

Model AM Flo-Setter (Externally Adjustable) 2-Way Automatic Balance Hose Kits - Submittal

Hose Kit Size

Hose Kit Size	Flow Range	Qty.
1/2"	.18 - 4.84	
3/4"	.31 - 8.15	
1"	.44 - 10.35	
1-1/4"	.88 - 21.13	
**1-1/2"	1.76 - 32.76	
**2"	2.2 - 45.46	

**1-1/2" and 2" hose kits use Chamberlin Stainless Steel Braided All Metal hose.

Trunk Connection Type (provided)

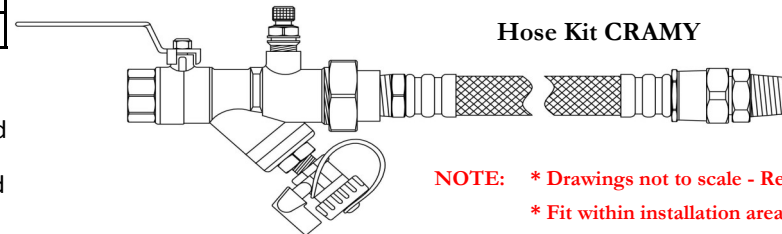
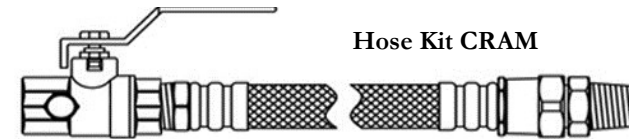
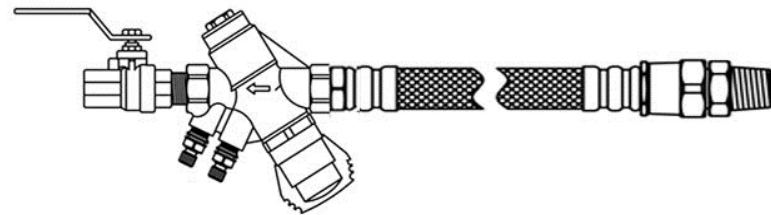
FNPT (Std.)	
MNPT	
FSWT	

Hose Length

12"	
18"	
24"	
36"	
Custom Length	

Supply Line Options

Ball Valve w/ PT	
UBY Strainer w/ PT and BDV	



Return
←
COIL
→
Supply

ATC Selection:

2-Way	
3-Way	

Not Required

CRC Supplied

Note: 2-way or 3-way ATC's sized per kit as standard.

24v, Zone Valves: 1/2"-1"	NO	NC	NSR
On-Off			
3 pt. Flt.			
0-10Vdc			

24v, Ball Valves: 1-1/4"-2"	NO	NC	NSR
On-Off			
3 pt. Flt.			
0(2)-10Vdc			

Comments:

NOTE: * Drawings not to scale - Representation Only.
* Fit within installation areas not guaranteed.
* Hose kits assembled hand tight.

Unit Connection Options

Reducers	
FSWT Hose Adapter (1/2"- 1-1/4" hoses)	

Optional Union Accessories

FNPTxMNPT Union w/ PT / MAV	
FNPTxFNPT Union w/ PT / MAV	
FNPTxFSWT Union w/ PT / MAV	

WARNING: To insure proper installation, this hose assembly must be installed according to instructions included with shipment. Instructions are also available online at www.chamflex.com.

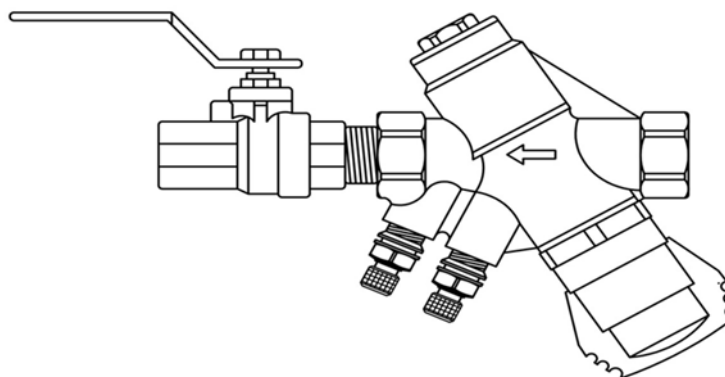
Company: _____ Rep: _____ Approved By: _____
Project: _____ Quote #: _____ PO #: _____ Date: _____

