

# Quick Disconnect Couplings & Hydraulic Valves





## Performance without Compromise on a Global Scale

Since 1935, the Quick Disconnect and Valve Division of Snap-tite Inc., has offered more combinations, sizes, and types of quick disconnect couplings than any other manufacturer in the world today.

Hundreds of markets and industries depend on our couplings' ability to perform under the most demanding conditions.

From the ocean floor to the very edges of our solar system, and everywhere in between,

Snap-tite quick disconnects set the industry standard.

Our strength is providing expert solutions matched to the needs of each customer... highly consistent quality in exactly the right product, delivered on time, at the right price.

Performance without compromise is Snap-tite's promise. It means doing whatever it takes to make your business more profitable. It's a commitment our people make every day.

### **PRODUCT TYPES:**

#### ***Drybreak Coupling***

***Drybreak:*** A term given to a sliding sleeve style hydraulic quick disconnect with features that include an ability to connect with virtually no air inclusion or disconnect with little or no spillage. Also commonly referred to as Non-Spill, Flat Face, and Clean Break.

#### ***Poppet Style Coupling***

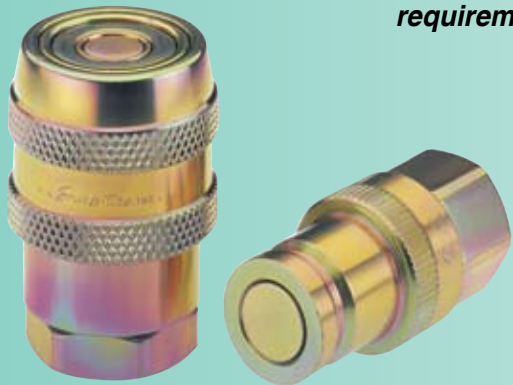
***Poppet:*** Refers to the type of valve used to stop fluids from flowing when the two mating parts of a quick disconnect are separated. Chosen for its simplicity in both function and manufacturability, the poppet style quick disconnect is the most common type available today.





## 71 series

**Applications:** *Hydraulic, chemical service, ideal for test stands and applications where endurance and cleanliness is a requirement.*



- Ball-locking, push-to-connect construction
- Flush face design allows for easier contaminant inspection and cleaning
- Flush valve virtually eliminates fluid loss and air inclusion
- Dirt tolerant, heavy duty construction withstands abusive treatment
- Superior flow characteristics and low pressure drop
- Det Norske Veritas approved
- Plated steel or 316 stainless steel construction<sup>†</sup>
- Working pressures to 10,000 psi (690 bar)
- Sizes from 1/8" to 2"

## 74 series

**Applications:** *Construction & mobile equipment, hydraulic hand tools, in-plant hydraulics – anywhere a drybreak is required for cleanliness or where thermal expansion exists.*



- Meets requirements of ISO 16028 specification
- Connect under pressure capability available
- 3/8" size also meets or exceeds the requirements of HTMA ANSI/NFPA T3.20.15-1991
- Ball-locking design with push-to-connect feature
- Minimal air inclusion and spillage
- Plated steel construction<sup>†</sup>
- Working pressures to 4,600 psi (317 bar)
- Sizes 1/4" to 1" (6.3 mm to 25 mm)

## 23 series

**Applications:** *Mobile equipment, hydraulic tools, in-plant hydraulics, restaurant equipment, and fluid reclamation equipment.*



- General purpose drybreak coupling
- Ball-locking design with push-to-connect feature
- Safety sleeve-lock as standard
- Connects against static pressures up to 200 psi (14 bar)
- Plated steel construction<sup>†</sup>
- Working pressures to 3,000 psi (207 bar)
- Sizes are 3/8" and 1/2"



## 78 series

**Applications:** *Oil well equipment, sand and salt spreaders, dump and demolition trailers, live bed trailers and other heavy duty applications.*



- Heavy duty wing nut or hex nut for easy connection of threaded units
- Interchangeable with Aeroquip FD51 and others
- Minimal spillage and air inclusion
- Bonded valve seal permits connecting and disconnecting without seal washout
- Brass construction
- Working pressures to 3,000 psi (207 bar)
- Sizes 3/4" to 1-1/2"

## 28-1 series

**Applications:** *Low pressure hydraulic systems, high purity systems, fuel systems, electronic coolant and high reliability systems.*



- Lightweight drybreak coupling
- Compact ball-lock design with push-to-connect feature
- Color coded lock indicator
- Performance meets or exceeds MIL-C-7413B and MIL-C-25427A specifications
- Aluminum or 316 stainless steel construction
- Working pressures to 1000 psi (69 bar)
- Sizes 1/4" to 2"

## 29 series

**Applications:** *High reliability military, aerospace, and medical applications as well as chemicals and other corrosive materials.*



- Ball-lock design with push-to-connect feature
- Lower air inclusion, spillage, and pressure drop than required by MIL-C-25427A specifications
- Performance meets or exceeds MIL-C-7413B specifications
- Aluminum or 316 stainless steel construction
- Working pressures to 5,500 psi (379 bar)
- Sizes 1/8" to 1-1/4"



# Drybreak

## 77 series

**Applications:** Hydraulic circuits, test stands, and Hydrotesting for offshore drilling and production platforms.



- Superior flow characteristics
- Internal safety sleeve-lock prevents accidental disconnection
- Heavy duty construction
- Proven dog-lock mechanism provides safe, positive connection
- Various end fittings available including Autoclave end connections
- Plated steel or stainless steel construction†
- Working pressures to 36,000 psi (2483 bar)
- Sizes 1/4" (6mm)

## Subsea Couplings

Snap-tite has designed and manufactured couplings for the Offshore Oil and Gas industry for use in a variety of applications from blowout preventors to the control modules, and distribution of chemical coolants and hydraulic fluids.



These include mono couplings (manual operation), diver mateable thread-to-connect couplings equipped with handles, complete panel assemblies, protective covers, and keyed (polarized) mono couplings to prevent cross media connections.

- Working pressures to 40,000 psi (2760 bar)
- Connect & disconnect at full operating pressure
- Available with elastomer or "PEEK" seals
- Minimum spillage and water ingress
- Balanced designs to reduce separation forces
- Fabricated from corrosion resistant metals suitable for subsea applications

## Design Versatility

Snap-tite thrives on application problem solving and design versatility. We can handle your application needs using either standard products, a modification of standard product or designing a special product to meet your requirements.

- Control drawings
- Tailored to meet specific needs
- Poppet valve designs
- Special acceptance testing
- Quality control procedures to meet your requirements
- Material, end fittings, sizes & pressures to suit the needs of your application
- Serialization
- Drybreak designs
- Balanced design



†Conforms with ROHS and WEEE European Union Directives



## H, IH, PH series

**Applications:** General purpose, plastic molding, machine tool, test equipment, agricultural, Department of Transportation, mobile hydraulics.



- Traditional ball-locking two-piece construction allows end fitting versatility
- Lowest pressure drop for size
- Smallest envelope size for size
- Det Norske Veritas approved
- Smooth jet stream valve design
- **IH Option** for reciprocating, pulsating and rotary motion air tools (single shut-off combination)
- **PH Option** for connection against static hydraulic pressure (one side only)
- Plated steel, brass, aluminum or 316 stainless steel construction<sup>†</sup>
- Working pressures to 11,000 psi (759 bar)
- Sizes: **H** 1/4" – 6", **IH** 1/4" – 3/4", **PH** 3/8" – 1"
- Double and single shut-off, or straight through combination

## E, EA series

**Applications:** Vacuum pumps, autoclaves, steam applications, hydraulic return lines, gravity flows.



- Excellent high temperature sealing
- For hard vacuums down to 29.72" Hg
- Smooth jet stream valve design
- Ball-locking two piece construction allows for end fitting versatility
- Plated steel, brass, aluminum, or 316 stainless steel construction<sup>†</sup>
- Working pressures to 3,000 psi (207 bar)
- Sizes: **EA** 1/4" – 3/4", **E** 1" – 4"
- Double and single shut-off, or straight through combination



## 72 series

**Applications:** *General purpose, plastic molding, machine tool, test equipment, Department of Transportation, mobile hydraulics*



- Interchangeable with other standard ISO 7241-1 Series B couplings
- Proven ball-lock mechanism for positive connection
- Meets or exceeds ISO 7241-1 Series B performance
- Exceeds pressure and flow characteristics of competition
- Plated steel, brass, 303 or 316 stainless steel construction<sup>†</sup>
- Working pressures to 7,500 psi (517 bar)
- Sizes 1/8" - 1"
- Double shut-off

## 76 series

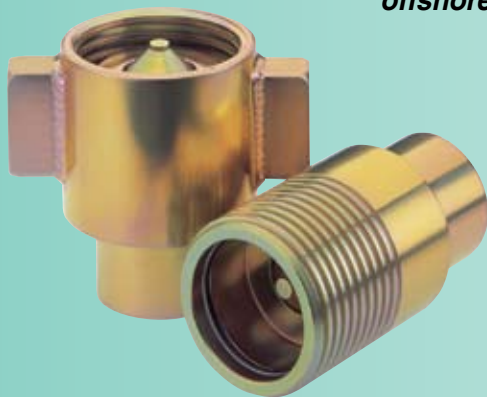
**Applications:** *Hydraulic tools and rescue equipment.*



- Interchangeable with Parker 3000 Series and others
- Zero leak soft seat poppet valves
- Exceeds flow and pressure characteristics of competitors ball designs
- Thread-to-connect sleeve accommodates hand or wrench connection
- Rugged plated steel construction<sup>†</sup>
- Connect under pressure capability
- Working pressure 14,500 psi (1,000 bar)
- 1/4" & 3/8" size
- Double shut-off

## 75 series

**Applications:** *Rugged hydraulic applications...oil fields, offshore drilling, cranes, power tools.*



- Acme thread-to-connect design
- High flow capacity
- Low pressure drop
- Connect under pressure up to 3,000 psi (207 bar)
- Det Norske Veritas approved
- Plated steel or 316 stainless steel construction<sup>†</sup>
- Working pressures to 5,000 psi (345 bar)
- Sizes 3/4" - 4"
- Double shut-off



## 60 series

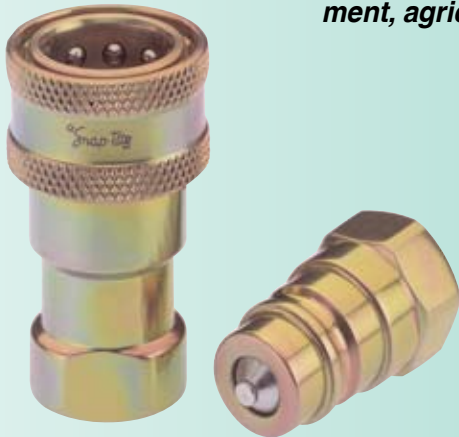
**Applications:** *Snow plows, agriculture, forestry, construction equipment, oil tools, steel mills.*



- Interchangeable with Parker 4000 Series and others
- Proven ball-lock mechanism for positive connection
- Superior pressure and flow characteristics
- Choice of seal materials to handle a variety of fluids
- Plated steel construction<sup>†</sup>
- Working pressure to 3,000 psi (207 bar)
- Sizes 1/4" & 3/8"
- Double shut-off

## 61 series

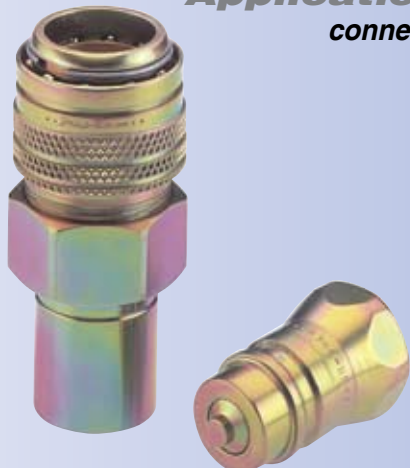
**Applications:** *General purpose, plastic molding, machine tool, test equipment, agriculture, Department of Transportation, mobile hydraulics.*



- Dimension and performance requirements conform to ISO 7241-1 Series A
- Dimension requirements conform to ISO 5675
- Proven ball-lock mechanism for positive connection
- Connects with other competitive ISO 7241-1 Series A couplings
- Superior pressure and flow characteristics
- Plated steel construction<sup>†</sup>
- Working pressures to 4,600 psi (317 bar)
- Sizes 1/4" - 1"
- Double shut-off

## 68 & 63 series

**Applications:** *Mobile equipment requiring bracket mounting and connect/disconnect under pressure capability.*



- Coupler is push-to-connect and capable of breakaway under pressure when bracket mounted
- Interchangeable with other 1/2" standard ISO 7241-1 Series A couplings
- Nipple conforms to dimensional and performance requirements of ISO 5675
- Shielded valve in 63N8 nipple prevents reverse flow checking
- Heavy duty plated steel construction<sup>†</sup>
- Working pressures to 3,000 psi (207 bar)
- 1/2" size
- Double shut-off



## K series

**Applications:** *Used with a wide variety of chemicals and cryogenic fluids. For frozen food processing, liquid nitrogen and fueling applications.*



- Pressure capability to 1,000 psi (69 bar)
- Sizes 3/8" – 2"
- Temperature range of -400° to 400°F (-240° to 205°C)
- Kel F® or Teflon® seals available
- Stainless steel or optional exotic alloy construction
- Valve configurations - available with double or single shut-off valving or straight through as required

## 25 series

**Applications:** *Aromatic hydrocarbons, esters, ketones, ethers, strong caustics, sulfuric acid, hydrofluoric acid and many other highly corrosive materials as well as cryogenic service.*



- Teflon or Kel F seals
- Minimal pressure drop
- Tubular valve design
- Dependable ball-locking operation
- Optional sleeve lock aids in preventing accidental disconnection
- 316 stainless steel construction
- Working pressure to 1,000 psi (69 bar)
- Sizes 1/4" – 1/2"
- Double shutoff or straight through

## GF series

**Applications:** *For plug-in convenience for all gas grills, ovens, small appliances and caster-mounted restaurant equipment.*



- Certified by Canadian Standards Association (CSA) formerly known as American Gas Association and Canadian Gas Association (IAS) - Specification ANSI Z21.41
- Permits easy movement of caster mounted appliances
- Thermal shut-off for safety
- Ball-locking mechanism
- Brass construction
- Working pressure to 0.5 psi (0.04 bar)
- Sizes 1/4" – 1-1/4"
- Single shut-off



## 73 series

**Applications:** *Water jetting, water blasting systems.*



- Heavy duty construction
- Positive locking collar prevents accidental disconnection
- Various end fittings available including Autoclave end connections
- Proven ball-locking mechanism provides positive connection
- Stainless steel construction
- Working pressures to 43,500 psi (3000 bar)
- 1/4" (6mm) size
- Double shut-off or straight through

## 56 series

**Applications:** *Rugged, high pressure equipment used for removal of mill scale or paint, cleaning of maritime vessels and equipment.*



- Proven dog-lock mechanism provides safe, positive connection & eliminates ball brinnelling
- Safety sleeve lock protects against accidental disconnection
- Interchangeable with Parker WB and Aeroquip FD69 Series
- High strength plated steel construction<sup>†</sup>
- Working pressures to 12,000 psi (828 bar) with 4:1 safety factor
- 1/2" size
- Straight through configuration



# NGV Fueling Products

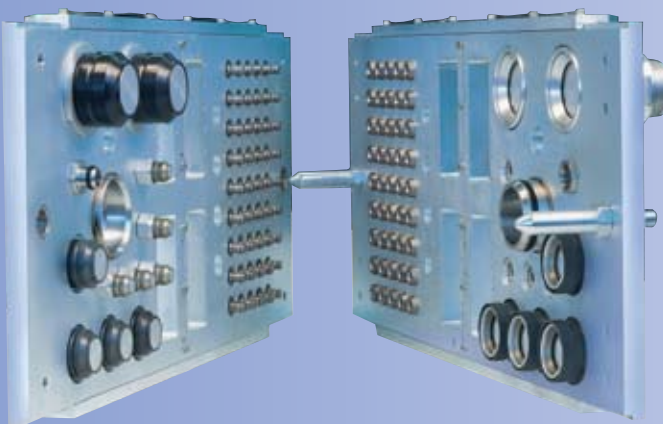


*Snap-tite continues to introduce to the CNG industry the latest innovative designs including our newest release, the Dispenser Hose Breakaway, which helps to protect the CNG dispenser and the vehicle in the event of a drive-away. Snap-tite is also an AGA/CGA NGV-1 supplier of certified Receptacles, Nozzles and Check Valves.*

- Balanced design of dispenser hose breakaway maintains a positive connection until a breakaway cycle is initiated
- Breakaway nipple is equipped with a durable polyethylene bumper to protect the nipple form in the event of a breakaway
- Rugged, corrosion resistant construction of all CNG products
- Patented safety feature in nozzle prevents disconnection while pressurized at 350 psi (24 bar) or higher
- Superior poppet check valve design enhances flow characteristics

## Multi-coupling Panels

**Applications:** Any application requiring the connection of more than one coupling, machine tools, automotive, plastic injection molding, aircraft engine testing, offshore drilling, and test stands.



- Prevents cross connection of circuits and improves labor efficiencies
- Automatic or manual locking designs to meet your individualized requirements
- All coupling sizes (1/8" - 4") can be utilized
- Panel designed to meet your specific envelope and environmental requirements
- Couplings available in high strength steel, aluminum, and stainless steel
- All valving options available; dry-break, balanced dry-break, poppet in double, single and straight-through plus electrical connections as desired
- Working pressures to 40,000 psi (2759 bar)



# Hydraulic Check Valves

## 6C & 3C series

**Applications:** Industrial, mobile and construction equipment.



- Soft seat, zero leakage poppet check valve
- Two piece construction allows for a variety of end fittings
- Various crack pressures
- Flow rates to 175 US gpm (622 l/min)
- Plated steel, 316 stainless steel or brass construction<sup>†</sup>
- Working pressures to 6,000 psi (414 bar)
- Sizes 1/4" - 2"

## CPIFF series

**Applications:** Industrial, mobile and construction equipment.



- Soft seat, zero leakage poppet check valve style
- Various crack pressure
- Compact one piece construction
- Flow rates to 30 US gpm (115 l/min)
- Plated steel or brass construction<sup>†</sup>
- Working pressures to 5,000 psi (345 bar)
- Sizes 1/4" - 1"

## CPC, CAC, CAV, CAD series

**Applications:** Industrial, mobile and construction load holding equipment.



- Cartridge, pilot, and dual pilot check valves
- Soft seat design
- 4:1 pilot ratio
- Various crack pressures
- Self-dampening action
- Flow rates to 50 US gpm (189 l/min)
- Plated steel cartridges, anodized aluminum blocks<sup>†</sup>
- Working pressures to 5,000 psi (345 bar)
- Sizes 1/4" - 1"



# Hydraulic Control Valves

## FRI series

**Applications:** *Actuator speed control - industrial and mobile.*



- Fixed flow control valve provides an economical means of assuring accurate, pressure compensated, flow regulation to actuators at a predetermined flow rate
- Free reverse flow feature
- Flow capability to 30 US gpm (115 l/min) with a wide range of flow settings available
- Tamper proof settings maintain system integrity
- Plated steel construction†
- Working pressures to 5,000 psi (345 bar)
- Sizes 1/4" to 1"

## FRIA series

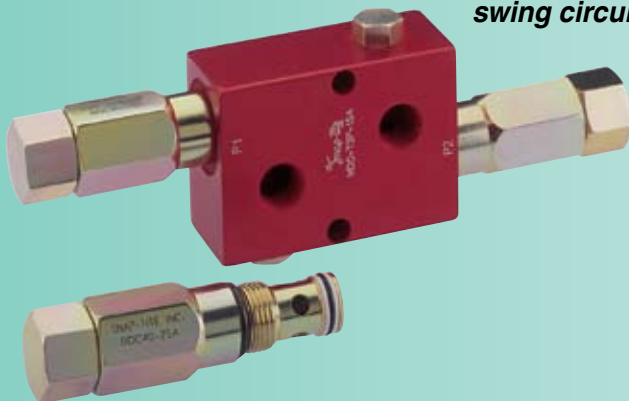
**Applications:** *Industrial and Mobile Actuator speed control.*



- Adjustable flow control valve provides accurate, consistent control of hydraulic motor and cylinder actuation speeds
- Pressure compensated design
- Free reverse flow feature
- Flow rate is fully adjustable under pressure
- Fingertip adjustment and locking
- Stainless steel adjustment assembly available
- Adjustable flows to 30 US gpm (115 l/min)
- Plated steel construction†
- Working pressures to 5,000 psi (345 bar)
- Sizes 1/4" - 1"

## RDC, RDV, MCD, MDD series

**Applications:** *System pressure protection on fixed and variable pump systems, dynamic braking on fluid motor systems or swing circuits on hydraulic cranes.*



- Differential pressure relief valve with fast operating action protects against pressure surges
- Few moving parts enhance reliability
- Flow rates to 40 US gpm (155 l/min)
- Plated steel cartridges and anodized aluminum blocks†
- Working pressures from 500 to 4,000 psi (35 to 276 bar)
- Sizes 3/8" to 1"



# Directional Control Valves

## Marstan

**Applications:** Directional control for test stands, accumulator circuits, high pressure clamping, and valve operators.



- Pressure loaded face seals create virtually zero internal leakage which actually improves over time
- NFPA 01 size subplate mounting permits use in retrofit applications
- Available with solenoid, manual or pneumatic operators
- Low actuating force
- Flow rates to 4 US gpm (15 l/min)
- Aluminum body, steel slide and seals
- Working pressures to 10,000 psi (690 bar)
- Subplates available with 1/4" connections

## Direc-Trol

**Applications:** Manual operation of actuators, lift gates, test stands, winches, steering circuits, offshore production controls and accumulator circuits.



- Long-life, anti-wear, metal to metal shear seal design
- Very low internal leakage enhances reliability
- Excellent metering characteristics
- Non-interflow option eliminates the need for load holding valves in most applications
- Flow rates to 83 US gpm (315 l/min)
- Aluminum, steel, 316 stainless steel or brass housings, steel internals
- Working pressures to 5,000 psi (345 bar)
- Sizes 1/4" to 1"





**Quick Disconnect & Valve Division**

201 Titusville Road • Union City, PA 16438-8699 USA • Phone: 814-438-3821 • Fax: 814-438-3069

*A leading manufacturer of high quality quick disconnect couplings since 1935, Snap-tite is the innovator of the drybreak quick disconnect as well as many other standard and special drybreak and poppet designs. The hydraulic valve program concentrates on providing new designs for special applications and original equipment manufacturers.*

**Autoclave Engineers Fluid Components Division**

8325 Hessinger Road • Erie, PA 16509-4679 USA • Phone: 814-860-5700 • Fax: 814-860-5811

*The worldwide expert in design and manufacture of high pressure valves, fittings & tubing since 1945. Our product is the ultimate choice in extreme pressure and temperature conditions.*



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*Snap-tite Hose consists of two manufacturing facilities in Union City and Erie, PA. Manufacturing hose under the names of Snap-tite, Ponn, and National Fire Hose, we have led the lay-flat hose industry since the 1970's and offer the most extensive line of water distribution valves and hardware.*



Industrial Estate • Whitemill - Wexford • Republic of Ireland • Phone: 353 53 914 1566 • Fax: 353 53 914 1582

*This division is the European operation for all of the Snap-tite products. A wide variety of product designs are manufactured at this facility. Snap-tite Europe provides engineering support for the European and Middle East markets.*



8325 Hessinger Road • Erie, PA 16509-4679 USA • Phone: 814-860-5700 • Fax: 814-860-5811

*Autoclave Engineers is the premier supplier of research equipment to laboratories worldwide. We have pioneered research by supplying equipment for production of materials for the semiconductor, textiles, optics, and aerospace industries.*





## ISO-9001 Certified

### **! WARNING !**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

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**Distributed By:**





# INDUSTRIAL DRY BREAK COUPLINGS 23 SERIES

*Featuring...*

**Snap-tite quality with superior pressure and flow characteristics over the competition**



- ***Rugged construction***
- ***High strength steel with Zinc Trivalent Chromate plating<sup>†</sup> for corrosion resistance***
- ***Push-to-connect ball-locking mechanism for positive connection***
- ***Sizes 3/8" & 1/2"***
- ***Safety sleeve lock as standard***
- ***Connects against static pressures to 200 psi (14 bar)***

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

**Snap-tite**

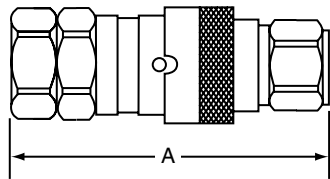
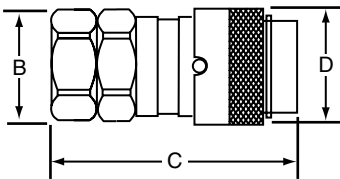
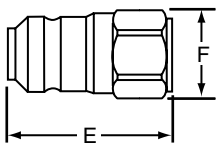
*Snap-tite's 23 Series is designed for demanding hydraulic applications. Typical applications include mobile equipment, hydraulic hand tools and in-plant hydraulics including test stands where a dry break is required for cleanliness. As protection against accidental disconnection, the 23 Series is equipped with a standard sleeve lock. The flush nipple valve aids in the prevention of system contamination by reducing the build up of dirt and grit.*



## PRESSURE RATINGS

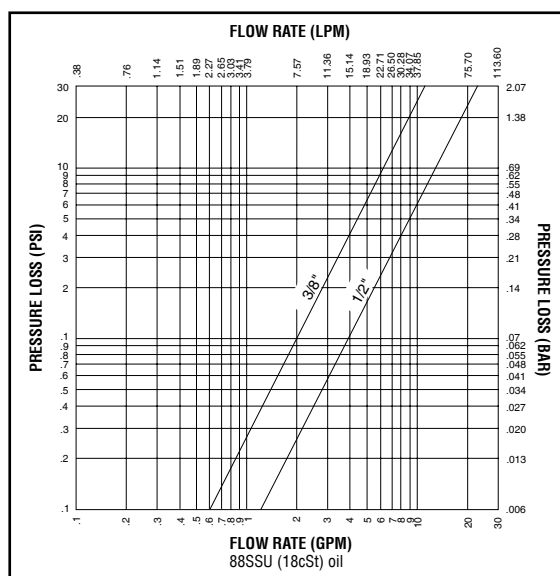
SIZE	SPILLAGE (cc)	AIR INCLUSION (cc)	MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE	
			PSI	BAR	PSI	BAR
3/8"	.03	.25	3,000	210	6,000	415
1/2"	.04	.30	3,000	210	6,000	415

## TECHNICAL AND DIMENSIONAL INFORMATION

Coupling Assembly				Coupler				Nipple				
												
SIZE	A		B		C		D		E		F	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
3/8"	3.34	84.34	1.00	25.40	2.65	67.31	1.20	30.48	1.65	41.91	.94	23.88
1/2"	4.53	114.06	1.25	31.75	3.36	85.34	1.50	38.10	2.38	6.45	1.06	26.92

**Notes:** Hex dimensions from flat of hex.  
 Part configurations are typical only.  
 Ratings, specifications and dimensions are subject to change without notice.

## FLOW CHART



## HOW TO ORDER

<b>PART NO.</b>		<b>23</b>	<b>-1C</b>	<b>6</b>	<b>6</b>		<b>F</b>	
Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seals			
<b>23</b>	<b>-1C</b> Coupler <b>N</b> Nipple	<b>6</b> = 3/8" <b>8</b> = 1/2"	<b>6</b> = 3/8" <b>8</b> = 1/2"	<b>F</b> Female NPSF <b>RP</b> Female British Parallel BS2779	No letter- Buna N <b>V</b> = Viton			

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ISO-9001 Certified





Chemical  
Coupling

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**25**  
SERIES





## ★ Snap-tite 25 Series — Chemical Coupling

*Featuring... Snap-tite quality with superior pressure and flow characteristics over the competition.*



- 316 stainless steel construction
- Dependable operation
- Teflon or Kel F seals available
- Available sizes: 1/4", 1/2" x 3/8" and 1/2"
- Operating pressures to 1000 psi (69 bar)
- Tubular valve design
- Optional sleeve lock available

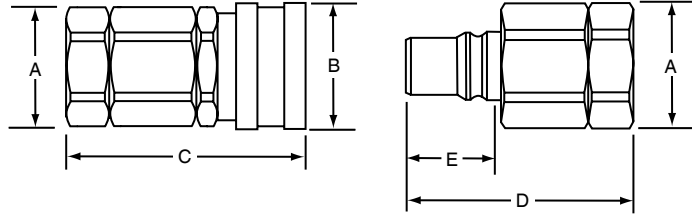
*Although economically priced, the 25 Series quick disconnect will handle virtually all types of chemicals. These quick disconnects are ideally suited for systems that must come in contact with families of fluids that have widely varying chemical characteristics. Liquids such as aromatic hydrocarbons, alcohols, esters, ketones, ethers, strong caustics, sulfuric acid and hydrofluoric acid as well as many other highly corrosive materials pose no problem for the 25 Series. The 25 Series may also be used with cryogenic liquids under certain conditions when Kel F seals are specified.*

*This series utilizes a barrel-type valve construction with a seal mounted in the valve to assure equalized valve-seat sealing. A unique lip seal provides a highly reliable seal in the connected position and acts as a wiper when disconnecting.*

PRESSURE RATINGS				
SIZE (inches)	MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE	
	PSI	BAR	PSI	BAR
1/4"	1,000	69	2,000	138
1/2" x 3/8"	1,000	69	2,000	138
1/2"	1,000	69	2,000	138



## TECHNICAL AND DIMENSIONAL INFORMATION\*

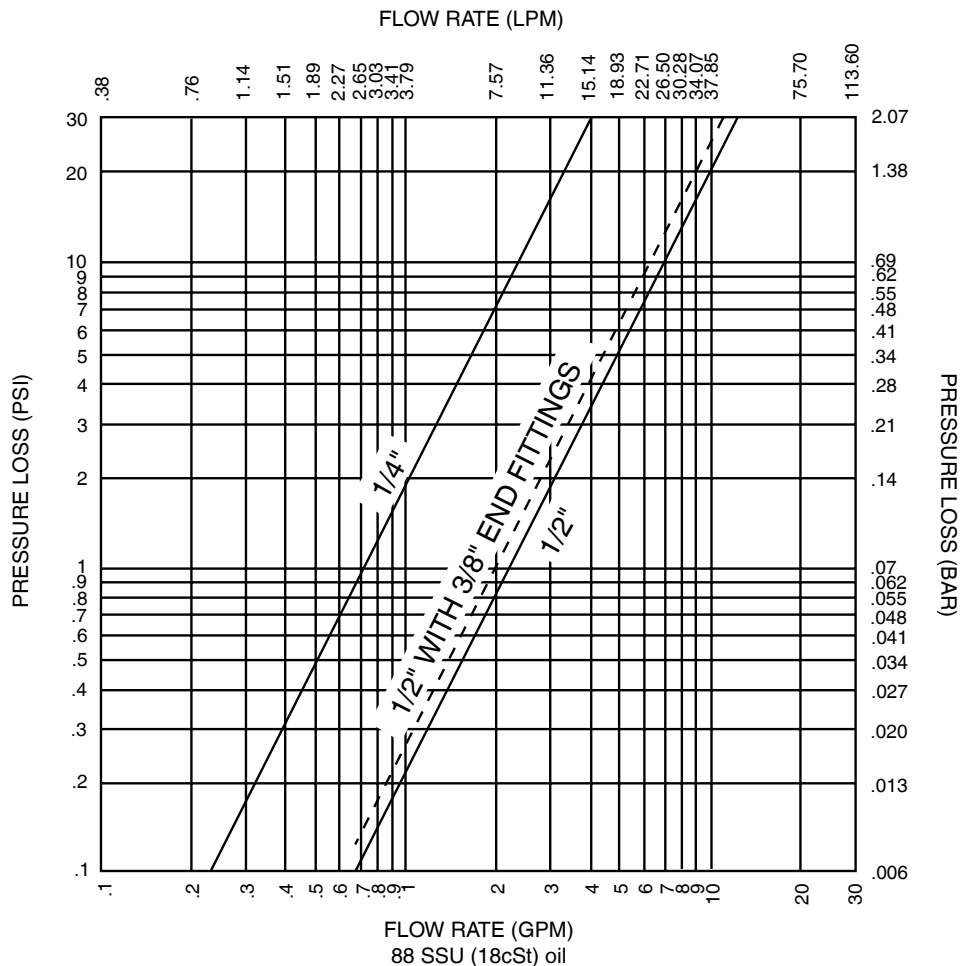


### DIMENSIONS

Size	A (HEX)		B		C		D		E	
	in	mm	in	mm	in	mm	in	mm	in	mm
1/4"	.88	22.35	1.19	30.23	2.01	51.05	1.80	45.72	.80	20.30
1/2" x 3/8"	1.19	30.23	1.38	35.05	2.41	61.21	2.30	58.42	.97	24.64
1/2"	1.19	30.23	1.38	35.05	2.50	63.50	2.38	60.45	.97	24.64

\*NOTE: Dimensions and outlines are the same for both valved and plain units

## FLOW CHART - VALVED AND VALVED





## HOW TO ORDER

Part No. <span style="border: 1px solid black; padding: 2px;">S</span> <span style="border: 1px solid black; padding: 2px;">V</span> <span style="border: 1px solid black; padding: 2px;">25</span> <span style="border: 1px solid black; padding: 2px;">C</span> <span style="border: 1px solid black; padding: 2px;">4</span> - <span style="border: 1px solid black; padding: 2px;">4</span> <span style="border: 1px solid black; padding: 2px;">F</span> <span style="border: 1px solid black; padding: 2px;"></span> <span style="border: 1px solid black; padding: 2px;"></span>								
Material	Body Type	Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seal Material	Sleeve Lock
<b>S</b> Stainless Steel 316	<b>V</b> Valved <b>P**</b> Plain (without valve)	<b>25</b>	<b>C</b> Coupler <b>N</b> Nipple	<b>4=1/4"</b> <b>8=1/2"</b>	<b>4=1/4"</b> <b>6=3/8"</b> <b>8=1/2"</b>	<b>F</b> Female NPSF <b>M</b> Male NPT <b>RP</b> Female British Parallel BS2779	No letter Teflon -100°F to 350°F -73°C to 177°C <b>KF*</b> Kel F -400°F to 300°F -240°C to 149°C	<b>SL</b>

\*Kel-F seal is installed in coupler only. Mating nipple supplied with Teflon only.

\*\*Valved nipple/plain coupler combination will not activate valving in nipple. Single shut-off should be specified with valving in coupler half.

## ACCESSORIES

SIZE	PRESSURE CAP	DUST CAP	DUST PLUG
1/4"	SPC25-4	SDC25-4	SDP25-4
1/2"	SPC25-8	SDC25-8	SDP25-8

### ! WARNING !

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE.

*This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors, provides product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.*

*The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.*



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**ISO-9001 Certified**



★ *Snap-Tite*

Military/  
Aerospace  
Couplings

**28-1&29  
SERIES**





# **Military/Aerospace Couplings for Applications Requiring Virtually No Air Inclusion or Spillage**

## **28-1 Series**

**For Pressures to 1000 psi (69 bar)**

---



- Low pressure drop
- Dry break-minimum air inclusion
- Maximum flow capacity
- Lightweight - compact design
- 1/4" - 2" size range
- Aluminum or stainless steel construction
- Smooth push-to-connect
- Color coded positive lock indicator standard on all models
- Multitude of end fittings: MS33656, MS33657, MS33649, MS33514, MS33515, NPTF, NPT, SAE and BS 2779
- Wide range of seal materials
- Performance meets or exceeds MIL-C-7413B and MIL-C-25427A

This space-age quick disconnect is machined and tested to meet or exceed critical standards. Snap-tite meets MIL-Q-9858A quality control system and exceeds MIL-I-45208 inspection system. Lightweight, maximum flow and minimal pressure drop are design parameters where the 28-1 Series is unsurpassed. The small envelope size permits less weight and Snap-tite's excellent internal design assures maximum flow with minimum pressure drop. Operating pressure rating for 1/4" through 1" sizes is 1000 psi (69 bar); 1-1/4" through 2" sizes, 600 psi (41 bar).

A smooth automatic, push-to-connect feature, ideal for one hand operation when one half is mounted, sets the 28-1 Series apart from all others. The unit can be connected against a closed system, has no seal transition and provides a green color-coded lock indicator.

### **TYPICAL APPLICATIONS:**

Low pressure hydraulic systems, high purity systems, fuel systems, electronic coolant, high reliability systems

## **29 Series**

**For Pressures to 5500 psi (379 bar)**

---



- Low pressure drop
- Dry break-minimum air inclusion
- Maximum flow capacity
- High pressure design
- 1/8" - 1-1/4" size range
- Aluminum or stainless steel construction
- Smooth push-to-connect
- Multitude of end fittings: MS33656, MS33657, MS33649, MS33514, MS33515, NPTF, NPT, SAE and BS 2779
- Wide range of seal materials
- Performance meets or exceeds MIL-C-7413B and MIL-C-25427A

Snap-tite's 29 Series quick disconnect offers full-flow characteristics, can handle high pressure as well as gravity flow systems, and contains minimal seals for greater reliability. Snap-tite meets MIL-Q-9858A quality control system and exceeds MIL-I-45208 inspection system. 29 Series has established an excellent performance record over the past 20 years.

In addition to hydraulic applications, the 29 Series quick disconnect is the ideal choice where minimal spillage or air inclusion, safety, cleanliness and precise function in high pressure hydraulic systems are prime requisites.

Like all Snap-tite quick disconnect couplings, the 29 Series connects and disconnects quickly and positively, providing positive shut-off automatically. A smooth automatic, push-to-connect feature, ideal for one hand operation when one half is mounted, sets the 29 Series apart from all others.

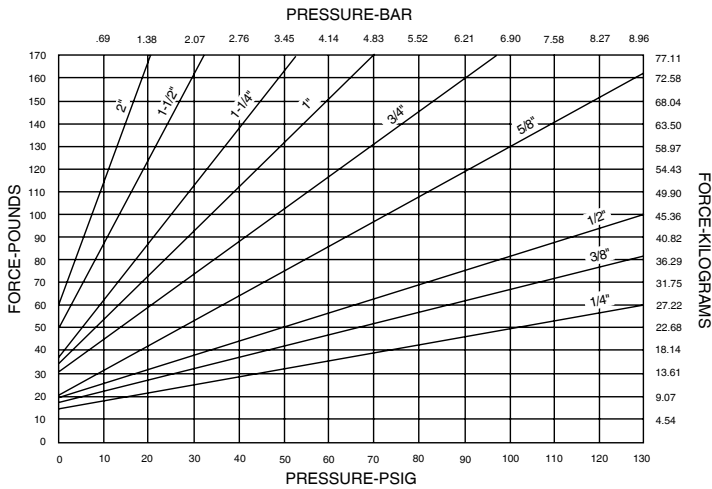
### **TYPICAL APPLICATIONS:**

High pressure hydraulic systems, high purity systems, fuel systems, electronic coolant, high reliability systems

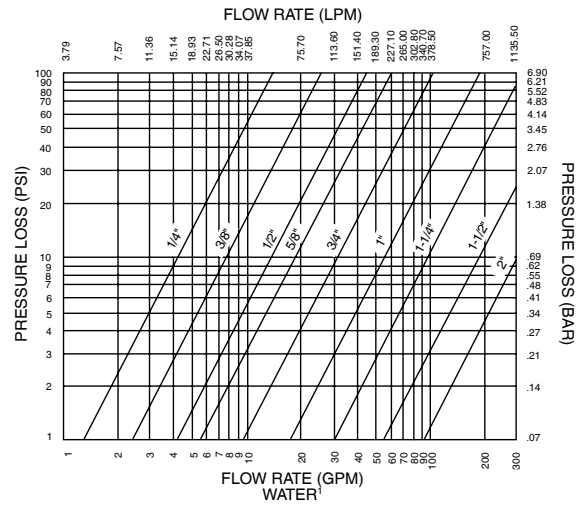


## 28-1 Series Performance Data

### Force to Connect



### Pressure Loss vs. Flow



<sup>1</sup>Pressure loss vs. flow is in water with specific gravity of 1.0. For fluids with sg of .85, multiply by 1.58; for fluids with sg of .83, multiply by 1.60. Temperature 100°F (55°C). Note: Gallons shown are in U.S. gallons.

### Pressure Ratings

Coupling Size	Aluminum Working Pressure		Stainless Steel Working Pressure	
	psig	(bar)	psig	(bar)
1/4	1000	(69)	1000	(69)
3/8	1000	(69)	1000	(69)
1/2	1000	(69)	1000	(69)
5/8	1000	(69)	1000	(69)
3/4	1000	(69)	1000	(69)
1	1000	(69)	1000	(69)
1-1/4	600	(41)	600	(41)
1-1/2	600	(41)	600	(41)
2	600	(41)	600	(41)

Pressure ratings were established under static pressure conditions. Therefore, pressure ratings for any given flow, pressure surge and/or vibration may vary these ratings. Proof pressure = 1.5 x working pressure    Burst pressure = 2.5 x working pressure

### Air Inclusion on Connect, Spillage on Disconnect

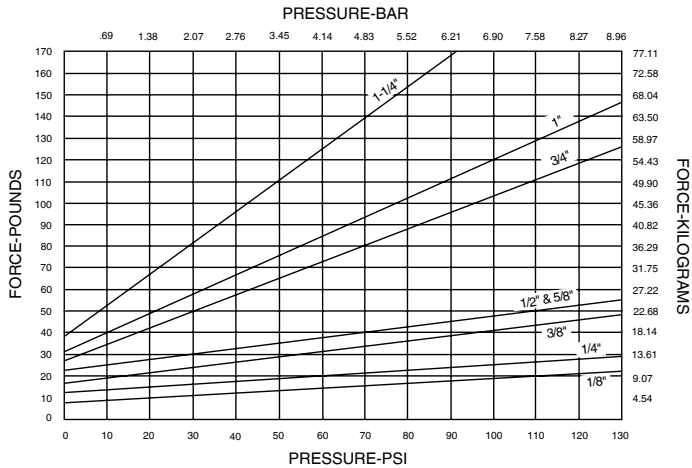
Coupling Size	Air Inclusion*		Spillage	
	in <sup>3</sup>	(cc)	in <sup>3</sup>	(cc)
1/4	.003	(.05)	.001	(.01)
3/8	.011	(.18)	.002	(.03)
1/2	.017	(.28)	.002	(.04)
5/8	.019	(.31)	.008	(.13)
3/4	.029	(.48)	.009	(.15)
1	.049	(.80)	.018	(.30)
1-1/4	.096	(1.57)	.024	(.40)
1-1/2	.122	(2.00)	.043	(.70)
2	.183	(3.00)	.061	(1.00)

\*NOTE: Air inclusion at 0 psig (0 bar) internal pressure; spillage at 15 psig (1 bar) internal pressure.

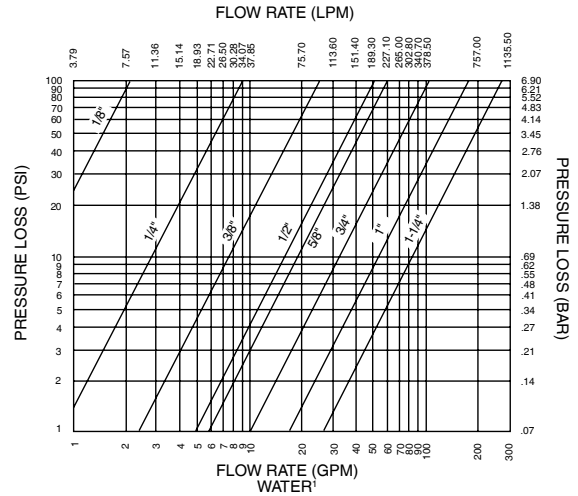


## 29 Series Performance Data

### Force to Connect



### Pressure Loss vs. Flow



<sup>1</sup>Pressure loss vs. flow is in water with specific gravity of 1.0. For fluids with sg of .85, multiply by 1.58; for fluids with sg of .83, multiply by 1.60. Temperature 100°F (55°C). Note: Gallons shown are in U.S. gallons.

### Pressure Ratings

Coupling Size	Aluminum Working Pressure		Stainless Steel Working Pressure	
	psig	(bar)	psig	(bar)
1/8	4800	(331)	5500	(379)
1/4	3200	(221)	3800	(262)
3/8	3000	(207)	3200	(221)
1/2	2200	(152)	3000	(207)
1/2 x 5/8	2200	(152)	3000	(207)
3/4	1200	(83)	2000	(138)
1	1000	(69)	1500	(103)
1-1/4	750	(52)	1000	(69)

Pressure ratings were established under static pressure conditions. Therefore, pressure ratings for any given flow, pressure surge and/or vibration may vary these ratings. Proof pressure = 1.5 x working pressure Burst pressure = 2.5 x working pressure

### Air Inclusion on Connect, Spillage on Disconnect

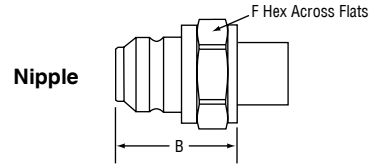
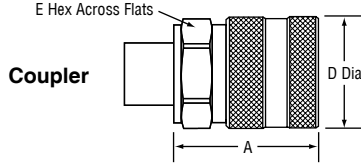
Coupling Size	Air Inclusion*		Spillage	
	in <sup>3</sup>	(cc)	in <sup>3</sup>	(cc)
1/8	.002	(.03)	<.001	(<.02)
1/4	.002	(.03)	<.001	(<.02)
3/8	.002	(.03)	<.001	(<.02)
1/2	.012	(.19)	.007	(.12)
1/2 x 5/8	.012	(.19)	.007	(.12)
3/4	.008	(.13)	.005	(.08)
1	.008	(.13)	.005	(.09)
1-1/4	.012	(.19)	.007	(.12)

\*NOTE: Air inclusion at 0 psig (0 bar) internal pressure; spillage at 60 psig (4 bar) for 1/8" and 15 psig (1 bar) internal pressure for 1/4" through 1-1/4".



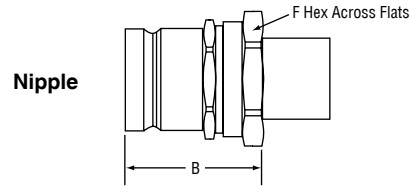
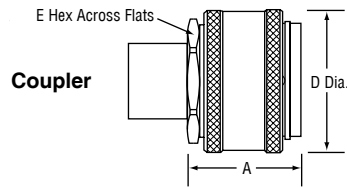
## Dimensions and Weights

### 28 Series



Size	Coupler								Connected Length		Nipple					
	A		D		E		Weight				B		F		Weight	
	in	mm	in	mm	in	mm	lb	g	in	mm	in	mm	in	mm	lb	g
1/4"	1.25	31.75	.88	22.35	.75	19.05	.05	22.68	1.80	45.72	1.10	27.94	.75	19.05	.02	4.54
3/8" 1.44	36.58	1.12	28.45	1.00	25.40	.11	49.90	2.02	51.31	1.20	30.48	1.00	25.40	.05	9.07	
1/2"	1.61	40.89	1.34	34.04	1.13	28.70	.17	77.11	2.15	54.61	1.25	31.75	1.13	28.70	.06	27.22
5/8"	1.70	43.18	1.58	40.13	1.38	35.05	.23	104.33	2.45	62.23	1.50	38.10	1.38	35.05	.14	63.50
3/4"	2.05	52.07	1.80	45.72	1.50	38.10	.36	163.29	2.89	73.41	1.71	43.43	1.50	38.10	.15	68.04
1"	2.70	68.58	2.32	58.93	2.00	50.80	.74	335.66	3.72	94.49	2.19	55.63	2.00	50.80	.29	131.54
1-1/4"	2.56	65.02	2.63	66.80	2.25	57.15	.76	344.73	3.51	89.15	2.16	54.86	2.25	57.15	.30	136.08
1-1/2"	3.03	76.96	2.96	75.18	2.63†	66.80†	1.33	603.28	3.75	95.25	2.16	54.86	2.63†	66.80†	.33	149.69
2"	3.55	90.17	3.92	99.57	3.25†	82.55†	1.97	893.58	4.73	120.14	2.84	72.14	3.25†	82.55†	.36	163.29

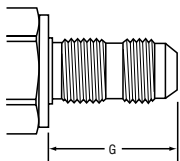
### 29 Series



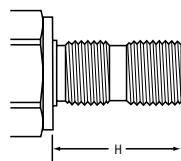
Size	Coupler								Connected Length		Nipple					
	A		D		E		Weight				B		F		Weight	
	in	mm	in	mm	in	mm	lb	g	in	mm	in	mm	in	mm	lb	g
1/8"	1.20	30.48	.88	22.35	.75	19.05	.05	22.68	1.71	43.43	1.07	27.18	.69	17.53	.03	13.61
1/4"	1.31	33.27	1.38	35.05	1.13	28.70	.13	58.97	2.01	51.05	1.30	33.02	1.13	28.70	.07	31.75
3/8"	1.57	39.88	1.63	41.40	1.25	31.75	.20	90.72	2.36	59.94	1.48	37.59	1.38	35.05	.10	45.36
1/2"	1.53	38.86	1.94	49.28	1.50	38.10	.42	190.51	2.64	67.06	1.76	44.70	1.63	41.40	.23	104.33
1/2" x 5/8"	1.53	38.86	1.94	49.28	1.50	38.10	.42	190.51	2.64	67.06	1.76	44.70	1.63	41.40	.23	104.33
3/4"	1.89	48.01	2.35	59.69	1.88	47.75	.49	222.26	2.81	71.37	2.09	53.09	1.88	47.75	.31	140.61
1"	2.45	62.23	2.44	61.98	2.13	54.10	.70	317.51	3.60	91.44	2.50	63.50	2.13	54.10	.36	163.29
1-1/4"	2.52	64.01	2.88	73.15	2.69†	68.33†	.86	390.09	3.64	92.46	2.90	73.66	2.75†	69.85†	.71	322.05

† Two wrench flats

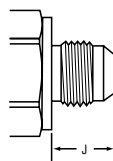
## Common End Fitting Configurations, Dimensions and Weights



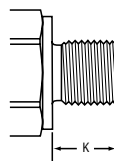
57 MS33657 Bulkhead Flared  
EB SAE Bulkhead



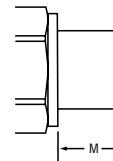
15 MS33515 Bulkhead  
Flareless



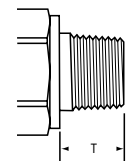
56 MS33656 Male Flared  
EM Male SAE



14 MS33514 Male  
Flareless



F Female NPTF  
RP Female British Parallel BS 2779  
49 Female O-ring Boss MS33649



M Male NPT

Size	G		Wt. <sup>1</sup>		H		Wt. <sup>1</sup>		J		Wt. <sup>1</sup>		K		Wt. <sup>1</sup>		M		(Max) Wt. <sup>1</sup>		T		Wt. <sup>1</sup>	
	in	mm	lb	g	in	mm	lb	g	in	mm	lb	g	in	mm	lb	g	in	mm	lb	g	in	mm	lb	g
1/8"	.95	24.13	.01	4.53	.86	21.84	.01	4.53	.45	11.43	.01	4.53	.38	9.65	.01	4.53	.56	14.22	.01	4.53	.38	9.65	.01	4.53
1/4"	1.05	26.67	.01	4.53	.97	24.64	.01	4.53	.55	13.97	.01	4.53	.45	11.43	.01	4.53	.78	19.81	.02	9.07	.56	14.22	.01	4.53
3/8"	1.13	28.70	.01	4.53	1.02	25.91	.01	4.53	.56	14.22	.01	4.53	.47	11.94	.01	4.53	.88	22.35	.04	18.14	.56	14.22	.01	4.53
1/2"	1.28	32.51	.03	13.61	1.16	29.46	.02	9.07	.66	16.76	.01	4.53	.56	14.22	.01	4.53	1.05	26.67	.08	36.29	.75	19.05	.03	13.61
5/8"	1.42	36.07	.04	18.14	1.30	33.02	.03	13.61	.76	19.30	.02	9.07	.63	16.00	.02	9.07	1.05	26.67	.11	49.90	—	—	.03	13.61
3/4"	1.59	40.39	.06	27.22	1.41	35.81	.05	22.68	.86	21.84	.03	13.61	.69	17.53	.03	13.61	1.40	35.56	.13	58.97	.75	19.05	.03	13.61
1"	1.59	40.39	.09	40.82	1.41	35.81	.07	31.75	.91	23.11	.05	22.68	.69	17.53	.03	13.61	1.22	30.99	.19	86.18	.94	23.88	.06	27.22
1-1/4"	1.64	41.66	.14	63.50	1.41	35.81	.12	54.43	.96	24.38	.08	36.29	.69	17.53	.06	27.22	1.63	41.40	.29	131.54	.97	24.64	.09	40.82
1-1/2"	1.66	42.16	.17	77.11	1.11	28.19	.13	58.97	1.08	27.43	.11	49.90	.69	17.53	.07	31.75	1.65	41.91	.40	181.44	1.00	25.40	.11	49.90
2"	1.94	49.28	.21	95.25	1.61	40.89	.19	86.18	1.33	33.78	.15	68.04	.69	17.53	.10	45.36	1.90	48.26	.56	254.01	1.03	26.16	.16	72.57

<sup>1</sup>Weights are for aluminum. For Stainless Steel multiply aluminum weight by 2.7. All dimensions and weights are for reference only and are subject to change without notice. Dimension tolerances: A, B, D, E & F ± .03 in. (.76 mm); Connected length ± .06 in. (± 1.52 mm)



# How to Order

Part No. A 28-1 C 8 — 8 F						
Material	Series	Body	Coupler or Nipple Size	End Fitting Size	End Fitting Type	**Seals
A Aluminum S Stainless Steel	28-1 29	C Coupler N Nipple	2 = 1/8"* 4 = 1/4" 6 = 3/8" 8 = 1/2" 10 = 5/8"† 12 = 3/4" 16 = 1" = 1-1/4" = 2"†  *Available 29 only †Available 28-1 only	2 = 1/8" 4 = 1/4" 6 = 3/8" 8 = 1/2" 10 = 5/8" 12 = 3/4" 16 = 1" 20 = 1-1/4" 32 = 2"	57 MS33657 Bulkhead 15 MS33515 Bulkhead 56 MS33656 37° Male Flare 14 MS33514 Male 49 MS33649 Female F Female NPTF RP Female British Parallel BS 2779 M Male NPT EM SAE Male 37° Flare EB SAE Bulkhead	A Nitrile (AMS 3215) V Viton JF Nitrile (MIL-P-5315) M Nitrile (MIL-P-25732) E Ethylene Propylene Rubber  For other seal com- pounds consult factory.

