

OPERATION MANUAL

FOR

BALL FLOAT TYPE AIR/GAS TRAP

Model : AG29 Serie

SAFETY INSTRUCTIONS

Prior to using the AG29 serieese, read this manual thoroughly to understand the correct handling and operating procedure.

Observe the WARNING and CAUTIONS given by this manual, without failure, for safe operation of the AG29 serieese.

CONTENTS

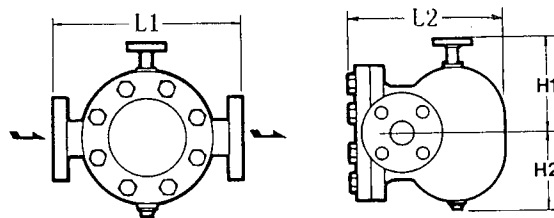
1. Introduction	1
2. Dimensions and Specifications	1
3. Installation	2
4. Trouble Shooting	3
5. Maintenance, Disassembling and Assembling	4
6. Construction	5

1. Introduction

MIYAWAKI Ball Float Air/Gas Trap Model AG29 series are mechanical trap especially designed for Gases with cast iron or cast steel body. The connections are in flanged end and socket weld end.

This manual contains Installations, Trouble Shooting and Maintenance etc.. Never fail to read them to the end before using.

2. Dimensions and Specifications




Model No.	Connection	Size (mm)	Operating Press. (MPa)	Max. Temp. (°C)	Material of Body	Dimensions (mm)				Weight (kg)
						L1	L2	H1	H2	
AG29-3	Flanged	15 to 25	0.01 to 0.3	300	Cast Iron	340	260	200	120	26
AG29-10			0.01 to 0.97							
AGH29-3	Flanged	15 to 50	0.01 to 0.3	350	Cast Steel	*1	260	200	120	*2
AGH29-10			0.01 to 0.97							
AGH29-20			0.01 to 2							
AGH29-30			0.01 to 2.9							
AGH29W-3	Socket Weld	15 to 25	0.01 to 0.3	350	Cast Steel	280	260	200	120	25.5
AGH29W-10			0.01 to 0.97							
AGH29W-20			0.01 to 2							
AGH29W-30			0.01 to 2.9							
AGU29-3	Flanged	15 to 50	0.01 to 0.3	350	Cast Steel	*1	260	200	120	*2
AGU29-10			0.01 to 0.97							
AGU29-16			0.01 to 1.6							
AGU29W-3	Socket Weld	15 to 25	0.01 to 0.3	350	Cast Steel	280	260	200	120	25.5
AGU29W-10			0.01 to 0.97							
AGU29W-16			0.01 to 1.6							

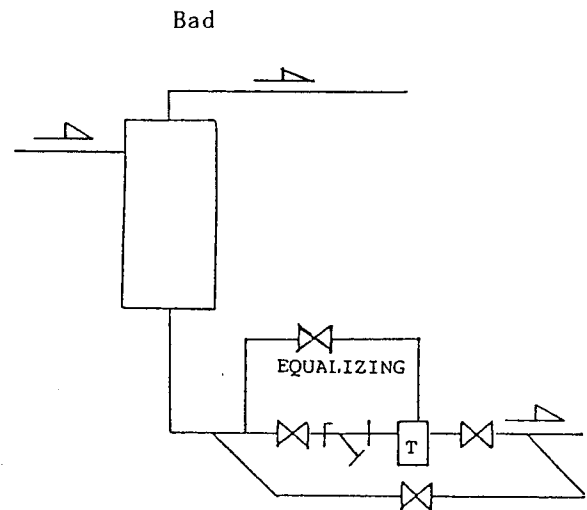
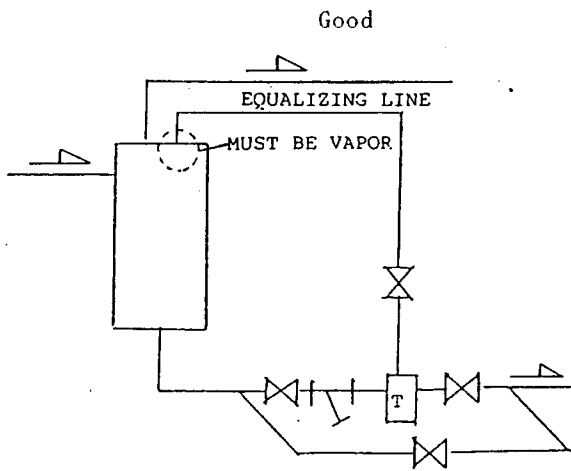
*1: 340 (15 to 25 mm), 390 (32 to 50 mm)

