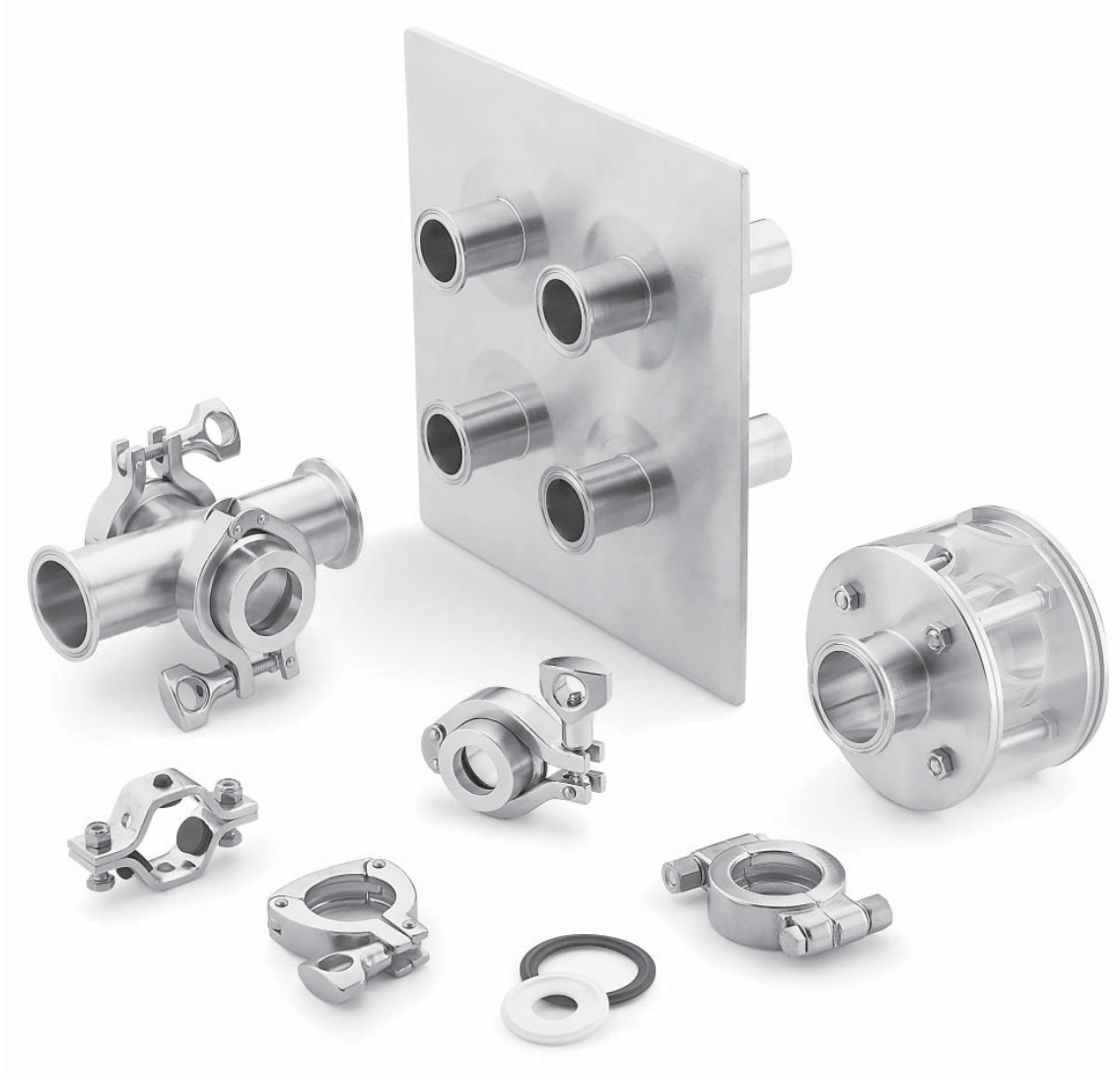


# Accessories

## For the Sanitary Industries



- Clamps and wing nuts
- Sight glasses and sight glass assemblies
- Flow transfer panels
- Tubing hangers
- Gaskets

## Contents

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## End Connection Sizes

Accessories are sized in accordance with nominal tube outside diameter dimensions. Use the end connection size designators shown below to complete accessory basic ordering numbers.