Chamberlin Rubber Company, Inc.

www.chamflex.com

CHAMflex
"CLASS A" FIRE RATED
HOSE ASSEMBLIES & KITS

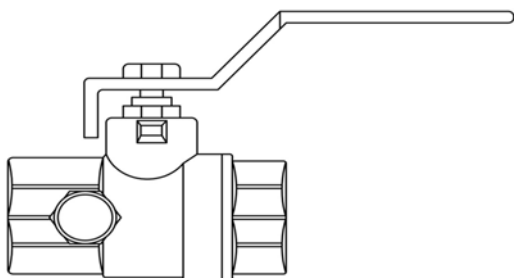
Model AM Flo-Setter Automatic Balance Hose Kits



Model AM Circuit Sentry Flo-Setter Automatic Balance Valve

Balance Type:	Automatic Flow Limiting Valve externally adjustable flow setting capability.
Body Design:	Brass Valve + Model AM w/PT's, External GPM dial
Body:	Brass
Spring:	Stainless Steel
Diaphragm:	HNBR
O-Rings:	EPDM
Max. Working Pressure:	290 psig
Min. psid:	Varies with GPM setting
Max. psid:	60
Cartridge Accuracy:	+/- 5%

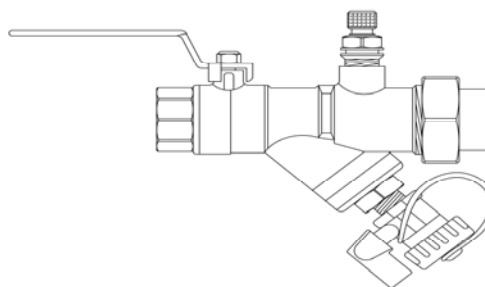
Supply Valve Options:



Ball Valve Manual Balance Valve

Balance Type:	Manual
Body Design:	Full Port Ball Valve w/PT
Body:	Brass
Ball:	Chrome Plated Brass
Stem:	Brass
O-Rings:	BUNA-N
Stem Packing:	PTFE
Seat:	PTFE
Handle:	Zinc Plated Steel w/ Plastic Coating
Working Pressure:	600 psig

Hose Kit CRAM



Model UBY Combination Ball Valve & Strainer w/ PT and BDV

Body:	Brass C37000
Ball:	Full Port Chrome Plated
Ball Seal:	Teflon®
Stem:	Explosion Proof
O-Rings:	EPDM
Strainer:	20 Mesh Stainless Steel
Maximum Working Pressure:	400 psig
Maximum Operating Temp:	-4°F to 250°F

Hose Kit CRAMY

For detailed technical data for any Hose Kit component, refer to the ChamFlex® catalog.

Model AM Flo-Setter Automatic Balance Hose Kits

Flow Rates/Minimum PSID

1/2"		
Flow Rate	Min.ΔP	Setting
0.18	2.32	Min.
0.5	2.4	0.5
1	2.47	1
1.5	2.56	1.5
2	2.62	2
2.5	2.7	2.5
3	2.77	3
3.5	2.85	3.5
4	2.9	4
4.5	2.97	4.5
4.54	3.2	Max.

1-1/4"		
Flow Rate	Min.ΔP	Setting
0.88	2.03	Min.
2	2.2	2
4	2.38	4
6	2.6	6
8	2.75	8
10	3	10
12	3.2	12
14	3.38	14
16	3.6	16
18	3.75	18
20	4	20
21.13	4.32	Max.

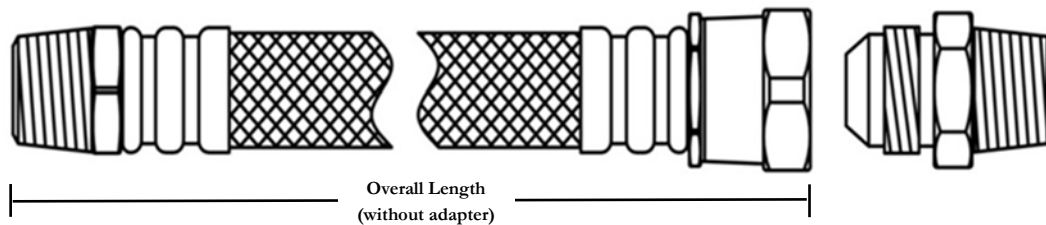
3/4"		
Flow Rate	Min.ΔP	Setting
0.31	1.74	Min.
1	2	1
2	2.25	2
3	2.5	3
4	2.75	4
5	2.95	5
6	3.2	6
7	3.35	7
8.15	3.77	Max.

