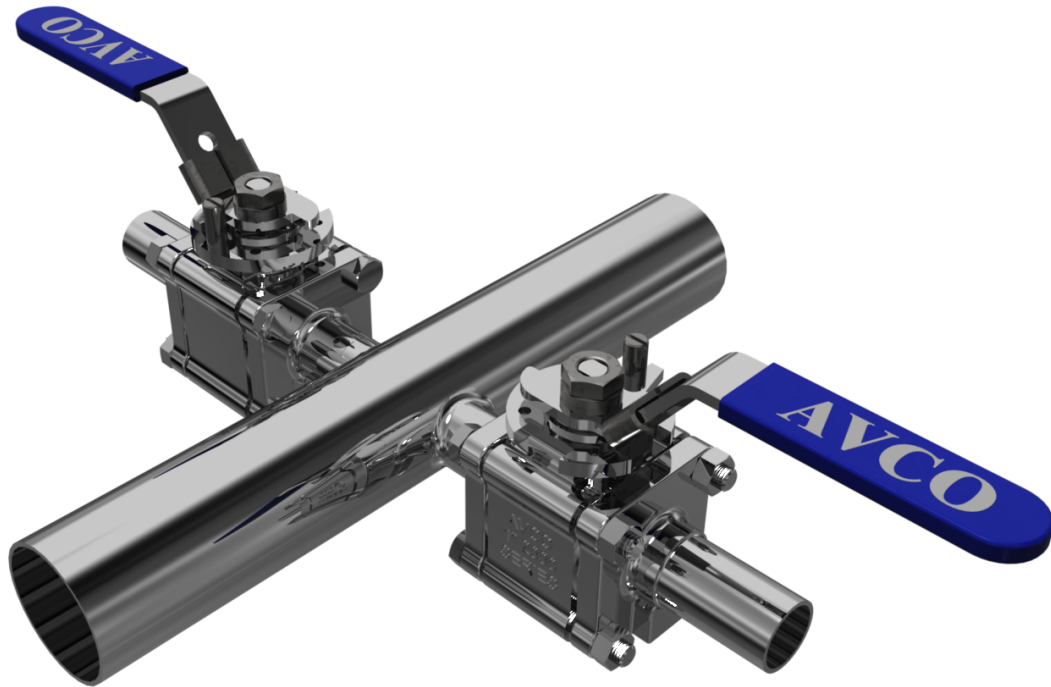


# AVCO

*Alloy Valves and Control*

## BALL VALVES CFOS Manifolds



### Size

1/4" - 4" (Branch Valve)  
1/4" - 12" (Main Line)  
1000 WOG

### End Connections

Tube Butt Weld  
Pipe Butt Weld  
Female NPT  
Clamp Ends  
Face Seal  
Compression Fitting  
Vacuum Fitting

### Materials

316L Stainless Steel

### Configurations

Single Horizontal Cross (SHC)  
Double Horizontal Cross (DHC)  
Double Vertical Tee (DVT)  
Double Horizontal Tee (DHT)

### Features

Mechanical Polish to 25 Ra  
Helium Leak Tested  
Locking Handles

### Options

Purge Ports  
Electropolished to 10 Ra  
Color Handles

### Service Applications

Biotech  
Clean Steam  
Cleaning Solutions  
Detergents  
Gas and Air Delivery  
High Purity Gases  
High Purity Water/Oils  
Pharmaceutical  
Vacuum  
Waxes

### Applicable Standards

ASME BPE

***Alloy Valves and Control*****Features**

AVCO Prefabricated CFOS (Cleaned for Oxygen Service) Manifold sections are designed to reduce plant assembly costs and time whilst maintaining the demands for high quality systems. Our CFOS Manifolds can be supplied in lengths up to 24 feet and a variety of configurations to compliment the plant layout. The Manifolds are built around the popular industry proven 2100 series ball valves.