\*\*Standard seal in 28-1 Series is Nitrile (AMS 3215) – no letter designation required  
Standard seal in 29 Series is Nitrile (MIL-P-25732) – no letter designation required

28-1 Series Dust Caps		
Size	Coupler	Nipple
1/4"	A28-1DCC-4	A28-1DCN-4
3/8"	A28-1DCC-6	A28-1DCN-6
1/2"	A28-1DCC-8	A28-1DCN-8
5/8"	A28-1DCC-10	A28-1DCN-10
3/4"	A28-1DCC-12	A28-1DCN-12
1"	A28-1DCC-16	A28-1DCN-16
1-1/4"	A28-1DCC-20	A28-1DCN-20
2"	A28-1DCC-32	A28-1DCN-32

Material designation: A-Aluminum S-Stainless Steel

29 Series Dust Caps			
Size	Coupler	Nipple	Pressure Cap for Nipple
1/8"	ADP29-2	ADC29-2	APC29-2
1/4"	ADP29-4	ADC29-4	APC29-4
3/8"	ADP29-6	ADC29-6	APC29-6
1/2"	ADP29-8	ADC29-8	APC29-8
3/4"	ADP29-12	ADC29-12	APC29-12
1"	ADP29-16	ADC29-16	APC29-16
1-1/4"	ADP29-20	ADC29-20	APC29-20

## ! WARNING !

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# HIGH PRESSURE WATER BLAST COUPLING **56 SERIES**

*Featuring...*

**Snap-tite quality with  
superior pressure  
and flow characteristics  
over the competition**



- ***Engineered for operating pressures to 12,000 psi (828 bar) with 4:1 safety factor***
- ***High strength steel construction with corrosion resistant Zinc Trivalent Chromate plating<sup>†</sup>***
- ***Proven dog-lock mechanism provides safe, positive connection and eliminates ball brinnelling***
- ***Interchangeable with Parker WB Series and Aeroquip FD69 Series***
- ***Nipple mounted sleeve guard and coupler sleeve lock aid in preventing accidental disconnection***
- ***Straight through bore provides minimal pressure drop***
- ***Available in 1/2" body size with 3/8" or 1/2" end fittings***

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

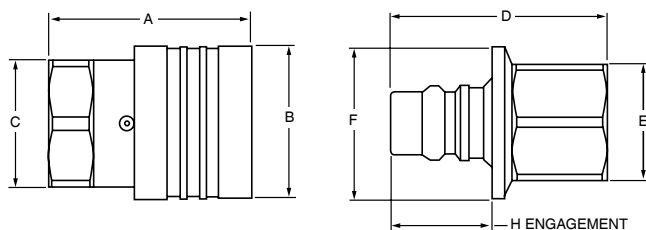
*Snap-tite's 56 Series is designed for rugged, high pressure water blasting equipment used in cleaning and paint stripping applications. Snap-tite has increased the working pressure to 12,000 psi (828 bar) while maintaining a 4:1 safety factor and interchangeability with competitive units. The 56 Series utilizes a proven dog-lock mechanism that increases surface contact and provides even load distribution under pressure thereby increasing the service life of the coupling.*

*In addition to cleaning and paint removal, water blast equipment is also used in the cleaning of maritime vessels as well as the removal of mill scale in industrial applications.*

**Snap-tite**

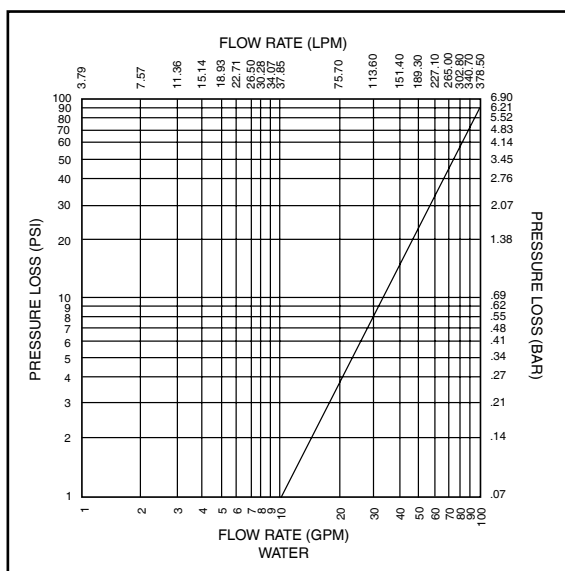


## TECHNICAL AND DIMENSIONAL INFORMATION



SIZE	A		B		C (HEX)		D		E (HEX)		F		H (ENG)	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/2	2.21	56.1	1.63	41.4	1.38	35.1	2.35	59.7	1.25	31.8	1.63	41.4	1.10	27.9

### FLOW CHART



### PRESSURE RATINGS

SIZE	MAXIMUM WORKING		MINIMUM BURST	
	PSI	BAR	PSI	BAR
1/2	12,000	828	48,000	3310

### HOW TO ORDER

PART NO.		56	C	8	—		8	F	
Series	Coupling Half	Coupling Size		End Fitting Size		End Fitting Type		Seals	
56	C Coupler N Nipple	8 = 1/2"		6 = 3/8" 8 = 1/2"		F Female NPTF		No letter- Buna N V = Viton E = Ethylene Propylene Rubber	

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# HYDRAULIC COUPLINGS 60 SERIES

***Featuring...***  
**Snap-tite quality with  
superior pressure  
and flow characteristics  
over the competition**



- ***Interchangeable with Aeroquip FD42 and Parker 4000 Series***
- ***4:1 Safety factor***
- ***Proven ball-lock mechanism provides positive connection***
- ***Poppet style shut-off***
- ***High strength steel construction***
- ***Zinc Trivalent Chromate plating for corrosion resistance\****
- ***Choice of seal materials to handle a variety of fluids***
- ***Sizes 1/4" & 3/8"***

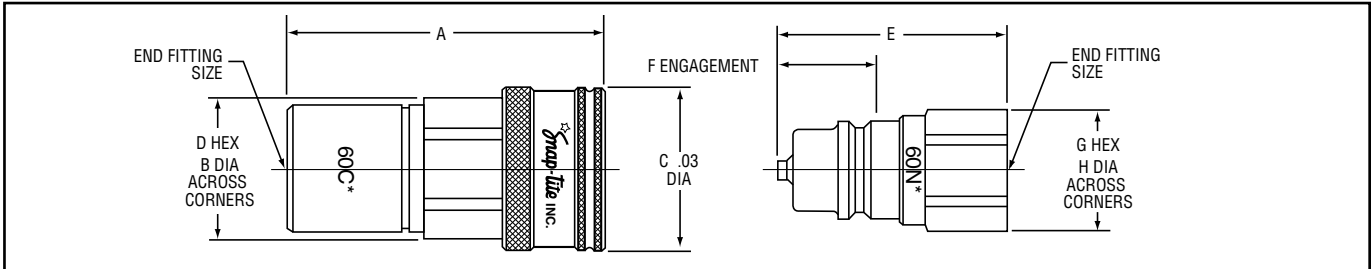
\*Conforms with ROHS and WEEE European Union Directives

*Snap-tite's 60 Series is designed to accommodate high surge flows found in demanding hydraulic applications. Typical applications include snow plows, agricultural equipment and construction equipment. The 60 Series will interchange with Aeroquip's FD42 Series and Parker's 4000 Series. The 60 Series coupler is provided with a retaining groove for bulkhead mounting. The poppet style valve design provides excellent sealing in both high and low pressure applications. The 60 Series offers up to 3000 psi (210 bar) operating pressure in both the connected and disconnected positions.*

**Snap-tite**

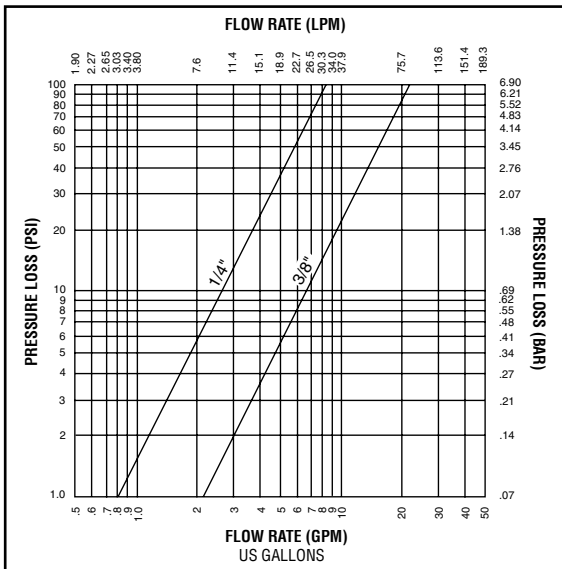


## TECHNICAL AND DIMENSIONAL INFORMATION



SIZE	A		B		C		D		E		F		G		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/4"	2.15	54.61	.96	24.38	1.12	28.45	.88	22.35	1.56	39.62	.77	19.56	.75	19.05	.83	21.08
3/8"	2.41	61.21	1.31	33.27	1.38	35.05	1.19	30.23	1.76	44.70	.90	22.86	.94	23.88	1.03	26.16

### FLOW CHART



### PRESSURE RATINGS

SIZE	MAXIMUM WORKING		MINIMUM BURST		MAXIMUM CONNECT BY HAND	
	PSI	BAR	PSI	BAR	PSI	BAR
1/4"	3,000	210	12,000	830	150	10
3/8"	3,000	210	12,000	830	150	10

### HOW TO ORDER

PART NO.		60	C	4	-	4	F		
Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seals	Options			
60	C Coupler N Nipple	4 = 1/4" 6 = 3/8"	4 = 1/4" 6 = 3/8"	F Female NPTF  RP Female British Parallel BS2779	No letter- Buna N  V = Viton	SL Sleeve Lock			

### ACCESSORIES

SIZE	DUST PLUG/CAP (either/or)
1/4"	60PDCP-4
3/8"	60PDCP-6



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COMPONENTS, INC.

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★ *Snap-Tite*

ISO A

Coupleurs  
Interchangeables

SÉRIE  
**61**





# ★ Snap-Tite Série 61 — Coupleurs interchangeables “ISO A”

***La qualité Snap-tite et des caractéristiques de débit et pression supérieures***



- Interchangeables avec les coupleurs au standard ISO A
- Dimensions et performances conformes à la norme 7241-1 série A
- Coefficient de sécurité 4:1
- Système éprouvé de verrouillage à billes
- Obturation par clapets coniques
- Construction en acier haute résistance
- Protection contre la corrosion par placage au zinc et chrome trivalent<sup>†</sup>
- Différentes natures de joints selon compatibilité demandée
- Tailles de 1/4" à 1"

<sup>†</sup>conformes aux directives européennes ROHS et WEEE

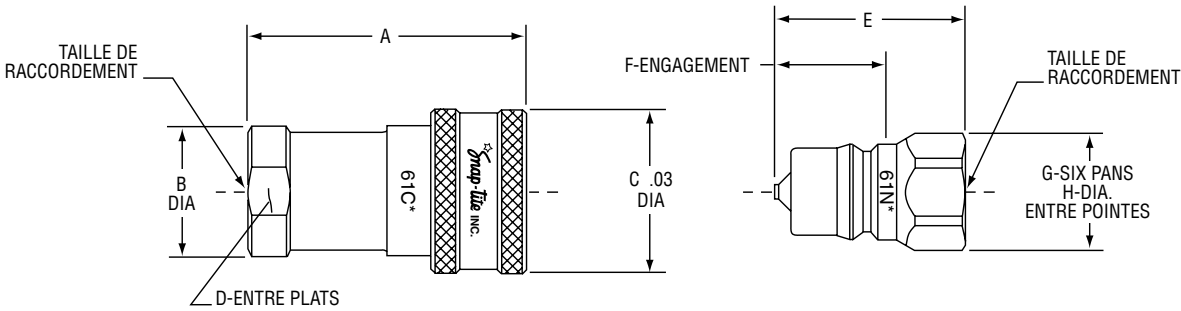
*La série 61 de Snap-tite est conçue pour être conforme aux spécifications de dimensions et de performances de la norme ISO-7241-1 série A qui détaille les tests, les performances et les dimensions de l'embout mâle. Ceci permet d'assurer l'interchangeabilité de la série 61 avec les coupleurs des autres fabricants qui se conforment à ce standard. La série 61 de Snap-tite présente des caractéristiques supérieures en pression de travail, débit et coefficient de sécurité, ce qui en fait un interchangeable ISO A de premier choix.*

## CARACTÉRISTIQUES DE PRESSION (P)

Tailles	P. de travail maxi.		P. éclatement mini		maxi pour connexion manuelle	
	PSI	BAR	PSI	BAR	PSI	BAR
1/4"	4,600	317	18,400	1269	150	10
3/8"	4,600	317	18,400	1269	150	10
1/2"	4,000	276	16,000	1103	100	10
3/4"	4,000	276	16,000	1103	50	5
1"	3,000	207	12,000	8280	40	5

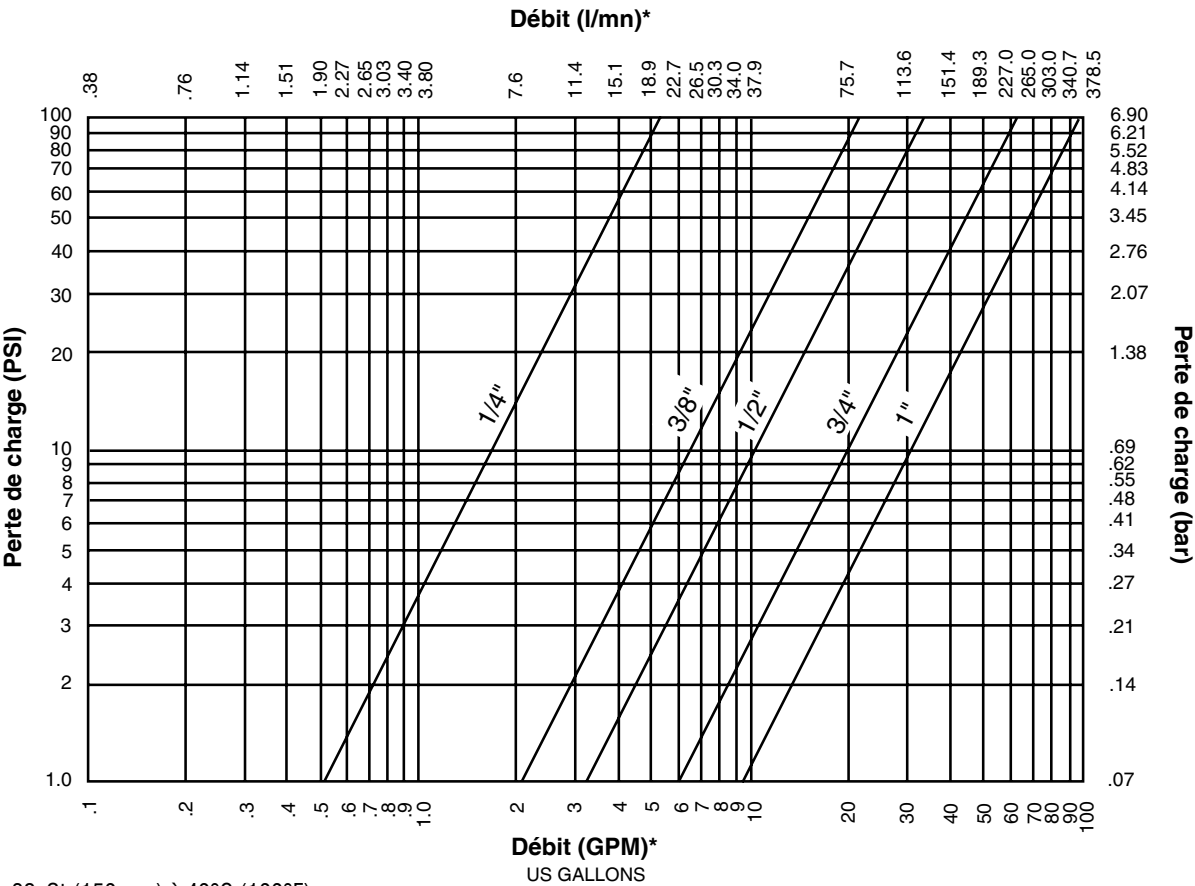


# DIMENSIONS ET INFORMATIONS TECHNIQUES



Taille	A		A (SAE)		B		C		D		E		E (SAE)		F		G		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/4"	1.94	49.28			.88	22.35	1.06	26.92	.75	19.05	1.45	19.05			.64	16.26	.75	19.05	.83	21.08
1/4" x 3/8"			1.94	49.28	.88	22.35	1.06	26.92	.81	20.57			1.45	19.05	.64	16.26	.81	20.57	.89	22.60
3/8"	2.34	59.44			1.06	26.92	1.27	32.25	.88	22.35	1.76	44.70			.82	20.83	.88	22.35	.96	24.38
3/8" x 1/2"			2.34	59.44	1.06	26.92	1.27	32.25	1.00	25.40			1.76	44.70	.82	20.83	1.00	25.40	1.10	27.94
1/2"	2.71	68.83	2.71	68.83	1.19	30.23	1.50	38.10	1.00	25.40	2.00	50.80	2.00	50.80	1.00	25.40	1.06	26.92	1.17	29.72
1/2" x 5/8"			2.71	68.83	1.19	30.23	1.50	38.10	1.13	28.70			2.00	50.80	1.00	25.40	1.13	28.70	1.24	31.50
3/4"	3.27	83.06	3.27	83.06	1.61	40.89	1.88	47.75	1.38	35.05	2.44	61.98	2.44	61.98	1.31	33.27	1.38	35.05	1.51	38.35
1"	3.68	93.47	3.68	93.47	1.86	47.24	2.13	54.10	1.63	41.40	2.67	67.82	2.67	67.82	1.59	40.39	1.63	41.40	1.79	45.47

# COURBES DE DÉBIT



\* Huile de 32cSt (150 ssu) à 40°C (100°F)



## GUIDE DE COMMANDE

RÉFÉRENCE.		61	C	6	—	6	F		
Série	Pièce	Taille du coupleur	Taille de raccordement	Type de raccordement	Joints	Options			
61	C Coupleur N Embout	4 = 1/4" 6 = 3/8" 8 = 1/2" 12 = 3/4" 16 = 1"	4 = 1/4" 6 = 3/8" 8 = 1/2" 10 = 5/8" 12 = 3/4" 16 = 1"	F taraudage NPTF RP taraudage British Parallel BS2779 EF* taraudage SAE	standard en Buna V = Viton E = Ethylene Propylene Rubber M = MIL-H-5606	SL sécurité de verrouil- lage			

\*Raccordements SAE: 1/4" uniquement en 3/8" SAE (4-6EF)  
 3/8" uniquement en 1/2" SAE (6-8EF)  
 1/2" peut être fourni avec 5/8" SAE (8-10EF) sur demande  
 Tous les autres sont fournis avec tailles correspondantes (8-8EF, 12-12EF, 16-16EF)

## ACCESSOIRES

	Bouchon de protection	Capuchon de protection
1/4"	61PDP-4	61PDC-4
3/8"	PDP-8	PDC-8
1/2"	61PDP-8	PDC-12
3/4"	61PDP-12	61PDC-12
1"	61PDP-16	61PDC-16

### ! AVERTISSEMENT !

LE DÉFAUT DE SÉLECTION, LA SÉLECTION INCORRECTE OU UNE MAUVAISE UTILISATION DES PRODUITS OU DES SYSTÈMES DÉCRITS ICI OU DES PRODUITS RATTACHÉS PEUVENT ENTRAÎNER LA MORT, DES BLESSURES CORPORELLES OU DES DOMMAGES MATÉRIELS.

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★ *Snap-Tite*

ISO

Series A  
Interchange

**61**  
SERIES





# ★ Snap-tite 61 Series — ISO A Interchange

*Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition*



- Interchangeable with other manufacturers offering ISO Series A couplings
- Dimensional & performance requirements conform to ISO 7241-1 Series A
- 4:1 Safety Factor
- Proven ball-lock mechanism provides positive connection
- Poppet style shut-off
- High strength steel construction
- Zinc Trivalent Chromate plating<sup>†</sup> for corrosion resistance
- Choice of seal materials to handle a variety of fluids
- Sizes 1/4" – 1"

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

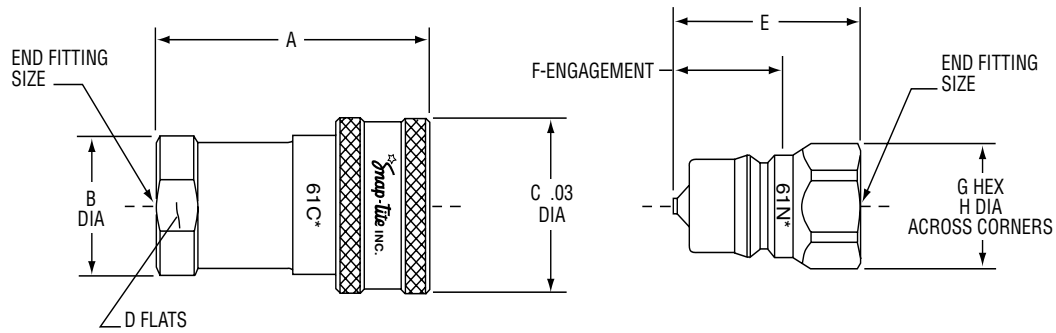
*Snap-tite's 61 Series is designed to conform to the dimensional and performance requirements of ISO 7241-1 Series A, which details the testing, performance and dimensions of the nipple. This is to enable interchangeability with couplings produced by other manufacturers who meet the same standard. Snap-tite's 61 Series features superior working pressures, flow characteristics and safety factors, making the 61 Series the premier ISO Series A interchange.*

## PRESSURE RATINGS

SIZE	MAXIMUM WORKING		MINIMUM BURST		MAXIMUM CONNECT BY HAND	
	PSI	BAR	PSI	BAR	PSI	BAR
1/4"	4,600	317	18,400	1269	150	10
3/8"	4,600	317	18,400	1269	150	10
1/2"	4,000	276	16,000	1103	100	7
3/4"	4,000	276	16,000	1103	50	3
1"	3,000	207	12,000	828	40	3

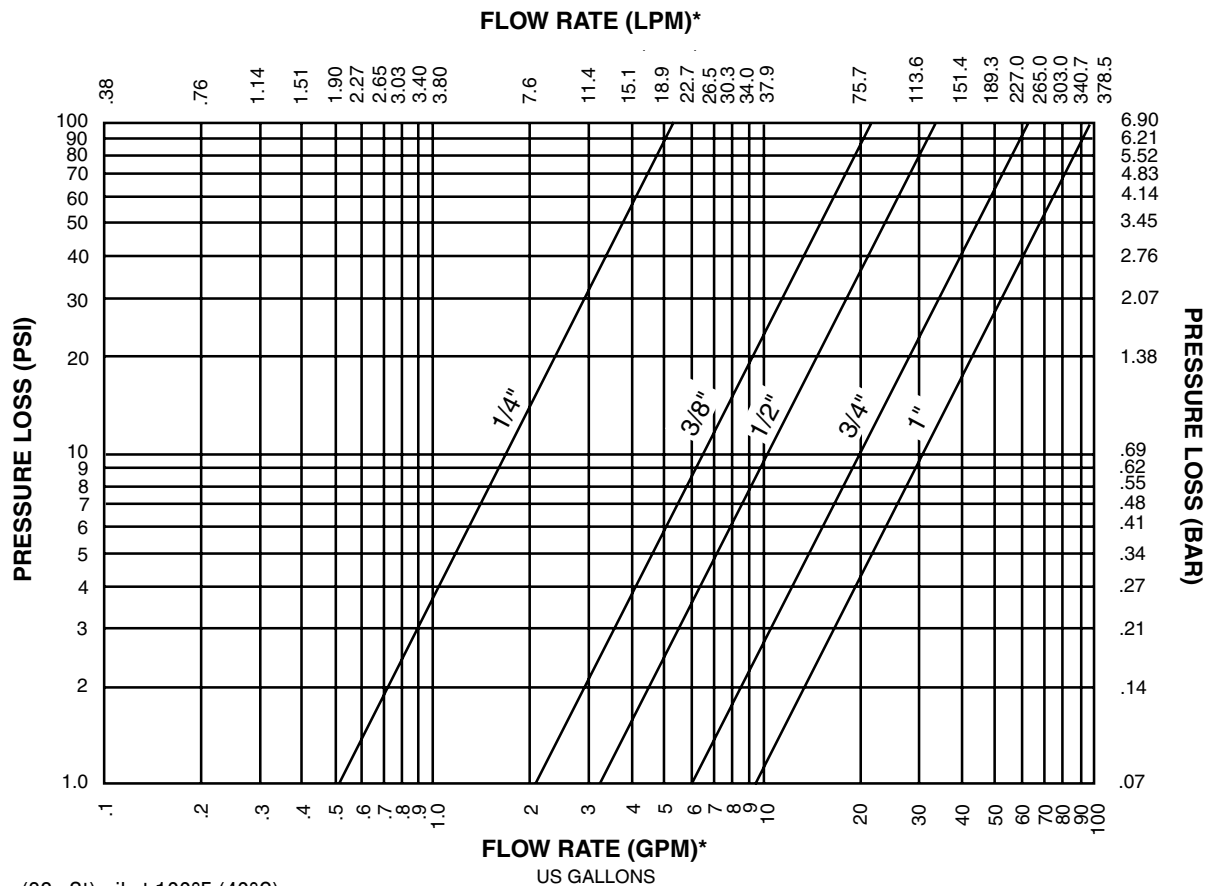


# TECHNICAL AND DIMENSIONAL INFORMATION



SIZE	A		A (SAE)		B		C		D		E		E (SAE)		F		G		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/4"	1.94	49.28			.88	22.35	1.06	26.92	.75	19.05	1.45	19.05			.64	16.26	.75	19.05	.83	21.08
1/4" x 3/8"			1.94	49.28	.88	22.35	1.06	26.92	.81	20.57			1.45	19.05	.64	16.26	.81	20.57	.89	22.60
3/8"	2.34	59.44			1.06	26.92	1.27	32.25	.88	22.35	1.76	44.70			.82	20.83	.88	22.35	.96	24.38
3/8" x 1/2"			2.34	59.44	1.06	26.92	1.27	32.25	1.00	25.40			1.76	44.70	.82	20.83	1.00	25.40	1.10	27.94
1/2"	2.71	68.83	2.71	68.83	1.19	30.23	1.50	38.10	1.00	25.40	2.00	50.80	2.00	50.80	1.00	25.40	1.06	26.92	1.17	29.72
1/2" x 5/8"			2.71	68.83	1.19	30.23	1.50	38.10	1.13	28.70			2.00	50.80	1.00	25.40	1.13	28.70	1.24	31.50
3/4"	3.27	83.06	3.27	83.06	1.61	40.89	1.88	47.75	1.38	35.05	2.44	61.98	2.44	61.98	1.31	33.27	1.38	35.05	1.51	38.35
1"	3.68	93.47	3.68	93.47	1.86	47.24	2.13	54.10	1.63	41.40	2.67	67.82	2.67	67.82	1.59	40.39	1.63	41.40	1.79	45.47

## FLOW CHART



\*150 ssu (32 cSt) oil at 100°F (40°C)



## HOW TO ORDER

PART NO. 61 C 6 - 6 F						
Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seals	Options
61	C Coupler N Nipple	4 = 1/4" 6 = 3/8" 8 = 1/2" 12 = 3/4" 16 = 1"	4 = 1/4" 6 = 3/8" 8 = 1/2" 10 = 5/8" 12 = 3/4" 16 = 1"	F Female NPTF RP Female British Parallel BS2779 EF* Female SAE	Std. seal is Buna V = Viton E = Ethylene Propylene Rubber M = MIL-H-5606	SL Sleeve Lock

\*SAE Threads: 1/4" is supplied with 3/8" SAE (4-6EF) only  
 3/8" is supplied with 1/2" SAE (6-8EF) only  
 1/2" can be supplied with 5/8" SAE (8-10EF) if required  
 All others are size for size (8-8EF, 12-12EF, 16-16EF)

## ACCESSORIES

	DUST PLUG	DUST CAP
1/4"	61PDP-4	61PDC-4
3/8"	PDP-8	PDC-8
1/2"	61PDP-8	PDC-12
3/4"	61PDP-12	61PDC-12
1"	61PDP-16	61PDC-16

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★ *Snap-Tite*

Dry  
Break  
Couplings

---

**71**  
SERIES





# ★ Snap-Tite 71 Series -- Flush Face/Dry Break Couplings

Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.



*The 71 Series couplings are designed for today's applications including special features for modern needs - dry break, push-to-connect, high pressure, rugged & versatile. Extra large flow chambers and Snap-tite's exclusive valve design permit exceptional flow while maintaining low pressure drop.*

- **Flush Face/Dry Break** — Air inclusion and fluid loss are held to a minimum to prevent spillage and contamination of systems.
- **Push-to-Connect** — Ideal one-hand operation when one half is mounted. Simply insert the nipple into the coupler and push-to-connect. To disconnect, retract the sleeve; and the coupling halves disconnect.
- **Rugged** — Heavy duty construction is ideally suited for high impulse applications.
- **Pressure Capability** — Designed for up to 10,000 psi (690 bar) operating pressures.
- **Versatile** — Available in steel with Zinc Trivalent Chromate plating<sup>†</sup>, 316 Stainless steel, as well as other materials. Special seals for troublesome media are available; consult factory for details.
- **Available sizes** — 1/8", 1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2" and 2".
- **Superior flow and low pressure drop**
- **Sleeve lock** — Designed to provide protection against accidental disconnection.
- **Available with Autoclave cone and threaded fittings** — Consult factory

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

## PRESSURE RATINGS

SIZE (INCHES)	SPILLAGE (CC)	AIR INCLUSION (CC)	STEEL				316 STAINLESS STEEL				HIGH PRESSURE STAINLESS STEEL			
			MAX. WORKING		MIN. BURST*		MAX. WORKING		MIN. BURST*		MAX. WORKING		MIN. BURST*	
			PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR
1/8"	.12	.02	10,000	689	22,000	1517	N/A		N/A		N/A		N/A	
1/4"	.02	.01	10,000	689	20,000	1379	5,000	344	12,500	862	10,000	689	20,000	1379
3/8" x 1/4" <sup>1</sup>	.02	.02	10,000	689	20,000	1379	5,000	344	12,500	862	10,000	689	20,000	1379
3/8"	.02	.02	10,000	689	20,000	1379	5,000	344	12,500	862	10,000	689	20,000	1379
3/8" x 1/2" <sup>2</sup>	.02	.02	10,000	689	20,000	1379	5,000	344	12,500	862	10,000	689	20,000	1379
1/2"	.03	.03	10,000	689	20,000	1379	5,000	344	12,500	862	10,000	689	20,000	1379
3/4"	.06	.04	7,500	517	15,000	1034	5,000	344	12,500	862	7,500	517	15,000	1034
1"	.10	.06	7,500	517	15,000	1034	4,000	275	10,000	689	7,500	517	15,000	1034
1" x 1-1/4" <sup>3</sup>	.10	.06	7,500	517	15,000	1034	4,000	275	10,000	689	7,500	517	15,000	1034
2" x 1-1/2" <sup>4</sup>	5.25	30.50	5,000	344	10,000	689	3,000	206	6,000	413	5,000	344	10,000	689
2"	5.25	30.50	5,000	344	10,000	689	3,000	206	6,000	413	5,000	344	10,000	689

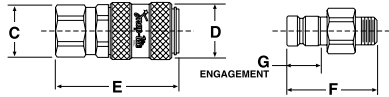
<sup>1</sup>Unit is 3/8" with 1/4" end fitting. <sup>2</sup>Unit is 3/8" with 1/2" end fitting, <sup>3</sup>1" unit with 1-1/4" end fitting, and <sup>4</sup>2" unit with 1-1/2" end fitting.

\*NOTE: Pressure Ratings were established under static pressure conditions. For high impulse applications, multiply the above pressure ratings by .6 for approximate pressure ratings.



# TECHNICAL AND DIMENSIONAL INFORMATION

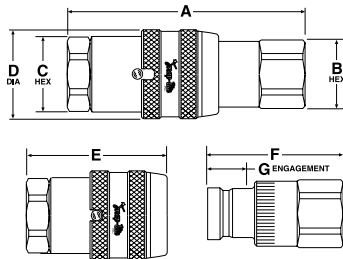
## 1/8"††



Size	A†	B (HEX)*	C (HEX)*	D (DIA)	E	F	G
1/8"	2.71 (68.83)	.69 (17.53)	.81 (20.57)	.94 (23.88)	1.75 (44.45)	1.55 (39.37)	.59 (14.99)
1/8" X 1/4"	3.04 (77.22)	.69 (17.53)	.81 (20.57)	.94 (23.88)	2.12 (53.85)	1.51 (38.35)	.59 (14.99)

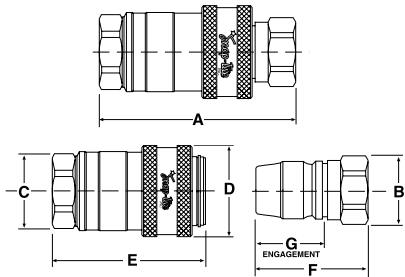
† Connected length.

## 1/4" thru 1-1/4"††



Size	A	B (HEX)*	C (HEX)*	D (DIA)	E	F	G
1/4"	3.27 (83.06)	0.81 (20.57)	0.94 (23.88)	1.19 (30.23)	1.96 (49.78)	1.84 (46.74)	0.53 (13.46)
3/8"	4.00 (101.60)	1.00 (25.40)	1.19 (30.23)	1.56 (39.62)	2.36 (59.95)	2.32 (58.93)	0.68 (17.27)
1/2"	4.43 (112.52)	1.50 (38.10)	1.50 (38.10)	1.88 (47.75)	2.77 (70.36)	2.38 (60.45)	0.72 (18.29)
3/4"	5.13 (130.30)	1.75 (44.45)	1.75 (44.45)	2.25 (57.15)	3.05 (77.47)	2.96 (75.18)	0.88 (22.35)
1"	5.60 (142.24)	1.88 (47.75)	2.00 (50.80)	2.63 (66.80)	3.32 (84.33)	3.23 (82.04)	0.95 (24.13)
1-1/4"	6.22 (157.99)	2.00 (50.80)	2.00 (50.80)	2.63 (66.80)	3.67 (93.22)	3.50 (88.90)	0.95 (24.13)

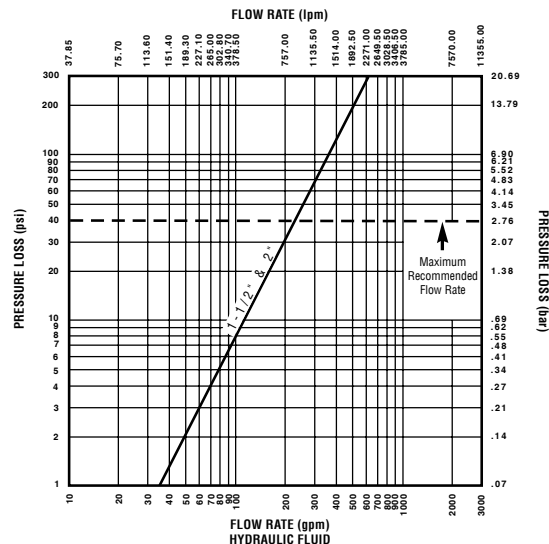
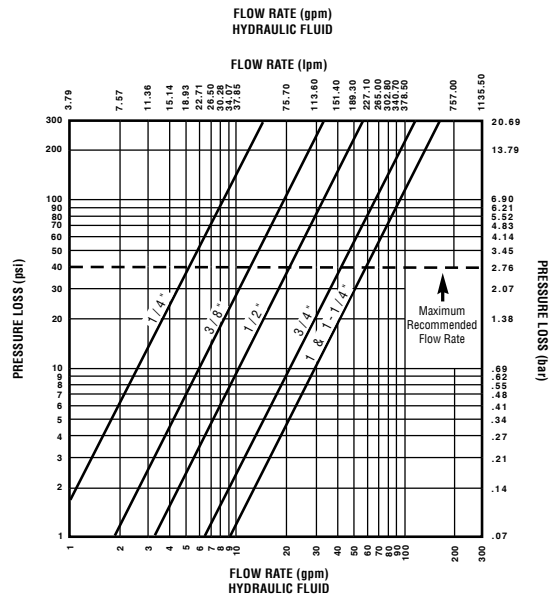
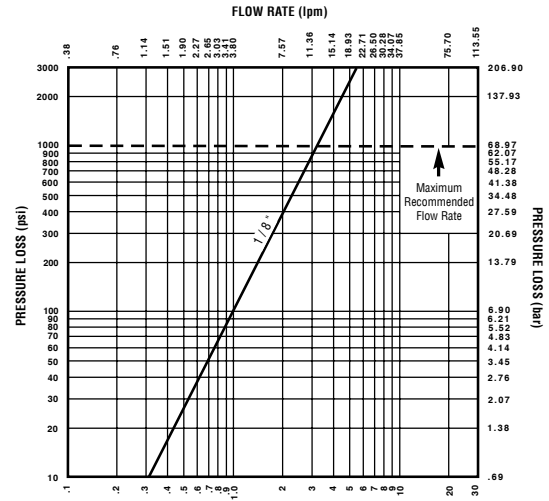
## 1-1/2" & 2"††



Size	A	B (HEX)*	C (HEX)*	D (DIA)	E	F	G
1-1/2"	7.60 (193.04)	3.25 (82.55)	3.38 (85.85)	4.50 (114.30)	6.21 (157.73)	4.50 (114.30)	3.21 (81.53)
2"	7.60 (193.04)	3.25 (82.55)	3.38 (85.85)	4.50 (114.30)	6.21 (157.73)	4.65 (118.20)	3.21 (81.53)

\*Hex dimensions are taken from flat of hex and not across corners. Hex may be substituted with round stock. Hex column would then indicate dimension taken across wrench flats.  
 Decimal dimensions are ± .06 in. (1.5mm)  
 Dimensions are subject to change without notice.  
 Part configurations are typical and do not necessarily represent actual appearance.  
 ††Note: 1/4" thru 1-1/4" are flush face couplings. 1/8", 1-1/2" & 2" maintain a recessed face on coupler half.

## FLOW CHARTS



Gallons per minute (gpm) in US gallons

Test Media MIL-H-6083 Hydraulic Fluid at 90°F ±5°F (+32°C ±1.5°C) sg .83



## HOW TO ORDER

<div style="display: flex; justify-content: space-around; align-items: center;"> <div>Part No.</div> <div style="border: 1px solid black; padding: 2px 10px;">71-3</div> <div style="border: 1px solid black; padding: 2px 10px;">C</div> <div style="border: 1px solid black; padding: 2px 10px;">4</div> <div style="font-size: 24px;">-</div> <div style="border: 1px solid black; padding: 2px 10px;">4</div> <div style="border: 1px solid black; padding: 2px 10px;">F</div> <div style="border: 1px solid black; padding: 2px 10px;"></div> <div style="border: 1px solid black; padding: 2px 10px;"></div> </div>								
Material	Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type		Seals	Options
No letter Steel, plated <b>S</b> 316 Stainless Steel <b>SH</b> High Pressure Stainless Steel	<b>71</b> (1/8") (1-1/2" & 2" nipples) <b>71-1</b> (1-1/2" & 2" couplers) <b>71-3</b> (1/4" thru 1-1/4")	<b>C</b> Coupler <b>N</b> Nipple	<b>2</b> = 1/8" <b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>12</b> = 3/4" <b>16</b> = 1" <b>32</b> = 2"	<b>2</b> = 1/8" <b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>12</b> = 3/4" <b>16</b> = 1" <b>20</b> = 1-1/4" <b>24</b> = 1-1/2" <b>32</b> = 2"	<b>F*</b> Autoclave Female cone & threaded NPTF fittings available <b>M†</b> (consult factory) Male NPT <b>EF</b> Female SAE <b>RP</b> Female British Parallel BS2779		Std. seal is Buna <b>V</b> = Viton <b>E</b> = Ethylene Propylene Rubber <b>M</b> = MHO	<b>SL</b> Sleeve Lock

\* For sizes up to 1" NPTF threads in steel.  
For sizes up to 1" NPSF threads in stainless steel.  
For sizes over 1" NPT threads.

† Available on 1/8" coupling sizes only.

### NOTES:

1. The new 71-3 style couplers and nipples are interchangeable with old-style couplers and nipples in sizes 3/8", 1/2" and 3/4".
2. Old style 1" couplers and nipples (71-2C16 and 71-2N16) are not interchangeable with new 71-3 style. Old style may be special ordered from the factory if interchangeability is an issue.
3. Spare parts kits are available for all styles in sizes 1/4" and 2".
4. Internal components of S and SH style 71 Series are not all 316 grade stainless steel. Consult factory for details.
5. Plastic cap can be used on either coupler or nipple.

MAXIMUM RECOMMENDED CONNECT/DISCONNECT PRESSURES		
SIZE	PRESSURE	
	PSI	BAR
1/8", 1/4"	300	21
3/8", 1/2", 3/4"	150	11
1", 1-1/4"	75	5
1-1/2", 2"	0	0

PLASTIC DUST CAPS	
	COUPLER/NIPPLE DUST CAP
Size	71-3 Style
1/8"	N/A
1/4"	71-PDC-4
3/8"	71-PDC-6
1/2"	71-PDC-8
3/4"	71-PDC-12
1"	71-PDC-16

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ISO  
Series B  
Interchange

72  
SERIES







## 72 Series — ISO Series B Interchange

*Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.*



- Sizes 1/8" – 1"
- Yellow Zinc Chromate plated steel<sup>†</sup>, stainless steel (303 & 316) and brass are standard
- Wide choice of seal materials to handle a variety of fluids
- Proven ball-lock mechanism provides positive connection
- Poppet style double shut-off
- Industry interchangeability...couplers (sockets) and nipples (plugs) are interchangeable with other manufacturers offering ISO Series B couplings

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

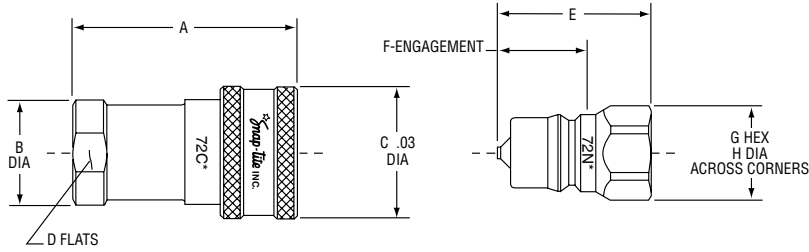
*Snap-tite's 72 Series is designed to meet or exceed ISO 7241-1 Series B. This ISO specification stipulates the test specification of the couplings and the dimensions of the nipple so the couplings will interchange with those of other manufacturers meeting this same specification. Snap-tite's 72 Series features superior pressure and flow characteristics over the other manufacturers making the 72 Series the premier ISO Industrial Interchange.*

### PRESSURE RATINGS Double shut-off (Valved and Valved)

SIZE	STEEL				STAINLESS STEEL				BRASS			
	MAXIMUM WORKING		MINIMUM BURST		MAXIMUM WORKING		MINIMUM BURST		MAXIMUM WORKING		MINIMUM BURST	
	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR
1/8"	5,000	345	20,000	1,380	4,000	280	16,000	1,105	3,000	210	12,000	830
1/4"	7,500	520	30,000	2,070	5,500	380	22,000	1,520	3,750	260	15,000	1,035
3/8"	5,000	345	20,000	1,380	3,750	260	15,000	1,035	2,750	190	11,000	760
1/2"	5,000	345	20,000	1,380	3,750	260	15,000	1,035	3,000	210	12,000	830
3/4"	4,000	280	16,000	1,105	3,000	210	12,000	830	2,200	155	8,800	610
1"	4,000	280	16,000	1,105	3,000	210	12,000	830	1,500	105	6,000	415

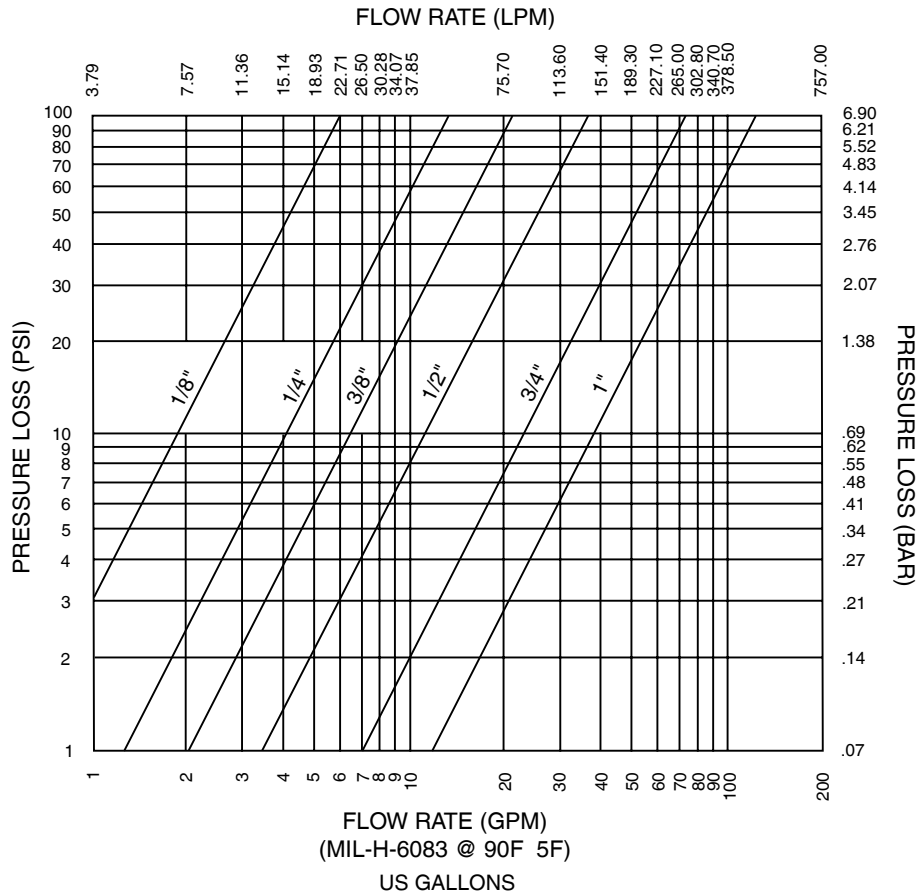


## TECHNICAL AND DIMENSIONAL INFORMATION



SIZE	A		A (SAE)		B		C		D		E		E (SAE)		F		G		H	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1/8"	2.02	51.30			.82	20.83	.93	23.62	.69	17.53	1.38	35.05			.85	21.59	.56	14.22	.62	15.75
1/8" x 1/4"			2.06	52.32	.82	20.83	.93	23.62	.69	17.53			1.42	36.07	.85	21.59	.68	17.27	.76	19.30
1/4"	2.25	57.15			.88	22.35	1.12	28.45	.75	19.05	1.51	38.35			.95	24.13	.75	19.05	.83	21.08
1/4" x 3/8"			2.41	61.21	.88	22.35	1.12	28.45	.75	19.05			1.67	42.42	.95	24.13	.88	22.35	.96	24.38
3/8"	2.57	65.28			1.13	28.70	1.38	35.05	1.00	25.40	1.74	44.20			1.13	28.70	.88	22.35	.96	24.38
3/8" x 1/2"			2.77	70.36	1.13	28.70	1.38	35.05	1.00	25.40			1.94	49.28	1.13	28.70	1.00	25.40	1.10	27.94
1/2"	2.95	74.93	2.95	74.93	1.37	34.80	1.75	44.45	1.25	31.75	2.01	51.05	2.01	51.05	1.27	32.26	1.13	28.70	1.24	31.50
1/2" x 5/8"			3.02	76.71	1.37	34.80	1.75	44.45	1.25	31.75			2.08	52.83	1.27	32.26	1.19	30.23	1.31	33.27
3/4"	3.48	88.39	3.69	97.73	1.75	44.45	2.13	54.10	1.50	38.10	2.33	59.18	2.54	64.52	1.64	41.66	1.38	35.05	1.51	38.35
1"	4.14	105.16	4.14	105.16	2.00	50.80	2.50	63.50	1.75	44.45	2.81	71.37	2.81	71.37	1.87	47.50	1.63	41.40	1.79	45.47

## FLOW CHART





## HOW TO ORDER

PART NO. S 72 C 4 - 4 F

Material	Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seals	Options
No letter Steel, plated S 303 Stainless Steel SS 316 Stainless Steel B Brass	72	C Coupler N Nipple	2 = 1/8" 4 = 1/4" 6 = 3/8" 8 = 1/2" 12 = 3/4" 16 = 1"	2 = 1/8" 4 = 1/4" 6 = 3/8" 8 = 1/2" 10 = 5/8" 12 = 3/4" 16 = 1"	F* Female NPTF RP Female British Parallel BS2779 EF† Female SAE (Steel & 303 SST Only)	No letter for Buna-N (nitrile) V Viton E Ethylene Propylene Rubber	SL Sleeve Lock

\*316 stainless steel construction supplied with female NPSF threads

†SAE Threads:

- 1/8" is supplied with 1/4" SAE (2-4EF) only
- 1/4" is supplied with 3/8" SAE (4-6EF) only
- 3/8" is supplied with 1/2" SAE (6-8EF) only
- 1/2" *can* be supplied with 5/8" SAE (8-10EF) if required
- All others are size for size (8-8EF, 12-12EF, 16-16EF)

### ACCESSORIES

	DUST CAP/ PLUG
1/8"	72PDCP-2
1/4"	72PDCP-4
3/8"	72PDCP-6
1/2"	72PDCP-8
3/4"	72PDCP-12
1"	72PDCP-16

Dust cap/plugs have a cap and plug on the same strap for use on either a coupler or a nipple.

