

**Armstrong® Pre-Assembled...Condensate Collection Assembly (CCA)**

Armstrong combines its Trap Valve Stations (TVS) with manifolds into a package called the Condensate Collection Assembly (CCA). This prepackaged assembly offers many great benefits—cost savings in assembly, design flexibility and reduced purchasing and design time. The CCA with TVS 4000 Trap Valve Station and 2000 Series Inverted Bucket Traps is guaranteed for 3 years.

Cost Savings

This preassembled concept offers tremendous savings by reducing multiple component purchases that cause additional purchase order monitoring and shipping costs. Other savings include far less labor time required for field assembly.

This modular forged steel body design provides quick assembly/delivery, reducing overall project costs.

- Minimal welding vs complete manifold fabrication
- Eliminates multiple component purchases
- Reduced design specification costs
- Prefabrication vs. field assembly for easy installation
- Reduced shipping and field handling costs
- Lower long-term maintenance and operating costs
- 3-year guarantee

Design Flexibility

Armstrong can meet virtually any design parameter, including dimensional consistency, with your choice of socketweld or threaded connections. Armstrong inverted bucket, thermostatic, thermostatic wafer, bimetallic or disc steam traps can be provided or any other manufacturer's two-bolt steam trap can be used. If you require a specific piping arrangement, Armstrong can offer the flexibility to meet your specifications.

Materials

Manifold body: ASTM A105 forged steel

Removable Insulation Package

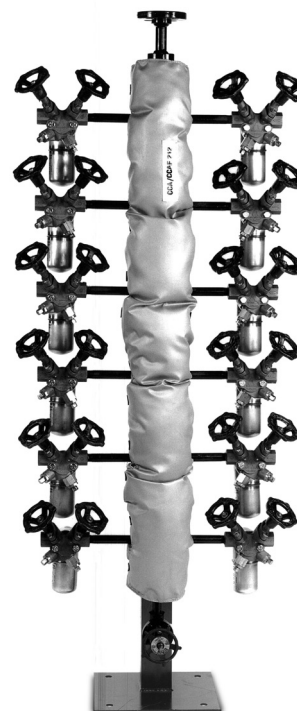
A removable insulation package is available for all steam and condensate manifolds.

- Inexpensive
- Quick to install
- Removable for maintenance
- Reusable after maintenance
- Weatherproof
- Formed to cover all manifold elements
- Strong, durable cover
- Available to fit all manifold sizes

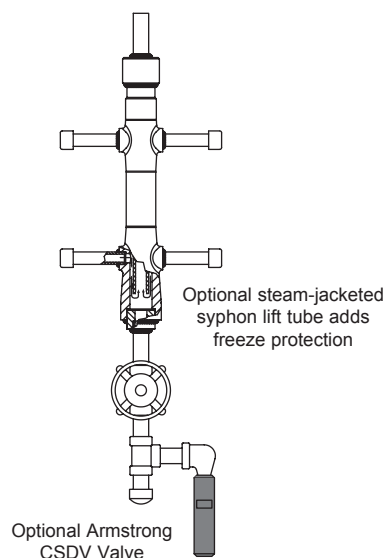
Freeze Protection Package (CCAF)—Optional

A manifold assembly for more efficient condensate return has another benefit—freeze protection. Armstrong's innovative manifold design actually serves as a heat station, heating one or more traps if the steam supply is interrupted or shut off to the traps. The protection is accomplished as long as one trap continues to discharge into the manifold. The manifold's internal syphon tube creates a water seal, which contains the flash steam from the discharge of the live trap. This allows radiant heat to protect shut-off traps from freezing.

An optional freeze protection valve package senses condensate temperature. When this device opens, it drains condensate from the manifold assembly, thus providing further freeze protection.

**CCAF 212 Condensate Collection Assembly**

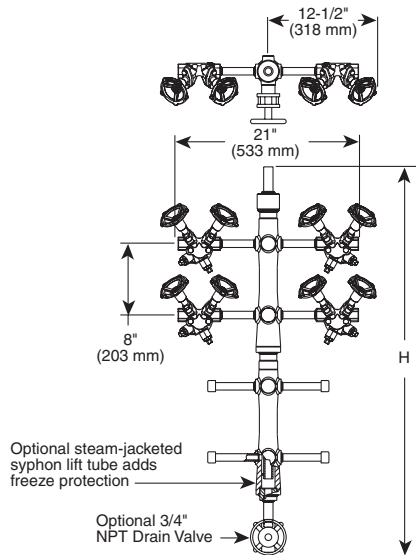
(Shown with TVS 4000 Trap Valve Station with 2000 Series Inverted Bucket all stainless steel steam traps with optional removable insulation package including nipples, drain valve and stand.)



