303 193-18
07.2018

IMI TA

Balancing Valve Installation/Adjustment Instructions

STAD NPT Threaded Style and STAS Solder Style Balancing Valves with Digital Handwheel 1/2" to 2" (400 WWP)

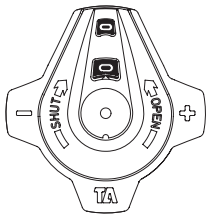


Fig. 1. Valve closed

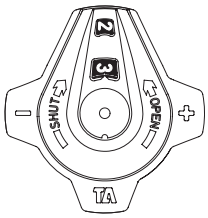


Fig. 2. Opened 2.3 turns

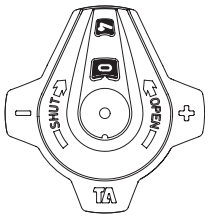


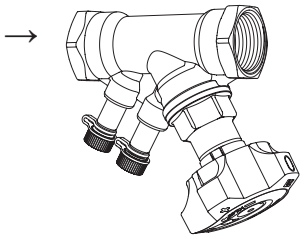
Fig. 3. Fully open valve

Fig. 4. Allen key size for presetting 3 mm

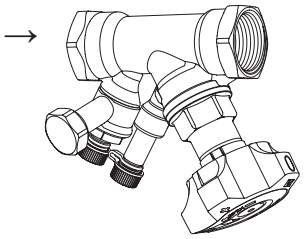
Presetting
The presetting of a valve for a certain pressure drop (e.g. corresponding to the presetting position 2.3) should be carried out as follows:

1. Close the valve fully (Fig. 1).
2. Open the valve 2.3 turns (Fig. 2).
3. Using a 3 mm Allen key, turn the inner spindle clockwise to its end position.
4. The valve is now preset.

STAD
Without drain

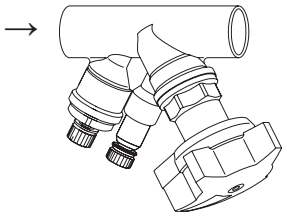


With drain for UNS 1 1/16" x 11.5 hose connection



→ Flow direction

STAS
With optional drain for UNS 1 1/16" x 11.5 hose connection



→ Flow direction

STAS installation
1. Open valve fully before soldering.
2. Install the valve in the correct direction of flow.
3. When soldering cover valve body with wet cloth to prevent premature deterioration of the internal valve components.
4. Solder the valve body to the pipe, using 95/5 (95% tin, 5% antimony) type solder.

Selecting the correct valve size – STAD/STAS

1. When ∆p and design flow are known, select the valve to obtain this ∆p for an opening around 75% of the operating range.
2. When flow is known and the ∆p is unknown, select the valve where the ∆p are greater or equal with 1 Ft.WG, in the fully open position. (See table below).

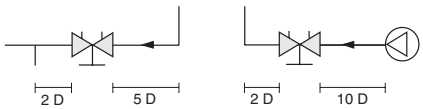
Size [in.]	Nominal flow [gpm]	Max.* flow [gpm]
1/2	0.5 - 2.8	4.42
3/4	2.8 - 6	9.30
1	6 - 10	14.8
1-1/4	10 - 15	24.5
1-1/2	15 - 20	33.3
2	20 - 36	55.7

*) Maximum flow is calculated for the valve fully open and ∆p approximately 5 Ft.WG (Speed of water max 8.5 Ft/sec).

NOTE: In softwares (HySelect, HyTools) and balancing instrument (TA-SCOPE) the STAD/STAS, PN 25/400 WWP version, are named STAD* resp. STAS*.

Installation

In order to obtain accurate flow measurements turbulence must be minimized by observing the following piping configurations:



5 D = 5 pipe diameters

Note: To avoid possible contamination, no mercury type gauges should be used in potable water systems.

For the most accurate meter available, refer to IMI Hydronic Engineering data sheet "TA-SCOPE".

IMI Hydronic Engineering

To set the valve to correspond with a required pressure drop (as shown in figure 6) proceed as follows:

1. Close the valve fully (Fig. 5).
2. Open the valve to the preset value 2.3 turns (Fig. 6).
3. Valve size 2 1/2" to 6": Do not remove the handwheel screw, but insert the Allen key through the hole in it. Valve size 8" to 16": Remove the handwheel screw without changing the setting, by means of an Allen key.
4. Turn the inner stem clockwise until the stop is reached with the same Allen key (long end), and refit the handwheel screw.
5. The valve is now preset.

Allen key size for (handwheel) presetting

Valve size 2 1/2" to 6" = 3 mm
Valve size 8" to 16" = 5 mm

Fig. 5. Valve closed

2 1/2" to 6"

8" to 16"

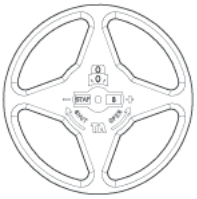
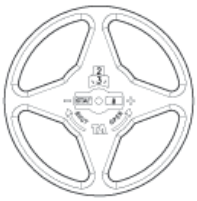


Fig. 6. Valve at set position

2 1/2" to 6"

8" to 16"



Selecting the correct valve size – STAF-SG/STAG

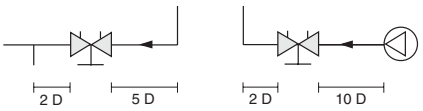
1. When ∆p and design flow are known, select the valve to obtain this ∆p for an opening around 75% of the operating range.
2. When flow is known and the ∆p is unknown, select the valve where the ∆p are greater or equal with 1 Ft.WG, in the fully open position. (See table below).

Size [in.]	Nominal flow [gpm]	Max.* flow [gpm]
2 1/2	36 - 100	160
3	100 - 130	220
4	130 - 200	320
5	200 - 320	520
6	320 - 450	700
8	450 - 800	1300
10	800 - 1300	2000
12	1300 - 1500	2500
14	1500 - 1930	3793
16	1930 - 2208	4793

*) Maximum flow is calculated for the valve fully open and ∆p approximately 5 Ft.WG (Speed of water max 8.5 Ft/sec).

Installation

In order to obtain accurate flow measurements turbulence must be minimized by observing the following piping configurations:



5 D = 5 pipe diameters

Note: To avoid possible contamination, no mercury type gauges should be used in potable water systems.

For the most accurate meter available, refer to IMI Hydronic Engineering data sheet "TA-SCOPE".

Victaulic®
An ISO 9001 certified company

Victaulic Company of America: 4901 Kesslersville Road, Easton, Pennsylvania 18040, Phone 610/559-3300, Fax 610/250-8817
Victaulic Company of Canada: 123 Newkirk Road, Ontario L4C 3G5, Phone 905/884-7444, Fax 905/884-7446