

# Valve Fittings

BSG, BHG, LSH, PIF, VFS and ICS Series



**FITOK**

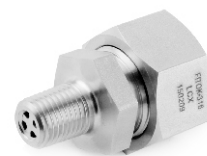
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# Vented Cap Body Grease Fittings

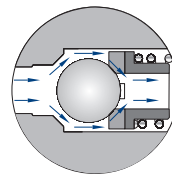
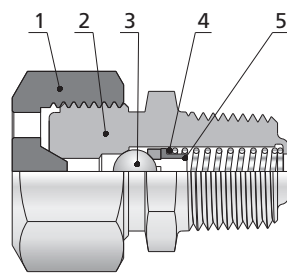
## BSG Series

### Features

- ⦿ Maximum working pressure: 10,000 psig (690 bar)
- ⦿ All-metal construction, applicable in both high and low temperature environments
- ⦿ Materials compliant with NACE MR0175 in sour gas service optional

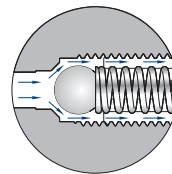
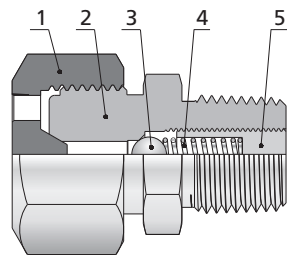
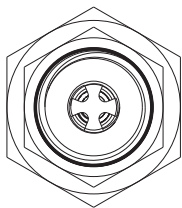
### Standard Materials of Construction

#### Positive Flow



When the ball is off the body, the lubricant or sealant shall flow through the center of the spring, without flowing through the spring coil, reducing the tendency to "pack-off".

#### Free Flow

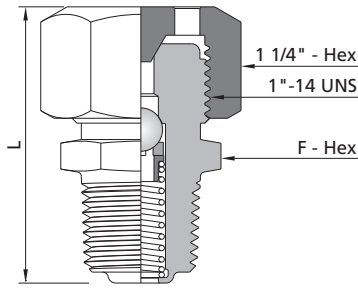


When the ball is off the body, the lubricant or sealant shall flow around the spring and through the opening on the sides of the retainer, to allow increased flow rates.

| No. | Component | Material Grade/ASTM Specification |
|-----|-----------|-----------------------------------|
| 1   | Vent Cap  | 316 SS/A479                       |
| 2   | Body      | 316 SS/A479                       |
| 3   | Ball      | 440C/A276                         |
| 4   | Spring    | Alloy X-750/AMS 5699              |
| 5   | Retainer  | 316 SS/A479                       |

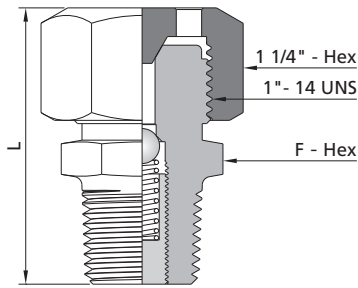
## Dimensions

### Positive Flow



| NPT Male Thread       |                          |                    |            |
|-----------------------|--------------------------|--------------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |
|                       |                          | L                  | F          |
| □□-BSG-NS4-PF         | 1/4" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BSG-NS6-PF         | 3/8" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BSG-NS8-PF         | 1/2" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BSG-NS12-PF        | 3/4" NPT Male Thread     | 1.97(50.1)         | 1.13(28.6) |
| □□-BSG-NS16-PF        | 1" NPT Male Thread       | 2.36(60.0)         | 1.31(33.3) |

### Free Flow



| NPT Male Thread       |                          |                    |            |
|-----------------------|--------------------------|--------------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |
|                       |                          | L                  | F          |
| □□-BSG-NS4-FF         | 1/4" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BSG-NS6-FF         | 3/8" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BSG-NS8-FF         | 1/2" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BSG-NS12-FF        | 3/4" NPT Male Thread     | 1.97(50.1)         | 1.13(28.6) |
| □□-BSG-NS16-FF        | 1" NPT Male Thread       | 2.17(55.0)         | 1.31(33.3) |

