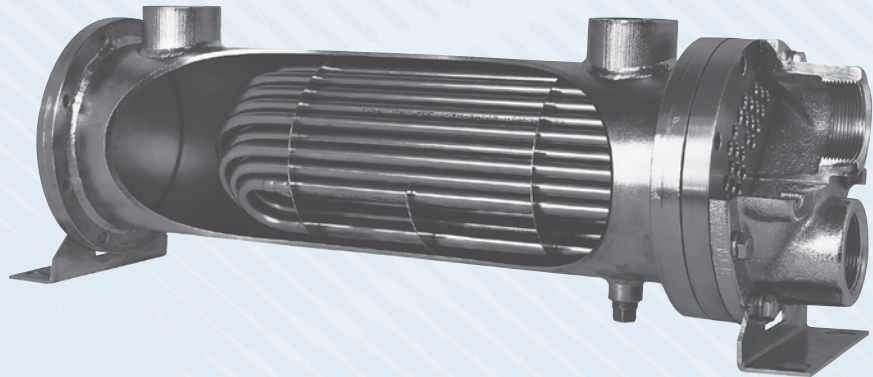


# FLUID COOLING | Shell & Tube USSCV Series

## COPPER & STEEL CONSTRUCTION

### Features

- Steam & Large Temperature Differentials
- Removable Tube Bundle for Servicing
- Reduces Thermal Expansion Stresses
- 3/8" Tubes
- Built-In Expansion Chamber
- Threaded or Flanged Connections
- Mounting Brackets Included
- Steel Shell Assembly



### OPTIONS

Wide Variety of Materials Available

Custom Sizes/Designs

Stainless Steel Hardware and Mounting

### Ratings

#### Maximum Shell Pressure

600, 800, 1000 250 psi  
1200, 1700 150 psi

#### Maximum Tube Side Pressure 150 psi

#### Maximum Temperature 400° F

### Materials USSCV Series

**Tubes** 316L Stainless Steel

**Tube Sheets** 316L Stainless Steel

**Shell** 316L Stainless Steel

**Shell Connections** 316L Stainless Steel

**Baffles** 316L Stainless Steel

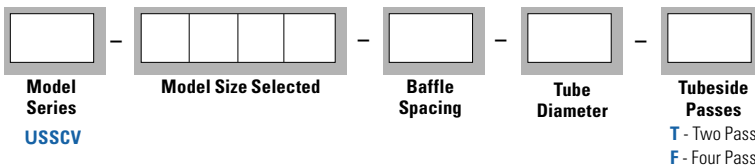
**End Bonnets** 316L Stainless Steel

**Mounting Brackets** Steel

**Gaskets** Non-Asbestos Fiber/Nitrile Rubber

**Nameplate** Aluminum Foil

## How to Order

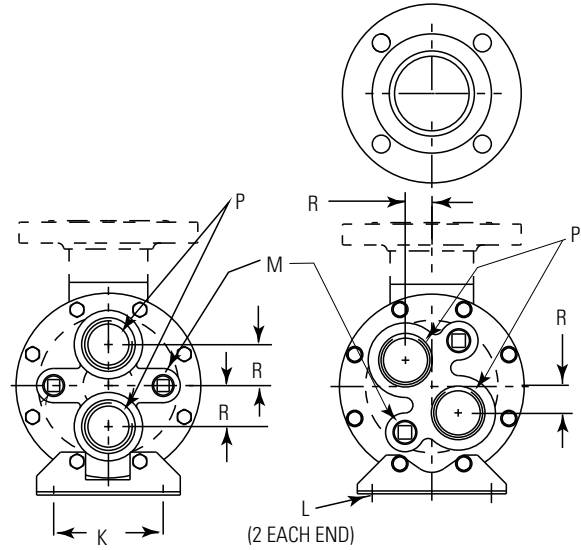
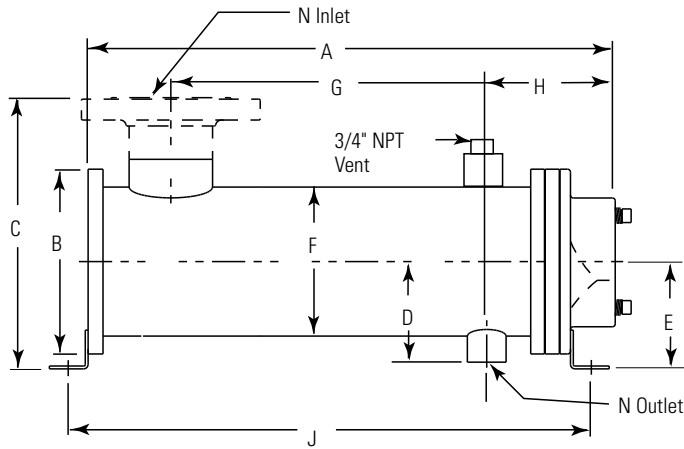


