The ***Canalta Single Chamber Orifice Fitting*** is a high quality, high accuracy orifice fitting manufactured in a wide selection of sizes and materials. These units are built to meet or exceed ASME and ANSI specifications, as well as to comply with the requirements of the latest editions of AGA-3 / API-14.3 and ISO-5167. Whatever the application, your process will benefit from Canalta's proven reliability and you can improve your bottom line without sacrificing quality, service or performance.

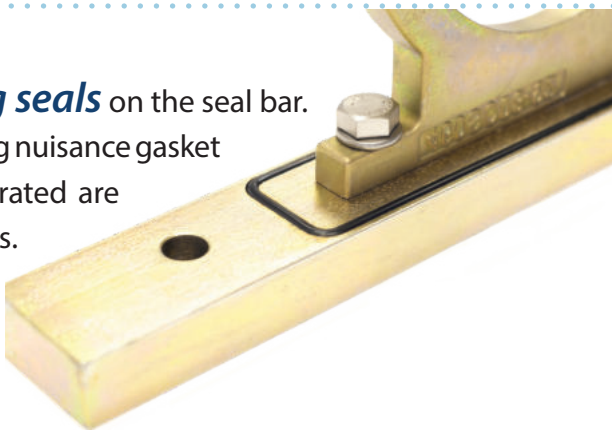
Delivering superior orifice fittings and exceptional value has been our core business for over fifteen years.

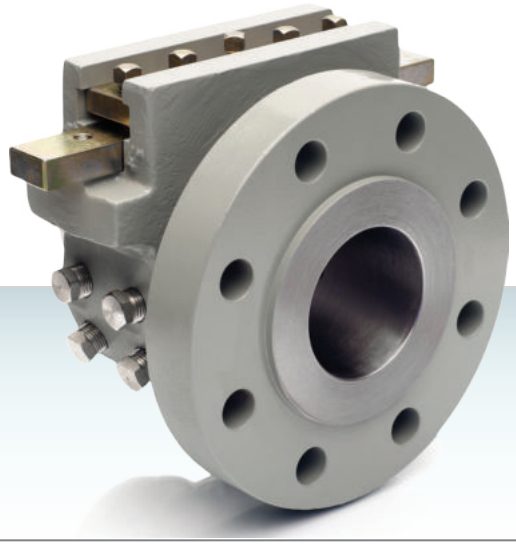
Our comprehensive ***Quality Management System*** includes full function, hydrostatic and pneumatic pressure testing to prevent defective orifice fittings from reaching service. Standard testing comes at no extra charge and includes verifiable pressurization to 150% of working pressure. Additional inspections, such as radiography, ultra sonic and liquid dye penetration, are also available.

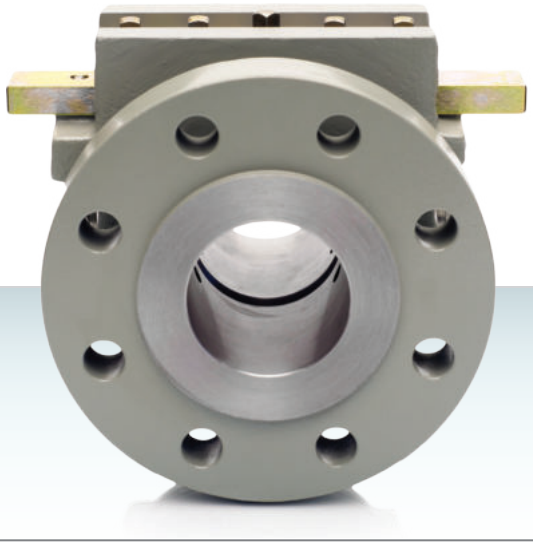
Our unit-specific ***Documentation*** packages include hydrostatic, seal and function test results as well as material test reports. An AGA 2000 Inspection Report is submitted with every fitting and includes bore tolerance and roughness tests, orifice eccentricity, seal protrusion, plate sealing tests and other details critical to your process integrity.