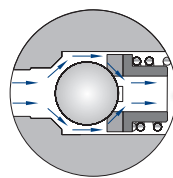
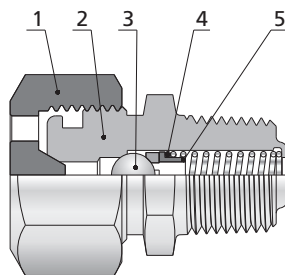
## BHG Series

### Features

- ◎ Maximum working pressure: 10,000 psig (690 bar)
- ◎ Giant button head design offers the flexibility of connecting to the fittings in both Slip-On or Thread-On methods
- ◎ All-metal construction, applicable in both high-temperature and low-temperature environments
- ◎ Materials compliant with NACE MR0175 in sour gas service optional

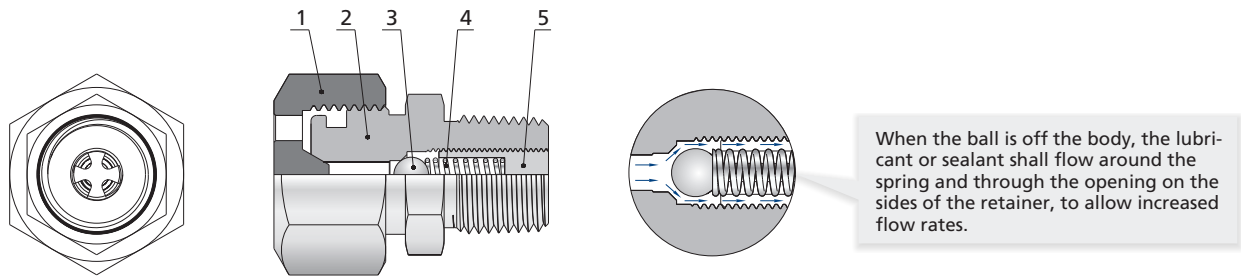
### Standard Materials of Construction

#### Positive Flow



When the ball is off the body, the lubricant or sealant shall flow through the center of the spring, without flowing through the spring coil, reducing the tendency to "pack-off".

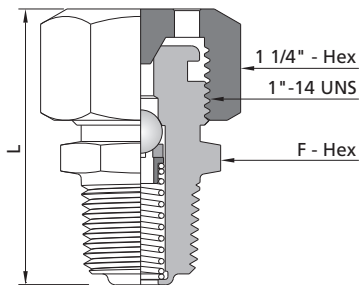
Free Flow



| No. | Component    | Material Grade/ASTM Specification |
|-----|--------------|-----------------------------------|
| 1   | Vent Cap     | 316 SS/A479                       |
| 2   | Body         | 316 SS/A479                       |
| 3   | Ball         | 440C/A276                         |
| 4   | Ball Support | 316 SS/A479                       |
| 5   | Spring       | Alloy X-750/AMS 5699              |