*2: 28 (15 to 25 mm), 32 (32 to 50 mm)

3. Installation

 CAUTIONS	Before installing the trap always blow off the slugges, dirt etc. from the piping.
--	--


- A. Install the trap according to the arrow on the body.
- B. Can only be installed horizontally.
- C. Always install equalizing line. Trap will not work without equalizer. (Refer to the drawings below.)
- D. Pipe a dirt pocket and/or strainer upstream of trap to prevent dirt etc. flow into the trap.
- E. Pipe for easy maintenance.
- F. Install in the lowest point as possible.



4. Trouble Shooting

SYMPTOM	CAUSE	REMEDY
Inetermittent operation	A. Normal operation.	
Continuous discharge without water logging	A. Normal operation.	
Continuous discharge with water logging	A. Lack of capacity.	A. Change trap with higher capacity.
Blow through	A. Scales etc. lodged between valve and valve seat.	A. Disassemble and clean valve and valve seat.
	B. Scales etc. lodged between valve and bush.	B. Disassemble and clean valve and bush.
	C. Damaged valve and valve seat.	C. Replace valve and valve seat.
	D. Wire drawing of cover. (outlet)	D. Weld if possible or replace the cover unit.
Gas/Air leaks	A. Worn valve and valve seat.	A. Replace valve and valve seat.
	B. Loosen valve seat.	B. Disassemble and retighten valve seat.
	C. Lossen holder bolt.	C. Disassemble and retighten.
No discharge	A. Over pressure.	A. Check operating condition, reduce pressure or change trap with higher pressure.
	B. Clogged valve seat.	B. Disassemble and clean valve seat.
	C. Damaged float.	C. Disassemble and exchange float.
	D. Closed inlet valve.	D. Open it.
	E. Wrong or no equalizing pipe.	E. Pipe a new equalizing pipe according to Installation.


5. Maintenance, Disassembling and Assembling

	WARNING	When disassembling a trap be sure to release the pressure inside to atmospheric pressure before the work.
---	----------------	---

- A. Disassemble the cover bolt(12), all the internal parts will come with the cover(2).
- B. Firm the cover(2) with a vise unscrew the holder bolt(11), the valve unit will be dismantled from the cover(2).
- C. Dismantle the pin(13) and washer(10), take out the pin(7).
- D. Take off the lever(8) the valve(6) will come off.
- E. Unscrew the valve seat(17) with a box wrench and clean it.
- F. Replace the valve(6) and valve seat(17) if necessary.
- G. Firm the lever(8) with a vise and unscrew the nut(21) the float(3) will come apart.
- H. After inspection of each part and cleaning, assemble in the opposite way of disassembling.
- I. The outlet of the body and cover must be put together.