1-1/2"		
Flow Rate	Min.ΔP	Setting
1.76	2.18	Min.
5	2.5	5
10	2.8	10
15	3.2	15
20	3.55	20
25	3.88	25
30	4.25	30
32.76	4.64	Max.

1"		
Flow Rate	Min.ΔP	Setting
0.44	1.74	Min.
1	1.9	1
2	2.1	2
3	2.35	3
4	2.5	4
5	2.75	5
6	3	6
7	3.2	7
8	3.4	8
9	3.65	9
10	4	10
10.35	4.35	Max.

2"		
Flow Rate	Min.ΔP	Setting
2.2	2.47	Min.
5	2.6	5
10	3.95	10
15	3.25	15
20	3.55	20
25	3.95	25
30	4.25	30
35	4.6	35
40	5	40
45.46	5.5	Max.

* Cartridge Accuracy: +/- 5%

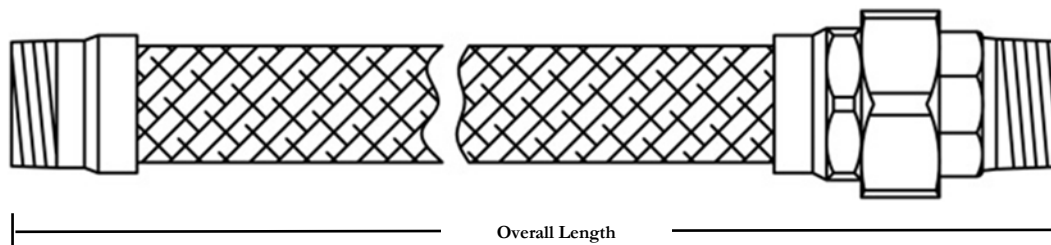


ChamFlex® Standard hose: Fixed End x Swivel End w/ MJIC x MNPT Adapter

- Hose Assembly:** Recognized by Underwriters Laboratories (UL) under UL 207. Tested to ASTM E84/UL 723 and received a **“Class A” Fire Rating**. This is the highest fire rating that can be obtained under this testing methodology.
- Hose Sizes:** 1/2” to 1-1/4”
- Hose Lengths:**
 - Standard: 12”, 18”, 24”, 36” and 48”
 - Custom:
 - 1/2” & 3/4” - Minimum length: 6” with 1” increments.
 - 1” & 1-1/4” - Minimum length: 9” with 1” increments.
- Inner Tube:** EPTF - White Santoprene with **UL 94 V-0 Fire Rating**
- Outer Braid:** 302/304 Stainless Steel
- Hose Fittings:** Plated Steel
- Hose/Adapter Connection:** Male JIC Metal to Metal Seal (no O-ring or gaskets)
- Fixed End Fitting:** MNPT
- Swivel End Adapter Options:** MNPT, FNPT(plated steel), FSWT(brass)
- Suitable Media:** Water and Glycol. Not rated for potable water.

	1/2” Hose	3/4” Hose	1” Hose	1-1/4” Hose
Working Pressure	400 PSI	400 PSI	500 PSI	400 PSI
Burst Pressure	1600 PSI	1600 PSI	2000 PSI	1600 PSI
Minimum Bend Radius	2.5”	4”	5.5”	10”
Temperature Ratings	-40°F to 212°F	-40°F to 212°F	-40°F to 212°F	-40°F to 212°F