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*The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.*

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★ *Snap-Tite*

Ultra  
High  
Pressure  
Couplings

**73**  
SERIES





# ★ Snap-tite 73 Series — Ultra High Pressure Couplings

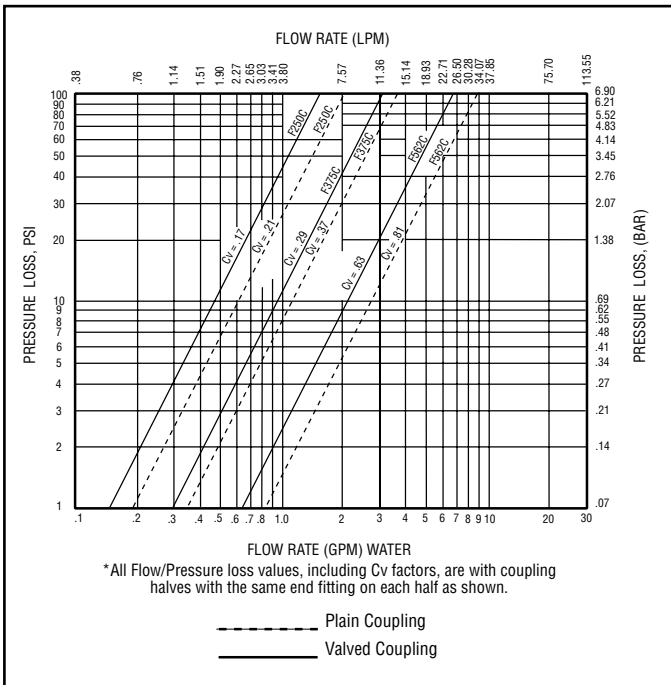
*Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.*



- Rugged heavy duty construction with superior flow characteristics.
- Designed for operating pressures to 43,500 psi (3000 bar).
- Stainless steel construction.
- Positive locking collar prevents accidental disconnection.
- Available in 1/4" size.

*The 73 Series is designed specifically for waterjet, waterblast, oilfield injection and test systems where ultra-high pressures are common place.*

## PRESSURE DROP\*

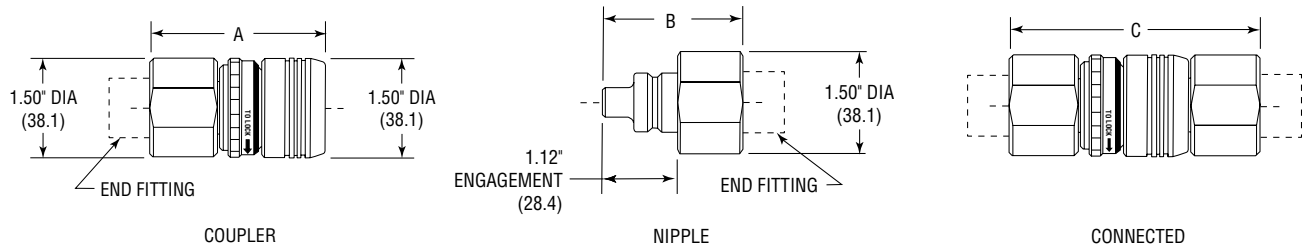


## PRESSURE RATINGS

SIZE (inches)	STAINLESS STEEL			
	MAX. WORKING		MIN. BURST	
	PSI	BAR	PSI	BAR
1/4"	43,500	3000	87,000	6000



# TECHNICAL AND DIMENSIONAL INFORMATION



	A		B		C	
	IN.	mm	IN.	mm	IN.	mm
<b>VALVED</b>	2.65	67.31	2.11	53.59	3.64	92.46
<b>PLAIN</b>	2.33	59.18	1.73	43.94	2.93	74.42

## AVAILABLE END FITTINGS

Pressures to 10,000 psi (689 bar)

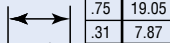
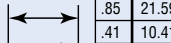
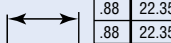
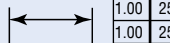
VALVED									
PLAIN									

1/4" NPTF	1/4" RP	1/4" SAE	1/4" MALE NPT	1/4" MALE SAE

VALVED									
PLAIN									

3/8" NPTF	3/8" RP	3/8" SAE	3/8" MALE NPT	3/8" MALE SAE

Pressures to 20,000 psi (1379 bar)

VALVED		<table><tr><td>IN.</td><td>mm</td></tr><tr><td>.75</td><td>19.05</td></tr><tr><td>.31</td><td>7.87</td></tr></table>	IN.	mm	.75	19.05	.31	7.87		<table><tr><td>IN.</td><td>mm</td></tr><tr><td>.85</td><td>21.59</td></tr><tr><td>.41</td><td>10.41</td></tr></table>	IN.	mm	.85	21.59	.41	10.41		<table><tr><td>IN.</td><td>mm</td></tr><tr><td>.88</td><td>22.35</td></tr><tr><td>.88</td><td>22.35</td></tr></table>	IN.	mm	.88	22.35	.88	22.35		<table><tr><td>IN.</td><td>mm</td></tr><tr><td>1.00</td><td>25.40</td></tr><tr><td>1.00</td><td>25.40</td></tr></table>	IN.	mm	1.00	25.40	1.00	25.40
IN.	mm																															
.75	19.05																															
.31	7.87																															
IN.	mm																															
.85	21.59																															
.41	10.41																															
IN.	mm																															
.88	22.35																															
.88	22.35																															
IN.	mm																															
1.00	25.40																															
1.00	25.40																															
PLAIN																																
	3/8" MP SF375CX	9/16" MP SF562CX	3/8" MP SM375CX	9/16" MP SM562CX																												

Pressures to 43,500 psi (3000 bar)

VALVED									
PLAIN									

IN.	mm
.45	11.43
.00	0.00

\*

1/4" HP F250C

IN.	mm
.69	17.53
.69	17.53

1/4" HP M250C

IN.	mm
.63	16.00
.63	16.00

3/4" REVERSE CONE  
(AUTOCLAVE RH12)

IN.	mm
1.12	28.45
1.12	28.45

9/16" HP M562C

IN.	mm
.78	19.81
.78	19.81

1" REVERSE CONE  
(AUTOCLAVE RH16)

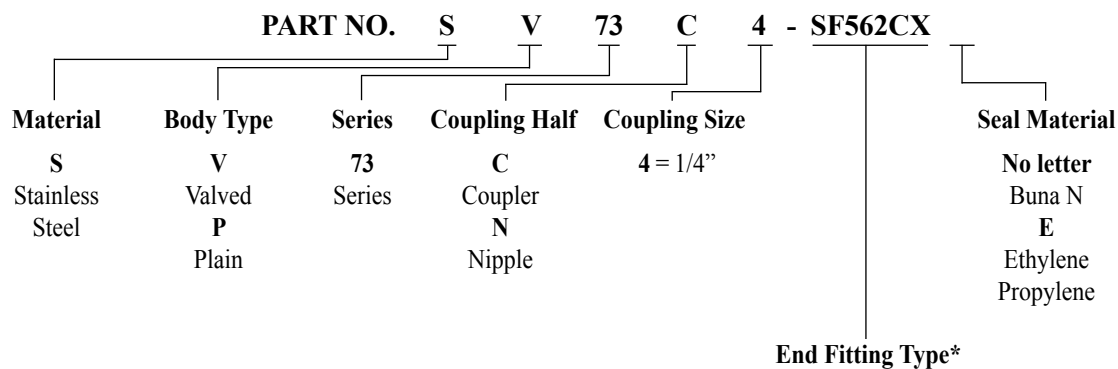
IN.	mm
.50	12.70
.50	12.70

9/16" REVERSE CONE  
(AUTOCLAVE RH9)

\* - No increase in overall length



# HOW TO ORDER



Pressures to 10,000 psi (689 bar)	Pressures to 20,000 psi (1379 bar)	Pressures to 43,500 psi (3000 bar)
<b>-4F</b> 1/4" Female NPTF <b>-4EF</b> 1/4" Female SAE <b>-4RP</b> 1/4" Female British Parallel BS2779 <b>-4M</b> 1/4" Male NPT <b>-4EM</b> 1/4" Male SAE <b>-6F</b> 3/8" Female NPTF <b>-6EF</b> 3/8" Female SAE <b>-6RP</b> 3/8" Female British Parallel BS2779 <b>-6M</b> 3/8" Male NPT <b>-6EM</b> 3/8" Male SAE	<b>SF562CX</b> 9/16" Female Medium Pressure <b>SF375CX</b> 3/8" Female Medium Pressure <b>SM562CX</b> 9/16" Male Medium Pressure <b>SM375CX</b> 3/8" Male Medium Pressure	<b>M562C</b> 9/16" High Pressure Male <b>RH9</b> 9/16" Reverse Cone <b>RH12</b> 3/4" Reverse Cone <b>RH16</b> 1" Reverse Cone <b>F250C</b> 1/4" Female High Pressure <b>M250C</b> 1/4" Male High Pressure

\*Other end fittings available upon request

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*The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.*



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★ *Snap-Tite*

ISO

16028

Interchange

**74**  
SERIES







## 74 Series — ISO 16028 Interchange

***Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.***



- Flush Face/Dry Break design facilitates easy cleaning prior to connection
- High strength steel construction
- Heavy duty Zinc Trivalent Chromate plating<sup>†</sup> for exceptional corrosion resistance
- Sizes - 1/4", 3/8", 1/2", 5/8", 3/4" & 1" (6.3, 10, 12.5, 16, 19 & 25 mm)
- Push-to-connect design
- Industry Interchangeability - couplers and nipples are interchangeable with other manufacturer's ISO 16028 couplings
- Connect Under Pressure Capability - currently available in 1/2" size in either coupler or nipple half
- 4:1 Safety factor
- 3/8" size also conforms to HTMA (Hydraulic Tool Manufacturers Association) standards

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

Snap-tite's expanded 74 Series product line is designed to meet or exceed the requirements called out in ISO 16028. The 3/8" unit also meets or exceeds the requirements as established by HTMA specifications and defined by ANSI/NFPA T3.20.15-1991.

In addition, Snap-tite's patented Series CP74 coupling is designed to meet a multitude of issues presently faced by users worldwide. Trapped pressure, whether residual or created by thermal expansion, prevents standard quick connect couplings from connecting as designed. Construction, portable hydraulic tools and utility equipment are a few of the many industries where connections made under pressure would save valuable time and money. Snap-tite's Series CP74 is "The Answer" to this dilemma.

The connect under pressure (CP) option allows either coupling half to be placed on the pressurized portion of the hydraulic circuit with static pressure up to 3625 psi (250 bar). It can then easily connect to Snap-tite's 74 Series or any other ISO 16028 mate of the same size without damage to the coupling or endangering the environment with subsequent spillage. Durability, reliability and concern for the environment were considered when designing Snap-tite's 74 Series coupling featuring one hand, push-to-connect and disconnect convenience.



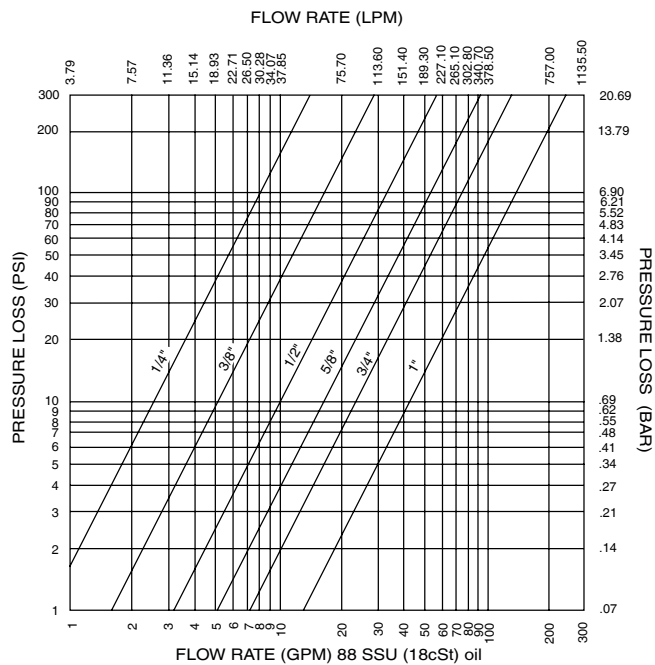
## TECHNICAL INFORMATION

### PRESSURE RATINGS

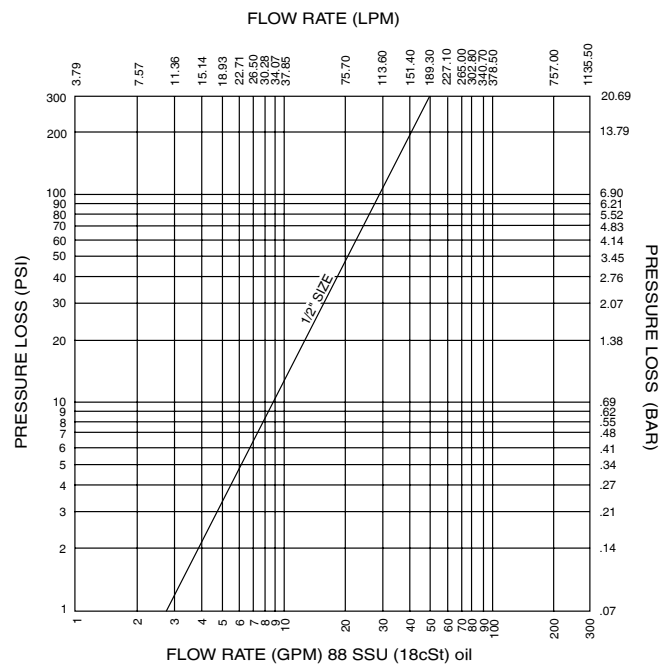
Size		Spillage	Operating		Minimum Burst	
in	mm	cc	psi	bar	psi	bar
1/4"	6.3	0.020	4568	315	18,270	1260
3/8"	10	0.035	3625	250	14,500	1000
1/2"	12.5	0.070	3625	250	14,500	1000
5/8"	16	0.100	3625	250	14,500	1000
3/4"	19	0.150	3625	250	14,500	1000
1"	25	0.250	2900	200	11,600	800

### FLOW CHARTS

#### 74 Series



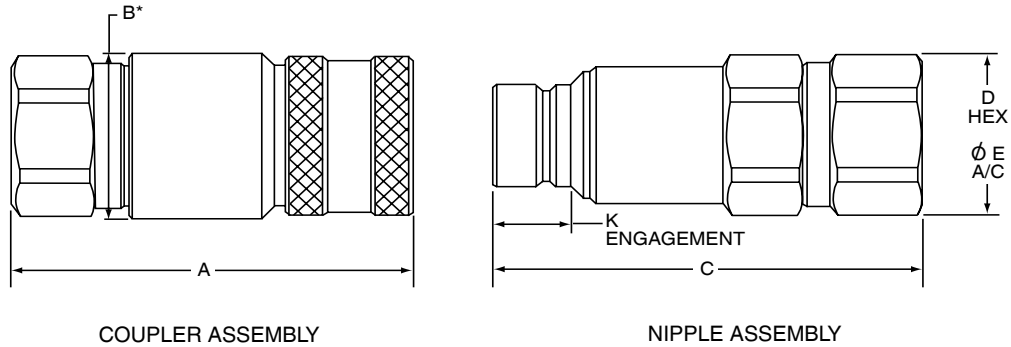
#### CP74 Series





## CP74 SERIES DIMENSIONAL INFORMATION

CP74 catalog dimensions are the same regardless of end fitting. See page 6, "How to Order", for currently available standard end fittings.

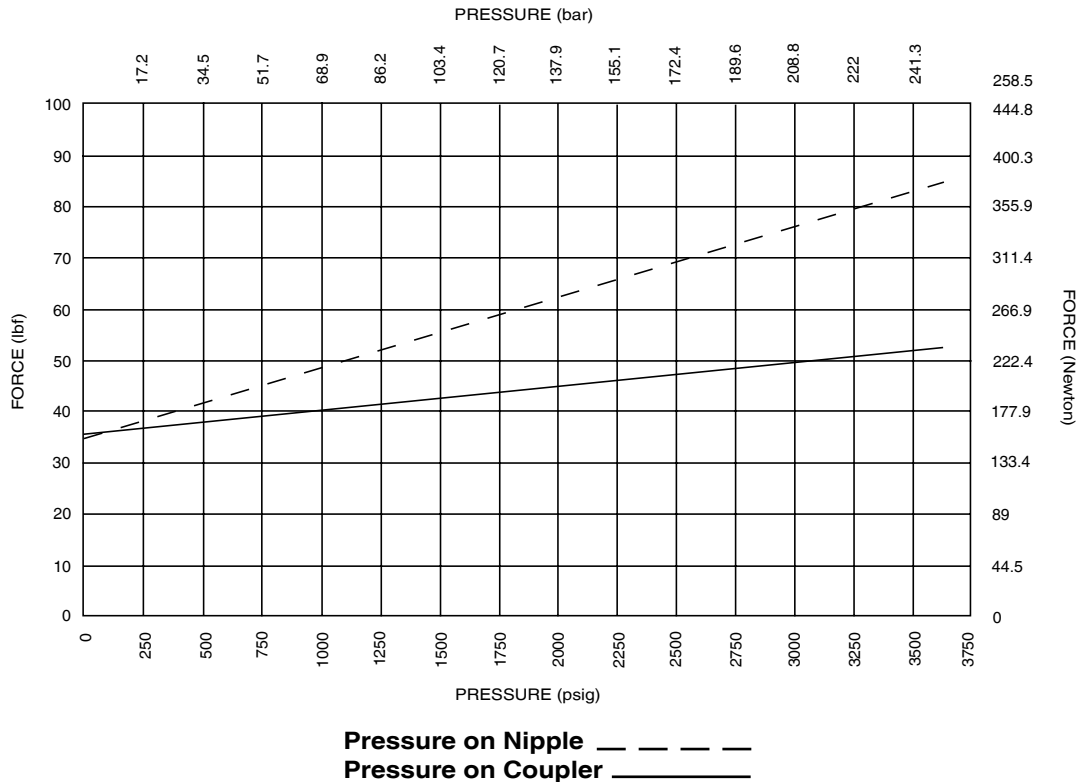


SIZE	A	B*	C	D	E	K
1/2" (mm)	3.55 90.17	1.55 39.37	3.80 96.52	1.38 35.05	1.51 38.35	0.68 17.27

\*The "B" dimension is the body dimension.  
(The body is larger in diameter than the sleeve on CP74)  
All decimal dimensions are  $\pm .030$  in (0.76 mm)

**CP74 NOTE:** The CP74 Series products operate slightly different from traditional dry break couplings. When making a connection with no pressure on the coupler and up to 3625 psi (250 bar) on the nipple, a slight pause during connections is required to allow trapped pressure to vent to the coupler before completing the connection. Partial connection followed by disconnection may result in damage to the coupling.

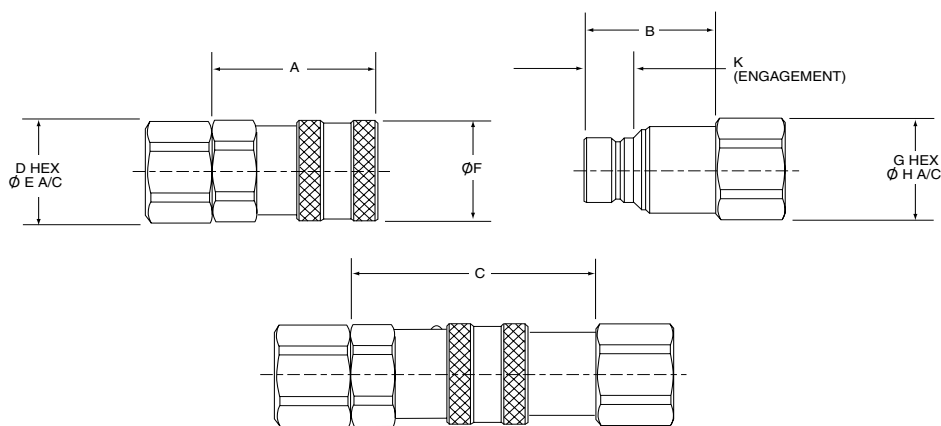
## CP74 CONNECT FORCE



**NOTE:** By comparison, it would take approximately 40 lbs (177.9 Newton) of force to connect a standard 1/2" ISO 16028 coupling with 200 psi (14 bar) internal pressure.



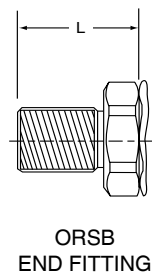
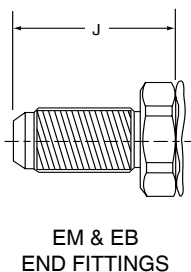
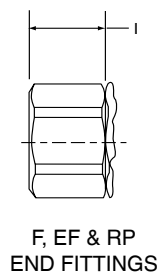
## 74 SERIES DIMENSIONAL INFORMATION



SIZE	A	B	C	D	E	F	G	H	K
1/4" (mm)	1.80 45.72	1.26 32.00	2.63 66.80	1.00 25.40	1.10 27.94	1.12 28.45	0.81 20.57	0.89 22.61	0.43 10.92
3/8" (mm)	1.92 48.77	1.55 39.37	2.86 72.64	1.00 25.40	1.10 27.94	1.20 30.48	0.94 23.88	1.03 26.16	0.61 15.49
1/2" (mm)	2.32 58.93	1.84 46.74	3.47 88.14	1.38 35.05	1.51 38.35	1.50 38.10	1.38 35.05	1.51 38.35	0.68 17.27
5/8" (mm)	2.07 52.58	1.98 50.29	3.36 85.34	1.50 38.10	1.65 41.91	1.69 42.93	1.50 38.10	1.65 41.91	0.69 17.53
3/4" (mm)	3.08 78.23	2.27 57.66	4.47 113.54	1.75 44.45	1.93 49.02	1.81 45.97	1.63 41.40	1.80 45.72	0.88 22.35
1" (mm)	2.93 74.42	2.55 64.77	4.55 115.57	2.00 50.80	2.20 55.88	2.25 57.15	1.88 47.75	2.06 52.32	0.93 23.62

### OPTIONAL END FITTING DIMENSIONS

	Coupler	Nipple		Coupler	Nipple
<b>6-8F or RP</b> (mm)	0.86 21.84	1.00 25.40	<b>8-12EF</b> (mm)	1.02 25.91	1.10 27.94
<b>6-8EF</b> (mm)	0.61 15.49	0.80 20.32	<b>10-12F</b> (mm)	1.10 27.94	1.09 27.69
<b>8-10EF</b> (mm)	0.89 22.61	0.97 24.64	<b>10-12EF</b> (mm)	1.10 27.94	1.09 27.69
<b>8-10EM</b> (mm)	1.18 29.97	1.20 30.48	<b>10-12RP</b> (mm)	1.04 26.42	1.03 26.16
<b>8-10EB</b> (mm)	2.02 51.31	2.04 51.82	<b>10-12EM</b> (mm)	1.39 35.31	1.39 35.31
<b>8-10ORSB</b> (mm)	1.70 43.18	1.71 43.43	<b>10-12EB</b> (mm)	2.28 57.91	2.28 57.91



### BASIC END FITTING DIMENSIONS

	1/4"		3/8"		1/2"		5/8"		3/4"		1"	
	Coupler	Nipple	Coupler	Nipple	Coupler	Nipple	Coupler	Nipple	Coupler	Nipple	Coupler	Nipple
<b>-F</b> (mm)	0.44 11.18	0.58 14.73	0.52 13.21	0.67 17.02	0.96 24.38	1.03 26.16			0.53 13.46	1.05 26.67	1.21 30.73	1.04 26.42
<b>-EF</b> (mm)	0.44 11.18	0.58 14.73	0.52 13.21	0.67 17.02	0.72 18.29	0.83 21.08			0.53 13.46	1.05 26.67	1.19 30.23	1.04 26.42
<b>-RP</b> (mm)	0.44 11.18	0.58 14.73	0.52 13.21	0.67 17.02	0.90 22.86	0.96 24.38			0.53 13.46	1.05 26.67	1.21 30.73	1.04 26.42
<b>-EM</b> (mm)	1.05 26.67	1.03 26.16			1.09 27.69	1.09 27.69	1.26 32.00	1.26 32.00	1.34 34.04	1.32 33.53	1.51 38.35	1.58 40.13
<b>-EB</b> (mm)	1.73 43.94	1.71 43.43			1.90 48.26	1.90 48.26	2.11 53.59	2.11 53.59	2.23 56.64	2.22 56.39	2.38 60.45	2.32 58.93

All decimal dimensions are ±.030 in. (0.76 mm)



## HOW TO ORDER

Part No. <span style="border: 1px solid black; padding: 2px;">74</span> <span style="border: 1px solid black; padding: 2px;">C</span> <span style="border: 1px solid black; padding: 2px;">8</span> – <span style="border: 1px solid black; padding: 2px;">8</span> <span style="border: 1px solid black; padding: 2px;">F</span> <span style="border: 1px solid black; padding: 2px;"></span> <span style="border: 1px solid black; padding: 2px;"></span>							
Special Feature	Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seal Material	Options
No letter Std. 74 Series <b>CP*</b> Connect under pressure option	<b>74</b>	<b>C</b> Coupler <b>N</b> Nipple	<b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>10</b> = 5/8" <b>12</b> = 3/4" <b>16</b> = 1"	<b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>10</b> = 5/8" <b>12</b> = 3/4" <b>16</b> = 1"	<b>F</b> Female NPTF <b>RP</b> Female British Parallel BS2779 <b>EF</b> Female SAE <b>EM</b> Male SAE <b>EB</b> Bulkhead SAE <b>ORSB</b> Bulkhead O-ring Face Seal	No letter for Buna N (Code A) <b>V</b> Viton	<b>SL</b> Sleeve lock

\*CP74 feature currently only available in 1/2" (8) body size with end fitting sizes and types: -8F, -8RP, -8EF, -10EF and -12EF.

ACCESSORIES	
Size	Coupler/Nipple Dust Cap
1/4	74PDC-4
3/4	74PDC-6
1/2	74PDC-8
5/8	74PDC-10
3/4	74PDC-12
1	74PDC-16

Dust caps are universal and can be used on either the coupler or nipple half.

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★ *Snap-Tite*

Thread  
to  
Connect  
Couplings

**75**  
SERIES

Includes "Fire Safe" Version





# **75 Series -- Thread-to-Connect Couplings**

*Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.*



- Connect under Pressure — Designed for up to 5,000 psi (345 bar) operating pressures.
- Thread-to-Connect — To connect, merely thread the nipple into the coupler. To disconnect just unthread.
- Rugged — Steel construction, with Zinc Trivalent Chromate plating<sup>†</sup> to resist corrosion.
- Stainless steel construction also available.
- Seals — Choice of seal materials to handle a variety of fluids including applications involving the use of fire-resistant hydraulic fluids.
- Available sizes — 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3", and 4".
- DBP version is "Fire Safe" rated to API 16D and certified to EUB Directive #36 (#NAO 0701023) for use on drilling blowout prevention circuits (BOPs).

**New!**

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

*The very rugged 75 Series is designed and constructed for high pressure hydraulic service. Although these couplings are used in a broad variety of heavy duty applications, a primary usage is in oil fields and offshore drilling ... cranes, power tongs and swivels, diving, etc.*

PRESSURE RATINGS						
SIZE	SPILLAGE (cc)	AIR INCLUSION (cc)	MAXIMUM WORKING*		MINIMUM BURST	
			PSI	BAR	PSI	BAR
3/4"	8	12	5,000	345	20,000	1379
1"	16	25	5,000	345	20,000	1379
1-1/4"	31	48	5,000	345	15,000	1035
1-1/2"	64	98	5,000	345	15,000	1035
2"	141	205	5,000	345	15,000	1035
2-1/2"	204	368	3,000	207	6,000	414
3"	320	480	3,000	207	6,000	414
4"	400	610	400	28	1,000	69

Burst pressures listed were taken at the point at which failure rendered the quick-disconnect inoperative. (Proof pressure equals 1-1/2 times the operating pressure.)

NOTE: Pressure Ratings were established under static pressure conditions.

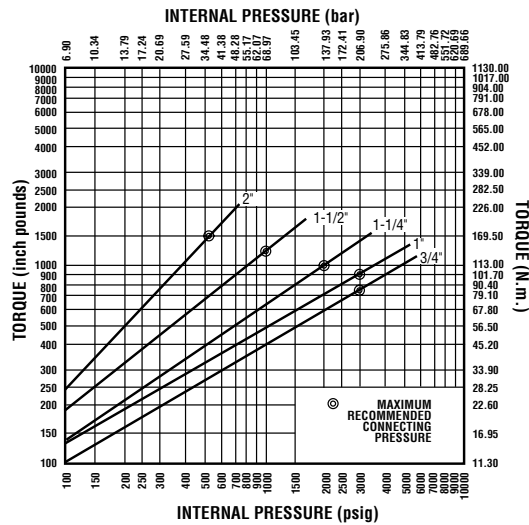
For impulse applications, multiply the above pressure ratings by .6 for approximate pressure ratings.

\*NOTE: For working pressure of 316 SST units, multiply the above pressure ratings by .33 for approximate pressure ratings.

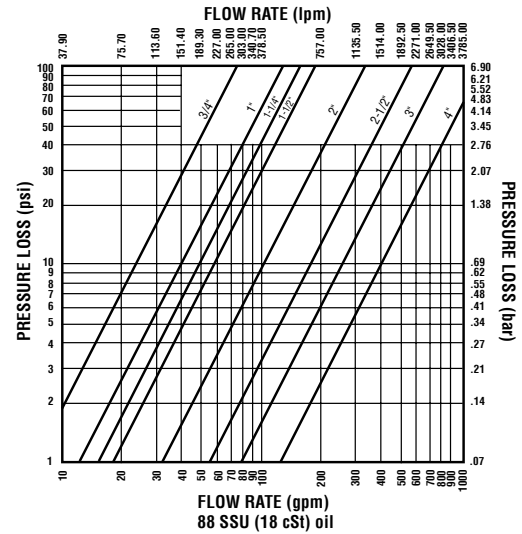


## TECHNICAL AND DIMENSIONAL INFORMATION

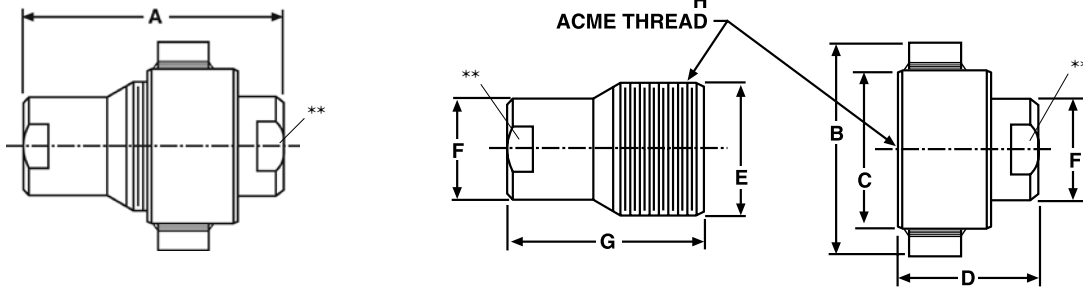
### TORQUE VALUES FOR CONNECTING COUPLINGS



### FLOW CHART



### 3/4" THRU 4"



SIZE		A	B	C (DIA)	D	E (DIA)	F (DIA)	G	H (ACME)
3/4	in	4.85		1.87*	2.84	1.75	1.35	3.27	1-3/4"-8
	mm	123.19		47.50*	72.14	44.45	34.29	83.06	
1	in	6.04	4.25	2.75	3.45	2.25	1.77	4.17	2-1/4"-6
	mm	153.32	107.95	69.85	87.63	57.15	44.96	105.92	
1-1/4	in	7.76	4.75	3.25	4.40	2.62	2.14	5.36	2-5/8"-6
	mm	197.10	120.65	82.55	111.76	66.55	54.36	136.14	
1-1/2	in	8.70	5.75	3.75	5.04	3.24	2.50	5.97	3-1/4"-4
	mm	220.98	146.05	95.25	128.02	82.30	63.50	151.64	
2	in	10.05	6.75	4.75	6.07	4.00	3.25	7.05	4"-4
	mm	255.27	171.45	120.65	154.18	101.60	82.55	179.07	
2-1/2	in	10.13	8.00	6.00	5.29	5.00	3.38	7.46	5"-4
	mm	257.30	203.20	152.40	134.37	127.00	85.85	189.48	
3	in	10.58	8.50	6.50	5.84	6.00	4.25	8.26	6"-4
	mm	268.73	215.90	165.10	148.34	152.40	107.95	209.80	
4	in	12.36	11.00	7.00	7.11	6.63	5.25	9.40	6-5/8"-4
	mm	313.94	279.40	177.80	180.59	168.40	133.35	238.76	

\*Hex dimensions are taken from flat of hex and not across corners.  
 Decimal dimensions are  $\pm .06$  in.(1.5mm)  
 Dimensions are subject to change without notice.  
 Part configurations are typical and do not necessarily represent actual appearance.  
 \*\*Wrench flats are special order, see "How To Order".



## HOW TO ORDER

<div> <div>Part No.</div> <div>75</div> <div>C</div> <div>12</div> <div>-</div> <div>12</div> <div>F</div> <div></div> <div>-</div> <div></div> </div>								
Material	Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	*Seals	Option	Option
No letter Steel, plated S 316 Stainless steel	75	C coupler N nipple	12 = 3/4" 16 = 1" 20 = 1-1/4" 24 = 1-1/2" 32 = 2" 40 = 2-1/2" 48 = 3" 64 = 4"	12 = 3/4" 16 = 1" 20 = 1-1/4" 24 = 1-1/2" 32 = 2" 40 = 2-1/2" 48 = 3" 64 = 4"	F* Female NPSF EF Female SAE RP Female British Parallel BS2779	Std. Seal is Buna V=Viton E= Ethylene Propylene Rubber	W** Wrench flats on body	DBP*** "Fire Safe" BOP version

\* For sizes up to 1" NPSF Threads. For sizes over 1" NPT Threads.

\*\* Available on coupler and nipple bodies.

\*\*\* DBP available in 3/4", 1" and 1-1/4" sizes, steel material

♦ Seal material code not applicable with DBP option

### DUST PLUGS AND CAPS

SIZE	DUST PLUG	DUST CAP
3/4"	75MDP-12	75MDC-12
1"	75MDP-16	75MDC-16
1-1/4"	75MDP-20	75MDC-20
1-1/2"	75MDP-24	75MDC-24
2"	75MDP-32	75MDC-32
2-1/2"	75MDP-40	75MDC-40
4"	75MDP-64	75MDC-64

### SPARE PARTS KITS

SIZE	COUPLER KIT	NIPPLE KIT
3/4"	75C12-SPK	75N12-SPK
1"	75C16-SPK	75N16-SPK
1-1/4"	75C20-SPK	75N20-SPK
1-1/2"	75C24-SPK	75N24-SPK
2"	75C32-SPK	75N32-SPK
2-1/2"	75C40-SPK	75N40-SPK
4"	75C64-SPK	75N64-SPK

Each kit contains a valve assembly, spring and guide stop.  
Consult factory for "DBP" option seal kits.

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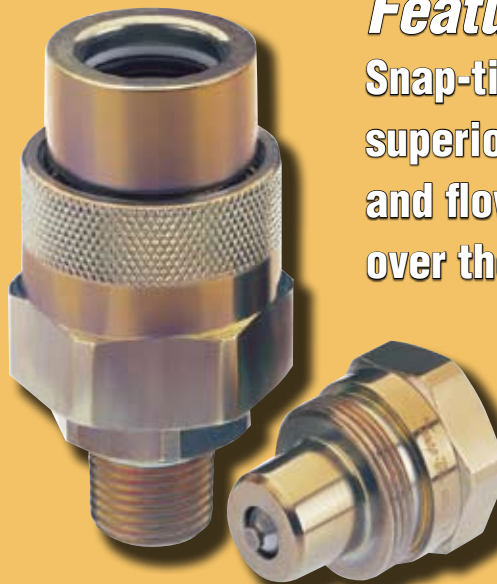




# HYDRAULIC COUPLINGS 76 SERIES

*Featuring...*

**Snap-tite quality with superior pressure and flow characteristics over the competition**



- **High strength soft seat poppet valves insure zero leakage and higher flow rates than commonly used metal-to-metal sealing ball design**
- **Heavy duty steel construction with Zinc Trivalent Chromate plating\* for excellent corrosion resistance**
- **Working pressures up to 14,500 psi (1,000 bar)**
- **Available in 1/4" and 3/8" sizes**
- **The specially designed threaded sleeve has knurling at the front to facilitate connection by hand. The hex at the back allows connection with the use of a wrench**
- **The couplings are available with male NPT, female NPSF or female British parallel BS2779 end fittings. The nipples are available with female NPSF or female British parallel BS2779 end fittings. Other end fittings are available, consult factory**

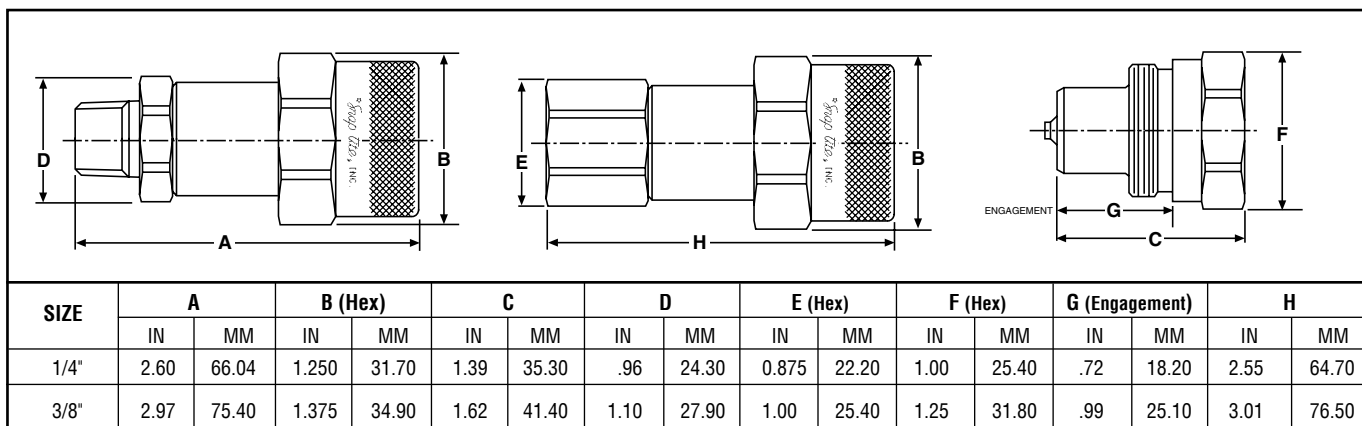
\*Conforms with ROHS and WEEE European Union Directives

 **Snap-Tite**

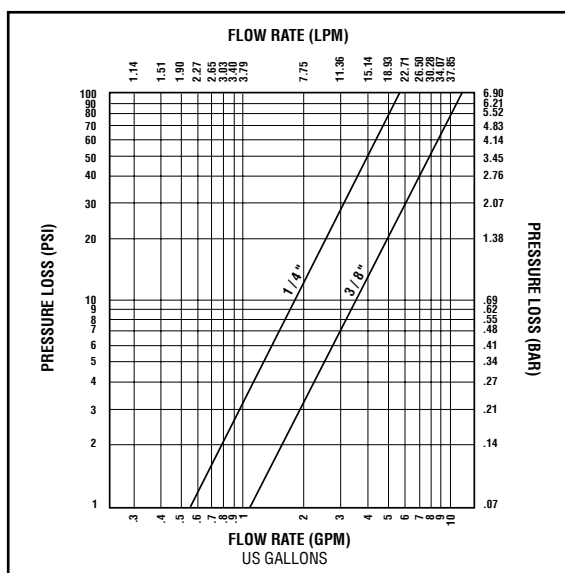
The Snap-tite 76 Series Thread-to-Connect Hydraulic Coupling was created for high pressure extreme applications such as are found on hydraulic rams, pumps, bolt tensioners and rescue equipment. The 76 Series is designed to interchange with a number of competitive coupling products such as Parker 3000, Faster PVVM, Enerpac C-604 and others of similar construction. This coupling has the ability to connect and disconnect under pressure while exceeding most competitor's maximum pressure specifications.



## TECHNICAL AND DIMENSIONAL INFORMATION



### FLOW CHART



### PERFORMANCE

	1/4"	3/8"
Maximum Working Pressure (bar)	14,500 psi (1000)	14,500 psi (1000)
Minimum Burst Pressure (bar)	29,000 psi (2000)	29,000 psi (2000)
Torque to connect at 500 psi (35 bar)	20 in. lb. (0.23 kg.m.)	60 in. lb. (07 kg.m.)
Spillage upon disconnect at 15 psi (1 bar)	0.80 cc	0.95 cc

### HOW TO ORDER

PART NO. 76 C 6 - 6 F				
Series	Coupling Half	Coupling Size	End Fitting Type	End Fitting Type
76	C Coupler N Nipple	4 = 1/4" 6 = 3/8"	4 = 1/4" 6 = 3/8"	F Female NPSF  RP Female British Parallel BS2779  M* Male NPT *Available on coupler only

### ACCESSORIES\*

SIZE	DUST PLUG	DUST CAP
1/4"	76MDP-4	76MDC-4
3/8"	76MDP-6	76MDC-6

\*Dust caps and dust plugs are manufactured from plated carbon steel

Standard seal is Buna N (Code A). For other seal materials, consult factory.

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★ *Snap-Tite*

High  
Pressure  
Couplings

**77**  
SERIES





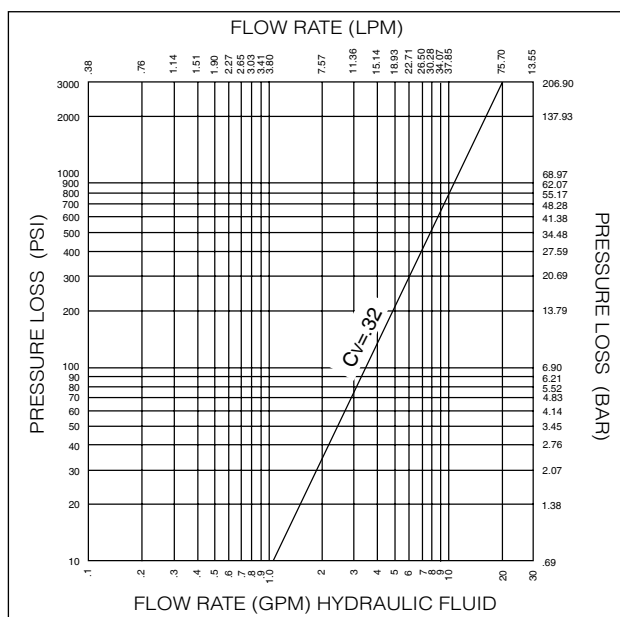
# ★ Snap-tite 77 Series — High Pressure Couplings

*Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.*



## PRESSURE DROP\*

\*Test units equipped with female NPTF end fittings



- Dry break flush valve minimizes fluid loss and air inclusion
- Rugged heavy duty construction with superior flow characteristics
- Designed for operating pressures up to 36,000 psi (2482 bar)
- Materials – high strength steel with Zinc Trivalent Chromate plating<sup>†</sup> or electroless nickel plating as well as 316 stainless steel
- Proven dog-lock mechanism provides safe, positive connection and eliminates ball brinelling
- Internal sleeve lock standard as safety feature
- Available in 1/4" size
- End fitting versatility due to two piece body construction

<sup>†</sup>Conforms with ROHS and WEEE European Union Directives

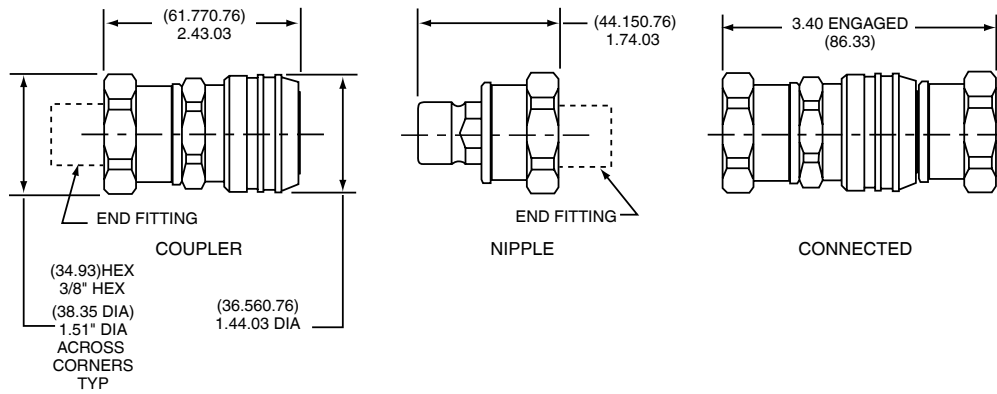
*The 77 Series is designed for applications such as hydraulic test stands, hydrotesting and offshore drilling and production platforms where high pressure fluids and cleanliness is mandatory.*

## PRESSURE RATINGS

SIZE (inches)	SPILLAGE (cc)	AIR INCLUSION (cc)	STEEL				316 STAINLESS STEEL			
			MAX. WORKING		MIN. BURST		MAX. WORKING		MIN. BURST	
			PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR
1/4"	.04	.04	36,000	2482	72,000	4965	20,000	1379	40,000	2759

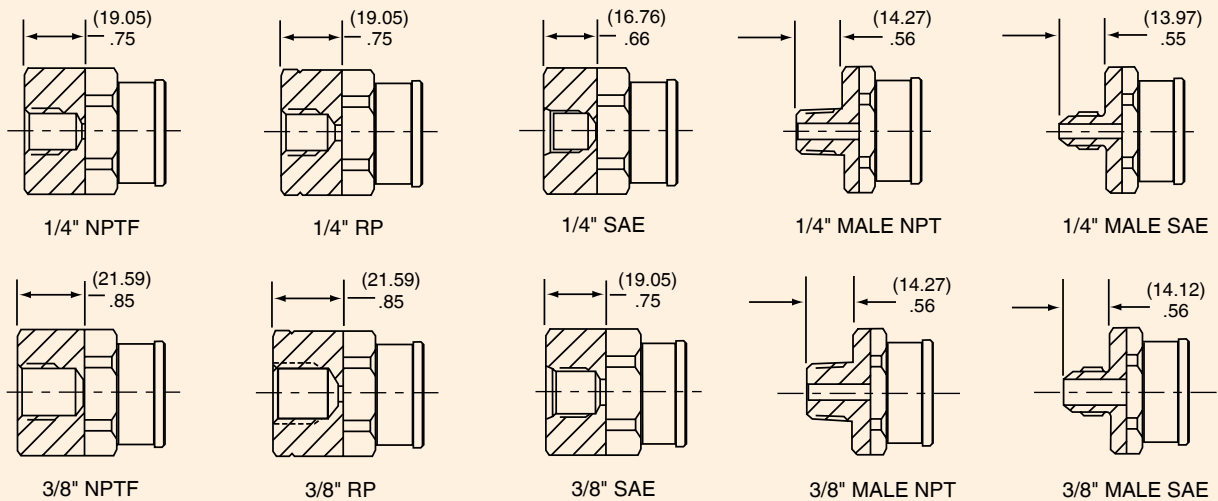


# TECHNICAL AND DIMENSIONAL INFORMATION

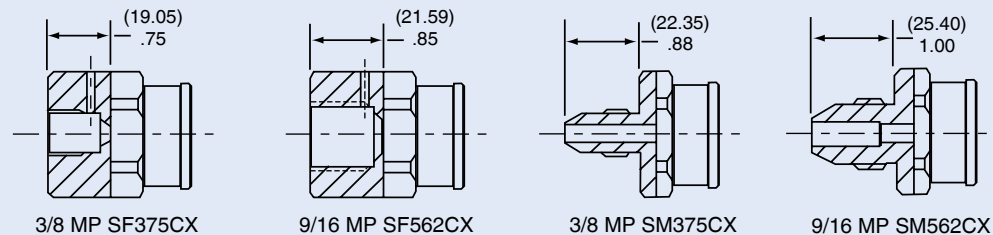


## AVAILABLE END FITTINGS

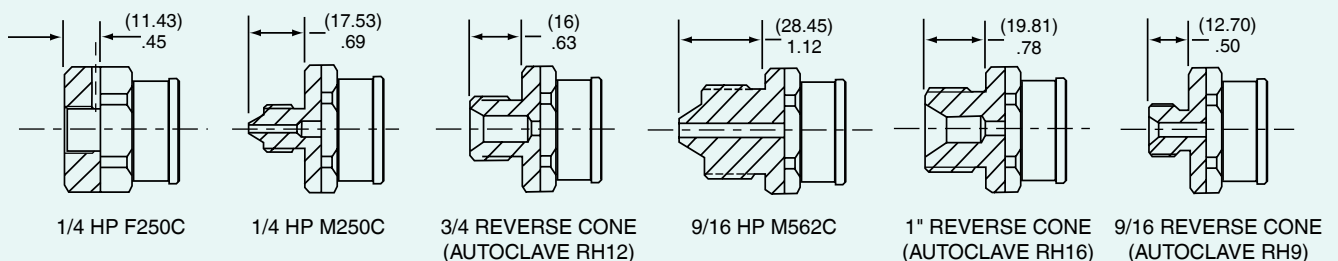
Pressures to 10,000 psi (689 bar)



Pressures to 20,000 psi (1379 bar)

