

Mustang Series

M127H-1 or M6127H-1 (Globe)

Basic Valve Features

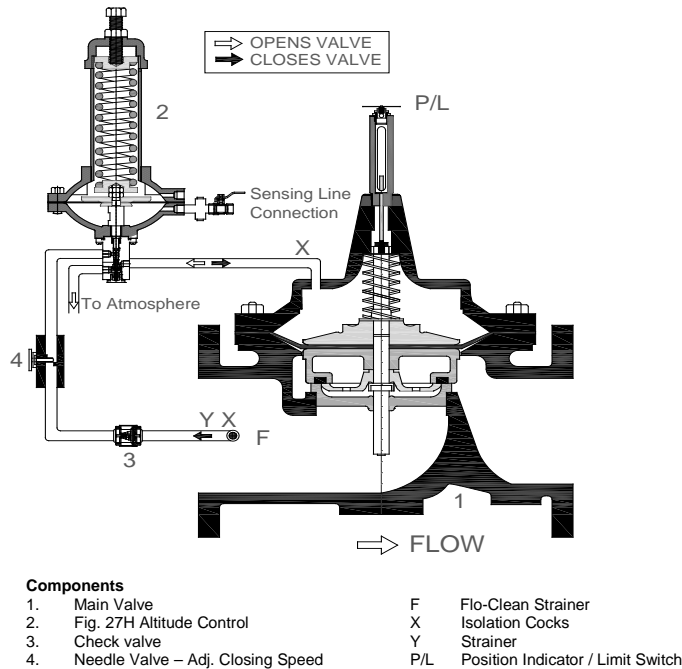
- **Single Piece Flat Diaphragm Designed**
Absolute no friction to the rubber diaphragm against the basic valve
- **Only Three Major Components**
Cover, Stem Assembly and Body
- **100% Fusion Bonded Epoxy Coated**
NSF 61 Certified Epoxy Coating Internally and Externally
- **Simplified Maintenance**
No special tools and skill are required

Function

- Opens to fill reservoir when level drops below desired level
- Closes when reservoir reaches desired level



Schematic



Operation

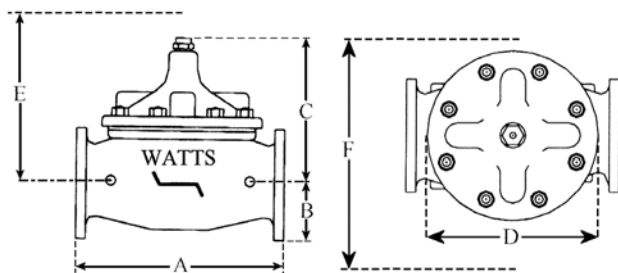
The WATTS ACV M127H-1 One-Way Flow Altitude Control Valve is designed to accurately control the high water level in a tank or reservoir. It is a non throttling device that opens fully when tank head pressure is below the adjustable set point of the altitude control, and closes drip tight when the desired shutoff point is reached (Tank Fill).

The Figure 27H Altitude Pilot remotely senses static tank head pressure (water level) through a field installed sensing line (minimum ½ inch diameter), and directs pressure into and out of the cover chamber of the basic valve.

As water level decreases, static tank pressure falls below the adjustable set point, the altitude pilot commands the basic valve cover chamber to be vented downstream (dry drain) or to atmosphere (wet drain) opening the valve, re-filling the tank. As water level increases, static tank head exceeds the adjustable set point, the altitude pilot commands the basic valve cover chamber to be connected to upstream (inlet) pressure, closing the valve drip tight.

M127H-1 is Full Port designed One-Way Flow Altitude Valve with M100 Basic Valve and M6127H-1 are Reduced Port designed One-Way Flow Altitude Valve with M6100 Basic Valve.

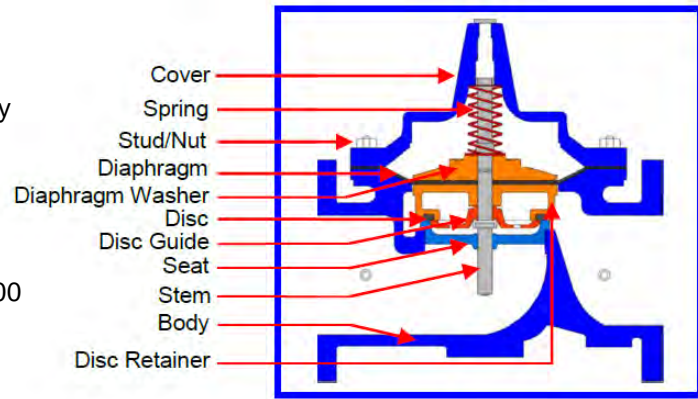
Dimension (mm)



