	32 x 25	5	127	3¾	86 6¾	2¾ 1.2	730,000	2,195,000	4,059,000
* N241X-8	318861	1¼M x 1F	32 x 25	8	200	3¾	86 6¾	2¾ 1.2	730,000	2,195,000	4,059,000
* 340-3	344276	1½F x 1½F	40 x 40	3	76	4½	114 9¾	7 3	1,150,000	3,450,000	6,379,000
* 340X-8†	348470	1½F x 1½F	40 x 40	8	200	4½	114 9¾	8 3.6	1,150,000	3,450,000	6,379,000
* 342-3	352478	2M x 1½F	50 x 40	3	76	4½	114 9¾	7 3	1,150,000	3,450,000	6,379,000
* 342X-8	352620	2M x 1½F	50 x 40	8	200	4½	114 9¾	8 3.6	1,150,000	3,450,000	6,379,000

\* Standardly furnished with stainless steel thermostat tube. †340X-M4Z - Temperature Relief of 210°F, Certified A.G.A. only.

\*\* ASME capacities are steam pressure ratings at the indicated set pressure and do not reflect the AGA temperature relieving capacity of the valves for selection purposes. Standard pressure relief setting: 75, 100, 125 and 150 psi (5.2, 6.9, 8.6, and 10.3 bars).

§Set @ 150 psi (10.3 bars). Consult your local Watts Agent or call Customer Service at (978) 689-6066 for ordering codes of valves with pressure relief settings of 75, 100, 125 psi (5.2, 6.9, 8.6 bars).

watts regulator • water products division • safety & control valves