



## Acoustic Plates

### Description

The Spirax Sarco model AP Acoustic Plate is designed to graduate the expansion across a valve, and therefore reduce valve noise. The acoustic plate absorbs the impact of the vent pressure at the downstream side of the valve. It distributes the steam flow and provides a noise frequency shift to reduce the perceived noise using a multiple hole orifice pattern in the plate inserted on the downstream side of the valve. Noise level reductions of up to 10 dBa can be achieved.

### Limiting operating conditions

Maximum operating pressure	250 psi g (17.2 bar g)
Maximum operating temperature	650 °F (343 °C)
Pressure drop	Less than 1%

**Standard connections** - AP plates are installed between standard flanges:

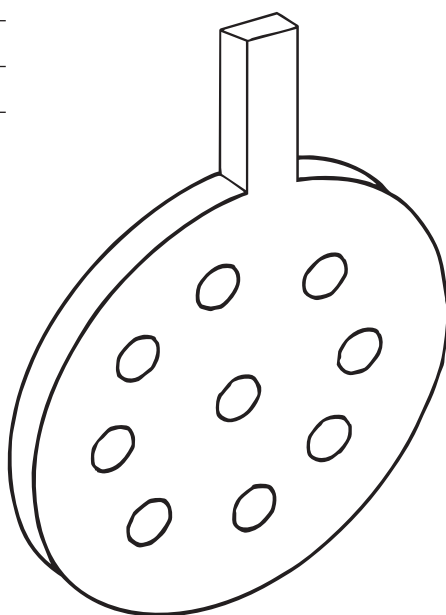
ANSI 150 RF flange designated "A"  
ANSI 300 RF flange designated "B"

### Installation

The Series AP Acoustic Plate is designed to reduce control valve and/or regulator noise. The plate is installed between standard ANSI 125/150 flanges or ANSI 250/300 downstream of a valve and reorients the normal exit turbulence of the steam flow. Noise reduction of up to 10 dBa can be achieved. The plates can be used in conjunction with D series noise diffusers and acoustic silencers for additional noise attenuation. See below for dimensions.

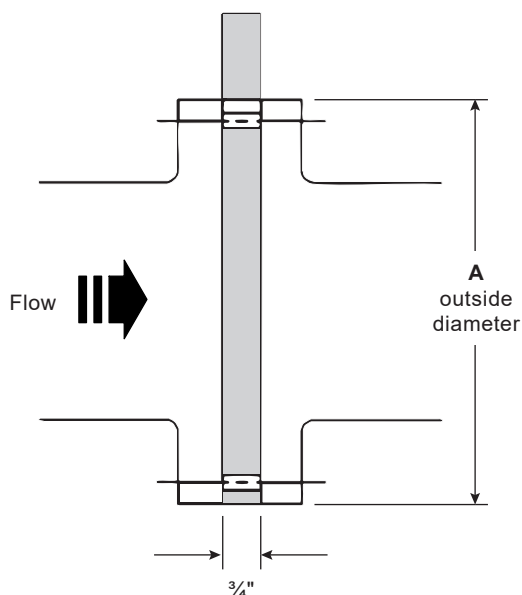
### Materials

Part	Material
Plate	Cast steel

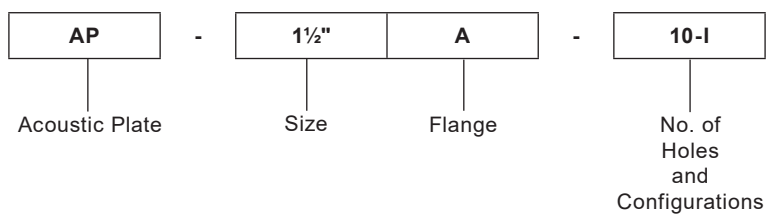


## Dimensions/weights (nominal) in inches (mm) and lbs (kg)

Nominal pipe size	Dimension A of ANSI 150 Flange	Dimension A of ANSI 300 Flange	Average weight
½"	1.75 (44)	2 (51)	1 (0.5)
¾"	2.12 (54)	2.5 (64)	3.4 (1.5)
1"	2.5 (64)	2.75 (70)	3.6 (1.6)
1¼"	2.88 (73)	3.12 (79)	4.3 (2.0)
1½"	3.25 (83)	3.62 (92)	6 (2.7)
2"	4 (102)	4.25 (108)	6.5 (2.9)
2½"	4.75 (121)	5 (127)	10 (4.5)
3"	5.25 (133)	5.75 (146)	11.5 (5.2)
4"	6.75 (171)	7 (178)	12.4 (5.6)
6"	8.62 (219)	9.75 (248)	14 (6.4)
8"	10.88 (276)	12 (305)	14 (6.4)



### How to order quantity one of:



## Sizing and Selection Chart for Acoustic Plates

### How to use the sizing chart

Select correct acoustic plate by known flow rates (lb/hr.) and inlet pressure of control valve or regulator.

**Example:** Inlet pressure of control valve 150 psi g @ 10,000 lb./hr.

- Move horizontal to intersect with 150 psi g.
- Follow 150 psi g line vertically to intersect with 10,000 lb./hr. horizontal line.
- Select AP 2" - 17 - I.

