Armstrong No. 800 BVSW Series Inverted Bucket Air Traps — Installation, Operation & Maintenance Data

PRELIMINARY

Moisture is always present in compressed air. Oil is **almost** always present at some points in a compressed air system. Moisture and oil must be removed from the system for efficient operation and long life of gaskets, hoses, and air tools. Efficient moisture and oil removal that will forestall trouble requires:

1. Aftercoolers to bring the compressed air down to ambient or room temperature.
2. Separators to knock down suspended droplets of water or fog. Separators are installed downstream from aftercoolers or in an air line near point of use, or both. Note — air traps are not separators.
3. Air Traps to discharge the liquid from the system with a minimum loss of air.

To get the best results from Armstrong Inverted Bucket Air Traps, please observe the recommendations given below.

INSTALLATION

1. Inverted Bucket Air Traps should be installed below and close to the unit **being drained (see Fie. 1). or as** directed by the equipment manufacturer. Traps should be accessible to the maintenance man. If lack of headroom prevents trap installation below a receiver, install as shown in Fig. 2. If trap must be installed above the dram connection, an internal check valve or swing check is used to prevent trap prime loss when air pressure drops.
2. First install piping and shut-off valve ahead of trap, then blow down the **line** at full pressure to remove pipe cuttings, scale, and dirt. Last of all, screw the trap into position.

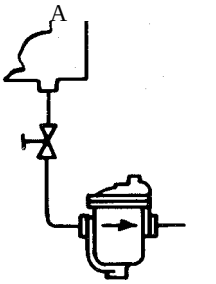


Fig. 1

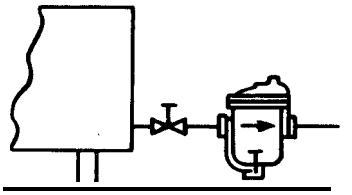


Fig. 2

3. **Before opening the air valve the body of the trap must be primed (filled) with water. Otherwise, the trap bucket will not be able to float and close the discharge valve. The trap can be primed through the priming plug in the trap cap, or by removing the cap from the body.**
4. Caution — since the trap operates with the body full of water, do not install where freezing can occur unless proper non-freeze precautions are taken.

TRAP INSPECTION AND MAINTENANCE

1. Check trap operation periodically. Determine that body is full of water (trap is primed).
2. If examination shows heavy coating **of oil** on mechanism, arrange to clean at regular intervals. Clean body and cap as well as mechanism.
3. Examine mechanism at least once a year to determine tightness of valve and seat and if any parts require replacement. If repairs are necessary, contact your Armstrong **Representatives.**

PHYSICAL DATA

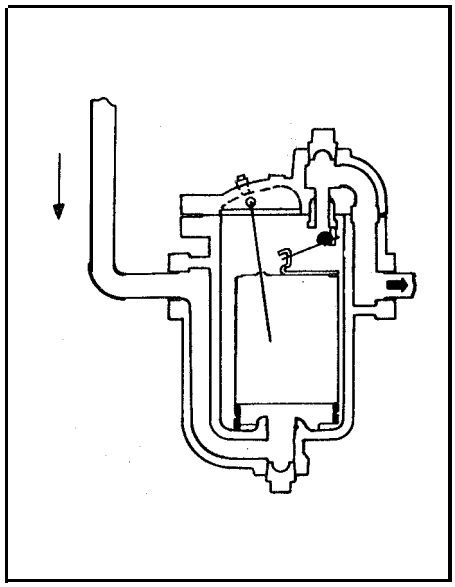
MODEL	NO. 800	NO. 801	NO.811	NO. 812	NO.813
CONNECTION	HORIZONTAL	RIGHT ANGLE	HORIZONTAL	HORIZONTAL	HORIZONTAL
PIPE CONNECTION SIZE	1/2" – 3/4"	1/2" – 3/4"	1/2" – 3/4"	1/2" – 3/4"	3/4" – 1"
HEIGHT	5-7/16"	6"	6-7/8"	8-7/8"	11-3/4"
DIAMETER	3-3/4"	3-3/4"	3-3/4"	5-5/8"	7"
WEIGHT	5 lbs.	5 lbs.	6 lbs.	15 lbs.	27 lbs.
MAXIMUM OPERATING PRESSURE PSIG	150	150	250	250	250