Tube OD in.	Tube Wall in.	Size Designator
1/2	0.065	50
3/4		75
1		10
1 1/2		15
2		20
2 1/2		25
3	0.083	30
4		40
6		60
8	0.120	80
10		100
12		120
	0.134	120

## Clamps

- Type 304 stainless steel clamps for 1/2 to 12 in. size Kwik-Clamp, 1 to 4 in. APV K-Clamp, and 1/2 to 4 in. size Swagelok® TS series end connections



- 3-A compliant

## Technical Data, Dimensions, and Ordering Information

Pressure-temperature ratings<sup>①</sup> shown with wing nuts tightened to 25 in.·lb (2.8 N·m) (25 ft·lb [33.9 N·m] for high-pressure model AJC13HP4) and standard molded Buna N gaskets.

Dimensions are for reference only and are subject to change.

To order, select a basic ordering number and add an end connection size designator. Fittings sized 1/2 and 3/4 in. require 3/4 in. clamps. Fittings sized 1 and 1 1/2 in. require 1 1/2 in. clamps.

Example: JC13HD475 for a clamp that accommodates a 1/2 or 3/4 in. fitting

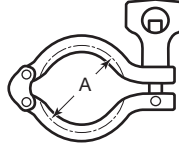
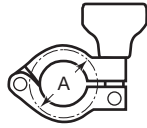
<sup>①</sup> Ratings depend on related components in the system, absence of shock pressure, proper expansion of ferrules, assembly of joints, and installation. For temperatures above 250°F (121°C), use only AJC13HP4 clamps.

### Heavy-Duty Models

#### Basic Ordering Number JC13HD4

3/4 in. size

1 1/2 to 12 in. sizes

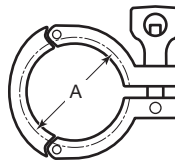
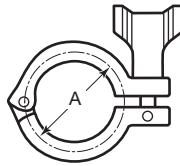


#### Basic Ordering Number AJC13HC4

1 1/2 to 4 in. sizes

#### Basic Ordering Number AJC13HS4

1 1/2 to 4 in. sizes

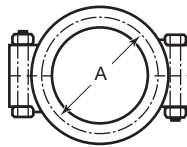


Tube OD in.	Working Pressure psig (bar)		A in. (mm)
	At 70°F (20°C)	At 250°F (121°C)	
3/4	1500 (103)		1.12 (28.4)
1 1/2	500 (34.4)	250 (17.2)	2.12 (53.8)
2	450 (31.0)		2.65 (67.3)
2 1/2	400 (27.5)	200 (13.7)	3.19 (81.0)
3	350 (24.1)	150 (10.3)	3.72 (94.5)
4	200 (13.7)	125 (8.6)	4.82 (122)
6	150 (10.3)	75 (5.1)	6.70 (170)
8	100 (6.8)	50 (3.4)	8.66 (220)
10			10.7 (272)
12	50 (3.4)	25 (1.7)	13.0 (330)

### High-Pressure Model

#### Basic Ordering Number AJC13HP4

1 1/2 to 6 in. sizes



Tube OD in.	Working Pressure psig (bar)		A in. (mm)
	At 70°F (20°C)	At 250°F (121°C)	
1 1/2	1500 (103)	1200 (82.6)	2.05 (52.1)
2	1000 (68.9)	800 (55.1)	2.58 (65.5)
2 1/2			3.11 (79.0)
3			3.64 (92.5)
4			4.74 (120)
6	300 (20.6)	200 (13.7)	6.70 (170)

### Nylon Clamps

Nylon clamps are available in 3/4 and 1 1/2 in. sizes.

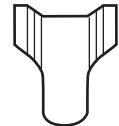
Ordering numbers:

**13MHHM-NGW-050/075** for 3/4 in. size

**13MHHM-NGW-150** for 1 1/2 in. size

### Wing Nuts

Replacement wing nuts for heavy-duty clamps are available.