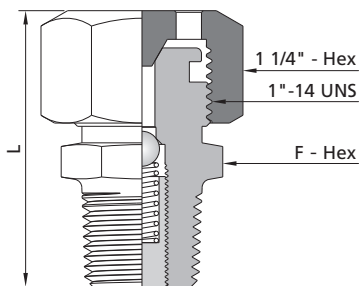
Dimensions

Positive Flow



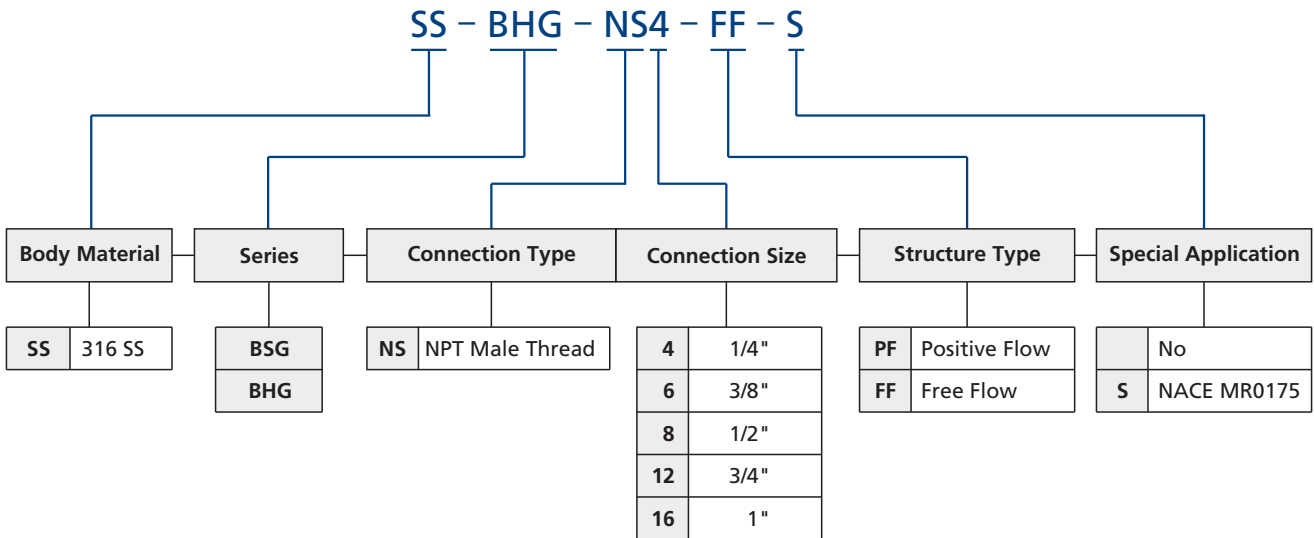
| NPT Male Thread       |                          |                    |            |
|-----------------------|--------------------------|--------------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |
|                       |                          | L                  | F          |
| □□-BHG-NS4-PF         | 1/4" NPT Male Thread     | 1.91(48.6)         | 1.00(25.4) |
| □□-BHG-NS6-PF         | 3/8" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BHG-NS8-PF         | 1/2" NPT Male Thread     | 1.97(50.1)         | 1.00(25.4) |
| □□-BHG-NS12-PF        | 3/4" NPT Male Thread     | 1.97(50.1)         | 1.13(28.6) |
| □□-BHG-NS16-PF        | 1" NPT Male Thread       | 2.36(60.0)         | 1.31(33.3) |

Free Flow



| NPT Male Thread       |                          |                    |            |
|-----------------------|--------------------------|--------------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |
|                       |                          | L                  | F          |
| □□-BHG-NS4-FF         | 1/4" NPT Male Thread     | 1.91(48.6)         | 1.00(25.4) |
| □□-BHG-NS6-FF         | 3/8" NPT Male Thread     | 1.95(49.6)         | 1.00(25.4) |
| □□-BHG-NS8-FF         | 1/2" NPT Male Thread     | 1.97(50.1)         | 1.00(25.4) |
| □□-BHG-NS12-FF        | 3/4" NPT Male Thread     | 1.97(50.1)         | 1.13(28.6) |
| □□-BHG-NS16-FF        | 1" NPT Male Thread       | 2.17(55.0)         | 1.31(33.3) |

## Ordering Number Description



Note: "Ordering Number Description" is a reference to the alpha-numeric combinations that make-up FITOK product part numbers. Not all available combinations are listed.

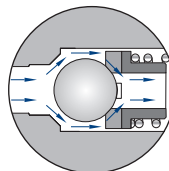
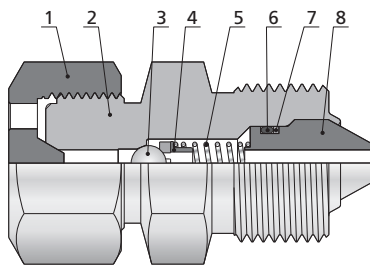
# High Pressure Lubrication and Sealant Fittings

## LSH Series

### Features

- ⦿ Maximum working pressure: 20,000 psig (1379 bar)
- ⦿ Floating style design to prevent galling

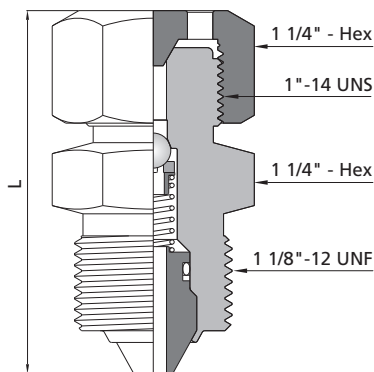
### Standard Materials of Construction



When the ball is off the body, the lubricant or sealant shall flow through the center of the spring, without flowing through the spring coil, reducing the tendency to "pack-off".