USSCV = 1000 and Smaller: Inlet and Outlet NPT Shell Connections Rotated 180°, NPT Tube Side Connections

USSCV = 1200 and Larger: ASME/ANSI Flange Inlet and NPT Outlet Shell Connections Rotated 180°, NPT Tube Side Connections

# Dimensions

## USSCV Two Pass



All models except  
USSCV-800 & UCV-1200 Series

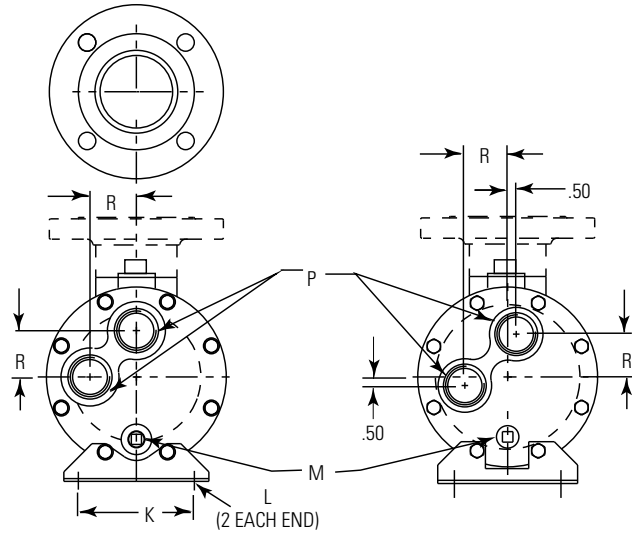
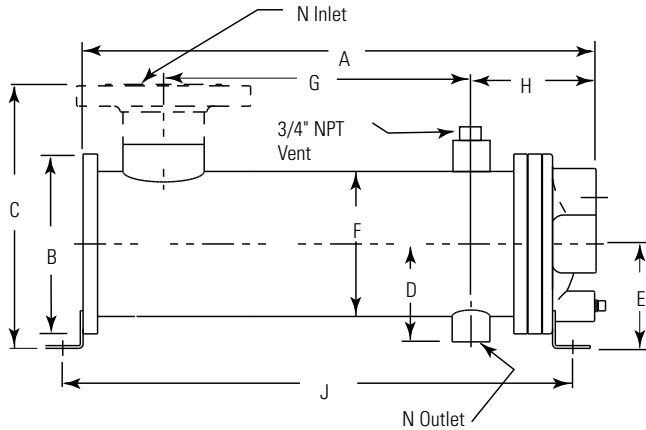
USSCV-800 &  
USSCV-1200 Series