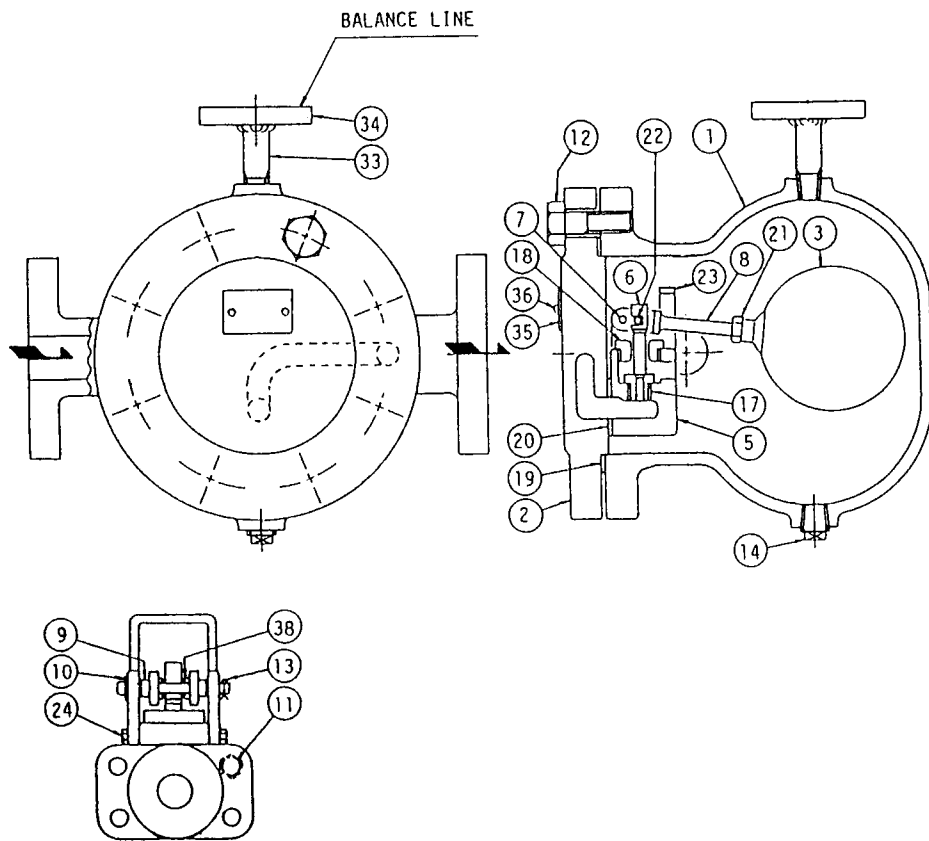
Refer to the clamp torque below.

Model No.	Parts No.	Parts	Shape	Size(mm)	Clamp Torque
AG29	(12)	Bolt	Hexagon	19	500kgf·cm
	(11)	Bolt	Hexagon	8	400kgf·cm
AGH29	(12)	Bolt	Hexagon	24	1000kgf·cm
	(11)	Bolt	Hexagon	8	400kgf·cm
AGU29	(12)	Bolt	Hexagon	24	800kgf·cm
	(11)	Bolt	Hexagon	8	400kgf·cm

	CAUTIONS	When assembling change the gaskets(19), (20) to new ones.
---	-----------------	---