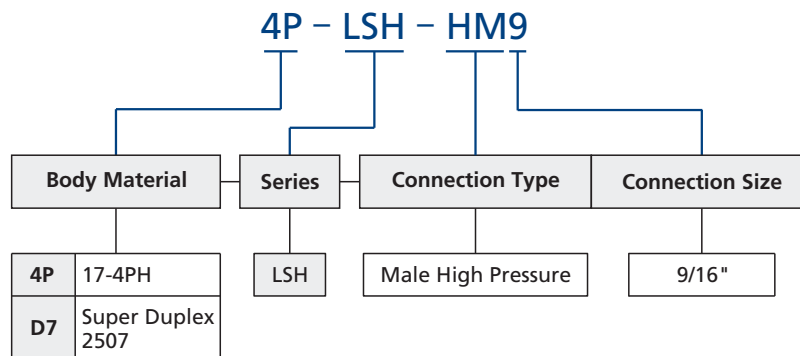
| No. | Component     | Body Material                     |                      |
|-----|---------------|-----------------------------------|----------------------|
|     |               | 17-4PH                            | Super Duplex 2507    |
|     |               | Material Grade/ASTM Specification |                      |
| 1   | Vent Cap      | 316SS/A479                        | S32750/A479          |
| 2   | Body          | S17400/A564                       | S32750/A479          |
| 3   | Ball          | Tungsten Carbide                  | Tungsten Carbide     |
| 4   | Ball Support  | S17400/A564                       | S32750/A479          |
| 5   | Spring        | Alloy X-750/AMS 5699              | Alloy X-750/AMS 5699 |
| 6   | O-ring        | FKM                               | FKM                  |
| 7   | Backup Ring   | PTFE/D1710                        | PTFE/D1710           |
| 8   | Floating Cone | 316SS/A479                        | S32750/A479          |

## Dimensions



| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |
|-----------------------|--------------------------|--------------------|
|                       |                          | L                  |
| □□-LSH-HM9            | 9/16" Male High Pressure | 2.59(65.8)         |

## Ordering Number Description



Note: "Ordering Number Description" is a reference to the alpha-numeric combinations that make-up FITOK product part numbers. Not all available combinations are listed.

# Packing Injection Fittings

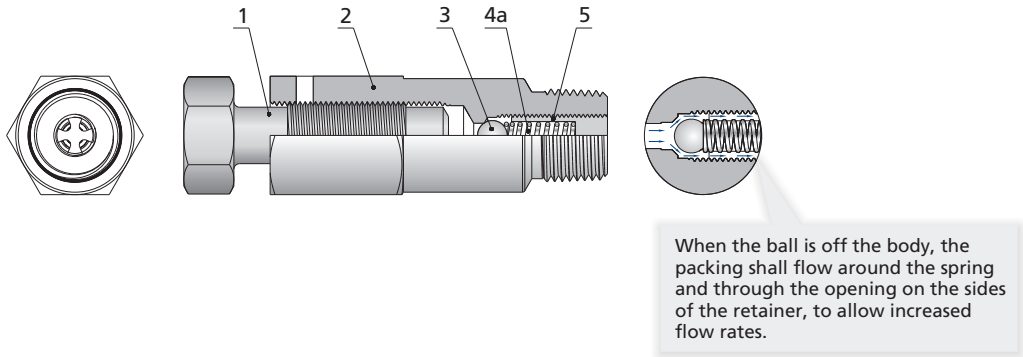
## PIF Series

### Features

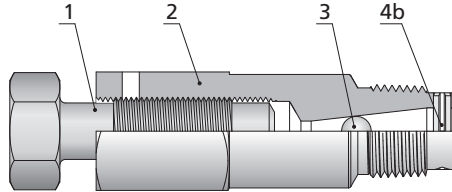
- Maximum working pressure: 10,000 psig (690 bar)
- All-metal construction, applicable in both high and low temperature environments
- Materials compliant with NACE MR0175 in sour gas service optional