MODEL	A	B DIA	C	D	E	F DIA	G	H	J	K	L	M NPT	N INLET	N OUTLET	P NPT	R	FT <sup>2</sup> SURFACE AREA
612	17.22	4.50	5.25	2.62	2.75	3.25	11.00	4.00	17.66	3.25	.44 DIA	(2) .38	1.25	.75	1.00	-	2.4
624	29.22						23.00		29.66								4.7
812	19.47	6.00	6.75	3.15	3.50	4.25	12.00	4.60	19.65	3.50	.44 DIA	(2) .38	1.50	.75	1.25	0.75	4.0
824	31.47						24.00		31.65								7.9
836	43.47						36.00		43.65								11.9
1012	19.68	6.75	7.77	3.70	4.00	5.25	11.50	5.37	19.94	4.00	.50 x .75 SLOT	(2) .38	2.00	1.00	1.50	1.50	7.4
1024	31.68						23.50		31.94								14.5
1036	43.68						35.50		43.94								21.5
1218	26.22	7.75	11.38	4.22	4.50	6.25	17.38	5.38	26.12	5.00	.50 x .75 SLOT	(2) .50	3.00*	1.00	2.00	1.10	15.3
1224	32.22						23.38		32.12								21.1
1236	44.22						35.38		44.12								31.3
1248	56.22	10.50	14.00	5.58	5.75	8.62	47.38	7.31	56.12	7.00	.62 x .88 SLOT	(2) .50	4.00*	1.50	2.50	2.25	41.6
1724	34.69						23.00		34.27								47.7
1736	46.69						35.00		46.27								70.1
1748	58.69	47.00	58.27	70.27	7.00	8.62	59.00	7.31	70.27	7.00	.62 x .88 SLOT	(2) .50	4.00*	1.50	2.50	2.25	92.5
1760	70.69																59.00

\*150# ASME/ANSI Flange. NOTE: We reserve the right to make reasonable design changes without notice. Consult factory. All dimensions are inches.

# Dimensions

## USSCV Four Pass



All models except  
UCV-1700 Series

UCV-1700 Series

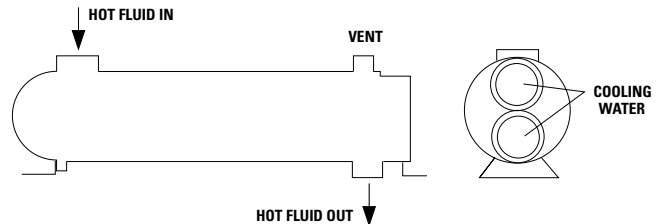
MODEL	A	B DIA	C	D	E	F DIA	G	H	J	K	L	M NPT	N INLET	N OUTLET	P NPT	R	FT <sup>2</sup> SURFACE AREA
612	17.20	4.50	5.25	2.62	2.75	3.25	11.00	3.98	17.66	3.25	.44 DIA	(2) .38	1.25	.75	.75	1.00	2.4
624	29.20						23.00		29.66								4.7
812	19.47	6.00	6.75	3.15	3.50	4.25	12.38	4.60	19.65	3.50	.44 DIA	(2) .38	1.50	.75	.75	1.25	4.0
824	31.47						24.38		31.65								7.9
836	43.47						36.38		43.65								11.9
1012	19.50						11.50		19.95								7.4
1024	31.50	6.75	7.77	3.70	4.00	5.25	23.50	5.18	31.95	4.00	.50 x .75 SLOT	(2) .38	2.00	1.00	1.00	1.69	14.5
1036	43.50						35.50		43.95								21.5
1218	26.22	7.75	10.38	4.22	4.50	6.25	17.38	5.38	26.12	5.00	.50 x .75 SLOT	(2) .38	3.00*	1.00	1.50	2.00	15.3
1224	32.22						23.38		32.12								21.1
1236	44.22						35.38		44.12								31.3
1248	56.22						47.38		56.12								41.6
1724	34.69	10.50	13.00	5.58	5.75	8.62	23.00	7.31	34.27	7.00	.62 x .88 SLOT	(2) .38	4.00*	1.50	2.00	2.50	47.7
1736	46.69						35.00		46.27								70.1
1748	58.69						47.00		58.27								92.5
1760	70.69						59.00		70.27								114.8

\*150# ASME/ANSI Flange. NOTE: We reserve the right to make reasonable design changes without notice. Consult factory. All dimensions are inches.

## USSCV Applications

U-Tube Heat Exchangers allow the shell and tube bundle to expand and contract independently with temperature fluctuation. This reduces temperature dependent stresses so they are ideal in applications with large temperature differentials. A typical example for UCV units is steam to liquid heaters. The removable bundle design allows for easier cleaning of the shell side cavity when the bundle is removed.

## Piping Hook-up



Specific applications may have different piping arrangements. Consult factory for assistance.