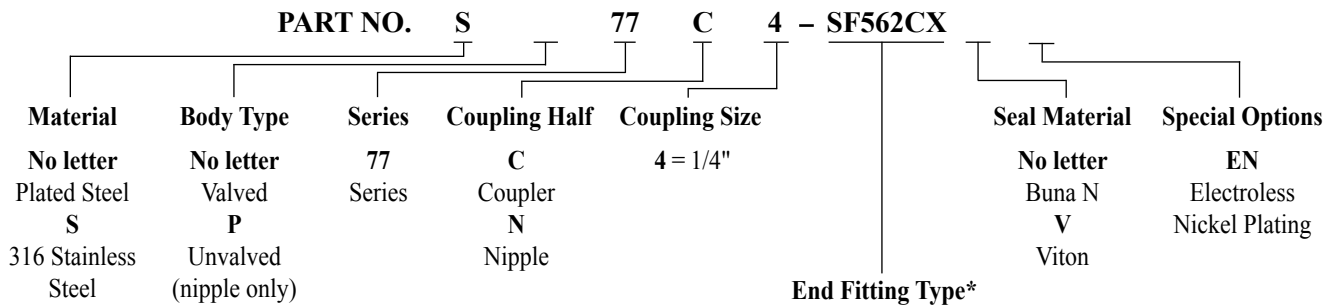


Pressures to 36,000 psi (2482 bar)\*  
\*SST to 20,000 psi (1379 bar)





## HOW TO ORDER



Pressures to 10,000 psi (689 bar)	Pressures to 20,000 psi (1379 bar)	Pressures to 36,000 psi (2482 bar)* *SST to 20,000 psi (1379 bar)
<b>-4F</b> 1/4" Female NPTF	<b>SF562CX</b> 9/16" Female Medium Pressure	<b>M562C</b> 9/16" High Pressure Male
<b>-4EF</b> 1/4" Female SAE	<b>SF375CX</b> 3/8" Female Medium Pressure	<b>RH9</b> 9/16" Reverse Cone
<b>-4RP</b> 1/4" Female British Parallel BS2779	<b>SM562CX</b> 9/16" Male Medium Pressure	<b>RH12</b> 3/4" Reverse Cone
<b>-4M</b> 1/4" Male NPT	<b>SM375CX</b> 3/8" Male Medium Pressure	<b>RH16</b> 1" Reverse Cone
<b>-4EM</b> 1/4" Male SAE		<b>F250C</b> 1/4" Female High Pressure
<b>-6F</b> 3/8" Female NPTF		<b>M250C</b> 1/4" Male High Pressure
<b>-6EF</b> 3/8" Female SAE		
<b>-6RP</b> 3/8" Female British Parallel BS2779		
<b>-6M</b> 3/8" Male NPT		
<b>-6EM</b> 3/8" Male SAE		

\*Other end fittings available upon request

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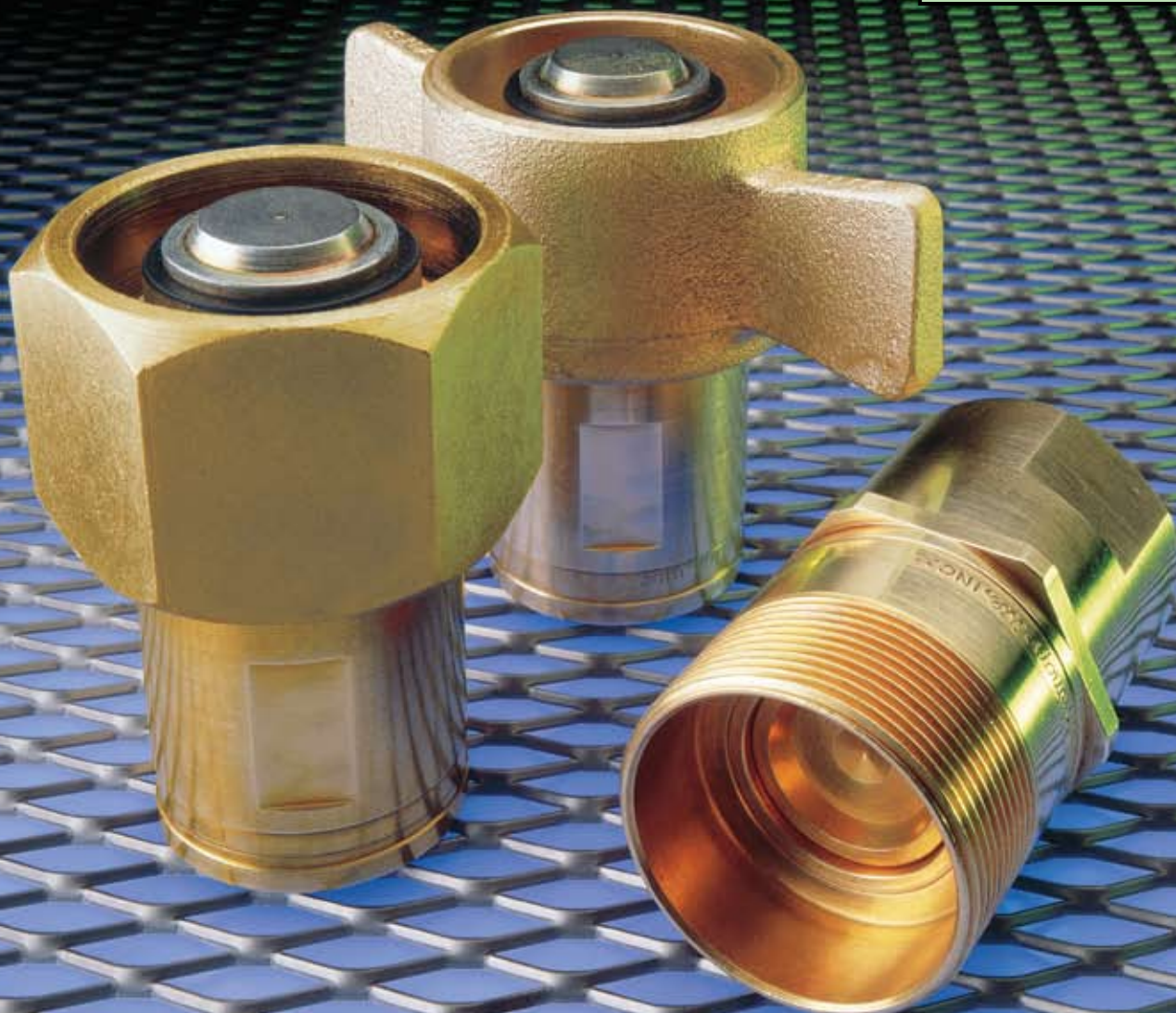
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★ *Snap-Tite*

Thread  
to  
Connect  
Couplings

**78**  
SERIES





# ★ Snap-tite 78 Series — Thread-to-Connect Couplings

*Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.*



- Interchangeable with Aeroquip 5100 Series and Parker 6100 Series
- Heavy duty wing nut or hex nut for easy connection of threaded units
- 3,000 psig (207 bar) operating pressure
- 4,500 psig (310 bar) proof pressure
- Sizes 3/4", 3/4" x 1/2", 1", 1-1/4" and 1-1/2"

*Snap-tite heavy duty 78 Series Thread-to-Connect Couplings are designed for most industrial fluid applications plus they are ideal for coal trucks, oil well equipment, hydraulic dump trucks, sand and salt spreaders requiring a rugged coupling.*

*The 78 series dry break features minimal spillage and air inclusion. The couplings connect under pressure. For bulkhead mounting, a steel flange is available. The 78 Series offers up to 3,000 psig (207 bar) operating pressure in both the connected and disconnected positions.*

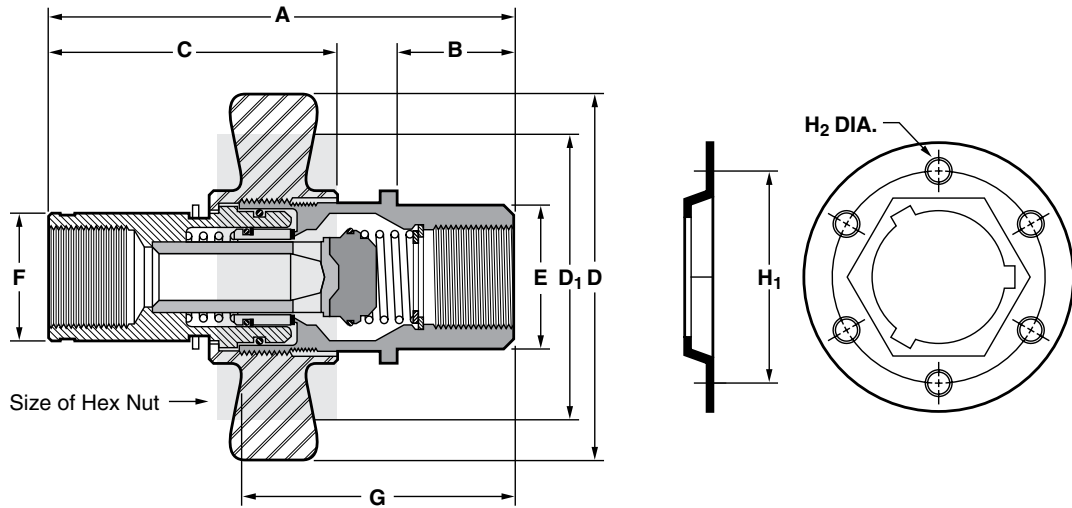
## PRESSURE RATINGS

OPERATING PRESSURE* BRASS			AIR INCLUSION cc MAXIMUM	SPILLAGE cc MAXIMUM
SIZE	PSI	BAR		
3/4"	3000	207	.30	.15
1"	3000	207	.40	.40
1-1/4"	2750	190	.65	.65
1-1/2"	2500	172	.80	.85

\*Pressure ratings for connected or disconnected modes.  
For excessive flow and surge conditions, consult factory before specifying.



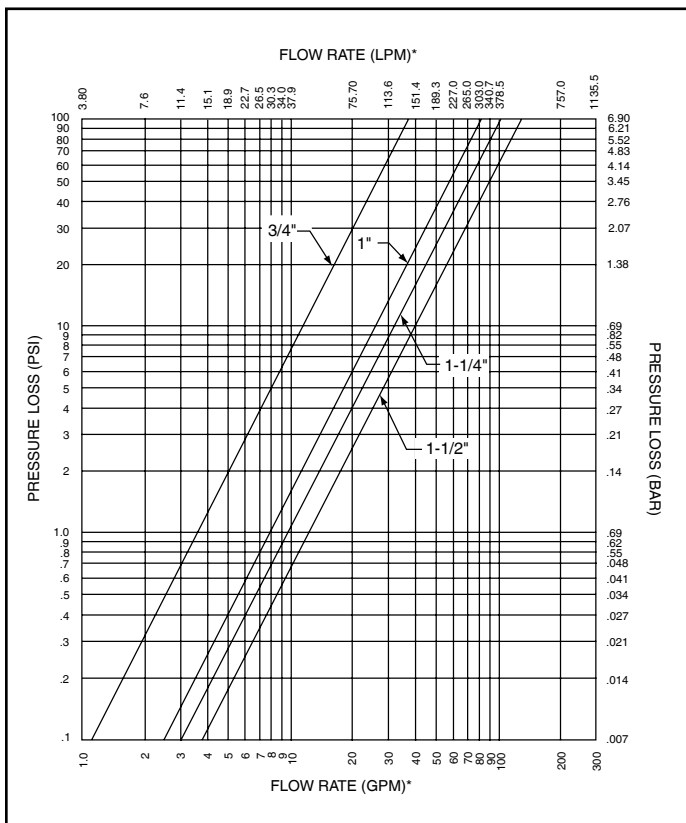
## TECHNICAL AND DIMENSIONAL INFORMATION



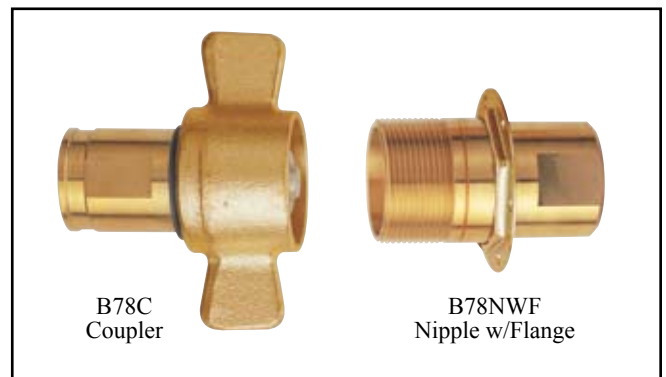
## DIMENSIONS

SIZE	A		B		C		D		HEX D <sub>1</sub>		E		F		G		H <sub>1</sub>		H <sub>2</sub>	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
3/4"	5.02	127.51	1.66	42.26	2.93	74.42	4.10	104.14	1-3/4	44.45	1.44	36.58	1.25	31.75	3.11	79.00	2.13	54.10	.201	5.11
1"	5.45	138.43	1.38	35.05	3.44	87.38	4.50	114.30	2-1/8	53.98	1.74	44.20	1.57	39.88	3.24	82.30	2.38	60.45	.201	5.11
1-1/4"	6.28	159.51	1.78	45.21	3.92	99.57	5.23	132.84	2-1/2	63.50	2.08	52.83	1.89	48.00	3.73	94.74	2.63	66.80	.201	5.11
1-1/2"	6.54	166.12	1.63	46.40	4.09	103.89	5.25	133.35	2-3/4	69.85	2.45	62.23	2.18	55.37	4.13	104.90	3.25	82.55	.281	7.14

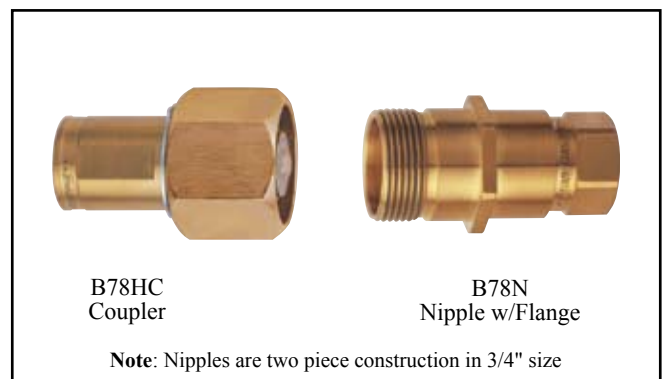
## FLOW CHART



## 78 SERIES WITH WING NUT ASSEMBLY



## 78 SERIES WITH HEX NUT ASSEMBLY



\*150 ssu (32cSt) oil at 100°F (40°C).



## HOW TO ORDER

<b>PART NO.</b>	<b>B</b>	<b>78</b>	<b>H</b>	<b>C</b>	<b>12</b>	-	<b>12</b>	<b>F</b>	
-----------------	----------	-----------	----------	----------	-----------	---	-----------	----------	--

Material	Series	Sleeve Configuration*	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Nipple Flange*
<b>B</b> Brass	<b>78</b>	<b>No Letter</b> for Wing Nut <b>H</b> Hex Nut <i>*Coupler only</i>	<b>C</b> Coupler <b>N</b> Nipple	<b>12</b> = 3/4" - <b>16</b> = 1" <b>20</b> = 1-1/4" <b>24</b> = 1-1/2"	<b>8</b> <sup>†</sup> = 1/2" <b>12</b> = 3/4" <b>16</b> = 1" <b>20</b> = 1-1/4" <b>24</b> = 1-1/2"	<b>F</b> Female NPTF <b>RP</b> Female British Parallel BS2779	<b>WF</b> with flange <i>*Nipple only</i>

†Available in 1/2" Female NPTF only

## ACCESSORIES\*

Size	Protective Cap	Protective Plug	Mounting Flange
3/4"	78DC-12	78DP-12	78F-12
1"	78DC-16	78DP-16	78F-16
1-1/4"	78DC-20	78DP-20	78F-20
1-1/2"	78DC-24	78DP-24	78F-24

\*All accessories are manufactured from carbon steel.

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Agricultural  
Components



# **Agricultural Couplings**

**Featuring...Snap-tite quality and experience in the most economical package with a range that varies from the simplest to the most sophisticated couplings.**

## 61DC8-8 Coupler



This is a dependable and economical 1/2" ISO 7241-1 Series A coupler which has a dual-acting sleeve. The sleeve, which has snap ring grooves that allow it to fit most industry standard brackets, permits one-hand connect or disconnect operation. This coupler is not designed for connection under pressure.

The coupler is made from high strength steel with zinc yellow dichromate plating for maximum corrosion resistance. The coupler is available with the following end fittings:

61DC8-8F	1/2" Female NPSF
61DC8-8RP	1/2" Female BSP
61DC8-8EF	1/2" Female SAE
Metric threads available on request	

When used in a bracket, body movement during connection or disconnection requires the use of a flexible connection. A plastic plug (61PDP-8) is available to prevent contamination from dust and dirt.

This is a reliable, economical and versatile 1/2" ISO 7241-1 Series A coupler with a dual-acting sleeve and connect/disconnect under pressure capability. The sleeve, which has snap ring grooves that allow it to fit all industry standard brackets, permits one-hand connect or disconnect operation.

A stackable bracket (68B-8) is available. This durable bracket holds two couplers and is equipped with a drain line to carry away the small spillage that occurs on disconnection. The bracket is designed to be stacked allowing compact installation of many couplers. When stacked, the drain lines interconnect thus requiring only one drain connection. The brackets can be equipped with automatic dust caps (68BC-8) which prevent damage and contamination from dust and dirt. This coupler allows connection with pressure in either or both the tip (nipple) and coupler. After connecting pressurized components, operation of the vehicle's hydraulic control valve will open the coupling valves allowing fluid to flow. The coupler is available with the following fittings:

68C8-8F	1/2" Female NPSF
68C8-8RP	1/2" Female BSP
68C8-8EF	1/2" Female SAE
Metric threads available on request	

When used in a bracket, body movement during connection or disconnection requires the use of a flexible connection.

## 68C8-8 Coupler



## Stackable Brackets 68B-8

This durable bracket set holds two 68C8-8 couplers. Optional automatic dust caps 68BC-8 for use with the bracket set are shown below.



Dust Plug for 61DC8-8 & 68C8-8	61PDP-8
Dust Cap for 63N8-8	PDC-12



## Interlock Cartridge

This is a sophisticated and rigid-mounted breakaway cartridge with easy one-hand connect/disconnect operation and extensive features and benefits. This coupler connects to all tips conforming to the dimensional requirements of ISO 7241-1 Series A and ISO 5675.

The coupler can be connected with pressure in either or both the tip (nipple) and coupler. After connection, operation of the vehicle's hydraulic control valve will open the coupling valves thus allowing fluid to flow.

This cartridge is designed to be used in a machined manifold cavity customized to meet customer requirements. Manifolds incorporate spillage drain connections and can be equipped with optional automatic rubber dust caps.



## 63N8 Tip (Nipple)



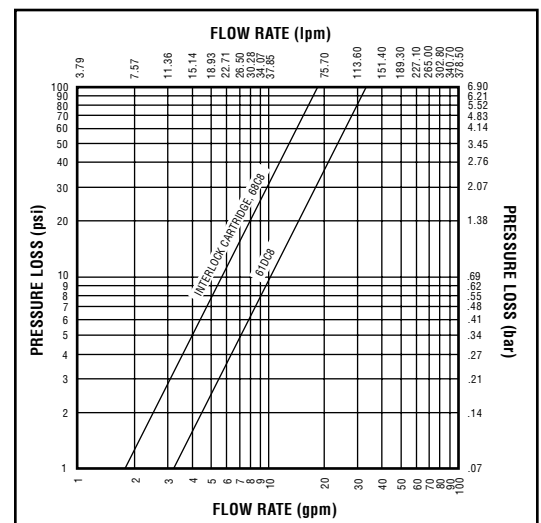
- This tip will connect at maximum working pressure.
- Shielded valve prevents reverse flow checking.
- Hardened nipple form for high performance and long life.
- Clear zinc plated for excellent corrosion resistance.
- Reliable poppet valve design with anti-blowout Buna seal for long leak-free life and high flow rates.
- Dimensional and performance requirements conform to ISO 5675.
- Dimensional requirements conform to ISO 7241-1 Series A. This tip is recommended for use with all agricultural couplers including those shown in this catalog.

63N8-8F	1/2" Female NPSF
63N8-8RP	1/2" Female BSP
63N8-8EF	1/2" Female SAE
Metric threads available on request	

## Performance Information

	61DC	68C	INTERLOCK CARTRIDGE	63N8
Maximum working pressure: psi (bar)	4000 (276)	3000 (207)	3000 (207)	3000 (207)
Burst Pressure: psi (bar)	16000 (1103)	10200 (703)	10200 (703)	10200 (703)
Maximum reverse flow: gpm (lpm) (1)	N/A	33 (125)	60 (227)	N/A
Connect force at 0 psi: lb. (N)	60 (265)	60 (265)	60 (265)	N/A
Connect force at 2700 psi: lb. (N)	N/A	65 (290)	65 (290)	N/A
Disconnect force at 0 psi: lb. (N)	50 (220)	50 (220)	50 (220)	N/A
Disconnect force at 2700 psi: lb. (N)	N/A	290 (1290)	190 (845)	N/A
Spillage on disconnect at 2700 psi: cc's / cycle	3.0	4.0	5.5	N/A
Overall length: inches (mm)	2.71 (68.8)	3.26 (82.8)	3.45 (87.6)	1.95 (49.5)
Overall diameter: inches (mm)	1.50 (38.1)	1.50 (38.1)	1.53 (38.9)	1.15 (29.2)

## Flow Chart



(1) = with shielded tip, such as 63N8  
N/A = Not Applicable





Snap-tite offers a wide range of soft seated standard inline and cartridge style check valves in plated steel or 316 stainless steel. Other materials are also available upon request as are specially designed check valves to meet specific criteria. Standard sizes range from 1/4" to 2" with pressures up to 6000 psi (415 bar) and flows to 175 gpm (662 l/min).

Inline adjustable and fixed flow controls are available in sizes from 1/4" through 1" with flows up to 30 gpm (115 l/min). All flow control valves manufactured by Snap-tite are pressure compensated to adjust for fluctuations in system pressures while providing accurate, consistent flow control.



Snap-tite can handle your specific application needs by using a standard product, modifying a standard product or designing a special product to meet your requirements. We work closely with the customer to tailor a product to their specific requirements allowing for a totally unique product if necessary. We will maintain special testing procedures to meet specific requirements as well.

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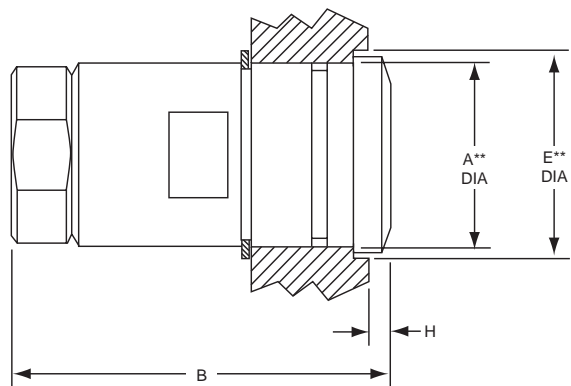
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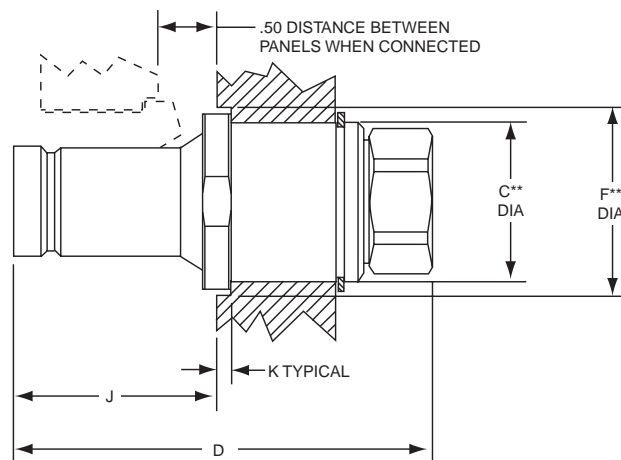


# BN SERIES

## Panel Mount Couplings 3/8" – 3/4" Sizes



Coupler Assembly



Nipple Assembly

\*\*Recommended hole size.

**Snap-Tite**  
COMPONENTS, INC.

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**ISO-9001 Certified**

Unit Size	A Dia +/- .005		B +/- .03		C Dia +/- .005		D +/- .03		E Dia Min		F Dia Min		H		J		K	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
3/8"	1.563	39.70	3.22	81.79	1.375	34.93	3.44	87.38	1.750	44.45	1.563	39.70	.20	5.08	1.74	44.20	.125	3.18
1/2"	1.938	49.23	3.70	93.98	1.763	44.78	3.55	90.17	2.172	55.17	1.922	48.82	.29	7.37	1.64	41.66	.250	6.35
3/4"	2.000	50.80	3.72	94.49	2.000	50.80	3.47	88.14	2.438	61.93	2.438	61.93	.43	10.92	1.81	45.97	.220	5.59

Contact factory for verification of dimensions prior to any machining.



# BN SERIES

## How to Order

Part Number Example: SBNC6-4EFE

Material <sup>1</sup>	Series	Coupling Half	Coupling Size	End Fitting Size	Type of <sup>1</sup> End Fitting	Seal <sup>1</sup> Material
<b>S</b> Stainless Steel	<b>BN</b>	<b>C</b> Coupler <b>N</b> Nipple	<b>6</b> - 3/8" <b>8</b> - 1/2" <b>12</b> - 3/4"	<b>4</b> - 1/4" <b>6</b> - 3/8" <b>8</b> - 1/2" <b>12</b> - 3/4" <b>16</b> - 1"	<b>F</b> Female NPSF <b>M</b> Male NPT <b>RP</b> Female British Parallel BS2779 <b>EF</b> Female SAE O'Ring Boss <b>EM</b> Male SAE 37°	<b>**</b> Nitrile (AMS3215) <b>V</b> Viton (MIL-R-25897) <b>JF</b> Nitrile (MIL-P-5315) <b>M</b> Nitrile (MIL-P-25732) <b>E</b> Ethylene Propylene <b>AS</b> Aflas <b>K</b> Kalrez  **Standard seal-No letter designation required.

<sup>1</sup>For other end fittings and seal or coupling materials, consult the factory.

## Pressure Ratings psi (bar)

Size	Working Pressure	Proof Pressure	Burst Pressure
3/8"	5000 (344)	7500 (517)	10000 (689)
1/2"	3000 (206)	4500 (310)	6000 (413)
3/4"	3000 (206)	4500 (310)	6000 (413)

Burst pressures listed were taken at the point at which failure rendered the quick-disconnect inoperative.

**NOTE:** Pressure ratings were established under static pressure conditions. For high impulse applications, multiply the above pressure ratings by .6 for approximate pressure ratings.

## Air Inclusion on Connect, Spillage on Disconnect

Size (inches)	Spillage (cc)	Inclusion (cc)
3/8	< .02	.03
1/2	.12	.19
3/4	.08	.13

### Note:

Air inclusion at 0 psi internal pressure.  
Spillage at 15 psi (1 bar) internal pressure.

## Separation Forces at 10000 psi (689 bar)

Size (inches)	Forces in Pounds (kilograms)
3/8	< 60 (27)
1/2	< 60 (27)
3/4	< 60 (27)

## Maximum Recommended Connect/Disconnect Pressure

Dynamic pressure 250 psi (17 bar)  
Static pressure 3000 psi (206 bar)



# ★ Snap-Tite Check Valves





# CPIFF Inline Check Valves



- ◆ Poppet style – soft seat
- ◆ Flow rates to 30 gpm (115 l/min)
- ◆ Steel Construction; other materials available
- ◆ Five sizes - 1/4", 3/8", 1/2", 3/4", 1"
- ◆ SAE, NPSF & BS 2779 female end fittings
- ◆ Up to 5000 psi (345 bar) working pressure

## Features

The soft seat (virtual zero leak) guided poppet design and 4:1 safety factor of Snap-tite's Inline Check Valves make them an excellent choice for a wide variety of applications where free flow in one direction and blocked flow in the reverse direction is required. The streamlined soft seated poppet offers minimum restriction to flow and positive shut off. These valves can be provided with various spring pressures and seal options compatible with most types of fluids.



## †Notes:

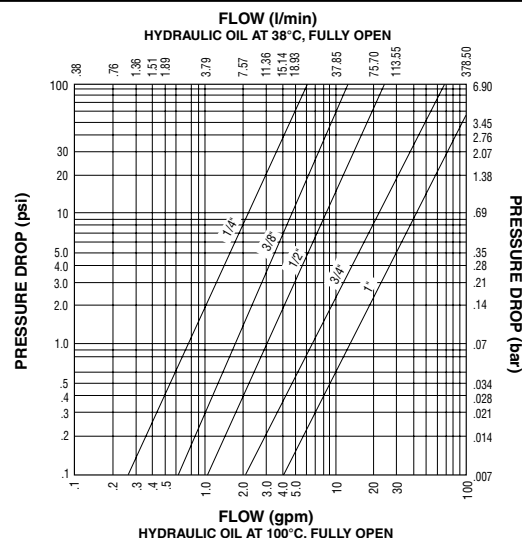
- Decimal dimensions are +/- .015 in. (.38 mm).
- Ratings, specifications, and dimensions are subject to change without notice.
- Part configurations are typical and do not necessarily represent actual appearance.
- Consult factory for certified drawing of 6C/3C end fitting configurations.

## †Flow Direction



## Dimensions and Specifications

Size		1/4"	3/8"	1/2"	3/4"	1"
Hex	In.	.75	1.00	1.25	1.38	1.75
	mm	19.05	25.40	31.75	35.05	44.45
Length	In.	1.97	2.60	3.25	4.33	4.78
	mm	50.04	66.04	82.55	109.98	121.41
Cv		.60	1.20	2.40	4.10	7.15
Weight	lbs.	.20	.25	.90	1.25	2.25
	kg.	.09	.11	.41	.57	1.02
Flow	gpm	3.00	8.00	12.00	20.00	30.00
	l/min.	11.40	30.30	45.40	75.70	113.55





# 6C/3C Inline Check Valves



- ◆ Poppet style – soft seat
- ◆ Steel or stainless steel construction; other materials available
- ◆ Flow rates to 175 gpm (662 l/min)
- ◆ SAE, NPSF, NPT, BS 2779 & ORS end fittings available
- ◆ Up to 6000 psi (414 bar) working pressure - 1/4", 3/8", 1/2", 3/4" & 1"
- ◆ Up to 3000 psi (207 bar) working pressure - 1-1/4", 1-1/2" & 2"

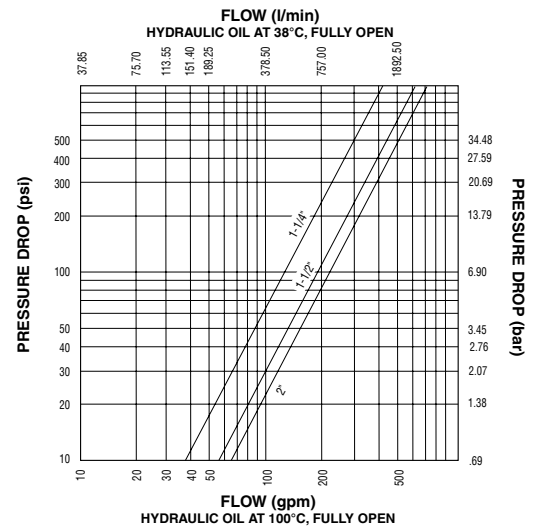
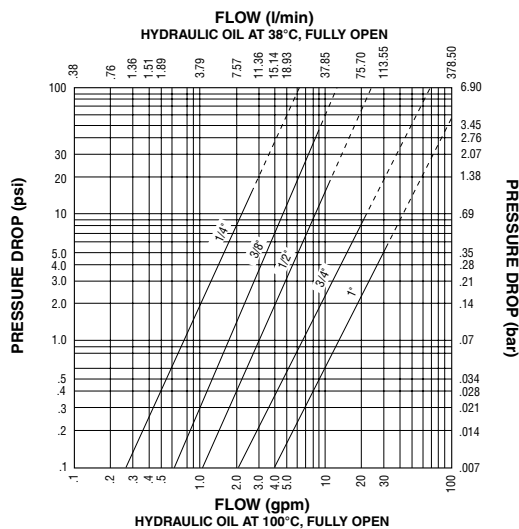
## Features

These soft seat (virtual zero leak), with guided poppet valves offer a wide variety of end fitting configurations and elastomers and the option of 316 stainless steel construction. These options enable a valve to be configured to meet the needs of any system. Snap-tite's versatile 6C/3C Inline Check Valves are designed with a 4:1 safety factor at a maximum working pressure of 6000 psi (414 bar) making them ideal for any application.



## \*Dimensions and Specifications

Size	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Hex	In.	.75	1.12	1.25	1.62	1.88	2.00	2.50
	mm	19.05	28.45	31.75	41.15	47.75	50.80	63.50
Length	In.	2.82	3.38	3.73	4.91	6.07	5.76	7.28
	mm	71.60	85.85	94.75	124.70	154.20	146.30	184.90
Cv		.45	1.80	3.40	7.40	9.50	12.30	16.15
Weight	lbs.	.29	.81	1.20	2.05	3.40	3.75	7.80
	kg.	.13	.37	.54	.93	1.54	1.70	3.54
Flow	gpm	3.00	8.00	12.00	20.00	30.00	90.00	175.00
	l/min.	11.40	30.30	45.45	75.70	113.55	340.65	662.40





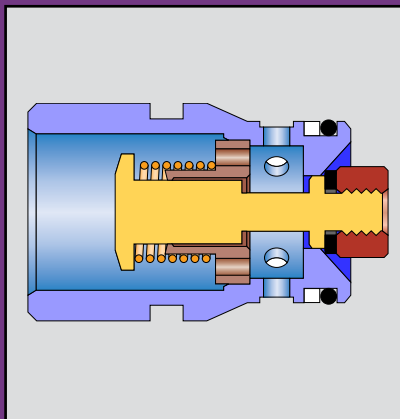
# CPC Check Valve Cartridge



- ◆ 3500 psi (241 bar) working pressure
- ◆ Flow rates to 50 gpm (189 l/min)
- ◆ Steel Construction
- ◆ Three standard spring pressures
- ◆ Three sizes based on flow

## Features

Designed for hydraulic circuit applications where virtually zero leakage in the check direction is required. The drop-in cartridge design with soft poppet seal of molded nylon is available in three sizes with flow ratings of 10 gpm (38 l/min), 25 gpm (95 l/min), and 50 gpm (189 l/min) respectively.



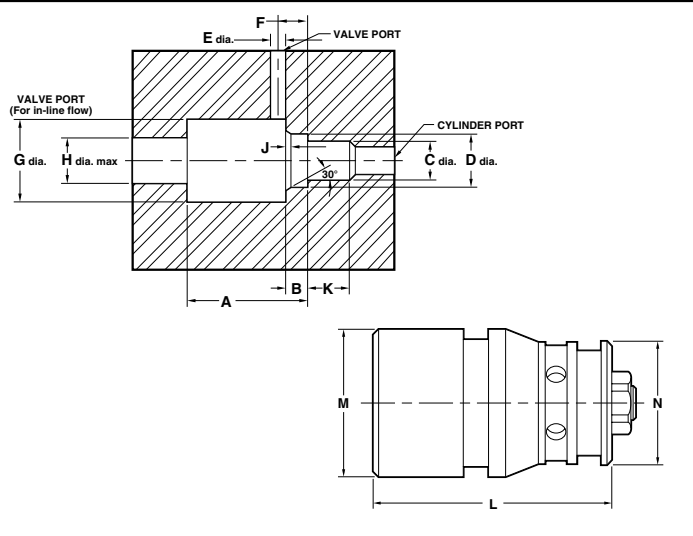
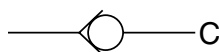
## \*Dimensions and Specifications

Model		A	B	C	D	E	F	G	H	J	K	L	M	N
CPC 10	In.	1.204	.248	.500	.629/.625	.250	.390	.745/.750	.437	.030	.300	1.20	.74	.62
	mm	30.6	6.3	12.7	16.0/15.9	6.4	9.9	18.9/19.0	11.0	.76	7.6	30.5	18.8	15.7
CPC 25	In.	1.776	.230	.680	.879/.875	.531	.520	1.004/1.000	.500	.025	.400	1.78	.99	.87
	mm	45.1	5.8	17.3	22.3/22.2	13.5	13.2	25.5/25.4	12.7	.64	10.2	45.2	25.1	22.1
CPC 50	In.	2.291	.284	1.060	1.316/1.312	.592	.600	1.504/1.500	1.000	.025	.476	2.29	1.49	1.30
	mm	58.2	7.2	26.9	33.4/33.3	15.1	15.2	38.2/38.1	25.4	.64	12.1	58.2	37.8	33.0

## Notes:

- Decimal dimensions are +/- .015 in. (.38 mm).
- Ratings, specifications, and dimensions are subject to change without notice.
- Part configurations are typical and do not necessarily represent actual appearance.
- Consult factory for certified cavity drawing.

## CPC Flow Direction:





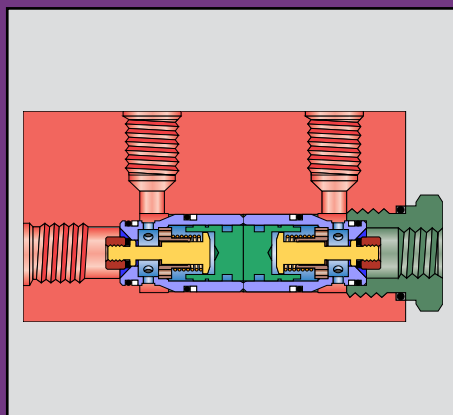
# CAD Dual Pilot Check Valve



- ◆ 3500 psi (241 bar) 5000 psi (345 bar) intermittently
- ◆ Flow rates to 50 gpm (189 l/min)
- ◆ Anodized aluminum blocks, plated steel cartridges
- ◆ Three standard spring pressures
- ◆ Three sizes based on flow
- ◆ Pilot ratio - 4:1

## Features

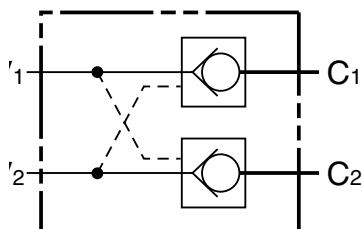
The CAD dual pilot check valve features two CAC check cartridges in a single red anodized aluminum housing with standard ports to 1" in NPSF or SAE o-ring sealed. Flow into one of the valve ports is blocked until pressure overcomes the poppet spring. When the poppet is unseated, flow is permitted to the actuator; simultaneously the pilot piston on the actuated side unseats the opposite poppet to permit return flow through the valve.



## \*Dimensions and Specifications

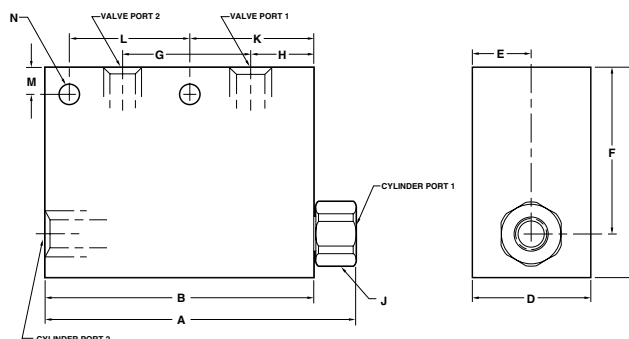
Model		A	B	C	D	E	F	G	H	J	K	L	M	N
CAD 10 1/4" & 3/8"	In.	3.96	3.59	2.00	1.25	.63	1.38	1.65	.68	1.00	1.50	1.62	.50	.34
	mm	100.6	91.2	50.8	31.8	16.0	35.1	41.9	17.3	25.4	38.1	41.1	12.7	8.6
CAD 10 1/2"	In.	4.60	3.59	2.00	1.25	.63	1.38	1.65	.68	1.00	1.50	1.62	.50	.34
	mm	116.8	91.2	50.8	31.8	16.0	35.1	41.9	17.3	25.4	38.1	41.1	12.7	8.6
CAD 25 3/8", 1/2", 3/4"	In.	5.78	5.21	2.00	1.50	.75	1.25	2.60	.86	1.19	2.15	2.56	.30	.41
	mm	146.8	132.3	50.8	38.1	19.0	31.8	66.0	21.8	30.2	54.6	65.0	7.6	10.4
CAD 25 3/4 SAE	In.	6.33	5.21	2.50	1.50	.75	1.75	2.59	.85	1.38	2.15	2.56	.30	.41
	mm	160.8	132.3	63.5	38.1	19.0	44.5	65.8	21.6	35.1	54.6	65.0	7.6	10.4
CAD 50	In.	7.13	6.24	3.00	2.00	1.00	2.00	3.46	.98	1.75	2.75	3.00	.50	.41
	mm	181.1	158.5	76.2	50.8	25.4	50.8	87.9	24.9	44.5	69.9	76.2	12.7	10.4

## CAD Series



## Adaptor Torque

CAD 10 = 180 lbf. In. (20.3 N.m)  
 CAD 25 = 480 lbf. In. (54.2 N.m)  
 CAD 50 = 750 lbf. In. (85.0 N.m)





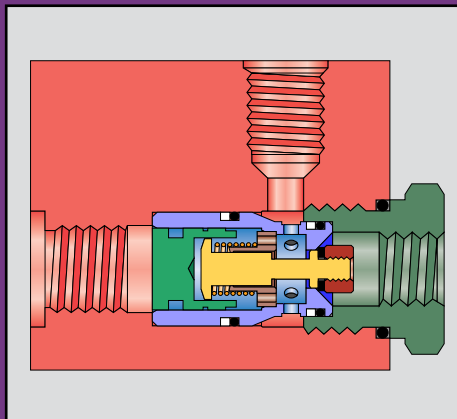
# CAV Single Pilot Check Valve



- ◆ 3500 psi (241 bar), 5000 psi (345 bar) intermittently
- ◆ Flow rates to 50 gpm (189 l/min)
- ◆ Anodized aluminum blocks, plated steel cartridges
- ◆ Three standard spring pressures
- ◆ Three sizes based on flow
- ◆ Pilot ratio - 4:1

## Features

The CAV single pilot check valve contains a standard CAC cartridge in a red anodized aluminum block with NPSF or SAE porting to 1". Units are available with three standard cracking pressures of 15 psi (1 bar), 25 psi (1.7 bar), or 60 psi (4 bar).



## \*Dimensions and Specifications

Model		A	B	C	D	E	F	G	H	J	K	L	M
CAV 10 1/4" & 3/8"	IN.	2.77	2.40	2.00	1.25	.63	1.38	.69	1.00	1.50	.65	.50	.34
	MM	70.4	61.0	50.8	31.8	16.0	35.1	17.5	25.4	38.1	16.5	12.7	8.6
CAV 10 1/2"	IN.	3.41	2.40	2.00	1.25	.63	1.38	.69	1.00	1.50	.65	.50	.34
	MM	86.6	61.0	50.8	31.8	16.0	35.1	17.5	25.4	38.1	16.5	12.7	8.6
CAV 25 3/8", 1/2", 3/4"	IN.	3.73	3.15	2.00	1.50	.75	1.25	.86	1.19	1.80	1.00	.30	.41
	MM	94.7	80.0	50.8	38.1	19.0	31.8	21.8	30.2	45.7	25.4	7.6	10.4
CAV 25 3/4 SAE	IN.	4.55	3.43	2.50	1.50	.75	1.75	.85	1.38	1.88	1.25	.75	.41
	MM	115.6	87.1	63.5	38.1	19.0	44.5	21.6	35.1	47.8	31.8	19.0	10.4
CAV 50	IN.	4.55	3.65	3.00	2.00	1.00	2.00	.96	1.75	2.25	1.00	.50	.41
	MM	115.6	92.7	76.2	50.8	25.4	50.8	24.4	44.5	57.2	25.4	12.7	10.4

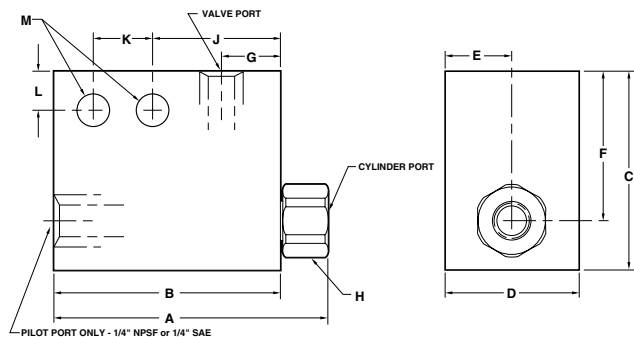
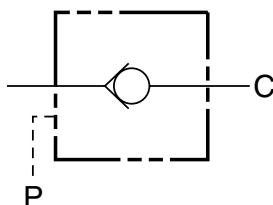
## Adaptor Torque

CAV 10 = 180 lbf. In. (20.3 N.m)

CAV 25 = 480 lbf. In. (54.2 N.m)

CAV 50 = 750 lbf. In. (85.0 N.m)

## Flow Direction:





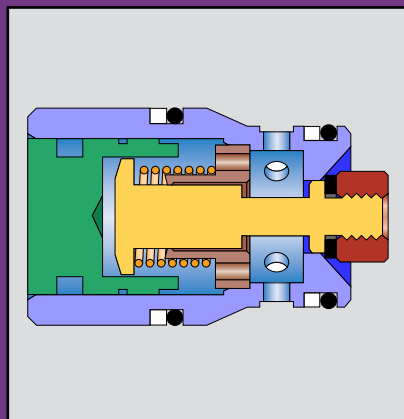
# CAC Pilot Check Valve Cartridge



- ◆ 3500 psi (241 bar) working pressure, 5000 psi (345 bar) intermittently
- ◆ Flow rates to 50 gpm (189 l/min)
- ◆ Steel Construction
- ◆ Three standard spring pressures
- ◆ Pilot ratio - 4:1
- ◆ Air Pilot option available

## Features

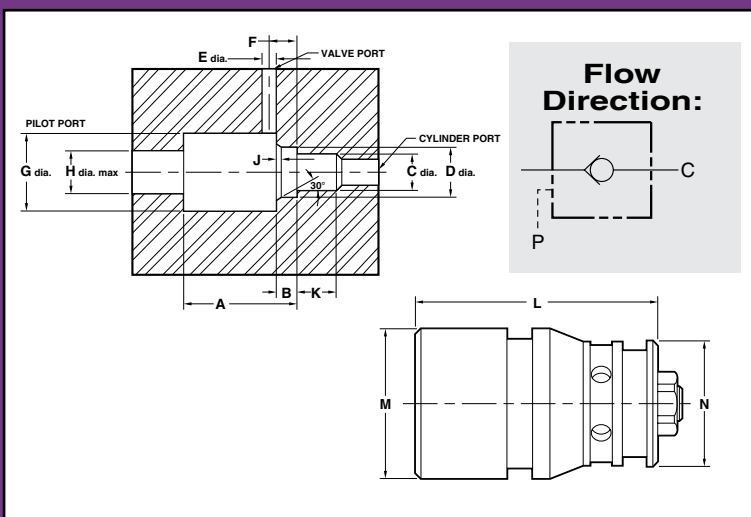
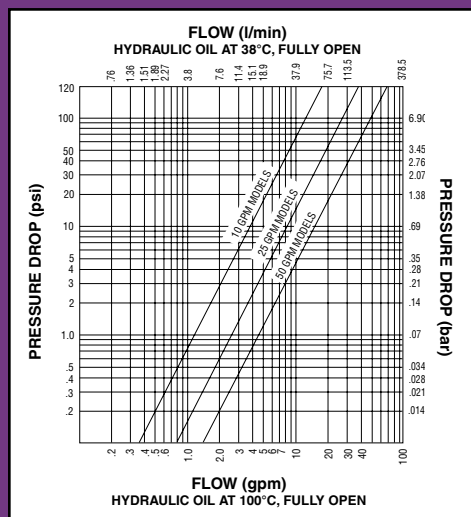
Designed for use in hydraulic circuits requiring less than 1 DPM leakage. These drop-in cartridge valves lock an actuator or part of a circuit until pilot pressure is applied. Features include durable molded nylon poppet seal, damping port in poppet guide, hardened steel body and poppet.



## \*Dimensions and Specifications

Model		A	B	C	D	E	F	G	H	J	K	L	M	N
CAC 10	IN.	1.204	.248	.500	.629/.625	.250	.390	.745/.750	.437	.030	.300	1.20	.74	.62
	MM	30.6	6.3	12.7	16.0/15.9	6.4	9.9	18.9/19.0	11.0	.76	7.6	30.5	18.8	15.7
CAC 25	IN.	1.776	.230	.680	.879/.875	.531	.520	1.004/1.000	.500	.025	.400	1.78	.99	.87
	MM	45.1	5.8	17.3	22.3/22.2	13.5	13.2	25.5/25.4	12.7	.64	10.2	45.2	25.1	22.1
CAC 50	IN.	2.291	.284	1.060	1.316/1.312	.592	.600	1.504/1.500	1.000	.025	.476	2.29	1.49	1.30
	MM	58.2	7.2	26.9	33.4/33.3	15.1	15.2	38.2/38.1	25.4	.64	12.1	58.2	37.8	33.0

## CPC/CAC Pressure Drop






# Ordering Information

## Inline Check Valves - 5,000 psi (345 bar) rated

### CPI F F - 4 P - 15

						
<b>Series</b>	<b>Inlet</b>	<b>Outlet</b>	<b>Port Size</b>	<b>Thread Type</b>	<b>Spring Pressure</b>	<b>Seal</b>
CPI - Inline Check Valve Poppet Style	F - Female	F - Female	<i>NPSF or BSP</i> 2 - 1/4" 3 - 3/8" 4 - 1/2" 6 - 3/4" 8 - 1"	<i>SAE</i>  8 - 1/2" 12 - 3/4" 16 - 1"	RP - Female British Parallel BS 2779 P - Female NPSF S - Female SAE	05 - 5 psi (.35 bar) 15 - 15 psi (1 bar) 25 - 25 psi (1.75 bar) 65 - 65 psi (4.50 bar)  No letter for Viton (std.) A - Buna E - Ethylene Propylene

## Inline Check Valves - Up to 6,000 psi (414 bar) rated\*

### S 6C 4 F - F 5

Material	Check Valve	Size	Inlet	Outlet	Spring Pressure	Seal
No letter Steel Zinc Yellow Dichromate Plated (standard) S - 316 Stainless Steel	6C - 6,000 psi* (414 bar) operating pressure 3C - 3,000 psi (207 bar) operating pressure	4 - 1/4" 6 - 3/8" 8 - 1/2" 12 - 3/4" 16 - 1" 20 - 1-1/4" 24 - 1-1/2" 32 - 2"	M - Male NPT F - Female NPTF EF - Female SAE EM - Male 37° Flare ORS - Male Face Seal RP - Female British Parallel BS 2779	M - Male NPT F - Female NPTF EF - Female SAE EM - Male SAE 37° Flare ORS - Male Face Seal RP - Female British Parallel BS 2779	5 - 5 psi (.35 bar) 25 - 25 psi (1.75 bar) 65 - 65 psi (4.5 bar)	No letter for Viton (std.) M - Military variation of Buna N for MIL-H-5606 fluids A - Buna E - Ethylene Propylene

### CAC 10 - 15 - A -1

Series	Rated Flow	Cracking Pressure	Seal	Air Pilot* Option	Current Design
CAC - Poppet Car- tridge Pilot Check Valve CPC - Poppet Car- tridge Check Valve	10 - 10 gpm (38 l/min) 25 - 25 gpm (95 l/min) 50 - 50 gpm (189 l/min)	15 - 15 psi (1 bar) 25 - 25 psi (1.7 bar) 60 - 60 psi (4 bar)	No letter for Viton A - Buna N	P - O-ring on Pilot Piston [60 psi (4 bar) spring is recom- mended] *CAC only	- 1

### CAV 10 - 3P - 15 A

Series	Rated Flow	Port Size	Cracking Pressure	Air Pilot	Seal
CAV - Single Pilot Operated Check Valve CAD - Dual Pilot Op- erated Check Valve	10 - 10 gpm (38 l/min) 1/4", 3/8", 1/2" ports 25 - 25 gpm (95 l/min) 3/8", 1/2", 3/4" ports 50 - 50 gpm (189 l/min) 3/4", 1" ports	NPT 2P - 1/4" 3P - 3/8" 4P - 1/2" 6P - 3/4" 8P - 1" SAE 4S - 1/4" 6S - 3/8" 8S - 1/2" 12S - 3/4" 16S - 1"	15 - 15 psi (1 bar) 25 - 25 psi (1.7 bar) 60 - 60 psi (4 bar)	P - O-ring on Pilot Piston [60 psi (4 bar) spring is recom- mended]	No letter for Viton A - Buna N

\*3/4" 6C SST working pressure - 5000 psi (345 bar), 1" 6C SST working pressure - 4000 psi (276 bar)

## ! WARNING !

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The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.