### Standard Materials of Construction

#### Free Flow



#### Floating Ball-Taper Cavity

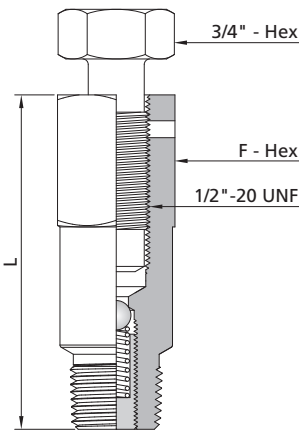


| No. | Component        | Material Grade/ASTM Specification |
|-----|------------------|-----------------------------------|
| 1   | Screw            | 316 SS/A479                       |
| 2   | Body             | 316 SS/A479                       |
| 3   | Ball             | 440C/A276                         |
| 4a  | Spring           | Alloy X-750/AMS 5699              |
| 4b  | Spring Round Pin | Stainless Steel                   |
| 5   | Retainer         | 316 SS/A479                       |



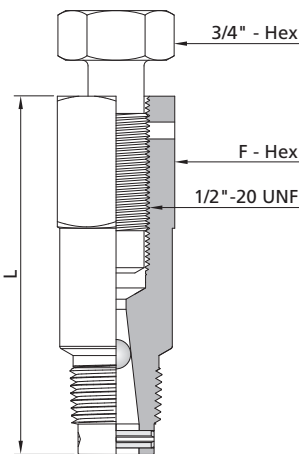
## Dimensions

### Free Flow



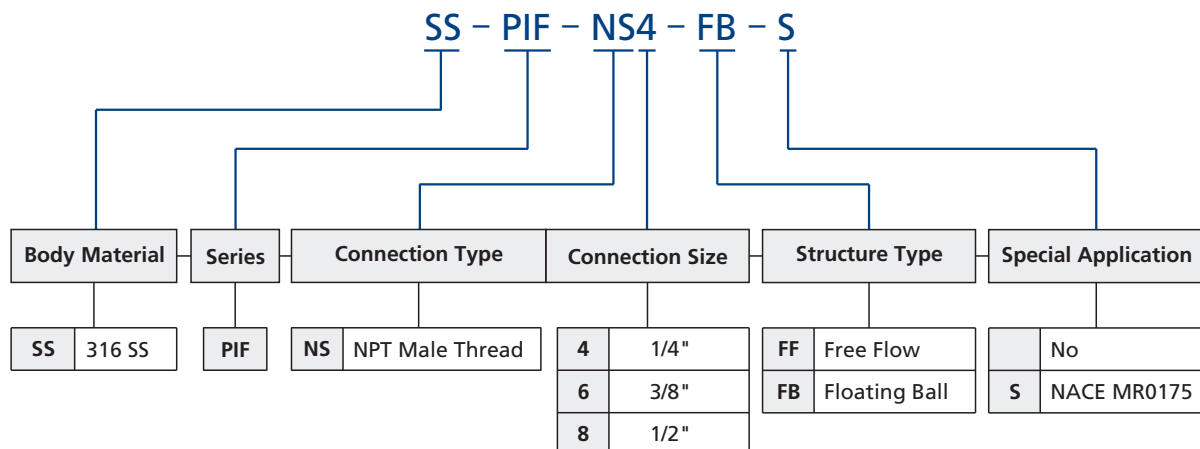
| NPT Male Thread       |                          |                    |            |
|-----------------------|--------------------------|--------------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |
|                       |                          | L                  | F          |
| □□-PIF-NS4-FF         | 1/4" NPT Male Thread     | 2.49(63.3)         | 0.88(22.2) |
| □□-PIF-NS6-FF         | 3/8" NPT Male Thread     | 2.49(63.3)         | 0.88(22.2) |
| □□-PIF-NS8-FF         | 1/2" NPT Male Thread     | 2.49(63.3)         | 0.88(22.2) |