Basic Ordering Number: JC13HDW

Basic Ordering Number: JC13HCW

## Sight Glasses

- Enable 360° visual monitoring of fluid flow through borosilicate glass window

### Inline and Safety Sight Glasses

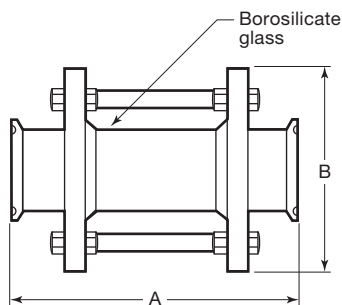
- 304 or 316L stainless steel construction
  - Inside and outside diameters polished to 32 µin. (0.81 µm) maximum  $R_a$
- Borosilicate glass window sealed to end connections with Buna N gasket; EPDM, fluorocarbon FKM, PTFE, and silicone gasket materials available
- 1 to 4 in. Kwik-Clamp, butt weld, and Acme-threaded end connections
- 3-A compliant
- Clear acrylic protective shield with model 162S



### Dimensions

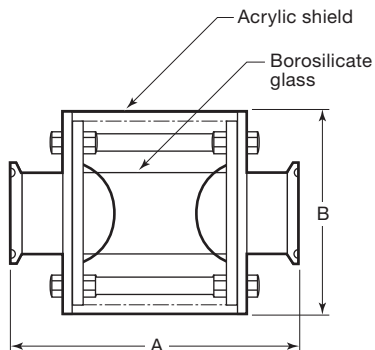
Dimensions are for reference only and are subject to change.

#### Inline Sight Glass Basic Ordering Number 162



Tube OD in.	Dimensions, in. (mm)			
	A			B
	Kwik-Clamp	Butt Weld	Acme-Threaded	
1	5.62 (143)	3.38 (85.9)	6.12 (155)	3.25 (82.3)
1 1/2			4.00 (102)	
2			4.25 (108)	
2 1/2	6.12 (155)	3.88 (98.6)	7.38 (187)	4.75 (121)
3	7.25 (184)	5.00 (127)	8.50 (216)	5.50 (140)
4	7.38 (187)	5.12 (130)	8.62 (219)	6.50 (165)

#### Inline Safety Sight Glass Basic Ordering Number 162S



Tube OD in.	Dimensions, in. (mm)			
	A			B
	Kwik-Clamp	Butt Weld	Acme-Threaded	
1	5.75 (146)	3.50 (88.9)	6.25 (159)	5.00 (127)
1 1/2			5.00 (127)	
2			5.50 (140)	
2 1/2	7.25 (184)	5.00 (127)	8.50 (216)	6.50 (165)
3				6.50 (165)
4				8.00 (203)

### Ordering Information

Build a sight glass ordering number by combining the designators in the sequence shown below.

**162 KC 4 20 E**

<p><b>Basic Ordering Number</b></p> <p>162 = Inline sight glass</p> <p>162S = Inline safety sight glass</p> <p><b>End Connections</b></p> <p>KC = Kwik-Clamp</p> <p>BW = Butt weld</p> <p>AT = Acme thread</p> <p><b>Material</b></p> <p>4 = 304 stainless steel</p> <p>6 = 316L stainless steel</p>	<p><b>Gasket Material</b></p> <p>E = EPDM</p> <p>V = Fluorocarbon FKM</p> <p>P = PTFE</p> <p>S = Silicone</p> <p>Omit for Buna N.</p> <p><b>End Connection Size</b></p> <p>10 = 1 in.</p> <p>15 = 1 1/2 in.</p> <p>20 = 2 in.</p> <p>25 = 2 1/2 in.</p> <p>30 = 3 in.</p> <p>40 = 4 in.</p>
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## Sight Glass Assemblies

- Easy disassembly for cleaning
- Quick installation in new or existing clamp lines with same center-to-face dimensions as standard Kwik-Clamp tees and crosses
- 304 or 316L stainless steel construction
  - Inside and outside diameters polished to 32  $\mu\text{m}$ . (0.81  $\mu\text{m}$ ) maximum  $R_a$
- 1 1/2 to 4 in. Kwik-Clamp connections with Buna N gaskets and 304 SS clamps included; EPDM and fluorocarbon FKM gasket materials available
- 3-A compliant

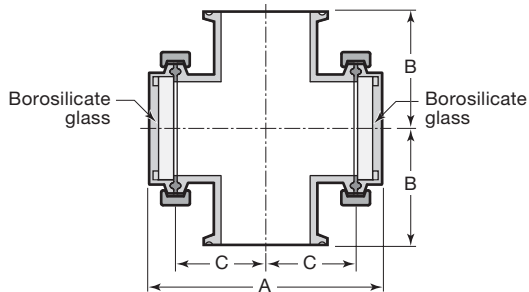
### Ordering Information and Dimensions

Dimensions are for reference only and are subject to change.