*CAPACITIES — Pounds of Water Per Hour

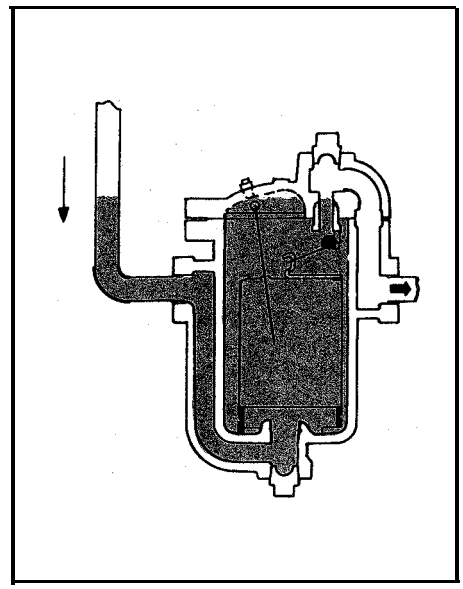
Air Pressure – psig	NO. 800	NO. 801	NO.811	NO. 812	NO. 813
15	1300	1300	2400	3500	9000
30	800	800	1800	3200	7000
80	1300	1300	1300	2000	6500
125	1300	1300	1600	2500	6500
150	1000	1000	1400	1800	5500
250			1700	1800	5000

***Capacity — Mere water handling capacity is not the whole story. The No.813 is the smallest inverted bucket air trop with sufficient power to give dependable service when heavy oil is present with the water. Do not use smaller traps if heavy oil is present in your air system.**

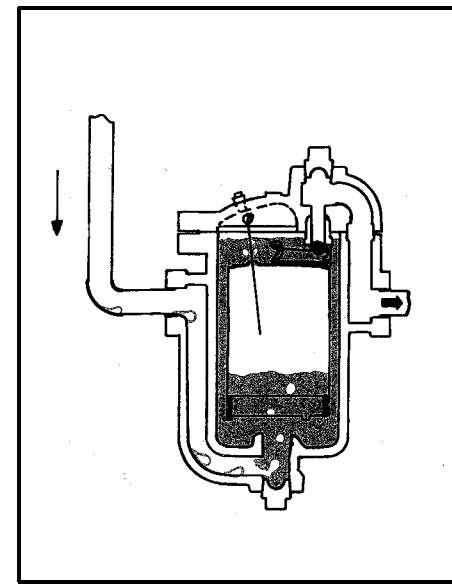
OPERATING SEQUENCE OF
ARMSTRONG NO. 800 BVSW SERIES INVERTED BUCKET AIR TRAPS



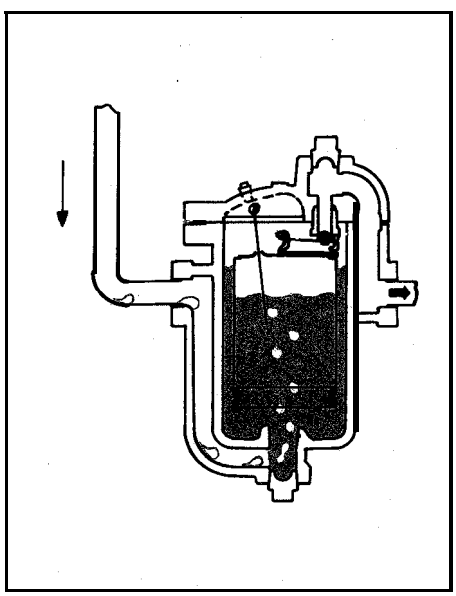
1. Trap connected to unit to be drained. Bucket is down, and the trap valve is wide open. Before placing in service, prime the trap.



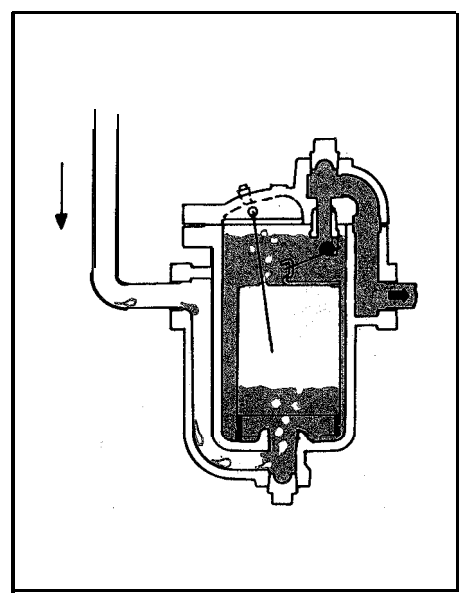
2. Trap can be primed through prim in g plug in cap.



3. When inlet valve is opened, air pressure forces out extra water and displaces enough w ate r inside the bucket to make it float and close the valve. Air bleeds through bucket vent. Additional water is coming to the trap.



4. Air has collected at top of trap, and water level has r i s e n in bucket to make it heavy enough to



5. Sink and open discharge valve. First air, next oil, and then any extra water is discharged. Air displaces water from bucket which again floats and closes valve, and the condition shown in Fig. 3 again will prevail,

Armstrong
Machine Works

THREE RIVERS, MICHIGAN
TELEPHONE 616-273-1415
TELEX: 0224445 **ARMTRAP/THRV**