### Floating Ball-Taper Cavity



| NPT Male Thread       |                          |                    |            |
|-----------------------|--------------------------|--------------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |
|                       |                          | L                  | F          |
| □□-PIF-NS4-FB         | 1/4" NPT Male Thread     | 2.34(59.5)         | 0.86(22.2) |
| □□-PIF-NS6-FB         | 3/8" NPT Male Thread     | 2.43(61.8)         | 0.86(22.2) |
| □□-PIF-NS8-FB         | 1/2" NPT Male Thread     | 2.35(59.8)         | 0.86(22.2) |

## Ordering Number Description



Note: "Ordering Number Description" is a reference to the alpha-numeric combinations that make-up FITOK product part numbers. Not all available combinations are listed.

# Body Vent Bleeder Fittings

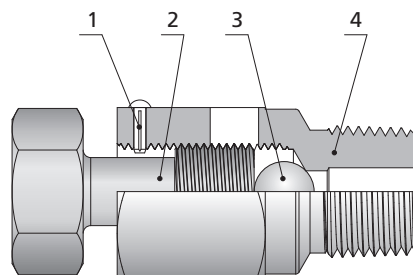
## VFS Series

### Features

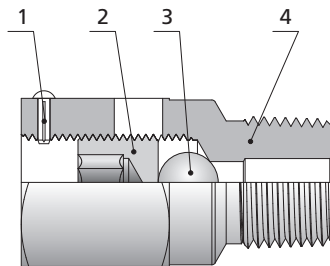
- ◎ Maximum working pressure: 10,000 psig (690 bar)
- ◎ All-metal construction, applicable in both high and low temperature environments
- ◎ Materials compliant with NACE MR0175 in sour gas service optional

### Standard Materials of Construction

#### Standard Hex



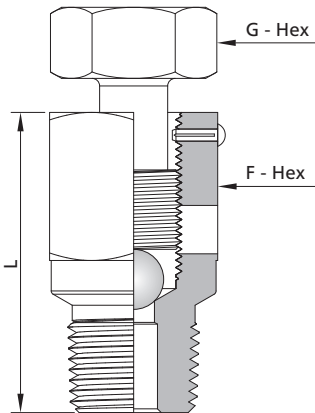
#### Sunk Screw



| No. | Component              | Material Grade/ASTM Specification |
|-----|------------------------|-----------------------------------|
| 1   | Round Head Grooved Pin | 316 SS/A479                       |
| 2   | Screw                  | 316 SS/A479                       |
| 3   | Ball                   | 440C/A276                         |
| 4   | Body                   | 316 SS/A479                       |

