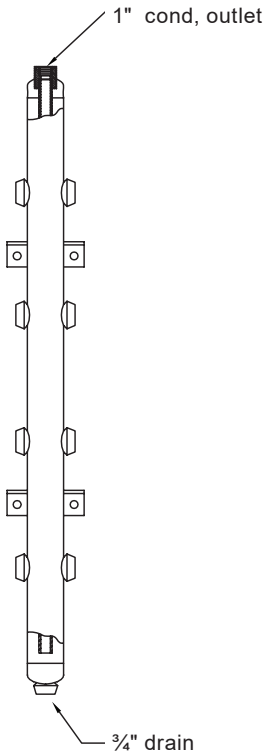
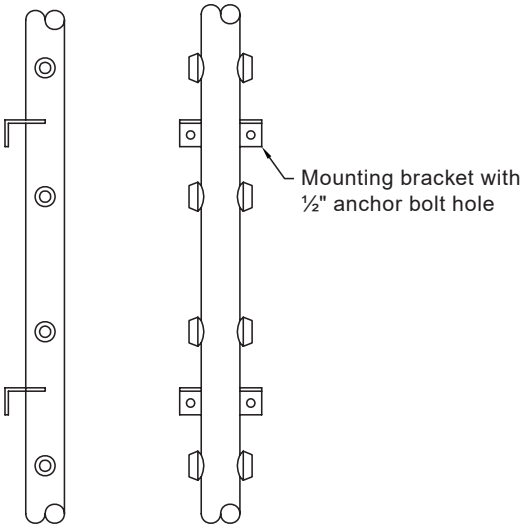
Vertical Condensate Collection Manifold — Fabricated

Description

The CMAV condensate collection manifold is a fabricated assembly designed for vertical installation to facilitate centralized recovery of condensate from up to 12 sources. Condensate is collected within the shell and discharged through the top via an internal siphon pipe. The water seal created by the siphon tube promotes even temperature distribution and ensures single phase discharge of condensate. The compact design provides easy access for trap maintenance and monitoring, while the mounting and connection arrangement permits fast installation.

Model	CMAV
PMA	720 psi g at 508 °F (50 bar g at 264 °C)
Hydrotest pressure	1,080 psi g (74 bar g)
Number of connections	4, 8, 12
Connection	½", ¾"
Sizes	
Connection types	NPT, SW to ANSI B16.11 Cl. 3000
Construction	Carbon Steel ASTM A106 Gr.B Sch. 80 Forged Steel A105 Cl.3000 All welding in accordance with Section IX of the ASME Boiler and Pressure Vessel Code
Options	Preassembled with isolation valves Consult factory