Chamberlin Stainless Steel Braided All Metal Hose Assemblies

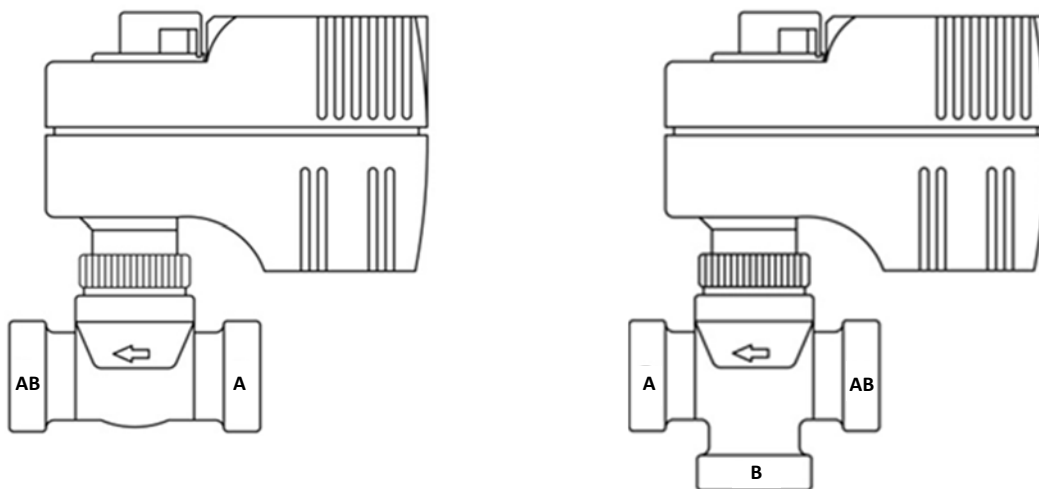


Hose Sizes:	1-1/2" to 2"
Hose Lengths:	<u>Standard:</u> 12", 18", 24", 36" <u>Custom:</u> Minimum length: 12" with 1" increments.
Inner Tube:	321L/316L Stainless Steel
Outer Braid:	304L Stainless Steel
Fittings:	Iron/Carbon Steel
Fixed End Fittings:	MNPT
Union End Fittings:	MNPT
Working Pressure:	300 psi
Burst Pressure:	1200 psi
Minimum Bend Radius:	1-1/2" - 11.75" 2" - 12.55"
Temperature Rating:	-20°F to 800°F

Hose Sizes:	2-1/2"
Hose Lengths:	<u>Standard:</u> 18", 24", 36" <u>Custom:</u> Minimum length: 18" with 1" increments.
Inner Tube:	T321L Stainless Steel
Outer Braid:	Series 300 Stainless Steel
Fittings:	Iron/Carbon Steel
Fixed End Fittings:	MNPT
Union End Fittings:	MNPT
Working Pressure:	300 psi
Burst Pressure:	1200 psi
Minimum Bend Radius:	16"
Temperature Rating:	-20°F to 800°F

ATC Zone Valves

2-Way and 3-Way Zone Valves



Standard Features

Line Sizes: 1/2" - 1"

Body Style: Globe

- ◆ UL Listed for Plenum installations.
- ◆ All metal plug and seat.
- ◆ Direct coupled bonnet—install actuator without tools.
- ◆ Standard 2.5 mm strike.
- ◆ Change from normally open to normally closed by simply changing actuators.
- ◆ Visual position indicator.
- ◆ Manual Override: 2 Position with auto lock, 3 Pt. Flt. & 0-10Vdc using hex wrench.

Valve Body

Flow Characteristic:	Linear
Body:	Brass
Trim:	Brass
Stem:	SS ASTM A582 type 303
O-Rings:	EPDM
Packing:	EPDM O-rings
Medium:	Water, Glycol Solns. to 50%
Medium Temp Range:	34°F to 230°F (1°C to 110°C)
Max. Inlet Pressure:	125 psig
Leakage Rate:	ANSI Class III
Close Off Ratings:	ANSI/FCI 70-2, 2-way & 3-way valves 1/2" - 3/4" (44 psi), 1" (22 psi)

Available CV's

2-Way:	1/2" - 1.0, 2.5, 4.0 3/4" - 4.1 1" - 7.0
3-Way:	1/2" - 1.0, 2.5, 4.0 3/4" - 4.1 1" - 7.0