  
COMPONENTS, INC.

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- **Petrochemical**
- **Pharmaceutical**
- **Food Processing**
- **Electronics**



☆ **Snap-Tite**



## 71 Series - Drybreak, Flush Face Couplings



<b>Style</b>	Double Shut-off
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	10,000 psi (690 bar)
<b>Sizes Available</b>	1/8" through 2" nominal diameter
<b>Material</b>	316 Stainless Steel or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• Flat-face design simplifies contaminant inspection and cleaning</li> <li>• Flush Valve virtually eliminates fluid loss and air inclusion</li> <li>• Wide Variety of specialty seal options available</li> <li>• Sleeve-Lock option prevents accidental disconnection</li> </ul>

## 25 Series - Poppet Style, Chemical Couplings



<b>Style</b>	Double Shut-off or Straight-Through combination
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	1,000 psi (69 bar)
<b>Sizes Available</b>	1/4" through 1/2" nominal diameter
<b>Material</b>	316 Stainless Steel or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• Designed for difficult or aggressive media</li> <li>• Teflon Seals are standard</li> <li>• Tubular barrel valve design enhances flow rate</li> <li>• Sleeve-Lock option prevents accidental disconnection</li> </ul>

## K Series - Poppet Style, Cryogenic Couplings



<b>Style</b>	Double Shut-off or Straight-Through combination
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	1,000 psi (69 bar)
<b>Sizes Available</b>	3/8" through 2" nominal diameter
<b>Material</b>	316 Stainless Steel or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• Cryogenic operation to -400°F/-240°C</li> <li>• Designed for difficult or aggressive media</li> <li>• Teflon or Kel F Seals are standard options</li> <li>• Sleeve-Lock option prevents accidental disconnection</li> </ul>

## 28-1 Series - Drybreak, Low Pressure-Low Profile Couplings



<b>Style</b>	Double Shut-off
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	1,000 psi (69 bar)
<b>Sizes Available</b>	1/4" through 2" nominal diameter
<b>Material</b>	316 Stainless Steel, Aluminum
<b>Features</b>	<ul style="list-style-type: none"> <li>• Recessed coupling face eases hidden connections</li> <li>• Lightweight, Low-profile design</li> <li>• Flush Valve virtually eliminates fluid loss and air inclusion</li> <li>• Wide variety of specialty seal options available</li> <li>• Color coded positive connection indicator</li> </ul>

(1) - Specialty wetted metal parts such as Inconel, Hastelloy™, and others can be made available. Please consult factory.

- Specialty Seal options are available. See last page of brochure for chart.

- All couplings shown can be indexed (key'd) (max 6 based on size) to prevent mixing/contamination.



## Poppet Style, General Purpose Couplings - **H Series**

<b>Style</b>	Double, Single Shut-off or Straight-Through combination
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	10,000 psi (690 bar)
<b>Sizes Available</b>	1/4" through 6" nominal diameter
<b>Material</b>	316 Stainless Steel, Aluminum, or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• Optional Break-away design available</li> <li>• Two-piece construction expands end fitting selection</li> <li>• Smooth jet stream valve design lowers pressure drop</li> <li>• Wide variety of specialty seal options available</li> <li>• Sleeve-lock option prevents accidental disconnection</li> </ul>



## Poppet Style, Vacuum and Steam Couplings - **E-EA Series**

<b>Style</b>	Double, Single Shut-off or Straight-Through combination
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	3,000 psi (207 bar)
<b>Sizes Available</b>	1/4" through 4" nominal diameter
<b>Material</b>	316 Stainless Steel, Aluminum, or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• Designed for hard vacuums down to 29.72" Hg</li> <li>• Excellent high temperature sealing</li> <li>• Two-piece construction expands end fitting selection</li> <li>• Wide variety of specialty seal options available</li> <li>• Sleeve-lock option prevents accidental disconnection</li> </ul>



## Poppet Style, ISO-B Interchange Couplings - **72 Series**

<b>Style</b>	Double Shut-off or Straight-Through combination
<b>ISO Interchange</b>	ISO 7241-1 Series B (ISO B)
<b>Max. Working Pressure</b>	5,500 psi (380 bar)
<b>Sizes Available</b>	1/8" through 1" nominal diameter
<b>Material</b>	303 or 316 Stainless Steel or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• Meets or exceeds ISO 7241-1 Series B standards</li> <li>• Proven ball-lock mechanism for positive connection</li> <li>• Wide variety of specialty seal options available</li> <li>• Sleeve-lock option prevents accidental disconnection</li> </ul>



## Poppet Style, Thread-to-Connect Couplings - **75 Series**

<b>Style</b>	Double Shut-off or Straight-Through combination
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	1,650 psi (114 bar)
<b>Sizes Available</b>	3/4" through 4" nominal diameter
<b>Material</b>	316 Stainless Steel or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• High flow chemical transfer coupling</li> <li>• Acme thread-to-connect design for heavy duty service</li> <li>• Connects under static pressure up to 1,650 psi/114 bar</li> <li>• Low pressure drop keeps flow rates high</li> </ul>



(1) - Specialty wetted metal parts such as Inconel, Hastelloy™, and others can be made available. Please consult factory.

- Specialty Seal options are available. See last page of brochure for chart.

- All couplings shown can be indexed (key'd) (max 6 based on size) to prevent mixing/contamination.



## 78 Series - Drybreak, Screw-to-Connect Couplings



<b>Style</b>	Double shut-off
<b>ISO Interchange</b>	None
<b>Max. Working Pressure</b>	3,000 psi (207 bar)
<b>Sizes Available</b>	3/4" through 1-1/2" nominal diameter
<b>Material</b>	316 Stainless Steel
<b>Features</b>	<ul style="list-style-type: none"> <li>• Interchange compatible thread-to-connect design</li> <li>• Connects under static pressure up to 3,000 psi (207 bar)</li> <li>• Bulkhead mountable nipple option available</li> </ul>

## 6C & 3C Series - Inline Check Valves



<b>Style</b>	Soft seat, zero leakage, poppet style
<b>Safety Factor</b>	4:1
<b>Max. Working Pressure</b>	6,000 psi (414 bar)
<b>Sizes Available</b>	1/4" through 2" nominal diameter
<b>Material</b>	316 Stainless Steel or <sup>(1)</sup> Exotic Alloy
<b>Features</b>	<ul style="list-style-type: none"> <li>• Two-piece construction expands end fitting selection</li> <li>• Various crack pressures available</li> <li>• Flow rates to 175 gpm/662 lpm</li> </ul>

(1) - Specialty wetted metal parts such as Inconel, Hastelloy™, and others can be made available. Please consult factory.

- Specialty Seal options are available. See last page of brochure for chart.

- All couplings shown can be indexed (key'd) (max 6 based on size) to prevent mixing/contamination.

### Seal Availability

	Seal Compound	71 Series	25 Series	K Series	28-1 Series	H Series	E-EA Series	72 Series	75 Series	78 Series	6C/3C Series
<b>Buna N™</b> (-40° to 200°F/-40° to 93°C)		●			●	●	●	●	●	●	●
<b>Ethylene Propylene (EPDM)</b> (-65° to 300°F/-55° to 150°C)		●			●	●	●	●	●	●	●
<b>Viton™</b> (-15° to 400°F/-10° to 205°C)		●			●	●	●	●	●	●	●
<b>Teflon™</b> (-100° to 400°F/-75° to 205°C)			●	●							●
<b>Kel-F™</b> (-400° to 400°F/-240° to 205°C)			●	●							
<b>Kalrez™</b> (-4° to 500°F/-20° to 260°C)		●			●	●	●	●	●		●
<b>Chemraz™</b> (-4° to 500°F/-20° to 260°C)		●			●	●	●	●	●		●

#### Notes:

- Wide variety of additional seal materials available. Chart provided for reference only.
- Coupling selection must assure compatibility of body and seal materials with the fluid media. Contact factory with any questions concerning specific product application needs.
- Ethylene Propylene (EPDM) is not compatible with mineral based oils/solvents.

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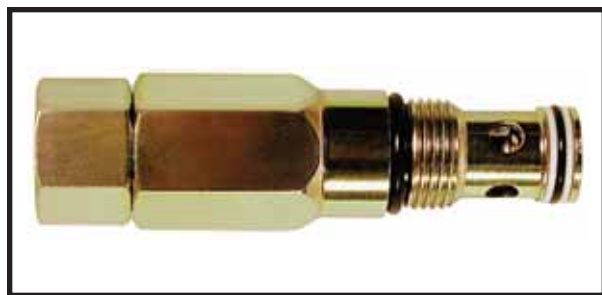
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# Differential Relief Valves

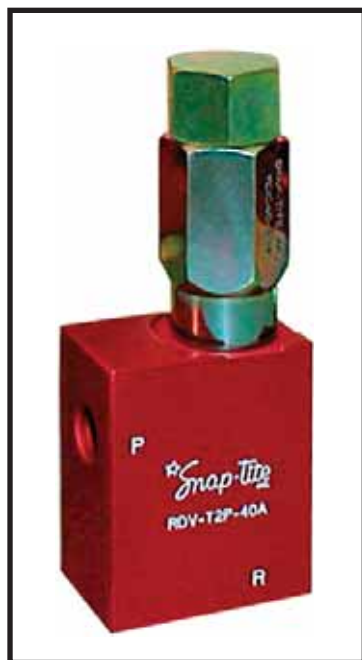
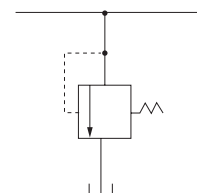
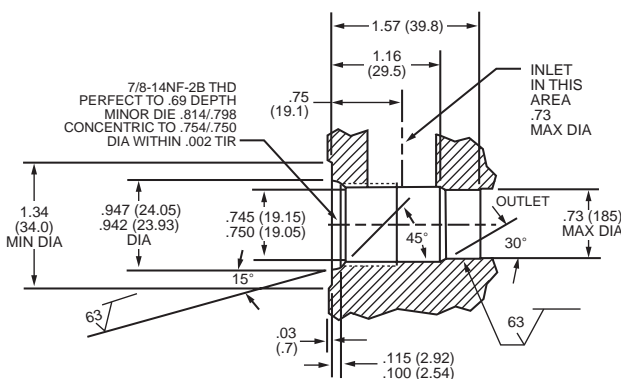
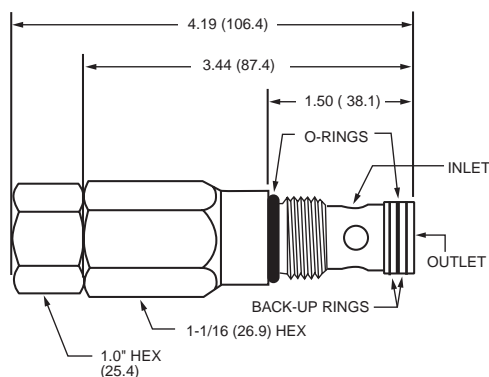


## RDC - Relief Valve Cartridge

The RDC is a basic differential area relief cartridge which will relieve flows to 40 gpm (151 l/min). The RDC cartridge is supplied in steel with a corrosion resistant yellow zinc dichromate plating.

*Working Pressure* – to 4,000 psi (276 bar)

*Weight* – Approx. 8 oz. (.23 kg)



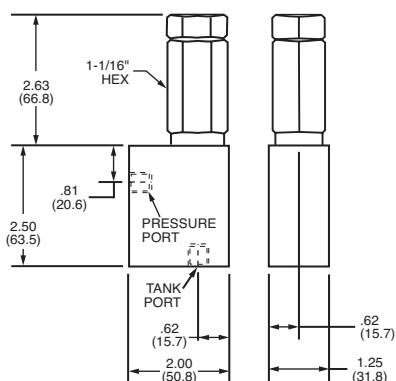
## RDV - Single Relief Valve

The RDV style valve consists of a standard plated steel RDC cartridge in an anodized aluminum housing of either inline or tee configuration. Standard valves are manufactured with either NPSF or SAE O-ring sealed porting to 1".

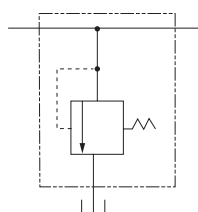
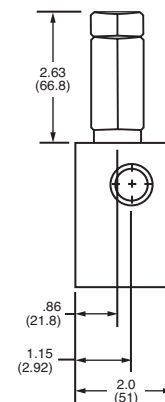
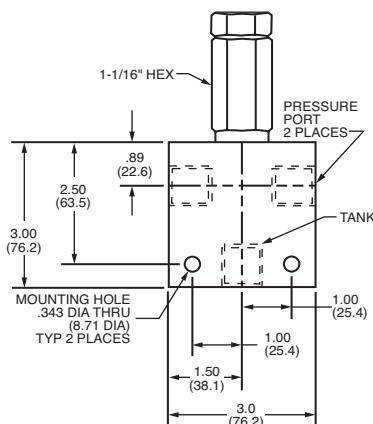
*Working Pressure* – to 4,000 psi (276 bar)

*Weight* – Approx. 1 lb. (.45 kg)

### 3/8", 1/2" Ported Single Relief Valve (RDV)



### 3/4", 1" Ported Single Relief Valve (RDV)



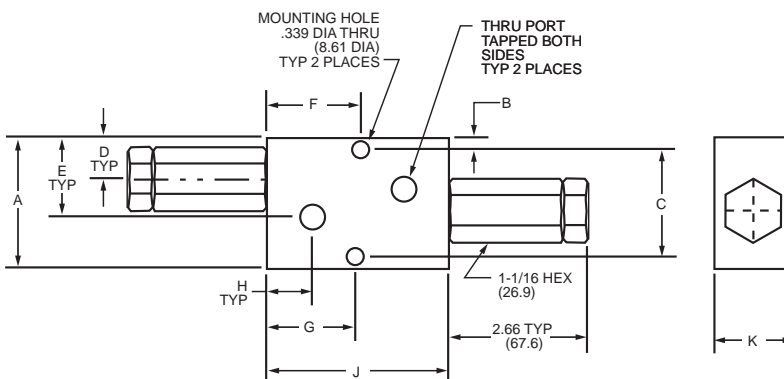
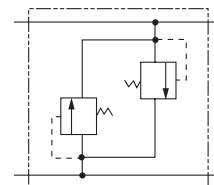


## MDD - Dual Relief Valve

The MDD style valve features two RDC cartridges in a single housing with standard ports from 3/8" to 1" in either NPSF or SAE O-ring sealed threads. A typical application for this type of valve would be shock relief protection for actuator circuits. Pressure surges on either side of the circuit can be vented to the opposite side through the single valve body design.

**Working Pressure** – to 4,000 psi (276 bar)

**Weight** – Approx. 2 lbs. (.91 kg)



Port Size	A		B		C		D		E		F		G		H		J		K	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
3/8"	2.50	63.5	.22	5.6	2.052	52.1	.80	20.3	1.52	38.6	1.81	46.0	1.69	42.9	.90	22.9	3.50	88.9	1.50	38.1
1/2"	2.50	63.5	.22	5.6	2.052	52.1	.80	20.3	1.52	38.6	1.81	46.0	1.69	42.9	.90	22.9	3.50	88.9	1.50	38.1
3/4"	3.00	76.2	.25	6.4	2.500	63.5	.96	24.4	2.08	52.8	1.30	33.0	2.32	58.9	1.00	25.4	3.62	91.9	1.75	44.5
1"	3.00	76.2	.25	6.4	2.500	63.5	.96	24.4	2.08	52.8	1.30	33.0	2.32	58.9	1.00	25.4	3.62	91.9	1.75	44.5

## MCD - Dual Relief Valve with Make-Up Checks

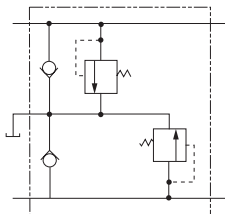
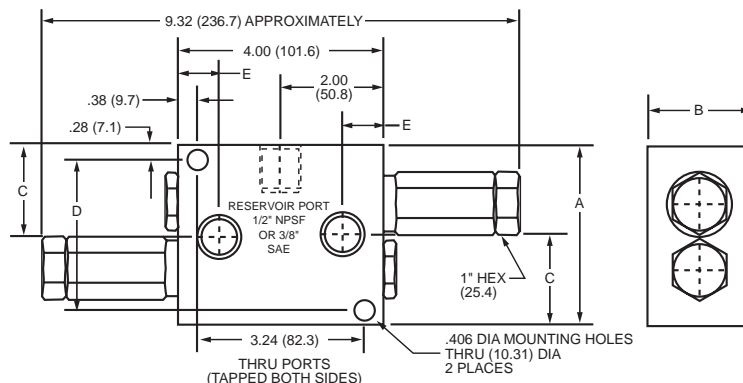
The MCD style relief valve is designed with two RDC relief cartridges and two soft seated, plated steel, free reverse check valves in a single anodized aluminum body. This valve is best applied in hydraulic circuits where pressure surges are relieved to an unequal volume. These checks prevent cavitation or pressure surge rise by allowing oil to be drawn from the reservoir or relieve to the reservoir in the single body design.

**Working Pressure**

– to 4,000 psi (276 bar)

**Weight**

– Approx. 3 lbs. (1.36 kg)



Port Size	A		B		C		D		E	
	in	mm	in	mm	in	mm	in	mm	in	mm
1/4"	3.50	88.9	2.00	50.8	1.78	45.2	2.94	74.7	.80	20.3
3/8"	3.50	88.9	2.00	50.8	1.78	45.2	2.94	74.7	.80	20.3
1/2"	3.50	88.9	2.00	50.8	1.78	45.2	2.94	74.7	.80	20.3
3/4"	4.00	101.6	2.00	50.8	2.14	54.4	3.44	87.4	.91	23.1
1"	4.00	101.6	2.00	50.8	2.14	54.4	3.44	87.4	.91	23.1

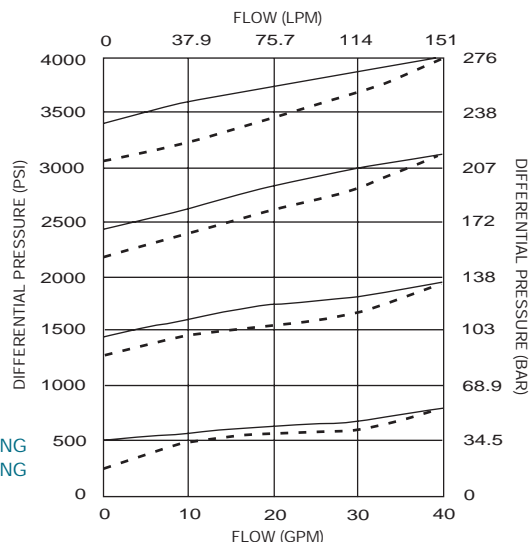




# Differential Relief Valves

## Pressure Drop Information

The curves at the right indicate typical crack and reseal characteristics through the standard RDC cartridge based on 3 gpm (11 l/min) flow rate, using 175 SSU oil at 100°F (38°C)



— VALVE OPENING  
- - - VALVE CLOSING

## Ordering Information

RELIEF CARTRIDGE				RELIEF VALVES				
Example <b>RDC 40 — 25 A</b>				Example <b>RDV — T 3P — 25 A</b>				
Style	Max. Flow	Pressure Range	Seal Material	Valve Style	Relief Adjustment	Thread Type	Pressure Range	Seal Material
Relief Differential Cartridge	40 40 gpm (151 l/min)	<b>15</b> 500-1500 psi (35-104 bar) 850 psi (59 bar) Std. setting @ 3 gpm (11 l/min)  <b>25</b> 500-2500 psi (35-172 bar) Std. setting 1500 psi (104 bar) @ 3 gpm (11 l/min)  <b>40</b> 1000-4000 psi (69-276 bar) Std. setting 2500 psi (172 bar) @ 3 gpm (11 l/min) All pressures are set at 3 gpm (11 l/min)	No letter – Viton (Std)  <b>A</b> Buna N  <b>E</b> Ethylene Propylene Rubber	<b>RDV</b> Single Differential Relief Valve  <b>MDD</b> Dual Differential Relief Valve  <b>MCD</b> Dual Differential Relief Valve with make-up checks	<b>T</b> Screw Adjustment	<b>NPSF</b> 3P = 3/8" 4P = 1/2" 6P = 3/4" 8P = 1"  <b>SAE</b> 6S = 3/8" 8S = 1/2" 12S = 3/4" 16S = 1"	<b>15</b> 500-1500 psi (35-104 bar) 850 psi (59 bar) Std. setting @ 3 gpm (11 l/min)  <b>25</b> 500-2500 psi (35-172 bar) Std. setting 1500 psi (104 bar) @ 3 gpm (11 l/min)  <b>40</b> 1000-4000 psi (69-276 bar) Std. setting 2500 psi (172 bar) @ 3 gpm (11 l/min) All pressures are set at 3 gpm (11 l/min)	No letter – Viton (Std)  <b>A</b> Buna N  <b>E</b> Ethylene Propylene Rubber

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# Directional Control Valves

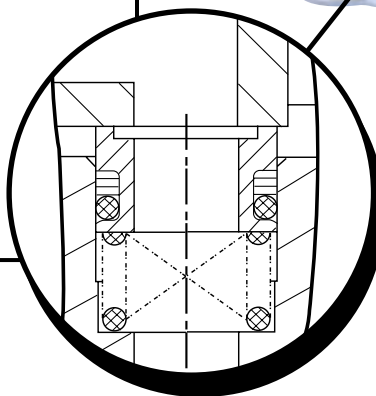




# Snap-Tite **Direc-Trol**

## FEATURES

- VIRTUALLY ZERO INTERNAL LEAKAGE
- PRESSURE RATINGS TO 5000 PSI (345 BAR)
- 1/4", 3/8", 1/2", 3/4", & 1" DESIGN SIZES
- NON-INTERFLOW AVAILABLE ON 1/4" AND 3/8" SIZES
- LONG-LIFE, ANTI-WEAR DESIGN
- FLOWS TO 83 GPM (315 L/MIN)
- PRESSURE ENERGIZED FACE SEAL
- VERTICAL, HORIZONTAL AND MANIFOLD MOUNTING
- EXCELLENT METERING CHARACTERISTICS
- CONTAMINATION RESISTANT
- ROTARY FLOW SHEAR DESIGN



If you want to control fluid direction ... with virtual zero leakage, Snap-tite Direc-Trol Valves are the industry's preferred line.

These high performance valves are designed for any application where precise metering and high efficiency are required.

The rotary flow design of Direc-Trol® valves accounts for their outstanding ability to stand up to even the most grueling of hydraulic or pneumatic system applications.

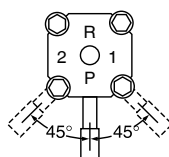
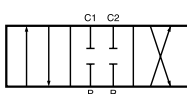
Direc-Trol Valves have so many distinct features that it is easy to specify them in the most demanding situations.

A non-interflow seal and rotor configuration can be added to 1/4" and 3/8" valves. This non-interflow feature minimizes the open center crossover condition.

- **Mobile Equipment** • **Machine Tools** • **Marine** • **Oil Field** • **In-Plant** • **Pilot Valve Actuators**
- **Accumulator Circuits** • **Test Stands** • **High Pressure Clamping, Crimping & Torquing**

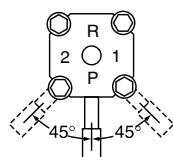
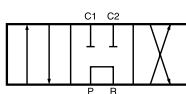
## Flow Patterns (JIC Symbol)

### Closed Center

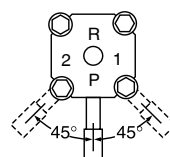
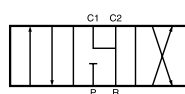


Shift  
Pattern  
as viewed  
from bottom  
of valve

### Tandem Center

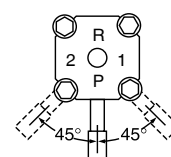
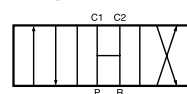


### Float Center



Shift  
Pattern  
as viewed  
from bottom  
of valve

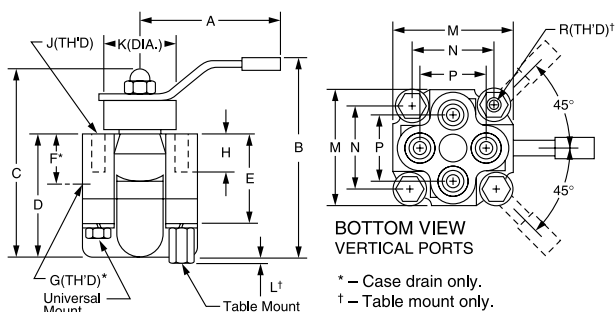
### Open Center



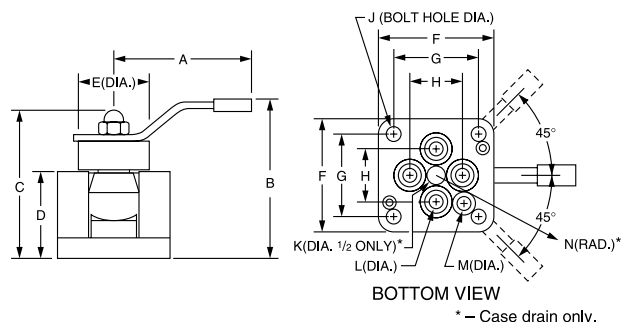


# Dimensions ( $\pm .015$ )

## Detent and Spring Centered



## Manifold Mounting

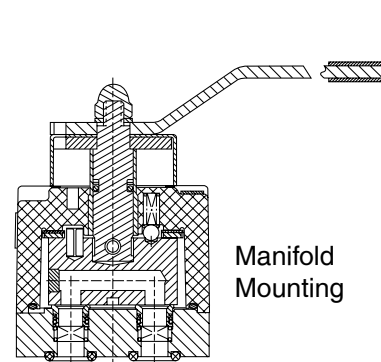
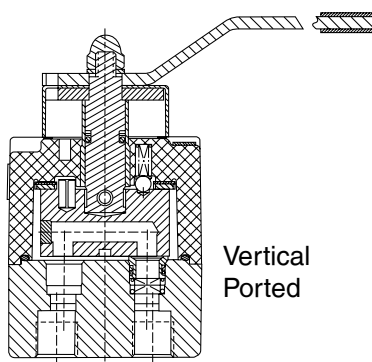
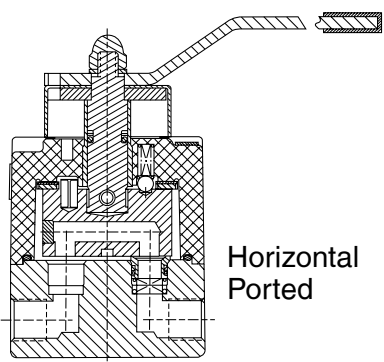


	1/4"	3/8"	1/2"	3/4"	1"
A	7.00 (177.8)	7.00 (177.8)	7.00 (177.8)	8.75 (222.3)	8.75 (222.3)
B	4.60 (116.8)	5.30 (134.6)	5.80 (147.3)	8.92 (226.6)	8.92 (226.6)
C	4.46 (113.3)	5.16 (131.1)	5.66 (143.8)	6.18 (157.0)	6.18 (157.0)
D	2.70 (68.6)	3.40 (86.4)	3.90 (99.1)	5.16 (131.1)	5.16 (131.1)
E	2.01 (51.1)	2.82 (71.7)	3.10 (78.7)	4.39 (111.5)	4.39 (111.5)
F	.86 (21.8)	1.47 (37.4)	1.15 (29.2)	1.86 (47.2)	1.86 (47.2)
G(NPSF)	1/8-27	1/8-27	1/8-27	3/8-18	3/8-18
H	.38 (9.7)	.85 (21.6)	.75 (19.1)	.50 (12.7)	.50 (12.7)
J(UNC)	3/8-16	3/8-16	3/8-16	1/2-13	1/2-13
K	2.00 (50.8)	2.00 (50.8)	2.00 (50.8)	3.40 (86.4)	3.40 (86.4)
L	.29 (7.4)	.15 (3.8)	.16 (4.1)	.25 (6.4)	.25 (6.4)
M	2.63 (66.8)	3.00 (76.2)	3.75 (95.3)	5.00 (127.0)	5.00 (127.0)
N	1.88 (47.8)	2.25 (57.2)	2.63 (66.8)	4.06 (103.1)	4.06 (103.1)
P	1.38 (35.1)	1.50 (38.1)	2.31 (58.7)	3.00 (76.2)	3.00 (76.2)
R(UNC)	3/8-16	3/8-16	3/8-16	1/2-13	1/2-13

	1/4"	3/8"	1/2"	3/4"	1"
A	7.00 (177.8)	7.00 (177.8)	7.00 (177.8)	8.75 (222.3)	8.75 (222.3)
B	3.73 (94.7)	4.53 (115.1)	4.75 (120.1)	7.50 (190.5)	7.50 (190.5)
C	3.59 (91.2)	4.39 (111.5)	4.61 (117.1)	4.81 (122.2)	4.81 (122.2)
D	1.83 (46.5)	2.63 (66.9)	2.84 (72.1)	3.78 (96.0)	3.78 (96.0)
E	2.00 (50.8)	2.00 (50.8)	2.00 (50.8)	3.40 (86.4)	3.40 (86.4)
F	2.63 (66.9)	3.00 (76.2)	3.75 (95.3)	5.00 (127.0)	5.00 (127.0)
G	1.88 (47.8)	2.25 (57.2)	2.63 (66.8)	4.06 (103.1)	4.06 (103.1)
H	1.00 (25.4)	1.30 (33.0)	1.78 (45.2)	3.00 (76.2)	3.00 (76.7)
J	.34 (8.6)	.41 (10.4)	.41 (10.4)	.52 (13.2)	.52 (13.2)
K	-	-	.44 (11.2)	-	-
L	.25 (6.4)	.41 (10.4)	.50 (12.7)	.75 (19.1)	.75 (19.1)
M	.19 (4.8)	.25 (6.4)	-	.69 (17.5)	.69 (17.5)
N	.75 (19.1)	1.06 (26.9)	-	1.81 (46.0)	1.81 (46.0)

\*N is the radius from the center of the valve to the location of the case drain port

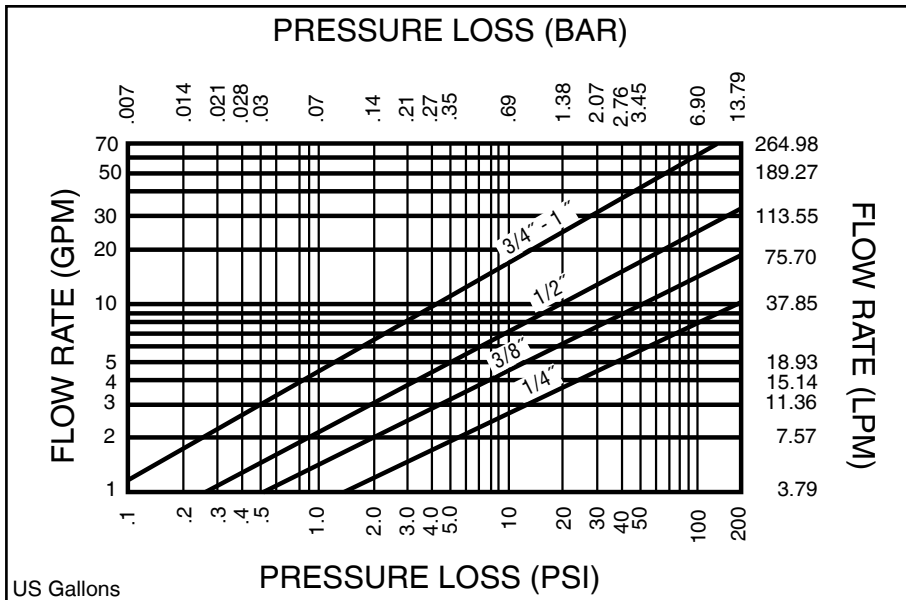
## Available Porting







## Specifications



<b>Handle Torque</b> (inch pounds)			
	Type	0 psi (bar)	3000 psi (bar)
<b>1/4</b>	Detent	10 (1.0)	20 (1.5)
	Spring	50 (3.5)	55 (3.8)
<b>3/8</b>	Detent	10 (1.0)	25 (1.8)
	Spring	80 (5.6)	85 (5.9)
<b>1/2</b>	Detent	35 (2.5)	70 (5.0)
	Spring	110 (7.6)	130 (9.0)
<b>3/4</b>	Detent	66 (4.6)	190 (13.2)
<b>1</b>	Detent	66 (4.6)	190 (13.2)

<b>Approximate Flow Capacity-Oil</b>					
Port Size NPT	Cy Factor	20 ft/sec gpm	40 ft/sec gpm	60 ft/sec gpm	Ship'g Wt. lbs. (kgs)
1/4	1.0	3	6	9	2.4 (1.1)
3/8	2.0	7	13	21	3.5 (1.6)
1/2	4.0	12	24	37	5.1 (2.3)
3/4	8.0	28	55	83	16.5 (7.5)
1	8.0	28	55	83	16.5 (7.5)

<b>Maximum Ratings</b>		
	Pressure	Flow
1/4	5,000 psi (345 bar)	8 gpm (30.3 lpm)
3/8	5,000 psi (345 bar)	16 gpm (60.6 lpm)
1/2	3,000 psi (207 bar)	27 gpm (102.2 lpm)
3/4	3,000 psi (207 bar)	83 gpm (314.2 lpm)
1	3,000 psi (207 bar)	83 gpm (314.2 lpm)

**Ordering Information: Select and specify the proper valve from the following table:**

	<b>P</b>	<b>4</b>	<b>2</b>	<b>30</b>	<b>V</b>	<b>U</b>	<b>C</b>	<b>D</b>		<b>V</b>	<b>2</b>
Valve Service	Type of Ports	Number of Ports	Port Size	Pressure Rating	Port Location	Type of Mounting	Flow Pattern	Handle Action	Type of Valve	O-ring Seals	Shift Pattern
No Letter-Standard hydraulic A-pneumatic service*	P -NPSF J -SAE M -Manifold mounting R -RP Female British Parallel BS 2779 **C Following any of the above indicates 4th seal and case drain	4-Four	2 -1/4" 3 -3/8" 4 -1/2" 6 -3/4" 8 -1"	30 - 3000 psi (207 bar) for oil 50- 5000 psi (345 bar) for oil (1/4" and 3/8" only)	H- Horizontal V- Vertical	T- Table U- Universal	C- Closed Center O- Tandem Center M- Float Center N- Open Center	D- Detent T- Non Detented S- Spring Centered	No Letter-Standard N- Non Inter-flow (1/4" and 3/8" only)	No Letter-Buna-N Standard V- Viton E- Ethylene Propylene	No Number Standard 3 position 1-Two position 90° 2-Two position 45° CW 3-Two position 45° CCW

\*Pneumatic service recommended for 1/4" & 3/8" only pressures to 250 psi (17 bar).

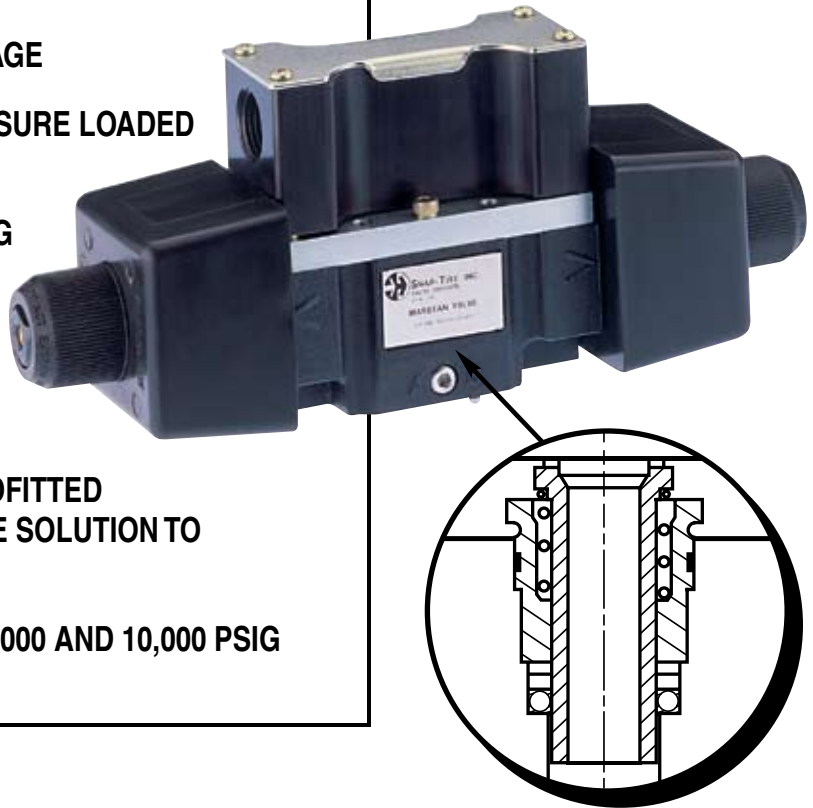
\*\*NOTE: Where tankport pressures exceed 250 (17 bar), specify 4th seal and case drain option.

<b>Buna Seal Kits</b>		<b>Viton Seal Kits</b>		<b>Table Mounting Kits</b>	
Size	Part No.	Size	Part No.	Size	Part No.
1/4"	7350-100	1/4"	7350-100V	1/4"	7350-81
3/8"	7350-101	3/8"	7350-101V	3/8" & 1/2"	7350-82
1/2"	7350-102	1/2"	7350-102V	3/4" & 1"	7350-83
3/4" & 1"	7350-102	3/4" & 1"	7350-103V		



## FEATURES

- VIRTUALLY ZERO INTERNAL LEAKAGE
- SEALING ADVANTAGES OF A PRESSURE LOADED FACE SEAL VALVE
- NFPA 01 SIZE SUBPLATE MOUNTING
- SIMPLIFIES CIRCUITS BY ELIMINATING PILOT OPERATED CHECK VALVES OR LOAD HOLDING CHECKS
- EXISTING CIRCUITS CAN BE RETROFITTED WITH MARSTAN FOR AN EFFECTIVE SOLUTION TO LEAKAGE PROBLEMS
- HIGH PRESSURE CAPACITY: 3500, 6000 AND 10,000 PSIG (245, 415 AND 690 BAR)



The Snap-tite Marstan design controls both static and dynamic fluids, providing many advantages through its inherent “zero leakage” feature. Marstan tight sealing internal seals assure less than four drops per minute leakage (per seal) at pressures from 0 to 10,000 psi (690 bar). The construction of Snap-tite Marstan valves is such that this “zero leakage” characteristic actually improves over time, thus increasing service life.

The valve housings are permanent mold cast aluminum for lightweight with internal sealing components manufactured as hardened, ground and lapped steel parts to assure the desired sealing qualities and minimize wear.

Snap-tite Marstan valves are available in solenoid, manual or pneumatic actuation at three maximum pressure ratings of 3500, 6000, or 10,000 psi (245, 415, or 690 bar). Six internal porting modes are available to choose from with two or three position spring return or detent action.

- **Mobile Equipment**
- **Machine Tools**
- **Marine**
- **Oil Field**
- **In-Plant**
- **Pilot Valve Actuators**
- **Accumulator Circuits**
- **Test Stands**
- **High Pressure Clamping, Crimping & Torquing**

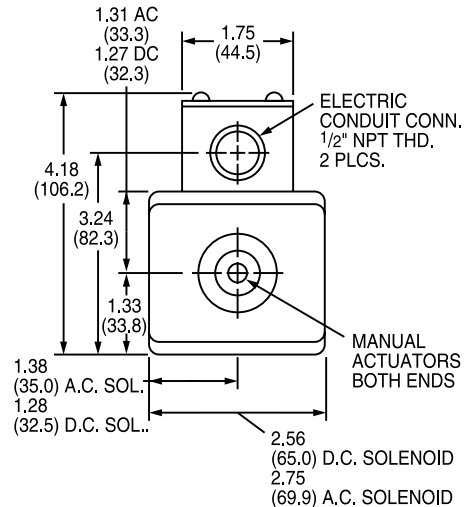
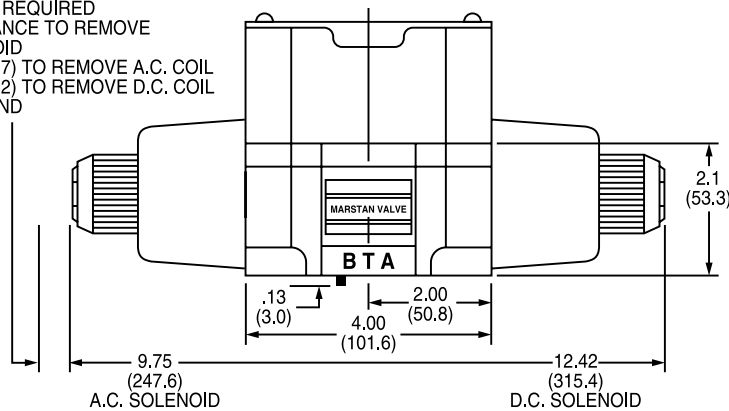


**Size 01** (NFPA DO1-DO3)

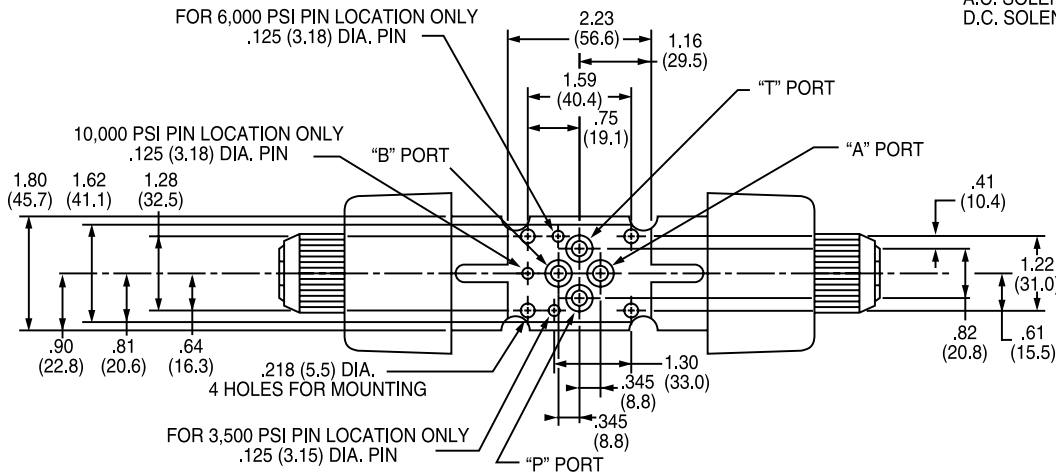
- ◆ 2 or 3 position
- ◆ 3 way or 4 way
- ◆ Subplate mounted
- ◆ 3,500 PSIG (245 bar),  
6,000 PSIG (415 bar) and  
10,000 PSIG (690 bar) ratings

## Double Solenoid Operated

.37 (9.4) REQUIRED  
CLEARANCE TO REMOVE  
SOLENOID  
1.80 (45.7) TO REMOVE A.C. COIL  
3.12 (79.2) TO REMOVE D.C. COIL  
EACH END



WEIGHT:  
A.C. SOLENOID 5.26 LBS.  
D.C. SOLENOID 8.44 LBS.

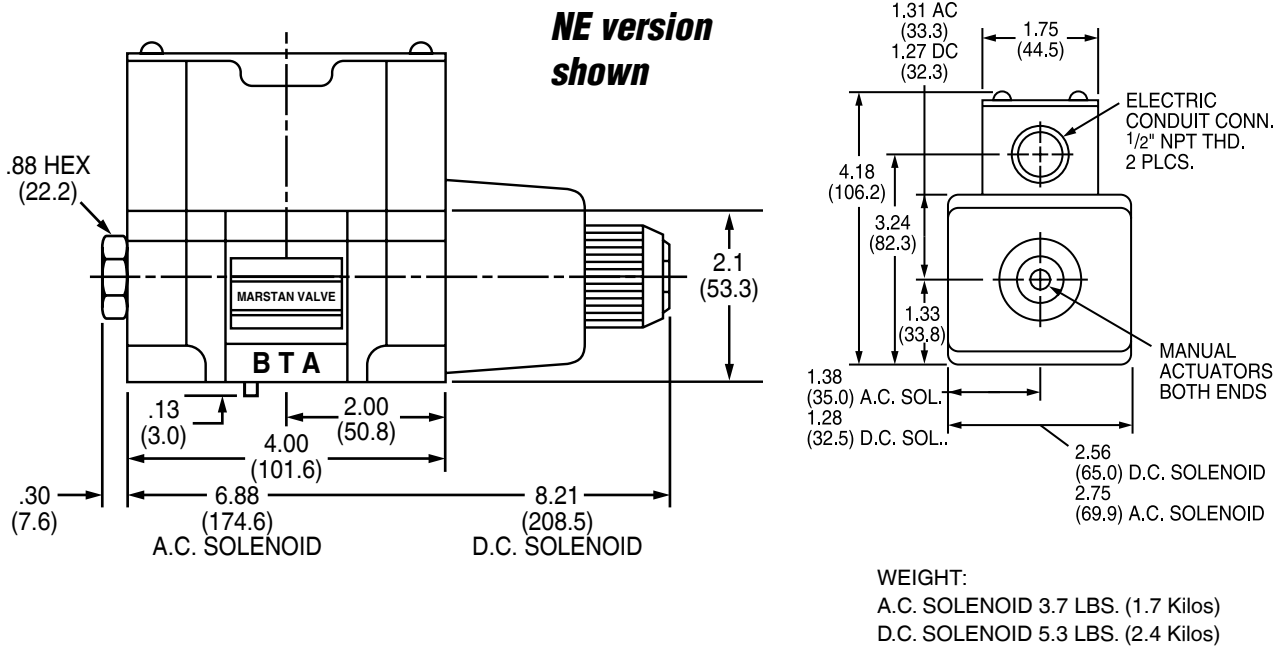


### NOTES:

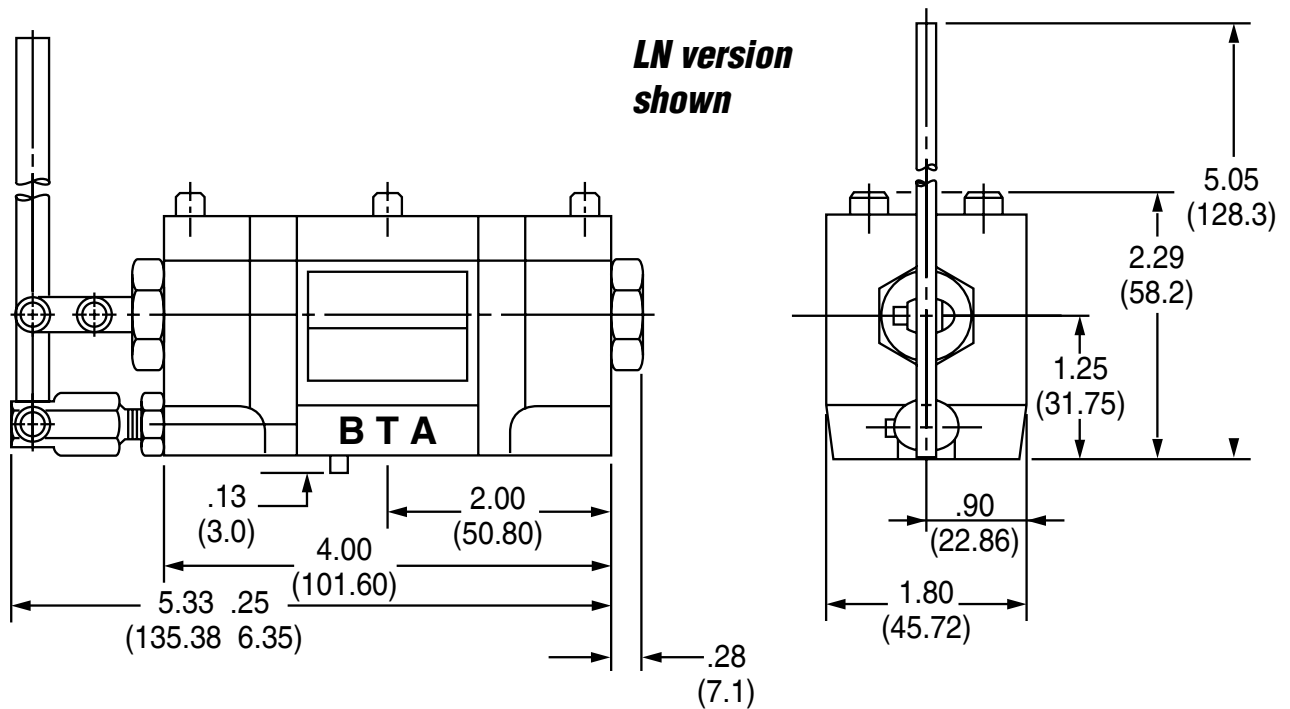
- 1.) Maximum Subplate Port Dia. .250 (6.35) for all ports except 10,000 PSI (690 bar) Models for which P, A & B Ports MUST NOT EXCEED .156 (4.0) Dia.
- 2.) All dimensions shown are nominal unless otherwise indicated.
- 3.) Recommended minimum center to center spacing between valve assemblies  
2.62 (66.55) for D.C. solenoid versions  
2.87 (72.90) for A.C. solenoid versions.
- 4.) Weight: A.C. Solenoid 5.3 lbs. (2.4 Kilos)  
D.C. Solenoid 8.4 lbs. (3.8 Kilos)



## Single Solenoid Operated



## Manually Operated

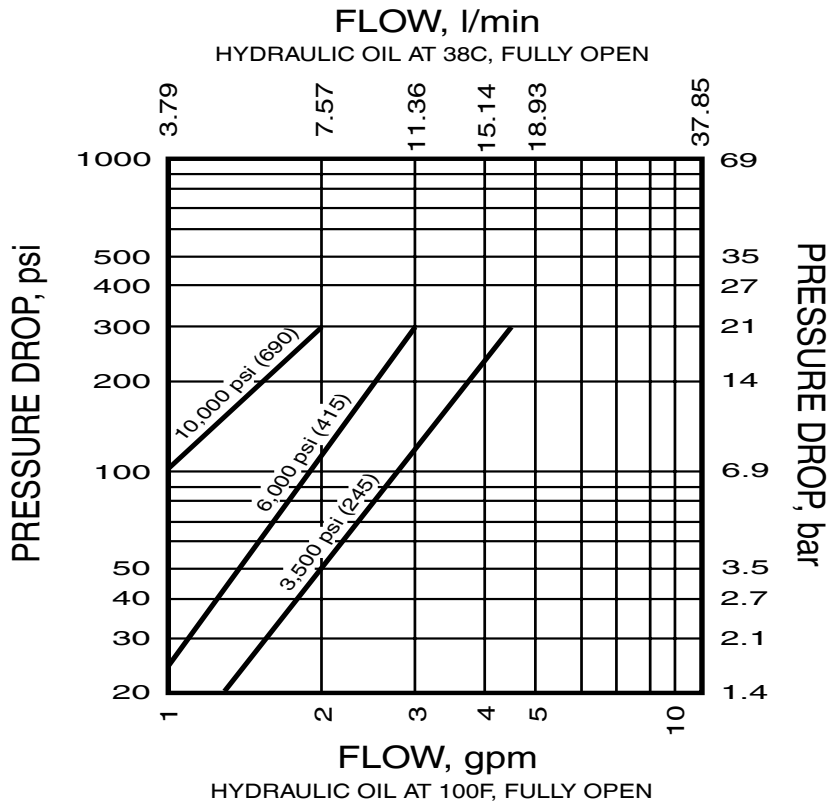




## Technical Information

### Pressure Drop

Each curve represents valves of the rated pressure capacity shown. Data is based on 100 SSU fluid with specific gravity of .865. Curves show full loop  $\Delta P$  to A to B to T in 4 way valve. For P to A or B in 3 way, use 65% of  $\Delta P$  shown. *Pressure drop curves include manifold subplate.*



### Maximum Flows\*

4 gpm	(15.1 liters)	3,500 psi	(245 bar)
3 gpm	(11.4 liters)	6,000 psi	(415 bar)
2 gpm	( 7.6 liters)	10,000 psi	(690 bar)

\*Maximum allowable leakage is less than 4 drops/min. across any seal after the second minute at maximum rated pressure.