To order, add **4** for 304 SS or **6** for 316L SS and an end connection size designator to the basic ordering number.

Example: JCD54420

Basic Ordering Number JCD54



Tube OD in.	Dimensions, in. (mm)		
	A	B	C
1 1/2	4.62 (117)	2.75 (69.8)	1.38 (35.1)
2	5.12 (130)	3.50 (88.9)	1.62 (41.1)
2 1/2	6.50 (165)		2.31 (58.7)
3	6.12 (155)	3.75 (95.2)	2.12 (53.8)
4	7.62 (194)	4.50 (114)	2.88 (73.2)



## Weld-In Sight Glass Assemblies

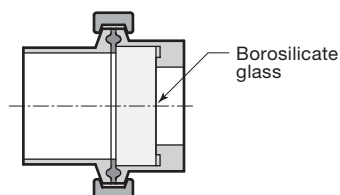
- Connect to standard Kwik-Clamp fittings for quick disassembly—butt weld ferrule included
- 304 or 316L stainless steel construction
  - Inside and outside diameters polished to 32  $\mu\text{m}$ . maximum (0.81  $\mu\text{m}$ )  $R_a$
- 1 1/2 to 4 in. Kwik-Clamp connections with Buna N gaskets and 304 SS clamps included; EPDM and fluorocarbon FKM gasket materials available

### Ordering Information

To order, add **4** for 304 SS or **6** for 316L SS and an end connection size designator to the basic ordering number.

Example: JC54W420

Basic Ordering Number JC54W



## Flow Transfer Panels

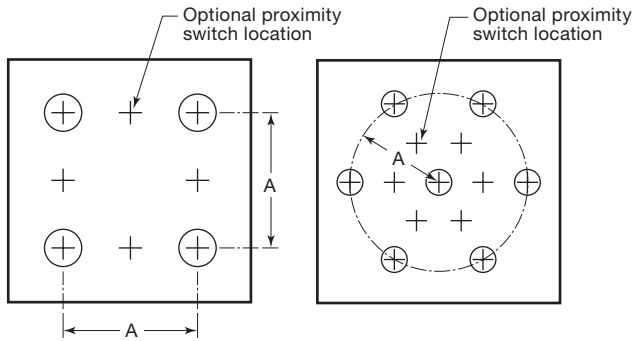
- 304 or 316L stainless steel construction
  - Inside and outside diameters polished to 32  $\mu\text{in.}$  (0.81  $\mu\text{m}$ ) maximum  $R_a$
  - Optional surface finishes—including biopharm—available
- 1 1/2 to 3 in. Kwik-Clamp ferrule port connections standard; other port connections available
- Standard configurations listed in table below; custom configurations available



### Ordering Information and Dimensions

Dimensions are for reference only and are subject to change.

To order, contact your authorized Swagelok sales and service representative.



4-Square Panel

6-Around-1 Panel

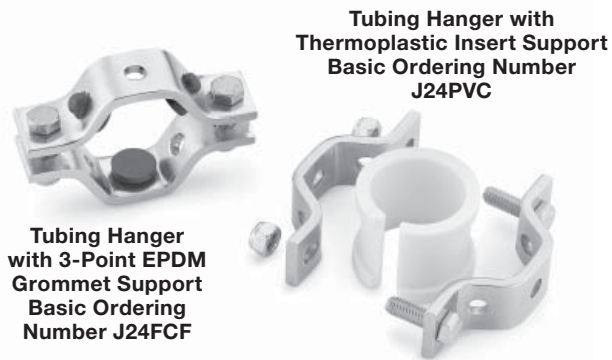
### Options

Contact your authorized Swagelok representative for more information about:

- Optional port connections
  - Butt weld fittings
  - Acme threaded (bevel seat) fittings
  - John Perry fittings
  - Interlock fittings
- Jumpers and jumper stems
- Factory equipped proximity switches or switch holes for field installation
- Wall sleeves
- Drip pans
- Port nomenclature labels
  - Phenolic
  - Electroetched
  - Pin stamped
- Alloy AL-6XN<sup>®</sup> super austenitic stainless material and other materials available