2 Position Actuators

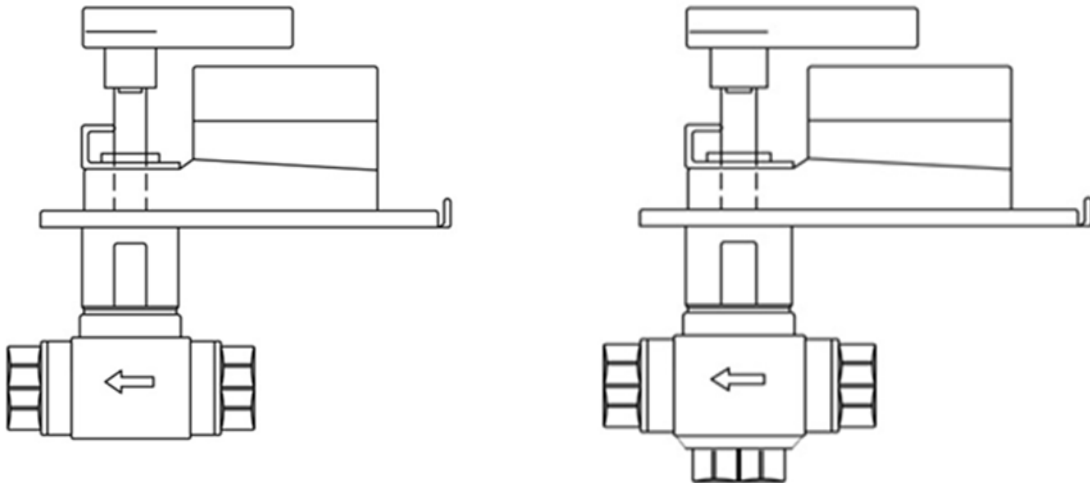
Voltage:	24 Vac +/- 20%
Frequency:	24 Vac - 50/60 Hz
Power Consumption:	9.8 VA
Run Time:	10 seconds
Nominal Stroke:	1/10-in. (2.5 mm)
Nominal Force	24 lb. (105 N)
Operating Temp:	41°F to 122°F (5°F to 50°C)
Noise:	<35 db

3 Pt. Floating/ 0-10Vdc ACTUATORS (Non-Fail Safe)

Voltage:	24 Vac +/- 20%
Frequency:	24 Vac - 50/60 Hz
Power Consumption:	3 Pt. Flt. - 0.8 VA 0-10Vdc - 2.5 VA
Run Time:	3 Pt. Flt. - 150 sec., 0-10Vdc - 34 sec.
Nominal Stroke:	1/10-in. (2.5 mm)
Nominal Force:	24 lb. (105 N)
Operating Temp:	41°F to 122°F (5°F to 50°C)

Siemens 599 Series ATC Ball Valves

2-Way and 3-Way Ball Valves



Standard Features

Line Sizes: 1-1/4" - 2"

Body Style: Ball

- ◆ 1/4 turn rotary control valves designed to be coupled with an OpenAir actuator.
- ◆ Universal mounting plate accommodates different actuator sizes.
- ◆ Variety of ball sizes and flow coefficients.
- ◆ Actuator and plate can be rotated to facilitate installation and wiring.
- ◆ Standoffs and mounting plate provide thermal barrier between the actuator and valve.
- ◆ Plastic mounting plate, extension and handle do not condensate.
- ◆ Operating handle can be manually operate valve in event of power failure.

Valve Body

Flow Characteristic:	Equal %
Body:	Brass
Ball:	Chrome Plated Brass
Ball Seals:	Glass-filled PTFE with EPDM O-rings
Flow Optimizer:	Glass-filled PTFE
Stem:	Brass, Double O-ring, Blow-out proof
Stem Seals:	Brass, Double O-ring, Blow-out proof
Angle of Rotation:	0 to 90 degrees
Medium:	Water, Glycol Solns. to 50%
Medium Temp Range:	35°F to 250°F (2°C to 121°C)
Static Pressure/Temp:	360 psig/250°F (600 WOG)
Close Off Ratings:	200 psi for all 2-way, 200 psi for all 3-way

Fail Safe Actuators

Voltage:	24 Vac +/- 20%
	24 Vdc +/- 15%
Frequency:	50/60 Hz
Power Consumption:	5 VA running, 4 VA holding
Run Time:	90 seconds
Spring Return:	15 sec. (typical)
Running Torque:	62 lb.
Enclosure:	NEMA 1

3 Pt. Floating/ 0-10Vdc ACTUATORS (Non-Fail Safe)

Voltage:	24 Vac +/- 20%, 15%
Frequency:	50/60 Hz
Power Consumption:	3.3 VA
Run Time:	1-1/4" 2-way & 3-way: 90 sec. 1-1/2" - 2" 2-way & 3-way: 125 sec.
Running Torque:	1-1/4" 2-way & 3-way: 44 lb. 1-1/2" - 2" 2-way & 3-way: 88 lb.
Enclosure:	NEMA 1