Each Canalta Single Chamber Orifice Fitting receives a standard coating that includes a non-lift oxide primer and fast-drying enamel finish in Canalta Grey. Custom coatings for special environments - maritime, humid, high temperature and others - custom colours and primer only applications are also available.

All Single Chamber Orifice Fittings come standard with ***HNBR O-ring seals*** on the seal bar. This feature provides you with superior sealing capability while eliminating nuisance gasket maintenance and clamping bar screw breakage. The O-rings incorporated are standard shelf sizes and can be supplied in a wide variety of compositions. Gaskets are also available and can be used when preferred or required.

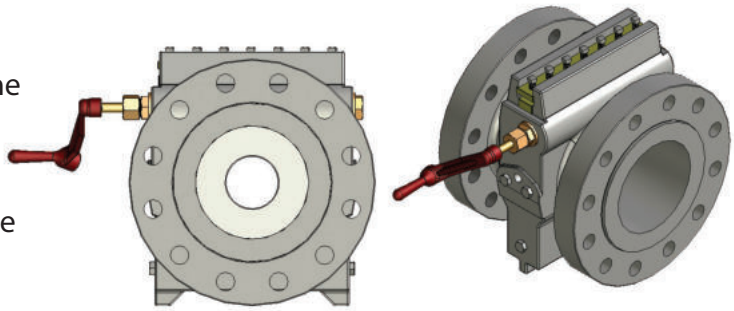


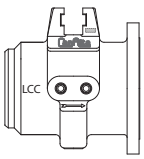


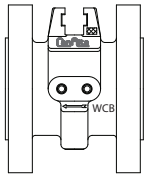


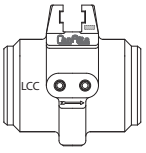
Single Chamber Orifice Fitting models 8" and larger incorporate a rack and pinion gear system to manage the sizeable weight of large orifice plates and carriers. With this system, plate changing remains quick and easy.

These models also feature fully accessible and adjustable eccentricity of the orifice plate from the exterior of the fitting. Tamper-proof sealing is done on request.









Canalta Single Chamber Orifice Fitting bodies are available in a number of standard and custom end configurations. Some of our most popular arrangements include

- Flangeneck (welding neck upstream, raised face / RTJ flange downstream)
- Flange X Flange (raised face / RTJ)
- Weldneck both ends

Single Chamber Orifice Fitting Bodies are also available with an extra set of tele-metering tap holes on each side as an option.

ORIFICE PLATE SEAL OPTIONS & CARRIER ASSEMBLIES

Type "K" Standard 2000 Edition Seal Assembly

This is the standard seal assembly supplied with all orifice fittings from sizes 2" through 8". This unit is used with a .562" seal gap for fittings sizes 2" through 6", and with a .688" seal gap for 8" fittings. The single downstream seal function offers superior sealing capability while reducing seal damage during insertion. Plate seal bypass tested down to 1" water column.

The seal assembly is comprised of an elastomer seal and one stainless steel retainer ring. Exacting and repeatable concentricity is maintained with the metal to metal contact throughout the entire 360° circumference of the orifice plate to the plate carrier mechanism.

Teflon Snap Seal

The Teflon Snap Seal provides positive plate sealing in the harshest of process environments. The two-piece design snaps over the orifice plate without the use of metal clips or retainers. A specially designed recess absorbs the insertion pressures, minimizing permanent compression and distortion.

The raised section adjacent to the recess creates a positive seal against the orifice plate, preventing bypass leakage. These two unique design features enhance seal performance while extending the life expectancy of the seal assembly.

