

spirax sarco®

Steam Water Mixing Stations

Description

The Spirax Sarco STVM Steam Water Mixing Station is designed to provide hot water for washdown economically by blending steam and cold water quickly to the required user temperature. Two models are available, the STVM 150 which produces hot water up to a set temperature of 150°F, and the STVM 185 with a maximum set temperature of 185°F.

Operation

The desired flow is achieved by opening the water globe valve (turning counter-clockwise). The temperature is then adjusted by opening the steam valve (turning counter-clockwise) until the temperature gauge displays the desired temperature. The mixing valve employs a thermal element to modulate the steam valve. Should the cold water supply fail, the thermal element is designed to automatically close the steam valve at 15°F above the set temperature.

Range

Each Steam Water Mixing Station comprises a thermal element controlled mixing valve, globe isolation valves, check valves, temperature gauge, hose rack, mounting bracket kit, miscellaneous pipe fittings and "Steam Caution" tag. Each unit is fully assembled, pressure tested and is supplied with installation and maintenance instructions.

Recommended ancillaries

- 3/4" NPT Y type strainer with 20 mesh stainless steel screen (qty.2)
- High pressure/temperature hose (25ft or 50ft length)
- Rubber coated spray nozzle
- "ISO Grip" globe valve handle covers (1 pair)

Sizes and pipe connections

Mixing station 3/4" NPT inlets and outlet
 Hose 3/4" NPT(male) swivel x 1/2" NPT (male) swivel
 Nozzle 1/2" NPT

Technical data

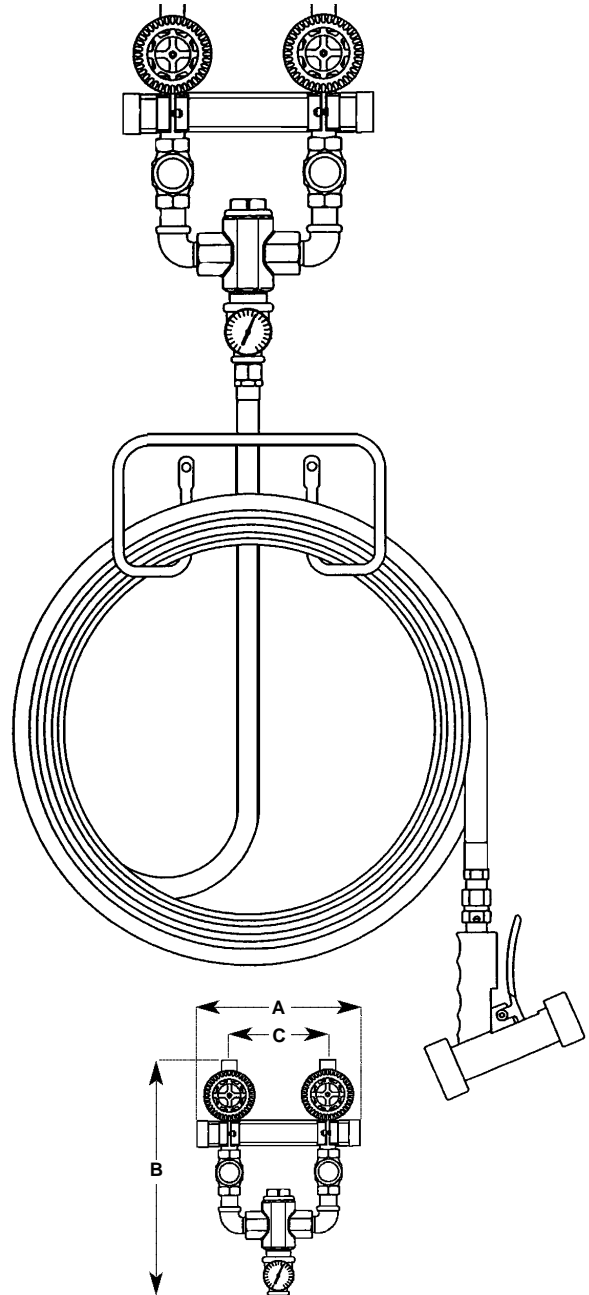
	STVM 150	STVM 185
Steam pressure (min)	40 psi	40 psi
Steam pressure (max)	150 psi	150 psi
Water pressure (min)	20 psi	20 psi
Water pressure (max)	110 psi	110 psi
Water output temperature (min)	Ambient	Ambient
Water output temperature (max)	150°F	185°F

Materials

Mixing valve cartridge	Brass
Mixing valve body	Bronze
Globe valve	Bronze/B62
Check valve	Bronze/B62
Temperature gauge	Stainless steel/Glass
Mounting bracket	Steel, Unistrut
Pipe fittings	Brass/Bronze
Hose rack	Stainless steel

Installation

Full details are provided in the installation and maintenance instructions supplied with each system.