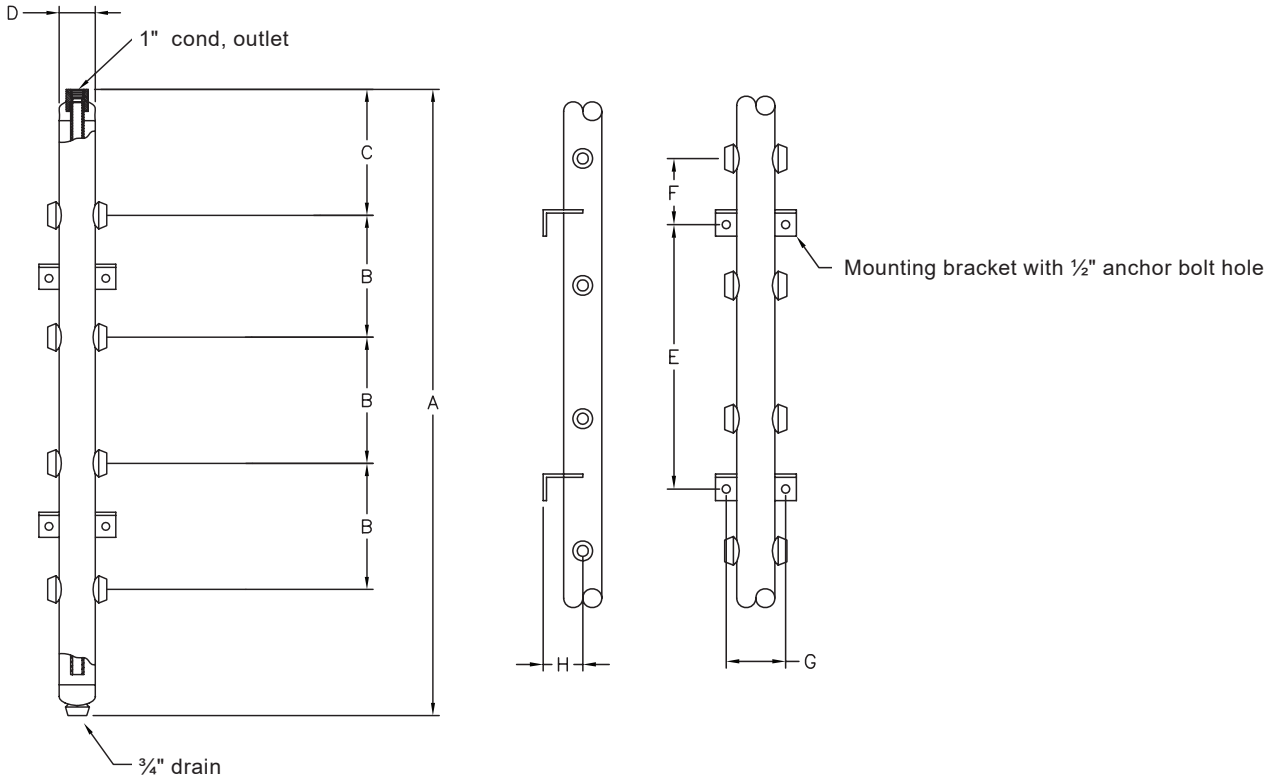


Manifold Nomenclature

CMA 08 V 1

- 1 - ½" Threaded (NPT)
  2 - ½" Socket Weld (SW)
  3 - ¾" Threaded (NPT)
  4 - ¾" Socket Weld (SW)
- V - Vertical
- 04 - 4 Connections
  08 - 8 Connections
  12 - 12 Connections
- CMA - Fabricated Condensate Collection Manifold

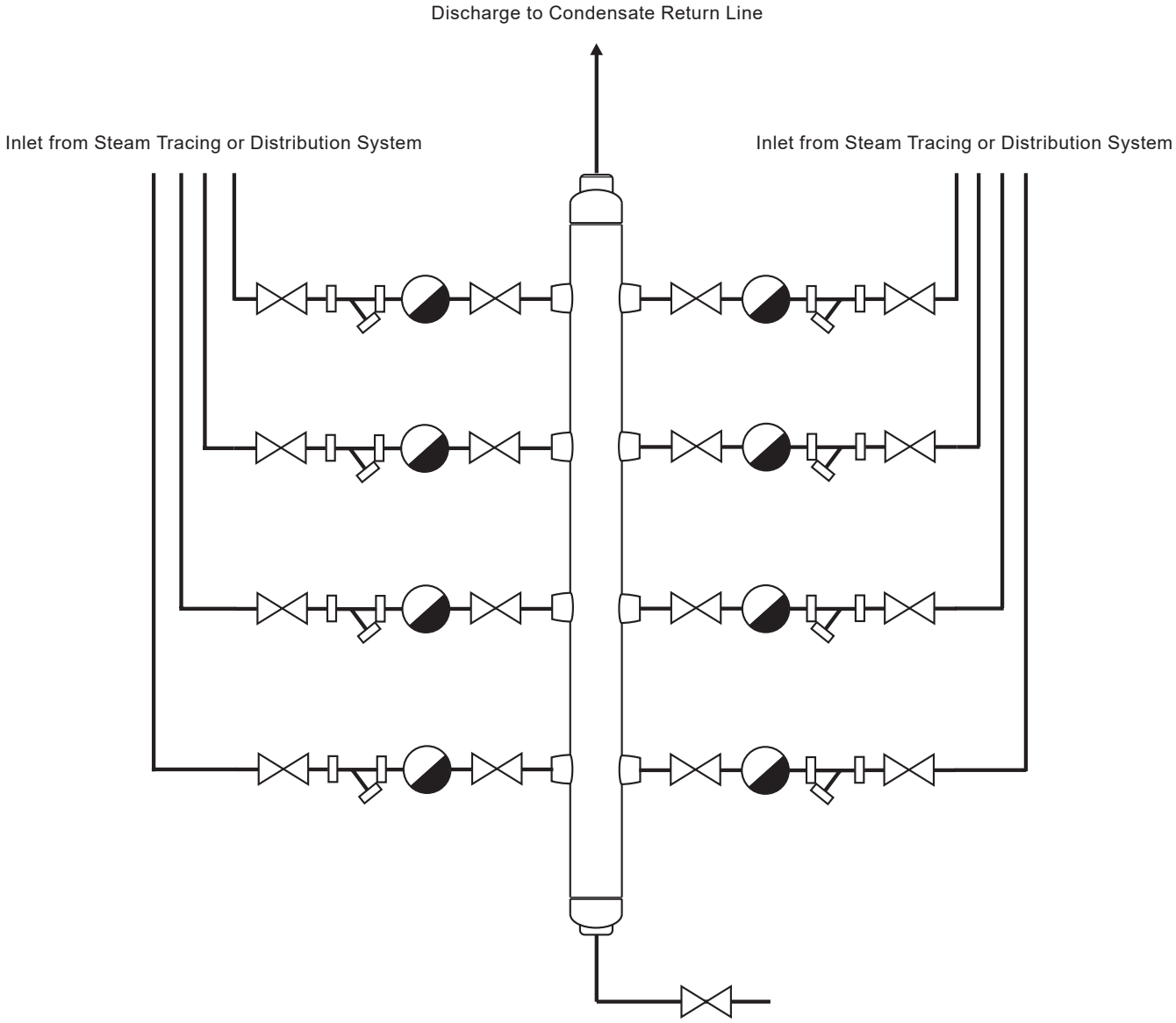
Condensate Collection Manifold dimensions/weights (approximate) in inches (*mm*) and lbs (*kg*)