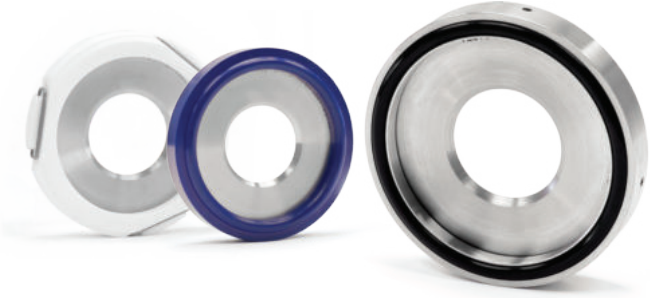
Bonded "FLEX" Seal

This is the standard seal supplied with all Canalta Orifice Fitting model sizes 10" and larger. Designed with a unique "hollow core" recess, this seal has impressive expansion and contraction capabilities when compared to traditional solid rubber seals. The recess allows the seal to absorb insertion pressures, minimizing tearing, distortion and permanent compression. The 80 duro HNBR seal is adhesively bonded to the orifice plate, creating total and permanent contact between the plate and seal and preventing bypass leakage.

Legacy Replacement Seals

Canalta supplies a selection of legacy plate seals for situations in which direct and exact seal replacement is required or preferred. Models include two piece clip-style Teflon, solid core HNBR or Nitrile and the stainless steel dual ring assemblies.

We will also work with you to custom design and manufacture purpose-built seals for your unique or special applications.



TECHNICAL SPECIFICATIONS

Design	Orifice fittings supplied in Canada are built in accordance with the ABSA Quality Control Program and carry a CRN registration number. Industry Canada Approval Number AF-0014. In compliance with ASME 16.34 and ASME 16.5, ASTM specifications, AGA-3 Latest Edition and ISO-5167.
Body Materials	A216 WCB, A216 WCC, A352 LCC, A358 CF8M, A995 Gr4A, A995 Gr6A, Custom
Internal Parts	AISI 4130 Carbon Steel, 316 or A351 Stainless Steel
Sizes and ANSI Class	2" through 26", 150 through 1500 ANSI raised face flange 600, 900 and 1500 flanges also available in RTJ face flange
U/S D/S Connections	Flangeneck design (weldneck U/S, flange D/S) Flange x Flange Weldneck both ends
Internal Bore Sizes	40, 60, 80, 100, 120, 160 and custom sizes
Sealing Compounds	Seal bar - HNBR O-ring standard, gasket optional Orifice plate - Type "K" 2000 Edition formed HNBR seal on a 316 SS retainer ring Dual Ring HNBR O-rings standard on a 316 SS retainer ring assembly Teflon Snap Seal two-piece virgin Teflon assembly
Line Bore I.D. Tolerance	In conformance with AGA-3 and ISO-5167 Latest Editions
Eccentricity Repeatability	In conformance with AGA-3 and ISO-5167 Latest Editions
Tap Connections	Two 1/2" NPT per side standard, two 1/2" NPT additional per side optional (TT) 2" and 3" fitting sizes center bored to .375" inside diameter 4" and larger sizes center bored to .500" inside diameter Tolerance +/- 1/64"
Orifice Plate Seal Gap	2" through 6" = 0.562", 8" through 14" = 0.688", 16" through 20" = 0.813", 24" through 26" = 0.875"
Operating Shaft Location	Shafts are a feature only on fitting sizes 8" and larger Left hand mount standard on sizes 8" through 16" Dual operation on sizes 20" and larger
Operating Temperature	Standard at -20° to 100° F, optional -40° to 1200° F
Operating Position	Vertical or horizontal

Conformance

All fittings come standard with a documentation package including hydro-test, function test, inner valve seal test, quality control inspection and material test reports. Trace ability is maintained in accordance with the ISO-9001 Quality Control Program. The fittings are manufactured within the guidelines of ASME 16.34 and ASME 16.5. When required, radiography, stress relief, ultra-sonic and liquid dye penetration tests can be performed with the relevant report submitted.

Reporting

An AGA 2000 inspection report is included with the purchase of every fitting. The documented tests include:

- I.D. Bore Tolerance
- Tap Communication
- Orifice Eccentricity
- Instrument Tap Diameter
- Plate Seal Test
- Bore Inside Diameter
- Instrument Tap Location
- Seal Protrusion
- Bore Roughness