

DISS Cylinder Connections

Ultra-High Integrity Service

Ultra-high integrity DISS cylinder connections provide higher purity and leak integrity than standard service CGA connections. The connection design is unique in appearance and utilizes a more precise and sophisticated sealing mechanism than standard CGA connections. The sealing mechanism uses a precision-machined gasket positioned between a pair of precision-machined polished circular ridges called toroids, one located in the cylinder valve outlet and one located in the nipple of the cylinder connection. Other design features include the use of the Diameter Index Safety System (DISS), antirotational slots with matching keys or pins, leak testing holes in the nut, recesses to protect the toroid and retain the sealing gasket, and a notch to facilitate gasket removal.

Ultra-high integrity DISS connections are used for connecting various items of gas handling equipment (such as pressure regulators or pigtailed) directly to the cylinder valve outlet of a semiconductor/high-purity specialty gas cylinder. The actual connection varies depending on the gas in the cylinder and is designated by a three digit code (CGA connection number) as set forth in Compressed Gas Association Publication V-1. Cylinder connections listed in Table 1 below consist of a CGA nut and nipple. Please note: the sealing gasket with a built-in stainless steel retaining clip listed in Table 2 is sold separately. Refer to CGA TB-9 Technical Bulletin "Guidelines for the Proper Handling and Use of CGA 630/710 Series Ultra-High Integrity Service Connections" for additional information.

Special order DISS connections are available in a variety of configurations and materials such as check valves or restricted flow orifices housed within the CGA nipple, end connections with face seal, tube socket or orbital tube weld end connections, and Monel® R405, Hastelloy® C-22 and Nickel 200 material options.



Benefits/Features

- Critical surfaces 100% visually inspected under magnification
- Permanently heat code-marked and traceable
- DI ultra cleaned and clean room packaged
- Manufactured to CGA V-1 standards

Optional Configurations

- Integral check valve
- Integral restricted flow orifice
- End Connections: face seal, tube socket weld and orbital tube weld
- Material options: Monel R405, Hastelloy C-22 and Nickel 200

Materials of Construction

- Nut:** 316L Stainless Steel with silver-plated threads
- Nipple:** 316L Stainless Steel SCM™ VIM/VAR electropolished

Table 1

DISS Cylinder Connections	CGA Number	Outlet Connection
Q6-632SS-54	632	1/4" NPT Male
Q6-634SS-54	634	1/4" NPT Male
Q6-636SS-54	636	1/4" NPT Male
Q6-638SS-54	638	1/4" NPT Male
Q6-640SS-54	640	1/4" NPT Male
Q6-642SS-54	642	1/4" NPT Male
Q6-712SS-54	712	1/4" NPT Male
Q6-714SS-54	714	1/4" NPT Male
Q6-716SS-54	716	1/4" NPT Male
Q6-718SS-54	718	1/4" NPT Male
Q6-720SS-54	720	1/4" NPT Male
Q6-722SS-54	722	1/4" NPT Male
Q6-724SS-54	724	1/4" NPT Male
Q6-726SS-54	726	1/4" NPT Male
Q6-728SS-54	728	1/4" NPT Male



Table 2

DISS Sealing Gaskets*	Materials of Construction
Q6-638N	Nickel 200
Q6-6383	Virgin PCTFE

* The entire CGA 630/710 series uses the same size gasket. Be certain the material of construction selected is compatible with the gas service.