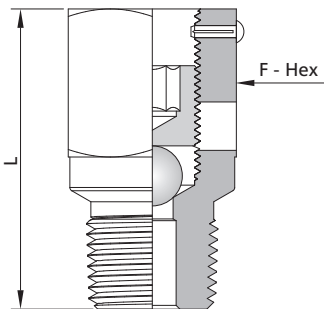
## Dimensions

### Standard Hex



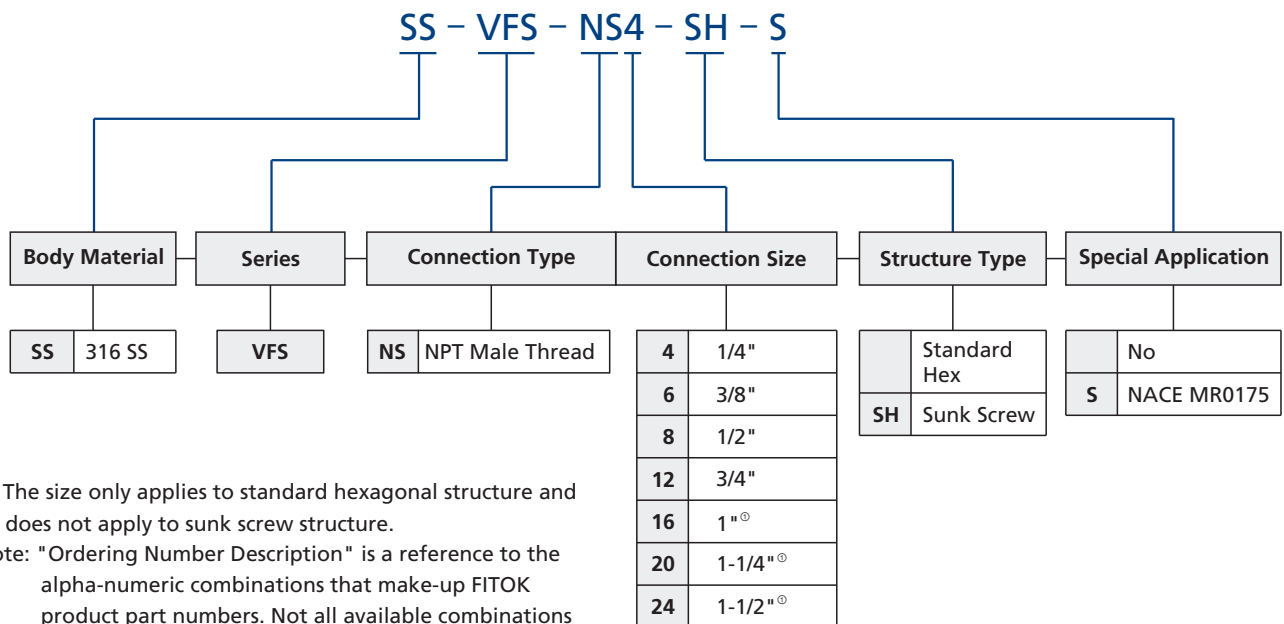
| NPT Male Thread       |                          |                    |            |            |
|-----------------------|--------------------------|--------------------|------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |            |
|                       |                          | L                  | F          | G          |
| □□-VFS-NS4            | 1/4" NPT Male Thread     | 1.63(41.3)         | 0.88(22.2) | 0.75(19.1) |
| □□-VFS-NS6            | 3/8" NPT Male Thread     | 1.56(39.7)         | 0.88(22.2) | 0.75(19.1) |
| □□-VFS-NS8            | 1/2" NPT Male Thread     | 1.50(38.1)         | 0.88(22.2) | 0.75(19.1) |
| □□-VFS-NS12           | 3/4" NPT Male Thread     | 1.63(41.3)         | 1.13(28.6) | 0.75(19.1) |
| □□-VFS-NS16           | 1" NPT Male Thread       | 2.19(55.6)         | 1.31(33.3) | 0.81(20.6) |
| □□-VFS-NS20           | 1 1/4" NPT Male Thread   | 2.31(58.7)         | 1.75(44.5) | 0.88(22.2) |
| □□-VFS-NS24           | 1 1/2" NPT Male Thread   | 2.63(66.7)         | 2.00(50.8) | 0.88(22.2) |

### Sunk Screw



| NPT Male Thread       |                          |                    |            |
|-----------------------|--------------------------|--------------------|------------|
| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |            |
|                       |                          | L                  | F          |
| □□-VFS-NS4-SH         | 1/4" NPT Male Thread     | 1.63(41.3)         | 0.88(22.2) |
| □□-VFS-NS6-SH         | 3/8" NPT Male Thread     | 1.56(39.7)         | 0.88(22.2) |
| □□-VFS-NS8-SH         | 1/2" NPT Male Thread     | 1.50(38.1)         | 0.88(22.2) |
| □□-VFS-NS12-SH        | 3/4" NPT Male Thread     | 1.63(41.3)         | 1.13(28.6) |

## Ordering Number Description



① The size only applies to standard hexagonal structure and does not apply to sunk screw structure.

Note: "Ordering Number Description" is a reference to the alpha-numeric combinations that make-up FITOK product part numbers. Not all available combinations are listed.