VALVE SIZE	A		B		C		D		E	F
	M 100	M 6100	M 100	M 6100	M 100	M 6100	M 100	M 6100		
50	254	---	83	---	165	---	168	---	305	510
65	295	---	95	---	262	---	203	---	360	560
80	345	279	105	105	284	178	232	168	360	560
100	381	353	114	114	362	219	292	232	410	610
150	508	451	140	140	468	295	400	292	610	815
200	645	543	171	171	554	381	508	400	660	860
250	756	660	203	203	594	454	600	508	710	965
300	864	762	241	241	744	533	711	600	760	1120
350	991	---	267	---	614	---	832	---	860	1220
400	1051	889	290	290	889	654	902	711	1020	1320
450	1180	1219	320	320	790	787	1050	900	1220	1420
500	1250	1219	357	357	790	787	1120	900	1220	1420
600	1450	1219	420	420	930	787	1280	900	1220	1420
700	1850	1450	455	455	1170	930	1430	1280	1600	1750
800	1850	1450	512	512	1170	930	1430	1280	1600	1750
900	2250	1850	562	562	1460	1170	1850	1750	2000	2250

Main Valve Material Specifications

Body and Cover	- Ductile Iron ASTM A-536
Coating	- NSF 61 Certified Fusion Bonded Epoxy
Stem, Seat and Disc Guide	- Stainless Steel ASTM 316
Stem Nut and Spring	- Stainless Steel AISI 304
Disc Retainer	- Ductile Iron "Epoxy Coated"
Diaphragm Washer	- Ductile Iron "Epoxy Coated"
Studs and Nuts	- Stainless Steel AISI 304
Diaphragm	- Nylon Reinforced Buna-N ASTM D 2000
Disc	- Buna-N Rubber ASTM D 2000



Main Valve Technical Data

Valve Size	- 32 mm to 600 mm
Operating Pressure	- Class 150 Max. 250 PSI (Standard) - Class 300 Max. 500 PSI (Optional)
Operating Temperature	- -10 to 90 deg. C (Fluids)
End Connection	- 50 mm to 600 mm Flanged End - 32 mm to 40 mm Screwed End
Flange Standard	- BS 4504 PN16, PN25, ANSI 150 or ANSI 300

Pilot System Specifications

Pilot Models	- Figure 27H
Body Material	- Ductile Iron
Trim Material	- Stainless Steel
Diaphragm	- Buna-N Nylon Reinforced
Disc	- Buna-N Synthetic Rubber
Spring Range	- 5 to 20 feet, 10 to 75 feet or 50 to 200 feet
Fittings and Tubing	- Brass and Copper (Standard), Stainless Steel (Optional)

Installation Guidelines

- Prior to installation, flush line to remove debris.
- Install valve horizontally "in line" (cover facing up), so flow arrow matches flow through the line. Avoid installing valves size 150 mm and larger vertically. Consult factory **prior** to ordering if installation is other than described.
- Install inlet and outlet isolation valves. **Notes** : When using butterfly valves, insure disc does not contact control valve. Damage or improper valve seating may occur.
- By-pass isolation valve is recommended to installed for maintenance purpose without shutting down the systems.
- Provide adequate clearance for valve servicing and maintenance (refer to Dimension Table).
- It is advisable to install a strainer before the control valve to prevent any solid particle from entering the valve body.
- Install pressure gauge to monitor valve inlet pressure.
- Install static tank head sense line. For optimum control, sense line should be: 1) Installed with an upwards angle (towards reservoir) to avoid air accumulation, 2) Connected no further than forty-five pipe diameters from the reservoir, and 3) A minimum of ½ inch diameter.

Flow Data Series M 100 / M 6100 (Globe)

Valve Size (mm)		50	65	80	100	150	200	250	300	350	400	450	500	600
Max. Continuous Flow Rate GPM	M100	208	300	460	800	1850	3100	4900	7000	8500	11000	14800	21200	30400
	M6100	---	---	260	580	1025	2200	4100	6400	---	9230	14360	16500	17250
Max. Intermittent Flow Rate GPM	M100	260	380	580	990	2300	3900	6100	8800	11500	11400	18000	26500	36800
	M6100	---	---	325	720	1280	2750	5100	8000	---	11500	17950	20625	21560
CV Factor USGPM	M100	54	85	115	200	490	770	1245	1750	2300	2940	3700	5300	7600
	M6100	---	---	62	136	229	480	930	1458	---	2110	3300	3400	3500

Note : Flow data for valve size 700mm and above upon request.

Maximum continuous flow based on pipeline velocity of 20 ft. per second.

Maximum intermittent flow based on pipeline velocity of 25 ft. per second.

The Cv factor of a valve is the flow rate in US GPM at 60° F that will cause a 1 psi drop in pressure.

The factors stated are based upon a fully open valve.

Other WATTS ACV Altitude Control Valve

M 127H-2/ M 6127H-2	Two-Way Flow Altitude Valve
M 127H-8 / M 6127H-8	One-Way Flow Altitude Valve with Pressure Sustaining Feature
M 127H-11 / M 6127H-11	One-Way Flow Altitude Valve with Delayed Opening Feature
M 127H-32 / M 6127H-32	One-Way Flow Altitude Valve with Solenoid Override Feature

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