

F-Series Cryogenic Bayonet

The F-Series bayonet connections are high-efficiency cryogenic couplings designed for vacuum insulated piping systems. They utilize a close tolerance fit between the length of the mating male and female components. CryoWorks has developed a proprietary treating process that provides long-term dimensional stability and allows for a closer tolerance fit that provides best in class thermal performance. These bayonets incorporate a standard ASME rated backup flange and gasket to provide the most robust and reliable pressure boundary seal.

Bayonet Standard Features:

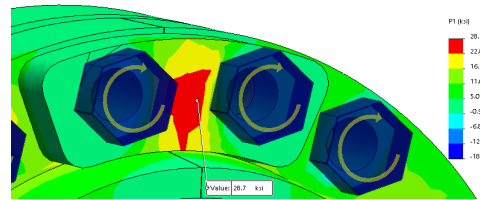
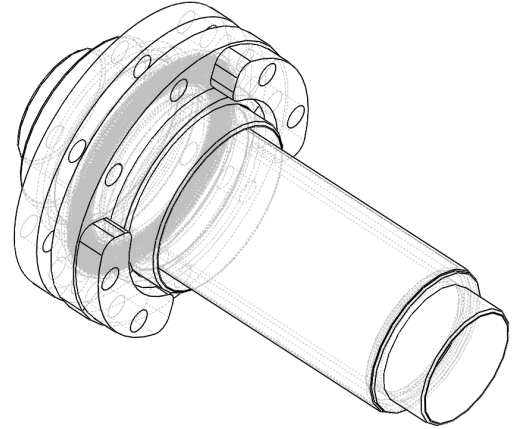
- Design Pressure of 275 psig for all sizes.
- Design Temperature of -425 °F (covers LH2, LN2, LOX, LNG).
- Class 150 Lap Joint Flanges (ASME B16.5).
- All components are 316/316L Stainless Steel.
- Concentric serrations on sealing surface.
- 316/PTFE spiral wound gasket with inner ring.
- Vacuum Jacket Components leak tested to 1X10⁻⁹ cc/sec.
- Flange and gasket combination rated to cryogenic service temperatures.
- Stainless steel hardware, ASTM A320-B8(M) CL 2 studs.

Benefits:

- Fast and easy assembly and disassembly that does not require field welding.
- ASME flange and gasket assembly benefits:
 - Mitigates risk associated with o-rings commonly used on cryogenic bayonets, which tend to leak if the o-ring is exposed to cryogenic temperatures.
 - Standard Torque Values.
 - No Specific Installer Training is required.
 - Proven industry-standard sealing technology.

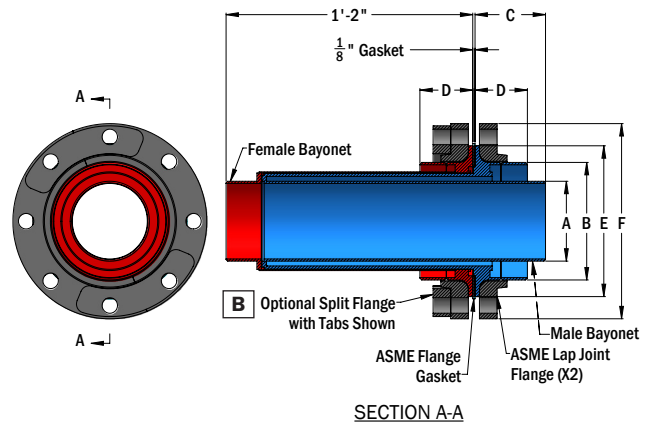
Related Options:

- Split Back Up Flanges.
- Seamless or 100% Radiograph pipe.
- Impact testing for Helium service (-452 °F) temperature rating.
- Extended Heat Path Bayonets Available for Hydrogen and Helium service.
- Alternative flange gaskets (≥ 1/8" thick) for particular service needs.
- Domestic or DFAR compliant materials of construction.
- Precision cleaning.



Bayonet Set shown with optional split flange on one side

Bayonet Standard Dimensions:



B When utilizing the optional split flange, max OD is represented by Dim E.

Bayonet Size	Part Number*	Dim A**	Dim B**	Dim C	Dim D	Dim E***	Dim F
1/2" x 2"	CA02380	1/2" NPS (0.84" OD)	2" NPS (2.38" OD)	4.00"	3.00"	3.63"	6.00"
1" x 2 1/2"	CA02400	1" NPS (1.32" OD)	2 1/2" NPS (2.88" OD)	4.00"	3.00"	4.13"	7.00"
1 1/2" x 3 1/2"	CA02410	1 1/2" NPS (1.90" OD)	3 1/2" NPS (4.00" OD)	4.00"	3.00"	5.50"	8.50"
2" x 4"	CA02420	2" NPS (2.38" OD)	4" NPS (4.50" OD)	4.00"	3.00"	6.19"	9.00"
3" x 5"	CA02430	3" NPS (3.50" OD)	5" NPS (5.56" OD)	4.00"	3.00"	7.31"	10.00"
4" x 6"	CA02440	4" NPS (4.50" OD)	6" NPS (6.63" OD)	4.00"	3.00"	8.50"	11.00"
6" x 8"	CA02450	6" NPS (6.63" OD)	8" NPS (8.63" OD)	5.00"	4.00"	10.63"	13.50"
8" x 10"	CA02460	8" NPS (8.63" OD)	10" NPS (10.75" OD)	6.00"	5.00"	12.75"	16.00"
10" x 12"	CA02470	10" NPS (10.75" OD)	12" NPS (12.75" OD)	7.00"	6.00"	15.00"	19.00"

* Includes Male & Female Bayonet, Gasket, and SST Stud Kit

** Sizes are NPS Schedule 10 Standard (Inner and Jacket)

***Denotes max bayonet OD when optional split flange is used