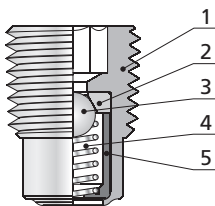
# Internal Check Fittings

## ICS Series

### Features

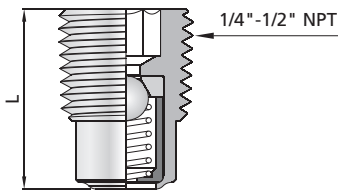
- Maximum working pressure: 10,000 psig (690 bar)
- Soft seat design ensures reliable sealing performance
- Materials compliant with NACE MR0175 in sour gas service optional

### Standard Materials of Construction



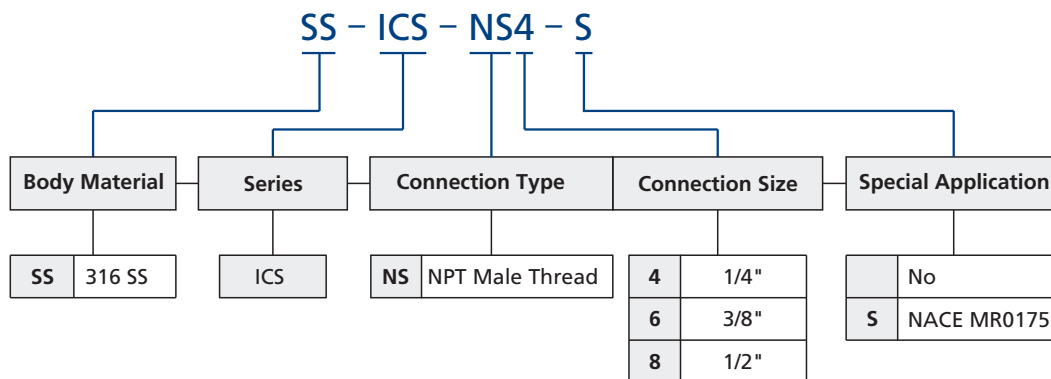
| No. | Component | Material Grade/ASTM Specification |
|-----|-----------|-----------------------------------|
| 1   | Body      | 316 SS/A479                       |
| 2   | Soft Seat | PTFE                              |
| 3   | Ball      | 440C/A276                         |
| 4   | Spring    | Alloy X-750/AMS 5699              |
| 5   | Retainer  | 316 SS/A479                       |

### Dimensions



| Basic Ordering Number | Connection Type and Size | Dimension, in.(mm) |
|-----------------------|--------------------------|--------------------|
|                       |                          | L                  |
| □□-ICS-NS4            | 1/4" NPT Male Thread     | 0.75(19.1)         |
| □□-ICS-NS6            | 3/8" NPT Male Thread     | 0.87(22.2)         |
| □□-ICS-NS8            | 1/2" NPT Male Thread     | 0.94(23.8)         |

### Ordering Number Description



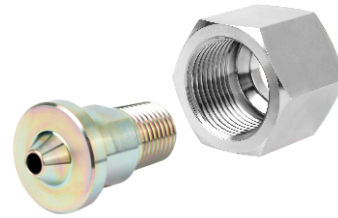
Note: "Ordering Number Description" is a reference to the alpha-numeric combinations that make-up FITOK product part numbers. Not all available combinations are listed.

# Fittings Accessories

## Grease Gun Lube Adapter

### Features

- Adapts to grease gun via 1/4" NPT male threads



### Ordering Information

| Ordering Number | Swivel                            | Nut         | Nut Thread Size |
|-----------------|-----------------------------------|-------------|-----------------|
|                 | Material Grade/ASTM Specification |             |                 |
| GLASS-16        | 4140/A29                          | 316 SS/A479 | 1" - 14 UNS     |
| GLAC41-16       |                                   | 4140/A29    |                 |

## Pressure Relief Tools

### Features

- For service up to 10,000 psig
- For 1" - 14 UNS vented cap fittings



### Ordering Information

| Ordering Number | Material Grade/ASTM Specification | Thread Size | Vent Port |
|-----------------|-----------------------------------|-------------|-----------|
| PRTSS-16        | 316 SS/A479                       | 1" - 14 UNS | 1/2" NPT  |

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[www.fitok.com](http://www.fitok.com)

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