The AVCO Manifold system provides a number of benefits and features to the customer such as:

**Condensed Schedule**

- Parallel fabrication with plant construction
- Reduction in on-site welding time
- Reduction in on-site construction time
- Reduced risk of weld leakage during on-site testing
- No requirement for valve disassembly

**Reduced Costs**

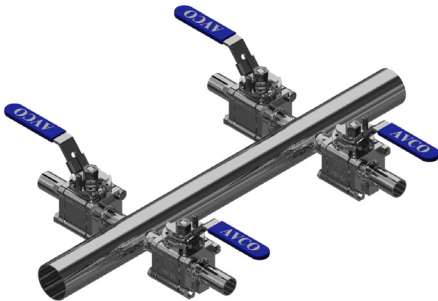
- Significant reduction in on-site labor
- Reduced QA/QC weld inspection time
- Reduced material handling charges

**Enhanced Quality**

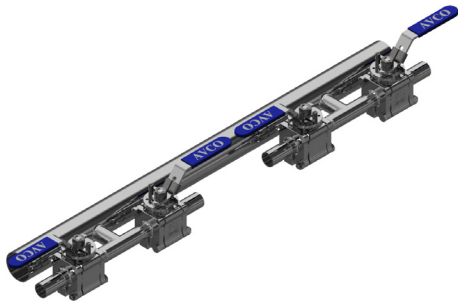
- Lower risk of metal particle contamination as on-site cutting reduced
- Manifolds are fabricated in a controlled environment
- 100% Helium leak tested to  $1 \times 10^{-7}$  scc/sec
- QA/QC documentation provided
- Cleaned & Bagged



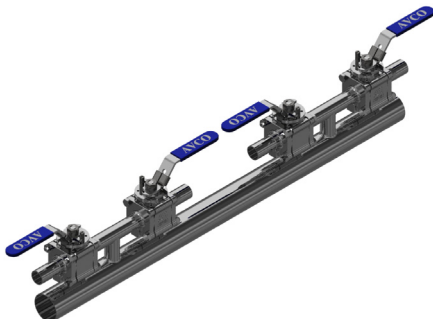
**Single Horizontal Cross (SHC)**



**Double Horizontal Cross (DHC)**



**Double Horizontal Tee (DHT)**



**Double Vertical Tee (DVT)**

### HOW TO ORDER

SS	SHC4	050	ETO	200
Series	Configuration	Valve Size	Valve Ends	Line Size
316L Stainless Steel CFOS Manifold	SHC* - Single Horizontal Cross	025 - 1/4"	ETO - Extended Tube OD	025 - 1/4"
	DHC* - Double Horizontal Cross	038 - 3/8"	TR - Clamp Ends	038 - 3/8"
	DHT* - Double Horizontal Tee	050 - 1/2"	AL - Compression Fitting	050 - 1/2"
	DVT - Double Horizontal Tee	075 - 3/4"	ALC - Compression Fitting with Cap	075 - 3/4"
		100 - 1"	KF - Vacuum Fitting	100 - 1"
	* Insert number to indicate total number of valves (For example SHC4 = SHC configuration with 4 valves)	125 - 1 1/4"	BW5 - Butt Weld Pipe, SCH 5	125 - 1 1/4"
		150 - 1 1/2"	BW10 - Butt Weld Pipe, SCH 10	150 - 1 1/2"
		200 - 2"	NPT - Threaded NPT	200 - 2"
		250 - 2 1/2"	SW - Socket Weld	250 - 2 1/2"
		300 - 3"	150 - 150# Flanged	300 - 3"
		400 - 4"	MF - Male Face Seal	400 - 4"
			MFC - Capped Male Face Seal	500 - 5"
				600 - 6"
			800 - 8"	
			1000 - 10"	
			1200 - 12"	

BWO	X/ETO	200	
Line Ends	Purge Port	Manifold Length	Options
BWO - Butt Weld Tube OD	ETO - Extended Tube OD	Insert overall length in inches up to 288 inches maximum or XX if length is unimportant and to be dictated by number of valves	RA10 - Electropolished to 10 Ra
TR - Clamp Ends	TR - Clamp Ends		Blank - No Options
AL - Compression Fitting	AL - Compression Fitting		
ALC - Compression Fitting with Cap	ALC - Compression Fitting with Cap		
KF - Vacuum Fitting	MF - Male Face Seal		
BW5 - Butt Weld Pipe, SCH 5	MFC - Capped Male Face Seal		
BW10 - Butt Weld Pipe, SCH 10	X - No Purge Port		
NPT - Threaded NPT			
SW - Socket Weld	Indicate both upstream and downstream purge ports ( for example X/ETO = No upstream purge port and extended tube OD purge port downstream		
150 - 150# Flanged			

Example ordering code:

SS-SHC4-050-ETO-200-BWO-X/ETO-200 = 2" Tube OD single horizontal cross manifold with square cut weld ends, 200 inches long, four 1/2" extended tube OD ball valves with no upstream purge port and an extended tube OD downstream purge port, no options