Panel Configuration	Dimensions, in. (mm)										
	1 1/2 in. Ports		2 in. Ports		2 1/2 in. Ports		3 in. Ports				
	Panel	A	Panel	A	Panel	A	Panel	A			
2 in line	12 by 6 (305 by 152)	4.50 (114)	12 by 6 (305 by 152)	6.00 (152)	16 by 8 (406 by 203)	7.50 (190)	16 by 8 (406 by 203)	9.00 (229)			
3 triangle	12 by 12 (305 by 305)		12 by 12 (305 by 305)		16 by 16 (406 by 406)		16 by 16 (406 by 406)				
3 around 1			16 by 12 (406 by 305)								
4 square			12 by 12 (305 by 305)						16 by 20 (406 by 508)	20 by 20 (508 by 508)	
4 diamond			12 by 16 (305 by 406)								
4 around 1			16 by 16 (406 by 406)								16 by 16 (406 by 406)
6 rectangle			14 by 10 (356 by 254)								
6 around 1			12 by 12 (305 by 305)						16 by 16 (406 by 406)	20 by 20 (508 by 508)	24 by 24 (610 by 610)
8 double square			20 by 10 (508 by 254)						24 by 12 (610 by 305)	28 by 14 (711 by 356)	36 by 16 (914 by 406)
8 around 1	12 by 12 (305 by 305)		16 by 16 (406 by 406)		20 by 20 (508 by 508)		24 by 24 (610 by 610)				

## Tubing Hangers



**Tubing Hanger with 3-Point EPDM Grommet Support**  
Basic Ordering Number **J24FCF**

**Tubing Hanger with Thermoplastic Insert Support**  
Basic Ordering Number **J24PVC**

- 304 stainless steel construction
- Two-piece design easily installed with standard wrenches
- Bolts fasten to lock nuts with nylon inserts, eliminating lock washers
- Support rods welded to hanger at installation for maximum strength
- 1/2 to 6 in. tube sizes

To order, add a size designator to a basic ordering number.

Example: **J24FCF20**

Replacement grommets and thermoplastic inserts are available.

- For EPDM grommets, add a grommet size designator to basic ordering number **J24G**.

Example: **J24G18**

- For thermoplastic inserts, add a size designator from the table on page 2 to basic ordering number **PVC**.

Example: **PVC50**

Fluorocarbon FKM grommets for high-temperature applications and threaded couplers are available. Contact your authorized Swagelok representative.

Grommet Size	Designator
1/8 in.	18
3/8 in.	38
5/8 in.	58

## Gaskets

- Standard, molded, one-piece gaskets available for 1/2 to 12 in. size end connections

To order, select a basic ordering number and add or insert an end connection size designator.

Examples: **JC40N50**

**A40MPGR50E**



Gasket Material	Basic Ordering Number
Buna N	JC40N
White PTFE	JC40T
White silicone	JC40S
Fluorocarbon FKM	JC40V
EPDM	JC40E
White Buna	JC40NW
EPDM-filled PTFE	A40MPGR__E <sup>①</sup>
Fluorocarbon FKM-filled PTFE	A40MPGR__V <sup>①</sup>
TUF-FLEX <sup>®</sup>	A40MPGRTF__E <sup>①</sup>
TUF-STEEL <sup>®</sup>	40MPGTS <sup>①</sup>
Platinum-cured silicone	40RXPX <sup>①</sup>
Controlled-compression EPDM	40MPE-CC- <sup>①</sup>
Controlled-compression fluorocarbon FKM	40MPFSY-CC- <sup>①</sup>
Controlled-compression platinum silicone	40RXPX-CC- <sup>①</sup>
Tabbed controlled-compression EPDM	40MPE-CC-__-TAB <sup>①</sup>
Tabbed controlled-compression fluorocarbon FKM	40MPFSY-CC-__-TAB <sup>①</sup>
Tabbed controlled-compression platinum silicone	40RXPX-CC-__-TAB <sup>①</sup>
Orifice Plate Gasket	
Buna N	JC80N

<sup>①</sup> For 1/2 and 3/4 in. sizes, replace **40** with **42**.

Example: **A42MPGR50E**

## Sanitary Fittings

See these Swagelok catalogs for more information:

- *Biopharm Fittings for the Bioprocessing and Pharmaceutical Industries—BPE Series, MS-03-02*



- *Biopharm Fittings for the Bioprocessing and Pharmaceutical Industries—TS Series, MS-03-13*



- *Stainless Steel Fittings for the Sanitary Industries, MS-03-05*



### Safe Product Selection

**When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.**

## Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit [swagelok.com](http://swagelok.com) or contact your authorized Swagelok representative.

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