### Solenoids

All cataloged solenoids are WET ARMATURE, push type with manual override and 6" #18 AWG leads.

Note: External surface of solenoids can reach temperatures of 240°F (115°C).

Operating temperature of solenoid is limited 140°F (60°C) ambient.

### Solenoid Current (approximate maximum)

CODE	VOLTAGES CYCLES		INRUSH AMPS	HOLDING	
				AMPS	WATTS
01	115	60	8.0	1.6	60
02	230	60	4.0	.8	60
03	460	60	2.0	.4	60
04	12 DC	-	-	5.0	60
05	24 DC	-	-	2.5	60



Subplate Ordering Data	
------------------------	--

**SUBPLATE** \_\_\_\_\_ **P** **M** **L** **01** **-** **4S**

**VALVE TYPE** \_\_\_\_\_  
Directional Control

**PRESSURE RATING** \_\_\_\_\_  
**L** < 3,500 PSIG MAX. (245 bar)  
**T** 6,000 PSIG MAX. (415 bar)  
**T** 10,000 PSIG MAX. (690 bar)

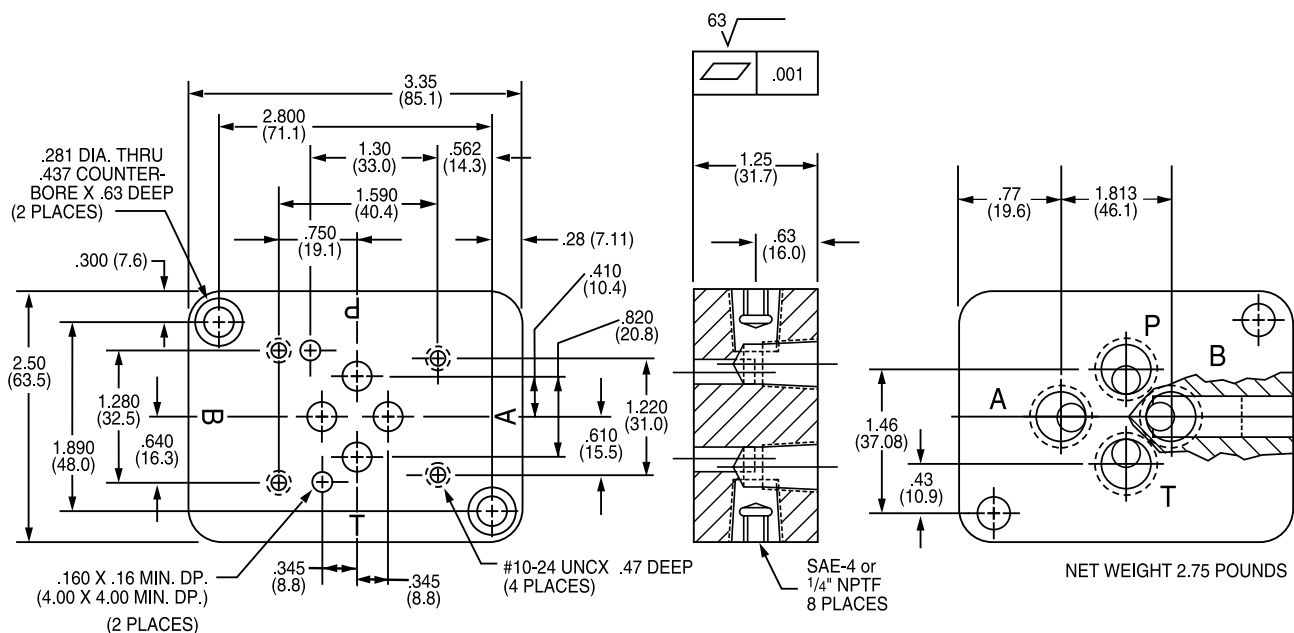
**01 VALVE BODY SIZE** \_\_\_\_\_

**PORT TYPE** \_\_\_\_\_  
4S - 1/4" SAE Straight Thread O-ring seals  
2P - 1/4" NPTF  
2RP - 1/4" BS2779 Female British Parallel

## Mounting Position

Optimum performance will be obtained by installing valves horizontally with the mounting face down.

### **Mounting Subplates** (For Valve Size 01)



**3,500 PSIG (245 bar) and 6,000 PSIG (415 bar)**

All Interface Dimensions are STD.NFPA D01







# Valve Ordering Data

Valve Ordering Data	
<b>DIRECTIONAL CONTROL VALVE</b>	<b>M</b> <input type="checkbox"/> <b>01</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>PRESSURE RATINGS</b> G 3,500 PSIG (245 bar) L 6,000 PSIG (415 bar) T 10,000 PSIG (690 bar)	
<b>BODY SIZE</b>	
<b>SOLENOID, AIR PILOT AND MANUAL OPERATORS</b> First Operator in part no. code is on "B" end. Second is on "A" end. E Solenoid †L Lever N None *P Pneumatic Double Acting *Maximum Pilot Pressure - 250 PSIG (17 bar) †ON "B" END ONLY AS STANDARD	
<b>SOLENOID VOLTAGE</b> 00 Not Available 01 115V/60Hz 02 230V/60Hz 03 460V/60Hz 04 12VDC 05 24VDC Consult Factory for Other Voltages. Solenoid Valves Include Manual Override as Standard	
<b>SEAL COMPOUNDS</b> B – Buna N V – Viton E – Ethylene Propylene	
<b>VALVE ACTION FLOW PATTERNS</b> • <b>Double Solenoid Operated</b> 03 Spring Centered, 3-position 06 2-Position Detent 08 Detented 2-Position, Center and P to B 09 Detented 2-Position Center and P to A 10 No Springs, No Detents • <b>Single Solenoid Operated - Type</b> 01 Spring Offset P to B (with NE) De-energized 02 Spring Offset P to A (with EN) De-energized • <b>Manually Operated</b> 01 Spring Offset P to B De-energized 02 Spring Offset P to A De-energized 03 Spring Centered 3-Position 04 Spring to Center 2-Position, Operator P to A 05 Spring to Center 2-Position, Operator P to B 06 2-Position Detent 07 3-Position Detent 08 Detented 2-Position, Center and P to B 09 Detented 2-Position, Center and P to A 10 No Spring, No Detents	
<b>INTERNAL PORTING*</b> <b>3-Position Types (with Valve Action Flow-Patterns 03, 04, 06, 07, 08, 09, 10):</b> <b>A</b> <b>TANDEM - Pump open to tank cylinder ports blocked</b> <b>B</b> <b>CLOSED CENTER - All ports blocked</b> <b>C</b> <b>OPEN CENTER - All ports open to tank</b> <b>D</b> <b>PRESSURE BLOCKED - cylinder ports open to tank</b> <b>2-Position Types (with Valve Action Flow-patterns 01, 02, 06, 10):</b> <b>Y</b> <b>3-WAY</b> <b>Z</b> <b>4-WAY</b> * Tank Port Pressure limited to 1000 psi (69 bar)	
<b>FOR OTHER MODEL CONFIGURATIONS CONSULT FACTORY</b>	



## **! WARNING !**

### **FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE.**

This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors, provides product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.



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**ISO-9001 Certified**



★ *Snap-Tite*

General  
Purpose &  
Vacuum  
Couplings

**EA&E**  
SERIES





# ★ Snap-Tite **EA, E Series - General Purpose & Vacuum Couplings**

**Featuring...Snap-tite quality with superior pressure and flow characteristics over the competition.**



*Snap-tite's **EA Series** quick disconnect coupling is designed specifically for vacuum and medium pressure service, providing a dependable means for speeding fluid line changeover in autoclave applications ranging from aircraft fabrication to plastic molding.*

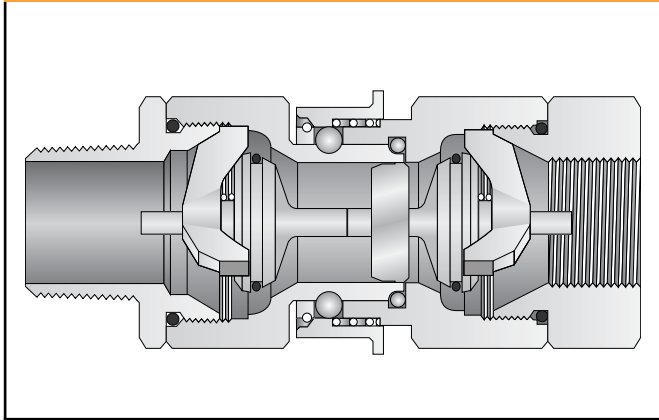
*Snap-tite's **E Series** quick disconnect couplings have been proven by years of use on hydraulic and pneumatic applications as well as many other liquids and gases. They are designed and manufactured for years of reliable service.*

- **Sizes** — **EA Series:** 1/4", 3/8", 1/2", 3/4"  
**E Series:** 1", 1-1/4", 1-1/2", 2", 3", 4"
- **Metals** — EA and E Series are available in four metals – Zinc Trivalent Chromate Plated steel†, brass, aluminum and 316 stainless steel. Please consult factory. A variety of protective finishes are available. Please consult factory.
- **Seal Versatility** — Wide range of standard and special seal materials available.
- **High Temperature Capability in EA Series** — A unique configuration for containing the nipple o-ring seal to affect both a diametrical and compression seal allows the EA Series to handle high temperature and vacuum internally even with an external pressure on the coupling - or the reverse - while maintaining reliability.
- **Smooth Flow** — Snap-tite's "Jet Stream" valve design helps maintain a clean linear flow. Positive positioning of the valve aids in maintaining a steady, even flow under normal working conditions.
- **Vacuum Capability** — Dependable service down to 29.72"Hg.
- **Dependable Operation** — Ball-lock mechanism provides positive connection while two piece construction allows for end fitting versatility.
- **Sleeve Lock** — Sleeve lock option aids in preventing accidental disconnection of the coupling.

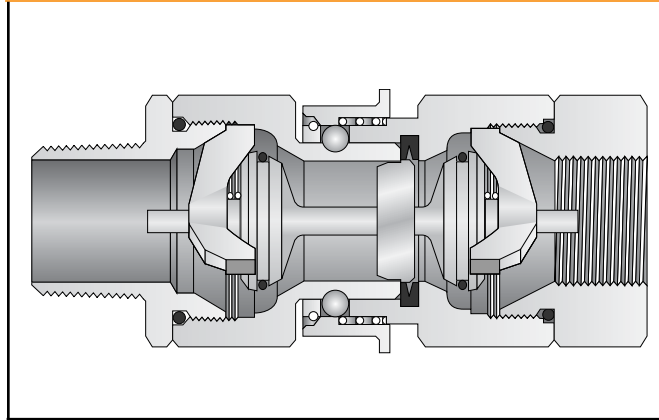
†Conforms with ROHS and WEEE European Union Directives



### EA SERIES – 1/4" – 3/4"



### E SERIES – 1" – 4"



### PRESSURE RATINGS\*

#### Valved & Valved, Valved & Plain and Plain & Plain Couplings

SIZE	STEEL				STAINLESS STEEL				BRASS				ALUMINUM			
	Maximum Working		Minimum Burst		Maximum Working		Minimum Burst		Maximum Working		Minimum Burst		Maximum Working		Minimum Burst	
	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR
1/4"	3,000	207	6,000	414	3,000	207	6,000	414	1,500	103	3,000	207	1,500	103	3,000	207
3/8"	3,000	207	6,000	414	3,000	207	6,000	414	1,500	103	3,000	207	1,500	103	3,000	207
1/2"	3,000	207	6,000	414	3,000	207	6,000	414	1,500	103	3,000	207	1,500	103	3,000	207
3/4"	2,000	138	4,000	276	2,000	138	4,000	276	1,500	103	3,000	207	1,500	103	3,000	207
1"	1,500	103	3,000	207	1,000	69	2,000	138	500	34	1,000	69	500	34	1,000	69
1-1/4"	1,000	69	2,000	138	750	52	1,500	103	300	21	600	41	300	21	600	41
1-1/2"	1,000	69	2,000	138	750	52	1,500	103	300	21	600	41	300	21	600	41
2"	750	52	1,500	103	500	34	1,000	69	300	21	600	41	300	21	600	41
2-1/2"	500	34	1,000	69	400	28	800	55	300	21	600	41	300	21	600	41
3"	500	34	1,000	69	300	21	600	41	200	14	400	28	200	14	400	28
4"	500	34	1,000	69	200	14	400	28	150	10	300	21	150	10	300	21

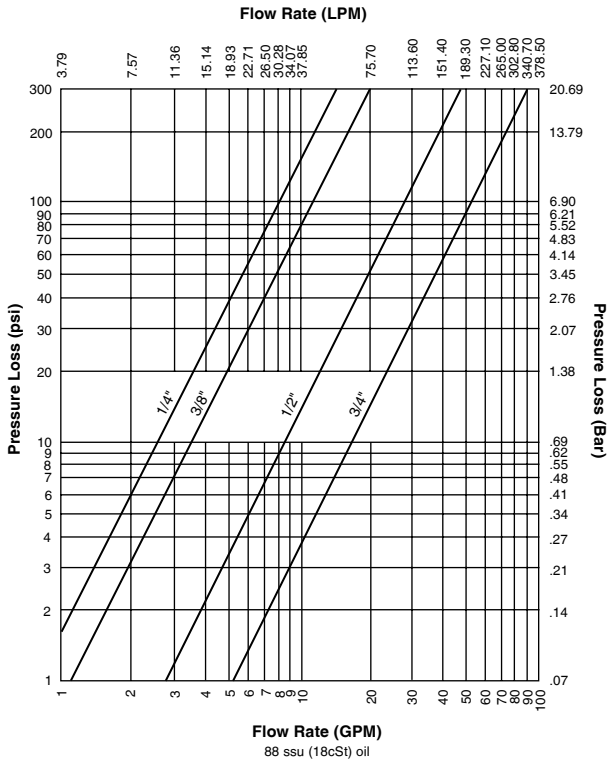
\*Note: Pressure ratings were established under static pressure conditions. Therefore, pressure ratings for any given flow, pressure surge, and/or vibration may vary from those ratings.

### VACUUM CAPABILITY AT STANDARD BAROMETRIC CONDITIONS

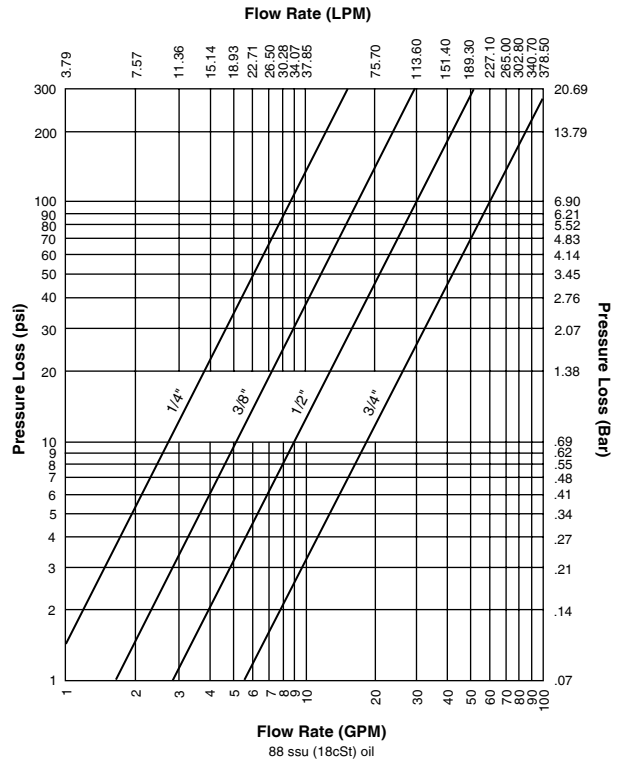
	EA SERIES								E SERIES							
	1/4"		3/8"		1/2"		3/4"		1"		1-1/4"		1-1/2"		2"	
	IN.HG	ATM	IN.HG	ATM	IN.HG	ATM	IN.HG	ATM	IN.HG	ATM	IN.HG	ATM	IN.HG	ATM	IN.HG	ATM
CONNECTED	29.7	.99	29.7	.99	29.7	.99	29.7	.99	29.7	.99	28.0	.94	27.0	.90	26.0	.87
COUPLER OR NIPPLE ALONE (DISCONNECTED)	29.7	.99	29.7	.99	29.7	.99	29.7	.99	20.5	.69	12.0	.40	4.2	.14	4.5	.15



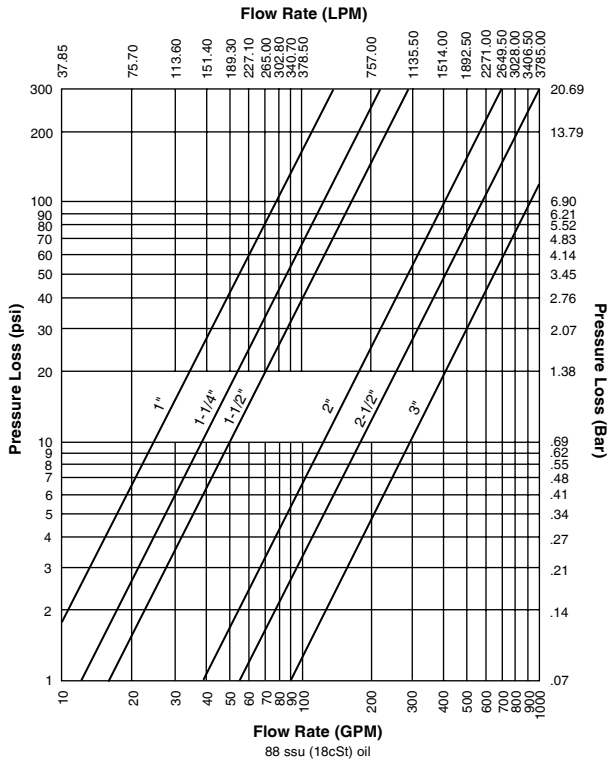
## EA Series Valved & Valved (Double Shut-Off)



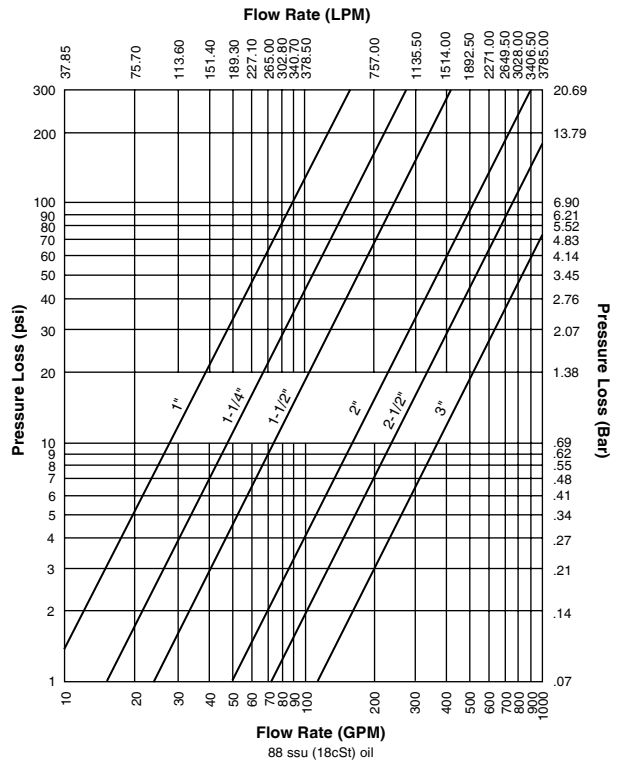
## EA Series Valved & Plain (Single Shut-Off)



## E Series Valved & Valved (Double Shut-Off)



## E Series Valved & Plain (Single Shut-Off)

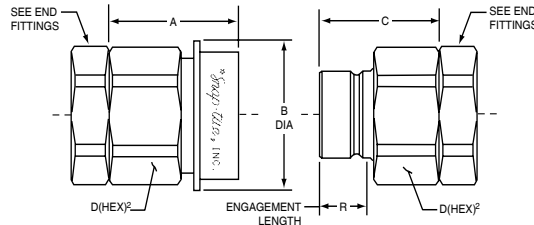




## COUPLING COMBINATIONS & END FITTINGS

1. Double shut-off coupling: Valve coupler and valve nipple
  2. Single shut-off coupling: Valve coupler and plain nipple
  3. No shut-off or straight through: Plain coupler and plain nipple. Plain couplers cannot be used with valve nipples.
- All combinations of the same coupling size are interchangeable regardless of material, finish or end fittings.

### VALVED

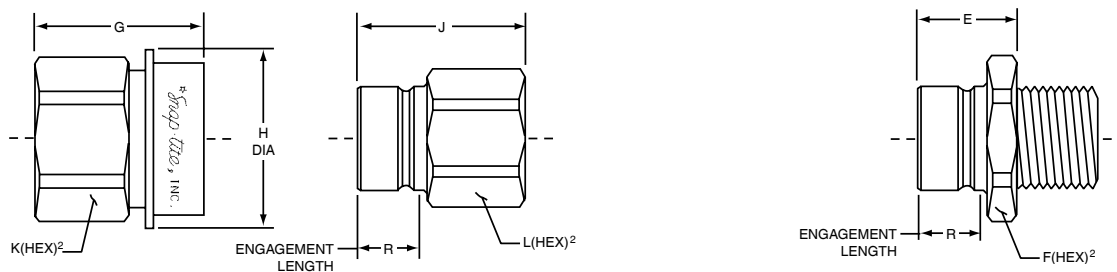


Size		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
<b>A</b>	in	1.34	1.50	1.62	1.91	2.07	2.28	2.57	3.14	3.63	3.88	4.58
	mm	34.04	38.10	41.15	48.51	52.58	57.91	65.28	79.76	92.20	98.55	116.30
<b>B</b>	in	1.13	1.31	1.44	1.88	2.19	2.50	2.88	3.63	4.50	5.45	6.75
	mm	28.70	33.27	36.58	47.80	55.63	63.50	73.15	92.20	114.30	138.40	171.50
<b>C</b>	in	1.30	1.46	1.51	1.79	1.89	2.02	2.25	2.72	3.20	3.58	4.24
	mm	33.02	37.08	38.35	45.47	48.01	51.31	57.15	69.09	81.28	90.90	107.70
<b>D</b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.75	3.75	4.50	5.25	6.75
	mm	22.40	25.40	30.23	38.10	47.75	50.80	69.85	95.25	114.30	133.40	171.45
<b>R</b>	in	.55	.69	.69	.84	.86	.80	.94	1.12	1.23	1.38	1.73
	mm	14.00	17.53	17.53	21.30	21.84	20.30	23.88	28.44	31.24	35.00	44.00

### END FITTINGS<sup>1</sup>

	Size		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
Male Tapered Pipe 	<b>F</b>	in	.75	.69	.95	.96	1.14	1.31	1.44	1.40	1.83	1.88	2.88
		mm	19.05	17.53	24.13	24.38	28.96	33.27	36.58	35.56	46.48	47.75	73.15
	<b>G²</b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50 <sup>3</sup>	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90 <sup>3</sup>	101.60	120.65	152.40
EM Male SAE Flared and MS33656 	<b>F</b>	in	.74	.74	.84	1.13	1.16	1.27	1.46	1.71			
		mm	18.80	18.80	21.34	28.70	29.46	32.26	37.08	43.43			
	<b>G²</b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50 <sup>3</sup>			
		mm	22.35	33.27	30.23	38.10	47.75	50.80	63.50	88.90 <sup>3</sup>			
MS33657 	<b>F</b>	in	1.23	1.31	1.47	1.84	1.84	1.95					
		mm	31.31	33.27	37.34	46.74	46.74	49.53					
	<b>G²</b>	in	.88	1.00	1.19	1.50	1.88	2.00					
		mm	22.35	25.40	30.23	38.10	47.75	50.80					
Female Tapered Pipe 	<b>F</b>	in	.31	.40	.47	.50	.60	1.26	.70	.78	.90	.88	1.13
		mm	7.87	10.16	11.94	12.70	15.24	32.00	17.78	19.81	22.86	22.35	28.70
	<b>G²</b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90	101.60	120.65	152.40
EF Female Straight and MS33649 	<b>F</b>	in	.46	.70	.57	1.00	.87	1.11	.85	1.01			
		mm	11.68	17.78	14.48	25.40	22.10	28.19	21.59	25.65			
	<b>G²</b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50			
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90			
EB Male SAE Bulk-Head 	<b>F</b>	in	1.39	1.56	1.67	2.03	1.84	2.14					
		mm	35.30	39.62	42.42	51.56	46.74	54.36					
	<b>G²</b>	in	.88	1.00	1.19	1.50	1.88	2.00					
		mm	22.35	25.40	30.23	38.10	47.75	50.80					
Female RP <sup>1</sup> British Parallel 	<b>F</b>	in	.39	.40	.53	.56	.60	1.26	.70	.78	.90	.89	1.13
		mm	9.91	10.16	13.46	14.22	15.24	32.00	17.78	19.81	22.86	22.35	28.70
	<b>G²</b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90	101.60	120.65	152.40



**PLAIN FEMALE PIPE & PLAIN FEMALE RP**
**PLAIN MALE PIPE**


Size		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
E	in	.87	.91	.88	1.05	1.02	.98	1.19	1.40	1.85	2.37	2.29
	mm	22.10	23.10	22.40	26.70	25.91	24.90	30.20	35.56	46.99	60.20	58.20
F	in	.56	.69	.88	1.06	1.38	1.88	2.13	2.50	3.25	4.00	5.00
	mm	14.20	17.53	22.40	26.90	35.05	47.80	54.10	63.50	82.55	101.60	127.00
G	in	1.34	1.53	1.72	1.91	2.07	2.28	2.57	2.67	3.21	3.35	3.88
	mm	34.04	38.86	43.69	48.50	52.60	57.90	65.30	67.82	81.50	85.10	98.60
H	in	1.13	1.31	1.44	1.88	2.19	2.50	2.88	3.63	4.50	5.45	6.75
	mm	28.70	33.27	36.58	47.70	55.63	63.50	73.15	92.20	114.30	138.40	171.50
J	in	1.33	1.58	1.70	2.05	2.04	2.12	2.23	2.35	2.88	3.19	3.50
	mm	33.78	40.13	43.18	52.07	51.82	53.85	56.64	59.69	73.20	81.03	88.90
K	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.25	3.75	4.75	5.50
	mm	22.40	25.40	30.23	38.10	47.80	50.80	63.50	82.60	95.30	120.70	139.70
L	in	.63	.81	1.00	1.19	1.50	1.88	2.13	2.75	3.25	4.00	5.00
	mm	16.00	20.60	25.40	30.20	38.10	47.80	54.10	69.85	82.60	101.60	127.00
R	in	.55	.69	.69	.84	.86	.80	.94	1.12	1.23	1.38	1.73
	mm	14.00	17.53	17.53	21.30	21.84	20.30	23.88	28.44	31.24	35.00	44.00

<sup>1</sup> Other special end fittings available upon request.

<sup>2</sup> Dimensions taken across the hex flats. Round stock with two milled flats may be substituted for hex stock. Dimensions across flats same as dimensions across hex flats. Max O.D. of round stock will not exceed the dimensions across the points of the hex stock. Valve coupler and nipple bodies may be supplied from round bar stock without wrench flats.

<sup>3</sup> 3.5" (88.9 mm) across hex flats - may substitute 3.75" (95.25 mm) round with 3.38" (85.85 mm) across wrench flats.

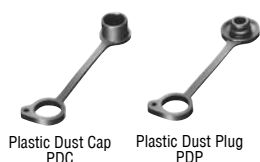
<sup>4</sup> Notch on Hex indicates RP British parallel threads.

		<b>FORCE TO CONNECT Valved &amp; Valved</b>		<b>SPILLAGE ON DISCONNECT Valved &amp; Valved</b>	
Series	Size	Internal Pressure psig (bar)	Force to Connect lbs. (kg)	With 10 psi Internal Pressure (cc or ml)	With 50 psi Internal Pressure (cc or ml)
EA	1/4"	200 (15)	50 (22.7)	1.2	1.5
EA	3/8"	200 (15)	60 (27.2)	1.4	2.5
EA	1/2"	200 (15)	95 (43.1)	4.2	4.6
EA	3/4"	100 (10)	95 (43.1)	10.5	11.6
E	1"	100 (10)	145 (65.8)	19.6	21.4
E	1-1/4"	100 (10)	190 (86.2)	30.8	38.6
E	1-1/2"	50 (5)	150 (68.0)	55.2	59.3
E	2"	50 (5)	245 (111.2)	85.3	96.5
E	2-1/2"	50 (5)	425 (192.8)	172.0	251.0
E	3"	50 (5)	560 (254.0)	262.0	286.0
E	4"	2 (0)	45 (20.4)		



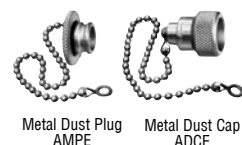
## ACCESSORIES

Dust caps, dust plugs and pressure caps protect disconnected coupler and nipple from damage, dirt and other contaminants. Dust caps and dust plugs are available in plastic and clear anodized aluminum.



### Plastic Caps and Plugs

Inexpensive means to protect your investment against contamination and damage. Comes with a loop to fit over pipe fitting or affixing to equipment with sheet metal screw. Available in sizes 1/4" thru 1".



### Aluminum Dust Caps and Plugs

Alternate method to protect your equipment – aluminum dust caps and plugs are available in sizes 1/4" thru 3". The 1/4" thru 3/4" sizes come with 10" chrome plated brass bead chain. The 1" and above come with steel zinc plated sash chain.



### Pressure Caps

Pressure-tight pressure caps for nipples are standard in steel, zinc yellow dichromate plated. Other materials such as brass, aluminum and stainless steel available on special order. Sizes available 1/4" thru 3". Sizes 1/4" thru 3/4" come with 10" length of corrosion resistant steel cable. Sizes 1" thru 3" come with 12" of cable-all with adjustable loop at end of cable. Consult factory for special lengths and part number.

SIZES	PLASTIC PLUG	PLASTIC CAP	ALUMINUM PLUG	ALUMINUM CAP	PRESSURE CAP
1/4"	PDP-4	PDC-4	AMPE-4	ADCE-4	MCE-4
3/8"	PDP-6	PDC-6	AMPE-6	ADCE-6	MCE-6
1/2"	PDP-8	PDC-8	AMPE-8	ADCE-8	MCE-8
3/4"	PDP-12	PDC-12	AMPE-12	ADCE-12	MCE-12
1"	PDP-16	PDC-16	AMPE-16	ADCE-16	MCE-16
1-1/4"			AMPE-20	ADCE-20	MCE-20
1-1/2"			AMPE-24	ADCE-24	MCE-24
2"			AMPE-32	ADCE-32	MCE-32
2-1/2"			AMPE-40	ADCE-40	MCE-40
3"			AMPE-48	ADCE-48	MCE-48

## SPARE PARTS

Snap-tite Quick Disconnect Couplings are designed for long, trouble-free life. Upon occasion, certain parts may get damaged and need to be ordered.

**Valve Kits** (Includes valve, valve spring and stop. Valve seal is included in sizes 3/8" thru 1" in steel, brass and aluminum only).

Part Number – Use the base part number followed by SPK      **Example:** VEAC4-SPK  
BVEC16-SPK

**Valve Seals** (1/4" valve seal is staked in the coupler and nipple bodies in all materials and is not considered field repairable. 3/8" and above are available for repair).

Part Number – (EA or E) (size)-55"      **Example:** EA8-55  
E16-55V

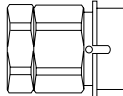
**Nipple Seals** (O-ring for EA Series, butt seal for E Series).

Part Number – (EA or E) (size)-58"      **Example:** EA6-58  
E16-58

For other available spare parts, consult factory.



## HOW TO ORDER

<div style="display: flex; justify-content: space-around; border-bottom: 1px solid black; margin-bottom: 10px;"> <span>Part No.</span> <span>S</span> <span>V</span> <span>EA</span> <span>C</span> <span>4-4</span> <span>F</span> <span>OPTIONS</span> </div>								
Material	Body Type	Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seal Material	Sleeve Lock
No letter Steel, plated <b>A</b> Aluminum clear anodized <b>B</b> Brass <b>S</b> Stainless Steel 316	<b>V</b> Valve <b>P</b> Plain (without valve)	<b>EA</b> (1/4"- 3/4") <b>E</b> (1" - 4")	<b>C</b> Coupler <b>N</b> Nipple	<b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>12</b> = 3/4" <b>16</b> = 1" <b>20</b> = 1-1/4" <b>24</b> = 1-1/2" <b>32</b> = 2" <b>40</b> = 2-1/2" <b>48</b> = 3" <b>64</b> = 4"	<b>2</b> = 1/8" <b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>10</b> = 5/8" <b>12</b> = 3/4" <b>16</b> = 1" <b>20</b> = 1-1/4" <b>24</b> = 1-1/2" <b>32</b> = 2" <b>40</b> = 2-1/2" <b>48</b> = 3" <b>64</b> = 4"	(see page 5) <b>M</b> Male NPT <b>F</b> Female NPTF <sup>1</sup> <b>EF</b> Female SAE <b>EM</b> Male SAE 37° Flare <b>EB</b> Bulkhead SAE <b>RP</b> Female British Parallel BS2779 <b>-49</b> MS33649 Female <b>-56</b> MS33656 37° Male Flare <b>-57</b> MS33657 Bulkhead <b>-14</b> MS33514 Male <b>-15</b> MS33515 Bulkhead	No letter for Buna N (Code A) 40° to 200°F -40° to 93°C <b>JF</b> Military variation of Buna N for hydrocarbon fuels -65° to 160°F -54° to 71°C <b>M</b> Military variation of Buna N for MIL-H-5606 fluids -65° to 275°F -54° to 135°C <b>V</b> Viton® (DuPont) -20° to 375°F -29° to 190°C <b>E</b> Ethylene pro- pylene rubber -65° to 300°F -54° to 149°C <b>AS</b> Aflas 25° to 450°F -4° to 232° C	<b>SL</b> Aids in preventing accidental disconnection. To disconnect, align the pin in the body with the slot in the sleeve. 

<sup>1</sup> For sizes up to 1" NPTF threads in steel.  
For sizes up to 1" NPSF threads in stainless steel.  
For sizes over 1" NPT threads.

### ! WARNING !

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

*This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.*

*The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.*



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☆ *Snap-Tite*

For  
Natural &  
Propane Gas

**GF**  
SERIES





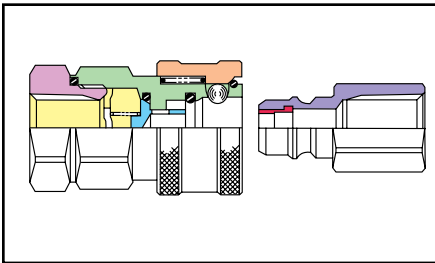


# GF Series — For Natural & Propane Gas

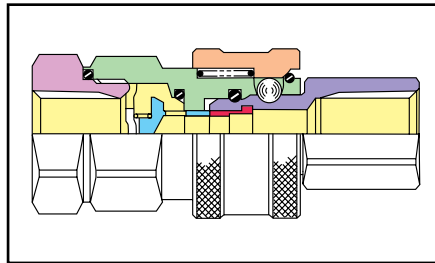


- **Safety** – Valve on coupler half will automatically shut off gas flow instantly when coupling is disconnected and automatically open on connection. Snap-tite's GF Series incorporates a safety fuse in the nipple to automatically shut off the gas supply to your gas appliance once temperatures exceed 350°F (177°C).
- **Size** – Available in sizes 1/4" through 1-1/4".
- **Construction** – GF series couplings are of brass construction.
- **Certified** – Snap-tite GF Series is certified by the Canadian Standards Association to meet ANSI Z21.41-1998 and CSA 6.9-M98 standards. This certification is for use with natural, manufactured and mixed gas, liquified petroleum and LP gas mixtures.
- **Dust caps and plugs** – Plastic dust caps for nipples and dust plugs for couplers are available to keep out dirt and grease when couplings are not in use.

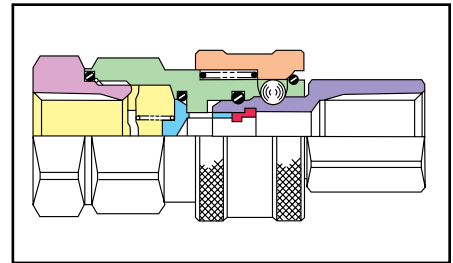
## Snap-tite fusible link protects against unwanted gas-fed fires.



Disconnected: Valve in coupler shuts gas off (QD valve should not be the only means to shut gas supply off over an extended period of time. A gas shut-off valve should be installed before the coupler for extended periods).



Connected: Valve opens allowing free flow of gas.



Valve automatically closes when temperature exceeds 350°F (177°C), thus preventing a gas-supported fire.

## How to Order

To order, simply give the part number noted below for the size of gas line you will be connecting to. Gas units are sold as sets consisting of a valve coupler and a plain nipple with fusible link.

Size	Coupler	Nipple
1/4"	BVGFC4-4F	BPGFN4-4F
3/8"	BVGFC6-6F	BPGFN6-6F
1/2"	BVGFC8-8F	BPGFN8-8F
3/4"	BVGFC12-12F	BPGFN12-12F
1"	BVGFC16-16F	BPGFN16-16F
1-1/4"	BVGFC20-20F	BPGFN20-20F

Size	Coupler Plug	Nipple Cap
1/4"	PDP-4	PDC-4
3/8"	PDP-6	PDC-6
1/2"	PDP-8	PDC-8
3/4"	PDP-12	PDC-12
1"	N/A	N/A
1-1/4"	N/A	N/A

### ! WARNING !

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01-0002BE-1203



★ *Snap-Tite*



## QD Couplings

For hydraulic,  
pneumatic &  
general purpose  
applications

**H, JH & PH  
SERIES**

Designed to MIL-C-51234





# ★ Snap-Tite **H, IH & PH Series -- Couplings for Hydraulic, Pneumatic and General Purpose Use**

*Featuring...Snap-tite quality with built in reliability and flow characteristics over the competition.*



## **Advantages of H Series**

- **Sizes** — 1/8" – 4"
- **Metals** — H Series Quick Disconnect Couplings are available in four metals – steel, brass, aluminum and 316 stainless steel. A variety of protective finishes are available. Please consult factory.
- **Seal Versatility** — Wide choice of standard and special seal materials enable the H, IH & PH series to handle a great variety of fluids.
- **Sleeve Lock** — Sleeve lock option aids in preventing accidental disconnection of the coupling. To disconnect, align the pin in the body with the slot in the sleeve and retract sleeve.
- **(Valve & Valve) Quick Disconnect Low Pressure Drop** — The two-piece body construction permits larger flow passages than the designated size of the coupling, permitting greater flow while maintaining low pressure drop and provides end fitting versatility.
- **Smooth Flow** — Snap-tite's "Jet Stream" valve design helps maintain a clean linear flow. Positive positioning of the valve aids in maintaining a steady, even flow under normal working conditions.
- **Flow on Connection** — Valves are designed to automatically open in both the coupler and nipple halves when the unit is connected permitting maximum free flow.
- **Shut-off On Disconnection** — Valves are designed to automatically close under normal usage conditions in both the coupler and nipple halves when the unit is disconnected.
- **Fast Efficient Operation** — Connect or disconnect in seconds. To connect, pull back the sleeve, insert the nipple into the coupler and release the sleeve. To disconnect, pull back the sleeve, remove the nipple and the halves are disconnected.
- **Dependable Operation** — Ball-lock mechanism provides positive connection. Hardened stainless steel balls along with a radiused and induction hardened (steel) ball race gives extended life to the H Series couplings.
- **Positive Sealing Connected** — O-ring and Teflon back-up ring provide for positive sealing across a wide range of applications. This sealing configuration allows use of the latest elastomeric compounds for those tough media and environments.
- **Positive Sealing Disconnected** — The metal to metal contact of the valve with the coupler or nipple body is designed to control compression of the valve seal eliminating wear and increasing seal life.

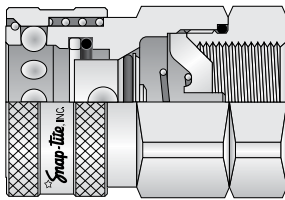


H Series quick disconnects have been proven by years of use on hydraulic-pneumatic applications and in handling of many gases and fluids. The H Series fully engineered design meets or exceeds MIL-C-51234 and provides superior flow characteristics with built in reliability.

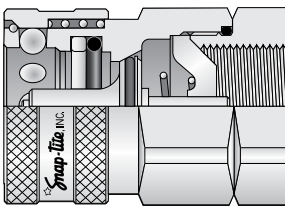
**PH Option** — Has the same advantages built into the H Series with the addition of an instant, automatic bleed-off valve built into the valve for fast, easy connection of hydraulic lines and for other applications that call for periodic connection against trapped static hydraulic pressure. The PH option can be placed in either the valve coupler or the valve nipple and are completely interchangeable with the H Series coupler or nipple.

The PH option has successfully been field tested in connecting against static pressures up to 3,000 psi (210 bar). Available in steel, Trivalent plated, in sizes 3/8", 1/2", 3/4" and 1".

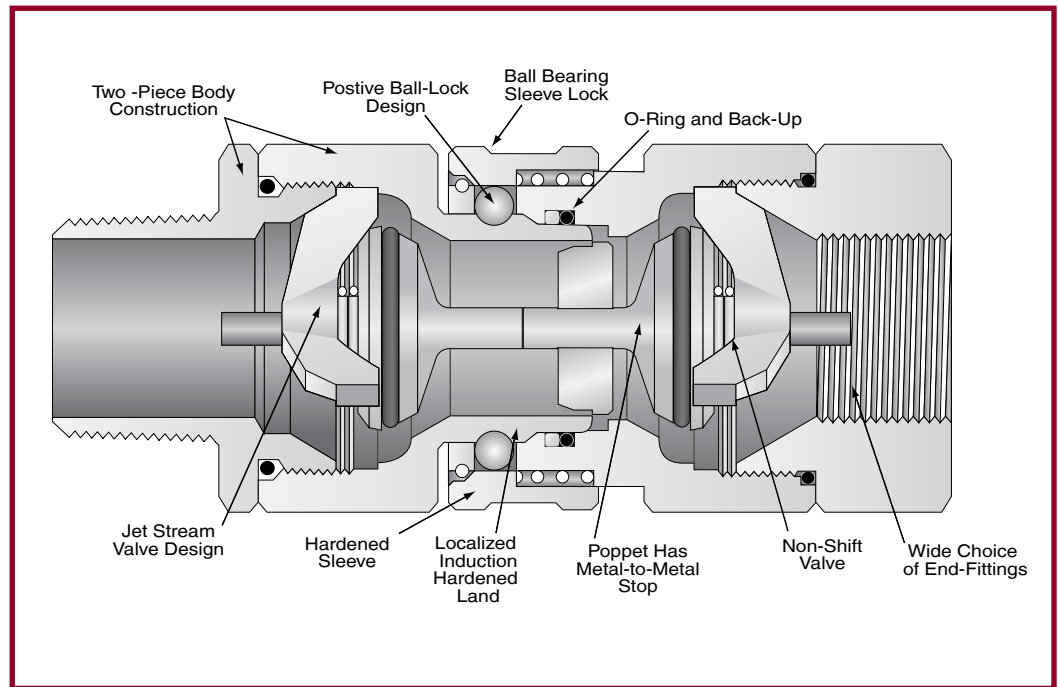
**IH Option** — The IH Series is identical to the H Series except for the valve which was designed specifically for durability when used in pneumatic systems using reciprocating, pulsating and rotary motion air tools. Cylindrical construction of the IH valve provides 360° contact with the plain H Series nipple. This permits repeated cycling while enabling efficient operation and long life. Available in steel, Trivalent plated in sizes 1/4", 3/8", 1/2" and 3/4".



**IH Option**



**PH Option**



## WORKING PRESSURES

Quick Disconnect Size	Valve & Valve (Double Shut-off) Valve & Plain (Single Shut-off)								Plain & Plain (No Shut-off)							
	Steel		Aluminum		Brass		Stainless Steel		Steel		Aluminum		Brass		Stainless Steel	
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
1/4"	6500	448	2250	155	2250	155	5000	345	11000	759	4000	276	4000	276	10000	690
3/8"	4500	310	2250	155	2250	155	4000	276	11000	759	4000	276	4000	276	8000	552
1/2"	4000	276	1750	121	2000	138	3750	259	11000	759	4000	276	4000	276	8000	552
3/4"	3500	241	1750	121	2000	138	2000	138	9000	621	3500	241	3500	241	7000	483
1"	2000	138	1500	103	1750	121	2000	138	6000	414	3000	207	3000	207	4000	276
1-1/4"	1750	121	375	26	350	24	1500	103	5000	345	1000	69	1000	69	3000	207
1-1/2"	1500	103	375	26	350	24	1500	103	5000	345	1000	69	1000	69	3000	207
2"	1500	103	300	21	400	28	500	34	4000	276	750	52	750	52	1000	69
2-1/2"	1000	69	300	21	400	28	400	28	1000	69	300	21	400	28	400	28
3"	750	52	200	14	200	14	400	28	750	52	200	14	200	14	400	28
4"	500	34	150	10	150	10	300	21	500	34	150	10	150	10	300	21

**NOTE:** Pressure ratings were established under static pressure conditions. Therefore, pressure ratings for any given flow, pressure surge, and/or vibration may vary from these ratings.

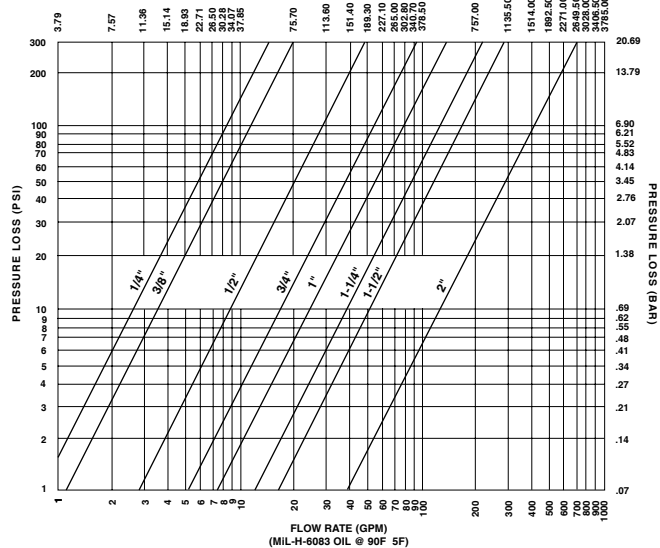
### Pressure and Flow Data

Pressure ratings of standard quick disconnects can be increased for some applications by slight design modifications or if specific operating conditions are met. On applications requiring higher ratings than those listed or pressure surges, please consult the factory. Burst pressures listed were taken at the point at which failure rendered the quick disconnect inoperative. (Proof pressure equals 1-1/2 times the working pressure; burst pressure equals 2 times working pressure.)



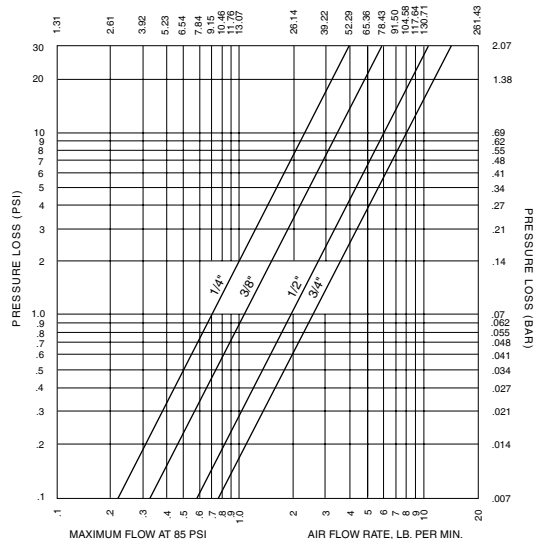
## H SERIES

Valved and Valved (Double Shut-off)  
FLOW RATE (LPM)

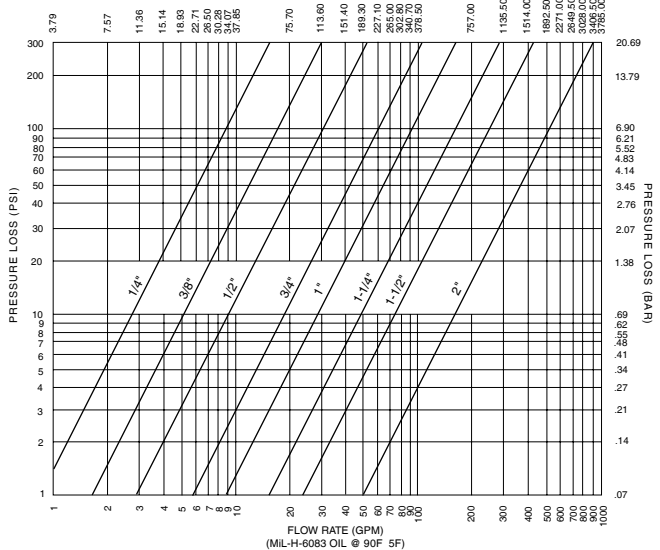


## IH SERIES

CFM FREE AIR AT 17.7 PSIA, 70°F

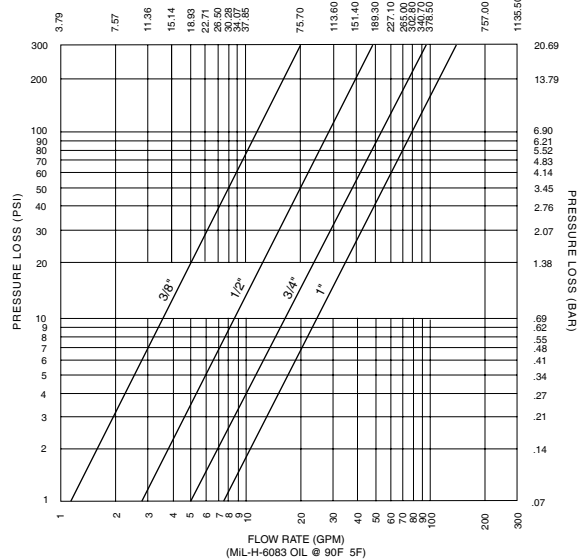


Valved and Plain (Single Shut-off)  
FLOW RATE (LPM)



## PH SERIES

Valved and Valved (Double Shut-off)  
FLOW RATE (LPM)

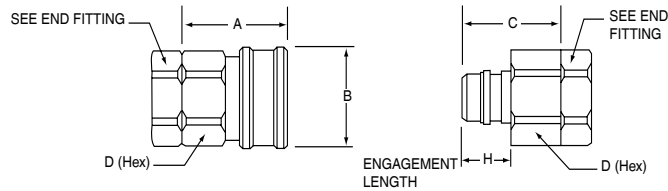




## COUPLING COMBINATIONS & END FITTINGS

1. Double shut-off coupling: Valve coupler and valve nipple
  2. Single shut-off coupling: Valve coupler and plain nipple
  3. No shut-off or straight through: Plain coupler and plain nipple. Plain couplers cannot be used with valve nipples.
- All combinations of the same size are interchangeable regardless of material, finish or end fittings.