Optional steam-jacketed syphon lift tube adds freeze protection

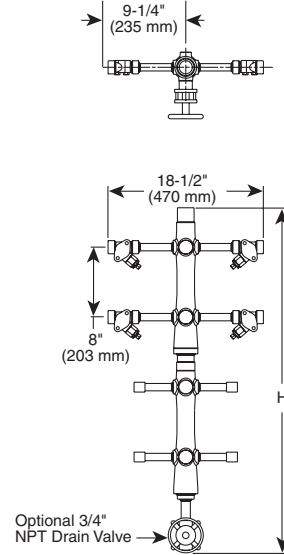
Optional Armstrong CSDV Valve

Pre-Assembled...Condensate Collection Assembly (CCA)



CCAF Condensate Collection Assembly with TVS 4000 Trap Valve Station, Optional Freeze Protection and Drain Valve.

Available with Armstrong's inverted bucket, disc, thermostatic, thermostatic wafer or bimetallic steam traps. Any manufacturer's 2-bolt steam trap can also be applied to Armstrong's trap connectors.



CCA Condensate Collection Assembly With IS-2 Connectors with Strainer, Blowdown Valve and Optional Drain Valve

Available with Armstrong's inverted bucket, disc, thermostatic, thermostatic wafer or bimetallic steam traps. Any manufacturer's 2-bolt steam trap can also be applied to Armstrong's trap connectors.

Physical Data										
Model	CCA-204		CCA-206		CCA-208		CCA-210		CCA-212	
"H"	in	mm	in	mm	in	mm	in	mm	in	mm
	23-1/8	587	31-1/8	790	39-1/8	994	47-1/8	1,197	55-1/8	1,400
Maximum Allowable Pressure	604 psi @ 800°F (42 bar @ 427°C)									

Physical Data										
Model	CCAF-204		CCAF-206		CCAF-208		CCAF-210		CCAF-212	
"H"	in	mm	in	mm	in	mm	in	mm	in	mm
	27-5/16	694	35-5/16	897	43-5/16	1,100	51-5/16	1,303	59-5/16	1,506
Maximum Allowable Pressure	604 psi @ 800°F (42 bar @ 427°C)									

How to Order Manifold Packages

CCA		208		2NPT		6PE		3DVN		TVS 4000 SCH80	
Manifold Model	Number of Take-offs Per Manifold	Connection Size Take-offs, NPS in (mm)		Connection Size Top, NPS in (mm)		Connection Bottom, NPS in (mm)		Trap Valve Station			
MSD Steam Distribution Manifold	04 08 12	2NPT = 1/2 (15) NPTF ¹ 2SW = 1/2 (15) SW ¹ 3NPT = 3/4 (20) NPTF 3SW = 3/4 (20) Socketweld		6SW = 1-1/2 (40) SW ¹ 6FW150 = 1-1/2 (40) 150# RF Flange 6FW300 = 1-1/2 (40) 300# RF Flange 8FW150 = 2 (50) 150# RF Flange 8FW300 = 2 (50) 300# RF Flange		3SW = 3/4 (20) SW ¹ 3NPT = 3/4 (20) NPTF 3WD = 3/4 (20) Welded Dripleg ² 3TD = 3/4 (20) Threaded Dripleg ²		TVS 4000 IS2 with BD IS2 Standard None			
SMSD Small Steam Distribution Manifold											
CCA Condensate Collection Assembly	204 206 208 210 212										
CCAF Condensate Collection Assembly Freeze Protection											
				6PE = 1-1/2 (40) Plain End ¹ 6FW150 = 1-1/2 (40) 150# RF Flange		3NPT = 3/4 (20) NPTM ¹ 3DVN = 3/4 (20) Drain Valve NPTM/NPTM 3DVS = 3/4 (20) Drain Valve SW/NPTM					
				3PE = 3/4 (20) Plain end ¹ 3NPT = 3/4 (20) NPTM 3FW150 = 3/4 (20) 150# Flange							

1. Armstrong stocks manifold cores (less nipples, drain valves and trap stations) in these connections.
2. Must pick this bottom connection to use trap station (TVS 4000 only choice) and trap on MSD and SMSD.
3. Nipples connecting manifold to trap station can be Schedule 80 (standard) or schedule 160 (optional).

Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.