Typical dimensions as installed (approximate) in inches

Model	A	B	C	Weight
STVM 150	12"	22"	6.5"	18 lb
STVM 185	12"	22"	6.5"	18 lb

Steam Water Mixing Stations

STVM 185 UNIT 50F RISE
WITHOUT HOSE AND NOZZLE

Selection guide and capacities

The graphs indicate the maximum flow of hot water at various temperatures for a given steam supply pressure. When selecting a temperature set point, ascertain the hot water temperature and quantity required, and the water and steam pressure available.

First select the desired temperature rise chart. From the bottom row, select the desired flow in GPM. From there move vertically up the chart to the intersection of both the water and steam lines. From each intersection, follow the chart to the left-hand column to determine the amount of water and steam pressure required to provide the desired temperature rise at the desired flowrate.

Example: User requires 50°F temperature rise and 10 GPM flowrate. Resultant pressures required for STVM 185 are 83 psi steam and 65 psi water.

Hose and nozzle

High pressure/temperature hose is available in 25 and 50ft lengths complete with crimped-on swivel fittings.

Variable spray nozzles are available in Bronze, Aluminum and Stainless Steel with black, blue, red or white heavy-duty rubber covers.

Hose specifications

Hose color	Black	White
Tube	EPDM	EPDM
Reinforcement	Wire, 1 braid	Multiple textile spirals
Cover	EPDM	EPDM
Working Pressure	200 psig	300 psig
Temperature range	+388°F	-40° to +212°F
Nominal I.D.	3/4" (19.1 mm)	3/4" (19.1 mm)
Nominal O.D.	1-3/16" (30.2 mm)	1-1/4" (31.8 mm)
Approximate weight	40 lb/100ft	48 lb/100ft

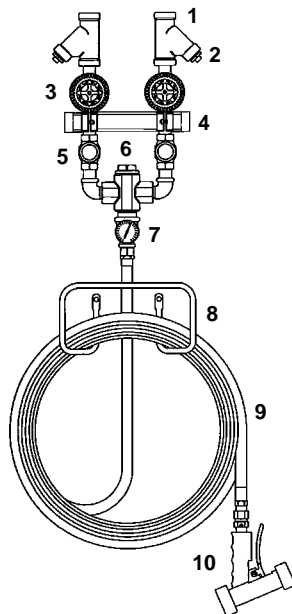
Nozzle specifications

Material	Bronze, Aluminum or Stainless Steel
Cover	Heavy-duty rubber
Color	Black, Blue, Red or White
Maximum pressure	200 psi
Temperature limit	200°F
Capacity	12.5 GPM at 150 psi inlet pressure

Spares

See Installation and Maintenance Instructions IMI 8.000 for details.

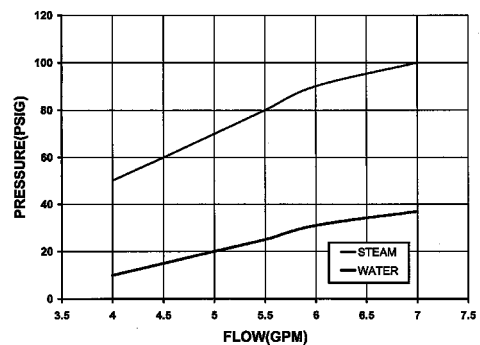
1	Y type strainer
2	Strainer plug
3	Globe valve
4	Mounting bracket
5	Check valve
6	Mixing valve & cartridge
7	Temperature gauge
8	Hose rack
9	Hose
10	Nozzle



How to specify

Spirax Sarco STVM 185 Steam Water Mixing Station.

STVM 185 UNIT 100F RISE
WITHOUT HOSE AND NOZZLE



STVM 150 UNIT 50F RISE
WITHOUT HOSE AND NOZZLE



STVM 150 UNIT 80F RISE
WITHOUT HOSE AND NOZZLE