### VALVE



Size		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
<b>A</b>	in	1.34	1.50	1.62	1.92	2.07	2.28	2.57	3.14	3.63	3.88	4.58
	mm	34.04	38.10	41.15	48.77	52.58	57.91	65.28	79.76	92.20	98.55	116.33
<b>B</b>	in	1.19	1.39	1.63	2.00	2.19	2.75	3.50	4.50	5.45	6.75	1.00
	mm	25.40	30.23	35.31	41.40	50.80	55.63	69.85	88.90	114.30	138.13	171.45
<b>C</b>	in	1.28	1.44	1.51	1.79	1.95	2.15	2.41	2.94	3.42	3.79	4.47
	mm	32.51	36.58	38.35	45.47	49.53	54.61	61.21	74.68	86.87	96.27	113.54
<b>D<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.75	3.75	4.50	4.75	6.75
	mm	22.35	25.40	30.23	38.10	47.75	50.80	69.85	95.25	114.30	120.65	171.45
<b>H</b>	in	.58	.71	.72	.88	.91	.90	1.06	1.32	1.41	1.56	1.93
	mm	14.73	18.03	18.29	22.35	23.11	22.86	26.92	33.53	35.81	39.62	49.02

### END FITTINGS<sup>1</sup>

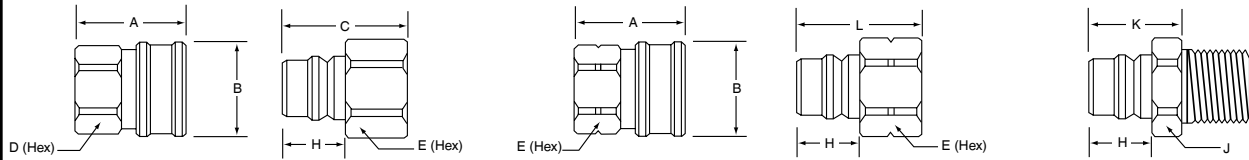
	Size		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
Male Tapered Pipe 	<b>F</b>	in	.75	.69	.95	.96	1.14	1.31	1.44	1.40	1.83	1.88	2.88
		mm	19.05	17.53	24.13	24.38	28.96	33.27	36.58	35.56	46.48	47.75	73.15
	<b>G<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50 <sup>3</sup>	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90 <sup>3</sup>	101.60	120.65	152.40
EM Male SAE Flared and MS33656 	<b>F</b>	in	.74	.74	.84	1.13	1.16	1.27	1.46	1.71			
		mm	18.80	18.80	21.34	28.70	29.46	32.26	37.08	43.43			
	<b>G<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50 <sup>3</sup>			
		mm	22.35	33.27	30.23	38.10	47.75	50.80	63.50	88.90 <sup>3</sup>			
MS33657 	<b>F</b>	in	1.23	1.31	1.47	1.84	1.84	1.95					
		mm	31.31	33.27	37.34	46.74	46.74	49.53					
	<b>G<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00					
		mm	22.35	25.40	30.23	38.10	47.75	50.80					
Female Tapered Pipe 	<b>F</b>	in	.31	.40	.47	.50	.60	1.26	.70	.78	.90	.88	1.13
		mm	7.87	10.16	11.94	12.70	15.24	32.00	17.78	19.81	22.86	22.35	28.70
	<b>G<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90	101.60	120.65	152.40
EF Female Straight and MS33649 	<b>F</b>	in	.46	.70	.57	1.00	.87	1.11	.85	1.01			
		mm	11.68	17.78	14.48	25.40	22.10	28.19	21.59	25.65			
	<b>G<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50			
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90			
EB Male SAE Bulk-Head 	<b>F</b>	in	1.39	1.56	1.67	2.03	1.84	2.14					
		mm	35.30	39.62	42.42	51.56	46.74	54.36					
	<b>G<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00					
		mm	22.35	25.40	30.23	38.10	47.75	50.80					
Female RP <sup>4</sup> British Parallel 	<b>F</b>	in	.39	.40	.53	.56	.60	1.26	.70	.78	.90	.88	1.13
		mm	9.91	10.16	13.46	14.22	15.24	32.00	17.78	19.81	22.86	22.35	28.70
	<b>G<sup>2</sup></b>	in	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90	101.60	120.65	152.40



## PLAIN FEMALE PIPE

## PLAIN FEMALE RP<sup>4</sup>

## PLAIN MALE PIPE



Size		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
<b>A</b>	in mm	1.34 34.04	1.50 38.10	1.62 41.15	1.91 48.51	2.07 52.58	2.28 57.91	2.57 65.28	2.48 62.99	3.11 78.99	3.35 85.09	3.88 98.55
<b>B</b>	in mm	1.00 25.40	1.19 30.23	1.39 35.31	1.63 41.40	2.00 50.80	2.19 55.63	2.75 69.85	3.50 88.90	4.50 114.30	5.45 138.43	6.75 171.45
<b>C</b>	in mm	1.32 33.53	1.52 38.61	1.72 43.69	1.92 48.77	2.10 53.34	2.22 56.39	2.44 61.98	2.60 66.04	2.95 74.93	3.40 86.36	3.73 94.74
<b>D<sup>2</sup></b>	in mm	.88 22.35	1.00 25.40	1.19 30.23	1.50 38.10	1.88 47.75	2.00 50.80	2.50 63.50	3.25 82.55	3.75 95.25	4.75 120.65	5.50 139.70
<b>E<sup>2,4</sup></b>	in mm	.63 16.00	.81 20.57	1.00 25.40	1.19 30.23	1.50 38.10	1.88 47.75	2.13 54.10	2.75 69.85	3.25 82.55	4.00 101.60	5.00 127.00
<b>H</b>	in mm	.58 14.73	.71 18.03	.72 18.29	.88 22.35	.91 23.11	.90 22.86	1.06 26.92	1.32 33.53	1.41 35.81	1.56 39.62	1.93 49.02
<b>K</b>	in mm	.78 19.81	.98 24.89	1.01 25.65	1.14 28.96	1.16 29.46	1.17 29.72	1.34 34.04	2.03 51.56	2.08 52.83	2.59 65.79	2.58 65.53
<b>J<sup>2</sup></b>	in mm	.56 14.22	.69 17.53	.88 22.35	1.06 26.92	1.38 35.05	1.88 47.75	2.13 54.10	2.50 63.50	3.25 82.55	4.00 101.60	5.00 127.00
<b>L</b>	in mm	1.27 32.26	1.44 36.58	1.72 43.69	1.86 47.24	2.13 54.10	2.22 56.39	2.44 61.98	2.60 66.04	2.95 74.93	3.40 86.36	3.73 94.74

### NOTES:

<sup>\*1</sup> Other special end fittings available upon request.

<sup>\*2</sup> Dimensions taken across the hex flats. Round stock with two milled flats may be substituted for hex stock. Dimensions across flats same as dimensions across hex flats. Max O.D. of round stock will not exceed the dimensions across the points of the hex stock. Valve coupler and nipple bodies may be supplied from round bar stock without wrench flats.

<sup>\*3</sup> 3.5" (88.9 mm) across hex flats - may substitute 3.75" (95.25 mm) round with 3.38" (85.85 mm) across wrench flats.

<sup>\*4</sup> Notch on Hex indicates RP British parallel threads.

## ACCESSORIES

Dust caps, dust plugs and pressure caps protect disconnected coupler and nipple from damage, dirt and other contaminants. Dust caps and dust plugs are available in plastic and clear anodized aluminum.



Plastic Dust Cap  
PDCP



Metal Dust Plug  
AMPH      Metal Dust Cap  
ADCH



Metal Pressure Cap  
MCH

### Plastic Cap/Plug

Inexpensive means to protect your investment against contamination and damage. Comes with a loop to fit over pipe fitting or affixing to equipment with sheet metal screw. Available in sizes 1/4" thru 1". Plastic Cap/Plug design can be used on either a nipple or coupler.

### Aluminum Dust Caps and Plugs

Alternate method to protect your equipment – aluminum dust caps and plugs are available in sizes 1/4" thru 3". The 1/4" thru 3/4" sizes come with 10" chrome plated brass bead chain. The 1" and above come with steel zinc plated sash chain.

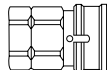
### Pressure Caps

Pressure-tight pressure caps for nipples are standard in steel, Trivalent plated. Other materials such as brass, aluminum and stainless steel available on special order. Sizes available 1/4" thru 3". Sizes 1/4" thru 3/4" come with 10" length of corrosion resistant steel cable. Sizes 1" thru 3" come with 12" of cable-all with adjustable loop at end of cable. Consult factory for special lengths and part number.

SIZES	PLASTIC CAP/PLUG	ALUMINUM PLUG	ALUMINUM CAP	PRESSURE CAP
1/4"	PDCP-4	AMPH-4	ADCH-4	MCH-4
3/8"	PDCP-6	AMPH-6	ADCH-6	MCH-6
1/2"	PDCP-8	AMPH-8	ADCH-8	MCH-8
3/4"	PDCP-12	AMPH-12	ADCH-12	MCH-12
1"	PDCP-16	AMPH-16	ADCH-16	MCH-16
1-1/4"		AMPH-20	ADCH-20	MCH-20
1-1/2"		AMPH-24	ADCH-24	MCH-24
2"		AMPH-32	ADCH-32	MCH-32
2-1/2"		AMPH-40	ADCH-40	MCH-40
3"		AMPH-48	ADCH-48	MCH-48



## HOW TO ORDER

Part No.	S	V	H	C	4-4	F	OPTIONS	
Material	Body Type	Series	Coupling Half	Coupling Size	End Fitting Size	End Fitting Type	Seal Material	Sleeve Lock
No letter Steel, plated <b>A</b> Aluminum clear anodized <b>B</b> Brass <b>S</b> Stainless Steel 316	<b>V</b> Valve <b>P</b> Plain (without valve)	<b>H</b> <b>PH</b> <sup>1</sup> <b>IH</b> <sup>2</sup>	<b>C</b> Coupler <b>N</b> Nipple	<b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>12</b> = 3/4" <b>16</b> = 1" <b>20</b> = 1-1/4" <b>24</b> = 1-1/2" <b>32</b> = 2" <b>40</b> = 2-1/2" <b>48</b> = 3" <b>64</b> = 4"	<b>2</b> = 1/8" <b>4</b> = 1/4" <b>6</b> = 3/8" <b>8</b> = 1/2" <b>10</b> = 5/8" <b>12</b> = 3/4" <b>16</b> = 1" <b>20</b> = 1-1/4" <b>24</b> = 1-1/2" <b>32</b> = 2" <b>40</b> = 2-1/2" <b>48</b> = 3" <b>64</b> = 4"	(see page 5) <b>M</b> Male NPT <b>F</b> Female NPTF <sup>3</sup> <b>EF</b> Female SAE <b>EM</b> Male SAE 37° Flare <b>EB</b> Bulkhead SAE <b>RP</b> Female British Parallel BS2779 <b>49</b> MS33649 Female <b>56</b> MS33656 37° Male Flare <b>57</b> MS33657 Bulkhead <b>14</b> MS33514 Male <b>15</b> MS33515 Bulkhead	No letter for Buna N (Code A)  <b>JF</b> Military variation of Buna N for hydrocarbon fuels  <b>M</b> Military variation of Buna N for MIL-H-5606 fluids  <b>V</b> Viton®  <b>E</b> Ethylene pro- pylene rubber	<b>SL</b> Aids in preventing accidental disconnection. To disconnect, align the pin in the body with the slot in the sleeve. 

<sup>1</sup> PH Valve option recommended on one side, not both. Available in steel only.

<sup>2</sup> IH available in steel only.

<sup>3</sup> For sizes up to 1" NPTF threads in steel.  
For sizes up to 1" NPSF threads in stainless steel.  
For sizes over 1" NPT threads.

## SPARE PARTS

Snap-tite Quick Disconnect Couplings are designed for long, trouble-free life. Upon occasion, certain parts may get damaged and need to be ordered.

**Valve Kits** (Includes valve, valve spring and stop. Valve seal is included in sizes 3/8" thru 1" in steel, brass and aluminum only).

**Part Number** – Use the base part number followed by SPK **Example:** VHC4-SPK  
VIHC6-SPK

**Valve Seals** (1/4" valve seal is staked in the coupler and nipple bodies in all materials and is not considered field repairable. 3/8" and above are available for repair).

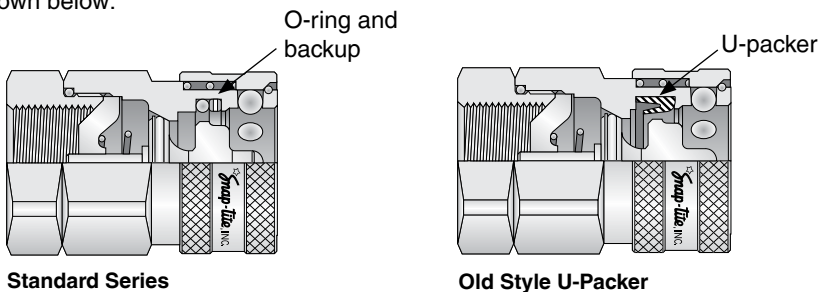
Part Number – "H (size)-55 (seal material)"      **Example:** H6-55A\*  
H8-55A\*

**Nipple Seals** (Includes O-ring and back-up ring located in coupler half)

Part Number "H (size)-56-9 (seal material)". **Example:** H6-56-9A\*

For "old style" U Packer design use designation "H (size)-56 (seal material)". **Example:** H6-56A\*

When ordering Nipple Seals, determine if you have the standard design or the old style U-Packer design by comparing the product to the cutaways shown below:



\*"A" required for Buna-N Seal Kits. All others use seal material code shown above.  
For other available spare parts, consult factory.



**! WARNING !**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

*This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.*

*The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.*



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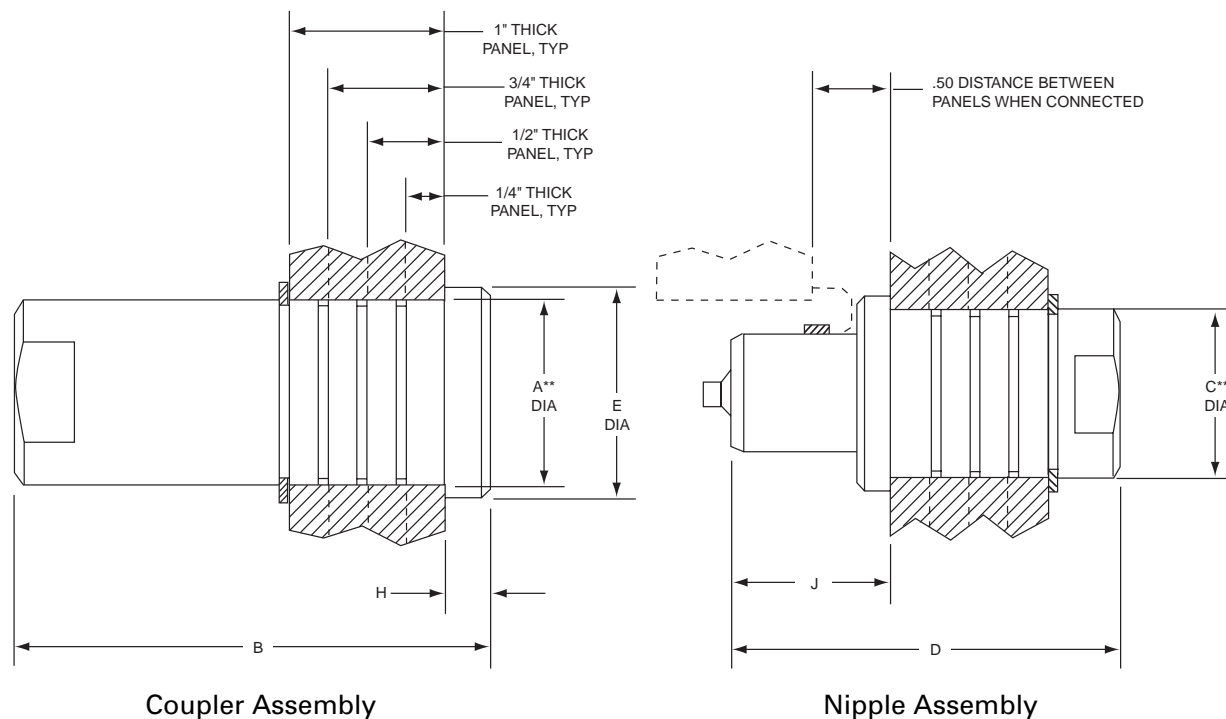
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# HP SERIES

## Panel Mount Couplings 1/8" - 3/4" Sizes



\*\*Recommended hole size.

**Snap-Tite**  
COMPONENTS, INC.

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[www.snap-tite.com](http://www.snap-tite.com)

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[www.snap-tite.com](http://www.snap-tite.com)

Unit Size	A Dia +/- .005		B +/- .03		C Dia +/- .005		D +/- .03		E Dia		H		J	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/8"	.875	22.22	1.80	45.72	.875	22.22	1.88	47.75	1.00	25.40	.24	6.10	.80	20.32
1/4"	.938	23.81	2.03	51.56	.938	23.81	2.03	51.56	1.25	31.75	.24	6.10	.87	22.10
3/8"	1.203	30.56	3.06	77.72	1.203	30.56	2.50	63.50	1.35	34.29	.24	6.10	1.03	26.16
1/2"	1.438	36.53	3.09	78.49	1.438	36.53	2.93	74.42	1.63	41.40	.24	6.10	1.43	36.32
3/4"	1.750	44.45	3.95	100.33	1.750	44.45	3.38	85.85	2.00	50.80	.24	6.10	1.42	36.07

Contact factory for verification of dimensions prior to any machining.

ISO-9001 Certified



# HP SERIES

## How to Order

Part Number Example: SHPN8-8F

Material <sup>1</sup>	Series	Coupling Half	Coupling Size	End Fitting Size	Type of <sup>1</sup> End Fitting	Seal <sup>1</sup> Material
<b>S</b> Stainless Steel	<b>HP</b>	<b>C</b> Coupler <b>N</b> Nipple	<b>2</b> - 1/8" <b>4</b> - 1/4" <b>6</b> - 3/8" <b>8</b> - 1/2" <b>12</b> - 3/4"	<b>2</b> - 1/8" <b>4</b> - 1/4" <b>6</b> - 3/8" <b>8</b> - 1/2" <b>12</b> - 3/4"	<b>F</b> Female NPSF <b>M</b> Male NPT <b>RP</b> Female British Parallel BS2779 <b>EF</b> Female SAE O'Ring Boss <b>EM</b> Male SAE 37°	<b>**</b> Nitrile (AMS3215) <b>V</b> Viton (MIL-R-25897) <b>JF</b> Nitrile (MIL-P-5315) <b>M</b> Nitrile (MIL-P-25732) <b>E</b> Ethylene Propylene <b>AS</b> Aflas <b>K</b> Kalrez

<sup>1</sup>For other end fittings and seal or coupling materials, consult the factory.

## Pressure Ratings psi (bar)

Size	Working Pressure	Proof Pressure	Burst Pressure
1/8"	10000 (690)	15000 (1034)	20000 (1379)
1/4"	10000 (690)	15000 (1034)	20000 (1379)
3/8"	5000 (345)	7500 (517)	10000 (690)
1/2"	5000 (345)	7500 (517)	10000 (690)
3/4"	5000 (345)	7500 (517)	10000 (690)

**NOTE:** Pressure ratings were established under static pressure conditions. For high impulse applications, multiply the above pressure ratings by .6 for approximate pressure ratings.

Burst pressures listed were taken at the point at which failure rendered the quick-disconnect inoperative.

## Air Inclusion on Connect, Spillage on Disconnect

Size (inches)	Spillage (cc)	Inclusion (cc)
1/8	.4	.4
1/4	1.2	1.2
3/8	2.7	2.7
1/2	4.2	4.2
3/4	15.5	15.5

### Note:

Air inclusion at 0 psi internal pressure.

Spillage at 15 psi (1 bar) internal pressure.

## Separation Forces at 1000 psi (69 bar)

Size (inches)	Forces in Pounds (kilograms)
1/8	200 (91)
1/4	220 (100)
3/8	440 (200)
1/2	700 (318)
3/4	1350 (612)

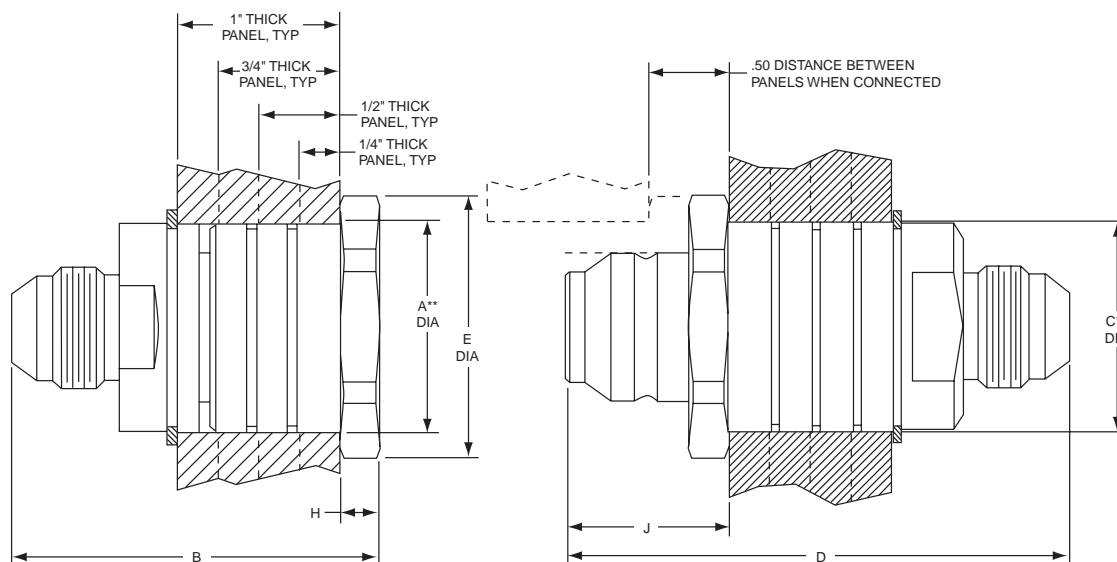
## Maximum Recommended Connect/Disconnect Pressure

0 thru working pressure



# LN SERIES

## Panel Mount Couplings 1/4" – 2" Sizes



Coupler Assembly

Nipple Assembly

\*\*Recommended hole size.

**Snap-tite**  
COMPONENTS, INC.

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ISO-9001 Certified

Unit Size	A Dia +/- .005		B +/- .03		C Dia +/- .005		D +/- .03		E Dia		H		J	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/4"	.828	21.03	1.85	46.99	.828	21.03	2.21	56.13	1.13	28.70	.24	6.10	.84	21.34
3/8"	1.188	30.18	2.23	56.64	1.188	30.18	2.45	62.23	1.38	35.05	.24	6.10	.89	22.61
1/2"	1.313	33.35	2.27	57.66	1.313	33.35	3.10	78.74	1.63	41.40	.24	6.10	1.00	25.40
5/8"	1.563	39.70	2.95	74.93	1.563	39.70	2.75	69.85	1.78	45.21	.24	6.10	1.11	28.19
3/4"	1.688	42.88	2.97	75.44	1.688	42.88	3.58	90.93	1.93	49.02	.24	6.10	1.18	29.97
1"	2.234	56.74	3.73	94.74	2.234	56.74	3.62	91.95	2.50	63.50	.24	6.10	1.30	33.02
1-1/4"	2.656	67.46	4.14	105.16	2.656	67.46	4.50	114.30	3.00	76.20	.24	6.10	1.74	44.20
1-1/2"	3.000	76.20	4.50	114.30	3.000	76.20	4.00	101.60	3.50	88.90	.24	6.10	1.74	44.20
2"	3.546	90.07	4.82	122.43	3.546	90.07	5.19	131.83	3.75	95.25	.24	6.10	2.11	53.59

Contact factory for verification of dimensions prior to any machining.



# LN SERIES

## How to Order

Part Number Example: ALNC8-8EFM

Material <sup>1</sup>	Series	Coupling Half	Coupling Size	End Fitting Size	Type of <sup>1</sup> End Fitting	Seal <sup>1</sup> Material
<b>A</b> Aluminum <b>S</b> Stainless Steel	<b>LN</b>	<b>C</b> Coupler <b>N</b> Nipple	<b>4</b> - 1/4" <b>6</b> - 3/8" <b>8</b> - 1/2" <b>10</b> - 5/8" <b>12</b> - 3/4" <b>16</b> - 1" <b>20</b> - 1-1/4" <b>24</b> - 1-1/2" <b>32</b> - 2"	<b>4</b> - 1/4" <b>6</b> - 3/8" <b>8</b> - 1/2" <b>10</b> - 5/8" <b>12</b> - 3/4" <b>16</b> - 1" <b>20</b> - 1-1/4" <b>24</b> - 1-1/2" <b>32</b> - 2"	<b>F</b> Female NPSF <sup>2</sup> <b>M</b> Male NPT <b>RP</b> Female British Parallel BS2779 <b>EF</b> Female SAE O'Ring Boss <b>EM</b> Male SAE 37°	<b>**</b> Nitrile (AMS3215) <b>V</b> Viton (MIL-R-25897) <b>JF</b> Nitrile (MIL-P-5315) <b>M</b> Nitrile (MIL-P-25732) <b>E</b> Ethylene Propylene <b>AS</b> Aflas <b>K</b> Kalrez  **Standard seal- No letter designation required.

<sup>1</sup>For other end fittings and seal or coupling materials, consult the factory.

<sup>2</sup>NPSF Female straight pipe thread on sizes to 1" taper pipe on sizes above 1".

## Pressure Ratings psi (bar)

Size (inches)	Working Pressure		Proof Pressure		Burst Pressure	
	Steel	Stainless Steel	Steel	Stainless Steel	Steel	Stainless Steel
1/4 thru 1	1000 (69 )	1000 (69 )	1500 (103)	1500 (103)	2000 (138)	2000 (138)
1-1/4 thru 2	600 (41)	600 (41)	900 (62)	900 (62)	1200 (82)	1200 (82)

Burst pressures listed were taken at the point at which failure rendered the quick-disconnect inoperative.

Pressure ratings were established under static pressure conditions. Therefore, pressure ratings for any given flow, pressure surge and/or vibration may vary these ratings.

**NOTE:** For high impulse applications, multiply the above pressure ratings by .6 for approximate pressure ratings.

## Air Inclusion on Connect, Spillage on Disconnect

Size (inches)	Spillage (cc)	Inclusion (cc)
1/4	.01	.05
3/8	.03	.18
1/2	.04	.28
5/8	.13	.31
3/4	.15	.48
1	.30	.80
1-1/4	.40	1.57
1-1/2	.70	2.00
2	1.00	3.00

**Note:** Air inclusion at 0 psi internal pressure.  
Spillage at 15 psi (1 bar) internal pressure.

## Separation Forces at 1000 psi (69 bar)

Size (inches)	Forces in Pounds (kilograms)
1/4	190 (86)
3/8	360 (163)
1/2	500 (227)
5/8	750 (340)
3/4	950 (431)
1	1750 (794)
1-1/4	1450 (656) <sup>1</sup>
1-1/2	2250 (1021) <sup>1</sup>
2	3250 (1474) <sup>1</sup>

<sup>1</sup>Separation forces for 1-1/4" thru 2" based on 600 psi (41 bar)

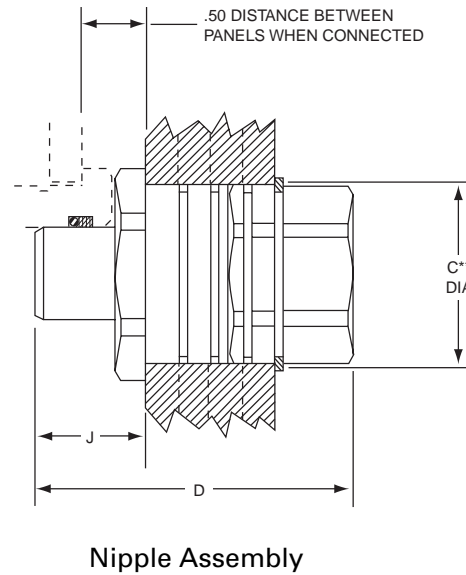
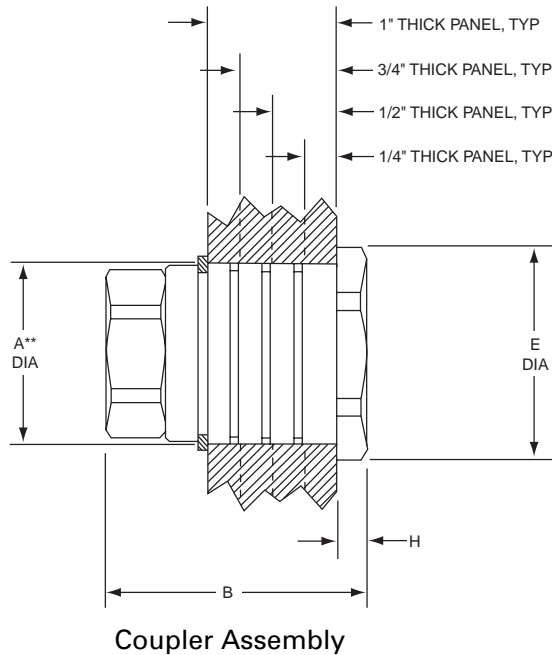
## Maximum Recommended Connect/Disconnect Pressure

0 psi



# MP-1 SERIES

## Panel Mount Couplings 1/4" - 4" Sizes



\*\* Recommended hole size.

**Snap-tite**  
COMPONENTS, INC.

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[www.snap-tite.com](http://www.snap-tite.com)

**ISO-9001 Certified**

Unit Size	A Dia +/- .005		B +/- .03		C Dia +/- .005		D +/- .03		E Dia		H		J	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/4"	1.032	26.21	1.65	41.91	1.032	26.21	2.14	54.36	1.38	35.05	.24	6.10	.81	20.57
3/8"	1.125	28.58	1.82	46.23	1.125	28.58	2.14	54.36	1.38	35.05	.24	6.10	.86	21.84
1/2"	1.375	34.93	2.04	51.82	1.375	34.93	2.48	62.99	1.65	41.91	.24	6.10	.86	21.84
3/4"	1.688	42.88	2.42	61.47	1.688	42.88	2.55	64.77	2.06	52.32	.24	6.10	1.14	28.96
1"	2.063	52.40	2.58	65.53	2.063	52.40	2.55	64.77	2.48	62.99	.24	6.10	1.03	26.16
1-1/4"	2.250	57.15	3.54	89.92	2.250	57.15	3.41	86.61	2.75	69.85	.24	6.10	1.16	29.46
1-1/2"	2.765	70.23	3.29	83.57	2.765	70.23	3.12	79.25	3.30	83.82	.24	6.10	1.32	33.53
2"	3.469	88.11	3.92	99.57	3.469	88.11	3.72	94.49	4.00	101.60	.24	6.10	1.58	40.13
3"	4.875	123.83	4.76	120.90	4.875	123.83	4.67	118.62	5.50	139.70	.24	6.10	1.82	46.23
4"	6.000	152.40	5.65	143.51	6.000	152.40	5.60	142.24	6.60	167.64	.24	6.10	2.10	53.34

Contact factory for verification of dimensions prior to any machining.



# MP-1 SERIES

## How to Order

Part Number Example: SVMP-1N8-8F

Material <sup>1</sup>	Body Type	Series	Coupling Half	Coupling Size	End Fitting Size	Type of <sup>1</sup> End Fitting	Seal <sup>1</sup> Material
High strength steel - no letter designation required <b>S</b> Stainless Steel	<b>V</b> Valved <b>P</b> Plain	<b>MP-1</b>	<b>C</b> Coupler <b>N</b> Nipple	4 - 1/4" 6 - 3/8" 8 - 1/2" 12 - 3/4" 16 - 1" 20 - 1-1/4" 24 - 1-1/2" 32 - 2" 40 - 2-1/2" 48 - 3" 64 - 4"	2 - 1/8" 4 - 1/4" 6 - 3/8" 8 - 1/2" 12 - 3/4" 16 - 1" 20 - 1-1/4" 24 - 1-1/2" 32 - 2" 40 - 2-1/2" 48 - 3" 64 - 4"	<b>F</b> Female NPSF <sup>2</sup> <b>M</b> Male NPT <b>RP</b> Female British Parallel BS2779 <b>EF</b> Female SAE O'Ring Boss <b>EM</b> Male SAE 37°	<b>**</b> Nitrile (AMS3215) <b>V</b> Viton (MIL-R-25897) <b>JF</b> Nitrile (MIL-P-5315) <b>M</b> Nitrile (MIL-P-25732) <b>E</b> Ethylene Propylene <b>AS</b> Aflas <b>K</b> Kalrez  **Standard seal- No letter designation required.

<sup>1</sup>For other end fittings and seal or coupling materials, consult the factory.

<sup>2</sup>NPSF Female straight pipe thread on sizes to 1" taper pipe on sizes above 1".

## Pressure Ratings psi (bar)

Size	Steel	Stainless Steel
1/4"	6500 (448)	5000 (344)
3/8"	4500 (310)	4000 (275)
1/2"	4000 (275)	3750 (259)
3/4"	3500 (241)	2000 (138)
1"	2000 (138)	2000 (138)
1-1/4"	1750 (120)	1500 (103)
1-1/2"	1500 (103)	1500 (103)
2"	1500 (103)	500 (34)
2-1/2"	1000 (69)	400 (28)
3"	750 (52)	400 (28)
4"	500 (34)	300 (21)

Burst pressures listed were taken at the point at which failure rendered the quick-disconnect inoperative. (Proof pressure equals 1-1/2 times working pressure. Burst pressure equals 2 times working pressure.)

**NOTE:** Pressure ratings were established under static pressure conditions. For high impulse applications, multiply the above pressure ratings by .6 for approximate pressure ratings.

## Maximum Recommended Connect/Disconnect Pressure

Size	psi (bar)
1/4"	400 (28)
3/8"	200 (14)
1/2"	100 (7)
3/4"	50 (3)
1"	45 (3)
1-1/4"	30 (2)
1-1/2"	30 (2)
2"	20 (2)
3"	10 (.7)
4"	5 (.3)

## Air Inclusion on Connect, Spillage on Disconnect

Size (inches)	Spillage (cc)	Inclusion (cc)
1/4	1.2	1.2
3/8	1.4	1.4
1/2	4.2	4.2
3/4	10.5	10.5
1	19.6	19.6
1-1/4	30.8	30.8
1-1/2	55.2	55.2
2	85.3	85.3
3	262.0	262.0
4	443.0	443.0

**Note:** Air inclusion at 0 psi internal pressure.  
Spillage at 15 psi (1 bar) internal pressure.

## Separation Forces at 1000 psi (69 bar)

Size (inches)	Forces in Pounds (kilograms)
1/4	150 (68)
3/8	240 (110)
1/2	410 (186)
3/4	780 (355)
1	1100 (499)
1-1/4	1600 (725)
1-1/2	2300 (1043)
2	4000 (1814)
3	9760 (4435)
4	16800 (7620)





 **Snap-Tite**

**MULTI-COUPLING  
PANEL**

**FOR ALL INDUSTRIES**

**Automotive - Machine Tool**

**Plastic - Offshore - Petro Chemical**

**Aircraft Engine Test - Medical**



# COUPLINGS

## BN SERIES



### Features:

- Balanced dry-break
- Designed to minimize end thrust under system pressure; permits the use of lighter weight plates
- Connectable under static pressure to 250 psi (17 bar)
- Low separation forces
- Eliminates the necessity of expensive locking mechanisms
- Virtually zero spillage and air inclusion
- Unique flush face valve design prevents sediment build-up in sub-sea applications
- Wide range of seal materials to handle any application

### Pressures:

To 10,000 psig (690 bar)

### Sizes:

3/8", 1/2" and 3/4"

### Material:

Stainless steel

### Shut-off Combination:

Double shut-off

## LN SERIES



### Features:

- State-of-the art dry-break design
- Lightweight and compact design
- Spillage and air inclusion are held to a minimum
- Designed for high purity, high reliability systems
- Designed for high flow vs. low pressure drop
- Performance meets or exceeds MIL-C-7413B and MIL-C-25427A
- Wide range of seal materials to handle any application

### Pressures:

To 1,000 psig (69 bar)

### Sizes:

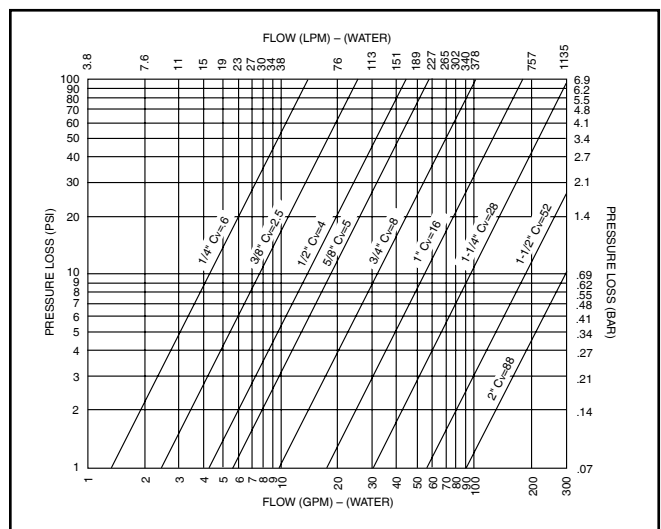
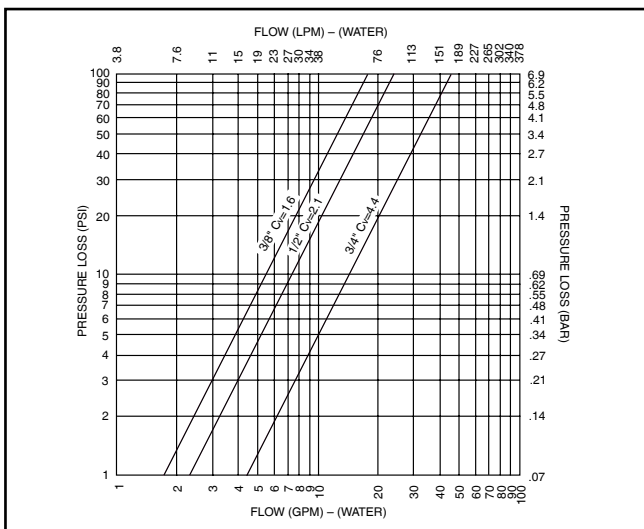
1/4" through 2"

### Materials:

Aluminum and stainless steel

### Shut-off Combinations:

Double shut-off





# COUPLINGS

## HN-3 SERIES



### Features:

- Dry-break design
- High pressure capability
- Virtually zero spillage and air inclusion
- Heavy duty construction withstands high impulses and shocks
- Superior flow characteristics with low pressure drop

### Pressures:

To 10,000 psig (690 bar)

### Sizes:

1/8" through 2"

### Materials:

Steel with platings or coatings to customer specifications and stainless steel to meet your pressure and environmental requirements

### Shut-off Combination:

Double shut-off

## MP-1 SERIES



### Features:

- Economical medium-pressure poppet design
- Two-piece construction for end fitting versatility
- Anti-extrusion seal
- Multitude of seals and materials to handle gases, fluids and vacuums in a wide range of pressures and temperatures
- Streamline valve design for high flow with minimal pressure drop
- Seal and poppet design are wear and pressure compensated for positive shut-off with zero leakage

### Pressures:

To 3,000 psig (207 bar) (For higher pressure consult factory)

### Sizes:

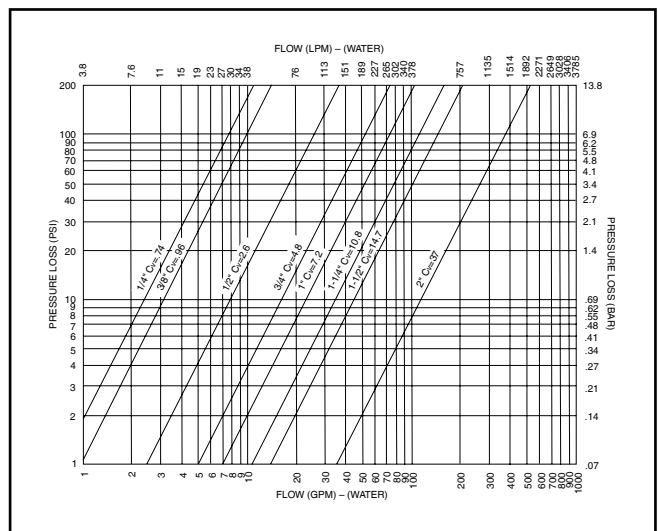
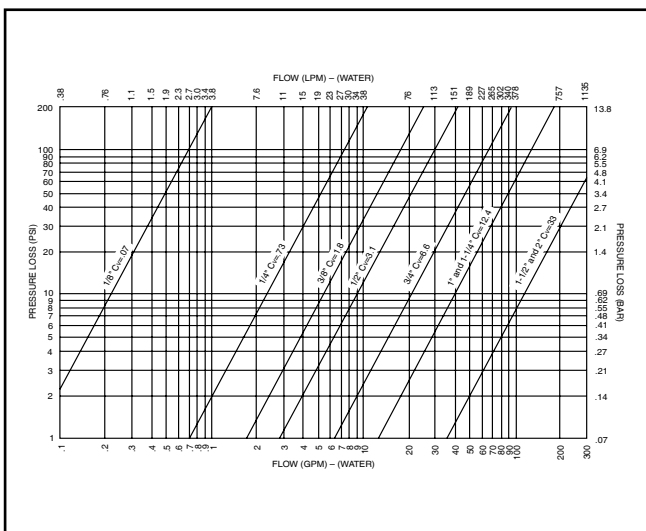
1/4" through 4" (larger sizes are available)

### Materials:

Steel with platings or coatings to customer specifications and stainless steel to meet your pressure and environmental requirements

### Shut-off Combination:

Double shut-off/Single shut-off





# COUPLINGS

## HP SERIES



### Features:

- High pressure poppet valve design
- Wide range of elastomeric seals available, as well as Teflon® and polymer valve seals
- Compact design permits mounting on junction boxes to disconnect hydraulic hose bundles for oil field applications
- Leak-free, high-reliability poppet coupling for critical hydraulic control systems

### Pressures:

To 10,000 psig (690 bar) also suitable for vacuum applications

### Sizes:

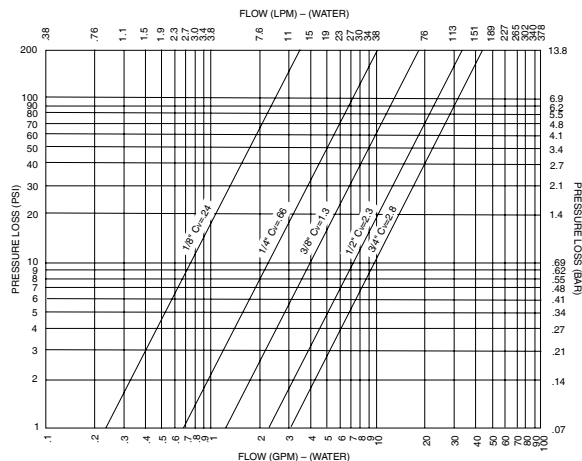
1/8" through 3/4"

### Materials:

Stainless steel

### Shut-off Combination:

Double shut-off



## SJ SERIES



### Features:

- Plain slip-joint design
- For transfer of large volumes of liquids or gases where integral shut-off valves are not required
- Wide range of elastomeric seals are available including Teflon®

### Pressures:

To 10,000 psig (690 bar)

### Sizes:

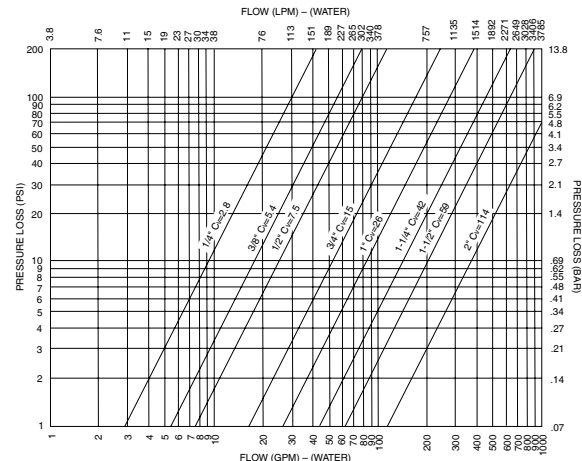
1/4" through 5"

### Materials:

Steel with platings or coatings to customer specifications and stainless steel to meet your pressure and environmental requirements

### Shut-off Combination:

Straight through



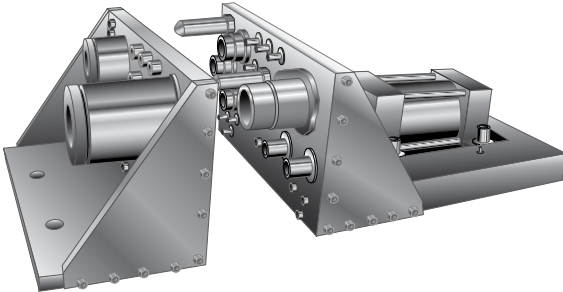


# LOCKING MECHANISMS

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## ***Snap-tite standard panel locking mechanisms available for your individual requirements.***

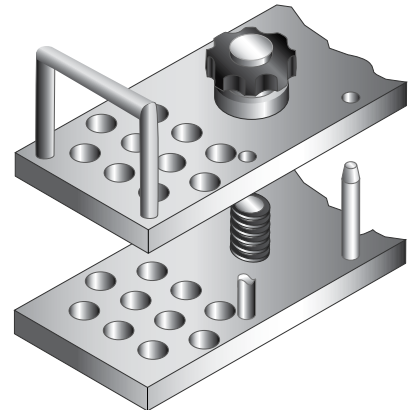
Snap-tite offers five standard locking mechanisms to be used on a wide variety of multi-coupling panels. These methods allow you to further customize your panel to your standards. When you select the coupling (or couplings), the panel configuration they're used on and the locking device – the result is a complete panel that will satisfy your specifications.



### ***High Pressure Docking Method***

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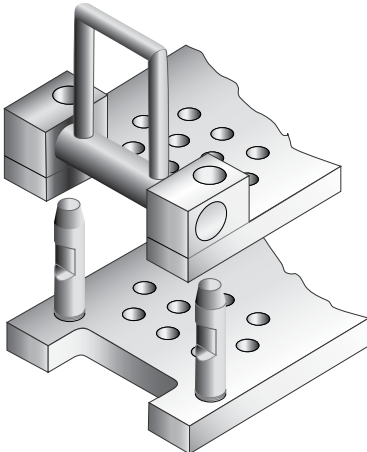
Used where connecting forces dictate the assistance of one or more cylinders to make the panel connection. This method is also used when separation forces exceed the recommended limits of other locking methods.



### ***Manual Rotary Method***

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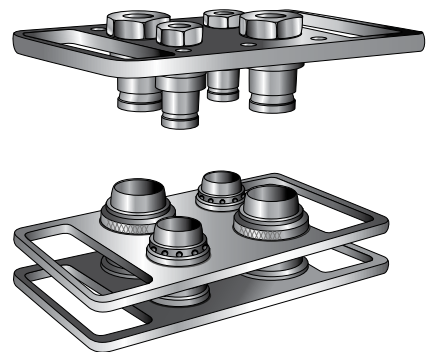
An economical method to connect small panels of 10 or more 1/2" couplings or smaller. Acme thread is used to overcome forces required to engage the couplings.



### ***Dual Stage Bar Locking Method***

---

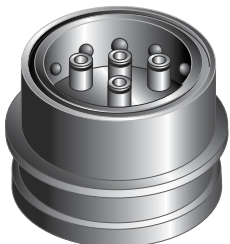
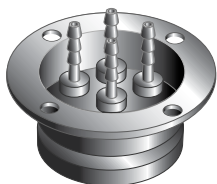
Snap-tite's unique double-stage locking bar overcomes high engagement forces thus allowing the manual connection of 10 or more couplings in varying sizes.



### ***Multi-Coupling Method***

---

This method utilizes the coupling's locking mechanism to connect and lock each coupling simultaneously. A third plate is used to activate the locking sleeves simultaneously. Recommended when using 10 couplings or less per panel.



### ***Master Coupling Method***

---

This compactness and smooth operation of a conventional quick disconnect coupling with a limited number of plain couplings enslaved within.



# GENERAL INFORMATION ON SNAP-TITE MULTI-COUPLING PANELS

- Panels are available in any size, shape or thickness to meet your specific envelope requirements.
- All couplings are supplied with multiple grooves for varying plate thicknesses.
- Couplings are available in working pressures to 30,000 psig (2069 bar).
- All couplings listed are available with individual locking mechanisms.
- All panels can be equipped with electrical connectors to meet your requirements.
- Panels can be supplied with a mix of any of the BN, LN, HN-3, MP-1, HP or SJ series couplings or sizes in patterns to suit your applications. Panel holes are numbered on top as well as the backside for easy identification.
- Large selection of end fittings: Male SAE 37° flared ('EM'), Female O-ring boss thread (EF), Male taper pipe thread (M), Female British Parallel BS2779 (RP), Female straight pipe thread in sizes 1/8" through 1" (NPSF), and Taper female pipe thread in sizes 1-1/4" and above. Other end fittings are available to meet your needs.
- Snap-tite, Inc. is known worldwide for its problem-solving engineering capabilities. We can design special couplings to meet your individual requirements. Due to space limitations we are unable to show all the designs available. Consult Snap-tite for assistance in solving your quick disconnect panel problem.



## ! WARNING !

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE.

*This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors, provides product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.*

*The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.*

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# Compressed Natural Gas Vehicle Fueling Products

★ *Snap-Tite*

**AGA/CGA NGV1  
CERTIFIED**

ISO-9001 Certified







Snap-tite offers a full line of NGV1 fueling products.

★ **Snap-tite**  
*"A World Class Tradition of Quality"*



**F**ounded over 65 years ago, Snap-tite has grown into a corporation producing over 50 product lines in 8 facilities located in the United States and Europe. Starting in the mid 1930's and continuing through the latest developments, Snap-tite is widely recognized for its role in problem solving for the military, aerospace, electronic cooling, mobile equipment, offshore oil and gas, and natural gas appliance industries to name a few.

Snap-tite has taken its expertise in design and manufacturing to develop products for the compressed natural gas vehicle (NGV) market.