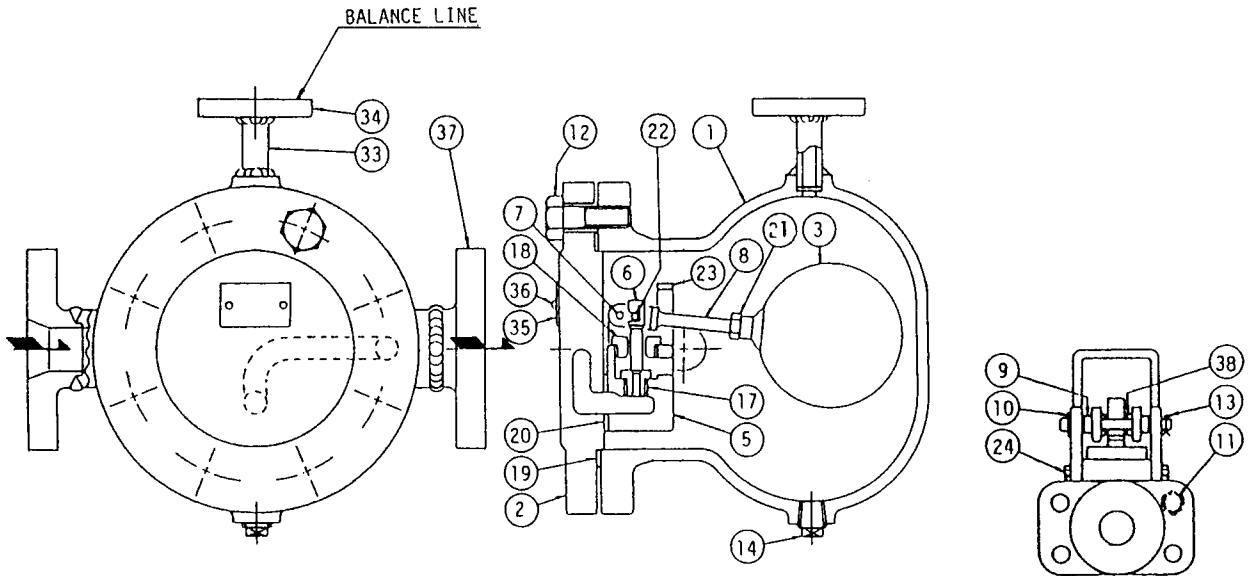
6. Construction

AG29:

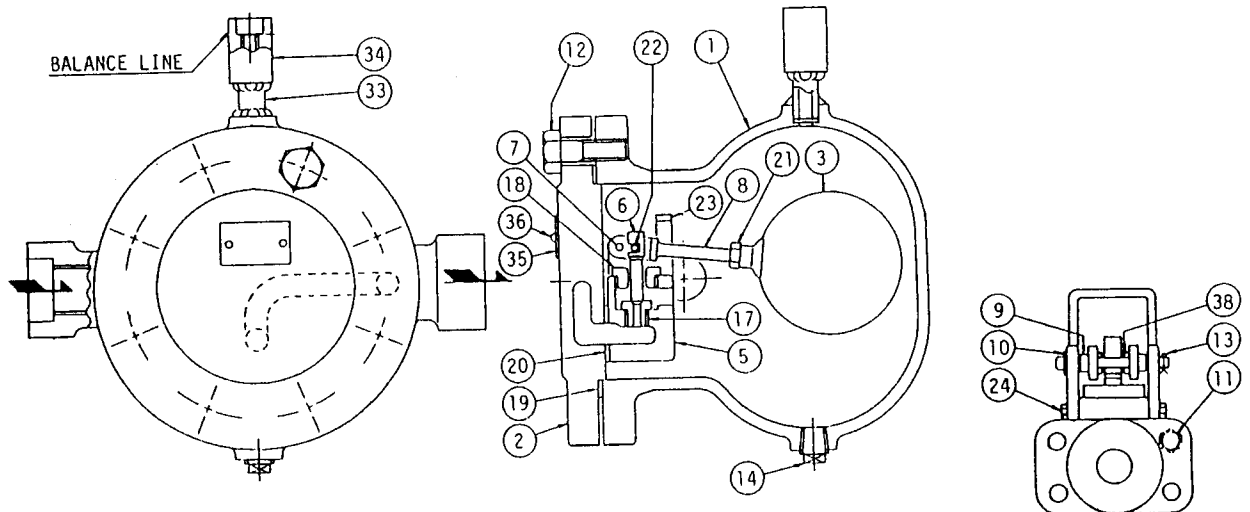


- | | | |
|------------|----------------|----------------|
| 1. Body | 11. Bolt | 22. Pin |
| 2. Cover | 12. Bolt | 23. Stopper |
| 3. Float | 13. Plug | 24. Bolt |
| 5. Holder | 14. Plug | 33. Pipe |
| 6. Valve | 17. Valve Seat | 34. Flange |
| 7. Pin | 18. Bush | 35. Name Plate |
| 8. Lever | 19. Gasket | 36. Rivet |
| 9. Collar | 20. Gasket | 37. Flange |
| 10. Washer | 21. Nut | 38. Spacer |

AGU29:



AGU29W:



- | | | |
|------------|----------------|----------------|
| 1. Body | 11. Bolt | 22. Pin |
| 2. Cover | 12. Bolt | 23. Stopper |
| 3. Float | 13. Plug | 24. Bolt |
| 5. Holder | 14. Plug | 33. Pipe |
| 6. Valve | 17. Valve Seat | 34. Flange |
| 7. Pin | 18. Bush | 35. Name Plate |
| 8. Lever | 19. Gasket | 36. Rivet |
| 9. Collar | 20. Gasket | 37. Flange |
| 10. Washer | 21. Nut | 38. Spacer |