

spirax/sarco®

Air Eliminators 13WS, 13WHS

13WS and 13WHS Air Eliminators improve the circulation of pressurized liquids by eliminating air and other non-condensable gases which may collect at high points in the system. The EPDM valve head ensures tight shut-off.

Model	13WS	13WHS
PMO	150 psig	300 psig
Sizes	3/4" x 3/8", 1" x 3/8"	3/4" x 3/8"
Connections	NPT	
Construction	Cast Iron Body Stainless Steel internals w/ EPDM valve head	
Options	Brass Body; Stainless Steel Body 13WS only	

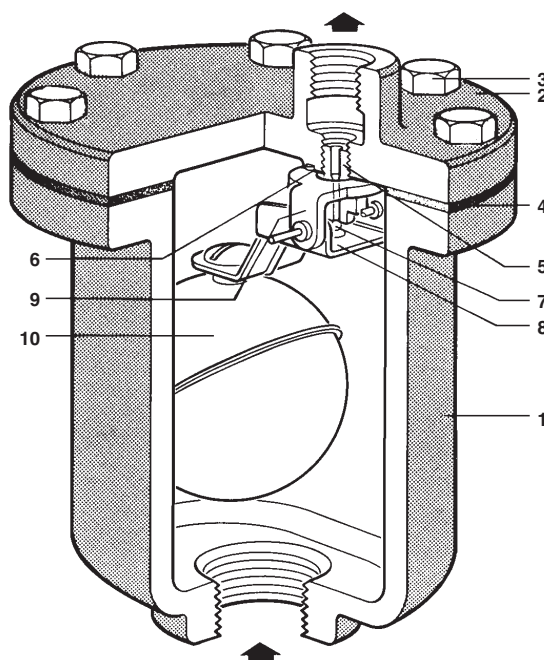
LIMITING OPERATING CONDITIONS

Max. Operating Pressure (PMO) 13WS: 150 psig (10 barg)
13WHS: 300 psig (21 barg)

Max. Operating Temperature 13WS & 13WHS: 338°F (170°C)

PRESSURE SHELL DESIGN CONDITIONS

PMA 13WS: 150 psig/0-353°F 10 barg/0-178°C
Max. allowable pressure 13WHS: 300 psig/0-317°F 21 barg/0-158°C
TMA 13WS: 450°F/0-125 psig 232°C/0-9 barg
Max. allowable temperature 13WHS: 450°F/0-250 psig 232°C/0-17 barg



TYPICAL APPLICATIONS

Air vents can be used on both hot and cold liquid services. Typical applications are cold water lines, suction lines to pumps, mixing tanks, condensate return lines, cooling water lines on air compressors, and water storage tanks.

CONSTRUCTION MATERIALS

No.	Part	Material	
1	Body	Cast Iron	ASTM A126 CL B
	Optional 13WS	Brass	ASTM B62
		Stainless Steel	Type 304
2	Cover	Cast Iron	ASTM A126 CL B
	Optional 13WS	Brass	ASTM B62
		Stainless Steel	Type 304
3	Cover Bolts	Steel	ASTM A449
4	Cover Gasket	Graphite	
5	Valve Seat	Stainless Steel	Type 303
6	Seat Gasket	Stainless Steel	Type 304
7	Valve Head	EPDM	
8	Float Arm	Stainless Steel	Type 304
9	Bracket	Stainless Steel	Type 301
10	Float	Stainless Steel	Type 304

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

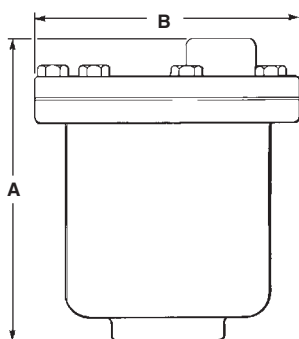
TI-4-006-US 10.08

Air Eliminators 13WS, 13WHS

AIR CAPACITY (discharge to atmosphere)

SCFM cubic feet per minute at standard conditions of 14.7 psia at 60°F. For dm³/s multiply by .4719.

Type	psi bar	Inlet Pressure							
		25	50	75	100	150	200	250	300
		1.7	3.4	5.2	6.9	10.3	13.8	17.2	20.7
13WS		1.6	2.7	3.7	4.8	6.9	—	—	—
13WHS		1.1	1.8	2.5	3.2	4.6	6.0	7.4	8.8



DIMENSIONS (NOMINAL) IN INCHES AND MILLIMETERS

Size		A	B	Weight
3/4"	13WS	5.1	4.4	4.75 lb
		129	111	2.2 kg
1"	13WS	5.1	4.4	4.75 lb
		129	111	2.2 kg
3/4"	13WHS	6.0	4.75	5.0 lb
		152	121	2.3 kg

INSTALLATION

An air vent is required at all high points of a liquid system, on terminal equipment and wherever air can collect. The air vent must be installed vertically above the pipe or equipment with the inlet at the bottom. The inlet piping should be the same size as the body piping connection, and a full-port isolating valve should be installed to permit servicing. The discharge must be piped to drain or other safe place to prevent damage if the air vent should malfunction.

MAINTENANCE

This product can be maintained without disturbing the inlet piping connection. Complete isolation is required before any servicing is performed.

The air vent should be disassembled periodically for inspection and cleaning of the valve head and seat and operating mechanism.

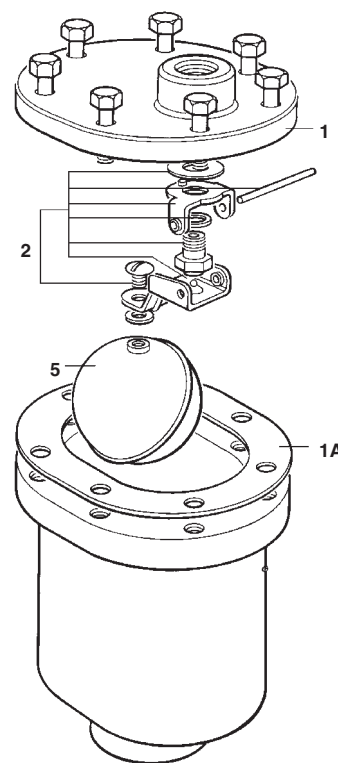
Worn or damaged parts should be replaced using a complete valve mechanism assembly and new cover gasket.

Complete installation and maintenance instructions are given in IM-4-006, which accompanies the product.

SAMPLE SPECIFICATION

Automatic Air Eliminators shall be mounted at high points to provide for immediate removal of contained air or other non-condensable gases in liquid piping systems. They shall be of the float type design, having cast iron (brass or stainless steel) bodies with threaded connections. Valve head shall be of EPDM material to provide positive shut-off. All other internals to be stainless steel. Air vent shall have minimum venting capacity of 4.8 SCFM at 100 psig. Spirax Sarco model 13WS for 150 psig service and model 13WHS for 300 psig service.

SPARE PARTS



Cover w/Gasket	1
Gasket Kit (set of 3)	1A
Valve Mechanism Kit	2
Float Kit	5