Snap-tite's receptacles and patented nozzles fully comply with and are certified to the ANSI/AGA/CGA NGV1 Standard for Compressed Natural Gas Vehicles (NGV) fueling connection devices. Snap-tite has become the first to offer a range of certified products to the market. The test was performed by Snap-tite (in AGA certified Test Lab) and certified by the American Gas Association (AGA).

Snap-tite has been striving for the highest quality standards since our first involvement in the space program in the early fifties. Snap-tite believes in continuous improvement in all aspects of our operation from design and manufacturing to customer service. Through a great deal of dedication and hard work, all of Snap-tite's divisions have become ISO-9001 Certified.

Safety is a prime concern to Snap-tite. Snap-tite has designed a feature into the nozzle that makes it the safest design available. **The nozzle cannot be manually disconnected from the receptacle while under internal pressure greater than 350 psi (24 bar).** Snap-tite has done extensive testing of numerous designs and demonstrated a very unsafe condition with respect to "kick back" of the nozzle which can cause personal injury when disconnected at internal pressures greater than 350 psi (24 bar). In addition, this can cause a "washout" of the receptacle seal. An operator may not know of this failure and when a nozzle is again connected to the receptacle excessive leakage occurs with the possibility of a fire or explosion. This feature of the Snap-tite nozzle exceeds the requirements of the NGV1 specification and has been assigned a world wide patent.



# Snap-tite NGV1 Fueling Nozzle (Type 2 & 3 Class A & B)



Snap-tite's nozzle is designed specifically for the transfer of compressed natural gas (CNG) to natural gas vehicles.

This nozzle can be used for fast fill or time fill in a self depressurizing fueling system or in conjunction with a 3-way valve attached.

Snap-tite's nozzle also allows complete interchangeability to any receptacle conforming to the NGV1 requirements.

## Features

- ▶ Lightweight – .96 lbs. (.435 kgs)
- ▶ The bumper is made of a durable polyurethane to reduce wear and damage to vehicles and to protect the user from the cold temperature of the nozzle
- ▶ The bumper is designed for rugged use, it protects the front engagement bore and provides a very comfortable grip when connecting or disconnecting
- ▶ Color coded bumper visually identifies the service pressure – blue for 3,000 psi (207 bar), yellow for 3,600 psi (248 bar)
- ▶ Connects with single handed operation by pushing together
- ▶ Disconnects with single handed operation by pulling back on the polyurethane bumper
- ▶ The Snap-tite patented nozzle cannot be manually disconnected from the receptacle at an internal pressure greater than 350 psi (24 bar)
- ▶ High reliability ball locking
- ▶ Poppet valve prevents the inadvertent flow of gas when the nozzle is disconnected
- ▶ Keying system prevents higher pressure nozzle from connecting onto lower pressure receptacle
- ▶ Nozzles available in either 316 Stainless Steel or Brass construction
- ▶ When connected to the receptacle the nozzle body extends over the outside diameter of the receptacle thus providing an excellent length to diameter ratio (L/D)
- ▶ All materials utilized by Snap-tite guarantee a very weather resistant device considering ambient temperature, solar radiation, humidity, atmospheric toxins and airborne salt



**Certification:** ANSI/AGA/CGA NGV1

**Working Pressure:** 3000 psi (207 bar) and  
3600 psi (248 bar)

**Burst Pressure:** Brass: 16,000 psi (1104 bar)  
Stainless Steel: 20,000 psi  
(1379 bar)

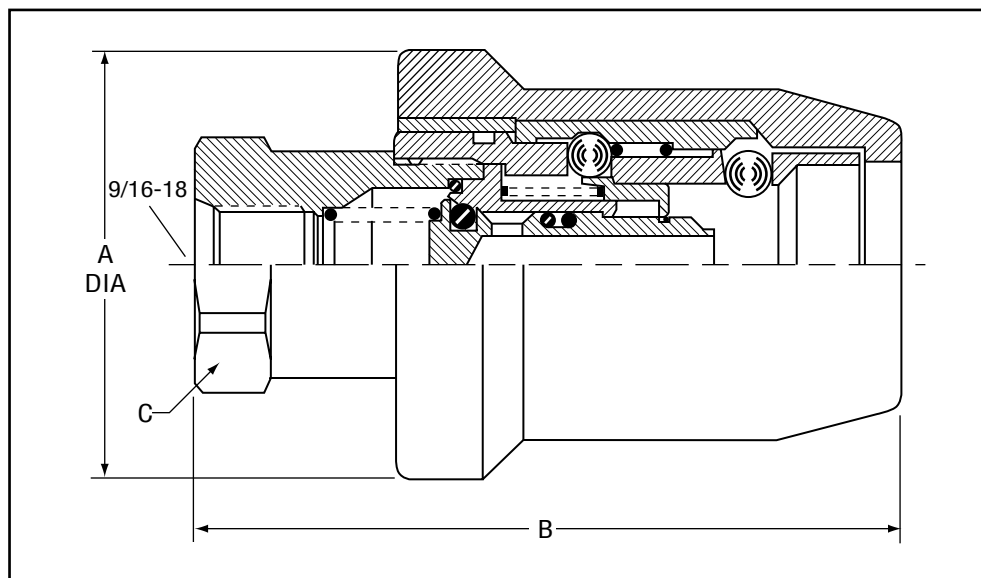
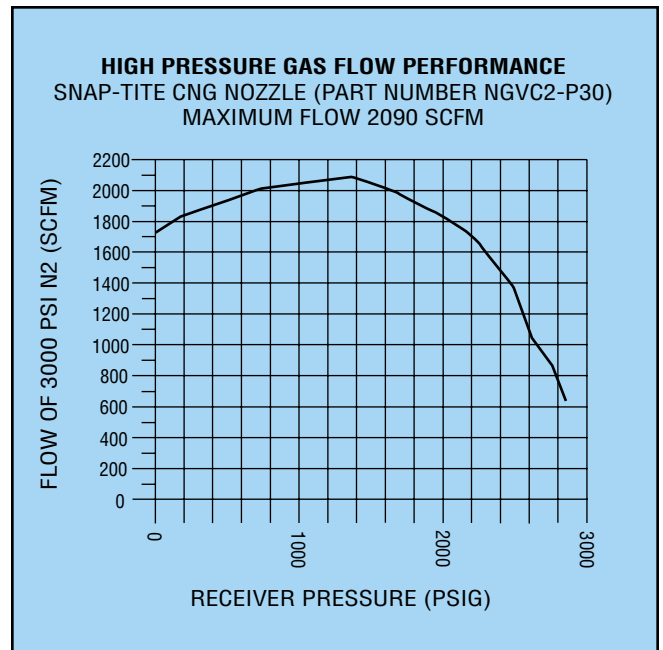
**Temperature Range:** -40°F (-40°C) to  
185°F (80°C)

**Weight:** .96 lbs. (.435 kgs)

**Flow Rate:** 2090 SCFM (3551 Nm<sup>3</sup>/hr)

**Material:** 316 Stainless Steel or CA 360 Brass

**Speed of Fill:** 16 seconds to fill a 14.5 US  
gallon (54.92 liters) container  
from 0 to 3,000 psi (207 bar)



PART NUMBER	A	B	C HEX
*NGVC2-P**	2.13 (54.10)	3.51 (90)	1-1/8 (28.60)

See Page 16 (How to Order)

in (mm)

Pressure or material does not effect dimensions.



# Snap-tite NGV1 Fueling Receptacle



Snap-tite's receptacle is designed for permanent mounting to a natural gas vehicle (CNG).

Snap-tite's receptacle utilizes the NGV1 Profile which allows complete interchangeability to any nozzle conforming to the NGV1 standard.

## Features

- ▶ Superior poppet check valve design:
  - a) Polyurethane crimped seal to eliminate erosion and washout
  - b) Non-barrel type poppet to reduce sticking due to contamination and icing between the outside diameter of the valve and the inside diameter of the body bore
  - c) Self-centering capability of the poppet
- ▶ One-piece receptacle design
- ▶ High strength 316 Stainless Steel valve stop to provide a positive stop for the valve
- ▶ Superior flow characteristics
- ▶ Available in either 316 Stainless Steel or Brass construction



**Certification: ANSI/AGA/CGA NGV1**

**Working Pressure:** 3000 psi (207 bar) and  
3600 psi (248 bar)

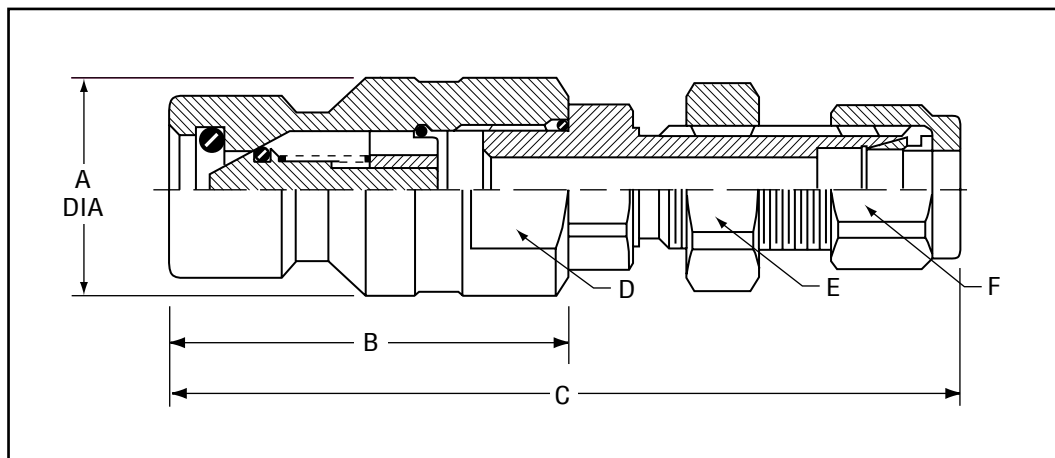
**Burst Pressure:** Brass:16,000 psi (1104 bar)  
Stainless Steel: 25,000 psi (1724 bar)

**Temperature Range:** -40°F (-40°C) to 250°F (121°C)

**Weight:** .21 lbs (.095 kgs)

**Flow Rate:** 2090 SCFM (3551 Nm<sup>3</sup>/hr)

**Material:** 316 Stainless Steel or CA 360 Brass



PART NUMBER	A	B	C	D FLATS	E HEX	F HEX
NGVN2-P30	.984 (25)	1.78 (45.20)		13/16 (20.60)		
NGVN2-P36	.945 (24)	1.78 (45.20)		13/16 (20.60)		
NGVN3-P30	.984 (25)	1.78 (45.20)	3.40 (86.40)	13/16 (20.60)	11/16 (17.50)	9/16 (14.30)
NGVN3-P36	.945 (24)	1.78 (45.20)	3.40 (86.40)	13/16 (20.60)	11/16 (17.50)	9/16 (14.30)
NGVN4-P30	.984 (25)	1.78 (45.20)	3.53 (89.70)	13/16 (20.60)	3/4 (19.10)	11/16 (17.50)
NGVN4-P36	.945 (24)	1.78 (45.20)	3.53 (89.70)	13/16 (20.60)	3/4 (19.10)	11/16 (17.50)

See Page 16 (How to Order)

in (mm)



# Snap-tite NGV1 Profile High Flow Receptacle



Snap-tite's high flow receptacles are designed for permanent mounting to heavy duty natural gas vehicles (CNG).

Snap-tite's high flow receptacle utilizes the NGV1 profile which allows complete interchangeability to any nozzle conforming to the NGV1 standard.

## Features

- ▶ Heavy duty construction
- ▶ Superior poppet check valve design prevents gas flow when the nozzle is disconnected
- ▶ Leak free regardless of temperature and pressure
- ▶ Connects to any NGV1 compliant nozzle
- ▶ Quick and efficient performance
- ▶ Excellent flow characteristics
- ▶ Polyurethane crimped seal eliminates erosion and washout



**Working Pressure:** 3000 psi (207 bar) and  
3600 psi (248 bar)

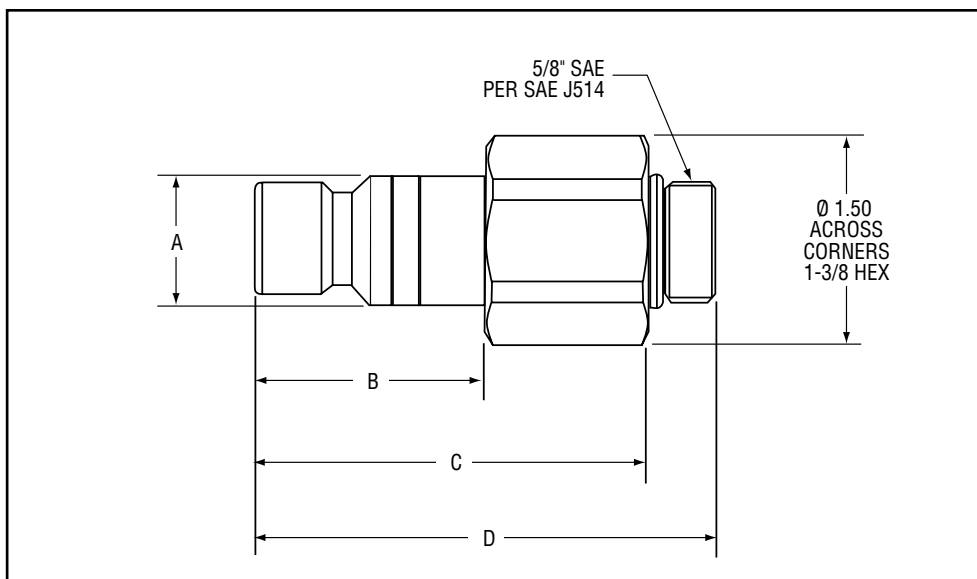
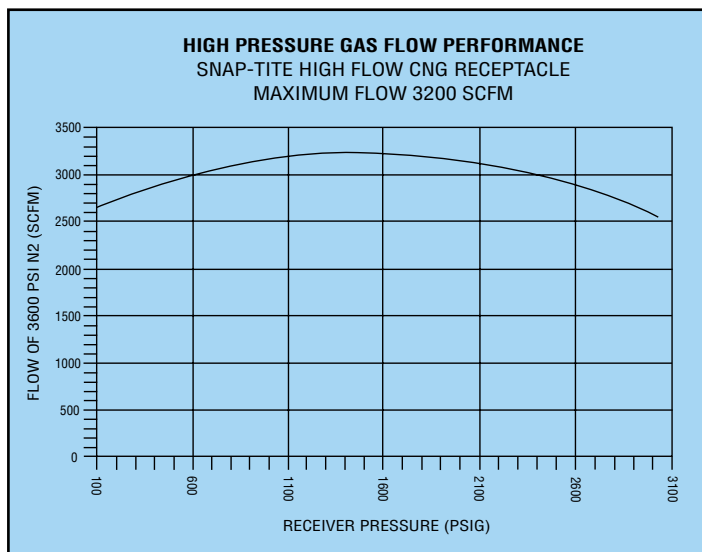
**Burst Pressure:** 25,000 psi (1724 bar)

**Temperature Range:** -40°F (-40°C) to  
250°F (121°C)

**Weight:** .70 lbs. (.32 kgs)

**Flow Rate:** 3200 SCFM (5400 Nm<sup>3</sup>/hr)

**Material:** 316 Stainless Steel



PART NUMBER	A	B	C	D
HNGVN5-P30	.984 (25)	1.69 (43)	2.88 (73.2)	3.38 (85.9)
HNGVN5-P36	.945 (24)	1.69 (43)	2.88 (73.2)	3.38 (85.9)

See Page 16 (How to Order)

in (mm)



# Compressed Natural Gas (CNG) Inline Hose Breakaway



Snap-tite's inline breakaway is designed specifically for compressed natural gas fueling systems. When properly installed, this inline breakaway allows for the safe disconnection from the fueling system without damage to the dispenser in the event of an accidental disconnect (drive-off). The inline breakaway was designed to replace the traditional tripod leverage towers used in conjunction with the ISO B style coupling as the breakaway connection for the fueling hose from the dispenser.

## Features

- ▶ Combination of corrosive resistant stainless steel (303 & 316) and brass construction
- ▶ Nipple is equipped with durable polyethylene bumper to protect the nipple form in the event of a breakaway
- ▶ Disconnect force: 60-140 lbs. (266.9 – 622.7 N) at any pressure up to operating
- ▶ Superior flow characteristics
- ▶ Compact envelope
- ▶ Balanced design assures positive connection until a breakaway cycle is required
- ▶ Lightweight design - .95 lbs. (.431 kgs)
- ▶ Easy installation
- ▶ Reusable following breakaway with minimal repair

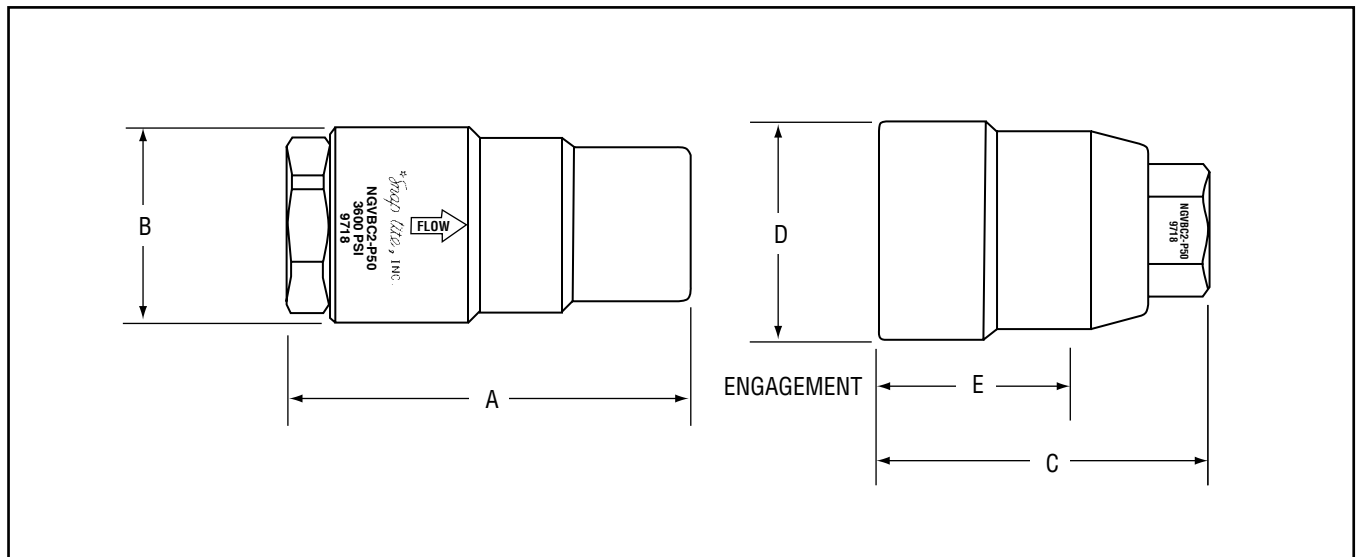
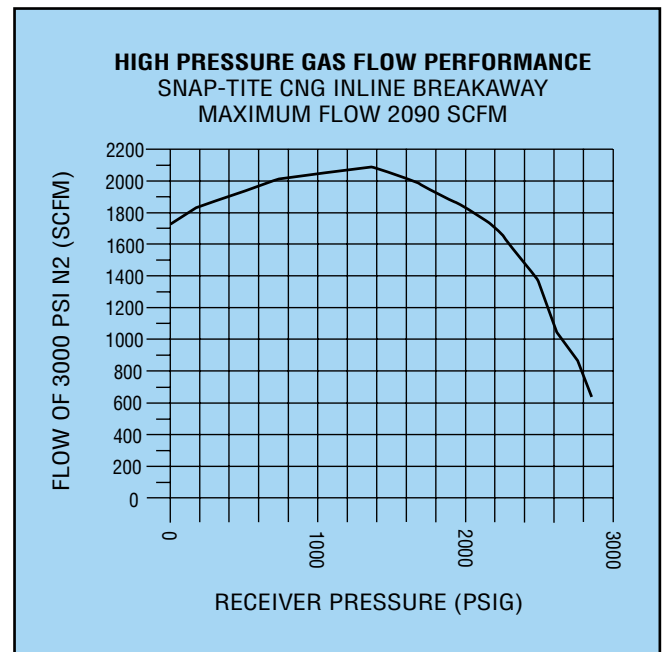


**Working Pressure:** 3600 psi (248 bar)  
**Burst Pressure:** 20,000 psi (1379 bar)  
**Temperature Range:** -40°F (-40°C) to  
 150°F (66°C)

**Weight:** .95 lbs (.431 kgs)

**Flow Rate:** 2090 SCFM (3551 Nm<sup>3</sup>/hr)

**Material:** 303 & 316 Stainless Steel and  
 CA 360 Brass



PART NUMBER	A	B	C	D	E
*NGVBCN2-P50NR	2.79 (70.87)	1.38 (35.05)	2.28 (57.91)	1.53 (38.86)	1.34 (34.04)
*NGVBCN2-P50	2.79 (70.87)	1.38 (35.05)	2.28 (57.91)	1.53 (38.86)	1.34 (34.04)

Nipple type is determined by customer's system. If system has a separate vent line, use part number **NGVBCN2-P50NR** in (mm)  
 (non-relieving). If system vents back through supply hose, use part number **NGVBCN2-P50**.  
 Above part numbers will provide a complete unit consisting of one coupler and one nipple.



# Snap-tite Compressed Natural Gas (CNG) Check Valves



Snap-tite's Check Valve is designed specifically for zero leakage control of compressed natural gas (CNG). Free flow in one direction and blocked flow in the reverse.

This Check Valve utilizes the same internal construction and parts as the Snap-tite NGV1 Receptacle.

## Features

- ▶ Superior poppet check valve design:
  - a) Polyurethane crimped seal to eliminate erosion and washout
  - b) Non-barrel type poppet to reduce sticking due to contamination and icing between the outside diameter of the valve and the inside diameter of the body bore
  - c) Self-centering capability of the poppet
- ▶ One-piece body design
- ▶ High strength 316 Stainless Steel valve stop to provide a positive stop for the valve
- ▶ Superior flow characteristics
- ▶ 316 Stainless Steel construction



**Certification: AGA 7-93**

**Working Pressure:** 3600 psi (248 bar)

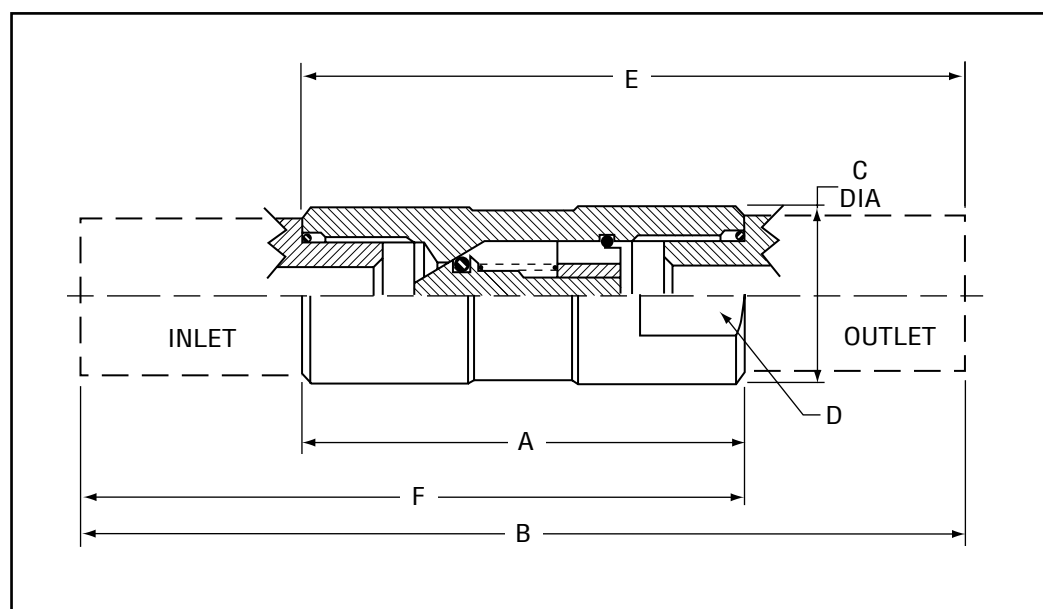
**Burst Pressure:** 25,000 psi (1724 bar)

**Temperature Range:** -40°F (-40°C) to 250°F (121°C)

**Weight:** .235 lbs (0.107 kgs)

**Flow Rate:** 2090 SCFM (3551 Nm<sup>3</sup>/hr)

**Material:** 316 Stainless Steel



PART NUMBER	A	B	C	D FLATS	E	F
NGCV6EF-EF	2.14 (54.40)		.86 (21.80)	3/4 (19.10)		
NGCV4A-4A	2.14 (54.40)	4.14 (105.20)	.86 (21.80)	3/4 (19.10)		
NGCV6A-6A	2.14 (54.40)	4.29 (108.10)	.86 (21.80)	3/4 (19.10)		
NGCV6EF-4A	2.14 (54.40)		.86 (21.80)	3/4 (19.10)	3.14 (79.80)	
NGCV6EF-6A	2.14 (54.40)		.86 (21.80)	3/4 (19.10)	3.22 (81.80)	
NGCV6MOS-EF	2.14 (54.40)		.86 (21.80)	3/4 (19.10)		2.81 (71.40)

See Page 16 (How to Order)

in (mm)



# Compressed Natural Gas (CNG) Coupling



Snap-tite's 72 Series may be used in a break-away harness for compressed natural gas (CNG) fueling systems due to the "superior poppet sealing" designed specifically for compressed natural gas. These couplings feature superior pressure and flow characteristics over other manufacturers while meeting or exceeding the ISO-7241-1 Series B specifications.

## Features

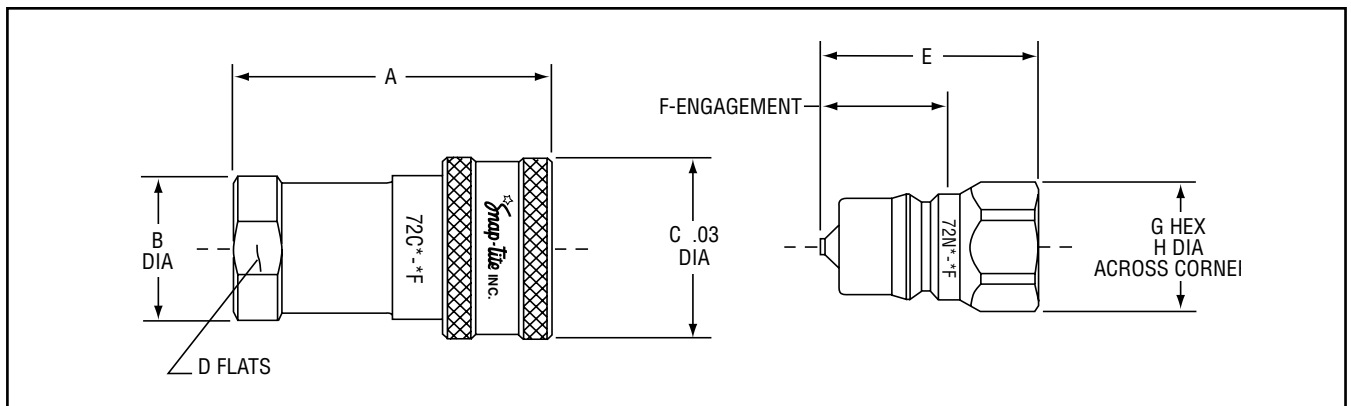
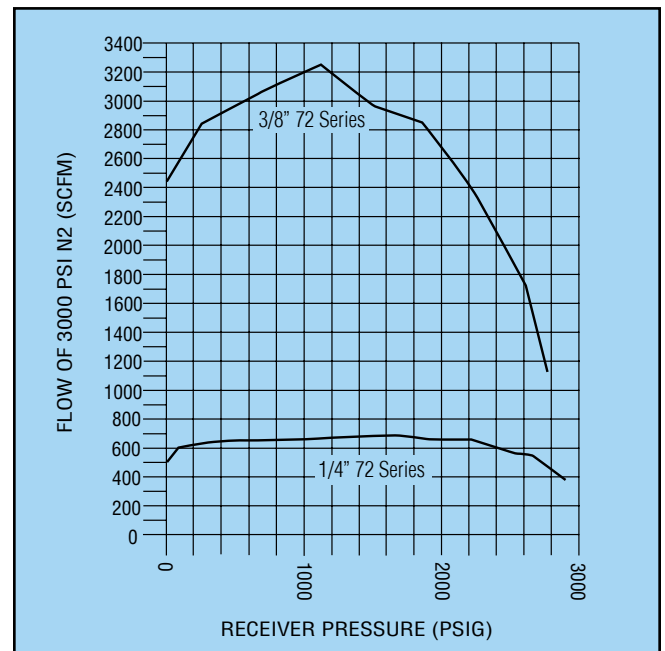
- ▶ Corrosive resistant stainless steel (303) construction
- ▶ Meets or exceeds ISO-7241-1 Series B
- ▶ Superior poppet valve design:
  - a) Polyurethane crimped seal to eliminate erosion and washout
  - b) Self-centering capability of the poppet
- ▶ Superior flow characteristics
- ▶ Proven ball-lock design



**Certification: Texas Railroad Commission**

**Temperature Range:** -40°F (-40°C) to  
250°F (121°C)

**Material:** 303 Stainless Steel



SIZE	A	B	C	D	E	F	G	H
1/4	2.25 (57.15)	.88 (22.35)	1.12 (28.45)	.75 (19.05)	1.51 (38.35)	.95 (24.13)	.75 (19.05)	.83 (21.08)
3/8	2.57 (65.28)	1.13 (28.70)	1.37 (34.80)	1.00 (25.40)	1.74 (44.20)	1.13 (28.70)	.88 (22.35)	.96 (24.38)

in (mm)

PART NUMBER	COUPLING HALF	END FITTING	WORKING PRESSURE	BURST PRESSURE
S72C4-4F UR	COUPLER	1/4 NPTF	5500 PSI (379 BAR)	22,000 PSI (1517 BAR)
S72N4-4F UR	NIPPLE	1/4 NPTF	5500 PSI (379 BAR)	22,000 PSI (1517 BAR)
S72C6-6F UR	COUPLER	3/8 NPTF	3750 PSI (259 BAR)	15,000 PSI (1035 BAR)
S72N6-6F UR	NIPPLE	3/8 NPTF	3750 PSI (259 BAR)	15,000 PSI (1035 BAR)



# How to Order

## Nozzles and Receptacles\*\*

### PART NUMBER

	B	NGV	N	2-	P30
--	---	-----	---	----	-----

	MATERIAL	SERIES	COUPLING HALF	END FITTING	WORKING PRESSURE
H*	NO LETTER – 316	NGV	C – NOZZLE	2 – 3/8 FEMALE SAE (9/16 - 18)	P30 – 3000 PSI
HIGH	STAINLESS STEEL		N – RECEPTACLE	3 – 1/4 TUBE DOUBLE FERRULE BULKHEAD	(207 BAR)
FLOW	B – BRASS			4 – 3/8 TUBE DOUBLE FERRULE BULKHEAD	P36 – 3600 PSI
				5* – 5/8 MALE O-RING SEAL (7/8-14)	(248 BAR)

\*Available option for 316 stainless steel receptacle only.

## Natural Gas Check Valves\*\*

### PART NUMBER

NGCV	6EF-	6EF
------	------	-----

SERIES	INLET END FITTING	OUTLET END FITTING
NGCV	6EF – 3/8 FEMALE SAE (9/16 - 18)	6EF – 3/8 FEMALE SAE (9/16 - 18)
	6MOS – 3/8 MALE O-RING SEAL (9/16 - 18)	6MOS – 3/8 MALE O-RING SEAL (9/16 - 18)
	4A – 1/4 TUBE DOUBLE FERRULE	4A – 1/4 TUBE DOUBLE FERRULE
	6A – 3/8 TUBE DOUBLE FERRULE	6A – 3/8 TUBE DOUBLE FERRULE

\*\*Consult factory for: Additional end fitting requirements or filter requirements

## Accessories

PART NUMBER	DESCRIPTION
NGVNC	RECEPTACLE DUST CAP
NGVND	STORAGE RECEPTACLE DUMMY

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*This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors, provides product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.*

*The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Snap-tite, Inc. and its subsidiaries at any time without notice.*



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January 18, 2006

## Quick Disconnect & Valve Division

### Statement on Directive 2002/95/EC (RoHS Directive)

Snap-tite's Quick Disconnect & Valve Division has been reviewing the RoHS Directive which is being instituted to limit the introduction of hazardous substances such as Lead, Mercury, Hexavalent Chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) into new Electrical & Electronics equipment sold into the EU (European Union). While these substances are not banned, they are limited to a percentage by weight of material. There are many exceptions and pending exceptions to this directive; however, based on the current criteria, we are prepared to make the followings statements:

No standard products currently produced by Snap-tite's Quick Disconnect & Valve Division are manufactured from raw materials containing levels of substances prohibited by the Directive 2002/95/EC.

Snap-tite's Quick Disconnect & Valve Division has used yellow zinc dichromate for corrosion protection on many of our steel components for several years. This chromate conversion coating uses a small percentage of Hexavalent Chromium in the conversion of the zinc to a corrosion protection surface treatment. Although this plating process has been widely accepted in the fluid power industry for many years and used by manufacturers of hydraulic hoses, fittings, valves and couplings; the current directive will prohibit this process for components used in the manufacture of new electrical and electronics equipment.

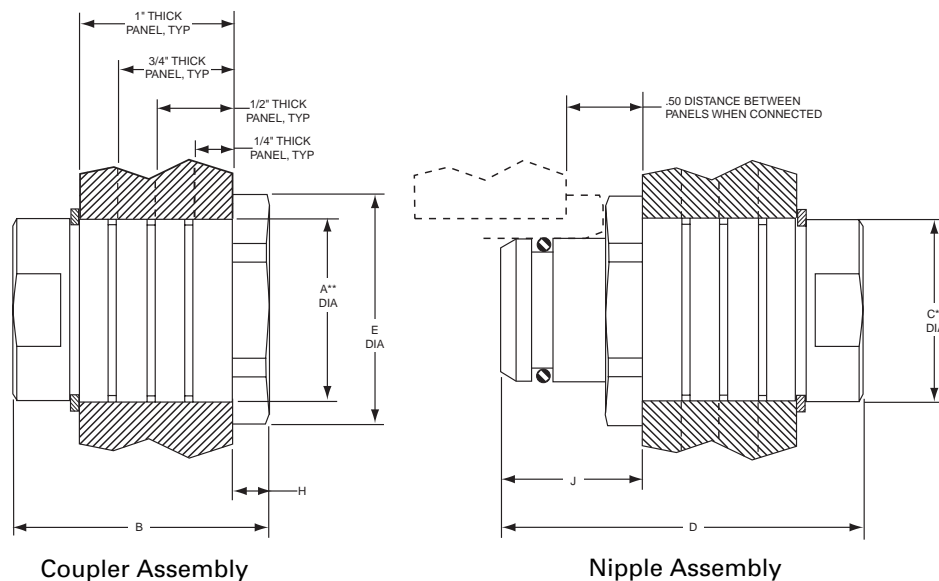
Although there are proposed exceptions to the directive, we at Snap-tite's Quick Disconnect & Valve Division have decided to change to a new coating/surface treatment process. This new environmentally friendly process provides the same superior corrosion protection that you have been accustomed to, yet complies with the RoHS directive as currently approved. The change to you, our customer, will be seamless as you will not notice any significant physical or color difference in our components.

As of February 1<sup>st</sup>, 2006, all standard steel component parts being manufactured at Snap-tite's Quick Disconnect & Valve Division that require a chromate conversion zinc coating will receive the new plating process. Our published product literature will be updated to the new plating information during normal on-going reprints of the literature. Please contact your Customer Service Representative with any questions.



# SJ SERIES

## Panel Mount Couplings 1/4" – 5" Sizes



\*\* Recommended hole size.

Unit Size	A Dia +/- .005		B +/- .03		C Dia +/- .005		D +/- .03		E Dia		H		J	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/4"	.750	19.05	1.75	44.45	.750	19.05	2.30	58.42	1.00	25.40	.24	6.10	.79	20.07
3/8"	.875	22.23	1.75	44.45	.875	22.23	2.30	58.42	1.13	28.70	.24	6.10	.84	21.34
1/2"	1.031	26.19	1.75	44.45	1.031	26.19	2.30	58.42	1.25	31.75	.24	6.10	.88	22.35
3/4"	1.250	31.75	1.75	44.45	1.250	31.75	2.50	63.50	1.50	38.10	.24	6.10	.93	23.62
1"	1.875	47.63	2.00	50.80	1.875	47.63	2.75	69.85	2.25	57.15	.24	6.10	1.03	26.16
1-1/4"	2.125	53.98	2.00	50.80	2.125	53.98	2.75	69.85	2.50	63.50	.24	6.10	1.03	26.16
1-1/2"	2.375	60.33	2.00	50.80	2.375	60.33	2.75	69.85	2.75	69.85	.24	6.10	1.03	26.16
2"	2.875	73.03	2.00	50.80	2.875	73.03	2.75	69.85	3.38	85.85	.24	6.10	1.10	27.94
2-1/2"	3.468	88.09	2.55	64.77	3.468	88.09	2.92	74.17	3.85	97.79	.24	6.10	1.27	32.25
3"	4.125	104.78	2.60	66.04	4.125	104.78	2.92	74.17	4.50	114.30	.24	6.10	1.27	32.25
4"	5.125	130.17	2.60	66.04	5.125	130.17	2.92	74.17	5.50	139.70	.24	6.10	1.27	32.25
5"	6.000	152.40	2.75	69.85	6.000	152.40	3.14	79.76	6.50	165.10	.24	6.10	1.12	28.45

Contact factory for verification of dimensions prior to any machining.

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**ISO-9001 Certified**



# SJ SERIES

## How to Order

Part Number Example: SSJN24-24F

Material <sup>1</sup>	Series	Coupling Half	Coupling Size	End Fitting Size	Type of <sup>1</sup> End Fitting	Seal <sup>1</sup> Material
High strength steel - no letter designation required <b>S</b> Stainless Steel	<b>SJ</b>	<b>C</b> Coupler <b>N</b> Nipple	<b>4</b> - 1/4" <b>6</b> - 3/8" <b>8</b> - 1/2" <b>12</b> - 3/4" <b>16</b> - 1" <b>20</b> - 1-1/4" <b>24</b> - 1-1/2" <b>32</b> - 2" <b>40</b> - 2-1/2" <b>48</b> - 3" <b>64</b> - 4" <b>80</b> - 5"	<b>4</b> - 1/4" <b>6</b> - 3/8" <b>8</b> - 1/2" <b>12</b> - 3/4" <b>16</b> - 1" <b>20</b> - 1-1/4" <b>24</b> - 1-1/2" <b>32</b> - 2" <b>40</b> - 2-1/2" <b>48</b> - 3" <b>64</b> - 4" <b>80</b> - 5"	<b>F</b> Female NPSF <sup>2</sup> <b>M</b> Male NPT <b>RP</b> Female British Parallel BS2779 <b>EF</b> Female SAE O'Ring Boss <b>EM</b> Male SAE 37°	<b>**</b> Nitrile (AMS3215) <b>V</b> Viton (MIL-R-25897) <b>JF</b> Nitrile (MIL-P-5315) <b>M</b> Nitrile (MIL-P-25732) <b>E</b> Ethylene Propylene <b>AS</b> Aflas <b>K</b> Kalrez  **Standard seal- No letter designation required.

<sup>1</sup>For other end fittings and seal or coupling materials, consult the factory.

<sup>2</sup>NPSF Female straight pipe thread on sizes to 1" taper pipe on sizes above 1".

## Separation Forces at 1000 psi (69 bar)

Size (inches)	Forces in Pounds (kilograms)
1/4	150 (68)
3/8	200 (91)
1/2	310 (141)
3/4	670 (304)
1	1100 (499)
1-1/4	1600 (725)
1-1/2	2775 (1259)
2	4000 (1814)
2-1/2	7070 (3210)
3	10175 (4626)
4	17000 (7730)
5	24800 (11275)

## Pressure Ratings psi (bar)

Size	Steel	Stainless Steel
1/4"	11000 (758)	10000 (689)
3/8"	11000 (758)	8000 (551)
1/2"	11000 (758)	8000 (551)
3/4"	9000 (620)	7000 (482)
1"	6000 (413)	4000 (275)
1-1/4"	5000 (344)	1000 (69)
1-1/2"	5000 (344)	3000 (206)
2"	4000 (275)	1000 (69)
2-1/2"	1000 (69)	400 (27)
3"	750 (51)	400 (27)
4"	500 (34)	300 (21)
5"	500 (34)	300 (21)

Burst pressures listed were taken at the point at which failure rendered the quick-disconnect inoperative. (Proof pressure equals 1-1/2 times working pressure. Burst pressure equals 2 times working pressure.)

**NOTE:** Pressure ratings were established under static pressure conditions. For high impulse applications, multiply the above pressure ratings by .6 for approximate pressure ratings.

## Maximum Recommended Connect/Disconnect Pressure

Not Applicable





**Quick Disconnect Couplings**  
Designed for the Offshore Industry



## ***Snap-tite has utilized many features in the design of couplings***

- ▶ Numerous corrosion resistant materials such as 316, 6MO, Nitronic, Monel, Inconel, Hastelloy, Cronifer and Cobalt.
- ▶ NACE MR-01-75 approved material for seawater applications.
- ▶ Various surface coatings to enhance the surface strength for wear resistance to prevent base metal damage.
- ▶ A wide variety of end fittings are available including Autoclave Engineers cone and threaded end connections.
- ▶ An operating pressure range of 29.7 inches of Hg vacuum to 40,000 psi (2760 bar).
- ▶ Various seal configurations utilizing elastomer and polymer seals, including PEEK\*
- ▶ Numerous valve configurations including poppet and dry break in balanced and non-balanced designs.
- ▶ Connect and disconnect under pressure capability.
- ▶ The ability to key the couplings to prevent interconnecting.
- ▶ Diver or ROV mateable.
- ▶ Multi-coupling panel systems with various locking devices, couplings and configurations.
- ▶ The capability to interconnect with competitive couplings and fit into existing panels.
- ▶ Full material and process traceability is available.
- ▶ Det Norske Veritas Certified.

*Snap-tite has been designing and manufacturing couplings and multi-coupling panel systems for numerous industries including the offshore industry for more than 25 years. We currently have couplings or multi-coupling panels in various oil and gas producing fields worldwide. Our couplings are used in a variety of areas, from blowout preventers to the control modules and distribution of coolants and hydraulic fluids.*

*Founded in 1935, Snap-tite has grown into a corporation producing over 50 product lines in 9 facilities located in the United States and Europe. Snap-tite is widely recognized for its role in problem solving for the military, aerospace, electronic cooling, mobile equipment, natural gas vehicle and appliance industries to name a few.*

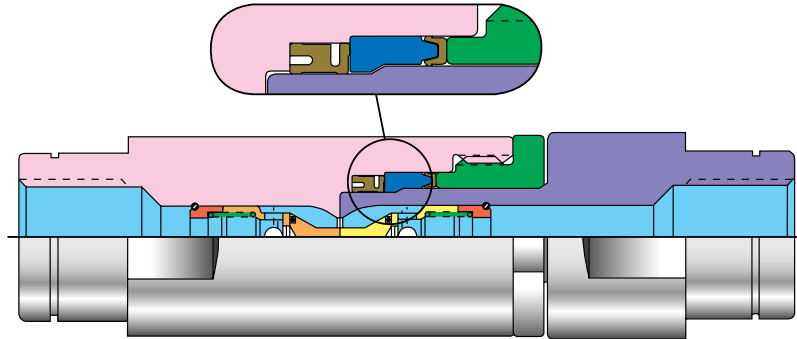
*The Snap-tite Quality Assurance System, exceeding the requirements of MIL-I-45208A, is independently certified to ISO-9001 and meets the requirements of NHB 5300.4 (2B) and CSA Z299. Snap-tite's certified quality program assures customers of documented quality to the above recognized worldwide standards through all areas of contract performance design, development, manufacturing, test and delivery.*



# Designs

*There are two commonly used coupling designs for sub-sea applications...*

## **Poppet Design**

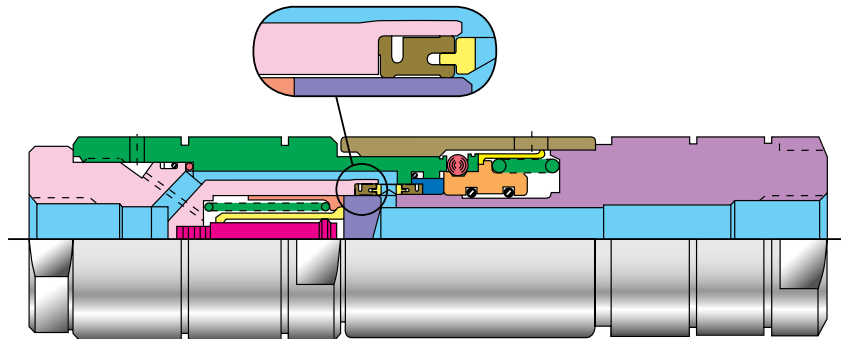


The poppet design coupling is the most commonly used for sub-sea applications. The simple proven design is reliable and economical.

### **Features:**

- Compact envelope
- Simple design
- Economical
- Proven design reliability
- Connect and disconnect at full system pressure
- Sizes ( $C_v$ ): 1/8" (.24), 1/4" (.66), 3/8" (1.3), 1/2" (2.3)\*

## **Balanced Design**



The balanced design is Snap-tite's latest design improvement for sub-sea application. The separation force is typically less than 100 pounds (45kg) for each coupling while pressurized internally to 10000 psig (690 bar). Spillage and water ingress are nearly eliminated and the envelope is only slightly larger than that of most commonly used poppet couplings.

### **Features:**

- Compact envelope
- Eliminates hydraulic "lock-up"
- Proven design reliability
- Reduced spillage and water ingress
- Lower cost because of reduced clamping force required
- Connect and disconnect at full system pressure
- Sizes ( $C_v$ ): 3/8" (1.16), 1/2" (2.9)\*

\*Other sizes can be designed for either type of coupling upon request.



# Seal Material

## **PEEK\* Seal Features & Benefits**

- ▶ Memory (set resistance) exceeds metal seals 20:1  
PEEK seals successfully tested through thousands of connect/disconnect cycles while metal seals tend to fail after relatively few cycles
- ▶ PEEK exceeds chemical and corrosion resistance of nearly all metals in sub-sea applications
- ▶ Comparable performance strength to that of metal seals
- ▶ Excellent abrasion resistance to sand and dirt which would tend to damage sealing surfaces of metal seals in sub-sea conditions.
- ▶ Excellent temperature stability within a temperature range of -40°F to +480°F (-40°C to +249°C)
- ▶ PEEK strength and flexibility eliminates need for secondary elastomer back-up seals
- ▶ Unlike metal seals, PEEK seals are easily field repairable
- ▶ PEEK seals have a proven track record

*Snap-tite's sub-sea couplings utilize elastomer seals or polymer seals manufactured from PEEK. This material is used as a direct replacement for metal seals and eliminates the inherent sealing problems common to metal seals. It exceeds the chemical and corrosion resistance of nearly all of the metals currently used in sub-sea applications. PEEK has been proven by extensive use as a material for pump and valve seals for sub-sea application; chemical processing equipment and other highly corrosive fluids.*

*PEEK has excellent abrasion resistance and temperature stability which is very important for seals used in sub-sea applications. It's memory (set resistance) exceeds that of metal seals by a factor of approximately 20:1 and can tolerate greater abusive use. It's physical strength, flexibility, corrosion and abrasion resistance eliminates the need for metal seals. It has been fully tested for endurance by connecting and disconnecting under water while pressurized to 10,000 psi (690 bar) in excess of 5000 cycles without failure. Testing has been carried out in our own certified laboratory as well as in an independent laboratory and documented in both cases. PEEK seals eliminate the need for elastomer back-up seals and their inherent limitations. Because of their durability and simple design, these PEEK sealed couplings are generally field repairable without the use of special tools or extensive and costly training. Snap-tite's coupling designs are also available with other seal compounds such as Viton and nitrile. All these advantages provide the customer with a highly improved coupling for sub-sea applications.*





*Typical hydraulic control circuit panel incorporating twelve 3/8" BN semi balanced couplings and three 1/2" BN semi balanced couplings (no additional separation force when pressurized). Two plate system utilizing cam-locking devices.*

*Hydraulic control circuit panel utilizing 1/8" HN style panel couplings and cam-locking device.*



*ROV installed stab plate uses PEEK sealed poppet style couplings in sizes 1/4" and 1/2" and includes guide pins to aid in alignment of the panels.*

***Snap-tite currently has couplings or multi-coupling panels in the following fields.***

Total: Nuggets  
Norske Hydro: Oseberg  
Shell: Nelson  
Conoco: Lyell  
AGIP: Toni  
AGIP: Thelma  
Marathon: West Brae  
Shell: Sarawak  
Talisman: Ross  
BP: Schiehallion

British Gas: Morecambe Bay  
BP: Bruce  
Kerr McGee: Gryphon  
Texaco: Strathspey  
AGIP: Tiffany  
Marathon: Arnold  
Saga Petroleum: Snorre A and B  
BP: South Everest  
Talisman: Orion  
Kerr McGee: Leadon



*Other coupling designs and accessories are available from Snap-tite. These include mono-coupling (manual operation), diver mateable coupling equipped with handles, complete panel assemblies, protective covers and keyed (polarized) mono coupling to prevent cross media connections.*

*These couplings are protected by several patents, United States and worldwide.*



*Thread-to-Connect Coupling*

- Fast operation - diver mateable for sub-sea application
- Working pressure to 10000 psig (690 bar)
- Fabricated from corrosion resistant materials for sub-sea application
- Connect and disconnect at full operating pressure



*Mono Coupler*

- Reduced separation force
- Poppet style valves
- Keyed (polarized) to prevent cross media connection
- Working pressure to 10000 psig (690 bar)
- Fabricated from corrosion resistant materials for sub-sea application



*Poppet Coupling*

- Available with elastomer or "PEEK" seals
- Working pressure to 10000 psig (690 bar)
- Connect and disconnect at full operating pressure
- Fabricated from corrosion resistant materials for sub-sea applications
- Locking and panel mounting options available



*Dry Break Coupling*

- Push-to-Connect modified for 3 panel operation
- Dry break design
- Working pressures to 10000 psig (690 bar)
- Flush valves minimize fluid loss and air inclusion
- Superior flow characteristics materials for sub-sea application
- Fabricated from corrosion resistant materials for sub-sea application



*Balanced Coupling Design*

- Available with elastomer "PEEK" seals
- Working pressures to 10000 psig (690 bar)
- Connect and disconnect at full operating pressure
- Minimum spillage and water ingress
- Fabricated from corrosion resistant materials for sub-sea application
- Locking and panel mounting options available



*Multi-Coupling Panel System*

- Designed and engineered to specific customer requirements
- Stainless steel panels
- Locking mechanism: Two plate system with single stainless steel cam lock with lock and unlock pin to prevent accidental disconnection
- Fabricated from corrosion resistant materials for sub-sea application



*Inline Check Valves*

- Soft seat, zero leakage
- Working pressure to 6000 psig (414 bar)
- Variety of end fittings
- Various crack pressures
- Flow rates to 175 US gpm (622 l/min)
- Fabricated from corrosion resistant materials for sub-sea application

### **! WARNING !**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE.**

*This document and other information from Snap-tite, Inc., its subsidiaries and authorized distributors, provides product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operation conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.*

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