

QH-3 Type Noiseless Heater

This product can be used to reduce noise and vibration that occur when steam is blown into water for making hot water. It can also be used for heating bathtubs or other open type hot water tanks (95°C or below). It is compact and has large heat conduction with sectional plane similar to that of lotus root.

SPECIFICATIONS

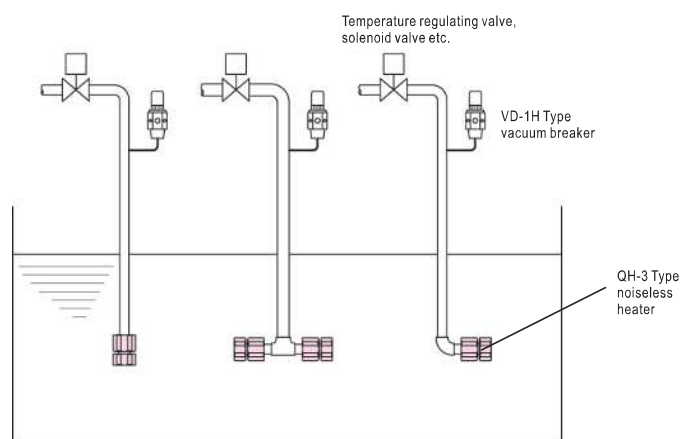
Model name	QH-3
Code name	QH3-D
Applicable fluid	Steam
Applicable pressure	Max. 0.7MPa
Warning sound temperature limit	95°C
End connection	Screwed JIS Rc
Materials	Stainless steel

DIMENSIONS

(mm)

Size	d	A	B	C	Mass(kg)
15(1/2")	1/2"	50	34	32	0.21
20(3/4")	3/4"	53	40	38	0.28
25(1")	1"	60	48	46	0.5
32(1 1/4")	1 1/4"	63	65	55	1
40(1 1/2")	1 1/2"	65	75	63	1.4
50(2")	2"	70	110	95	3.4

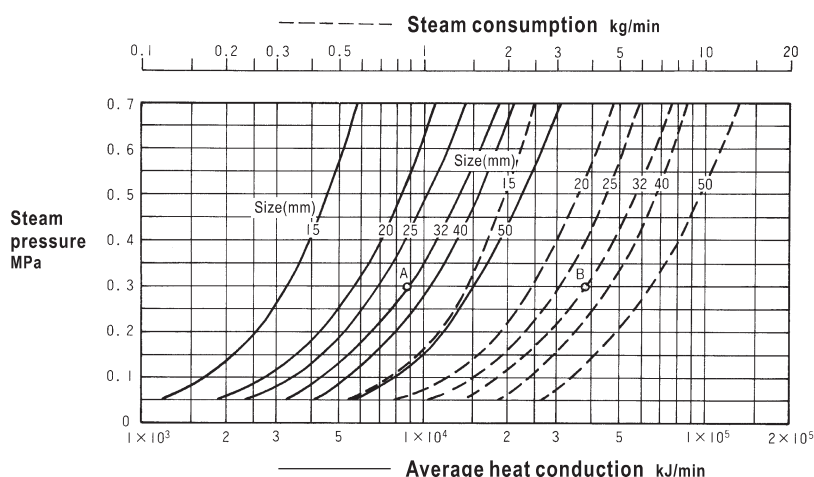
PIPING EXAMPLE



Note:

1. Install noiseless heater at least 300mm away from the wall or bottom of the tank.
2. Install VD-1H Type vacuum breaker for preventing backflow of water that may occur when steam supply is stopped.

CAPACITY CHART



HOW TO USE THE CHART

Where, size is 32mm and steam pressure 0.3MPa, the average heat conduction (solid line —), as shown by point A, is 8820kJ/min, and steam consumption (dashed line ---), as shown by point B, is 3.8kg/min. The time to heat 700ℓ water from 20°C to 80°C will be:

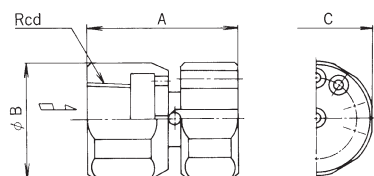
$$\frac{4.2 \times (80 - 20) \times 700}{8820} = 20(\text{minutes})$$

The steam consumption will be: $3.8 \times 20 = 76$ kg

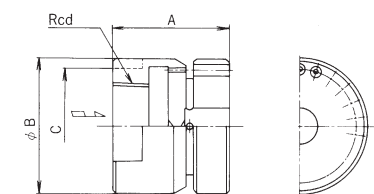


CONSTRUCTION

Size 15~25mm



Size 32~50mm



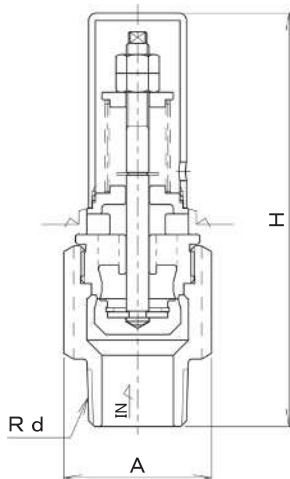
Depending on nominal diameter, the structure of the valve may be different from what is shown in the drawing.

VD-1H Type Vacuum Breaker

When the pressure gets down to the negative pressure below the set-press., the vacuum breaker will open to absorb air and prevent formation of vacuum in pipe or device. Installation of this item in steam pipeline with noiseless heater will prevent absorption of water that may occur when steam supply is stopped.



CONSTRUCTION



Depending on nominal diameter, the structure of the valve may be different from what is shown in the drawing.

SPECIFICATIONS

Model name	VD-1H	
Code name	VD1H-F□	VD1H-D□
	※ 1, 2, 3 or 4 for adjustable pressure range No. is required in □.	
Applicable fluid	Steam & air	
Fluid temperature	Max. 200°C	
Applicable pressure	Max. 1.0MPa	
Adjustable pressure range	1: -0.5 ~ -22kPa, 2: -22 ~ -49kPa, 3: -49 ~ -76kPa, 4: -76 ~ -82kPa	
End connection	Screwed JIS R	
Materials	Brass or Cast bronze	Stainless steel

DIMENSIONS

Size	d	A	H	Mass(kg)
15(1/2")	1/2"	Hexa. 34×39.3	110	0.4
20(3/4")	3/4"	Hexa. 34×39.3	110	0.4
25(1")	1"	Hexa. 34×39.3	110	0.6
32(1 1/4")	1 1/4"	Hexa. 50×57.7	107	0.8
40(1 1/2")	1 1/2"	Hexa. 55×63.5	122	1.1
50(2")	2"	Hexa. 68×78.5	153	1.9

FLOW CHART