CMA08V shown

Model Number	Tracer		A	B	C	D	E	F	G	H	Weight
	Nº	Size									
CMA04V1/V2	4	½"	29.6 (752)	10 (254)	10 (254	2.9 (74)	N/A	5.0 (127)	4.5 (114)	3.0 (76)	17 lb (8 kg)
CMA04V3/V4	4	¾"									
CMA08V1/V2	8	½"	49.6 (1260)				20 (508)				39 lb (18 kg)
CMA08V3/V4	8	¾"									
CMA12V1/V2	12	½"	69.6 (1768)								54 lb (25 kg)
CMA12V3/V4	12	¾"									

Typical hook-up of 8 connection manifold



Sample Specification
The condensate collection manifold shall be Spirax Sarco model CMA12V designed for vertical orientation to accommodate up to 12 condensate sources.

Construction Features
The unit shall include an internal siphon pipe designed to provide a water seal at all condensate loads to ensure single phase discharge and even temperature distribution. The assembly shall have a 1" discharge connection at the top and a ¾" drain connection that permits complete drainage during maintenance. Support brackets are to be provided for fast installation. Connections shall be provided on up to 3 sides and spaced to accommodate any valve orientation without interference from adjoining piping. The design is to be compact enough such that all traps and other connected equipment are within easy reach for servicing. Construction shall consist of ASTM A106 Gr. B carbon steel 2-½" Sch. 80 pipe with ANSI Cl. 3000 connections. Welding is to be performed in accordance with Section IX of the ASME Boiler & Pressure Vessel Code. The assembly shall be hydrostatically tested to 1.5 times design pressure, sandblasted, and provided with one coat industrial heat resistant coating (gray) maximum temperature 850°F.

Installation
The manifold is to be installed vertically with the condensate discharge connection at the top as shown. Isolation valves, steam traps, strainers, and other required equipment are attached on up to 3 sides at the connections provided. Mounting is accomplished using the brackets supplied on the back side of the unit. For outdoor installations, a freeze protection device fitted to the ¾" drain connection is recommended.

Options
Each manifold can be supplied with a wide selection of valves, traps, and other equipment as a completely fabricated and tested assembly. Consult factory for specific applications.

Typical Applications
The manifold can be utilized wherever multiple sources of condensate from steam traps need to be centrally collected in a vertical orientation. This includes steam tracing, light condensate-producing equipment, separators, and steam main drips.